

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

PERMITTEE NAME
CITY OF CAVE SPRINGS
PERMITTEE ADDRESS
PO Box 5 Cave Springs AR 72718

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

PERMIT NO.
4893-WR-3
AFIN NO.
04-01642

MONITORING PERIOD		
MM/DD/YYYY	TO	MM/DD/YYYY
4/1/2021		4/31/2021

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 (CBOD ₅)	30	< 2.0	9.9	MG/L	Once per Month / Grab		
TOTAL SUSPENDED SOLIDS (TSS)	45	19.4	27.7	MG/L			
FECAL COLIFORM BACTERIA (FCB)	10,000	< 5.0	37.5	COLONIES/100ml			
pH	6.0 - 9.0	6.9	7.1	s.u			
TOTAL PHOSPHOROUS (TP)	Report	5.12	6.81	MG/L			
TOTAL KJELDAHL NITROGEN (TKN)	Report	71.40	60.10	MG/L	Once per Quarter / Grab		
NITROGEN AMMONIA NITROGEN (NH ₃ - N)	Report	20.00	32.2	MG/L			
NITRITE NITROGEN (NO ₂ - N) + NITRATE NITROGEN (NO ₃ - N)	Report	34.4	25.5	MG/L			
PLANT AVAILABLE NITROGEN (PAN)	Report	69.8	66.1	MG/L			
TOTAL FLOW		MONTHLY TOTAL	DAILY MAX	GPD			
		4,710,476	311,963				
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.			TELEPHONE		DATE	
Kathy Bartlett				479	530-5926	5/14/2021	
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

		April		DAILY MAXIMUM FLOW TOTAL		311,963
Zone ID	Limit	Units	Maximum Volume Limit	Units	Monitoring	Reported Maximum
Leach Field 1	0.55	gpd/ft2	26,000	gpd		25036
Zone 1	0.42		19,524			<i>zones not being used</i>
Zone 2	0.45		19,309			
Zone 3	0.4		16,424			
Zone 4	0.46		10,811			
Zone 5	0.2		13,059			8710
Zone 6	0.2		7,723			6240
Zone 7	0.2		10,910			18718
Zone 8	0.3		7,081			8424
Zone 9	0.4		18,291			24958
Zone 10	0.3		9,450			9359
Zone 11	0.2		4,110			4368
Zone 12	0.4		7,522			8853
Zone 13	0.25		5,717			4992
Zone 14	0.15		6,097			6928
Zone 15	0.2		8,378			9047
Zone 16	0.4		9,427			9359
Zone 17	0.23		3,694			4120
Zone 19	0.35		13,778			15599
Zone 20	0.2		5,766			4992
Zone 21	0.4		17,040			18718
Zone 22	0.5		28,113			28077
Zone 23	0.25		15,640			16535
Zone 24	0.25		9,547			9359
Zone 25	0.2		4,436			5304
Zone 26	0.3		9,334			9047
Zone 27	0.31		16,511			18718
Zone 28	0.31		13,018			15287
Zone 29	0.2		3,923			3432
Zone 30	0.55		10,116			12791
Zone 31	0.3		5,714			4992

Environmental Services Company, Inc.

Corporate Office
 13715 West Markham
 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: 2104020020
 Customer Name : CAVE SPRINGS UTILITY, PLANT 1
 Customer/Permit No. : 1826 / 4893-WR-2
 Report Date : 04/15/21

Sample Date : 04/07/21
 Sample Time : 1255
 Sample Type : GRAB
 Sample From : EFFLUENT

Collected By: HNS
 Delivery By : HNS
 Work Order :
 Purchase Order :

Laboratory Analysis

Analysis			Laboratory Analysis				Quality Assurance		
Date	Time	By	Parameter	Result	Notes	Quantity	Method	Precision % RPD	Accuracy % Recovery
04/13	1130	HNS	Ammonia as N, (HACH 10205)	20.00 mg/L			SM 2011 4500-NH3 F	0.39	95.2 *
04/15	1030	NTR	Total Kjeldahl Nitrogen	71.4 mg/L			02/2014 HACH 10242	4.53	99.6 *
04/07	1300	HNS	pH	6.9 S.U.			SM 2011 4500-H+ B	0.00	N/A
04/12	1230	HNS	Phosphorous, Total (as P)	5.12 mg/L			EPA 365.3	1.63	100.0 *
04/12	1240	HNS	Solids, Total Suspended	19.4 mg/L			SM 2011 2540 D	4.48	N/A *
04/07	1610	HNS	Fecal Coliform (MPN/100mL)	< 5.0 /100ml			06/2012 Colilert18	0.00	N/A *
04/08	0740	TWM	BOD, Carbonaceous	< 2.0 mg/L			SM 2001 5210 B	0.00	80.2
04/13	0930	HNS	Nitrate + Nitrite	34.40 mg/L			01/2013 HACH 10206	1.09	100.8
04/15	1200	NTR	Nitrogen, Plant Available	69.8 mg/L			SM 1997 4500-N		

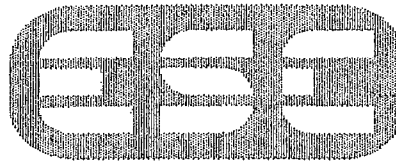
* QA data shown is from a different sample or standard on the same date.

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 *R. Steve Woosley*
 Environmental Services Co., Inc.

