RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
PERMIT TO RECEIVE, STORE, TREAT AND DISPOSE OF CERTAIN
NON-HAZARDOUS OIL AND GAS WASTES

RENEWED/AMENDED Permit No. STF-029,
Associated with Pit Permit Nos. P011653A, P011653B,
P011653C, P012531, P012495, and P012496
Supersedes Permit issued June 19, 2015

CHARLES HOLSTON, INC
4500 NE EVANGELINE THRUWAY
CARENCRO LA 70520

Based on information contained in the original application dated December 28, 2010, the
renewal/amendment request received February 5, 2016, and subsequent information received to
date, you are hereby authorized to receive, store, handle, and treat certain nonhazardous oil and gas
wastes subject to the jurisdiction of the Railroad Commission of Texas (RRC) as specified below at
the following facility:

E.P.I.C. - Shelby County Commercial STF Facility
Wesley Hill Survey, A-279
Latitude and Longitude: 31.7939°, -94.1525°
Shelby County, Texas
RRC District 06, Kilgore

Incoming waste will be offloaded into one of the three Collecting Pits (Permit Nos. P011653A,
P011653B, or P011653C) depending on the liquid content and composition of the waste.
Collecting Pits P011653A and P011653B will receive wastes with a high liquid content delivered
in vacuum trucks or frac tanks, while Collecting Pit (Permit No. P011653C) will receive oil-
based solid wastes. Separated fluids from the Collecting Pits will be transferred to settling tanks
to be reused as wash water or stored for future disposal. Collecting Pit (Permit No. P011653C)
will be equipped with a pump which will transfer the oil based solids to the calciner, where the
solids are thermally dehydrated for removal of water and diesel fraction hydrocarbons. Vapors
from the calciner are condensed and transferred to storage tanks where they are separated into
water and hydrocarbon phases. The recovered water will be reused as process (rinse/wash) water,
and any excess fluids will be transported to a RRC permitted off-site Class II injection well for
disposal. The recovered diesel will be recycled or marketed for use as fuel.

Solids exiting the calciner will be deposited into the Dry Solids Storage Pad/Pit (P012531) then
will be mixed with the dewatered solids within Collecting Pits (P011653A or P011653B) to
create a recyclable product. The mixed product will be sampled for the parameters listed under Permit Condition VI.G.2.a. (Reusable Product) and then stored in designated Product Storage Pad/Pits (P012495 and P012496) until analytical test results have determined the final reuse and disposition location for each batch. Waste solids generated during the separation process or mixed product that does not meet the limitations specified in the permit must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required parameter limitations, or must be disposed of at an offsite RRC permitted disposal facility.

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

I. GENERAL PERMIT CONDITIONS

A. The authority granted by this permit is effective December 5, 2016 and will expire on December 4, 2021.

B. In accordance with 16 TAC §3.78, the permittee shall maintain financial security in the amount of \$323,706 until the 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 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.

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

E. 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 (TCEQ).

F. 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.

G. 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 RRC if: the OSSF waste is not commingled with any other oil and gas waste; the system is designed by a Professional Engineer (P.E.) licensed in the state of Texas or a sewage system installer licensed in the state of Texas; and the construction, operation, and maintenance of the OSSF complies with applicable local, county, and state requirements.
H. Unless otherwise specified by this permit, construction and operation of the facility must be as represented in the original application and subsequent information received to date by Technical Permitting in Austin.

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

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

K. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical proposed to be used in the treatment of waste at the facility. Use of the compound is contingent upon RRC approval.

L. 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 the analytical method as specified in 40 CFR, Part 136. All geotechnical testing is to be performed using tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas licensed P.E.

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

N. A copy of a 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 for review and inspection upon request.

O. The facility’s storm water management plan shall be maintained on-site and made available upon request of the RRC.

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

Q. This permit is nontransferable without the consent of the RRC. Any request for permit transfer should be filed with Technical Permitting in Austin.

