

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY  
MONITORING REPORT FOR DECENTRALIZED WASTEWATER TREATMENT FACILITIES VIA DRIP IRRIGATION  
NO DISCHARGE MONTHLY MONITORING REPORT**

<b>PERMITTEE NAME</b>
CITY OF CAVE SPRINGS
<b>PERMITTEE ADDRESS</b>
PO Box 5 Cave Springs AR 72718

<b>FACILITY NAME</b>
CAVE SPRINGS WASTEWATER TREATMENT PLANT
<b>FACILITY ADDRESS</b>
The Creeks Golf Course 1499 S Main St Cave Springs AR 72718

<b>PERMIT NO.</b>
4893-WR-3
<b>AFIN NO.</b>
04-01642

<b>MONITORING PERIOD</b>		
MM/DD/YYYY	TO	MM/DD/YYYY
1/1/2020		1/30/2020

EFFLUENT LIMITS, MONITORING, AND REPORTING REQUIREMENTS						
PARAMETER	PERMIT LIMIT	SAMPLE MEASUREMENT		UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		Plant 1	Plant 2			
CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND (CBOD5)	30	3.9	10	MG/L	Once per Month / Grab	
TOTAL SUSPENDED SOLIDS (TSS)	45	5.6	17.4	MG/L		
FECAL COLIFORM BACTERIA (FCB)	10,000	55.6	184.2	COLONIES/100ml		
pH	6.0 - 9.0	6.9	6.3	s.u		
TOTAL PHOSPHOROUS (TP)	Report	6.86	7.12	MG/L		
TOTAL KJELDAHL NITROGEN (TKN)	Report	16.78	17.50	MG/L	Once per Quarter / Grab	
NITROGEN AMMONIA NITROGEN (NH <sub>3</sub> - N)	Report	9.25	12.7	MG/L		
NITRITE NITROGEN (NO <sub>2</sub> - N) + NITRATE NITROGEN (NO <sub>3</sub> - N)	Report	42.2	42	MG/L		
PLANT AVAILABLE NITROGEN (PAN)	Report	53.7	56.1	MG/L		
TOTAL FLOW		MONTHLY TOTAL 3,693,281	DAILY MAX 214,759	GPD	<i>K Bartlett</i>	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.	<b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b>		TELEPHONE		DATE
Kathy Bartlett				479	530-5926	2/12/2020
TYPED OR PRINTED				AREA CODE	NUMBER	MM/DD/YYYY
COMMENTS AND EXPLANATION OF VIOLATIONS (Reference all attachments here)						

**TABLE II**

**DRIP ZONES LOADING RATE LIMITS, MONITORING AND REPORTING REQUIREMENTS**

		Jan-20			DAILY MAXIMUM FLOW TOTAL		214,759
Zone ID	Limit	Units	Maximum Volume Limit	Units	Monitoring	Reported Maximum	
Leach Field 1	0.55		26,000			15463	
<b>Zone 1</b>	0.42		19,524			<i>zones not being used</i>	
<b>Zone 2</b>	0.45		19,309				
<b>Zone 3</b>	0.4		16,424				
<b>Zone 4</b>	0.46		10,811				
Zone 5	0.2		13,059			7947	
Zone 6	0.2		7,723			4725	
Zone 7	0.2		10,910			6443	
Zone 8	0.3		7,081			4296	
Zone 9	0.4		18,291			10953	
Zone 10	0.3		9,450			5584	
Zone 11	0.2		4,110			2578	
Zone 12	0.4		7,522			4510	
Zone 13	0.25		5,717			3437	
Zone 14	0.15		6,097			3651	
Zone 15	0.2	gpd/ft2	8,378	gpd	Daily	5155	
Zone 16	0.4		9,427			5584	
Zone 17	0.23		3,694			2148	
Zone 19	0.35		13,778			8161	
Zone 20	0.2		5,766			3437	
Zone 21	0.4		17,040			10309	
Zone 22	0.5		28,113			16752	
Zone 23	0.25		15,640			9235	
Zone 24	0.25		9,547			5799	
Zone 25	0.2		4,436			2578	
Zone 26	0.3		9,334			5584	
Zone 27	0.31		16,511			9879	
Zone 28	0.31		13,018			7732	
Zone 29	0.2		3,923			2363	
Zone 30	0.55		10,116			6014	
Zone 31	0.3		5,714			3437	

# Environmental Services Company, Inc.

Corporate Office  
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 Little Rock, AR 72211  
 Tel. (501)221-2565 Fax (501)221-1341

Northwest Arkansas Branch  
 1107 Century Avenue  
 Springdale, AR 72762  
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 2001020006  
 Customer Name : CAVE SPRINGS UTILITY, PLANT 1  
 Customer/Permit No. : 1826 / 4893-WR-2  
 Report Date : 01/14/20

Sample Date : 01/08/20  
 Sample Time : 1530  
 Sample Type : GRAB  
 Sample From : EFFLUENT DOSE TANK

