

## OCD-ARTESIA

Form 3160-3  
(April 2004)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

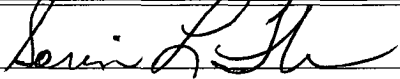
FORM APPROVED  
OMB No 1004-0137  
Expires March 31, 2007

1a. Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC-0029395A
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator APACHE CORPORATION {873}		7. If Unit or CA Agreement, Name and No
3a. Address 303 VETERANS AIRPARK LN #3000 MIDLAND, TX 79705	3b. Phone No. (include area code) 432-818-1167	8. Lease Name and Well No. TONY FEDERAL #33 <308738>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 885' FSL & 990' FWL M LOT 4 At proposed prod zone SAME		9. API Well No. 30 - 015 - 38224
14. Distance in miles and direction from nearest town or post office* APPROX 4 MILES EAST OF LOCO HILLS, NM		10. Field and Pool, or Exploratory <96831> CEDAR LAKE; GLORIETA-YES
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 225'	16. No of acres in lease 609.33	11. Sec., T. R. M. or Blk and Survey or Area Lot 4 ULM SEC: 18 T17S R31E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 410' +/-	19. Proposed Depth 6500'	12. County or Parish EDDY
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3759'	22. Approximate date work will start* 03/15/2011	13. State NM
23. Estimated duration 14 DAYS		

## 24. Attachments

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

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

25. Signature 	Name (Printed/Typed) SORINA L. FLORES	Date 03/02/2011
Title DRILLING TECH		

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date JUL 12 2011
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

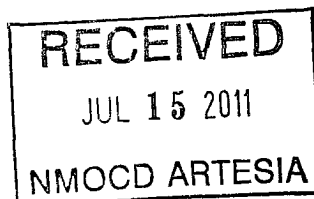
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

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

\*(Instructions on page 2)

Roswell Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

**DRILLING PLAN: BLM COMPLIANCE**

(Supplement to BLM 3160-3)

**APACHE CORPORATION (OGRID: 873) : TONY FEDERAL #33**Lease #: NMLC-0029395A Projected TD: 6500' GL: 3759'  
885' FSL & 990' FWL, UL: M SEC: 18 T17S R31E EDDY COUNTY, NM

1. **GEOLOGIC NAME OF SURFACE FORMATION:** Quaternary Aeolian Deposits
2. **ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

FORMATION	WELL DEPTH	WATER/OIL/GAS
Quaternary Aeolian	Surface	
Rustler	305'	
Top of Salt	518'	
Bottom of Salt	1258'	
Yates	1478'	
Seven Rivers	1759'	Oil
Queen	2370'	Oil
Grayburg	2751'	Oil
San Andres	3104'	Oil
Glorieta	4594'	
Yeso	4666'	Oil
Blaine	5176'	
Tubb	6149'	
TD	6500'	
Depth to Ground Water:	91'	

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth and adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential. The surface fresh water sands will be protected by setting 13-3/8" csg @ 330' & circ cmt back to surface. All intervals will be isolated by setting 5-1/2" csg to TD & circ cmt above the base of 8-5/8" csg.

3. **CASING PROGRAM:** All casing is new & API approved

See COA

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
17-1/2"	0' - 330'	13-3/8"	48#	STC	H-40	1.125	1.0	1.8
11"	330' - 1500'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	1500' - 6500'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

4. **CEMENT PROGRAM:**

- 400'
- A. **13-3/8" Surface:** Run & set 13-3/8" 48# H-40 STC csg to 330'. Cmt to surface with:  
Lead: 370 sx Class C w/ 1% CaCl<sub>2</sub>, 0.25% R38 (14.8 wt, 1.34 yld)  
Compressive Strengths: 12 hr - 813 psi 24 hr - 1205 psi \*\*\* 100 % excess cmt; cmt to surface \*\*\*
  - B. **8-5/8" Intermediate:** Run & set 8-5/8" 24# J-55 STC csg to 1500'. Cmt to surface with:  
Lead: 180 sx (50:50) Poz C w/ 4% Bentonite, 1% CaCl<sub>2</sub>, 0.25% R38 (12wt, 2.3 yld)  
Compressive Strengths: 12 hr - 589 psi 24 hr - 947 psi  
Tail: 160 sx Class C w/ 1% CaCl<sub>2</sub>, 0.25% R38 (14.8 wt, 1.34 yld)  
Compressive Strengths: 12 hr - 813 psi 24 hr - 1205 psi \*\*\* 100% excess cmt; cmt to surface \*\*\*
  - C. **5-1/2" Production:** Run & set 5-1/2" 17# J-55 LTC csg to 6500' (DV or Post tool w/ be set at @ 3500' if DV or Post is to be moved cement will be adjusted proportionately / TOC: 500') Cmt with:  
1<sup>st</sup> Stage Lead: 530 sx (50:50) Poz C w/ 0.3% C12, 5% Salt, 0.25% R38 (14.2 wt, 1.26 yld)  
Compressive Strengths: 12 hr - 1379 psi 24 hr - 2332 psi  
2<sup>nd</sup> Stage Lead: 270 sx (50:50) Poz C w/ 5% Salt, 0.25% R38 (11.8 wt, 2.45 yld)  
Compressive Strengths: 12 hr - 540 psi 24 hr - 866 psi  
Stage Tail: 90 sx (50:50) Poz C w/ 5% Salt, 0.25% R38 (14.2 wt, 1.28 yld)  
Compressive Strengths: 12 hr - 1031 psi 24 psi - 1876 psi \*\*\* 30% excess cmt \*\*\*

