RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

PERMIT TO RECEIVE, STORE, HANDLE, TREAT, RECYCLE AND DISPOSE OF CERTAIN NONHAZARDOUS OIL AND GAS WASTES

RENEWED & AMENDED
Permit Nos. STF-065, P011904, P011905, P011906, P011907, P011908, P011909, P011910, P012400, P012401, P012431, P012432, P012433, P012434, P012435, P012436, P012437, P012438, P012663, P012664, P012665, P012666, P012667, P012668, P012669, P012754
Supersedes the permit issued on December 16, 2016

R360 RED BLUFF, LLC
3 WATERWAY SQUARE PL SUITE 110
THE WOODLANDS, TX 77380

Based on information contained in the initial application received on September 13, 2012; the amendment request received on January 20, 2016; the amendment request received April 12, 2018, and subsequent information received to date, you are hereby authorized to receive, store, handle, treat, recycle and dispose of certain non-hazardous oil and gas wastes as described in the permit application and as specified below at the following facility:

Commercial Stationary Treatment and Disposal Facility
R360 Red Bluff, LLC, Red Bluff Landfill
Latitude and Longitude: 31.978083°, -104.029583°
Screwbean Draw NE 7.5 Minute USGS Quadrangle
Approximately 80.4 Miles Northeast of Van Horn, Texas
Culberson County, Texas
RRC District 08, Midland

NARRATIVE DESCRIPTION OF PROCESS:
Incoming oil and gas waste may be offloaded at one of several areas of the facility depending on the liquid content and composition of the waste. The Collecting/Receiving Pits (P012667 & P012668) will be used to offload vacuum truck wastes. The wastes are separated into liquids and solids by various mechanical processes. The separated liquids will be conveyed to the Collecting Pit (P012669) for evaporation of water or to the tank battery for disposal by injection at the on-site RRC-permitted Class II injection well.
The thermal desorption unit will heat the waste material to separate the solids and recover liquid hydrocarbons from oil-based drilling fluids and cuttings. The thermal desorption unit will produce a Recycled Base Oil to be used as feedstock for drilling muds. Separated solids are treated and staged in the Collecting/Stockpile Pit (P012754) where samples are collected for analytical testing and the recycled material that meets specified criteria must sold as reusable product (treated aggregate) or road base material.

The Collecting/Staging Pits (P012436, P012437, P012438, P012663, P012664, P012665 & P012666) are used for receiving and separating wet wastes. The liquid component will be collected and conveyed to the injection well or transferred to one of the collecting pits. The accumulated solid wastes and incoming solid waste will be transferred or offloaded in one of the Collecting/Treatment Pits (P012431, P012432, P012433, P012434 & P012435) for further processing and once the material passes a paint filter test it will be placed in the active on-site Disposal Pit (P011904, P011905, P011906, P011907, P011908, P011909, & P011910).

Authority is granted by the Railroad Commission of Texas (RRC) to receive, store, handle, treat, recycle and dispose of oil and gas wastes in accordance with Texas Administrative Code (TAC) Title 16, Part 1, Chapter 3.8 (Statewide Rule 8), and Chapter 4, Subchapter B and is subject to the following minimum conditions:

I. GENERAL PERMIT CONDITIONS

A. This effective date of this permit is July 12, 2019 and expires on July 11, 2023.

B. In accordance with 16 TAC § 3.78 the permittee must maintain financial security in the amount of $15,038,243.00, until this facility, including all associated pits, has been closed in accordance with this permit and all of the referenced equipment and storage tanks have been emptied and removed. 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 this modification.

C. A restrictive covenant detailing on-site storage of fill material to be used for pit and facility closure must be approved by the RRC and proof of its deed recordation in the Culberson County Real Property Records must be provided to the RRC.

D. A copy of the site-specific Spill 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 upon request.

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

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

G. The permittee may not receive, store, handle, treat, recycle or dispose of 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 (TCEQ).

H. Technical Permitting in Austin and the Midland District Office must be notified in writing upon final completion of construction of the facility. The permittee may not begin receiving, storing, handling, treating, recycling, or disposing of oil and gas waste until the
appropriate District Office has performed its inspection of the completed facility and has verified that the facility is constructed in accordance with the application and this permit.

I. Technical Permitting in Austin and the Midland District Office must be notified in writing when construction of the facility is initiated and with the completion of each disposal pit.

J. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the facility must be in accordance with the information represented in the permit application and attachments thereto. When construction of the facility is completed, submit the “as-built” plans to be incorporated as part of the permit application.

K. 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 Professional Engineer registered in the state of Texas 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.

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

M. Any soil additives, stabilizers, bioaccelerators or treatment chemicals must be approved by Technical Permitting prior to use at the facility.

N. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or compound proposed to be used in the treatment of waste at the facility. Use of the compound is contingent on RRC approval. All chemicals must be stored according to the manufacturer’s recommendations.

O. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (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 licensed Professional Engineer.

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

Q. This permit may be considered for administrative renewal upon review by the RRC. Any application for renewal should be received at least 60 days prior to the permit expiration date.

R. This permit is not transferable without the consent of the RRC. Any request for transfer of this permit must be filed with Technical Permitting at least 60 days before the permittee wishes the transfer to take place.

S. The permittee must submit a Quarterly Report in accordance with the following:

2. The quarterly reporting periods must 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 reports must 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.

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

5. Data tables presenting volumes or amounts of waste received, treated, and disposed of must be included.

6. Laboratory analytical reports, the corresponding chain of custody, and other relevant data must be included.

T. Failure to comply with any provision of this permit or any determination by the RRC that this permit is being abused will be cause for enforcement action including, but not limiting to, modification, suspension, or termination of this permit in accordance with Statewide Rule 8(d)(5)(E).

II. AUTHORIZED WASTES

A. Only oil and gas wastes subject to the jurisdiction of the RRC that are exempt and non-hazardous according to Subtitle C (Resource Conservation and Recovery Act (RCRA)) may be received, stored, treated, processed, or disposed of at this facility. You may receive, store, handle, treat, recycle and dispose of only the following oil and gas wastes:

1. Water based drilling fluids and associated cuttings
2. Oil based drilling fluids and associated cuttings
3. Contaminated soils from crude oil and condensate spills, pipeline and saltwater spills
4. Hydraulic fracturing flow-back water and associated solids including sand
5. Formation sands and other solids from saltwater storage tanks or vessels and saltwater pits
6. Tank bottoms from gas plants, crude oil Reclamation Plants, crude oil separation facilities, and crude oil production facilities, which do not exceed 7% in oil content as determined by Standard American Petroleum Institute (API) "shake out" test.
7. Waste solids resulting from crude oil reclamation
8. Solid waste from gas dehydration and sweetening (spent filters and filter media, molecular sieves, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber sludge)
9. Iron sulfide, which has been fully oxidized
10. Absorbent pads from crude oil spills
11. Liners from reserve pits and washout pits
12. Spent well completion, treatment and stimulation fluids
13. Inert wastes as defined by Statewide Rule 8 such as uncontaminated concrete or wood.

14. Other non-hazardous wastes generated in association with the exploration, development and production of oil and gas resources subject to the jurisdiction of the RRC.

B. No other waste may be disposed of at the facility without written authorization from the RRC.

C. RCRA non-exempt wastes under the jurisdiction of the RRC may only be accepted and processed at the facility if analytical results demonstrate that the waste is characteristically nonhazardous. See Permit Condition III.D.

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 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 biphenyl (PCB)-containing material regulated under the Toxic Substances Control Act may be accepted for processing at the facility.

F. 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 four grab samples from each 50 cubic yards of waste material from each job (e.g., from each well, pit, spill location).

B. Each load of incoming waste, other than water-based drilling fluids and associated cuttings, or oil-based drilling fluid 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 Regulations 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.

C. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities and Reclamation Plants must be analyzed for either of the parameters listed below and may not exceed the limitation for the respective parameters:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Organic Halides (TOX)</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>(EPA Method 9020B)</td>
<td></td>
</tr>
</tbody>
</table>

or
Extractable Organic Halides (EOX) (EPA Method 9023) 100 mg/kg

Special authorization for receipt of waste with an EOX/TOX >100 parts per million may be considered. Authority must be obtained from Technical Permitting in Austin prior to acceptance of the waste.

