# Anderson, Alan

From:Tom Myers <tmyers@siloamsprings.com>Sent:Friday, June 10, 2016 1:22 PMTo:Anderson, AlanCc:Steven Gorszczyk; Jack HarrisonSubject:FW: ReportAttachments:City of Siloam Springs BF60007 6-10-16.pdf

Alan,

Some good news all are numbers are going down see attached report. Ammonia Nitrogen is over limits however the BOD and Total Suspended Solids have fallen. We are using two 6" trash pumps and adding hydrogen peroxide. Blower should get repaired today or tomorrow morning.

Thomas A. Myers Wastewater Superintendent City of Siloam Springs Ph:479-524-5623 Cell:479-228-0934 tmyers@siloamsprings.com

From: Emily Brooks [mailto:emily@etestg.com] Sent: Friday, June 10, 2016 12:42 PM To: Jack Harrison; Steven Gorszczyk; Tom Myers Subject: Report

Attached please find your analytical report(s).

## We appreciate your business!

## **Emily Brooks**

Environmental Testing Group, Inc. 1702 East Central Avenue Bentonville, AR 72712 (479) 271-7996

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# Analytical Report

#### 06/10/16 12:13

Client:	City of Siloam Springs PO Box 80 Siloam Springs AR, 72761		Work Order: Project Name: Project Number:	BF60007 Effluent-Influe Effluent-Influe		
Attn:	Tom Myers		Date Received:	06/01/16		
Sample ID		Laboratory ID	Date and Time Sample	ed	Sampled By	Sample Type
Effluent, C Influent	Dutfall 001	BF60007-01 BF60007-02	05/31/16 10:00 - 06/0 05/31/16 10:00 - 06/0		Jack Harrison Jack Harrison	Composite Composite

#### **Comments:**

Samples were received into laboratory at a temperature of 4.00 °C

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at (479)271-7996. Any opinions, if expressed, are outside the scope of the laboratory's accreditation.

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These results relate only to the items tested. Estimated uncertainty is available upon request. This report has been electronically signed. .Results are reported on a wet weight basis unless otherwise noted.

Dil a. Dam

David D'Amico Laboratory Director



# Analytical Report

### 06/10/16 12:13

Client:	City of Siloam Springs	Work Order:	BF60007
	PO Box 80	Project Name:	Effluent-Influent
Attn:	Siloam Springs AR, 72761	Project Number:	Effluent-Influent
	Tom Myers	Date Received:	06/01/16

### **Environmental Testing Group**

## Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Q	Units	PQL	Dil Factor	Analyzed Date/Time	Analyst	Method	Batch
BF60007-01 (Water) Sampled: 06	/01/16 09:00			Client S	ample Nar	me: Effluent, Ou	utfall 001		
Ammonia as N	6.25		mg/L	0.500	5	06/08/16 12:19	JCH	EPA 350.1	B6F0703
Carbonaceous BOD	19.0		"	1.00	1	06/03/16 07:50	JCH	SM 5210B CBOD	B6F0304
Nitrate Nitrogen	ND		"	0.200	"	06/08/16 21:47	JCH	[CALC]	[CALC]
Nitrate/Nitrite as N	ND		"	0.100	"	"	JCH	EPA 353.2	B6F0804
Nitrite as N	ND		"	0.100	"	06/02/16 16:30	JCH		B6F0206
Phosphorus, Total as P	0.440		"	0.250	5	06/08/16 13:54	JCH	EPA 365.1	B6F0704
Total Suspended Solids	17.5		"	1.00	1	06/06/16 08:58	JCH	USGS I-3765-85	B6F0601
BF60007-02 (Water) Sampled: 06	/01/16 09:00			Client S	ample Nar	ne: Influent			
Ammonia as N	14.8		mg/L	0.500	5	06/08/16 12:19	JCH	EPA 350.1	B6F0703
Biochemical Oxygen Demand	181		"	1.00	1	06/03/16 07:50	JCH	SM 5210B	B6F0304
Nitrate Nitrogen	0.571		"	0.200		06/08/16 21:47	JCH	[CALC]	[CALC]
Nitrate/Nitrite as N	0.571		"	0.100		"	JCH	EPA 353.2	B6F0804
Nitrite as N	ND		"	0.100	"	06/02/16 16:30	JCH		B6F0206
Phosphorus, Total as P	4.33		"	0.500	10	06/08/16 13:54	JCH	EPA 365.1	B6F0704
Total Suspended Solids	122		"	1.00	1	06/06/16 08:58	JCH	USGS I-3765-85	B6F0601



