RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

PERMIT TO RECEIVE, STORE, TREAT AND RECYCLE CERTAIN
NON-HAZARDOUS OIL AND GAS WASTES

RENEWED/AMENDED
Permit No. STF-0111
Supersedes the permit issued on
December 16, 2016

3:16 DISPOSAL SYSTEMS, SERIES LLC
10700 ROCKLEY ROAD
HOUSTON    TX    77099

Based on information contained in the original application received January 15, 2016; the
renewal/amendment request received October 16, 2018; and subsequent information received to
date, you are hereby authorized to receive, store, handle, treat, and recycle certain nonhazardous
oil and gas wastes subject to the jurisdiction of the Railroad Commission of Texas (RRC) as
specified below at the following facility:

Barstow Commercial Fluid Recycling STF Facility
Oil and Gas Waste Treatment and Disposal Permit
Approx. 9.5 Acres
H&T.C. RR. CO. Survey 182, Block 34, A-416
Latitude, Longitude: 31.467894°, -103.387089°
Ward County, Texas
RRC District 08, Midland

NARRATIVE DESCRIPTION OF PROCESS
Incoming oil and gas waste will be offloaded at the concrete truck unloading area via direct line
hookups, and then transferred via piping to a closed system of frac tanks and an oil/water
separator for initial phase separation. Fluids will then be pumped through a water polisher to
recover emulsified hydrocarbons and remove the remaining solids. The partially treated fluids
are then piped to a series of storage tanks, where salts may be added to create weighted brine.
The treated fluids will be stored in frac tanks for re-sale as downhole production and completion
fluids, or transported to an off-site Class II injection well for disposal as necessary. The
recovered hydrocarbons will be transferred to the oil storage tanks and sold. Solids will be
periodically removed from the tanks, and placed into an onsite roll-off box for disposal at an
offsite RRC authorized disposal facility.
Authority is granted to receive, store, handle, treat and recycle oil and gas wastes in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8), 16 TAC Chapter 4, Subchapter B, and is subject to the following minimum conditions:

I. GENERAL PERMIT CONDITIONS

A. The effective date of this permit is March 13, 2019 and expires on March 12, 2024.

B. In accordance with 16 TAC §3.78, the permittee shall maintain financial security in the amount of $81,288.00 until the entire facility has been closed in accordance with this permit. Technical Permitting reserves the right to revise this amount, as necessary. Prior to any modification of this facility that would require increased financial security, an updated closure cost estimate must be submitted to Technical Permitting in Austin, and any additional financial security must be filed with and approved by the RRC prior to making that modification.

C. A copy of a site-specific Spill Prevention and Control Plan that details means and methods of waste management and containment in the event of a release or discharge must be maintained on-site, and made available to RRC staff for review and inspection upon request.

D. The facility’s Stormwater Management Plan shall be maintained on-site and made available upon request of the RRC.

E. A discharge permit from the Environmental Protection Agency (EPA) may be required for non-contact storm water discharges. If required, the permit from the EPA must be in place prior to commencement of discharge operations.

F. This permit does not authorize discharge from the facility of any oil and gas waste, including contaminated or contact storm water.

G. The permittee may not begin receiving, storing, handling, or treating oil and gas waste at the facility until all necessary air permits or exemptions (if any) are obtained from the Texas Commission on Environmental Quality.

H. This permit does not authorize the use of any pits at the facility. Any pits to be used in conjunction with this facility must be permitted separately by the filing of an “Application for a Permit to Maintain and Use a Pit” (Form H-11) and the required supporting data.

I. An On-Site Sewage Facility (OSSF) may be constructed, operated, and maintained within the boundaries of the subject facility without an additional permit from the Commission if: (1) the OSSF waste is not commingled with any other oil and gas waste; (2) the system is designed by a Texas registered Professional Engineer or a sewage system installer licensed in the state of Texas; and (3) the construction, operation, and maintenance of the OSSF complies with all applicable local, county, and state requirements.

