



# RAILROAD COMMISSION OF TEXAS

## OIL AND GAS DIVISION

**Permit No. STF-033**

TERVITA LLC  
ATTN STEPHEN MORRELL  
10613 W SAM HOUSTON PKWY N  
SUITE 300  
HOUSTON TX 77064

Based on information contained in your original application dated March 18, 2011, application to transfer pit permits P011669 and P011670 from CCS Midstream Services LLC to Tervita LLC received July 23, 2012, application to amend the permit to add additional disposal pits received February 1, 2013, and subsequent information received to date, you are hereby authorized to receive, store, handle, treat, and dispose of certain oil and gas wastes as specified below at the following facility:

### **Amended and Transferred**

Los Angeles Treatment-Recovery-Disposal (TRD) Facility, Including Pit Permit Nos. 033 (STF), P011669, P011670, P011953, P011954, and P011955 (Pits), and R9 01-1101 (Reclamation Plant)  
Section 37, Block 1 of the O. S. DeWees Subd. Env., A-2 & Julian Land Co. Survey Subd. Env., A-21  
La Salle County, Texas  
RRC District 01

Generally, liquid waste will be unloaded at one of four Receiving Bays prior to pumping into the facility's Receiving Pit, covered under Pit Permit No. P011669. All liquid waste will be pumped to aboveground tanks and/or process equipment located, in the Process Area, where they will be processed using mechanical and chemical methods to separate liquids and solids. Liquids collected will be transported through piping to either an adjacent authorized SWD well or trucked to another authorized SWD well. Solids will be placed on the Process Solids Slab.

Wet solids will be placed onto the Process Solids Slab for drying. Any liquids will drain into the Receiving Pit. Solids collected from the Process Area will be returned to the Process Solids Slab. Stackable solids will be placed onto an adjacent Drying Pad.

Dry solids will be placed onto the Drying Pad. Solids on the drying pad will be stabilized through evaporation and/or the use of lime, fly ash, cement, or sawdust, if necessary, prior to final disposal in Disposal Pit #1 (P011670), Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), or Disposal Pit #4 (P011955).

Authority is granted to receive, store, handle, treat, and dispose of oil and gas wastes in accordance with Statewide Rule 8 and subject to the following minimum conditions:

## I. GENERAL PERMIT CONDITIONS

- A. **This permit is effective August 30, 2013, and expires March 20, 2017.**
- B. This permit may be considered for administrative renewal upon request and subsequent review by the Commission.
- C. This permit is nontransferable without the consent of the Commission.
- D. No waste may be received at the referenced facility until financial security in the amount of \$1,254,000 for the Los Angeles Treatment-Recovery-Disposal Facility, including the associated Receiving Pit covered under Pit Permit No. P011669 and the Disposal Pit #1 covered under Pit Permit No. P011670, is provided to and approved by the Commission.
- E. Waste may not be accepted in Disposal Pit #3 (P011954) or Disposal Pit #4 (P011955) until the closure cost estimate and financial security for the pits has been provided to and approved by the Commission.
- F. The permittee shall make all records available for review and/or copying during normal business hours upon request of Commission personnel.
- G. All laboratory analyses required by Conditions II.B.2., II.B.3., V.B., and V.I.D., and XII.A.4. shall be performed by an independent laboratory neither owned nor operated by the permittee.
- H. Failure to comply with any provision of this permit will be cause for modification, suspension, or termination of this permit.
- I. The permittee shall submit a Quarterly Report containing the applicable information required in Conditions III.B., V.G., VI.S., VII.T., VIII.T., and IX.T. of this permit.

The reporting periods must cover the periods from January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31 of each year.

The Quarterly Reports shall be submitted to Technical Permitting in Austin and the San Antonio District Office no later than the 31<sup>st</sup> day of the month following each reporting period, or each May 1, July 31, October 31, and January 31, respectively.

## II. INCOMING WASTES

### A. AUTHORIZED WASTES

1. Only non-hazardous wastes subject to the jurisdiction of the Railroad Commission of Texas may be received or processed at this facility. This permit authorizes the receipt and disposal of only the following oil and gas wastes:
  - a. Water-based drilling fluids and associated cuttings;
  - b. Oil-based drilling fluids and associated cuttings;
  - c. Iron sulfide, which has been fully oxidized;
  - d. Contaminated soils from crude oil spills, pipeline, and saltwater spills;