*See COA* \*\* The above cmt volumes could be revised pending caliper measurement from open hole logs. For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified & a tag with 1" will be performed at four positions 90 degrees apart to verify cmt depth. If depth is greater than 100' or water is standing in the annulus, remedial cementing will be done. If no water & TOC tag is less than 100', when 100% excess cmt of the annulus volume is run on the primary job, ready-mix will be used to bring cmt to surface.

## 5. PROPOSED CONTROL EQUIPMENT

Exhibit "1" shows an 11" 3M psi WP BOP consisting of an annular bag type preventer, middle blind rams, bottom pipe rams. The BOP will be nipped up on the 13-3/8" surface csg and tested to 70% of casing burst. After the intermediate casing is set & cemented the 13 3/8" casing head will be removed and a 11" 3M head will be installed on the 8 5/8" casing and utilized continuously until total depth is reached. The BOP will be tested at 2000 psi, maximum surface pressure is not expected to exceed 2M psi, BHP is calculated to be approximately 2662 psi. \*All BOP's and associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Functional tests will be documented on the daily driller's log. Exhibit "1" also shows a 3M psi choke manifold with a 3" blow down line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures or temperatures are expected in this well. No nearby wells have encountered any problems.

## 6. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0' - <del>330'</del> 400'	8.4	29	NC	Fresh Water
<del>330'</del> to 1500'	9.8 - 10.0	29	NC	Brine
1500' - 6500'	8.9 - 9.0	29	NC	Cut Brine

*\*\* The necessary mud products for weight addition and fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may have to be altered to meet these needs.*

## 7. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

11" x 3000 psi Double BOP/Blind & pipe ram (2M BOP if available)  
 4-1/2" x 3000 psi Kelly valve  
 11" x 3000 psi mud cross - H2S detector on production hole  
 Gate-type safety valve 3" choke line from BOP to manifold  
 2" adjustable chokes - 3" blow down line

## 8. LOGGING, CORING & TESTING PROGRAM: *See COA*

- OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Gamma Ray, Caliper & Sonic from TD back to 8-5/8" csg shoe.
- Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
- No cores, DST's or mud logger are planned at this time.
- Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows & drill stem tests.

## 9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6*. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 2662 psi and estimated BHT: 115°.

## 10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

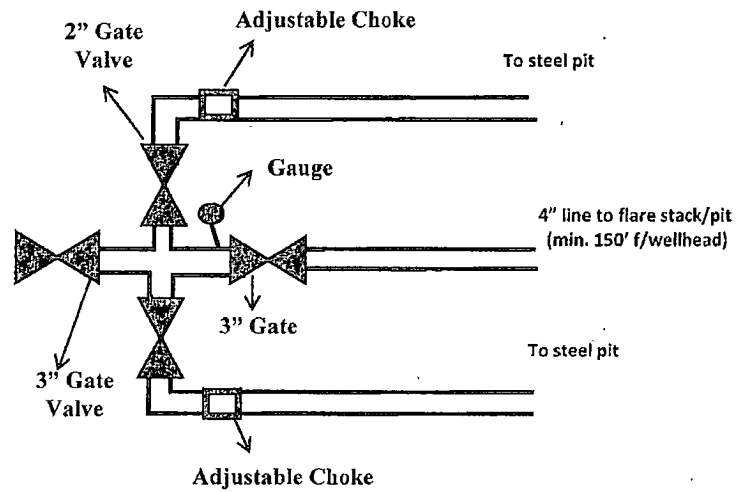
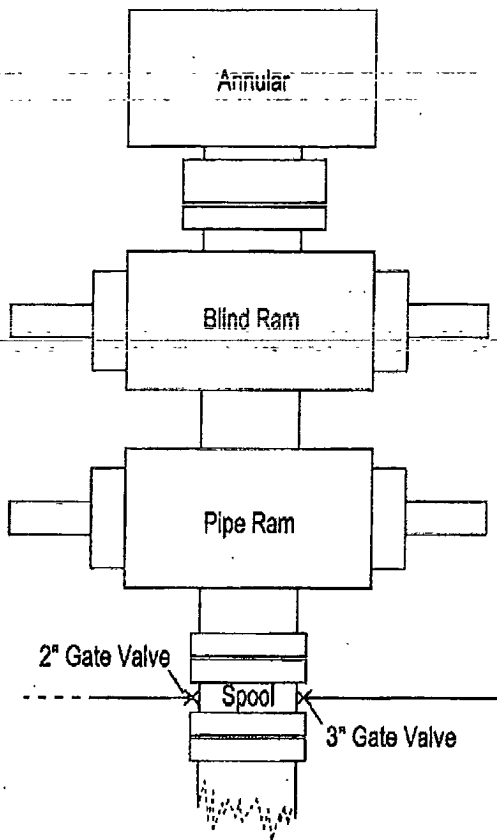
Road and location construction will begin after Santa Fe & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 14 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

