

**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<br>Cave Springs AR 72718 |


|  |
|--|
| <b>FACILITY NAME</b>   |
| CAVE SPRINGS WASTEWATER TREATMENT PLANT                        |
| <b>FACILITY ADDRESS</b>  |
| The Creeks Golf Course<br>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 |
| 3/1/2019                 |    | 3/31/2019  |

**EFFLUENT LIMITS, MONITORING, AND REPORTING REQUIREMENTS**

| PARAMETER   | PERMIT LIMIT | SAMPLE MEASUREMENT | UNITS          | FREQUENCY OF ANALYSIS   | SAMPLE TYPE |
|---|--------------|--------------------|----------------|-------------------------|-------------|
| CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND (CBOD5)                                | 30           | 2.9                | MG/L           | Once per Month / Grab   |             |
| TOTAL SUSPENDED SOLIDS (TSS)  | 45           | 5.5                | MG/L           |                         |             |
| FECAL COLIFORM BACTERIA (FCB)   | 10,000       | 38                 | COLONIES/100ml |                         |             |
| pH  | 6.0 - 9.0    | 6.6                | s.u            |                         |             |
| TOTAL PHOSPHOROUS (TP)  | Report       | 7.03               | MG/L           | Once per Quarter / Grab |             |
| TOTAL KJELDAHL NITROGEN (TKN)   | Report       | No Report          | MG/L           |                         |             |
| NITROGEN AMMONIA NITROGEN (NH <sub>3</sub> -N)                                | Report       | No Report          | MG/L           |                         |             |
| NITRITE NITROGEN (NO <sub>2</sub> -N) + NITRATE NITROGEN (NO <sub>3</sub> -N) | Report       | No Report          | MG/L           |                         |             |
| PLANT AVAILABLE NITROGEN (PAN)  | Report       | No Report          | MG/L           |                         |             |
| TOTAL FLOW  |              | MONTHLY TOTAL      | DAILY MAX      | GPD                     |             |
|   |              | 2,804,238          | 108,342        |                         |             |

|  |   |  |           |          |            |
|--|---|--|-----------|----------|------------|
| 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. | <br><b>SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT</b> | TELEPHONE |          | DATE       |
|  |   |  | 479       | 790-3813 | 4/2/2019   |
| TYPED OR PRINTED                       |   |  | AREA CODE | NUMBER   | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF VIOLATIONS (Reference all attachments here)

**TABLE II**  
**March 2019 DRIP ZONES LOADING RATE LIMITS, MONITORING AND REPORTING REQUIREMENTS**

|               |       |         |                      |       | DAILY MAXIMUM FLOW TOTAL |                             | 108,342 |
|---------------|-------|---------|----------------------|-------|--------------------------|-----------------------------|---------|
| Zone ID       | Limit | Units   | Maximum Volume Limit | Units | Monitoring               | Reported Maximum            |         |
| Leach Field 1 | 0.55  |         | 26,000               |       |                          | 7801                        |         |
| <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               |       |                          | 4009                        |         |
| Zone 6        | 0.2   |         | 7,723                |       |                          | 2384                        |         |
| Zone 7        | 0.2   |         | 10,910               |       |                          | 3251                        |         |
| Zone 8        | 0.3   |         | 7,081                |       |                          | 2167                        |         |
| Zone 9        | 0.4   |         | 18,291               |       |                          | 5526                        |         |
| Zone 10       | 0.3   |         | 9,450                |       |                          | 2817                        |         |
| Zone 11       | 0.2   |         | 4,110                |       |                          | 1301                        |         |
| Zone 12       | 0.4   |         | 7,522                |       |                          | 2276                        |         |
| Zone 13       | 0.25  |         | 5,717                |       |                          | 1734                        |         |
| Zone 14       | 0.15  |         | 6,097                |       |                          | 1842                        |         |
| Zone 15       | 0.2   | gpd/ft2 | 8,378                | gpd   | Daily                    | 2601                        |         |
| Zone 16       | 0.4   |         | 9,427                |       |                          | 2817                        |         |
| Zone 17       | 0.23  |         | 3,694                |       |                          | 1084                        |         |
| Zone 19       | 0.35  |         | 13,778               |       |                          | 4117                        |         |
| Zone 20       | 0.2   |         | 5,766                |       |                          | 1734                        |         |
| Zone 21       | 0.4   |         | 17,040               |       |                          | 5201                        |         |
| Zone 22       | 0.5   |         | 28,113               |       |                          | 8451                        |         |
| Zone 23       | 0.25  |         | 15,640               |       |                          | 4659                        |         |
| Zone 24       | 0.25  |         | 9,547                |       |                          | 2926                        |         |
| Zone 25       | 0.2   |         | 4,436                |       |                          | 1301                        |         |
| Zone 26       | 0.3   |         | 9,334                |       |                          | 2817                        |         |
| Zone 27       | 0.31  |         | 16,511               |       |                          | 4984                        |         |
| Zone 28       | 0.31  |         | 13,018               |       |                          | 3901                        |         |
| Zone 29       | 0.2   |         | 3,923                |       |                          | 1192                        |         |
| Zone 30       | 0.55  |         | 10,116               |       |                          | 3034                        |         |
| Zone 31       | 0.3   |         | 5,714                |       |                          | 1734                        |         |