- e. Absorbent pads from crude oil spills;
  - f. Formation sands and other solids from saltwater storage tanks or vessels and saltwater pits;
  - g. Solid waste from gas dehydration and sweetening (spent filters and filter media, molecular sieves, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber sludge);
  - h. Production tank bottoms, which do not exceed 7% in oil content as determined by a Standard API Shakeout. Production tank bottoms exceeding 7% in oil content may be accepted if they first undergo onsite oil reclamation prior to being disposed of in a disposal pit;
  - i. Waste solids resulting from crude oil reclamation; and
  - j. Liners from reserve and washout pits.
- 2. No produced water or free oil may be disposed of in any pit.
  - 3. No iron sulfide waste may be received or disposed of at the facility unless the waste has been fully oxidized.
  - 4. No oil and gas Naturally Occurring Radioactive Material (NORM) waste defined in 16 TAC §4.603 or waste from a facility that is licensed by the Texas State Health Services to process or treat oil and gas NORM waste may be received at this facility.
  - 5. No waste may be received or disposed of at the facility if it is not a waste under the jurisdiction of the Railroad Commission of Texas. No hazardous waste as defined by the U.S. Environmental Protection Agency in 40 CFR Part 261 or industrial waste may be received or disposed of at the facility.

#### B. TESTING REQUIREMENTS FOR INCOMING WASTES

- 1. For the purposes of this permit, a representative sample of incoming waste is defined as a composite sample composed of one grab sample from each 50 cubic yards of waste material from each job (e.g., from each well, pit, or spill location).
- 2. Prior to receipt at the site, representative samples of waste from commercial oil and gas facilities and reclamation plants must be analyzed and may not exceed the limit for the following parameter:

<u>PARAMETER</u>	<u>LIMITATION</u>
TOX (Total Organic Halides)	100 mg/kg

Special authorization for disposal of waste with a TOX > 100 mg/kg may be considered. Authority must be obtained from Technical Permitting in Austin.

- 3. Prior to receipt at the site, representative samples of incoming RCRA non-exempt waste must be analyzed for the following parameters and may not exceed the following levels:

<u>PARAMETER</u>	<u>LIMITATION</u>
Metals	TCLP
Arsenic	< 5.0 mg/l
Barium	< 100.0 mg/l
Cadmium	< 1.0 mg/l
Chromium	< 5.0 mg/l
Lead	< 5.0 mg/l
Mercury	< 0.2 mg/l
Selenium	< 1.0 mg/l
Silver	< 5.0 mg/l
Benzene	< 0.5 mg/l

4. Each load of incoming waste, other than water base drilling fluid and the associated cuttings, or oil base drilling fluid and the associated cuttings, must be scanned for the presence of NORM using a scintillation meter with a sodium iodide detector. Any load with a maximum reading of 50 microroentgens per hour or more 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 radium-226 combined with radium-228 or 150 picoCuries per gram of any other radionuclide.

### III. RECORDKEEPING REQUIREMENTS

- A. The permittee shall 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 or gas ID or API Well Number;
    - c. County;
  2. Name of transporter;
  3. Volume of waste material (specify units); and
  4. A description of the type of waste material, including:
    - a. Fluid-to-Solid ratio; and
    - b. Detailed description of the type of waste including any analysis required by II.B.2 and II.B.3 above.
- B. A report of all records required by Condition III.A. above, as well as a summary of waste receipts, including the volume of each type of material received on a monthly basis shall be submitted to Technical Permitting in Austin and the San Antonio

District Office as part of the Quarterly Report required in Condition I.J. of this permit.

#### IV. GENERAL SITE CONSTRUCTION AND MAINTENANCE REQUIREMENTS

- A. The general layout and arrangement of the facility shall be consistent with the site plan diagrams dated March 18, 2011, and February 1, 2013, which are attached to and incorporated as part of this permit as **Permit Appendix A** and **Permit Appendix B**.
- B. A sign shall be posted at each entrance to the facility, which shall show the permit number in letters and numerals at least one-inch in height.
- C. All chemicals used in the treatment process shall be stored in vessels designed for the safe storage of the particular chemical. These vessels shall be maintained in a leak-free condition.
- D. The Process Area equipment shall be supported on a concrete slab with a thickness of at least 12 inches. A 4-foot high cement masonry unit (CMU) wall shall entirely surround the Process Area equipment.
- E. Spills and/or incidental wash-down water contained in the Process Area sump shall be removed immediately. Waste contained in the sump shall be disposed of in an authorized manner.
- F. The Process Solids Slab must be constructed of concrete with a thickness of at least 12 inches.
- G. The Process Solids Slab must be graded to drain to the adjacent Receiving Pit. Accumulation of free liquids on the Process Solids Slab is not authorized.
- H. The Process Solids Slab shall contain no more than 220 cubic yards of waste at any time.
- I. The Receiving Bay staging area shall be supported on a concrete slab with a thickness of at least 12 inches.
- J. All waste received in the Receiving Bays must be pumped through facility piping to the Receiving Pit (P011669). No waste may accumulate in the Receiving Bays.
- K. The Drying Pad must be constructed with 3 feet of compacted clay constructed in 6-inch lifts with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec, and encompass an area no larger than 2 acres.
- L. The Drying Pad must utilize a sacrificial soil layer of at least 12 inches thick on top of the constructed clay liner.
- M. The Drying Pad shall contain no more than 3,225 cubic yards of waste at any time.
- N. The Drying Pad must be graded to drain to an adjacent collecting sump where incidental fluids must be pumped to the treatment facility. Accumulation of free liquids on the surface of the Drying Pad is not authorized.
- O. The Drying Pad shall be constructed and maintained to ensure compliance with the Stormwater Control plan in Section XI of this permit.