D. Prior to receipt at the site, representative samples of incoming RCRA non-exempt waste or 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</td>
<td>2.0 – 12.5 standard units (s.u.)</td>
</tr>
<tr>
<td>Reactivity (EPA method 1110A/ 9040C or equivalent)</td>
<td>No materials exhibiting the characteristics of reactivity as defined by RCRA</td>
</tr>
<tr>
<td>Ignitability (EPA method 1010A/ 1020B/ 1030A)</td>
<td>Flash point &lt; 60° C or 140°F</td>
</tr>
<tr>
<td>Toxicity (EPA Method 1311)</td>
<td>No materials exhibiting the characteristics of toxicity as defined by RCRA</td>
</tr>
<tr>
<td>Metals: Toxic Characteristic Leaching Procedure (TCLP) (EPA Method 1311/6010/6020/7147A)</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>&lt; 5.0 mg/L</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>
<tr>
<td>Benzene (EPA Method 1311/ 8260B/ 8021)</td>
<td>&lt; 0.5 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 API well number(s); or latitude and longitude coordinates in decimal degrees if waste was not generated on a lease; and
   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 Detailed description of the type of waste including any analysis required by III.B., III.C., and III.D. above

F. The permittee must maintain the following records on each load of waste removed from 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

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.S. and must include the following information:
   1. A table summarizing all incoming waste, including the following:
      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 the waste was not generated on a lease
      c. County
      d. Name and RRC permit number(s) of the transporter(s)
      e. Description and total volume (specify units) of waste from each job (for which Permit Conditions III.G.1.a, III.G.1.b., and III.G.1.c are the same)
      f. The total volume of each type of waste material received during the quarter
   2. A table summarizing all waste removed from the facility, including the following:
      a. Name and permit number of the disposal facility
      b. Name and RRC permit number(s) of the transporter(s)
      c. Description and total volume (specify units) of waste hauled to the disposal facility
      d. The total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter

   3. Copies of all analyses required by Permit Conditions III.B., III.C., and III.D. above

IV. GENERAL FACILITY DESIGN AND MAINTENANCE REQUIREMENTS

A. The general layout and arrangement of the facility must be consistent with the "Site Layout (Drawing 2)" schematic, received on February 15, 2019, which is attached 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 entire facility must consist of and is defined by the following waste management unit designations:

1. Receiving Area:
   a. Collecting/Receiving Pits (P012667 and P012668)

2. Truck Washout Area
   a. Eight (8) Washout Bays
   b. Trench (P012400) and Sump (P012401)
   c. Two (2) 300-bbl Water Tanks
   d. One (1) 100-bbl Oil Tank
   e. One (1) 500-bbl Gun Barrel

3. Seven (7) Collecting/Staging Pits (P012436, P012437, P012438, P012663, P012664, P012665 & P012666)

4. Five (5) Collecting/Treatment Pits (P012431, P012432, P012433, P012434 and P012435)

5. Roadbase Recycling Area:
   a. Thermal Desorption Unit
   b. Collecting/Stockpile Pit (P012754)

6. Collecting Pit (P012669)

7. Seven (7) Disposal Pits (P011904, P011905, P011906, P011907, P011908, P011909, and P011910)

D. No waste, treated or untreated, may be directly placed on the ground.

E. All storage tanks, 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 or replaced before resuming use of the vessel.

F. Any spill of waste, chemicals, or any other waste related material must be collected and containerized within 24 hours and conveyed 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 that particular compound and these vessels must be maintained in a leak free condition.

H. Dikes or containment structures must be constructed around all waste management units. All earthen dikes surrounding pits and constructed as perimeter berms 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 must maintain a slope no steeper than a one to three (vertical to
horizontal) ratio, unless constructed of concrete or 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 Conditions X.III.

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

J. No oil may be allowed to accumulate on top of the water or wastes stored in the pits. Any oil on top of any waste liquids must be skimmed off and handled in accordance with RRC rules. Any recovered oil must be recorded and filed as 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 oil will be moved.

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.

g. A description of the source(s) of the oil at the facility.

K. Each month an integrity inspection of the entire facility must be performed on all concrete slabs, processing equipment, dikes, firewalls or berms, and aboveground storage tanks for deterioration, leaks and 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.S.

1. The results of the monthly inspection of concrete slabs within the facility for evidence of deterioration, leakage, or lack of structural integrity, 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.

4. The results of the monthly inspections of the erosion structures to control and modulate run-off to surface waters and indicate whether debris has been removed.

L. Any permitted pit or cell not equipped with a leak detection system must be emptied and visually inspected annually for deterioration and leaks. A record of each inspection and photographs of the interior of each pit must be maintained for the life of the pit and must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.S. The Midland District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection. The permittee must maintain a record of when each pit is inspected and the results of the inspection. This record must be maintained by the permittee for the life of the pit.

M. All pits equipped with a leak detection system must be monitored daily, and the highest volume removed from the leak detection system during the seven-day period must be reported. The permittee must maintain a record of when the liner, containment berm, and the leak detection system are inspected and the results of each inspection. Records of leak detection system monitoring must be submitted in table form within the Quarterly Report required in Permit Condition I.S. The physical record must be maintained by the permittee for the life of the pit. The physical record must be filed with the RRC upon request. The record must include:

1. The date of fluid level measuring
2. The fluid level or volume
3. The volume of fluid removed
4. The electrical conductivity
5. The chloride concentration of the fluids removed

N. The fluid removed from the leak detection system will be compared to the appropriate calculated Action Leakage Rate (ALR) for each pit, as noted in Permit Conditions V.D.8, V.E.12, VI.I., and X.M.

O. If the leak detection system indicates a liner system failure or if a crack or other failure is detected during inspection, no waste may be added to the pit. The affected component must be replaced or repaired and inspected by the appropriate RRC District Office before use of the pit is resumed.

P. The liner systems must be inspected whenever evidence of a liner leakage arises. If inspection of the liner reveals cracking, a leak or other loss of integrity, the pit must have all waste immediately removed. No waste may be added to the affected pit until the liner has been replaced or repaired and re-inspected by RRC personnel before resuming use of the pit.
V. COLLECTING/RECEIVING PITS (P012667 & P012668), TRUCK WASHOUT PITS (P012400 & P012401), COLLECTING/STAGING PITS (P012436, P012437, P012438, P012663, P012664, P012665 & P012666), COLLECTING/TREATMENT PITS (P012431, P012432, P012433, P012434 & P012435), AND COLLECTING/STOCKPILE PIT (P012754) CONSTRUCTION AND OPERATION

A. A sign must be posted at each pit identifying each pit permit number in letters and numerals at least three inches in height.

B. Spills within the secondary containment berms must be containerized immediately and contact stormwater must be managed as a waste.

C. COLLECTING/RECEIVING PITS (P012667 & P012668)

1. The general layout and arrangement of the Receiving Area and Collecting/Receiving Pits must be consistent with the “Receiving Area Liquids – Plan View” (Drawing 6) and “Receiving Area Liquids – Cross Sections” (Drawing 6A) schematics received February 15, 2019 which are attached as Permit Appendix B.

2. Use of the pits is limited to the collection of non-hazardous oil and gas wastes as specified in Permit Condition II. No other oil field fluids or oil and gas wastes may be stored or staged in the pits.

3. Each pit must have dimensions no greater than 100 feet by 40 feet by 8 feet deep, with a permitted usable capacity not to exceed 4,275 bbl of waste.

4. The pits must be constructed in accordance with the liner system installation methods included in the application and consist of reinforced concrete at least 12 inches thick. The concrete secondary containment wall that surrounds the pits must be at least one (1) foot in height. The concrete liner must be installed and maintained in accordance with best management and sound engineering practices.

5. At least two feet of freeboard must be maintained between the fluid level in the pits and the top of the pit wall.

6. Solid waste that accumulates at the bottom of the pits must be removed regularly to maintain freeboard.

D. TRUCK WASHOUT PITS (P012400 & P012401)

1. The general layout and arrangement of the Truck Washout Area must be consistent with the “Truck Washout Plan” (Drawing 3), “Truck Washout Cross Sections” (Drawing 4) and “Truck Washout Cross Sections” (Drawing 5) schematics received October 3, 2018, which are attached as Permit Appendix C.

