Form 3160-3
(March 2012)

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NM04242	
6. If Indian, Allotee or Tribe Name	
1a. Type of work: ☑ DRILL ☐ REENTER — ATS-14-878	7. If Unit or CA Agreement, Name and No. SEMGSAU (NMNM-71040X)
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8. Lease Name and Well No. SEMGSAU #121 (312471)
2. Name of Operator Cross Timbers Energy, LLC (298299)	9. API Well No. 30-025-42449 (43329)
3a. Address 400 West 7th Street, Fort Worth, Texas 76102 — 3b. Phone No. (include area code) 817-334-7842	10. Field and Pool, or Exploratory Maljamar Grayburg San Andres
4. Location of Well (Report location clearly and in accordance with any State requirements.*) HOBBSOCD — At surface 2,267' FSL, 796' FWL, Sec 33-T17W-R33E (L) — At proposed prod. zone FEB 23 2015	11. Sec., T. R. M. or Blk. and Survey or Area Sec 33 - T17S - R33E
14. Distance in miles and direction from nearest town or post office* 6 miles Southeast of Maljamar, New Mexico	12. County or Parish Lea — 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 347' to Unit Line — RECEIVED	16. No. of acres in lease 80 — 17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 196' nearest producer	19. Proposed Depth 4,800 — 20. BLM/BIA Bond No. on file NMB001066
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4049' GL	22. Approximate date work will start* 08/01/2014 — 23. Estimated duration 10 Drilling Days, 30 Completion Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Robbie A. Grigg	Name (Printed Typed) Robbie A. Grigg	Date 05/28/2014
Title Regulatory Compliance		
Approved by (Signature) Steve Caffey	Name (Printed Typed)	Date FEB 18 2015
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

KZ 02/23/15

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

FEB 24 2015

CROSS TIMBERS ENERGY, LLC

Cross Timbers Energy, LLC.

Drilling Plan - Application for Permit to Drill
Ten-Point Compliance Program

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
Maljamar; Grayburg – San Andres: Pool Code – 43329
Projected Total Depth – 4,800'
Lease #312471

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1. The geologic surface formation is Quaternary Alluvium.

2. Estimated tops of geologic markers with potential minerals are as follows:

Formation	Depth	Water/Oil/Gas
Fresh Water Sands	272'	Fresh Water
Rustler	1,401'	NA
Top of Salt	1,633'	NA
Tansill	2,580'	NA
Yates	2,772'	NA
Seven Rivers	3,189'	NA
Queen	3,866'	NA
Grayburg	4,274'	Oil and/or Gas
Premier Sand	4,631'	Oil and/or Gas
San Andres	4,715'	Oil and/or Gas

As per the New Mexico Water Rights Reporting System there are NO records of fresh water intervals present at this location.

3. Pressure Control Equipment:

The minimum BOPE requirements for this well consist of an annular and 11"- 3M WP double ram preventer with choke manifold rated at same working pressure. It will be installed and tested to 3,000 psi after the surface casing has been set and cemented and casing head installed and tested. Kill lines and choke lines will be incorporated into the drilling spool below the ram preventers. Accessories to the BOPE will include a TIW valve and IBOP tested to same 3,000 psi pressure.

Pipe rams will be operated and checked each 24 hour period, with the blind rams operated and checked each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log.

CTE requests a variance to use a flexible choke nipple with flanged ends if that is what the drilling contractor provides. The line will be kept as straight as possible with minimal turns. Anchor requirements, specification sheet and hydrostatic pressure test certification matching hose in service will be posted in the company man's trailer and the rig floor. See attached Certificate of Conformance from Nephi Rubber Products Corp.

4. Casing Design:

a) Surface casing design is based on 9.0 ppg MW and setting casing at 1565'.

Interval	Size	Weight	Grade	Thread	Optimum Torque	ID	Drift
0' – 1565'	8⅝"	24#	J-55	STC	2,440	8.097"	7.972"

12¼" hole

CASING SPECS/SAFETY FACTORS:

Weight	Collapse	Burst	Tensile
24#	1370 / 1.87	2950 / 3.22	244M / 6.50

Safety Factors calculated using following design parameters:

a) Collapse design based on complete internal evacuation with 9.0 ppg MW in annulus.
b) Burst design based on 100 psi FIT (10.0 ppg BWBM) after drilling out the shoe, equivalent to 11.2 ppg MW.
c) Tension design based on casing string weight in air.

String Weight in 9.0 ppg mud is 32.4 Mlbs.
Inspection: VTI, drift, and clean casing threads on location.

b) Production casing design is based on 10.0 ppg MW and setting casing at 4,800'.