- P. All pits and/or buried tanks shall be permitted in accordance with Statewide Rule 8.
- Q. All untreated waste shall be contained on the Process Solids Slab, the Drying Pad, in steel tanks, or in permitted pits. Tanks shall be maintained in a leak-free condition.
- R. All above ground tanks containing untreated waste shall be diked. Dikes shall be constructed and maintained to contain the tanks' maximum capacity, plus 12 inches of freeboard.
- S. Use of tanks not identified in the original application dated March 18, 2011, must be approved by Technical Permitting in writing prior to their use at the site.
- T. The perimeter of the property shall be enclosed with a fence suitable to keep out livestock. The site is to be attended continuously or secured when unattended.
- U. Any spill of waste, treating chemical, or any other material shall be promptly cleaned up and processed through the treatment process or disposed of in an alternate manner approved by the Commission.

V. RECEIVING PIT (P011669) CONSTRUCTION AND OPERATION

- A. Use of the Receiving Pit (Permit No. 011669) is limited to waste as described in Condition II.A. of this permit and incidental fluid runoff from the Process Solids Slab and the Drying Pad at the referenced facility.
- B. The Receiving Pit must be constructed of concrete at least 12 inches thick at the base of the pit, and 10 inches thick on the walls of the pit.
- C. The liner must be installed in accordance with sound engineering practices.
- D. The capacity of the Receiving Pit may not exceed 8,000 barrels.
- E. At least 2 feet of freeboard must be maintained between the fluid level in the pit and the top of the pit.
- F. The pit must be emptied and the liner inspected annually for deterioration and/or leaks. The San Antonio District Office must be notified at least 48 hours before each inspection. The liner must also be inspected whenever evidence of liner leakage arises. If inspection of the liner reveals a leak or other loss of liner integrity, the liner must be replaced or repaired before resuming use of the pit.
- G. The permittee must maintain a record of when the liner is inspected and the results of each inspection. This record shall be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J. of this permit.
- H. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit shall be in accordance with the information represented on the application (Form H-11) and attachments thereto.
- I. A sign shall be posted at the pit, which shall show the pit permit number in numerals at least one inch in height.
- J. The pit must be dewatered, emptied, backfilled, and compacted within 120 days of final cessation of use of the pit. Final closure of the pit must be accomplished in such a manner that rainfall will not collect at the pit location after pit closure.

Upon final closure, Technical Permitting in Austin and the San Antonio District Office shall be notified in writing.

VI. DISPOSAL PIT #1 (Permit No. 011670) CONSTRUCTION AND OPERATING CONDITIONS

- A. Technical Permitting in Austin and the San Antonio District Office must be notified in writing upon final completion of construction of the pit. The permittee may not begin using the pit until the District Office has completed an inspection of the pit and provided written verification that the pit is constructed in accordance with the application and permit.
- B. The capacity of the pit may not exceed 1,019,000 barrels.
- C. This permit does not authorize the discharge of any oil and gas waste from the pit.
- D. Unless otherwise required by the conditions of this permit, construction, use, maintenance, and closure of the pit shall be in accordance with the information represented on the application (Form H-11) and the attachments thereto.
- E. Pit dikes must be constructed to completely surround the pit at a minimum height of two feet and minimum width at the base of six feet.
- F. The pit must be constructed with a 60-mil high-density polyethylene secondary (bottom) liner and a 60-mil high-density polyethylene primary (top) liner.
- G. The pit must be equipped with a leachate collection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit 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.
- H. Leachate collected in the leachate collection sump must be removed through the pump system and disposed of in an authorized manner.
- I. The pit must be equipped with a leak detection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit between the primary and secondary liners, to collect any leakage from the primary liner.
- J. The liners and the leak detection system must be installed in accordance with the liner manufacturer's specifications and sound engineering practices.
- K. All waste received into the Receiving Pit must be analyzed in accordance with Condition II.B. of this permit and/or processed through the on-site Treatment Facility Area prior to its disposal in the referenced disposal pit. Any liquid resulting from the dewatering process must be disposed of in an authorized manner.
- L. A sign shall be posted at the pit that shows the pit permit number in numerals at least one inch in height.
- M. At least two (2) feet of freeboard must be maintained at all times between the level of waste in the pit and the top of the pit dikes.