2. The Truck Washout Unloading Area must consist of an above grade structure that will have eight washout bays that are approximately 20 feet wide by 45 feet long. The slab must be constructed of reinforced concrete with a minimum thickness of eight (8) inches. The unloading bays and the entire receiving area must be graded to prevent the run-on of stormwater and the run-off of wastes. The washout bays must slope towards the Washout Trench (P012400) that collects waste that then gravity flows to the Sump Pit (P012401).

3. The pits must be constructed of reinforced concrete at least eight inches thick.

4. Use of the pits is limited to the collection of waste water from the washout of trucks that have hauled non-hazardous oil and gas wastes subject to the jurisdiction of the
RRC and exempt from RCRA, Subtitle C. No other oil field fluids or oil and gas
wastes may be stored or staged in the pit.

5. The dimensions of the Washout Trench pit are approximately 174 feet long by 12
feet wide by 6 feet deep with a usable capacity of 383 bbl. The dimensions of the
Sump Pit (P01201) are approximately 20 feet by 9 feet by 6 feet deep with a usable
capacity of 128 bbl.

6. At least one (1) foot of freeboard must be maintained between the fluid level in the
pits and top of pit wall.

7. The pits must be equipped with a leak detection system consisting of a 60-mil high-
density polyethylene (HDPE) secondary liner underlying the concrete. A drainage
layer consisting of granular fill on top of 6-oz filter fabric must be installed between
the concrete liner and secondary HDPE liner. The liner system must be installed and
maintained in accordance with best management and sound engineering practices.

8. The leak detection system must be monitored as required by Permit Condition IV.M. If
the leak detection system indicates a possible liner system failure, the liner system
must be inspected for deterioration and leaks within five days of the detection of the
failure. The RRC District Office must be notified by phone or email within 24
hours of detection of the failure. No additional waste may be added to the pit
in the event of a failure. After inspection, the identified failed component must be
replaced or repaired and re-inspected by RRC personnel before resuming use of the
pit. A liner system failure is defined as any of the following:

a. A leak rate from the primary liner greater than the calculated ALR of 60 gallons
   per day.

b. Any failure in the leak detection system or any component thereof.

c. Any detected damage to or leakage from the secondary liner.

E. COLLECTING/STAGING PITS (P012436, P012437, P012438, P012663, P012664,
P012665 & P012666)

1. The layout and construction of the Collecting/Staging Pits must be consistent with
the "Site Layout – Phase I" (Drawing 2) schematic in Permit Appendix A, the
"Staging Cell S-1 Plan View and Sections" (Drawing 8), "Staging Cell S-2 Plan View
and Sections" (Drawing 9), "Staging Cell S-3 Plan View and Sections" (Drawing 10),
"Staging Cell S-4 Plan View and Sections" (Drawing 11), "Staging Cell S-5 Plan View
and Sections" (Drawing 12), "Staging Cell S-6 Plan View and Sections" (Drawing 13),
and "Staging Cell S-7 Plan View and Sections" (Drawing 14) schematics received
October 3, 2018, which are attached as Permit Appendix D.

2. The Collecting/Staging Pits must be constructed with a compacted clay liner having a
minimum thickness of three feet, compacted in 6-inch lifts, on the cell floor and the
corresponding sidewalls. The compacted clay liner must have a documented
hydraulic conductivity of 1.0 x 10^-7 cm/sec or less. The liner must be installed in
accordance with sound engineering practices.

3. Each cell will be constructed with an earthen ramp to allow waste delivery vehicles
access into the cell at the high end for unloading.

4. A berm must be constructed around the cell with a minimum height of four feet. The
slope of each berm must not exceed a one to three (vertical to horizontal) ratio. The
staging cell floors will have a grade of at least 1%. 
5. The dimensions of Collecting/Staging Pit S-1 (P012436) are approximately 288 feet long by 83 feet wide by 9 feet deep. The usable capacity must not exceed **21,183 bbl**.

6. The dimensions of Collecting/Staging Pits S-2 (P012437) and S-3 (P012438) are approximately 288 feet long by 106 wide by 9 feet deep each. The usable capacity for each pit must not exceed **29,080 bbl**.

7. The dimensions of Collecting/Staging Pits S-4 (P012663), S-5 (P012664), S-6 (P012665), and S-7 (P012666), are approximately 288 feet long by 83 feet wide by 10 feet deep each. The usable capacity for each pit must not exceed **14,298 bbl**.

8. At least two feet of freeboard must be maintained between the waste level in the pit and the top of the berm.

9. Liquids separated in the pits will be transferred to the collecting pits or to the on-site injection well for disposal.

10. Separated solids must be taken to a collecting/treatment pit for further dewatering or disposed of within the active disposal pit after passing a paint filter test (EPA Method 9095).

11. Each pit must be equipped with a leak detection system on the downslope sump end of the cell. The leak detection system must consist of a 60-mil HDPE secondary liner underlying the compacted clay liner. A drainage layer consisting of granular fill on top of 8-oz filter fabric must be installed between the clay liner and secondary HDPE liner.

12. The leak detection system must be monitored as required by Permit Condition IV.M. If the leak detection system indicates a possible liner system failure, the liner system must be inspected for deterioration and leaks within five days of the detection of the failure. **The RRC District Office must be notified by phone or email within 24 hours of detection of the failure. No additional waste may be added to the Staging Cell in the event of a failure.** After inspection, the identified failed component must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit. A liner system failure is defined as any of the following:

   a. A volume withdrawn from the leak detection system that is greater than an Action Leakage Rate (ALR) of 100 gallons per acre day (GPAD), as specified below:

<table>
<thead>
<tr>
<th>Staging Cell</th>
<th>Total Acres</th>
<th>ALR (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1 - P012436</td>
<td>0.65</td>
<td>65</td>
</tr>
<tr>
<td>S-2 - P012437</td>
<td>0.81</td>
<td>81</td>
</tr>
<tr>
<td>S-3 - P012438</td>
<td>0.81</td>
<td>81</td>
</tr>
<tr>
<td>S-4 - P012663</td>
<td>0.65</td>
<td>65</td>
</tr>
<tr>
<td>S-5 - P012664</td>
<td>0.65</td>
<td>65</td>
</tr>
<tr>
<td>S-6 - P012665</td>
<td>0.65</td>
<td>65</td>
</tr>
<tr>
<td>S-7 - P012666</td>
<td>0.65</td>
<td>65</td>
</tr>
</tbody>
</table>

   b. Any failure in the leak detection and return system or any component thereof.

   c. Any detected damage to or leakage from the secondary liner.
F. COLLECTING/TREATMENT PITS (P012431, P012432, P012433, P012434 & P012435)

1. The layout and construction of the Collecting/Treatment Pits must be consistent with the "Site Layout" (Drawing 2) schematic in Permit Appendix A and the "Treatment Cell 1-5 Plan View" (Drawing 15) and "Treatment Cell 1-5 Cross Sections" (Drawing 16) schematics received October 3, 2018, which are attached as Permit Appendix E.

2. Each pit must be contained within berms above grade and have dimensions of approximately 513 feet long by 179 feet wide.

3. Each pit must be constructed with a compacted clay liner having a minimum thickness of three feet, compacted in 6-inch lifts, on the cell floor and the corresponding sidewalls. The compacted clay liner must have a documented hydraulic conductivity of 1.0 x 10^-7 cm/sec or less. The liner must be installed in accordance with sound engineering practices.

4. A maximum two-foot layer of waste material with a maximum volume of 7,453 cubic yards may be placed in each pit. This waste material will be dried and then removed for disposal or further processing prior to the placement of any additional waste to the pit.

5. Each pit must be equipped with an earthen ramp for access. A berm must be constructed around the cell with a minimum height of four feet. Slope of berm must not exceed a one to three (vertical to horizontal) ratio. The treatment cell floors will have a grade of at least 0.5%.

6. At least two (2) feet of horizontal freeboard must always be maintained between the edge of waste in the treatment cell and the toe of the pit dikes.

7. The waste in the pits must be aerated once a week to promote drying.

8. Wastes may not be applied to a pit during periods of rainfall.

9. Any standing or pooled rainwater, or other liquid in the treatment cell, must be removed within 24 hours and disposed of in an authorized manner.