R. The permittee shall submit a Quarterly Report according to the following:

1. The report shall contain applicable information as required in Permit Conditions III.F., IV.M., V.L., VI.E.9., VI.G.2.c., VI.J., VII.C.and IX.J.

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 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.

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

5. Data tables presenting volumes or amounts of treated waste shall be included.

6. Laboratory analytical results and the corresponding chain of custody as specified in Permit Condition III.B. shall be included.

S. 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, assessing an administrative penalty, and modification, suspension, or termination of this permit.

II. AUTHORIZED WASTES

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

1. Water-based drilling fluids and associated cuttings and solids; and

2. Oil-based drilling fluids and associated cuttings and solids.

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

C. This permit does not authorize the active reclamation of crude oil from oil and gas waste. A request for authorization under 16 TAC, Part 1, §3.57 (Statewide Rule 57) must be submitted to and approved by Technical Permitting in Austin prior to any reclamation activities at the referenced facility.

D. No oil and gas Naturally Occurring Radioactive Material (NORM) waste as defined in 16 TAC, Part 1, §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 biphenyls (PCB) material regulated under the Toxic Substances Control Act may be accepted for processing at this facility.

F. All waste haulers received at the facility must be 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, other than Total Organic Halides (TOX) or Extractable Organic Halides (EOX) analyses, a representative sample of incoming waste is defined as a composite sample composed of one grab sample from each 50 cubic yards, or less, of waste material from each job (e.g., from each well, pit, or spill location).

B. 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 limit for the respective parameters:

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

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

C. 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 Part 1, §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. Any load with a reading of 50 microreontgens 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, and 150 picocuries per gram of any other radionuclide.

D. 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:
   i. Generator name;
   ii. 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; and
iii. County.

2. Name and RRC permit number of the transporter;
3. Volume of waste material (specify units); and
4. Detailed description of the type of waste, including any analysis required by Permit Conditions III.B. and III.C. above.

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

1. Date waste and/or diesel is removed and hauled to a disposal facility or sold;
2. Name and RRC permit number of the transporter;
3. Type of waste (basic sediment, water, water-based mud, etc.);
4. Volume (specify units) of each shipment of waste and/or diesel hauled to a disposal facility or sold; and
5. Name and RRC permit number of the facility to which the waste was hauled to for disposal or name of the buyer.

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

1. All records required by Permit Conditions III.B., III.C., III.D., and III.E. above, as well as a summary of waste receipts;
2. The total volume of each type of waste material received during the specific quarter; and
3. Total volume of each type of waste that leaves the facility for disposal or final disposition during the quarter.

IV. GENERAL SITE CONSTRUCTION AND MAINTENANCE REQUIREMENTS

A. The general layout and arrangement of the facility shall be consistent with the “Plan Detail” (Figure 2a) received June 20, 2016, which is attached to and incorporated into this permit as Permit Appendix A.

B. The facility shall consist of the following waste management units:

1. One 2,400-bbl drilling fluid Collecting Pit (P011653A);
2. One 2,400-bbl drilling fluid Collecting Pit (P011653B);
3. One 1,200-bbl oil-based cuttings and solids Collecting Pit (P011653C);
4. One 500-bbl diesel condensation tank;
5. One 400-bbl saltwater/diesel condensation tank;
6. One 750-gallon diesel condensing tank;
7. Four 400-bbl diesel storage tanks;
8. One 400-bbl saltwater storage tank;
9. One 400-bbl diesel holding tank;
10. Two 620-bbl fresh water settling tanks;
11. Two 400-bbl freshwater tanks;
12. One 450-cubic yard Dry Solids Storage Pad/Pit (P012531); and
13. Two Finished Product Storage Pad/Pits (P012495 and P012496).

C. All pits and/or buried tanks must be permitted in accordance with Statewide Rule 8.

D. All untreated waste shall be contained in steel tanks or in permitted pits. All pits and tanks shall be maintained in a leak-free condition.