- N. The San Antonio District Office must be notified within 24 hours if the leak detection system indicates liner failure.
  - O. If the leak detection system indicates liner failure, disposal into the pit must cease immediately and the liner must be inspected for deterioration and leaks within five (5) days. The liner must be repaired before use of the pit may resume. If the liner cannot be repaired, the pit must be closed in accordance with Condition XII of this permit.
  - P. The leak detection system shall be checked weekly and the permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record must be maintained by the permittee for the life of the pit, and upon request of the Commission, the record shall be filed with the Commission. Any fluids captured in the leak detection system must be disposed of in an authorized manner.
  - Q. No free oil may be allowed to accumulate on top of the waste stored in the pit. Any free oil on top of the waste must be skimmed off.
  - R. Any spill of waste, treating chemicals, or any other material shall be promptly cleaned up and the resulting waste disposed of in an authorized manner.
  - S. All waste shall pass the Paint Filter Test (EPA Method 9095) prior to disposal in the referenced pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J.
  - T. No freestanding fluids may accumulate in the pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.
  - U. Upon final cessation of the use of the pit, the pit must be closed in accordance with Condition XII of this permit. Any request to modify the closure plan must be filed with and approved by Technical Permitting. Upon final closure, Technical Permitting in Austin and the District Office shall be notified in writing.
  - V. Technical Permitting in Austin and the San Antonio District Office must be notified in writing at least 45 days prior to commencement of closure activities.
- VII. DISPOSAL PIT #2 (Permit No. 011953) CONSTRUCTION AND OPERATING CONDITIONS
- A. Technical Permitting in Austin and the San Antonio District Office must be notified in writing upon final completion of construction of the pit. The permittee may not begin using the pit until the District Office has completed an inspection of the pit and provided written verification that the pit is constructed in accordance with the application and permit.
  - B. The capacity of the pit may not exceed 3,700,000 barrels.
  - C. This permit does not authorize the discharge of any oil and gas waste from the pit.
  - D. Unless otherwise required by the conditions of this permit, construction, use, maintenance, and closure of the pit shall be in accordance with the information represented on the application (Form H-11) and the attachments thereto.

- E. Pit dikes must be constructed to completely surround the pit at a minimum height of two (2) feet and minimum width at the base of six (6) feet.
- F. The pit must be constructed with a 60-mil high-density polyethylene secondary (bottom) liner and a 60-mil high-density polyethylene primary (top) liner.
- G. The pit must be equipped with a leachate collection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit 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.
- H. Leachate collected in the leachate collection sump must be removed through the pump system and disposed of in an authorized manner.
- I. The pit must be equipped with a leak detection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit between the primary and secondary liners, to collect any leakage from the primary liner.
- J. The liners and the leak detection system must be installed in accordance with the liner manufacturer's specifications and sound engineering practices.
- K. All waste received into the Receiving Pit must be analyzed in accordance with Condition II.B. of this permit and/or processed through the on-site Treatment Facility Area prior to its disposal in the referenced disposal pit. Any liquid resulting from the dewatering process must be disposed of in an authorized manner.
- L. A sign shall be posted at the pit that shows the pit permit number in numerals at least one inch in height.
- M. At least two (2) feet of freeboard must be maintained at all times between the level of waste in the pit and the top of the pit dikes.
- N. The Action Leakage Rate of the leak detection system in this pit is 14.5 gallons per minute. Any rate exceeding the Action Leakage Rate constitutes a liner failure.
- O. The San Antonio District Office must be notified within 24 hours, if the leak detection system indicates liner failure.
- P. If the leak detection system indicates liner failure, disposal into the pit must cease immediately and the liner must be inspected for deterioration and leaks within five (5) days. The liner must be repaired before use of the pit may resume. If the liner cannot be repaired, the pit must be closed in accordance with Condition XII of this permit.
- Q. The leak detection system shall be checked weekly and the permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record must be maintained by the permittee for the life of the pit, and upon request of the Commission, the record shall be filed with the Commission. Any fluids captured in the leak detection system must be disposed of in an authorized manner.

- R. No free oil may be allowed to accumulate on top of the waste stored in the pit. Any free oil on top of the waste must be skimmed off.
- S. Any spill of waste, treating chemicals, or any other material shall be promptly cleaned up and the resulting waste disposed of in an authorized manner.
- T. All waste shall pass the Paint Filter Test (EPA Method 9095) prior to disposal in the referenced pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J.
- U. No freestanding fluids may accumulate in the pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.
- V. Upon final cessation of the use of the pit, the pit must be closed in accordance with Condition XII of this permit. Any request to modify the closure plan must be filed with and approved by Technical Permitting. Upon final closure, Technical Permitting in Austin and the District Office shall be notified in writing.
- W. Technical Permitting in Austin and the San Antonio District Office must be notified in writing at least 45 days prior to commencement of closure activities.