# 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: 1903020031  
 Customer Name : CAVE SPRINGS, CITY OF OUTFALL 2  
 Customer/Permit No. : 2379 / 4893-WR-3 002  
 Report Date : 03/13/19

Sample Date : 03/06/19  
 Sample Time : 1212  
 Sample Type : GRAB  
 Sample From : EFFLUENT DIVERTER BX

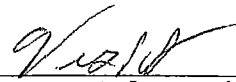
Collected By: NTR  
 Delivery By : NTR  
 Work Order :  
 Purchase Order :

### Laboratory Analysis

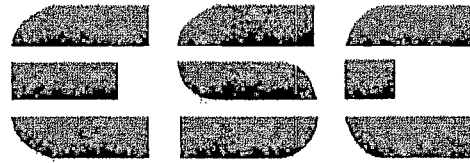
| Analysis |      |     |                            |        |        | Quality Assurance |                    |           |            |
|----------|------|-----|----------------------------|--------|--------|-------------------|--------------------|-----------|------------|
| Date     | Time | By  | Parameter                  | Result | Notes  | Quantity          | Method             | Precision | Accuracy   |
|          |      |     |                            |        |        |                   |                    | % RPD     | % Recovery |
| 03/06    | 1217 | NTR | pH                         | 6.6    | S.U.   |                   | SM 2000 4500-H+ B  | 0.00      | N/A *      |
| 03/11    | 1030 | AKA | Phosphorous, Total (as P)  | 7.030  | mg/L   |                   | EPA 365.3          | 0.91      | 107.0 *    |
| 03/12    | 900  | AKA | Solids, Total Suspended    | 5.5    | mg/L   |                   | SM 2011 2540 D     | 8.47      | N/A *      |
| 03/06    | 1630 | AKA | Fecal Coliform (MPN/100mL) | 38.0   | /100ml |                   | 06/2012 Colilert18 | 0.00      | 0.0 *      |
| 03/06    | 1400 | TSB | BOD, Carbonaceous          | 2.9    | mg/L   |                   | SM 2001 5210 B     | 2.14      | 91.0 *     |
| 03/07    |      | ESC | Sample Collection/Travel   |        |        | 1 each            |                    |           |            |

\* 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.

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 #:                                 |        |                   |                     |  |  |                              | pH(23)               | Fecal Coliform(43.IF) | CBOD(70), TSS(28) | Total P (25) |  |  |  |
| Address: PO BOX 5                             |               |                   |       | Purchase Order #:                                 |        |                   |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| Cave Springs 72718                            |               |                   |       | Sampler Name(s): Ned Ryerson                      |        |                   |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| Telephone: 479 248-1040                       |               |                   |       | and Signature(s): Ned Ryerson                     |        |                   |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| FAX:  |               |                   |       |   |        |                   |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| ESC Client Number: 2379                       |               |                   |       |   |        |                   |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| Sample Identification                         |               | Sample Collection |       |   |        | Sample Containers |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| Identification                                | ESC Control # | Date              | Time  | Type  | Matrix | Type              | Volume              | Preservative                           | #  |                              |                      |                       |                   |              |  |  |  |
| Effluent Diverter Box                         | 1903020031    | 3-6-19            | 12:12 | Grab  | Water  | Teflon            | 150 ml              | none                                   | 1  | X                            |                      |                       |                   |              |  |  |  |
|   |               |                   |       | Grab  | Water  | whirlpak          | 300 ml              | none/ice                               | 1  |                              | X                    |                       |                   |              |  |  |  |
|   |               |                   |       | Grab  | Water  | Plastic           | 0.5 gal             | none/ice                               | 1  |                              |                      | X                     |                   |              |  |  |  |
|   |               |                   |       | Grab  | Water  | Plastic           | 8 oz                | H <sub>2</sub> SO <sub>4</sub> , pH <2 | 1  |                              |                      |                       | X                 |              |  |  |  |
| Relinquished By: (Signature and Printed Name) |               | Date              | Time  | Received By: (Signature and Printed Name)         |        |                   | Date                | Time                                   | Custody Seals:   |                              |                      |                       |                   |              |  |  |  |
| Relinquished By: (Signature and Printed Name) |               | Date              | Time  | Received By: (Signature and Printed Name)         |        |                   | Date                | Time                                   | Used? <input checked="" type="checkbox"/> Intact? <input type="checkbox"/>                           |                              |                      |                       |                   |              |  |  |  |
| Relinquished By: (Signature and Printed Name) |               | Date              | Time  | Received for Lab 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:               |                     | 12:17                                  | N.R.   | 6.6                          | 6.6                  | SU                    |                   |              |  |  |  |
|   |               |                   |       | Time:   |        | Temp.:            |                     | 12:17                                  | N.R.   | 11.9                         | 12.0                 | (C) °F                |                   |              |  |  |  |
|   |               |                   |       | Reading:  |        | DO:               |                     |  |  |                              |                      |                       |                   |              |  |  |  |
|   |               |                   |       | Units:  |        | Debris:           |                     |  |  |                              |                      |                       |                   |              |  |  |  |
| Cool all samples to 6 degrees C.              |               |                   |       |   |        |                   | Chlorinated? Yes No |  |  | This Document is Page 1 of 1 |                      |                       |                   |              |  |  |  |