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

F. Berms or containment structures must be constructed around all waste management units and must be compacted or constructed of material that meets 95% Standard Proctor (ASTM D698) or 90-92% Modified Proctor (ASTM D1557) density. Each berm shall 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 storm water management requirements specified in Permit Condition VIII.

G. All above ground storage tanks shall be surrounded by a secondary containment firewall and be located within the covered processing area.

H. The perimeter of the property shall be enclosed with a security fence suitable to keep out unauthorized access to the extent where terrain and/or vegetation prohibit vehicular or livestock access to the facility.

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

J. Spills contained in secondary containment firewalls surrounding the storage areas must be immediately removed and processed through the treatment process or disposed of in an authorized manner.

K. Contact storm water must be contained within the waste management units. Any accumulated contact storm water must be removed within 72 hours and disposed of in an authorized manner.
L. No oil may be allowed to accumulate on top of the water or wastes stored in the pits. 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:

   i. The time period for which oil movement authority is requested;

   ii. The name of the applicant requesting to move the oil;

   iii. Volume (barrels) of oil to be moved;

   iv. Name and location of the facility which the oil will be moved to;

   v. Name, address, telephone, and fax number of facility buying the oil to be moved;

   vi. Contact person, T-1 permit number, and P-5 Operator Number of the oil buyer; and

   vii. 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, firewalls, berms, and aboveground storage tanks for deterioration, leaks, and spills. Records of each inspection must be kept on-site and submitted as part of the Quarterly Report required by Permit Condition I.R.

N. The permittee must maintain the following records for a period of three (3) years from the date of the inspection required by Permit Condition IV.M.:

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 COLLECTING PITS (PIT PERMIT NOS.: P011653A, P011653B, AND P011653C)

A. The general layout and arrangement of the Collecting Pits P011653A, P011653B and P011653C shall be consistent with the “CONCRETE PIT LAYOUT PLAN VIEW” (Sheet 1) and “CONCRETE PIT LAYOUT CROSS SECTIONC” (Sheet 2, three separate figures) diagrams received February 3, 2011, which are attached and incorporated into this permit as Permit Appendix B.

B. Use of the Collecting Pits is limited to the collection of oil and gas wastes subject to the jurisdiction of the RRC that are non-hazardous or exempt from the RCRA, Subtitle C as specified in Permit Condition II.A. No other oil field fluids or oil and gas wastes may be received or stored in the pit.

C. A sign must be posted at each Collecting Pit that displays the pit permit number in numerals and letters at least one inch in height. All replacement signs must display numerals and letters at least three inches in height.

D. COLLECTING PIT PERMIT NOS. P011653A AND P011653B

1. Use of the Collecting Pits P011653A and P011653B is limited to the storage of drilling fluids or mixed waste (oil based cuttings, drilling fluids, or calcined solids) prior to the receipt of analytical results for the mixed waste and placement in Finished Product Storage Pad/Pits (P012495 and P012496). No other oil and gas waste may be stored in the pits.

2. The collecting Pits may be used either as a receiving pit for incoming waste with a high liquid content or as a mixing pit. The functions of Collecting Pit P011653A and Collecting Pit P011653B will alternate; when P011653A is being used to receive waste, P011653B will be used to mix dehydrated solids from the calciner with oil based solids from Collecting Pit P011653C. Alternatively, when P011653A is used as a mixing pit, P011653B will be used to receive incoming waste.

3. Each pit must be 58 feet long by 47 feet wide and 9 feet 3 inches below grade with concrete walls that are 4 feet in height. The usable capacity of each pit must not exceed 2,400 barrels or 500 cubic yards.

E. COLLECTING PIT PERMIT NO. P011653C

1. Use of this Collecting Pit P011653C is limited to the storage of oil based cuttings and solids prior to the thermal treatment. No other oil and gas waste may be stored in this pit.
2. The pit must be 30 feet long by 47 feet wide and 9 feet 3 inches below grade with concrete walls that are 4 feet in height. The usable pit capacity must not exceed 1,200 barrels or 250 cubic yards.