VIII. DISPOSAL PIT #3 (Permit No. 011954) CONSTRUCTION AND OPERATING CONDITIONS

- A. Technical Permitting in Austin and the San Antonio District Office must be notified in writing upon final completion of construction of the pit. The permittee may not begin using the pit until the District Office has completed an inspection of the pit and provided written verification that the pit is constructed in accordance with the application and permit.
- B. The capacity of the pit may not exceed 3,700,000 barrels.
- C. This permit does not authorize the discharge of any oil and gas waste from the pit.
- D. Unless otherwise required by the conditions of this permit, construction, use, maintenance, and closure of the pit shall be in accordance with the information represented on the application (Form H-11) and the attachments thereto.
- E. Pit dikes must be constructed to completely surround the pit at a minimum height of two (2) feet and minimum width at the base of six (6) feet.
- F. The pit must be constructed with a 60-mil high-density polyethylene secondary (bottom) liner and a 60-mil high-density polyethylene primary (top) liner.
- G. The pit must be equipped with a leachate collection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit 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.
- H. Leachate collected in the leachate collection sump must be removed through the pump system and disposed of in an authorized manner.
- I. The pit must be equipped with a leak detection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire

pit between the primary and secondary liners, to collect any leakage from the primary liner.

- J. The liners and the leak detection system must be installed in accordance with the liner manufacturer's specifications and sound engineering practices.
- K. All waste received into the Receiving Pit must be analyzed in accordance with Condition II.B. of this permit and/or processed through the on-site Treatment Facility Area prior to its disposal in the referenced disposal pit. Any liquid resulting from the dewatering process must be disposed of in an authorized manner.
- L. A sign shall be posted at the pit that shows the pit permit number in numerals at least one inch in height.
- M. At least two (2) feet of freeboard must be maintained at all times between the level of waste in the pit and the top of the pit dikes.
- N. The Action Leakage Rate of the leak detection system in this pit is 14.5 gallons per minute. Any rate exceeding the Action Leakage Rate constitutes a liner failure.
- O. The San Antonio District Office must be notified within 24 hours, if the leak detection system indicates liner failure.
- P. If the leak detection system indicates liner failure, disposal into the pit must cease immediately and the liner must be inspected for deterioration and leaks within five (5) days. The liner must be repaired before use of the pit may resume. If the liner cannot be repaired, the pit must be closed in accordance with Condition XII of this permit.
- Q. The leak detection system shall be checked weekly and the permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record must be maintained by the permittee for the life of the pit, and upon request of the Commission, the record shall be filed with the Commission. Any fluids captured in the leak detection system must be disposed of in an authorized manner.
- R. No free oil may be allowed to accumulate on top of the waste stored in the pit. Any free oil on top of the waste must be skimmed off.
- S. Any spill of waste, treating chemicals, or any other material shall be promptly cleaned up and the resulting waste disposed of in an authorized manner.
- T. All waste shall pass the Paint Filter Test (EPA Method 9095) prior to disposal in the referenced pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J.
- U. No freestanding fluids may accumulate in the pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.
- V. Upon final cessation of the use of the pit, the pit must be closed in accordance with Condition XII of this permit. Any request to modify the closure plan must be filed

with and approved by Technical Permitting. Upon final closure, Technical Permitting in Austin and the District Office shall be notified in writing.

W. Technical Permitting in Austin and the San Antonio District Office must be notified in writing at least 45 days prior to commencement of closure activities.

IX. DISPOSAL PIT #4 (Permit No. 011955) CONSTRUCTION AND OPERATING CONDITIONS

- A. Technical Permitting in Austin and the San Antonio District Office must be notified in writing upon final completion of construction of the pit. The permittee may not begin using the pit until the District Office has completed an inspection of the pit and provided written verification that the pit is constructed in accordance with the application and permit.
- B. The capacity of the pit may not exceed 3,700,000 barrels.
- C. This permit does not authorize the discharge of any oil and gas waste from the pit.
- D. Unless otherwise required by the conditions of this permit, construction, use, maintenance, and closure of the pit shall be in accordance with the information represented on the application (Form H-11) and the attachments thereto.
- E. Pit dikes must be constructed to completely surround the pit at a minimum height of two (2) feet and minimum width at the base of six (6) feet.
- F. The pit must be constructed with a 60-mil high-density polyethylene secondary (bottom) liner and a 60-mil high-density polyethylene primary (top) liner.
- G. The pit must be equipped with a leachate collection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit 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.
- H. Leachate collected in the leachate collection sump must be removed through the pump system and disposed of in an authorized manner.
- I. The pit must be equipped with a leak detection system, including a high-density polyethylene drainage net with a thickness of at least 200 mils that covers the entire pit between the primary and secondary liners, to collect any leakage from the primary liner.
- J. The liners and the leak detection system must be installed in accordance with the liner manufacturer's specifications and sound engineering practices.
- K. All waste received into the Receiving Pit must be analyzed in accordance with Condition II.B. of this permit and/or processed through the on-site Treatment Facility Area prior to its disposal in the referenced disposal pit. Any liquid resulting from the dewatering process must be disposed of in an authorized manner.
- L. A sign shall be posted at the pit that shows the pit permit number in numerals at least one inch in height.