Collected By: JEW  
 Delivery By : JEW  
 Work Order :  
 Purchase Order :

<u>Laboratory Analysis</u>							<u>Quality Assurance</u>	
<u>Analysis</u>			<u>Result</u>	<u>Notes</u>	<u>Quantity</u>	<u>Method</u>	<u>Precision</u>	<u>Accuracy</u>
<u>Date</u>	<u>Time</u>	<u>By</u>					<u>Parameter</u>	<u>% RPD</u>
01/09	0830	TSB	Ammonia as N, (HACH 10205)	9.25 mg/L		SM 2011 4500-NH3 F	0.94	100.4 *
01/09	0900	TSB	Kjeldahl Nitrogen Total	16.78 mg/L		SM 1997 4500-NorgB	1.50	99.6
01/08	1530	JEW	pH	6.9 S.U.		SM 2011 4500-H+ B	0.00	N/A
01/09	1000	TSB	Phosphorous, Total (as P)	6.86 mg/L		EPA 365.3	0.92	110.0 *
01/13	1230	TSB	Solids, Total Suspended	5.6 mg/L		SM 2011 2540 D	1.72	N/A *
01/08	1645	TWM	Fecal Coliform (MPN/100mL)	55.6 /100ml		06/2012 Colilert18	0.00	0.0 *
01/08	1800	TSB	BOD, Carbonaceous	3.9 mg/L		SM 2001 5210 B	7.48	105.6 *
01/09	1400	TSB	Nitrate + Nitrite	42.20 mg/L		01/2013 HACH 10206	0.90	102.8 *
01/09	1650	TSB	Nitrogen, Plant Available	53.7 mg/L		SM 1997 4500-N		

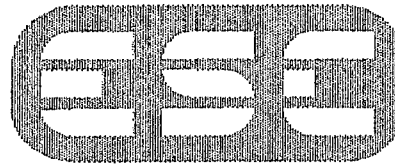
\* QA data shown is from a different sample or standard on the same date.

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature Steve Worely  
 Environmental Services Co., Inc.

MB

Environmental Services Company, Inc.  
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 13715 West Markham P.O. Box 55146  
 Little Rock, AR 72211 Little Rock, AR 72215  
 website: www.esclabs.com



Environmental Services Company, Inc.  
 Northwest Branch  
 1107 Century  
 Springdale, AR 72764

Phone: 501-221-2565 Fax: 501-221-1341

### CHAIN OF CUSTODY

Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information						Requested Parameters					
Company Name:		Cave Springs		Permit/Project #:						Fecal Coliform (43.1F)	CBOD (70), TSS (28)	T-Phosphorus (25)	NH3-N (15.A), s-TKN (16A),	NO3+NO2-N (91), PAN (99.99)	pH (23)
Address:		PO BOX 5		Purchase Order #:											
		Cave Springs 72718													
Telephone:		479 248-1040		Sampler Name(s):		<i>James Wilt James Wiltse</i>									
FAX:				and Signature(s):											
ESC Client Number:		1826													
Sample Identification		Sample Collection				Sample Containers									
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#						
Effluent/Dose Tank	2001020006	1-8-20	1530	Grab	Water	Sterile	120 mL	Ia <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /Cool	1	X					
Effluent/Dose Tank	2001020006			Grab	Water	Plastic	1/2 gal	None/Cool	1		X				
Effluent/Dose Tank	2001020006			Grab	Water	Plastic	8 oz	H <sub>2</sub> SO <sub>4</sub> , pH < 2	1			X	X	X	
Effluent/Dose Tank	2001020006			Grab	Water	Glass	250 ml	None/Cool	0						X
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:		Used? <input checked="" type="checkbox"/>		Intact? <input type="checkbox"/>			
<i>James Wilt James Wiltse</i>		1-8-20	1630					Turnaround:		Regular <input checked="" type="checkbox"/>		Special <input type="checkbox"/>			
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:		Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>			
				<i>James Wilt James Wiltse</i>		1-8-20	1630								
Comments:				FLOW DATA		Field Test	Time	Analyst	Result	Result	Units				
				Analyst:		pH:	1530	<i>JW</i>	6.9	6.9					
				Time:		Temp.:	1530	<i>JW</i>	14.0	13.8	°C		°F		
				Reading:		DO:									
				Units:		Debris:									
Cool all samples to 6 degrees C.							Chlorinated? Yes No			This Document is Page 1 of 1					

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Northwest Arkansas Branch  
 1107 Century Avenue  
 Springdale, AR 72762  
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 2001020007  
 Customer Name : CAVE SPRINGS UTILITY, PLANT 2  
 Customer/Permit No. : 2379 / 4893-WR-3 002  
 Report Date : 01/14/20

Sample Date : 01/08/20  
 Sample Time : 1550  
 Sample Type : GRAB  
 Sample From : EFFLUENT DOSE TANK

Collected By: JEW  
 Delivery By : JEW  
 Work Order :  
 Purchase Order :