J. Any deviation from this permit must be approved by amendment from Technical Permitting in Austin before implementation.

K. Any soil additives, bio-accelerators, stabilizers, or treatment chemicals must be approved by Technical Permitting prior to use at the facility.
L. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or bio-accelerator proposed to be used in the treatment of waste at the facility. Use of the compound is contingent on RRC approval and must be used and stored according to the manufacturer’s recommendations.

M. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate EPA Methods or Standard Methods by an independent, National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.

N. The permittee must make all records required by this permit available for review and copying during normal business hours upon request of RRC personnel.

O. This permit may be considered for administrative renewal upon request and subsequent review by the RRC. Any application for permit renewal must be received by Technical Permitting in Austin within 60 days of the expiration of this permit.

P. This permit is nontransferable without consent of the RRC. Any request for permit transfer must be filed with Technical Permitting in Austin at least 60 days before the permittee wishes the transfer to take place.

Q. The permittee shall submit a Quarterly Report and a Semi-Annual Report according to the following:

1. The reports shall contain applicable information as required in Permit Conditions III.G., IV.M., VII.C., and X.F.

2. The quarterly reporting periods shall be January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31 of each year.

3. The semi-annual reporting periods shall be January 1 through June 30 and July 1 through December 31 of each year.

4. The reports shall be submitted to Technical Permitting in Austin and the appropriate District Office no later than the 30th day of the month following each reporting period, or each April 30th, July 30th, October 30th, and January 30th, respectively.

5. An Executive Summary shall be included that describes facility operations and relevant activities that occurred during the specific quarter.

6. Data tables presenting volumes or amounts of untreated waste received shall be included.

7. Data tables presenting volumes or amounts of treated waste processed and sold shall be included.

R. Failure to comply with any condition of this permit or any determination by the RRC that this permit is being abused, will be cause for enforcement action including, but not
limited to, modification, suspension, or termination of this permit, and the possibility of penalty action.

II. AUTHORIZED WASTES

A. Only oil and gas wastes subject to the jurisdiction of the RRC that are non-hazardous according to Subtitle C (Resource Conservation and Recovery Act (RCRA)) may be received. You may receive, store, handle, treat, process, and dispose of only the following oil and gas wastes:

1. Produced water and residual solids
2. Frac flow-back fluids and residual solids

B. No other waste may be accepted at this facility.

C. RCRA non-exempt wastes under the jurisdiction of the RRC may be accepted and processed at the facility if analytical results demonstrate that the waste is characteristically non-hazardous.

D. No oil and gas Naturally Occurring Radioactive Material (NORM) waste as defined in 16 TAC §4.603 or waste from a facility that is licensed by the Texas Department of State Health Services (DSHS) to handle, process, or treat oil and gas NORM waste may be received at this facility.

E. No asbestos-containing material regulated under the Clean Air Act or polychlorinated biphenyls (PCB) material regulated under the Toxic Substances Control Act may be accepted for processing at this facility.

F. This permit does not authorize the active reclamation of crude oil from oil and gas waste. A request for authorization under 16 TAC §3.57 must be submitted to and approved by Technical Permitting in Austin prior to any active reclamation activities at the referenced facility. Any recovered free oil must be handled according to protocols specified in Permit Condition IV.L.

G. All waste haulers received at the facility must be RRC permitted Oil and Gas Waste Haulers and must have the subject facility listed as an authorized disposal facility on their “Oil and Gas Waste Hauler’s Authority to use Approved Disposal/Injection System”, (Form WH-3).

III. WASTE TESTING AND RECORD KEEPING REQUIREMENTS

A. For the purposes of this permit, a representative sample of incoming waste is defined as a composite sample composed of one grab sample from each 50 cubic yards, of waste material from each job (e.g., from each well, pit, or spill location).