- M. At least two (2) feet of freeboard must be maintained at all times between the level of waste in the pit and the top of the pit dikes.
  - N. The Action Leakage Rate of the leak detection system in this pit is 14.5 gallons per minute. Any rate exceeding the Action Leakage Rate constitutes a liner failure.
  - O. The San Antonio District Office must be notified within 24 hours, if the leak detection system indicates liner failure.
  - P. If the leak detection system indicates liner failure, disposal into the pit must cease immediately and the liner must be inspected for deterioration and leaks within five (5) days. The liner must be repaired before use of the pit may resume. If the liner cannot be repaired, the pit must be closed in accordance with Condition XII of this permit.
  - Q. The leak detection system shall be checked weekly and the permittee must maintain a record of when the liner and the leak detection system are inspected and the results of each inspection. This record must be maintained by the permittee for the life of the pit, and upon request of the Commission, the record shall be filed with the Commission. Any fluids captured in the leak detection system must be disposed of in an authorized manner.
  - R. No free oil may be allowed to accumulate on top of the waste stored in the pit. Any free oil on top of the waste must be skimmed off.
  - S. Any spill of waste, treating chemicals, or any other material shall be promptly cleaned up and the resulting waste disposed of in an authorized manner.
  - T. All waste shall pass the Paint Filter Test (EPA Method 9095) prior to disposal in the referenced pit. Test results from each Paint Filter Test must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J.
  - U. No freestanding fluids may accumulate in the pit. Any fluids must be removed within 72 hours of discovery and disposed of in an authorized manner.
  - V. Upon final cessation of the use of the pit, the pit must be closed in accordance with Condition XII of this permit. Any request to modify the closure plan must be filed with and approved by Technical Permitting. Upon final closure, Technical Permitting in Austin and the District Office shall be notified in writing.
  - W. Technical Permitting in Austin and the San Antonio District Office must be notified in writing at least 45 days prior to commencement of closure activities.
- X. OPERATION AND PROCESS CONTROL
- A. Incoming waste that does not pass the Paint Filter Test must be unloaded directly from the transport truck or trailer into the Receiving Pit (P011670) through the pump system or the Process Solids Slab. The waste may not be unloaded onto the ground or directly into Pit Disposal Pit #1 (P011670), Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), or Disposal Pit #4 (P011955).

- B. The Process Solids Slab and the Drying Pad shall be cleared and inspected annually for deterioration. If inspection reveals deterioration, the pads must be repaired before resuming use of the pads.
- C. The permittee must maintain a record of when the pads are inspected and the results of each inspection. This record shall be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.J. of this permit.
- D. Successfully treated waste material shall be removed from the treatment facility for disposal in a disposal pit.

#### XI. STORMWATER CONTROL

- A. Dikes must be constructed to a height of at least two (2) feet and width at base of at least six (6) feet to completely surround the Treatment Facility Area. The dikes must be maintained such that no stormwater runoff may enter or exit the treatment facility area. Any road(s) traversing the dikes may not compromise the integrity of the dikes' ability to control stormwater.
- B. Stormwater collected in the treatment facility area must be collected and disposed of in an authorized manner.
- C. Stormwater at the treatment facility shall not contain a visible oil film (rainbow) at any time.
- D. This permit does not authorize the discharge of oil and gas waste or stormwater that has come into contact with oil and gas waste.

#### XII. CLOSURE OF THE SITE

- A. Closure of the Los Angeles TRD Facility shall proceed as follows:
  - 1. All waste must be processed through the facility or disposed of in an authorized manner.
  - 2. The contents of all containment areas, tanks, vessels, or other containers shall be disposed of in an authorized manner.
  - 3. All treatment equipment shall be removed and salvaged, if possible, or disposed of in an authorized manner.
  - 4. After waste removal and site excavation are completed, representative composite soil samples shall be obtained from around the location of the Drying Pad, Receiving Pit, Process Solids Slab, and Process Area as follows:
    - a. A minimum of one (1) grab sample from each one-acre area shall be collected from each of the following three (3) depth horizons:
      - i. 0 to 12 inches;
      - ii. 12 to 24 inches; and
      - iii. 24 to 36 inches.
    - b. Samples from a maximum of four adjacent one-acre areas (e.g. minimum of one (1) grab sample from each depth horizon from each acre) may be composited into a representative sample for

each depth horizon for up to a four-acre area (e.g., 3 composite samples for each 4 acres) for analyses required by Condition XII.A.4.c. of this permit.