10. The pit floors must be inspected each time waste is excavated and before new waste is applied and at least once each quarter. The pit floor must be inspected for deterioration and leakage. Any deterioration or leak must be repaired prior to subsequent use of the pit.

G. COLLECTING/STOCKPILE PIT (P012754)

1. The Collecting/Stockpile Pit (P012754) may store treated and partially treated material awaiting test results for use as roadbase or reusable product and must be constructed as specified herewith and arranged as shown on the "Recycled Product Pad Plan View" (Drawing 1) and "Recycled Product Pad Sections" (Drawing 2) schematics received March 21, 2019, which are attached as Permit Appendix F.

2. The dimensions of the pit must be approximately 61 feet long by 71 feet wide by 5 feet deep. The usable capacity must not exceed 1,600 cubic yards.

3. The pit must be sloped to collect fluids at the low point of the pit. Accumulation of free liquids on the pit is not authorized.

4. At least two (2) feet of horizontal freeboard must be maintained between the edge of waste in the pit and the pit walls.
5. A metal wind-fence may be attached along the top of the concrete wall. No waste may be allowed to be stock piled against the metal wind-fence.

6. The material treated for use as roadbase or reusable product (treated aggregate) must be segregated until laboratory results are received and demonstrate that the material meets permit specifications for use as road base or reusable product (treated aggregate).

7. After processing, treated waste for roadbase or reusable product (treated aggregate) must be placed in distinct lots of 800 cubic yards. To maintain adequate segregation of the final treated material until laboratory results are received and demonstrate that the material meets permit specifications for reuse, there must be at least five feet of spacing between recyclable product and partially treated waste or untreated waste. Each 800-cubic yard lot of waste used for Process Control sampling must maintain at least five feet of spacing from other 800-cubic yard lots. Each 800-cubic yard lot of recyclable product must be labeled with a sign identifying its unique lot identification number and corresponding laboratory analysis number. As compliant test data is received, the words "OK FOR USE" will be placed on the appropriate lot number sign for the compliant lot.

8. No waste, roadbase, or reusable product may be stored on the ground outside of the pit.

H. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit must be in accordance with the information represented on the applications (Form H-11’s) and attachments thereto.

VI. COLLECTING PIT (P012669) CONSTRUCTION AND OPERATION

A. The layout and construction of the Collecting Pits must be consistent with the “Site Layout” (Drawing 2) schematic in Permit Appendix A, and with the “Collecting Pit” (Drawing 38), “Collecting Pit Sections” (Drawing 39), and “Disposal Cell & Collecting Pit Details” (Drawing 40) schematics received October 3, 2018, which are attached as Permit Appendix G.

B. A sign must be posted identifying the Collecting Pit P-1 (P012669) by name and permit number using letters and numerals at least three inches in height.

C. The dimensions of Collecting Pit P-1 (P012669) are approximately 855 feet long by 379 feet wide, with a maximum depth of approximately 20 feet from the top of the berms. The usable capacity must not exceed 768,000 bbl.

D. A berm must be constructed around the collection pit. The slope of the berm wall may not exceed a one to three (vertical to horizontal) ratio.

E. At least two feet of freeboard must be maintained between the fluid level of the pit and the top of the berm.

F. The collecting pit must be lined with a HDPE primary liner with a thickness of at least 60 mils and a HDPE secondary liner with a thickness of at least 40 mils. A liner anchor trench must be used to key the liner system into the adjacent berm.

G. The collecting pit must be equipped with a Leak Detection System (LDS), which will consist of a 200-mil geonet flow zone (on the floor) and a 200-mil geocomposite material (on the side slopes) placed between the primary and secondary liners. The collecting pit must be constructed, and the liner and leak detections system must be installed, in
accordance with the application, sound engineering practices and the material manufacturer’s specifications.

H. The floor of the pit must have at least a 1% slope to allow fluids to drain to the leak detection sump.

I. The leak detection system must be monitored as required by Permit Condition IV.M. The RRC District Office must be notified by phone or email within 24 hours of the initial detection of the failure. No additional waste may be added to the pit in the event of a failure. After inspection, the identified failed component must be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit. A liner system failure is defined as any of the following:

1. A volume withdrawn from the leak detection system that is greater than the calculated ALR of 7,590 gallons per day.
2. Any failure in the leak detection and return system or any component thereof.
3. Any detected damage to or leakage from the secondary liner.

J. If the volume withdrawn from the leak detection system exceeds the volume stated in Permit Condition VI.I. for 15 consecutive days or the weekly reported volume exceeds the volume stated in Permit Condition VI.I. at least once a month for three consecutive months, the appropriate District Office and Technical Permitting in Austin must be notified by phone or email within 24 hours of detection of the liner system failure. The operator must immediately initiate the removal of wastes from the pit. When removal of the waste is complete, the operator must notify Technical Permitting in Austin and the appropriate District Office in writing.

K. No oil may be allowed to accumulate on top of the water or wastes stored in the pit. Any oil on top of the liquids must be collected and handled in accordance with RRC rules. A Skim Oil/Condensate Report (Form P-18) must be filed for every month in which skim oil is recovered and then subsequently sold during the operation of this facility.

L. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit must be in accordance with the information represented on the applications (Form H-11) and attachments thereto.

VII. ROADBASE MATERIAL PROCESS AND FINAL DISPOSITION

Oil and gas waste may be recycled for reuse as roadbase, which may be used on oil and gas leases as lease roads, well pads, or on private roads and county roads with authorization from the respective property owners and county commissioners.

A. ROADBASE MATERIAL TRIAL RUN

1. The permittee must demonstrate the ability to successfully process at this facility the first 1,000-cubic yard batch of waste before any additional waste may be received or processed.

2. Technical Permitting and the Midland District Office must be notified in writing at least 48 hours before waste processing begins.

3. Samples of the processed waste must be collected, analyzed, and meet the Parameter Limitations as specified by Permit Condition VII.B.2.
4. One 1,000-cubic yard lot sample composed of a composite of five sub-samples obtained at 200 cubic yard intervals must be collected and analyzed for wetting and drying durability by ASTM Method D 559-96, modified to provide that the samples are compacted and molded from finished processed material. Total weight loss after 12 cycles may not exceed 15% of the initial volume.

5. A written report of the Trial Run must be submitted to Technical Permitting within 60 days of receipt of the analyses specified in Permit Condition VII.B.2. The following information must be included:
   a. A summary of the Trial Run and a narrative of the process
   b. The actual volume of waste material processed
   c. Type of waste and description of the waste
   d. The volume and type of stabilization material used
   e. Copies of all chemical and geotechnical laboratory analytical results and chain of custody as required by Permit Conditions VII.A.4. and VII.B.2.

6. The treated waste may not be applied or utilized as roadbase material and no additional waste may be received or processed until Technical Permitting has verified the results and determined that the waste was successfully processed.

B. PROCESS CONTROL FOR ROADBASE MATERIAL

1. Bench scale tests must be performed as needed to determine optimum mixing design. If the composition mixture changes from the material produced during the Trial Run the material must be analyzed for wetting and drying durability by ASTM 559-96, modified to provide samples that are compacted and molded from finished processed material. Total weight loss after 12 cycles may not exceed 15%.

2. A sample of the final treated material must be tested for the parameters listed below for every 800 cubic yards of material produced. Each 800-cubic yard lot sample must be composed of a composite of four sub-samples obtained at 200 cubic yard intervals. Each 800-cubic yard lot sample must be analyzed for the following parameters and must not exceed the specified limitation:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Compressive Strength by ASTM D698, ASTM D1557, TxDOT approved method, or equivalent</td>
<td>35 psi</td>
</tr>
<tr>
<td>Louisiana Department of Natural Resources (LDNR) Leachate Test Method, 1:4 Solid</td>
<td></td>
</tr>
<tr>
<td>Total Chlorides ¹</td>
<td>≤ 700.00 mg/L</td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbons (TPH) ¹</td>
<td>≤ 100.00 mg/L</td>
</tr>
</tbody>
</table>

¹ LDNR Lab Procedures for Extraction and Analysis of Exploration & Production Waste or equivalent
3. Any material not meeting the parameter limitations must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required parameter limitations or must be disposed of in an authorized manner.

C. FINAL DISPOSITION OF ROADBASE MATERIAL

1. Processed material that meets the parameter limitations in Permit Condition VII.B.2. is suitable for use as roadbase material.