B. Each load of incoming waste, other than water-based drilling fluids and associated cuttings, or oil-based drilling fluids and associated cuttings, must be scanned for the presence of NORM using a scintillation meter with a sodium iodide detector or other equivalent devices that comply with 25 TAC 289.259, Texas Regulation for Control of Radiation (TRCR Part 46). Manufacturer’s specifications must be submitted to Technical
Permitting for equivalent devices used for NORM detection. All instrument calibration records must be maintained onsite and made available upon request. Any load with a reading of 50 microroentgens per hour or greater may not be unloaded or processed at the facility unless further analysis of the waste demonstrates that the waste does not exceed 30 picocuries per gram of Radium-226 combined with Radium-228 or 150 picocuries per gram of any other radionuclide. Current calibration records of all NORM screening devices must be maintained on-site and made available to RRC personnel upon request.

C. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities and reclamation plants must be analyzed for and may not exceed the limit for the following parameter(s):

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Organic Halides (TOX) (EPA Method 9020B)</td>
<td>100 mg/l</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Extractable Organic Halides (EOX) (EPA Method 9023)</td>
<td>100 mg/kg</td>
</tr>
</tbody>
</table>

Special authorization for disposal of waste with a TOX/EOX > 100 ppm may be considered. Authority must be obtained from Technical Permitting in Austin prior to acceptance of that waste.

D. Prior to acceptance at the site, representative samples of incoming RCRA non-exempt waste or any international waste must be analyzed for the following parameters and may not exceed the specified limitations:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosivity (EPA Method 1110A, 9040C, or equivalent)</td>
<td>pH 2.0 -12.5 standard units (s.u.)</td>
</tr>
<tr>
<td>Reactivity</td>
<td>No materials exhibiting the characteristic of reactivity as defined by RCRA</td>
</tr>
<tr>
<td>Ignitability (EPA Method 1010A/1020B/1030A)</td>
<td>Flash Point &lt; 60° C</td>
</tr>
<tr>
<td>Toxicity (EPA Method 1311, Toxicity Characteristic Leaching Procedure (TCLP))</td>
<td>No materials exhibiting the characteristic of toxicity as defined by RCRA</td>
</tr>
<tr>
<td>Benzene (TCLP)</td>
<td>&lt; 0.5 mg/L</td>
</tr>
<tr>
<td>Metals (TCLP)</td>
<td>Metals (TCLP)</td>
</tr>
<tr>
<td>EPA Method 1311/6010/6020/7471A Arsenic</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>LIMITATION</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Barium</td>
<td>&lt; 100.0 mg/L</td>
</tr>
<tr>
<td>Cadmium</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Chromium</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Lead</td>
<td>&lt; 5.0 mg/L</td>
</tr>
<tr>
<td>Mercury</td>
<td>&lt; 0.2 mg/L</td>
</tr>
<tr>
<td>Selenium</td>
<td>&lt; 1.0 mg/L</td>
</tr>
<tr>
<td>Silver</td>
<td>&lt; 5.0 mg/L</td>
</tr>
</tbody>
</table>

E. The permittee must maintain the following records on each load of waste received at the facility for a period of three (3) years from the date of receipt:

1. Description of the site where the waste was generated, including:
   a. Generator name
   b. Lease name and number and well number(s), or gas ID number(s), or American Petroleum Institute (API) well number(s); or latitude and longitude coordinates in decimal degrees if waste was not generated on a lease
   c. County

2. Name and RRC permit number of the transporter

3. Volume of waste material (specify units)

4. Detailed description of the type of waste, including any analysis required by Permit Conditions III.C. and III.D., above

F. The permittee shall maintain the following records on each load of waste removed at the facility for a period of three (3) years from the date of receipt:

1. Date waste is removed and hauled to a disposal facility

2. Name and RRC permit number of the transporter

3. Volume (specify units) of each shipment of waste hauled to a disposal facility

4. Type of waste (basic sediment, water, water-based mud, etc.)

5. Name and permit number of the facility to which the waste was hauled to for disposal

G. A report must be submitted to Technical Permitting in Austin and the Midland District Office as part of the Quarterly Report required in Permit Condition I.Q. and shall include the following information:

