AT5-11-186

OCD-ARTESIA

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC-0029435B

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
NFE FEDERAL #012 <308724>

2. Name of Operator
APACHE CORPORATION (873)

9. API Well No.
30-015- 39222

3a. Address **303 VETERNAS AIRPARK LN #3000 MIDLAND, TX 79705**

3b. Phone No. *(include area code)*
432-818-1167

10. Field and Pool, or Exploratory
CEDAR LAKE; GLORIETA-YESO (96831)

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface **905' FNL & 900' FWL** (D)
At proposed prod. zone **SAME**

11. Sec., T. R. M. or Blk. and Survey or Area
UL: D SEC: 8 T17S R31E

14. Distance in miles and direction from nearest town or post office*
APPROX 6 MILES EAST NORTHEAST OF LOCO HILLS, NM

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
900'

16. No. of acres in lease
1885

17. Spacing Unit dedicated to this well
40 ACRES

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
550' +/-

19. Proposed Depth
6500'

20. BLM/BIA Bond No. on file
BLM - CO - 1463 NATIONWIDE

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3758'

22. Approximate date work will start*
03/31/2011

23. Estimated duration
10 DAYS

RECEIVED
JUL 15 2011
NMOCD ARTESIA

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.
2. A Drilling Plan.
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).
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 authorized officer.

25. Signature: Sorina L Flores | Name *(Printed/Typed)*: **SORINA L FLORES** | Date: **03/22/2011**

Title: **DRILLING TECH**

Approved by *(Signature)*: /s/ Don Peterson | Name *(Printed/Typed)*: /s/ Don Peterson | 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

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

APACHE CORPORATION (OGRID: 873) NFE FEDERAL #12

Lease #: NMLC-0029435B Projected TD: 6500' GL: 3677'
905' FNL & 900' FWL, UL: D SEC: 17 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	308'	
Salt Top	552'	
Salt Bottom	1429'	
Yates	1591'	
Seven Rivers	1897'	Oil
Queen	2518'	Oil
Grayburg	2951'	Oil
San Andres	3231'	Oil
Glorieta	4701'	
Yeso	4793'	Oil
Blinebry	5157'	
Tubb	6192'	
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 @ 340' & 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' – 340' 420	13-3/8"	48#	STC	H-40	1.125	1.0	1.8
11"	340'-1600'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	1600'-6500'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

4. **CEMENT PROGRAM:**

A. **13-3/8" Surface:** Run & set 13-3/8" 48# H-40 STC csg to 340'. Cmt with:
Lead: 380 sx Class C w/ 1% CaCl2, 0.25% R38 *(14.8 wt, 1.34 yld)* ***100% excess cmt; cmt to surface***
Compressive Strengths : ***12 hr*** *– 813 psi* ***24 hr*** *– 1205 psi*

B. **8-5/8" Intermediate:** Run & set 8-5/8" 24# J-55 STC csg to 1600'. Cmt with:
Lead: 200 sx (50:50) Poz C w/ 4% Bentonite, 1% caCl2, 0.25% R38 *(12wt, 2.3 yld)*
Compressive Strengths: ***12 hr*** *– 589 psi* ***24 hr*** *– 947 psi*
Tail: 160 sx Class C w/ 1% CaCl2, 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:
1st 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*
2nd 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***

** ***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.*

See COA

1. 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 of temperatures are expected in this well. No nearby wells have encountered any problems.

2. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0' – 340' 420	8.4	29	NC	Fresh Water
340' to 1600'	9.8 – 10.0	29	NC	Brine
1600' – 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.***

3. 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

4. LOGGING, CORING & TESTING PROGRAM: See COA

A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Gamma Ray, Caliper & Sonic from TD back to 8-5/8" csg shoe.
B. Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
C. No cores, DST's or mud logger are planned at this time.
D. 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.

5. 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 no known presence of H_2S in this area. If H_2S 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°.

6. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

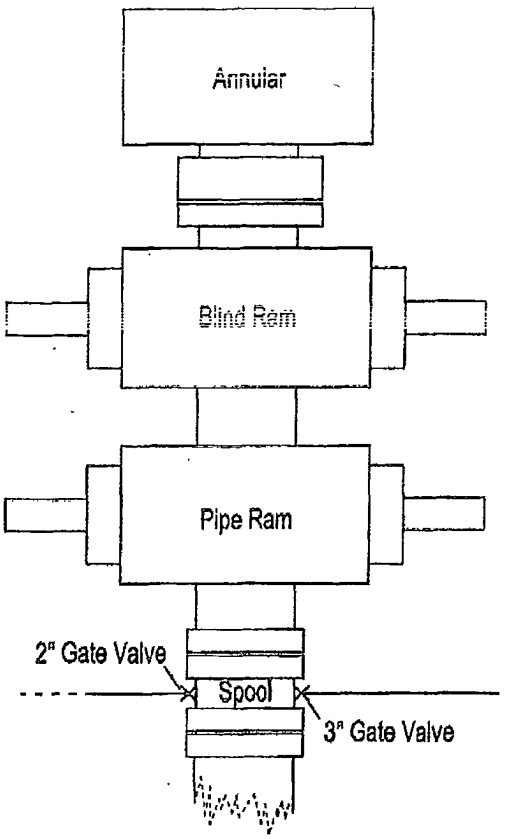
Road and location construction will begin after Santa Fe & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 10 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

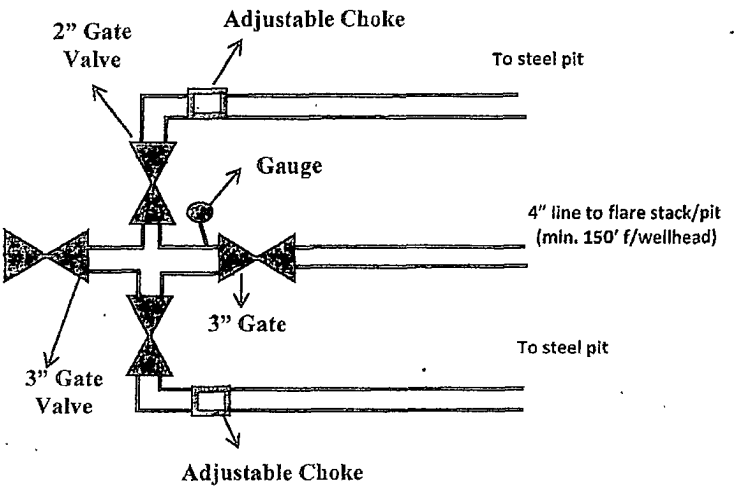
7. OTHER FACETS OF OPERATION:

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 & potentialed 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-0029435B NFE FEDERAL #012

Legal Description of Land: 905' FNL & 900' FWL

UL: D Section: 8 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

308724 Well Name & # NFE FEDERAL # 12 Surface Type (F) (S) (P)

Location: UL D, Sect 8, Twnship 17 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 X, BONDING FED, PROP CODE X, WELL # X, SIGNATURE ____ 6

2. Inactive Well list as of : 7/22/11 # wells 2594, # Inactive wells ____

a. District Grant APD but see number of inactive wells:
No letter required X; 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 X; Sent-Letter to-Operator ____, To Santa Fe ____

b District Denial because of Inactive well list and Financial Assurance:
No Letter required X; Sent Letter to Operator ____, To Santa Fe ___

C. C102 YES___, NO ___, Signature ____

1. Pool CEDAR LAKE; GLORIETA-YESO, Code 96831

a. Dedicated acreage 40, What Units D

b SUR. Location Standard X; Non-Standard Location ____

c. Well shares acres: Yes ___, No X, # of wells ____ plus this well # ____

2. 2nd. Operator in same acreage, Yes ____, No X
Agreement Letter ____, Disagreement letter ____

3 Intent to Directional Drill Yes ____, No X

a. Dedicated acreage ____, What Units ____

b. Bottomhole Location Standard ____, Non-Standard Bottomhole ____

4. Downhole Commingle: Yes ____, No X

a. Pool #2 ____, Code ____, Acres ____
Pool #3 ____, Code ____, Acres ____
Pool #4 ____, Code ____, Acres ____

5. POTASH Area Yes ____, No X

D Blowout Preventer Yes ____, No ____

E. H2S Yes X, No ____

F. C144 Pit Registration Yes ____, No ____, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes ____, No X, NSL # ____
2. Non-Standard Proration: Yes ____, No X, NSP # ____
3. Simultaneous Dedication: Yes ____, No X, SD # ____
Number of wells ____ Plus # ____
4. Injection order Yes ____, No X; PMX # ____ or WFX # ____
5. SWD order Yes ____, NO X; SWD # ____
6. DHC from SF ____; DHC-HOB ____; Holding ____

7. OCD Approval Date ____/____/____ API #30-015-39222

8. Reviewers ____