F. At least two feet of freeboard must be maintained between the waste level in each of the pits and the top of the pits.

G. The pit bottoms shall be constructed of a concrete liner at least 10 inches thick. The pit walls shall be constructed of concrete at least 12 inches thick to a height of at least four feet.

H. The pit must be constructed and the liners installed in accordance with the material manufacturer's specifications and best management practices.

I. The land surface surrounding the pits must be graded such that all surfaces slope away from the pits to prevent surface flow storm water from entering the pit.

J. Each pit must be emptied and visually inspected annually for deterioration and leaks. A record of these inspections and photographs of the interior of the pit must be maintained for the life of the pit and made available upon request of the RRC. The Kilgore District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection.

K. If a crack or liner failure is detected during inspection, no waste shall be added to the pit. The affected component must be replaced or repaired and re-inspected by the Kilgore District Office before use of the pit is resumed.

L. 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 each pit. Results of all inspections performed during a specific quarter shall be submitted to Technical Permitting in Austin and to the Kilgore District Office as part of the Quarterly Report required by Permit Condition I.R.

M. This permit does not authorize discharge of waste from the pits to the surface or surface water.

N. Upon final cessation of the use of the pits, the site must be closed in accordance with Permit Condition IX. Any request to modify the closure plan must be filed with Technical Permitting. Technical Permitting and the Kilgore District Office shall be notified in writing at least 45 days prior to commencement of closure activities.

VI. CONSTRUCTION AND OPERATION OF THE PROCESSING AREA: DRY SOLIDS STORAGE PAD/PIT (PERMIT NO. P012531) AND FINISHED PRODUCT STORAGE PAD/PITS (PERMIT NOS. P012495 AND P012496)

A. The general layout of the Processing Area shall be consistent with the "CROSS SECTION LOCATIONS" (Figure 2b), "PRODUCT STORAGE PIT CROSS SECTIONS (Figure 2c) and "DRIED SOLIDS STORAGE PIT CROSS SECTIONS" (Figure 2d) schematics received via email on December 1, 2016, which are attached to and incorporated as part of this permit as Permit Appendix C.
B. All solid waste treatment processing equipment shall be positioned within the Processing Area under a metal roof.

C. Secondary containment consisting of 120% total storage capacity is recommended; however, a minimum capacity that will capture 100% capacity of the largest tank plus a 25-year, 24-hour rainfall event in Shelby County is acceptable.

D. Appropriate measures shall be taken to control dust at all times.

E. CONSTRUCTION AND OPERATION OF THE DRY SOLIDS STORAGE PAD/PIT PERMIT NO. P012531

1. Use of the Dry Solids Storage Pad/Pit (P012531) is limited to the collection of partially processed solid waste from the calciner. No other oil and gas wastes may be stored in the pit.

2. A sign must be posted at the pit that displays the pit permit number in numerals and letters at least three inches in height.

3. The pad/pit must be 25 feet long by 45 feet wide with above grade walls (sheet metal) that are 12 feet in height and surrounded by a dust curtain. The pit must be lined with reinforced concrete with a minimum thickness of 12 inches overlying a 40-mil geosynthetic secondary liner.

4. The usable capacity must not exceed 450 cubic yards.

5. The pit must be constructed and the liners installed in accordance with the material manufacturer's specifications and best management practices.

6. The land surface surrounding the pits must be graded such that all surfaces slope away from the pits to prevent surface flow storm water from entering the pit.

7. The pit must be emptied and visually inspected annually for deterioration and leaks. A record of these inspections and photographs of the interior of the pit must be maintained for the life of the pit and made available upon request of the RRC. The Kilgore District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection.

8. If a crack or liner failure is detected during inspection, no waste shall be added to the pit. The affected component must be replaced or repaired and re-inspected by the Kilgore District Office before use of the pit is resumed.

9. 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 each pit. Results of all inspections performed during a specific quarter shall be submitted to Technical Permitting in Austin and to the Kilgore District Office as part of the Quarterly Report required by Permit Condition I.R.