1. All records required Permit Conditions III.E. and III.F. above, as well as a summary of waste receipts

2. The total volume of each type of waste material received during the specific quarter

3. Total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter

4. Total volume of fluid that has been utilized down-hole for recycling purposes
IV. GENERAL FACILITY DESIGN

A. The general layout and arrangement of the facility must be consistent with the diagrams "SITE DIAGRAM" (Figure 1), "PHASE SEPARATION AREA" (Figure 2), "WATER POLISHING AND OIL STORAGE AREA" (Figure 3), and "TREATED PRODUCT STORAGE" (Figure 4), received February 21, 2017, which are attached and incorporated into this permit as Permit Appendix A.

B. A sign must be posted at each entrance to the facility. The sign must be readily visible and show the operator name, facility name, and permit number in letters and numerals at least three inches in height.

C. The facility must consist of the following waste management units:
   1. Four 500-bbl Fluid Settling Frac Tanks
   2. One 500-bbl Oil/Water Separator
   3. Two 500-bbl Produced Water Tanks
   4. Two 250-bbl Sales Oil Tanks
   5. Two 1,000-bbl Polished Water (Product) Tanks
   6. Ten 500-bbl Polished Water (Product) Frac Tanks
   7. One Water Polisher
   8. One 20-cubic yard Roll-Off Box

D. No waste, treated or untreated, may be placed on the ground or in and/or on any non-authorized surface.

E. All storage tanks, chemicals, equipment and roll-off boxes must be maintained in a leak-free condition. If inspection of a tank, roll-off box or storage vessel reveals deterioration or leaks, it must be repaired before resuming use of the vessel.

F. Any spill of waste, chemical, or any other waste-related material must be collected and containerized within 24 hours, and processed through the treatment process or disposed of in an authorized manner.

G. Any chemical used in the treatment process must be stored in vessels designed for the safe storage of the particular chemical and these vessels must be maintained in a leak-free condition.

H. A perimeter berm that surrounds the entire facility must be constructed and maintained to provide a physical barrier to prevent potential run-on and/or runoff of stormwater. The perimeter berm must be constructed to meet the requirements specified below in Permit Condition IV.I.

I. Berms or containment structures must be constructed around all waste management and must be compacted or constructed of material that meets 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density and meet a permeability of 1 x 10^{-7} cm/sec or less when compacted. During construction, successive lifts should not exceed nine inches in thickness, and the surface between lifts should be scarified to achieve a good seal. Each berm shall maintain a slope no steeper than a one to three
(vertical to horizontal) ratio, unless constructed of concrete of equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate contact storm water within the waste management units. Refer to the stormwater management requirements specified in Permit Condition VIII.

J. All storage tanks containing fluid waste or fuel shall be contained within dikes. Secondary containment of 120% total storage capacity is recommended, however a minimum capacity that will capture 100% of the capacity of the largest tank and the volume of a 25 year/24-hour rainfall event for Ward County is acceptable.

K. The facility must maintain security to prevent unauthorized access. Access must be maintained by a 24-hour attendant or a six-foot-high security fence and locked gate when unattended. Fencing shall be required unless terrain or vegetation prevents vehicle or livestock access except through entrances with lockable gates.

L. No oil may be allowed to accumulate on top of the water or wastes stored in the tanks. Any oil on top of the liquids must be skimmed off and handled in accordance with RRC rules. Any recovered oil must be recorded and filed with the RRC on either a Skim Oil/Condensate Report (Form P-18) or a “Letter of Authority Request for Oil Movement” (Form T-1) Letter:

1. A Skim Oil/Condensate Report (Form P-18) must be filed with the RRC every month to record skim oil volumes recovered and sold during the operation of this facility. If no skim oil is recovered for a given month, a (Form P-18) should still be filed with the RRC.