Interval	Size	Weight	Grade	Thread	Optimum Torque	ID	Drift
0' – 4,800'	5 1/2"	15.5#	J-55	STC	2,020	4.950"	4.825"

7 7/8" hole

CASING SPECS / SAFETY FACTORS:

Weight	Collapse	Burst	Tensile
15.5#	4040 / 1.55	4810 / 1.20	202M / 2.60

Safety Factors calculated using following design parameters:

a) Collapse design based on complete internal evacuation with 10.0 ppg MW in annulus.
b) Burst design based on maximum frac pressure of 4000 psi.
c) Tension design based on casing string weight in air.

String Weight in 10.0 ppg mud is 65.1 Mlbs
Inspection: VTI, drift, and clean casing threads on location.

5. Cement Program:

A) Surface Casing:

Cement volumes are based on 8 5/8" casing in a 12¼" gauge hole using 100% excess to circulate to surface. Cement must circulate to surface. Mix and pump the following slurry:

Pre-flush: Pump at least 20 bbls of fresh water or enough volume to ensure 10 minutes of contact time. If pump rate is 5 bpm pump 50 bbl of fresh water.

String	Number of Sx	Weight lbs/gal	Water Volume gal/sx	Yield cf/sx	Stage: Lead/Tail	Slurry Description
Surface	500	13.5	9.17	1.74	Lead	Class C Cement + 4% Gel + 2% bwoc CaCl + 0.25 lbs/sx Flo-Seal
	300	14.8	6.33	1.34	Tail	Class "C" Cement +2% bwoc CaCl +0.25 lbs/sx Flo-Seal

B) Production Casing:

Cement volumes are based on 5 1/2" casing in a 7 7/8" gauge hole using 40% excess to circulate cement to surface. Cement must circulate to surface. Mix and pump the following slurry:

Pre-flush: Pump at least 20 bbls of fresh water or enough volume to ensure 10 minutes of contact time. If pump rate is 5 bpm pump 50 bbl of fresh water.

String	Number of Sx	Weight lbs/gal	Water Volume gal/sx	Yield cf/sx	Stage: Lead/Tail	Slurry Description
Production	400	11.9	13.55	2.43	Lead	Class "C" 50:50 Poz Cement + 1 lb/sx Kol-Seal + 0.25 lb/sx Powdered Defoamer + 0.25 lbs/sx Flo-Seal
	200	14.4	5.39	1.22	Tail	Class "C" 50:50 Poz Cement +2% Gel + 0.5% bwoc Fluid Loss Light Weight + 0.1% bwoc Dispersant + 0.25 lbs/sx Powered Defoamer

6. Mud Program:

Prior to drilling surface, fill the rig pits with fresh water and be certain that all solids control equipment for closed loop system is in optimum working condition. Have mud engineer and closed loop personnel present at pre-spud meeting with rig crews to make sure that everyone understands how drilling fluids will be handled. Prior to drilling out of surface casing, clean and fill pits with 10 ppg brine water and be certain that all solids control equipment for closed loop system is in optimum working condition. Have mud engineer and closed loop personnel discuss each day adjustments that may be needed to mud or equipment.

Necessary mud products for mud seepage or lost circulation, fluid loss control, weight addition, and sweeps will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed prior to drilling ahead.

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0 – 1,460'	8.6 – 9.2	28 – 36	NC	Fresh
1,460' – 4,000'	9.8 – 10.2	30 – 32	NC	Brine
4,000' – 4,800'	9.8 – 10.2	36 – 38	8 – 10	Brine

7. Auxiliary Equipment:

- An upper Kelly cock valve or TIW valve will be in the drill string at all times.
- An FOSV will be on the floor at all times along with operating wrench.
- H2S compliance package will be present, rigged up, and operable prior to drilling the Grayburg formation.

8. Testing, Logging, and Coring Program:

- No drill stem tests are anticipated.
- 2 man mud logging unit will be operative when drilling out of surface casing.
  Catch 30' samples from BSC to top of Grayburg.
  Catch 10' samples from top of Grayburg to TD.
- Run a Quad-Combo from TD to Surface.

- No coring is anticipated.

9. Anticipated Abnormal Pressure, Temperatures, or Other Hazards:

No abnormal pressures or temperatures are anticipated. Maximum bottom hole pressure is expected to be less than 2,050 psi, with bottom hole temperature expected to be 105°. H2S can be present after drilling the Grayburg formation however, a compliance package will be rigged up and operable prior to drilling the Grayburg. Lost circulation could be encountered but is not expected to be a serious problem and hole seepage will be compensated for with additions of LCM material added to the drilling fluid.