2. The following records must be kept at the facility for a period of three years from the date of removal for each load of processed roadbase material:
   a. The date the processed material is removed from the facility
   b. The volume of processed material removed from the facility
   c. The identification of the recipient
   d. Documentation that the landowner of the receiving location has approved the use of the processed material on the landowner's property if used on private property or documentation of approval for use by a county commissioner for the specified county if used on county roads
   e. Documentation that the processed material has met the specifications required by the final user
   f. Documentation indicating the approximate location where processed material is used (latitude and longitude or county road number)

3. Copies of the laboratory analytical results and chain of custody, demonstrating that the processed material has met the limitations specified in Permit Conditions VII.B.1 and VII.B.2. must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.S.
4. The oil and gas waste may not be accumulated speculatively. Beginning with the effective date of the permit, and annually thereafter, the amount of waste that is recycled must equal at least 75% by volume of the amount of waste accumulated on the anniversary of the effective date of the permit. The operator must keep records showing the volume of waste on hand as of the effective date of the permit, the amount of waste received during each year from the effective date of the permit, and the amount of waste remaining on each anniversary of the effective date of the permit. A copy of these records must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.S. and corresponding to the anniversary date of the permit.

VIII. REUSABLE PRODUCT (TREATED AGGREGATE) PROCESS AND FINAL DISPOSITION

Oil and gas waste may be recycled for beneficial reuse as treated aggregate, including but not limited to non-load bearing fill material for construction, bulking agents for cement, cover and capping material for landfill components, and berms exclusively at commercial or industrial sites.

A. REUSABLE PRODUCT TRIAL RUN

1. The applicant must perform a Trial Run by demonstrating the ability to successfully process 1,000 cubic yards of solid oil and gas waste at the facility prior to receiving or processing any additional waste.

2. The permittee must notify the appropriate District Office for the county in which the facility is located prior to commencement of the Trial Run.

3. Technical Permitting and the appropriate District Office must be notified in writing at least 72 hours before waste processing begins.

4. Samples must be collected from every 200 cubic yards of the first 1,000-cubic yard batch and must be analyzed for moisture content by ASTM D 2216, modified to provide that samples meet the requirements for partially treated waste. The total moisture content must be less than 50 percent by weight or zero free moisture.

5. Samples of the partially treated waste must be collected and analyzed and must not exceed the parameters specified in Permit Condition VIII.B.1.

6. A written report of the Trial Run must be submitted to Technical Permitting and to the appropriate District Office within 60 days of receipt of the analytical requirement in Statewide Rule §4.258 of this title. The following information must be included:
   a. A summary of the Trial Run and a narrative of the process
   b. The actual volume of waste material processed
   c. Type of waste and description of the waste material
   d. The volume and type of stabilization material used
   e. Copies of all chemical and geotechnical laboratory analytical reports and chain of custody for the parameters specified in Permit Conditions VIII.A.4. and VIII.B.1.

7. No additional waste may be received or processed while the results of the Trial Run are being reviewed by Technical Permitting. Any reusable product produced during the Trial Run may not be used until Technical Permitting has received the Trial Run
report and provides written confirmation that the Trial Run requirement has been fulfilled.

B. PROCESS CONTROL FOR REUSABLE PRODUCT

1. A sample of the partially treated waste must be tested for the parameters listed below for the 1,000-cubic yard Trial Run and every 800-cubic yard batch of treated waste produced thereafter. Each 800-cubic yard sample must be composed of a composite of four sub-samples obtained at 200 cubic yard intervals. The 1,000-cubic yard Trial Run will consist of 5 composite samples. Each sample must be analyzed for the following Parameters depending on the specific end product:

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture Content</td>
<td>&lt; 50% (by weight) or zero free moisture</td>
</tr>
<tr>
<td>ASTM D 2216 or equivalent</td>
<td></td>
</tr>
<tr>
<td>pH ¹</td>
<td>6.5 – 9 s.u.</td>
</tr>
<tr>
<td>EPA Method 9045 or equivalent</td>
<td></td>
</tr>
<tr>
<td>Electrical Conductivity (EC) ²</td>
<td>≤ 8.0 mmhos/cm</td>
</tr>
<tr>
<td>Sodium Adsorption Ratio (SAR) ²</td>
<td>≤ 12</td>
</tr>
<tr>
<td>Exchangeable Sodium Percentage (ESP) ²</td>
<td>≤ 15</td>
</tr>
<tr>
<td>Total Barium ² - Reuse at Commercial Facility</td>
<td>≤ 100,000 ppm</td>
</tr>
<tr>
<td>LDNR Leachate Test Method, 1:4 Solid ²</td>
<td></td>
</tr>
<tr>
<td>TPH ²</td>
<td>≤ 10.0 mg/L</td>
</tr>
<tr>
<td>Chlorides ²</td>
<td>≤ 500 mg/L</td>
</tr>
<tr>
<td>Leachable Metals ² ²</td>
<td></td>
</tr>
<tr>
<td>EPA Method SW-846/6010/6020/7000/7470/7471</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Barium</td>
<td>≤ 10.0 mg/L</td>
</tr>
<tr>
<td>Cadmium</td>
<td>≤ 0.1 mg/L</td>
</tr>
<tr>
<td>Chromium</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Lead</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Mercury</td>
<td>≤ 0.02 mg/L</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Nickel</td>
<td>≤ 0.5 mg/L</td>
</tr>
</tbody>
</table>

¹ In addition to the criteria set forth, E&P waste, when chemically treated (fixated) shall be acceptable as reusable material with a pH range of 6.5 to 12 s.u. and an electrical conductivity of up to 50 mmhos/cm, provided such reusable material passes leachate testing requirements for chlorides and metals.

² LDNR Lab Procedures for Extraction and Analysis of E&P Waste or equivalent
<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>≤ 0.1 mg/L</td>
</tr>
<tr>
<td>Silver</td>
<td>≤ 0.5 mg/L</td>
</tr>
<tr>
<td>Zinc</td>
<td>≤ 5.0 mg/L</td>
</tr>
<tr>
<td>TCLP Benzene</td>
<td>≤ 0.50 mg/L</td>
</tr>
<tr>
<td><em>EPA Method SW-846/1311/8021/8260B</em></td>
<td></td>
</tr>
</tbody>
</table>

2. Any treated waste not meeting the limitations specified in Permit Condition VIII.B.1. must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required parameter limitations or must be disposed of in an authorized manner.

3. Copies of the laboratory analytical reports and chain of custody demonstrating that the treated waste has met the criteria defined in Permit Condition VIII.B.1. must be submitted to Technical Permitting as part of the Quarterly Report required in Permit Condition I.S.

C. FINAL DISPOSITION OF REUSABLE PRODUCT

Prior to reuse and distribution of the reusable product at commercial or industrial sites, the applicant must fulfill the following requirements:

1. Complete the Trial Run as specified in Permit Condition VIII.A.

2. Demonstrate that the reusable product has met the parameter limits specified in Permit Condition VIII.B.1.

3. Once the permit to produce reusable product has been granted, submit a separate application for a Letter of Authority (LOA) to Technical Permitting requesting the application of the reusable product for each specific project/location. The following information must be submitted within the LOA application to reuse the treated material:

   a. Site specific requirements including a map drawn to scale showing the general location of the final disposition of the reusable product with latitude and longitude coordinates for the site location

   b. A description of the purpose for the reusable product (e.g. concrete bulking agent, landfill cover or capping material, treated aggregate, closure or backfill material, berm material, or other construction fill material, etc.)

   c. Estimated volume of reusable product to be used at the location

   d. The time frame needed for the production and application of reusable product volume

   e. Landowner approval for the management and final disposition of the reusable product on-site. If the reusable product is to be used as a concrete bulking agent at a concrete production plant, then written approval from a company officer from the receiving facility or corporation is sufficient.
IX. DISPOSAL PIT CONSTRUCTION (P011904, P011905, P011906, P011907, P011908, P011909, P011910)

A. The general layout and arrangement of the Disposal Pits must be consistent with the "Disposal Cell & Collecting Pit Details" (Drawing 40) schematic in Permit Appendix G and with the "Disposal Cell 2 Cross Sections" (Drawing 19), "Disposal Cells D-1 & D-2 Top of Liner" (Drawing 20), "Disposal Cells D-1 & D-2 Interim Cover" (Drawing 21), "Disposal Cells D-3 & D-4" (Drawing 24), "Disposal Cells D-3 & D-4 & D-5" (Drawing 27), "Disposal Cells D-3 & D-4 & D-5 Interim Cover" (Drawing 30), "Disposal Cells Interim Cover D-3, D-4, D-5, & D-6" (Drawing 33), and "Disposal Cells Final Cover" (Drawing 36) schematics received February 15, 2019, which are attached as Permit Appendix H.