OR

2. An original signed “Letter of Authority Request for Oil Movement” (Form T-1) must initially be submitted on letterhead to Field Operations, Austin, TX, Oil and Gas Division, for every event in which sellable skim oil is recovered and intended to be sold during the operation of this facility. Filing frequency requirements may be redefined after the initial oil movement request has been processed. The request must include:
   a. The time period for which oil movement authority is requested;
   b. The name of the applicant requesting to move the oil;
   c. Volume (barrels) of oil to be moved;
   d. Name and location of the facility which the oil will be moved to;
   e. Name, address, telephone, and fax number of facility buying the oil to be moved;
   f. Contact person, T-1 permit number, and P-5 Operator Number of the oil buyer; and
   g. A description of the source(s) of the oil at the facility.

M. Each month an inspection of the entire facility must be performed on all concrete slabs, processing equipment, containment berms, and aboveground storage tanks or vessels for deterioration, leaks or spills. The records of each inspection must be kept on-site and maintained for a period of three (3) years from the date of the inspection. The following
must be included in the inspection report and submitted as part of the Quarterly Report required by Permit Condition I.Q.

1. The results of the monthly inspection of concrete slabs within the facility for evidence of deterioration, leakage, or storm water run-on, and a description of corrective action taken, if any.

2. The results of the monthly inspection of process equipment, tanks, and roll-off boxes for evidence of deterioration or leakage, and a description of corrective action taken, if any.

3. The results of the monthly inspection of waste levels within the storage areas, tanks, and roll-off boxes, and a description of corrective action taken, if any.

V. CONSTRUCTION AND OPERATION OF THE TRUCK UNLOADING AREA

A. The general layout and arrangement of the Truck Unloading Area shall be consistent with the "TRUCK UNLOADING CONCRETE PAD" (Figure 5) schematic received on February 21, 2017, which is attached and incorporated into this permit as Permit Appendix B.

B. The Truck Unloading Area shall consist of an above grade structure that will have four unloading bays that are approximately 19 feet wide by 20 feet long. The slab shall consist of steel reinforced concrete with a minimum thickness of six-inches, overlying a 40-mil high density polyethylene (HDPE) liner, which is sloped towards a center trough that feeds into a 450-gallon sump, to collect any spillage during unloading operations. Spills collected in the sump will be pumped to the Initial Phase Separation Area to be processed.

C. The concrete and HDPE liner must be installed in accordance with the manufacturer's specifications and sound engineering practices.

D. The Truck Unloading Area shall be surrounded by a ten-inch high concrete berm on the east and west sides, and have concrete curbs on the north and south sides to prevent stormwater run-on and run-off from the unloading area.

E. Any stormwater run-on that enters the Truck Unloading Area is considered contact stormwater, and must be pumped through the treatment process after being collected in the sump.

VI. CONSTRUCTION AND OPERATION OF INITIAL PHASE SEPARATION AREA, WATER POLISHING AND OIL STORAGE AREA, AND TREATED PRODUCT STORAGE AREA

A. The general layout and arrangement of the Initial Phase Separation Area, the Water Polishing and Oil Storage Area, and the Treated Product Storage Area shall be consistent with the "SITE DIAGRAM" (Figure 1) schematic provided in Permit Appendix A.

B. The HDPE liners must be installed in accordance with the manufacturer's specifications and sound engineering practices.
C. INITIAL PHASE SEPARATION AREA

1. The Initial Phase Separation Area shall be completely surrounded by a three-foot-high earthen berm, which meets the requirements specified in Permit Condition IV.I., and lined with a 40-mil HDPE liner, as shown on the “PHASE SEPARATION AREA” (Figure 2) schematic in Permit Appendix A.

2. Incoming wastes piped to the Initial Phase Separation Area from the Truck Unloading area shall be stored in a series of four 500-bbl interconnected closed-top frac tanks for primary solid settling and oil skimming, before flowing into a horizontal 500-bbl oil/water separator.

D. WATER POLISHING AND OIL STORAGE AREA

1. The Water Polishing and Oil Storage Area shall be completely surrounded by a three-foot-high firewall, which meets the requirements specified in Permit Condition IV.I., and lined with steel protected by a polyurea coating, as shown on the “WATER POLISHING AND OIL STORAGE AREA” (Figure 3) schematic in Permit Appendix A.

