

**ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY  
MONITORING REPORT FOR DECENTRALIZED WASTEWATER TREATMENT FACILITIES VIA DRIP IRRIGATION  
MONTHLY MONITORING REPORT**

|                                    |
|------------------------------------|
| <b>PERMITTEE NAME</b>              |
| Bethel Oaks Subdivision            |
| <b>PERMITTEE ADDRESS</b>           |
| PO Box 3008<br>Fort Smith AR 72901 |


|  |
|--|
| <b>FACILITY NAME (IF DIFFERENT)</b>                  |
| Bethel Oaks Subdivision                              |
| <b>FACILITY ADDRESS</b>                              |
| WA County Hwy 62 at Bethel Blacktop Rd Farmington AR |

|                   |
|-------------------|
| <b>PERMIT NO.</b> |
| 4875-WR-1         |
| <b>AFIN NO.</b>   |
| 72-01656          |

|  |            |
|--|------------|
| <b>WASTEWATER EFFLUENT MONITORING PERIOD</b> |            |
| MM/DD/YYYY                                   | MM/DD/YYYY |
| 2/1/2017                                     | 2/28/2017  |

**TREATED WASTEWATER EFFLUENT SAMPLING**

| PARAMETER                                      | Limit     | Sample Measurement | UNITS          | Monitoring                 | Reporting                                |
|--|-----------|--------------------|----------------|----------------------------|--|
| Flow, Monthly total                            | REPORT    | 0.163153           | MGD            | Grab Sample once per month | Prior to the 15th of the following Month |
| Flow, daily maximum                            | REPORT    | 0.007415           | MGD            |                            |  |
| Carbonaceous Biochemical Oxygen Demand (CBOD5) | 15        | < 2                | mg/l           |                            |  |
| Total Suspended Solids (TSS)                   | 15        | 22.7               | mg/l           |                            |  |
| Fecal Coliform Bacteria (FCB)                  | 7,800     | < 10               | colonies/100ml |                            |  |
| pH   | 6.0 - 9.0 | 7.4                | s.u.           |                            |  |
| Total Phosphorus (TP)                          | REPORT    | 7.9                | mg/l           |                            |  |
| Total Kjeldahl Nitrogen (TKN)                  | REPORT    | 48.16              | mg/l           |                            |  |
| Ammonia Nitrogen                               | REPORT    | 46.2               | mg/l           |                            |  |
| Nitrate Nitrogen (NO3-N)                       | REPORT    | 3.02               | mg/l           |                            |  |
| Nitrite Nitrogen (NO2-N)                       | REPORT    | 0.386              | mg/l           |                            |  |
| Plant Available Nitrogen (PAN)                 | REPORT    | 50.2               | mg/l           |                            |  |
| Total Solids                                   | REPORT    | 0.036              | Percentage (%) |                            |  |
| Loading Rate                                   | 0.138     | See Attached       | gpd/ft 2       |                            |  |

|  |   |   |                |            |
|--|---|---|----------------|------------|
| 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>SIGNATURE OF PRINCIPAL<br>EXECUTIVE OFFICER OR<br>AUTHORIZED AGENT | TELEPHONE      | DATE       |
|  |   |   | (479) 530-5926 | 3/14/2017  |
| TYPED OR PRINTED                       |   |   |                | MM/DD/YYYY |

**COMMENTS AND EXPLANATION OF VIOLATIONS (Reference all attachments here)** We have increased the recycle rate in treatment plant to remove more solids back to Primary Settling Tank  
We will monitor and adjust as needed to lower TSS in final effluent.

BETHEL OAKS LOADING RATES Feb 2017, 7,415 Max Daily Flow

| Zone Identification | GPD/sq 2 |
|---------------------|----------|
| Zone 1              | 618      |
| Zone 2              | 618      |
| Zone 3              | 618      |
| Zone 4              | 618      |
| Zone 5              | 618      |
| Zone 6              | 618      |
| Zone 7              | 618      |
| Zone 8              | 618      |
| Zone 9              | 618      |
| Zone 10             | 618      |
| Zone 11             | 618      |
| Zone 12             | 618      |

# Environmental Services Company, Inc.

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

|  |                        |                   |
|--|------------------------|-------------------|
| Control Number: 1702020188                     | Sample Date : 02/15/17 | Collected By: JCB |
| Customer Name : GREENFIELD CAP DEV-BETHEL OAKS | Sample Time : 0835     | Delivery By : JCB |
| Customer/Permit No. : 1855 / 4875-WR-2         | Sample Type : GRAB     | Work Order :      |
| Report Date : 02/24/17                         | Sample From : EFFLUENT | Purchase Order :  |