B. Technical Permitting in Austin and the Midland District Office must be notified in accordance with Permit Condition I.I. the initiation and final completion of construction of each Disposal Pit Phase. The permittee may not begin using the pit until the Midland District Office has completed an inspection of the pit and provided verification that the pit is constructed in accordance with the application and this permit.

C. A sign must be posted identifying the Disposal Pit by name and permit number using letters and numerals at least three inches in height.

D. Earthen berms must be constructed to a minimum height of three feet surrounding each disposal cell to prevent surface flow storm water run-on and runoff and must meet the slope, compaction and hydraulic conductivity criteria specified in Permit Condition IV.H.

E. The dimensions and the total capacities for each Disposal Pit must not exceed the following:

<table>
<thead>
<tr>
<th>Pit No.</th>
<th>Total Volume (cu yd)</th>
<th>Length (ft)</th>
<th>Width (ft)</th>
<th>Height Above Grade (ft)</th>
<th>Depth Below Grade (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1 - P011904</td>
<td>1,247,901</td>
<td>1,456</td>
<td>648</td>
<td>185</td>
<td>13</td>
</tr>
<tr>
<td>D-2 - P011905</td>
<td>754,523</td>
<td>1,456</td>
<td>648</td>
<td>119</td>
<td>13</td>
</tr>
<tr>
<td>D-3 - P011906</td>
<td>956,140</td>
<td>1,626</td>
<td>419</td>
<td>120</td>
<td>14</td>
</tr>
<tr>
<td>D-4 - P011907</td>
<td>2,172,637</td>
<td>1,626</td>
<td>453</td>
<td>184</td>
<td>15</td>
</tr>
<tr>
<td>D-5 - P011908</td>
<td>3,116,169</td>
<td>1,628</td>
<td>447</td>
<td>186</td>
<td>15</td>
</tr>
<tr>
<td>D-6 - P011909</td>
<td>3,201,133</td>
<td>1,630</td>
<td>445</td>
<td>189</td>
<td>18</td>
</tr>
<tr>
<td>D-7 - P011910</td>
<td>6,695,230</td>
<td>1,631</td>
<td>650</td>
<td>191</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18,143,735</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F. LINER, LEAK DETECTION AND LEACHATE COLLECTION SYSTEMS FOR DISPOSAL PITS

1. The pits must be constructed in accordance with the liner system installation methods included in the application and consist of (from bottom to top), six (6) inches of a compacted subgrade, a 60-mil HDPE studded secondary liner, a 60-mil HDPE primary liner, and 12 inches of a protective soil layer that is not composed of waste.
2. The floor of each disposal pit must have at least a 1% slope to allow fluids to drain to the leachate collection sump and the leak detection sump located at the low end of each pit.

3. Each disposal cell must be equipped with a Leachate Collection System (LCS), including a HDPE drainage net with a thickness of at least 200 mils that covers the entire pit area on top of the primary liner, to collect any rainwater that falls within the pit footprint and leachate that percolates through the waste contained therein.

4. Each disposal pit must be equipped with a Leak Detection System (LDS), which will consist of a 200-mil HDPE geonet flow zone (on the floor) and a 200-mil geocomposite material (on the side slopes) placed between the primary and secondary liners. The leak detection system must be designed and constructed with sufficient capacity as to be capable of removing fluid amounts greater than the respective calculated Action Leakage Rates in Permit Condition X.N.

5. The liner systems, the LCS and the LDS must be consistent with the "DISPOSAL CELL & COLLECTING PIT DETAILS" schematic in Permit Appendix G.

6. The liners, the LCS and the LDS must be installed in accordance with the application, the material manufacturer's specifications and sound engineering practices.

7. A liner anchor trench must be used to key the liner system into the adjacent berm for each phase to their respective berms. The liners must be welded together to create a continuous liner system when the next disposal pit is constructed. The tie-ins and anchor trenches must be consistent with the diagrams provided in Permit Appendix G.

8. A permanent liner boundary marker must be installed and maintained on all sides of the Disposal Pit area that clearly identifies the subsurface liner system weld locations at the land surface.

9. The area surrounding the Disposal Pits must be graded such that all surfaces slope away from the pit areas to prevent surface flow storm water from entering the pits.

10. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit must be in accordance with the information represented on the applications (Form H-11's) and attachments thereto.

X. DISPOSAL PIT OPERATION (P011904, P011905, P011906, P011907, P011908, P011909, P011910)

A. Only one Disposal Pit Phase may be considered active and accept oil and gas waste at any time.

B. The permittee must not construct or use any Disposal Pit in a manner that could exceed the financial security required by Permit Condition I.B.

C. All waste must pass a Paint Filter Test (EPA Method 9095) prior to placement in any disposal pit. The waste to be tested must be a representative sample of each load taken to the Disposal Pit. Test results from each Paint Filter Test must be maintained and provided to the RRC upon request.
D. The Permittee must contact the Midland District Office to proceed with construction of each disposal pit in the sequence and may not begin accepting waste until:

1. The Permittee has received approval from the District Office to begin accepting waste in next Disposal Pit in the sequence.

2. Waste is no longer being accepted in the previous Disposal Pit Phase and the interim cover is almost completed.

E. Before the Permittee may begin excavation of the next Disposal Pit Phase in the sequence, the previous Disposal Pit Phase must be filled with waste to almost final grade height, and the exposed side abutting the next pit in the construction sequence must be properly graded and prepared to receive waste. The waste in the previous pit must be properly graded and prepared for the temporary cap, which will consist of at least two (2) feet of compacted clay that meets a hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second or less and has been compacted to 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density, and must be graded to prevent ponding on top of the cover and inhibit infiltration of liquids into the wastes below.

F. The temporary cap must be inspected after each storm event and re-compacted as needed to meet the requirements specified in Permit Condition X.E.

G. After the temporary cap has been constructed it must be inspected every quarter for erosion, slope stability, and thickness of the cover. The results of each inspection must be submitted as part of the Quarterly Report required in Permit Condition I.S. The physical record must be maintained by the permittee for the life of the pit.

H. At least two (2) feet of horizontal freeboard must always be maintained between the edge of waste in the active disposal pit and the top of the pit dikes.

I. Prior to the Disposal Pit Phase accepting waste above grade, the waste collected below grade must be stabilized, compacted and maintained to prevent collapse of the structure, and must not have side slopes steeper than a one-to-three (vertical-to-horizontal) ratio.

J. Once the waste height exceeds 50 feet, the side slopes may not exceed a one-to-four (vertical-to-horizontal) ratio.

K. Once the Disposal Pit Phase begins to accept waste above grade, the pit freeboard (buffer) must be constructed and maintained to contain all contact stormwater that may be generated during a 25-year, 24-hour storm event for Culberson County.

L. No freestanding fluids may accumulate in any Disposal Pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.

M. The leak detection system must be monitored as required by Permit Condition IV.M. Records of leak detection system monitoring must be submitted in table form within the Quarterly Report required in Permit Condition I.S. The physical record must be maintained by the permittee for the life of the pit. The physical record must be filed with the RRC upon request.