2. The fluids from the Initial Phase Separation Area are conveyed to one of two 500-bbl brine storage tanks before being processed through the Water Polisher, which removes the remaining emulsified hydrocarbons and solids. After exiting the Water Polisher, treated fluids will be stored in two 1,000-bbl storage tanks before being transferred to the Treated Product Area.

3. Oil recovered from the Initial Phase Separation Area and the Water Polisher will be stored in two 250-bbl oil tanks for sale.

E. TREATED PRODUCT STORAGE AREA

1. The Treated Product Storage Area shall be completely surrounded by a three-foot-high earthen berm, which meets the requirements specified in Permit Condition IV.I., and lined with a 40-mil HDPE liner, as shown on the “TREATED PRODUCT STORAGE” (Figure 4) schematic, provided in Permit Appendix A.

2. Fluids processed through the Water Polisher are pumped to a series of ten 500-bbl interconnected closed-top frac tanks to be sold for reuse or transported to an off-site permitted Class II injection well for disposal as necessary. Treated product (brine) stored in the frac tanks may have salts added as needed for resale purposes.

VII. GROUNDWATER MONITORING

A. Three groundwater monitoring wells were installed and numbered as represented on the “GROUNDWATER ELEVATION 2-24-2016” (Exhibit 2) schematic received August 23, 2017, which is attached and incorporated into this permit as Permit Appendix C.

1. The wells must be completed in accordance with 16 TAC Part 4, Chapter 76 (Water Well Drillers and Water Well Pump Installers).

2. The wells must be completed in the shallowest groundwater zone and the completion must isolate that zone from any deeper groundwater zone.
3. The screened interval of the wells must be designed to intercept at least five feet of groundwater from the first groundwater-bearing unit.

4. Provision must be made to protect the well heads from damage by vehicles and heavy equipment.

5. The wells must be maintained in good condition with a lockable water-tight expansion cap that prohibits unauthorized access.

6. The wells must be able to provide a representative sample of groundwater underlying the site for the duration of facility operations. If a groundwater monitoring well is not capable of providing a representative sample, the permittee must notify Technical Permitting in Austin and install a replacement groundwater monitoring well that is acceptable to Technical Permitting.

7. The following information must be submitted after the wells are completed:
   a. A soil boring lithological log for each well, with the soils described using the Unified Soil Classification System (equivalent to ASTM D 2487 and ASTM D 2488). The log must also include a well construction schematic detailing the method of drilling, well specifications, slot size, riser and screen length, bentonite and cement intervals, total depth, and the top of the first encountered groundwater or saturated soils. The sand pack size should be compatible with the well screen slot size and the local lithology.
   b. A well installation diagram for each well detailing construction specifications, including riser and screen length, screen slot size, bentonite and cement intervals. The sand pack size should be compatible with the well screen slot size and the local lithology.
   c. A survey elevation for each well head reference point (top of casing) relative to a real or arbitrary benchmark and mean sea level.
   d. A table with recorded depth to water, top of casing, and adjusted depth to water data.
   e. A potentiometric contour map showing static water levels, the calculated gradient, and the estimated direction of groundwater flow.

B. The groundwater monitoring wells must be sampled or monitored for the following parameters semi-annually:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Water Level</td>
<td>Feet (ft.)</td>
</tr>
<tr>
<td>Total Depth</td>
<td>ft.</td>
</tr>
<tr>
<td>Benzene</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 8260B/8021 or equivalent</em></td>
<td>mg/L</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbons (TPH)</td>
<td></td>
</tr>
<tr>
<td><em>Method TX1005</em></td>
<td></td>
</tr>
</tbody>
</table>
C. The groundwater quality sampling results required by Permit Condition VII.B. must be filed with Technical Permitting as part of the Semi-Annual Report required by Permit Condition I.Q. The laboratory analytical reports and the corresponding chain of custody shall be provided for all chemical analyses performed.