10. This permit does not authorize discharge of waste from the pit to the surface or surface water.
Upon final cessation of the use of the pit, the site must be closed in accordance with Permit Condition IX. Any request to modify the closure plan must be filed with Technical Permitting. Technical Permitting and the Kilgore District Office shall be notified in writing at least 45 days prior to commencement of closure activities.

F. CONSTRUCTION AND OPERATION OF THE FINISHED PRODUCT STORAGE PAD/PIT PERMIT NOS. P012495 AND P012496

1. Solid waste recovered from Collecting Pit P011653C shall be processed through the calciner and temporarily stored in the Dry Solids Storage Pad/Pit (P012531). The processed solids will then be mixed with solids in either Collecting Pit P011653A or P011653B to create a material for use as Reusable Product. The mixed solids shall be stored in one of the Finished Product Storage Pad/Pit (P012495 and/or P012496) in separate 800 cubic yard batches and be identified as such with a sign listing the batch number/sample identification number. Each Batch shall remain there until it has met the requirements specified in Permit Condition VI.G. (Reusable Product) for each specific compound.

2. Use of the Final Product Storage Pad/Pits (P012495 and P012496) is limited to the collection of treated waste that has undergone mixing in one of the Collecting Pits (P011653A or P011653B).

3. The Finished Product Storage Pad/Pit (P012495) must be 96 feet long by 60 feet wide and surrounded by a containment structure designed to divert surface flow. These structures must be used to divert non-contact storm water around the Pad/Pit. Refer to Permit Condition VIII.A.
   a. The usable capacity must not exceed 1,100 cubic yards.

4. The Finished Product Storage Pad/Pit (P012496) must be 50 feet long by 25 feet wide and surrounded by a containment structure designed to divert surface flow. These structures must be used to divert non-contact storm water around the Pad/Pit. Refer to Permit Condition VIII.A
   a. The usable capacity must not exceed 400 cubic yards.

5. The liner system for the pits must include a primary liner constructed of reinforced concrete with a minimum thickness of 12 inches that is sealed with an epoxy coating, overlying a 40-mil geosynthetic secondary liner.

6. The pits must be constructed and the liners installed in accordance with the material manufacturer's specifications and best management practices.

7. The treated waste and the final product shall be labeled, stored, and maintained separately inside either of the Finished Product Storage Pad/Pits (P012495 and P012496). Both Finished Product Storage Areas are on a concrete slab, under a fixed roof and bounded by a common concrete firewall on the north, south, and east sides and a bump curb on the west side. The slab is gravity sloped towards Collecting Pits P011653A and P011653B to convey any fluids that may enter under the roof.
8. Partially treated waste and the final product shall be stored for a period no longer than 90 days each to prevent stockpiling from occurring.

9. Records shall be maintained on-site showing the combined tons and/or cubic yards of untreated waste, partially treated waste, and final reusable product stored on-site, and these records shall be made available upon request of the RRC.

G. REUSABLE PRODUCT

1. Reusable Product Trial Run
   a. 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.
   b. The permittee shall notify the Kilgore District Office prior to commencement of the Trial Run.
   c. Technical Permitting in Austin and the Kilgore District Office must be notified in writing at least 72 hours before waste processing begins.
   d. Samples shall be collected from every 200 cubic yards of the first 1,000 cubic yard batch and shall be analyzed for the moisture content by ASTM D2216, modified to provide that samples meet the requirements for partially treated waste. The total moisture content shall be less than 50 percent by weight or zero free moisture.
   e. Samples of the partially treated waste must be collected and analyzed and shall not exceed the parameters specified in Permit Condition VI.G.2.a.
   f. A written report and summary of the Trial Run shall be submitted to Technical Permitting in Austin and to the appropriate District Office within 60 days of receipt of the analytical requirements specified in Permit Condition VI.G.2.a. The following information must also be included:
      i. The actual volume of waste material processed;
      ii. The volume of stabilization material used, and
      iii. Copies of all Laboratory Analytical Reports and Chain of Custody for the parameters specified in Permit Condition VI.G.2.a.
   g. 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 requirements have been fulfilled.