N. If the leak detection system indicates a possible liner system failure, the liner system must be inspected for deterioration and leaks within five days of the detection of the failure. The RRC District Office must be notified by phone or email within 24 hours of detection of the failure. No additional waste may be added to the Disposal Pit Phase in the event of a failure. After inspection, the identified failed component must
be replaced or repaired and re-inspected by RRC personnel before resuming use of the pit. A liner system failure is defined as any of the following:

1. A volume withdrawn from the leak detection system that is greater than an Action Leakage Rate (ALR) of 100 gallons per acre day (GPAD), as specified below:

<table>
<thead>
<tr>
<th>Pit No.</th>
<th>Total Acres</th>
<th>ALR (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1 - P011904</td>
<td>19.6</td>
<td>1,960</td>
</tr>
<tr>
<td>D-2 - P011905</td>
<td>12.6</td>
<td>1,260</td>
</tr>
<tr>
<td>D-3 - P011906</td>
<td>15.7</td>
<td>1,570</td>
</tr>
<tr>
<td>D-4 - P011907</td>
<td>16.8</td>
<td>1,680</td>
</tr>
<tr>
<td>D-5 - P011908</td>
<td>16.7</td>
<td>1,670</td>
</tr>
<tr>
<td>D-6 - P011909</td>
<td>16.5</td>
<td>1,650</td>
</tr>
<tr>
<td>D-7 - P011910</td>
<td>18.9</td>
<td>1,890</td>
</tr>
</tbody>
</table>

2. Any failure in the leak detection and return system or any component thereof.

3. Any detected damage to or leakage from the secondary liner.

O. Leachate collected in the leachate collection sump must be removed through the leachate removal pipe and disposed of in an authorized manner.

P. Unless otherwise required by conditions of this permit, construction, use, and maintenance of each pit must be in accordance with the information represented on the applications (Form H-11’s) and attachments thereto.

Q. The RRC reserves the right to require necessary design modifications prior to capping and closure to ensure that the waste is stabilized above grade. Prior to receiving waste at 50-foot intervals above grade, a stabilization geotextile may be required to provide increased tensile strength to stabilize the compacted waste.

R. The permittee must notify the Midland District Office and Technical Permitting in Austin each time the waste height exceeds the 50-foot interval.

XI. DISPOSAL PIT CLOSURE AND CAPPING (P011904, P011905, P011906, P011907, P011908, P011909, P011910)

A. Once a disposal cell has achieved its capacity, the cell will be covered with a cap as specified in the application and closed in accordance with construction details shown in the "Disposal Cell 2 Cross Sections" (Drawing 19) and "Disposal Cells Final Cover" (Drawing 36) schematics included in Permit Appendix H.

B. Once all the Disposal Pit Phases have reached the permitted capacity:

1. Waste material in the Disposal Pit must be stabilized, so that the structure will not fail, slump or erode. The RRC reserves the right to require necessary design modifications to increase tensile strength prior to capping and closure to ensure that the waste is stabilized above grade.

2. Waste material in the Disposal Pit must be graded, stabilized and compacted so that waste will support the pit cover and rainwater will not collect on top of the pits.
3. A final cap must be installed that consists (from bottom to top) of a two-foot temporary cap, overlain by a textured 40-mil HDPE liner, overlain by a HDPE geocomposite drainage layer at least 200-mil in thickness, overlain by 18 inches of soil cover seeded with appropriate vegetation for the geologic region.

4. Unless otherwise required by conditions of this permit, final closure of the Disposal Pit Phases must be consistent with the details as presented in the application. Any modification to the closure or final capping for the Disposal Pit must be submitted and approved by Technical Permitting prior to the modification occurring.

XII. GROUNDWATER MONITORING

A. At least four (4) groundwater monitor wells must be installed, maintained and routinely sampled at the facility. The monitor wells are to be installed at the locations designated on the "Site Layout" (Drawing 2) schematic attached as Permit Appendix A. Prior to the construction of Disposal Pit D-4 (P011907), MW-4 must be plugged and abandoned and replacement well MW-4R must be installed outside of the disposal pit. The following provisions must be met:

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

2. The wells must be completed to penetrate 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.

4. Provisions 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 watertight expansion cap.

6. The following information must be submitted after the new wells are completed:
   a. A soil boring lithological log for the well, with the soils described using the Unified Soil Classification System (USCS) (equivalent to ASTM D 2487 and ASTM D 2488). The log must also include the method of drilling, well specifications, slotted screen type and slot size, riser and screen length, bentonite and cement intervals, total depth, and the depth of the first encountered groundwater or saturated soils. The sand pack size should be compatible with the well screen slot size, as well as the local lithology.

   b. A well installation diagram detailing construction specifications for each well

   c. A survey elevation for each well head reference point (top of casing) relative to a real or arbitrary on-site benchmark relative to mean sea level

   d. A table with recorded depth to water, top of casing, and adjusted depth to water data

   e. An updated Site Plan and a potentiometric surface map showing static water levels, the calculated gradient, and the estimated direction of groundwater flow
7. All monitor wells must be monitored and/or sampled for the following parameters after installation, and quarterly thereafter:

<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>pH</td>
<td>s.u.</td>
</tr>
<tr>
<td><em>EPA Method 150.1, 150.2, or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 2540C or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbon (TPH)</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>Method TX1005</em></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 602 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Soluble Cations:</td>
<td></td>
</tr>
<tr>
<td>Calcium, Magnesium, Potassium, and Sodium</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 6010/6020 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Soluble Anions:</td>
<td></td>
</tr>
<tr>
<td>Bromides, Carbonates, Chlorides, Nitrates,</td>
<td>mg/L</td>
</tr>
<tr>
<td>and Sulfates</td>
<td><em>EPA Method 300/9056 or equivalent</em></td>
</tr>
</tbody>
</table>

8. Copies of the monitoring-well gauging and sampling event data must be filed quarterly with Technical Permitting and the Midland District Office as part of the **Quarterly Report** required in Permit Condition I.S. The laboratory analytical reports and the corresponding chain of custody must be provided for all chemical analyses performed.

**XIII. STORMWATER MANAGEMENT**

A. The facility must be designed and constructed to capture, contain, and isolate contact stormwater, and prevent run-on of non-contact stormwater. A continuous perimeter berm must be installed as shown on the "Site Layout" (Drawing 2) schematic attached in **Permit Appendix A**. The perimeter berm must be constructed to a minimum height of at least two feet above grade and maintain a slope no steeper than a one to three (vertical to horizontal) ratio on both sides.

B. Berms and other containment structures must be constructed around all waste management units and storage areas. These structures must be used to divert non-contact stormwater around the waste management areas and isolate and contain contact stormwater within the waste management units.

C. All storage tanks containing fluid waste or fuel must be contained within dikes. Secondary containment of 120% total storage capacity is recommended, however a firewall with capacity that will capture 100% of the volume of the largest tank plus the volume of a 25-year, 24-hour rainfall event for Culberson County is acceptable.
D. Non-contact storm water contained within the perimeter berm must be controlled and diverted around the various waste receiving, collecting, and disposal areas and directed to the Stormwater Retention Pond.

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

F. Contact stormwater must be collected within 24 hours of accessibility and disposed of in an authorized manner.

G. If contact stormwater enters a non-contact stormwater retention pond, the permittee must submit a written report detailing the event to Technical Permitting in Austin. Contact stormwater must be removed and disposed of in an authorized manner.

H. A discharge permit from the EPA may be required for non-contact stormwater discharges. If required, the permit from the EPA must be in place prior to commencement of discharge operations.

XIV. FACILITY CLOSURE

A. Technical Permitting and the appropriate District Office must be notified in writing at least 45 days prior to commencement of all facility closure activities. Technical Permitting must be notified if any changes will be made to the closure plan.

B. Unless otherwise specified by this permit, all waste, chemicals, and waste-related materials must be processed and removed from the facility and disposed of in an authorized manner.

C. All processing equipment, above-ground storage tanks, and any other non-maintenance related equipment must be cleaned and removed from the facility. The contents of all tanks, vessels, pits, or other containers must be disposed of in an authorized manner.

D. All concrete pads must be steam cleaned and demolished and the rubble and wash water disposed of in an authorized manner.

E. Affected soils underlying the concrete pads must be removed and disposed of in an authorized manner.

F. Closure of the Collecting/Receiving Pits (P012667 & P012668), the Truck Washout Pits (P012400 & P012401), the Collecting/Staging Pits (P012436, P012437, P012438, P012663, P012664, P012665 & P012666), the Collecting/Treatment Pits (P012431, P012432, P012433, P012434 & P012435), the Collecting/Stockpile Pit (P012754), and the Collecting Pit (P012669) must proceed as follows:
   1. The pits must be dewatered, emptied, demolished, backfilled, compacted, and properly closed. All wastes, including clay or synthetic liners, must be removed and disposed of in an authorized manner.
   2. The concrete areas, pits, concrete pads, washout bays and access roads must be cleaned and demolished, and the concrete rubble and wash-water must be disposed of in an authorized manner. All visually contaminated soils must be excavated and removed. The contaminated soil must be disposed of in an authorized manner.
   3. Once waste removal is completed, a soil sampling plan must be submitted to Technical Permitting to characterize the scope of contamination (if any) at the facility. After the removal of wastes, composite soil samples must be taken comprised of a
minimum of four representative soil samples per former pit location, and five representative soil samples per acre. Samples must be taken from around and underneath the Receiving Area Collecting/Receiving Pits, Truck Washout Pits, Collecting Pits, Collecting/Staging Pits, Collecting/Treatment Pits, and the Roadbase Processing and Collecting/Stockpile Pit areas.