VIII. STORMWATER MANAGEMENT

A. The facility must be designed and constructed to contain contact stormwater and prevent run-on of non-contact stormwater.

B. A perimeter berm that surrounds the entire facility must be constructed and maintained to provide a physical barrier to prevent potential run-on and/or runoff of stormwater. The perimeter berm must be constructed to a minimum height of at least two feet above grade with a slope no steeper than a one to three (vertical to horizontal) ratio and meet the berm integrity requirements specified in Permit Conditions IV.H. and IV.I.

C. Contact stormwater shall be prevented from migrating outside of the waste processing and storage areas. The facility shall be sloped to facilitate the separation of contact and non-contact stormwater.

D. Non-contact stormwater shall be prevented from entering the waste processing and storage areas. Areas outside of the bermed waste processing and storage areas shall be sloped to prevent non-contact stormwater from contacting waste.

E. Contact stormwater must be collected within 72 hours of accessibility and utilized within the waste treatment process or disposed of in an authorized manner.

F. This permit does not authorize the discharge of any oil and gas waste or any stormwater that has come into contact with oil and gas waste.
G. A discharge permit from the EPA may be required for non-contact stormwater discharges. If required, a permit from the EPA must be in place prior to commencement of discharge operations.

IX. SITE CLOSURE

A. Technical Permitting and the appropriate District Office must be notified in writing at least 45 days prior to commencement of closure activities. The permittee must submit a closure plan to Technical Permitting in Austin to be reviewed and approved prior to beginning closure activities.

B. At facility closure, all waste, chemicals, and waste related materials must be processed and removed from the facility for authorized reuse or disposed of in an authorized manner.

C. Waste processing equipment, aboveground storage tanks, and any other equipment not associated with the maintenance of the facility must be removed.

D. All concrete liners and tank pads must be cleaned and demolished, and the rubble must be disposed of in an authorized manner.

E. All affected or contaminated soils must be removed and disposed of in an authorized manner.

F. Provisions must be taken to prevent erosion both during and following closure.

G. The entire facility must be backfilled as necessary, contoured to original grade and re-vegetated as appropriate for the geographic region.

H. A soil sampling plan must be submitted to Technical Permitting to characterize the scope of contamination (if any) at the facility. A minimum of two representative soil samples per acre must be taken to characterize the scope of any contamination at the facilities. Samples must be taken from around all the collecting pits and waste management units. Those samples must be analyzed for the following parameters and shall not exceed the specified limitations:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (EPA Method 9045C or equivalent)</td>
<td>6 to 10 standard units</td>
</tr>
<tr>
<td>Electrical Conductivity (EC) (^1)</td>
<td>(\leq 4.0) mmhos/cm</td>
</tr>
<tr>
<td>TPH (EPA Method 5035A/TX1005)</td>
<td>(\leq 10,000) mg/kg or 1 %</td>
</tr>
<tr>
<td></td>
<td>by weight</td>
</tr>
<tr>
<td>Total Benzene, Toluene, Ethylbenzene,</td>
<td>(\leq 30) mg/kg</td>
</tr>
<tr>
<td>Xylenes (BTEX) (EPA Method 5035A/8021/8260B)</td>
<td></td>
</tr>
<tr>
<td>Metals (Total) (EPA Method 6010/6020/7471A)</td>
<td>(\leq 10) mg/kg</td>
</tr>
<tr>
<td>Arsenic</td>
<td>(\leq 10,000) mg/kg</td>
</tr>
<tr>
<td>Barium</td>
<td></td>
</tr>
<tr>
<td>PARAMETER</td>
<td>LIMITATION</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Cadmium</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Chromium</td>
<td>≤ 100 mg/kg</td>
</tr>
<tr>
<td>Lead</td>
<td>≤ 200 mg/kg</td>
</tr>
<tr>
<td>Mercury</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Selenium</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Silver</td>
<td>≤ 200 mg/kg</td>
</tr>
</tbody>
</table>