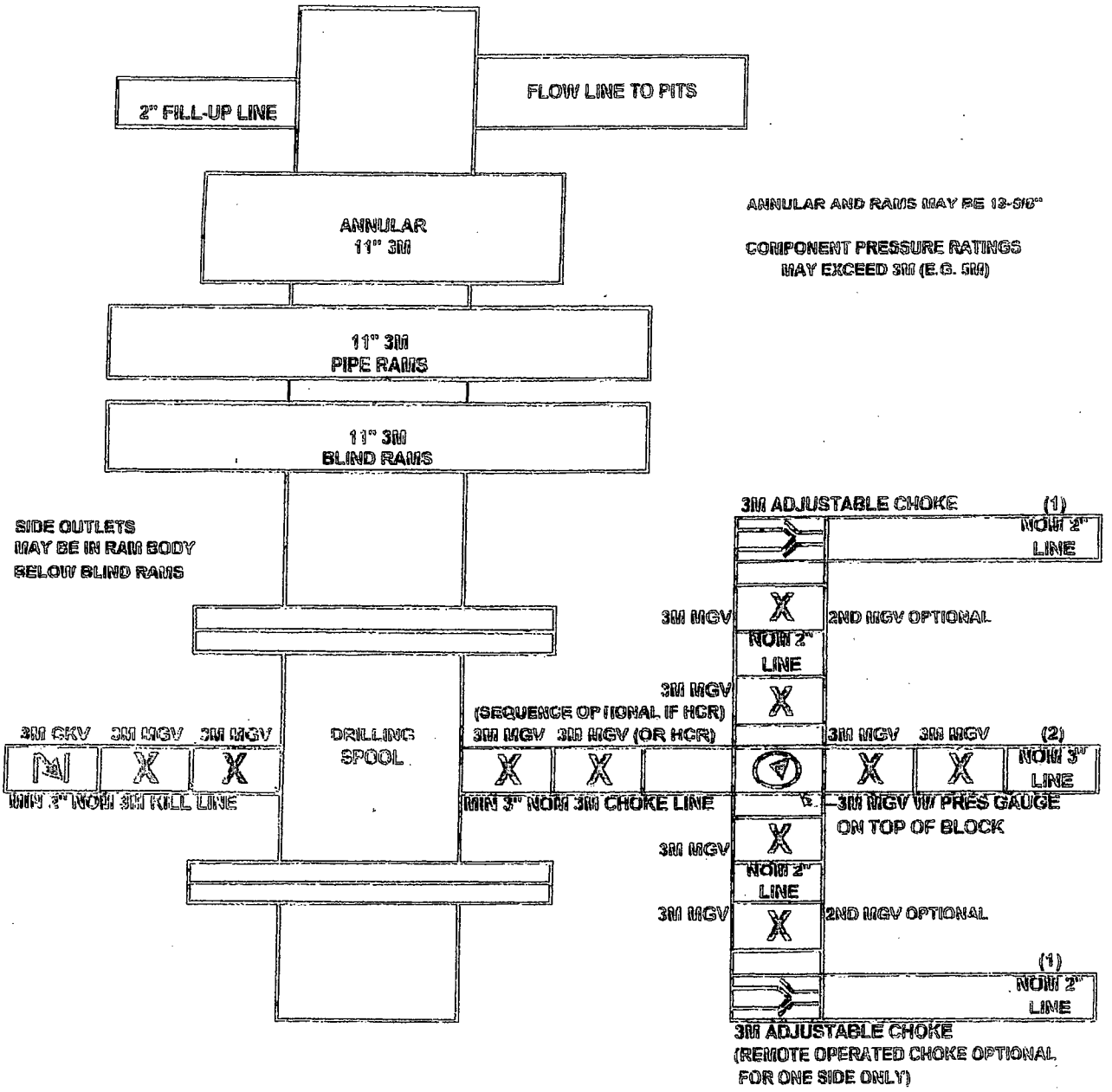
10. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the APD has been approved, with the anticipated spud date to be as soon as the drilling rig is available. Drilling operations should be completed within 10 days of moving in rig. If production casing is run and cemented, an additional 30 days will be needed to complete well and lay flow lines in order to place well on production.

11. Special Instructions:

- Closed loop system will be utilized with all solids and liquids associated with same hauled to an approved disposal site. If there are any re-usable drilling fluids, they will be moved to the next well in the drilling order.
- A trash trailer will be provided on the location with the trash picked up and location kept as clean as possible. At conclusion of drilling operations, location will be cleaned up and contents of trash trailer hauled to a commercial sanitary landfill.
- Deviation – Maximum distance between surveys will be 500'. Maximum deviation at surface casing point will be 2° with not more than a 1° change per 100'. Maximum at TD of hole will be 5° with not more than a 1° change per 100'.
- WOC a minimum of 18 hours or cement gains compressive strength of 500 psi, whichever is greater, before drilling out shoe joint on surface casing. Use minimal WOB and RPM until BHA is buried below shoe joints.
- Check BOP blinds rams on each trip, and pipe rams each day. Strap out of hole for logging and/or casing jobs.