Client:	City of Siloam Springs	Work Order:	BF60007	
Chem.	J 1 8			
	PO Box 80	Project Name:	Effluent-Influent	
	Siloam Springs AR, 72761	Project Number:	Effluent-Influent	
Attn:	Tom Myers	Date Received:	06/01/16	

# Chemistry Parameters by APHA/EPA Methods - Quality Control

# **Environmental Testing Group**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B6F0206 - Wet Prep										
Blank (B6F0206-BLK1)				Prepared &	Analyzed:	06/02/16				
Nitrite as N	ND	0.100	mg/L							
LCS (B6F0206-BS1)				Prepared &	Analyzed:	06/02/16				
Nitrite as N	4.070	0.100	mg/L	4.00		102	90-110			
Matrix Spike (B6F0206-MS1)	Sou	rce: BF60007-	·01	Prepared &	Analyzed:	06/02/16				
Nitrite as N	1.980	0.100	mg/L	2.00	ND	98.1	90-110			
Matrix Spike Dup (B6F0206-MSD1)	Sou	rce: BF60007-	·01	Prepared &	Analyzed:	06/02/16				
Nitrite as N	1.980	0.100	mg/L	2.00	ND	98.1	90-110	0.00	3.29	
Batch B6F0304 - Wet Prep										
Blank (B6F0304-BLK1)				Prepared &	Analyzed:	06/03/16				
Biochemical Oxygen Demand	ND	1.00	mg/L							
Carbonaceous BOD	ND	1.00	"							
LCS (B6F0304-BS1)				Prepared &	Analyzed:	06/03/16				
Biochemical Oxygen Demand	228		mg/L	198		115	84.6-115.4			
Carbonaceous BOD	168		"	198		84.8	84.6-115.4			
Duplicate (B6F0304-DUP1)	Sou	rce: BF60007-	02	Prepared &	Analyzed:	06/03/16				
Biochemical Oxygen Demand	194	1.00	mg/L		181			6.93	15	
Duplicate (B6F0304-DUP2)	Sou	rce: BF60015-	-01	Prepared &	Analyzed:	06/03/16				



Client:	City of Siloam Springs	Work Order:	BF60007
	PO Box 80	Project Name:	Effluent-Influent
	Siloam Springs AR, 72761	Project Number:	Effluent-Influent
Attn:	Tom Myers	Date Received:	06/01/16

# Chemistry Parameters by APHA/EPA Methods - Quality Control

# **Environmental Testing Group**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
7 mary to	Result	Liiilt	Onits	Level	Result	/ortec	Lillins	KI D	Liiiit	110105
Batch B6F0601 - Wet Prep										
Blank (B6F0601-BLK1)				Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	ND	1.00	mg/L							
LCS (B6F0601-BS1)				Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	35.6	1.00	mg/L	40.0		89.0	80-120			
LCS (B6F0601-BS2)				Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	40.8	1.00	mg/L	40.0		102	80-120			
Duplicate (B6F0601-DUP1)	Sour	ce: BF60015	-01	Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	84.0	1.00	mg/L		84.0			0.00	21.9	
Duplicate (B6F0601-DUP2)	Sour	ce: BF60024	-01	Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	220	1.00	mg/L		216			1.83	21.9	
Duplicate (B6F0601-DUP3)	Sour	ce: BF60030	-01	Prepared &	Analyzed:	06/06/16				
Total Suspended Solids	160	1.00	mg/L		166			3.68	21.9	
Batch B6F0703 - Wet Prep										
Blank (B6F0703-BLK1)				Prepared: (	06/07/16 A	nalyzed: 06	/08/16			
Ammonia as N	ND	0.100	mg/L							
LCS (B6F0703-BS1)				Prepared: (	06/07/16 A	nalyzed: 06	/08/16			
Ammonia as N	5.11	0.100	mg/L	5.00		102	90-110			
Matrix Spike (B6F0703-MS1)	Sour	ce: BF60007-	-01	Prepared: (	06/07/16 A	nalyzed: 06	/08/16			
Ammonia as N	3.15		mg/L	2.00	1.25	95.0	90-110			