- c. These composite samples shall be analyzed and the following constituent levels shall not be exceeded:

<u>PARAMETER</u>	<u>CLOSURE LIMIT (units)</u>
pH	6.0 to 10.0 (s. u.)
Electrical Conductivity (EC)	4.0 mmhos/cm
TPH (at least to C <sub>40</sub> )	< 1 (mass %)
BTEX	30.0 mg/kg
Metals	
Arsenic	< 10.0 mg/kg
Barium	< 20,000 mg/kg
Cadmium	< 1.00 mg/kg
Chromium (total)	< 5.00 mg/kg
Lead	< 200 mg/kg
Mercury	< 10.0 mg/kg
Selenium	< 5.0 mg/kg
Silver	< 200 mg/kg

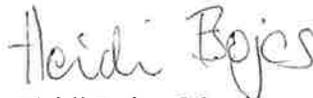
5. A map showing the sampling locations and copies of the analysis required by Condition XII.A.4 shall be submitted to Technical Permitting in Austin. When acceptable constituent levels have been verified in writing by Technical Permitting, the earthen berms shall be leveled to grade. Topsoil shall then be contoured and seeded with appropriate vegetation.
6. The Disposal Pit #1 covered under Permit P011669 shall be dewatered, stabilized, and covered with the pit cap as shown in Figure 23-1 of your application dated March 18, 2011.
7. Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), and Disposal Pit #4 (P011955) shall be dewatered, stabilized, and covered with the pit cap as shown in Figure 23-1 of your application dated February 1, 2013.
8. Provisions shall be taken to prevent erosion both during and following closure activities.
9. Post-closure monitoring must be performed for a period of no less than five years after the closure of the facility.
10. Post-closure care will include quarterly inspections of the entire facility by a registered Professional Engineer for signs of deterioration.

11. Any areas showing signs of erosion must be contoured and backfilled or reseeded.
12. The leak detection systems must be maintained and monitored quarterly.
13. A summary of the results of the post-closure monitoring activity must be submitted to Technical Permitting in Austin as part of an Annual Report, which must be submitted annually for five years after any disposal pit has been closed. The Annual Report shall consist of a record of when the leak detection system and pit is inspected and the results of each inspection.
14. 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.

B. Technical Permitting and the San Antonio District Office shall be notified in writing at least 45 days prior to commencement of closure activity so that the Commission may monitor closure to assure compliance with the closure plan.

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

Sincerely,



Heidi Bojes, Manager  
Environmental Permits and Support  
Technical Permitting

Final Actions:

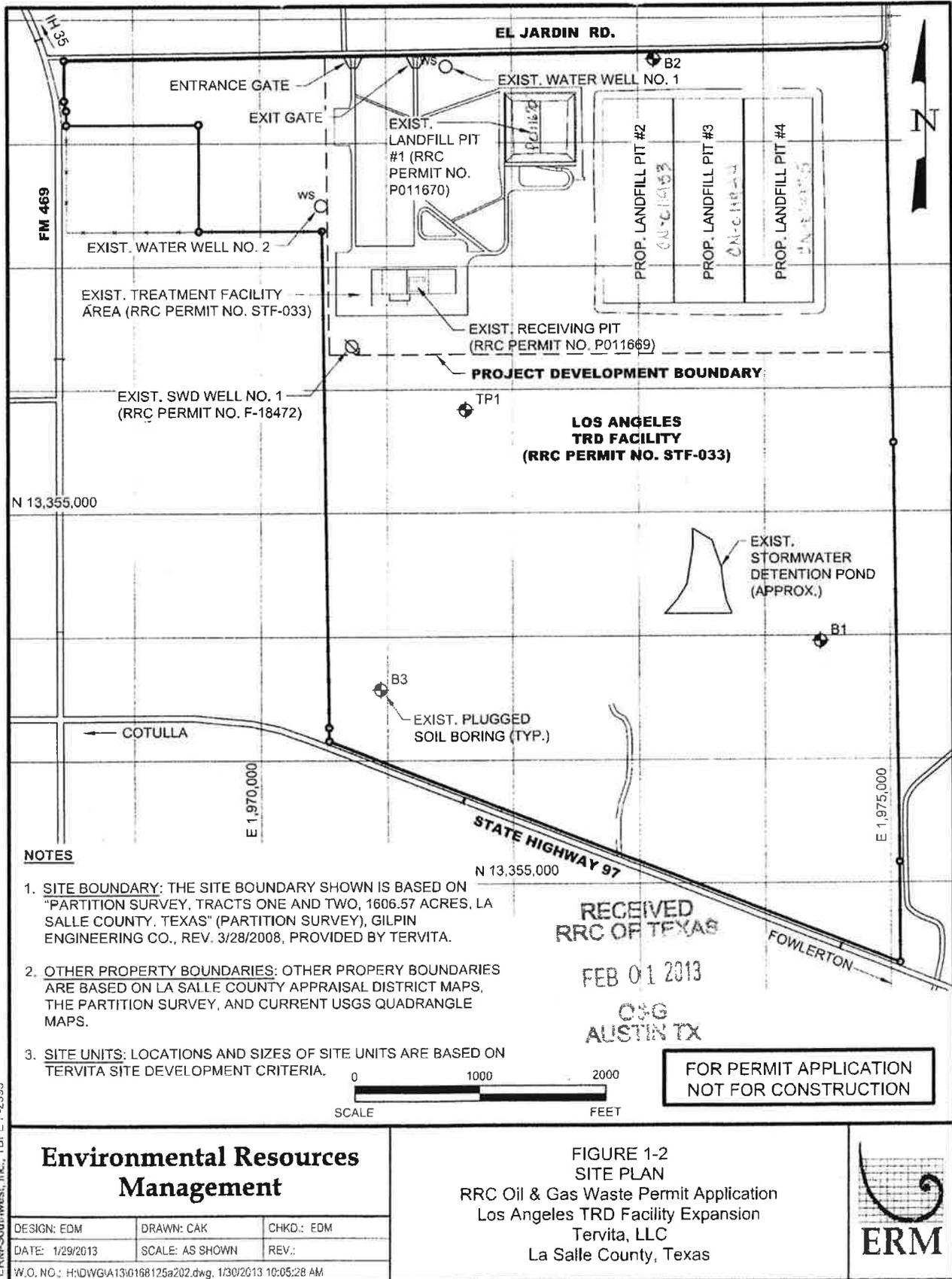
1. Amended to add Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), and Disposal Pit #4 (P011955).
2. Transferred permits Permit Nos. 033 (STF), P011669, and P011670 (Pits), and R9 01-1101 (Reclamation Plant) from CCS Midstream Services, LLC to Tervita, LLC.