2. Process Control for Reusable Product
   a. A representative sample for each 200 cubic yard lot of the partially treated waste shall be tested for the parameters listed below for the 1,000-cubic yard Trial Run and for every 800 cubic yards of treated waste produced thereafter.
Each 800-cubic yard sample shall be composed of a composite of four subsamples obtained at 200 cubic yard intervals. Each sample shall be analyzed for the following parameters depending on the specific final product:

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<tr>
<th>PARAMETER</th>
<th>LIMITATION</th>
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<tbody>
<tr>
<td>Moisture Content</td>
<td>&lt; 50% (by weight)</td>
</tr>
<tr>
<td><em>ASTM D 2216 or equivalent</em></td>
<td>or zero free moisture</td>
</tr>
<tr>
<td>pH 1 <em>EPA Method 9045 or equivalent</em></td>
<td>6.5 – 9 s.u.</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/Industrial Facilities</td>
<td>100,000 ppm</td>
</tr>
</tbody>
</table>

Louisiana Department of Natural Resources (LDNR) Leachate Test Method, 1:4 Solid 2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Petroleum Hydrocarbons (TPH) 2</td>
<td>10.0 mg/L</td>
</tr>
<tr>
<td>Chlorides 2</td>
<td>500 mg/L</td>
</tr>
</tbody>
</table>

Leachable Metals 2

*EPA Method SW-846 6010/6020/7000/7470/7471*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<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>
<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>
</tbody>
</table>

1 In addition to the criteria set forth, Exploration and Production (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 in Permit Condition VI.G.2.a above.

2 LDNR Lab Procedures for Extraction and Analysis of E&P Waste or equivalent
b. Any treated waste not meeting the limitations specified in Permit Condition VI.G.2.a. 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. Copies of the Laboratory Analytical Reports and Chain of Custody demonstrating that the treated waste has met the criteria defined in Permit Condition VI.G.2.a. must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.R.

3. **Final Disposition of Reusable Product**

   a. Prior to reuse and distribution of the Reusable Product at commercial or industrial sites, the applicant must fulfill the following requirements:

   i. Demonstrate that the Reusable Product has met the parameter limits specified in Permit Condition VI.G.2.a.;

   ii. 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 job/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 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 agents, 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 the Reusable Product; and

   e) Landowner approval for the management and final disposition of 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.

H. Each Final Product Storage Pad/Pits (P012495 and P012496) must be emptied and visually inspected annually for deterioration and leaks. A record of these inspections and photographs of the interior of the pit must be maintained for the life of the pit and made available upon request of the RRC. The Kilgore District Office must be notified by phone or email at least 48 hours before emptying the pit for inspection.
I. If a crack or liner failure is detected during inspection, no waste shall be added to the pit. The affected component must be replaced or repaired and re-inspected by the Kilgore District Office before use of the pit is resumed.

J. 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 each pit. Results of all inspections performed during a specific quarter shall be submitted to Technical Permitting in Austin and to the Kilgore District Office as part of the Quarterly Report required by Permit Condition I.R.

K. This permit does not authorize discharge of waste from the pits to the surface or surface water.

L. The land surface surrounding the pits must be graded such that all surfaces slope away from the pits to prevent surface flow storm water from entering the pit.

M. The Processing Area and Final Product Storage Pad/Pits must be closed in accordance with Permit Condition IX. Any request to modify the closure plan must be filed with Technical Permitting in Austin. Technical Permitting and the Kilgore District Office shall be notified in writing at least 45 days prior to commencement of closure activities.

VII. GROUNDWATER MONITORING

A. Five groundwater monitoring wells must be installed and numbered as represented on the "Monitor Well Location Map" (Figure 3) received April 28, 2016, which is attached to and incorporated into this permit as Permit Appendix D.