Client:	City of Siloam Springs	Work Order:	BF60007
	PO Box 80	Project Name:	Effluent-Influent
	Siloam Springs AR, 72761	Project Number:	Effluent-Influent
Attn:	Tom Myers	Date Received:	06/01/16

# Chemistry Parameters by APHA/EPA Methods - Quality Control

# **Environmental Testing Group**

	<b>F</b> :	Reporting	· · ·	Spike	Source	0/777	%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B6F0703 - Wet Prep										
Matrix Spike (B6F0703-MS2)	Sou	rce: BF60023-	01	Prepared: 0	06/07/16 Ai	nalyzed: 06	/08/16			
Ammonia as N	2.23	0.100	mg/L	2.00	0.139	105	90-110			
Matrix Spike Dup (B6F0703-MSD1)	Sour	rce: BF60007-	01	Prepared: 0	) <u>6/07/16</u> Ai	nalyzed: 06	/08/16			
Ammonia as N	3.42		mg/L	2.00	1.25	108	90-110	8.22	10	
Matrix Spike Dup (B6F0703-MSD2)	Sou	rce: BF60023-	01	Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Ammonia as N	2.14	0.100	mg/L	2.00	0.139	100	90-110	4.12	10	
Batch B6F0704 - Wet Prep										
Blank (B6F0704-BLK1)				Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Phosphorus, Total as P	ND	0.0500	mg/L							
LCS (B6F0704-BS1)				Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Phosphorus, Total as P	1.05	0.0500	mg/L	1.00		105	90-110			
Matrix Spike (B6F0704-MS1)	Sou	rce: BF60007-	01	Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.573		mg/L	0.500	ND	106	90-110			
Matrix Spike (B6F0704-MS2)	Sou	rce: BF60012-	01	Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.777	0.0500	mg/L	0.500	0.291	97.2	90-110			
Matrix Spike (B6F0704-MS3)	Sou	rce: BF60012-	05	Prepared: 0	)6/07/16 Ai	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.508	0.0500	mg/L	0.500	ND	102	90-110			
Matrix Spike (B6F0704-MS4)	Sou	rce: BF60022-	01	Prepared: 0	)6/07/16 Aı	nalyzed: 06	/08/16			
Phosphorus, Total as P	1.12	0.0500	mg/L	0.500	0.648	94.4	90-110			



Client:	City of Siloam Springs	Work Order:	BF60007
	PO Box 80	Project Name:	Effluent-Influent
	Siloam Springs AR, 72761	Project Number:	Effluent-Influent
Attn:	Tom Myers	Date Received:	06/01/16

# Chemistry Parameters by APHA/EPA Methods - Quality Control

# **Environmental Testing Group**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B6F0704 - Wet Prep										
Matrix Spike Dup (B6F0704-MSD1)	Sour	ce: BF60007-	•01	Prepared: 0	06/07/16 A	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.577		mg/L	0.500	ND	107	90-110	0.696	6.01	
Matrix Spike Dup (B6F0704-MSD2)	Sour	ce: BF60012-	-01	Prepared: 0	06/07/16 A	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.833	0.0500	mg/L	0.500	0.291	108	90-110	6.96	6.01	
Matrix Spike Dup (B6F0704-MSD3)	Sour	ce: BF60012-	05	Prepared: 0	06/07/16 A	nalyzed: 06	/08/16			
Phosphorus, Total as P	0.517	0.0500	mg/L	0.500	ND	103	90-110	1.76	6.01	
Matrix Spike Dup (B6F0704-MSD4)	Sour	ce: BF60022-	-01	Prepared: (	06/07/16 A	nalyzed: 06	/08/16			
Phosphorus, Total as P	1.13	0.0500	mg/L	0.500	0.648	96.4	90-110	0.889	6.01	
Batch B6F0804 - Wet Prep										
Blank (B6F0804-BLK1)				Prepared &	Analyzed:	06/08/16				
Nitrate/Nitrite as N	ND	0.100	mg/L							
LCS (B6F0804-BS1)				Prepared &	Analyzed:	06/08/16				
Nitrate/Nitrite as N	7.97	0.100	mg/L	8.00		99.6	90-110			
Matrix Spike (B6F0804-MS1)	Sour	ce: BE60128	-01	Prepared &	Analyzed:	06/08/16				
Nitrate/Nitrite as N	9.53	0.100	mg/L	4.00	5.75	94.5	90-110			
Matrix Spike (B6F0804-MS2)	Sour	ce: BF60021-	-01	Prepared &	Analyzed:	06/08/16				
Nitrate/Nitrite as N	4.53	0.100	mg/L	4.00	0.633	97.4	90-110			
Matrix Spike Dup (B6F0804-MSD1)	Sour	ce: BE60128	-01	Prepared &	Analyzed:	06/08/16				
Nitrate/Nitrite as N	9.51	0.100	mg/L	4.00	5.75	94.0	90-110	0.210	10	