### Laboratory Analysis

Analysis							Quality Assurance		
Date	Time	By	Parameter	Result	Notes	Quantity	Method	Precision	Accuracy
								% RPD	% Recovery
01/09	0830	TSB	Ammonia as N, (HACH 10205)	12.70 mg/L			SM 2011 4500-NH3 F	0.94	100.4 *
01/09	0900	TSB	Total Kjeldahl Nitrogen	17.5 mg/L			02/2014 HACH 10242	1.50	99.6 *
01/08	1550	JEW	pH	6.3 S.U.			SM 2011 4500-H+ B	0.00	N/A *
01/09	1000	TSB	Phosphorous, Total (as P)	7.12 mg/L			EPA 365.3	0.92	110.0 *
01/13	1230	TSB	Solids, Total Suspended	17.4 mg/L			SM 2011 2540 D	1.72	N/A *
01/08	1645	TWM	Fecal Coliform (MPN/100mL)	184.2 /100ml			06/2012 Colilert18	0.00	0.0 *
01/08	1800	TSB	BOD, Carbonaceous	10.0 mg/L			SM 2001 5210 B	7.48	105.6 *
01/09	1400	TSB	Nitrate + Nitrite	42.00 mg/L			01/2013 HACH 10206	0.90	102.8 *
01/09	1650	TSB	Nitrogen, Plant Available	56.1 mg/L			SM 1997 4500-N		

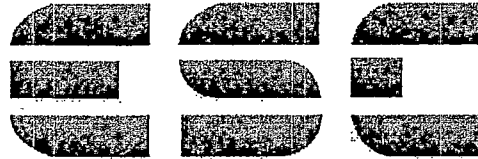
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All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature *OTW*  
 Environmental Services Co., Inc.

*2/13*  
 3,693,281  
 214,759

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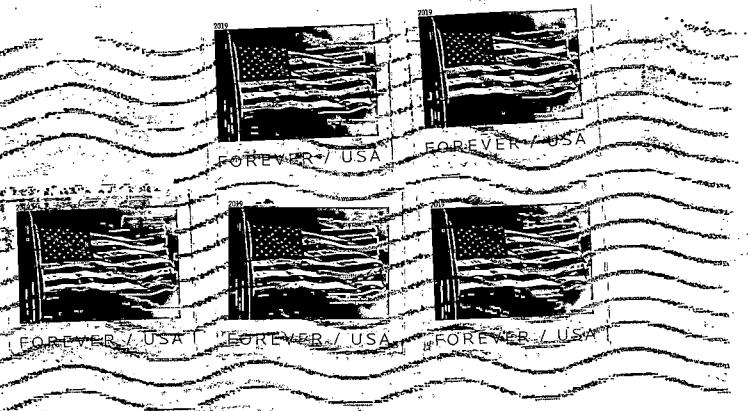
### CHAIN OF CUSTODY

Client Information				Project Information						Requested Parameters							
Company Name:		Cave Springs Plant 2		Permit/Project #:													
Address:		PO BOX 5		Purchase Order #:													
		Cave Springs 72718		Sampler Name(s):		<i>James With James Withse</i>											
Telephone:		479 248-1040		and Signature(s):													
FAX:																	
ESC Client Number:		2379															
Sample Identification		Sample Collection				Sample Containers											
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#	Fecal Coliform(43.1F)	CBOD(70), TSS(28)	NH3(15.A), P(25), TKN(16.A)	PAN(99.99), NO3+NO2 (91)	pH(23)			
Effluent Diverter Box	2001020007	1-8-20	1550	Grab	Water	Sterile	300 ml	none/ice	1	X							
Effluent Diverter Box	2001020007			Grab	Water	Plastic	0.5 gal	none/ice	1		X						
Effluent Diverter Box	2001020007			Grab	Water	Plastic	8 oz	H <sub>2</sub> SO <sub>4</sub> , pH <2	1			X	X				
Effluent Diverter Box	2001020007			Grab	Water	Glass	150 ml	none <2	1					X			
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:									
<i>James With James Withse</i>		1-8-20	1630					Used? <input checked="" type="checkbox"/>		Intact? <input type="checkbox"/>							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Turnaround:									
								Regular <input checked="" type="checkbox"/>		Special <input type="checkbox"/>							
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:									
				<i>Janaf Sokolomara Brooks</i>		1-8-20	1630	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>							
Comments:				FLOW DATA		Field Test		Time		Analyst		Result		Result		Units	
				Analyst:		pH:		1550		<i>JEW</i>		6.3		6.3			
				Time:		Temp.:		1550		<i>JEW</i>		13.2		13.0		°C °F	
				Reading:		DO:											
				Units:		Debris:											
Cool all samples to 6 degrees C.								Chlorinated? Yes No				This Document is Page <u>1</u> of <u>1</u>					

NWA UTILITY SERVICES, INC

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Little Rock  
SAT 15 FEB



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72118-5317