3M BOP SCHEMATIC



ANNULAR AND RAMS MAY BE 13-5/8"

COMPONENT PRESSURE RATINGS
MAY EXCEED 3M (E.G. 5M)

(1) Line to mud gas separator and/or pit
(2) Bleed line to pit

MGV - Manual Gate Valve
CKV - Check Valve
HCR - Hydraulically Controlled Remote Valve

3M Choke Manifold Equipment

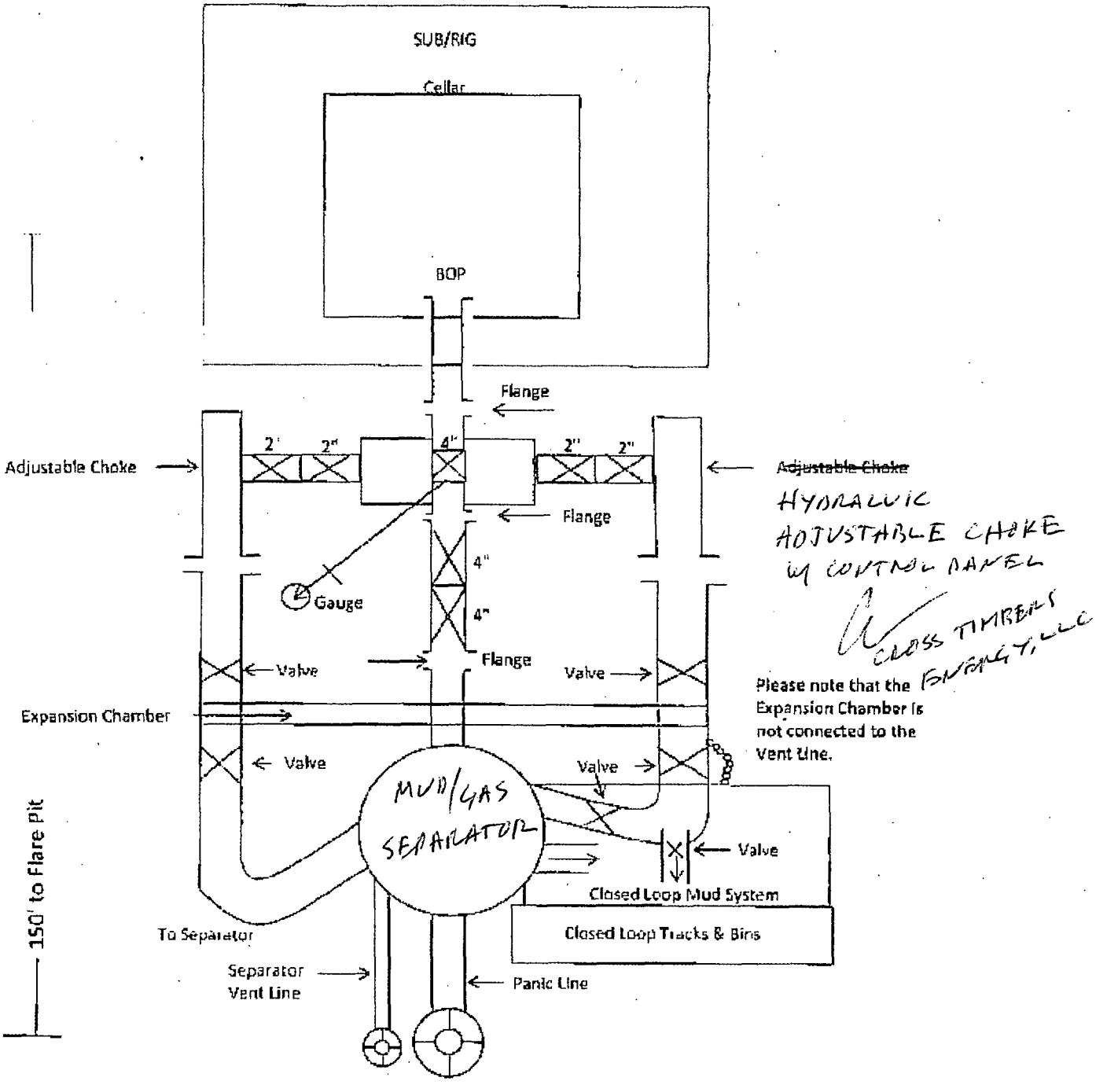


Exhibit 5 – Drilling Rig Layout