Client:	City of Siloam Springs PO Box 80 Siloam Springs AR, 72761	Work Order: Project Name: Project Number:	BF60007 Effluent-Influent Effluent-Influent	
Attn:	Tom Myers	Date Received:	06/01/16	

# Chemistry Parameters by APHA/EPA Methods - Quality Control Environmental Testing Group

					8						
Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6	F0804 - Wet Prep										
Matrix Sp	ike Dup (B6F0804-MSD2)	Sour	ce: BF60021-	·01	Prepared &	& Analyzed:	06/08/16				
Nitrate/Nitri	ite as N	4.54	0.100	mg/L	4.00	0.633	97.7	90-110	0.221	10	
			Notes and	l Defini	tions						
#	Recovery outside Laboratory historic	al or method pr	escribed limit	ts.							
ND	Analyte NOT DETECTED at PQL			ug/	L N	/licrograms/L	iter (PPB)				
PQL	Practical Quantitation Limit			ug/	Kg N	/licrograms/K	ilogram (PP	B)			
mg/L	Milligrams/Liter (PPM)			dry	S	Sample results	reported on	a dry weight	basis		
mg/Kg	Milligrams/Kilogram (PPM)										



# Analytical Report

### 06/10/16 12:13

Client:	City of Siloam Springs PO Box 80 Siloam Springs AR, 72761	Work Order: Project Name: Project Number:	BF60007 Effluent-Influent Effluent-Influent
Attn:	Tom Myers	Date Received:	06/01/16
		CERTIFICATION	NS

#### Certified Analyses included in this Report

Analysis	Certifications
EPA 350.1	ADEQ,NELAP
Ammonia as N	ADEQ,NELAP
EPA 353.2	ADEQ,NELAP
Nitrate/Nitrite as N	ADEQ,NELAP
Nitrite as N	ADEQ,NELAP
EPA 365.1	ADEQ,NELAP
Phosphorus, Total as P	ADEQ,NELAP
SM 5210B	ADEQ,NELAP
Biochemical Oxygen Demand	ADEQ,NELAP
SM 5210B CBOD	ADEQ
Carbonaceous BOD	ADEQ
USGS I-3765-85	ADEQ,NELAP
Total Suspended Solids	ADEQ,NELAP

The laboratory at Environmental Testing Group Inc.operates under the following certifications and accreditations:

The accredited report results were obtained in compliance with 2009 TNI standards unless otherwise noted. For a complete list of accredited analytes, please contact your project manager.

Code	Description	Number	Expires
ADEQ	State of Arkansas	04-0574/09-071-0	10/19/2016
NELAP	FL DOH	E871035	06/30/2016

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			ed S			.		2					(479) 524-5623	Telephone:
			Solic		5	Harrisa	ack	Ja	ame(s):	Sampler Name(s):		72761	Siloam Springs, Ar	
			ls										410 N. Broadway	
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		Label	Order	ork (	Water-, Work Order Label	N							rings.com	website: siloamsprings.com
		100 I	uttal)		Effluent, Outfall 001 Sampled: 06/01/16 09:00	Сн	CILITY	COL FA	IN CONTR	WATER POLLUTION CONTROL FAC	WAIERI	7761	P.U. Box 80 Siloam Springs AR 72761	Siloam Springs, AR
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City of Siloam Springs

CITY OF SILOAM SPRINGS