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

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

6. The groundwater monitoring 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 monitor 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 the method of drilling, total depth, and
      the top of the first encountered water or saturated soils.
   b. A well installation diagram detailing construction specifications for each
      well, 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 bench mark and mean sea level.
   d. A potentiometric surface map showing static water levels, the estimated
      groundwater flow direction and the calculated groundwater flow gradient.

B. The groundwater monitoring wells must be sampled or monitored 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>Benzene</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 8260B/8021 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>TPH</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>Method TX1005</em></td>
<td></td>
</tr>
<tr>
<td>Total Dissolved Solids (TDS)</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>Standard Method 160.1 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>s.u.</td>
</tr>
<tr>
<td><em>EPA Method 150.1 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Calcium, Magnesium, Potassium, and Sodium</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 6020 or equivalent</em></td>
<td></td>
</tr>
<tr>
<td>Bromides, Carbonates, Chlorides, Nitrates, and Sulfates</td>
<td>mg/L</td>
</tr>
<tr>
<td><em>EPA Method 300 or equivalent</em></td>
<td></td>
</tr>
</tbody>
</table>

C. A Quarterly Report as specified by Permit Condition I.R. must be submitted to
Technical Permitting consisting of all groundwater monitoring well data, results of
the parameters tested in Permit Condition VII.B., corresponding Laboratory
Analytical reports, Chain of Custody, an analytical results summary table, and an
executive summary detailing pertinent data required by Permit Condition VII.
VIII. STORMWATER MANAGEMENT

A. The facility must be designed and constructed to contain and isolate contact storm water and prevent run-on or commingling of non-contact storm water. Berms and other containment structures must be constructed around all waste management units and storage areas. The containment structures required by Permit Conditions VI.F.3. and VI.F.4. must be constructed within 120 days (March 6, 2017) of the issuance of this permit.

B. Any storm water entering the Processing Area must be collected and disposed of in an authorized manner.

C. All permitted pits at the facility shall be covered by a roof or constructed in a manner to reduce rainfall from entering the pits.

D. Contact storm water must be collected within 24 hours of accessibility and disposed of in an authorized manner.

E. A discharge permit from the 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 the discharge of any oil and gas waste or any storm water that has come into contact with oil and gas waste.

IX. CLOSURE OF THE SITE

A. Technical Permitting and the Kilgore District office shall be notified in writing at least 45 days prior to the commencement of closure activity so that the RRC may monitor closure to assure compliance with the permit.

B. All waste from the Processing Area, waste storage areas, and storage tanks must be removed and processed through the facility or disposed of in an authorized manner.

C. All equipment must be dismantled, removed, salvaged, or disposed of in an authorized manner.

D. The facility roof shall be dismantled and disposed of in an authorized manner.

E. All concrete liners, concrete pads, tanks, and storage units must be steam-cleaned and demolished, and the generated rubble and waste water must be disposed of in an authorized manner.

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

G. 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 removal of wastes, composite soil samples must be taken comprising of a minimum of four representative soil samples per acre. Samples must be taken from around and underneath the Collecting Pits, waste storage and processing areas.
H. Soil samples must be analyzed for the parameters listed in Permit Condition IX.I., and those limitations shall not be exceeded. If soil parameter limitations are exceeded, the identified waste must be disposed of in an authorized manner, and the area must be resampled. The process shall be repeated until soil samples meet the specified closure criteria.

I. Soil samples must be collected and analyzed for the following parameters and the specified limitations shall not be exceeded:

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

J. A map drawn to scale showing the sample locations, a soil quality analytical table with the dates the samples were collected, and copies of the Laboratory Analytical Reports and Chain of Custody for the sampling protocol specified in Permit Condition IX.I. must be submitted to Technical Permitting in Austin as part of the Quarterly Report required by Permit Condition I.R.

K. When acceptable constituent levels have been verified in writing by Technical Permitting, all berms must be leveled, all pits must be backfilled with clean fill, and the site restored to natural grade. Topsoil must be contoured and seeded with appropriate vegetation for the geographical region.