4. Soil samples must be analyzed for the parameters listed in Permit Condition XV.I., and the specified limitations must not be exceeded.

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

G. Soil samples 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>pH. EPA Method 9045C</td>
<td>6 to 10 standard units</td>
</tr>
<tr>
<td>Electrical Conductivity (EC)</td>
<td>≤ 4.0 mmhos/cm</td>
</tr>
<tr>
<td>Louisiana Dept. of Natural Resources Lab Procedures for Analysis of Exploration &amp; Production Waste or equivalent</td>
<td></td>
</tr>
<tr>
<td>Total Petroleum Hydrocarbons (TPH). Method 5035A / TX1005</td>
<td>≤ 10,000 mg/kg or 1% by weight</td>
</tr>
<tr>
<td>Total Benzene, Toluene, Ethylbenzene, Xylenes (BTEX). EPA Method 5035A / 8021/8260B</td>
<td>≤ 30 mg/kg</td>
</tr>
<tr>
<td>Metals (Total) EPA Method 6010/6020/7471A</td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>≤ 10 mg/kg</td>
</tr>
<tr>
<td>Barium</td>
<td>≤ 10,000 mg/kg</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>

H. A summary of the soil sampling 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

I. 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 must be notified in writing.

**XV. POST-CLOSURE CARE AND MONITORING**

A. In accordance with 16 TAC § 3.78 the permittee must maintain financial security in the amount of **$15,261,821.00** 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 must be monitored for a period of no less than five years after closure of the facility and the disposal pits.

C. Any areas showing signs of deterioration, erosion, or failure must be contoured, backfilled, repaired or reseeded.

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. The LDS and the LCS must be maintained and monitored quarterly. Any leachate detected must be collected and disposed of in an authorized manner.

F. Post-closure care must include the quarterly inspections of the entire facility by a registered Professional Engineer currently licensed in the state of Texas to identify signs of deterioration, erosion, or failure.

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

H. 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** **July 12, 2019**

[Signature]

Tiffany Humberson, Manager
Environmental Permits & Support
Technical Permitting

Attachments: Appendix A through H

**Notes:** This permit differs from the previous permit amendment issued on December 16, 2016:

1. Increased required financial security from $2,449,090.00 to $15,038,243.00.
2. Expanded facility boundaries.
3. Changed layout of Disposal Pits from eight separate pits into seven connected pits. Increased total capacity from 905,792 cubic yards to 18,143,735 cubic yards. Increased maximum height of disposal pits.
4. Canceled former Disposal Pit 8 (P011911), which is not used in the new facility design.
5. Reduced size of Collecting/Staging Pit S-1 (P012436).
6. For the Washout Pits, leak detection system monitoring will be required instead of an annual inspection.
7. Updated language to clarify which waste records must be submitted as part of the Quarterly Report.
8. Added recycling for roadbase material and reusable product (treated aggregate).
9. Added thermal desorption unit for recycling of oil-based drilling muds.
10. Added Collecting/Stockpile Pit (P012754).
11. Added two Collecting/Receiving pits (P012667 and P012668).
12. Added four additional Collecting/Staging Pits (P012663, P012664, P012665 and P012666).
13. Added Collecting Pit P-1 (P012669).
15. Permit expiration date renewed.
16. Other minor changes were made for formatting or consistency with standard permit language.
APPENDIX A

Site Layout (Drawing 2)
APPENDIX B

Receiving Area Liquids – Plan View (Drawing 6)
Receiving Area Liquids – Cross Sections (Drawing 6A)
APPENDIX C

Truck Washout Plan (Drawing 3)
Truck Washout Cross Sections (Drawing 4)
Truck Washout Cross Sections (Drawing 5)
NOTES:
1. EXISTING SITE TOPOGRAPHY AND FEATURES BASED ON GROUND SURVEY PERFORMED BY WEAVER 900S CONSULTANTS, JULY 24 AND 25, 2014.
2. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW. IT IS NOT TO BE USED FOR BIDDING OR CONSTRUCTION PURPOSES.
APPENDIX D

Staging Cell S-1 Plan View and Sections (Drawing 8)
Staging Cell S-2 Plan View and Sections (Drawing 9)
Staging Cell S-3 Plan View and Sections (Drawing 10)
Staging Cell S-4 Plan View and Sections (Drawing 11)
Staging Cell S-5 Plan View and Sections (Drawing 12)
Staging Cell S-6 Plan View and Sections (Drawing 13)
Staging Cell S-7 Plan View and Sections (Drawing 14)
NOTES:
1. EXISTING SITE TOPOGRAPHY AND FEATURES BASED ON GROUND SURVEY PERFORMED BY WEISS BOSS CONSULTANTS, JUNE 24 AND 25, 2014.
2. THE CAPACITY OF STAGING CELL 3 WITH 2' OF FREEBOARD IS 29,080 CUB.
3. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW. IT IS NOT TO BE USED FOR BIDDING OR CONSTRUCTION PURPOSES.
4. LEAK DETECTION NOT SHOWN TO SCALE FOR QUANTITY PURPOSES.
5. HOPE SHALL EXTEND 1' ON ALL SIDES OUTSIDE THE LIMITS OF THE LEAK DETECTION/LINER.
6. STAGING CELL S-3 IS ALREADY CONSTRUCTED.
APPENDIX E

Treatment Cell 1-5 Plan View (Drawing 15)
Treatment Cell 1-5 Cross Sections (Drawing 16)
APPENDIX F

Recycled Product Pad Plan View (Drawing 1)
Recycled Product Pad Sections (Drawing 2)
APPENDIX G

Collecting Pit (Drawing 38)
Collecting Pit Sections (Drawing 39)
Disposal Cell & Collecting Pit Details (Drawing 40)
APPENDIX H

Disposal Cell 2 Cross Sections (Drawing 19)
Disposal Cells D-1 & D-2 Top of Liner (Drawing 20)
Disposal Cells D-1 & D-2 Interim Cover (Drawing 21)
Disposal Cells D-3 & D-4 (Drawing 24)
Disposal Cells D-3 & D-4 & D-5 (Drawing 27)
Disposal Cells D-3 & D-4 & D-5  Interim Cover (Drawing 30)
Disposal Cells Interim Cover D-3, D-4, D-5, & D-6 (Drawing 33)
Disposal Cells Final Cover (Drawing 36)
NOTES:
1. NOTING SITE TOPOGRAPHY AND FEATURES BASED ON SURVEY PERFORMED BY BEHEMOTH CONSULTANTS, JULY 24 AND 25, 2019.
2. THIS DOCUMENT IS FOR REVIEW PURPOSES ONLY.
3. CONTACT CHAIN OF WATER COLLECTION AREA TO CAPTURE ANY RUNOFF WATER AND DIVERT IT.
4. TEMPORARY STORMWATER DIVERSION DITCH IS TO DISPERSE STORMWATER FROM THE UNGRADED AREA TO THE NON-CONTACT STORMWATER COLLECTION DITCHES AND PREVENT IT FROM ENTERING THE CONTROLLED CELL AREA.
5. ALL STORMWATER THAT FALLS WITHIN THE CELL TO BE CONTAINED AND MANAGED INSIDE OF THE CELL LIMITS, FINAL CAPTIVE OCCURS.
6. PRELIMINARY COVER TO BE INSTALLED ON THE SHOWN SLOPES OF D-3, D-4, AND D-5 IN CONJUNCTION WITH THE CONSTRUCTION OF D-6.

FEB 15 2019
O & G
AUSTIN, TX

RECEIVED
RRC OF TEXAS

JOHN C. BREST
11/19/99