Notes:

1. Transferred permits Permit Nos. 033 (STF), P011669, and P011670 (Pits), and R9 01-1101 (Reclamation Plant) from CCS Midstream Services, LLC to Tervita, LLC.
2. Changed the effective date of the permit to July 9, 2013.
3. Amended the permit to replace all semiannual reports with quarterly reports.
4. Amended to add Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), and Disposal Pit #4 (P011955).
5. Amended Condition VI.M. from four feet to two feet of freeboard to be consistent with the application's closure plan.
6. Edited Condition VI.S. to remove hazardous waste phrase.
7. Edited Condition XII.A.4. to clarify TPH must be sampled to C<sub>40</sub>.
8. Edited Condition III.A.3. to clarify waste acceptance must be reported in unite of volume.

9. Permit Appendix A and Condition IV.A. were amended to add Disposal Pit #2 (P011953), Disposal Pit #3 (P011954), and Disposal Pit #4 (P011955).
10. Edited Condition II.A.1.h. to clarify that tank bottoms with oil content exceeding 7% must go through the oil reclamation process prior to disposal.
11. Edited Condition II.A.2. to restrict produced water from being disposed of in any disposal pits, but not restrict any injection wells at the facility from accepting produced water.
12. Conditions XII.A.9. through 14. were added to clarify the timeframe, frequency, and reporting requirements during post-closure monitoring.
13. Condition XII.A.4. was edited to clarify the soil sampling procedures for the closure of the facility.

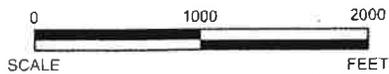
# Permit Appendix A



**NOTES**

- SITE BOUNDARY:** THE SITE BOUNDARY SHOWN IS BASED ON "PARTITION SURVEY, TRACTS ONE AND TWO, 1606.57 ACRES, LA SALLE COUNTY, TEXAS" (PARTITION SURVEY), GILPIN ENGINEERING CO., REV. 3/28/2008, PROVIDED BY TERVITA.
- OTHER PROPERTY BOUNDARIES:** OTHER PROPERTY BOUNDARIES ARE BASED ON LA SALLE COUNTY APPRAISAL DISTRICT MAPS, THE PARTITION SURVEY, AND CURRENT USGS QUADRANGLE MAPS.
- SITE UNITS:** LOCATIONS AND SIZES OF SITE UNITS ARE BASED ON TERVITA SITE DEVELOPMENT CRITERIA.

RECEIVED  
 RRC OF TEXAS  
 FEB 01 2013  
 O&G  
 AUSTIN TX



FOR PERMIT APPLICATION  
 NOT FOR CONSTRUCTION

## Environmental Resources Management

DESIGN: EDM	DRAWN: CAK	CHKD.: EDM
DATE: 1/29/2013	SCALE: AS SHOWN	REV.:
W.O. NO.: H:\DWG\A1310168125a202.dwg, 1/30/2013 10:05:28 AM		

FIGURE 1-2  
 SITE PLAN  
 RRC Oil & Gas Waste Permit Application  
 Los Angeles TRD Facility Expansion  
 Tervita, LLC  
 La Salle County, Texas



ERM-Southwest, Inc., TBPE F-2393