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1 LDNR Lab Procedures for Extraction and Analysis of E&P Waste or equivalent
L. All monitoring wells must remain operational, and the monitoring and reporting requirements must continue until written approval from Technical Permitting in Austin is granted for plugging and abandonment of the wells.

M. Final grading of the pits, storage areas, and processing area must be accomplished in such a manner that rainfall will not collect at the former pits, waste processing, and storage area locations after closure.

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

APPROVED AND ISSUED ON December 5, 2016

Grant Chambless, P.G., Manager
Environmental Permits & Support
Technical Permitting

Attachments: Permit Appendices A, B, C and D

cc:
RRC – Kilgore / 06
RRC – Austin, Production Audit
RRC – Austin, EPS Reporting Log

Notes:
This permit differs from the permit issued on June 19, 2015; Items that are italicized were previously amended in the Draft permit referred to hearing on July 14, 2016. Items identified as new have been added or amended after the draft permit was sent back to Technical Permitting after the scheduled hearing. The new items were added to be consistent with standard permitting language or to correct and/or clarify information. Other minor formatting changes were implemented for consistency.

1. Added Permit Condition I.E. concerning waste haulers (moved to II.F.).
2. Added Permit Condition I.F. concerning OSSF (*moved to I.G.*).
3. Added Permit Condition I.I. concerning Safety Data Sheets (*moved to I.K.*).
4. Added permit Condition I.N. requiring a Spill Control Plan for the site (*new*).
5. Added Permit Condition I.O. requiring a storm water management plan for the site (*new*).
6. Revised Permit Condition I.R. from semiannual to quarterly reporting (*same*).
7. Added Permit Condition I.Q. concerning berm construction (*moved to IV.E.*).
8. Added Permit Condition III.B. to include TOX/EOX testing for incoming commercial wastes (*new*).
9. Revised Permit Condition IV.B. listed out the waste management units at the facility (*same*).
10. Added Permit Condition IV.B.11 added the two 400-bbl fresh water tanks to the list (*new*).
11. Revised Permit Condition IV.E. language for leak free vessels.
12. Added Permit Condition IV.J. addressing the removal of contact storm water (*new*).
13. Amended and revised Permit Condition V.A. concerning use of Pit P01253A and P01253B (*moved to V.D.1 and V.D.2*).
14. Added Permit Condition V.C. revised language for secondary containment (*new*).
15. Amended Permit Condition VI.F.4.a decreased the capacity of P012496 (*new*).
16. Revised Permit Condition VIII concerning Processing Area (*moved to VI.*). This section includes Permit Condition VI.E. which added Pad/Pit P012531; and VI.F.2. and VI.F.3. which requires containment structures be constructed around P012495 and P012496; and Permit Condition VI.F.8. which requires additional record keeping (*new*).
17. Removed Roadbase Recycling requirements from Permit Condition VIII (*same*).
18. Added Permit Conditions VIII.C. and VIII.D. adding the Reusable Product (*moved to VI.G.1., VI.G.2, and VI.G.3.*).
19. Added Permit Condition VIII.A. which requires the containment structures for P012495 and P012496 within 120 days of the permit being issued (*new*).
20. Revised Permit Condition XI. concerning closure (*moved to IX.*).
21. Revised Permit Appendices A, B, C and added D (*new*).
Permit Appendix A

“Plan Detail” (Figure 2a)
Permit Appendix B

“CONCRETE PIT LAYOUT PLAN VIEW”
(Sheet 1) and

“CONCRETE PIT LAYOUT CROSS SECTION” (Sheet 2, three separate figures)
Permit Appendix C

“CROSS SECTION LOCATIONS” (Figure 2b),

“PRODUCT STORAGE PIT CROSS SECTIONS” (Figure 2c) and

“DRIED SOLIDS STORAGE PIT CROSS SECTIONS” (Figure 2d)
Permit Appendix D

“Monitor Well Location Map” (Figure 3)