## 11. OTHER FACETS OF OPERATION:

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Cedar Lake; Glorieta-Yeso formation will be perforated and stimulated in order to establish production. The well will be swab tested & potentialized as an oil well.

### 3M psi BOPE & Choke Manifold

All valve & lines on choke manifold are 2" unless noted.  
Exact manifold configuration may vary



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

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Operator Name: APACHE CORPORATION  
Street or Box: 303 VETERANS AIRPARK LANE, STE. 3000  
City, State: Midland, TX  
Zip Code: 79705

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No: NMLC-0029395A TONY FEDERAL #033

Legal Description of Land: 885' FSL & 990' FWL

UL: M Section: 18 Township: 17S Range: 31E

County: EDDY State: NM

Bond Coverage: \$150,000

Statewide Oil and Gas Surety Bond, APACHE CORPORATION.

BLM Bond File No.: BLM-CO-1463 NATIONWIDE

Signature: *Bobby L Smith* Printed Name: BOBBY L. SMITH

Title: DRILLING MANAGER, PERMIAN REGION

Date: 1/31/2011

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator APACHE CORP OGRID # 873  
 308738 Well Name & # TONY FED # 33 Surface Type (F) (S) (P)  
 Location: UL M, Sect 18, Township 12 s, RNG 31 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd     /    /     C101 reviewed     /    /    

B. 1 Check mark, Information is OK on Forms:

OGRID ☒ BONDING ☒ PROP CODE ☒ WELL # 7, SIGNATURE     

2 Inactive Well list as of: 7/22/11 # wells 2594 # Inactive wells 6

a. District Grant APD but see number of inactive wells:

No letter required ☒; Sent Letter to Operator     , to Santa Fe     

3. Additional Bonding as of: 7/22/11

a. District Denial because operator needs addition bonding:

No Letter required ☒; Sent Letter to Operator     , To Santa Fe     

b. District Denial because of inactive well list and Financial Assurance:

No Letter required ☒; Sent Letter to Operator     , To Santa Fe     

C. C102 YES     , NO     , Signature     

1. Pool CEDAR LAKE; GULF-YEHO, Code 96831

a. Dedicated acreage 40, What Units     

b. SUR. Location Standard ☒: Non-Standard Location     

c. Well shares acres: Yes ☒ No     , # of wells      plus this well #     

2. 2<sup>nd</sup>. Operator in same acreage, Yes     , No ☒

Agreement Letter     , Disagreement letter     

30-015-30382

30-015-30384

3. Intent to Directional Drill Yes     , No ☒

a. Dedicated acreage     , What Units     

b. Bottomhole Location Standard     , Non-Standard Bottomhole     

4. Downhole Commingle: Yes     , No ☒

a. Pool #2     , Code     , Acres     

Pool #3     , Code     , Acres     

Pool #4     , Code     , Acres     

5. POTASH Area Yes     , No ☒

D. Blowout Preventer Yes ☒ No     

E. H2S Yes ☒ No     

F. C144 Pit Registration Yes     , No     , need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes     , No ☒ NSL #     

2. Non-Standard Proration: Yes     , No ☒ NSP #     

3. Simultaneous Dedication: Yes     , No ☒ SD #     

Number of wells      Plus #     

4. Injection order Yes     , No ☒ PMX #      or WFX #     

5. SWD order Yes     , NO ☒ SWD #     

6. DHC from SF     ; DHC-HOB     ; Holding     

7. OCD Approval Date     /    /    

API #30-015-39224

8 -- Reviewers