



Cross Timbers Energy, LLC.

Surface Use Plan of Operations Application for Permit to Drill

SE MALJAMAR (GRAYBURG/SAN ANDRES) UNIT WELL #121

**Surface Location
2,267' FSL & 796' FWL (SW/NW)
Section 33, T17S, R33E
Lea County, New Mexico
Lease #312471**

Introduction:

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads:

- a. The road log to the location from Hobbs, New Mexico is as follows and depicted on **Exhibit A**:

FEB 24 2015

From Hobbs, New Mexico, take US Highways 62-180 West to State Highway 529. Turn right onto 529 and continue West approximately 20 miles to mile marker 12. Turn right or North on Dog Lake Road and go 200' to lease road on right, turn East on lease road and go 3,800' to location staked approximately 50' North of lease road. No new surface disturbance will be required with all roads maintained in a condition equal to or better than current conditions. Any new road that may be required will be constructed to BLM specifications.

- b. The existing oil and gas roads utilized to access the proposed project will be maintained by crowing, clearing ditches, and fixing potholes. All existing structures on the entire success route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if damaged or deteriorated beyond practical use.

2. Planned Access Road:

- a. No new road construction will be required since the well pad adjoins an existing lease road will be used that transverses across the drilling pad from West to East. Lease road will be upgraded to meet BLM specifications.

3. Location of Existing Wells:

- a. **Exhibit 4** of the APD depicts all known wells within a one mile radius of the proposed well.

4. Location of Existing or Proposed Production Facilities:

- a. All proposed production facilities located on the well pad will be placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.
- b. Production from the proposed well will be transported to the production facility located on the **SEMGSAU #115** well location. Location of the well is as follows: **832' FNL, 660' FWL; Sec 33 – T17S – R33E.**
- c. A pipeline to transport production will be installed from the proposed well to the existing production facility.
 - i. We plan to install approximately **4,200'** of surface pipeline.

- ii. We plan to install a **2 7/8" steel tubing surface** pipeline from the proposed well to the production facility. The pipeline will be tested to 1,000 psi and working pressure of the pipeline will be about **100 psi**. The pipeline route will follow existing roads with the surface line installed no more than 15' from the edge of the road. All construction and maintenance activity will use the existing road.
- iii. **Exhibit 3** depicts the proposed production pipeline route from the well to the production facility.
- d. If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.
- e. An electric line if needed, will be applied for through a sundry notice or BLM right of way at a later date.

5. Location and Type of Water Supply:

- a. All water (fresh and brine) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access roads. No water source wells will be drilled, and no surface water will be utilized.

6. Source of Construction Materials:

- a. Construction material required and used for the access road and well pad site will be caliche.
- b. The construction contractor will be solely responsible for securing materials from an approved caliche pit required for this operation and paying any royalties that may be required on those materials. No surface materials will be disturbed except those necessary for actual grading and construction of drill pad and access road.
- c. There are local caliche pits available on the SEMGSAU properties.

7. Methods for Handling Waste Disposal:

- a. The well will be drilled utilizing a closed loop system. Drilling fluids and drill cuttings will all be contained in steel pits, as fluid is circulated it will be cleaned of solids and reused, with solids hauled to a NMOCD approved disposal facility. Drilling fluids will then be reused on next well or hauled to a NMOCD approved disposal facility.

- b. Water produced during testing will be contained in rented frac tanks and hauled to the production facilities to be disposed of with other unit produced water. Any oil or condensate will be stored in test tanks until sold and hauled from site.
- c. Trash trailers will be used for solid waste (paper, plastics, etc.) and equipped to prevent scattering by wind, animals, and etc. This waste will be hauled to an approved land fill site. All mud products remaining after drilling will be picked up by supplier including any broken sacks.
- d. Portable toilets and/or sewage tanks for human waste and grey water will be provided for all personnel on location, they will be properly maintained during operations and removed after completion operations, with clean outs on a set schedule.
- e. After drilling and completion operations are completed, all trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at an approved land fill or disposal site.

8. Ancillary Facilities

- a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

- a. The proposed drilling pad to be built was staked and surveyed by a professional surveyor. The attached survey plat of the well depicts the drilling pad layout as staked and the actual rig foot print may be smaller than shown.
- b. The well site diagram depicting the rig layout is **Exhibit 5**. This is a typical rig used to drill wells such as proposed, the actual foot print could change depending on drilling contractor used.
- c. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.
- d. There is an old reserve pit on the well site layout, **Exhibit 6A** depicts the old reserve pit located on a portion of the drilling pad layout, as per NMOCD rules it would be necessary to revisit reclamation if this reserve pit were disturbed. In order to keep from having safety issues with excavation and fill, that could

cause settling from the weight of drilling components, a layer of 20 mil plastic will be laid down where the old legacy pit was located and caliche will be used to level the drilling pad compacting layers as it is put down. It is estimated that 3 to 5' of fill will be required to level the drilling pad.

10. Plans for Surface Restoration

Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

a. Interim Reclamation (Well Pad)

- i. Interim reclamation will be performed on the well site after the well is drilled and completed. **Exhibit 6** depicts the location and dimensions of the planned interim reclamation for the well site.
- ii. The well location and surrounding areas will be cleared of and maintained free of all materials, trash, and equipment not required for production.
- iii. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- iv. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. The interim fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- v. Reclaimed areas will be aggressively revegetated over the entire disturbed area not needed for all weather operations, including fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6" within 24 hours prior to seeding. This can also be dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- vi. Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

- vii. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion and invasive/noxious weeds are controlled.

b. Final Reclamation (Well Pad, Buried Pipelines, Etc.)

- i. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- ii. All surfacing material will be removed and returned to the original mineral pit or recycled to repair roads and well pads.
- iii. All disturbed areas to include pad, roads, pipelines, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil will be distributed evenly over the entire disturbed site to ensure successful revegetation.
- iv. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6" within 24 hours prior to seeding. This can also be dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- v. Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.
- vi. All unused equipment and structures including pipelines, electric lines poles, tanks, ect. that serviced the well will be removed.
- vii. All reclamation areas will be monitored periodically to ensure that vegetation has reestablished and that erosion and invasive/noxious weeds are controlled.

11. Other information:

Surface ownership of the drill site and access roads are under the control/ownership of:

Cross Timbers Energy, LLC.
400 West 7th Street
Fort Worth, Texas 76102
Attn: Jonathan Holmes
817-334-7866

12. Drilling Contractor: Pending

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 EAST GREENE STREET
CARLSBAD, NM 88220

OPERATOR CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for filing of false statements.

Executed this 2nd day of June, 2014

Well: SEMGS AU #121, SHL: 2,267' FSL & 796' FWL, Sec 33-T17S-R33E, Lea County, NM

Operator Name: Cross Timbers Energy, LLC

Signature:  Printed Name: Robbie A. Grigg

Title: Regulatory Compliance Date: 6/2/14

Email (optional): rgrigg@mspartner.com

Street or Box: 400 West 7th Street

City, State, Zip Code: Fort Worth, Texas 76102

Telephone: 817-334-7842

Field Representative (if not above signatory): Jerry Parker

Address (if different from above): 972 NM Highway 238, Lovington, NM

Telephone (if different from above): 575-396-0542

Email (optional): rgrigg@mspartner.com