### Laboratory Analysis

| Analysis |      |     |                           |             |       | Quality Assurance |                    |                    |                        |
|----------|------|-----|---------------------------|-------------|-------|-------------------|--------------------|--------------------|------------------------|
| Date     | Time | By  | Parameter                 | Result      | Notes | Quantity          | Method             | Precision<br>% RPD | Accuracy<br>% Recovery |
| 02/15    | 1520 | TSB | Ammonia Nitrogen          | 46.2 mg/L   |       |                   | SM 1997 4500-NH3 F | 0.00               | 99.6 *                 |
| 02/23    | 0800 | TSB | Kjeldahl Nitrogen Total   | 48.16 mg/L  |       |                   | SM 1997 4500-NorgB | 1.23               | 99.6 *                 |
| 02/21    | 0900 | TSB | Nitrate Nitrogen          | 3.02 mg/L   |       |                   | SM 2000 4500-NO3 E | 0.83               | 98.6 *                 |
| 02/15    | 1535 | TSB | Nitrite Nitrogen          | 0.386 mg/L  |       |                   | SM 2000 4500 NO2 B | 0.58               | 102.7 *                |
| 02/15    | 0835 | JCB | pH                        | 7.4 S.U.    |       |                   | SM 2000 4500-H+ B  | 0.00               | N/A *                  |
| 02/21    | 0800 | TSB | Phosphorous, Total (as P) | 7.9 mg/L    |       |                   | EPA 365.3          | 1.90               | 100.0 *                |
| 02/17    | 1234 | AEU | Solids, Total Suspended   | 22.7 mg/L   | (b)   |                   | SM 1997 2540 D     | 20.00              | N/A *                  |
| 02/16    | 1450 | JCB | Coliform, Fecal           | < 10 /100ml |       |                   | SM 9222 D 1997     | 55.56              | N/A *                  |
| 02/15    | 1400 | AEU | BOD, Carbonaceous         | < 2.0 mg/L  |       |                   | SM 2001 5210 B     | 4.19               | 100.9 *                |
| 02/16    | 0830 | TSB | Solids, % Total by mass   | 0.036 %     |       |                   | SM 1997 2540 G     | 0.35               | N/A *                  |
| 02/24    | 1000 | TSB | Nitrogen, Plant Available | 50.2 mg/L   |       |                   | SM 1997 4500-N     |                    |                        |
| 02/15    | 0835 | JCB | Sample Collection/Travel  | 1 each      |       |                   |                    |                    |                        |

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

(b) Exceeds Permit Limits for Maximum Concentration

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

*Richard Brown*

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### CHAIN OF CUSTODY

| Client Information  |               |                   |      | Project Information                               |        |                   |        |  |        | Requested Parameters   |  |   |                 |                          |                         |  |  |  |  |  |
|---|---------------|-------------------|------|---|--------|-------------------|--------|--|--------|--|--|---|-----------------|--------------------------|-------------------------|--|--|--|--|--|
| Company Name: <b>Bethel Oaks</b>  |               |                   |      | Permit/Project #: _____                           |        |                   |        |  |        | pH(23)<br>P(25), NH <sub>3</sub> -N(15.A), NO <sub>3</sub> (18), TKN(16.A)<br>CBOD(70), TSS(28), NO <sub>2</sub> (19)<br>F. COLIFORM(43)<br>%Solids (82), PAN(99.99) | Address: <b>1849 N. Trillium Lane</b>                            |   |                 |                          | Purchase Order #: _____ |  |  |  |  |  |
| Fayetteville, AR 72704  |               |                   |      | Sampler Name(s): <i>John Byrd</i>                 |        |                   |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Telephone: <b>479-790-3813</b>  |               |                   |      | and Signature(s): <i>John Byrd</i>                |        |                   |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Telephone: _____  |               |                   |      |   |        |                   |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| ESC Client Number: <b>1855</b>  |               |                   |      |   |        |                   |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Sample Identification   |               | Sample Collection |      |   |        | Sample Containers |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Identification  | ESC Control # | Date              | Time | Type  | Matrix | Type              | Volume | Preservative   | #      | pH(23)   | P(25), NH <sub>3</sub> -N(15.A), NO <sub>3</sub> (18), TKN(16.A) | CBOD(70), TSS(28), NO <sub>2</sub> (19) | F. COLIFORM(43) | %Solids (82), PAN(99.99) |                         |  |  |  |  |  |
| EFFLUENT  | 1702020188    | 2/15/17           | 0835 | GRAB  | Water  | teflon            | 150 ml | none   | 1      | x  |  |   |                 |                          |                         |  |  |  |  |  |
| EFFLUENT  |               |                   |      | GRAB  | Water  | Plastic           | 8 oz   | H <sub>2</sub> SO <sub>4</sub> , pH<2  | 1      |  | x  |   |                 |                          |                         |  |  |  |  |  |
| EFFLUENT  |               |                   |      | GRAB  | Water  | Plastic           | 1 qt   | none/ice   | 1      |  |  | x                                       |                 | x                        |                         |  |  |  |  |  |
| EFFLUENT  |               |                   |      | GRAB  | Water  | Whirlpak          | 125 ml | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>                                | 1      |  |  |   | x               |                          |                         |  |  |  |  |  |
| Cool all samples to 6 degrees C.  |               |                   |      |   |        |                   |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Relinquished By: (Signature and Printed Name)<br><i>John Byrd</i> John Byrd |               | Date              | Time | Received By: (Signature and Printed Name)         |        | Date              | Time   | Custody Seals:   |        |  |  |   |                 |                          |                         |  |  |  |  |  |
|   |               | 2/15/17           | 045  |   |        |                   |        | 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>Amber Underwood</i>                            |        | 2/15/17           | 1045   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>          |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Comments:   |               |                   |      | FLOW DATA   |        | Field Test        | Time   | Analyst  | Result | Result   | Units  |   |                 |                          |                         |  |  |  |  |  |
|   |               |                   |      | Analyst:  |        | pH:               | 0835   | JCB  | 7.4    | 7.4  | °C °F  |   |                 |                          |                         |  |  |  |  |  |
|   |               |                   |      | Time:   |        | Temp.:            |        |  | 14.5   | 14.9   |  |   |                 |                          |                         |  |  |  |  |  |
|   |               |                   |      | Reading:  |        | DO:               |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
|   |               |                   |      | Units:  |        | Debris:           |        |  |        |  |  |   |                 |                          |                         |  |  |  |  |  |
| Cool all samples to 6 degrees C.  |               |                   |      |   |        |                   |        | Chlorinated? Yes No  |        | This Document is Page 1 of 1   |  |   |                 |                          |                         |  |  |  |  |  |