1 Louisiana Department of Natural Resources Lab Procedures for Extraction and Analysis of Exploration and Production Waste or equivalent

I. A summary of the soil sampling required by Permit Conditions IX.H. must include:
   1. A map drawn to scale with coordinates of the sampling locations
   2. A table indicating the results of the Parameters sampled
   3. The date of sampling
   4. The approximate depth of the sample below land surface
   5. Copies of the laboratory analytical reports and chain of custody

J. Any soil sample that exceeds the parameter limitations specified in Permit Condition IX.H. is considered waste and must be disposed of at an authorized disposal facility.

K. Once the results of the closure activities have been approved by the RRC, all non-disposal pits must be dewatered, emptied, demolished, backfilled, and compacted within 120 days of final cessation of use of each pit. Final surface grading of the pits and the storage tank battery areas must be accomplished in such a manner that rainfall will not collect at these former locations. Upon final closure, the appropriate District Office and Technical Permitting in Austin shall be notified in writing.

X. POST-CLOSURE CARE AND MONITORING

A. In accordance with 16 TAC § 3.78 the permittee shall maintain financial security in the amount of $81,288.00 after the facility has stopped receiving waste, met all specified closure requirements and all the disposal pits have been properly capped for the post-closure monitoring period in accordance with this permit. Technical Permitting reserves the right to revise this amount, as necessary. Prior to closure an updated post-closure cost estimate must be submitted to Technical Permitting in Austin, and any additional financial security must be filed with and approved by the RRC prior to the operating financial security referenced in Permit Condition I.B. will be released.

B. The site will be monitored for a period of no less than five years after final closure of the facility.

C. Any areas showing signs of erosion, slumping and instability must be contoured, backfilled, and reseeded as necessary.

D. Once the facility is no longer in operation, the stormwater must be handled in a manner that is consistent with the information submitted with the application.
E. All groundwater monitoring wells must remain operational, and monitoring requirements must continue as specified in Permit Condition VII.B. until written approval from Technical Permitting in Austin is granted for plugging and abandoning the wells.

F. A summary of the results of the post-closure monitoring activity must be submitted to Technical Permitting in Austin as part of a Quarterly Report required in Permit Condition I.Q.

G. The permittee must request in writing permission to cease post-closure monitoring. Post-closure monitoring requirements may be extended by Technical Permitting based on the monitoring results.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON **March 13, 2019**

[Signature]
Tiffany Humberson, Manager
Environmental Permits & Support
Technical Permitting

Notes:

1. Changed the groundwater sampling frequency from quarterly to semi-annual.
2. Changed the duration of the permit to five years.
3. Updated the permit language to be consistent with current permitting standards.

Attachments: Permit Appendices A, B, and C.

cc: RRC – District 08, Midland
Permit Appendix A

Site Diagram
(Figure 1)

Phase Separation Area
(Figure 2)

Water Polishing and Oil Storage Area
(Figure 3)

Treated Product Storage
(Figure 4)
NOTES:
1. All soil berms to be 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density and slope no greater than 3H:1V.
2. Berm weight to contain 100% of largest tank plus the volume of a 25 year/24 hour rainfall event.
Permit Appendix B

Truck Unloading Concrete Pad
(Figure 5)
PLAN VIEW

To Phase Separation

450-Gallon Sump

SIDE VIEW

GROUND LEVEL

SLOPE

SLOPE

CONCRETE TO BE 6" THICK 4000 P-S-I. WITH #5 REBAR 12" O-C. BOTH WAYS
WITH A 40 MIL LINER UNDERNEATH CONCRETE.
CONCRETE WILL SLOPE 2" AND 12" SLOPE
450 GA SUMP TANK AT THE END OF OFFLOAD

Note: Truck unloading area to be surrounded by a 10" high concrete berm on the east and west sides and have
concrete curbs on the north and south side to prevent stormwater run-on and run-off.
Permit Appendix C

Groundwater Elevation 2-24-2016
(Exhibit 2)