21710476
 311963 11
 Kristin Mullins

Environmental Services Company, Inc.
 Corporate Office
 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 #:		Quarterly				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		Sampler Name(s):		Hayden Smith									
Telephone:		479 248-1040		and Signature(s):		Hayden Smith									
FAX:				ESC Client Number:		1826									
Sample Identification		Sample Collection				Sample Containers									
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#						
Effluent/Dose Tank	2104020020	4/17/21	1255	Grab	Water	Sterile	120 mL	Na ₂ S ₂ O ₃ /Cool	1	X					
Effluent/Dose Tank	↓	↓	↓	Grab	Water	Plastic	1/2 gal	None/Cool	1		X				
Effluent/Dose Tank	↓	↓	↓	Grab	Water	Plastic	8 oz	H ₂ SO ₄ , pH < 2	1			X	X	X	
Effluent/Dose Tank	↓	↓	↓	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"/>		
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:		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Comments:				FLOW DATA		Field Test	Time	Analyst	Result	Result	Units				
				Analyst:		pH:	1306	HNS	6.8	6.9		°C	°F		
				Time:		Temp.:									
				Reading:		DO:									
				Units:		Debris:									
Cool all samples to 6 degrees C.				Chlorinated?		Yes	No	This Document is Page 1 of 1							

Environmental Services Company, Inc.

Corporate Office
 13715 West Markham
 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: 2104020021
 Customer Name : CAVE SPRINGS UTILITY, PLANT 2
 Customer/Permit No. : 2379 / 4893-WR-3 002
 Report Date : 04/15/21

Sample Date : 04/07/21
 Sample Time : 1240
 Sample Type : GRAB
 Sample From : EFFLUENT

Collected By: HNS
 Delivery By : HNS
 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>	<u>% Recovery</u>
04/13	1130	HNS	Ammonia as N, (HACH 10205)	32.20 mg/L		SM 2011 4500-NH3 F	0.39	95.2 *
04/15	1030	NTR	Total Kjeldahl Nitrogen	60.1 mg/L		02/2014 HACH 10242	4.53	99.6 *
04/07	1242	HNS	pH	7.1 S.U.		SM 2011 4500-H+ B	0.00	N/A *
04/12	1230	HNS	Phosphorous, Total (as P)	6.81 mg/L		EPA 365.3	1.63	100.0 *
04/12	1240	HNS	Solids, Total Suspended	27.7 mg/L		SM 2011 2540 D	4.48	N/A *
04/07	1610	HNS	Fecal Coliform (MPN/100mL)	37.5 /100ml		06/2012 Colilert18	0.00	N/A *
04/08	0740	TWM	BOD, Carbonaceous	9.9 mg/L		SM 2001 5210 B	2.70	88.0 *
04/13	0930	HNS	Nitrate + Nitrite	25.50 mg/L		01/2013 HACH 10206	1.09	100.8 *
04/15	1200	NTR	Nitrogen, Plant Available	66.1 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 
 Environmental Services Co., Inc.

Kristin Mullins

Environmental Services Company, Inc.
 Northwest Arkansas
 1107 Century Street
 Springdale, Arkansas 72762
 website: www.esclabs.com



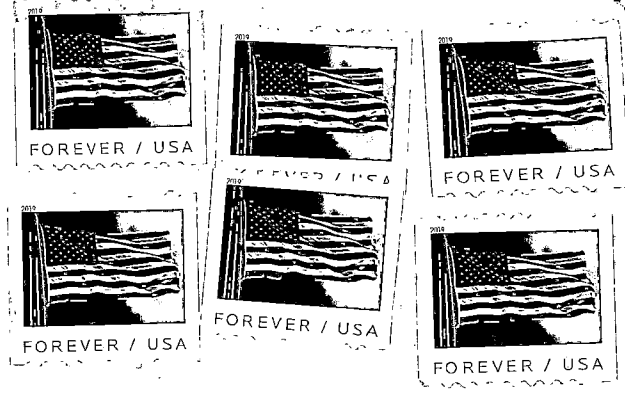
Corporate Office, Little Rock, Arkansas
 501-221-2565


Carlsbad, New Mexico
 575-887-1ESC

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

CHAIN OF CUSTODY

Client Information				Project Information						Requested Parameters							
Company Name: Cave Springs Plant 2		Permit/Project #: Quarterly		Sampler Name(s): <i>Hayden Smith</i>		and Signature(s): <i>Hayden Smith</i>		Fecal Coliform(43.IF) CBOD(70), TSS(28) NH3(15.A), P(25), TKN(16.A) PAN(99.99), NO3+NO2 (91) pH(23)									
Address: PO BOX 5		Purchase Order #:															
Cave Springs 72718																	
Telephone: 479 248-1040																	
FAX:																	
ESC Client Number: 2379																	
Sample Identification		Sample Collection				Sample Containers											
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#								
Effluent Diverter Box	2104020021	4/7/21	1240	Grab	Water	Sterile	300 ml	none/ice	1	x							
Effluent Diverter Box	↓	↓	↓	Grab	Water	Plastic	0.5 gal	none/ice	1		x						
Effluent Diverter Box	↓	↓	↓	Grab	Water	Plastic	8 oz	H ₂ SO ₄ , pH <2	1			x	x				
Effluent Diverter Box	↓	↓	↓	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:		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:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
Comments:				FLOW DATA		Field Test		Time	Analyst	Result	Result	Units					
				Analyst:		pH:		1242	HNS	7.1	7.1						
				Time:		Temp.:						°C °F					
				Reading:		DO:											
				Units:		Debris:											
HNS Cool all samples to 6 degrees C.						Chlorinated? Yes No		This Document is Page 1 of 1									



 **NWA Utility Services Inc**
PO Box 9299
Fayetteville, AR 72703

ADEQ
WATER DIVISION/PERMITS BRANCH
5301 Northshore Drive
N Little Rock, AR 72118-5317