7012

AT507-457

Form 3160-3
(April 2004)

OCD-ARTESIA

1022

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 08 2007
OCD-ARTESIA

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NM-~~0~~23002

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. APACHE FEDERAL # 3

2. Name of Operator APACHE CORPORATION (LANA WILLIAMS 918-491-4980)

9. API Well No. 30-015-35754

3a. Address TWO WARREN PLACE SUITE 1500 6120 SOUTH YALE, TULSA, OKLAHOMA 74136-4224

3b. Phone No. (include area code) (PH-918-491-4980)

10. Field and Pool, or Exploratory LUSK-BONE SPRING

4. Location of Well (Report location clearly and in accordance with any State requirements.*)

At surface ~~560'~~ 580' FSL & 1650' FEL SECTION 12 T19S-R31E per Joe Janica 7-10-07 JE

At proposed prod. zone SAME

11. Sec., T R. M. or Blk. and Survey or Area SECTION 12 T19S-R31E

14. Distance in miles and direction from nearest town or post office* Approximately 40 miles Southwest of Hobbs, New Mexico

12. County or Parish EDDY CO.

13 State NEW MEXICO

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
560'	600	40
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
1320'	10,600'	BLM-CO-1463 NATION WIDE
21 Elevations (Show whether DF, KDB, RT, GL. etc.)	22. Approximate date work will start*	23. Estimated duration
3596' GL Pw Joe Janica 7/18/07	WHEN APPROVED	40 days to drill

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	Name (Printed/Typed)	Date
Joe T. Janica	Joe T. Janica	07/06/07

Title: Agent

Approved by (Signature)	Name (Printed/Typed)	Date
/s/ James Stovall	/s/ James Stovall	AUG 07 2007

Title	Office
FIELD MANAGER	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)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

CAPITAN CONTROLLED WATER BASIN

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	41440	LUSK-BONE SPRING

Property Code	Property Name	Well Number
36667	APACHE FEDERAL	3

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3596'

Surface Location

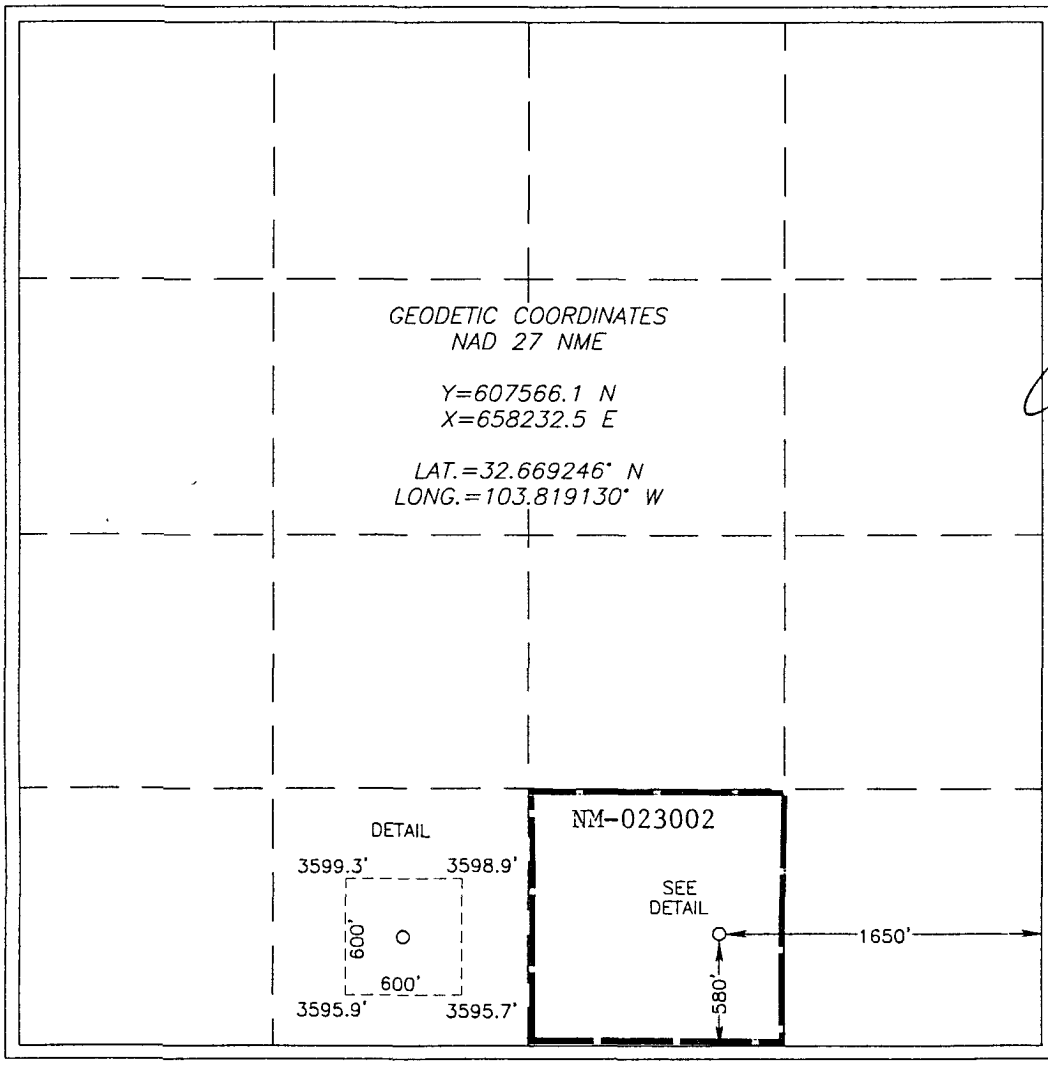
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	12	19-S	31-E		580	SOUTH	1650	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Joe T. Janica
Signature Date

Joe T. Janica 07/06/07
Printed Name

Agent

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

RONALD J. EIDSON
JUNE 5, 2007
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed JR

Signature & Seal of Professional Surveyor

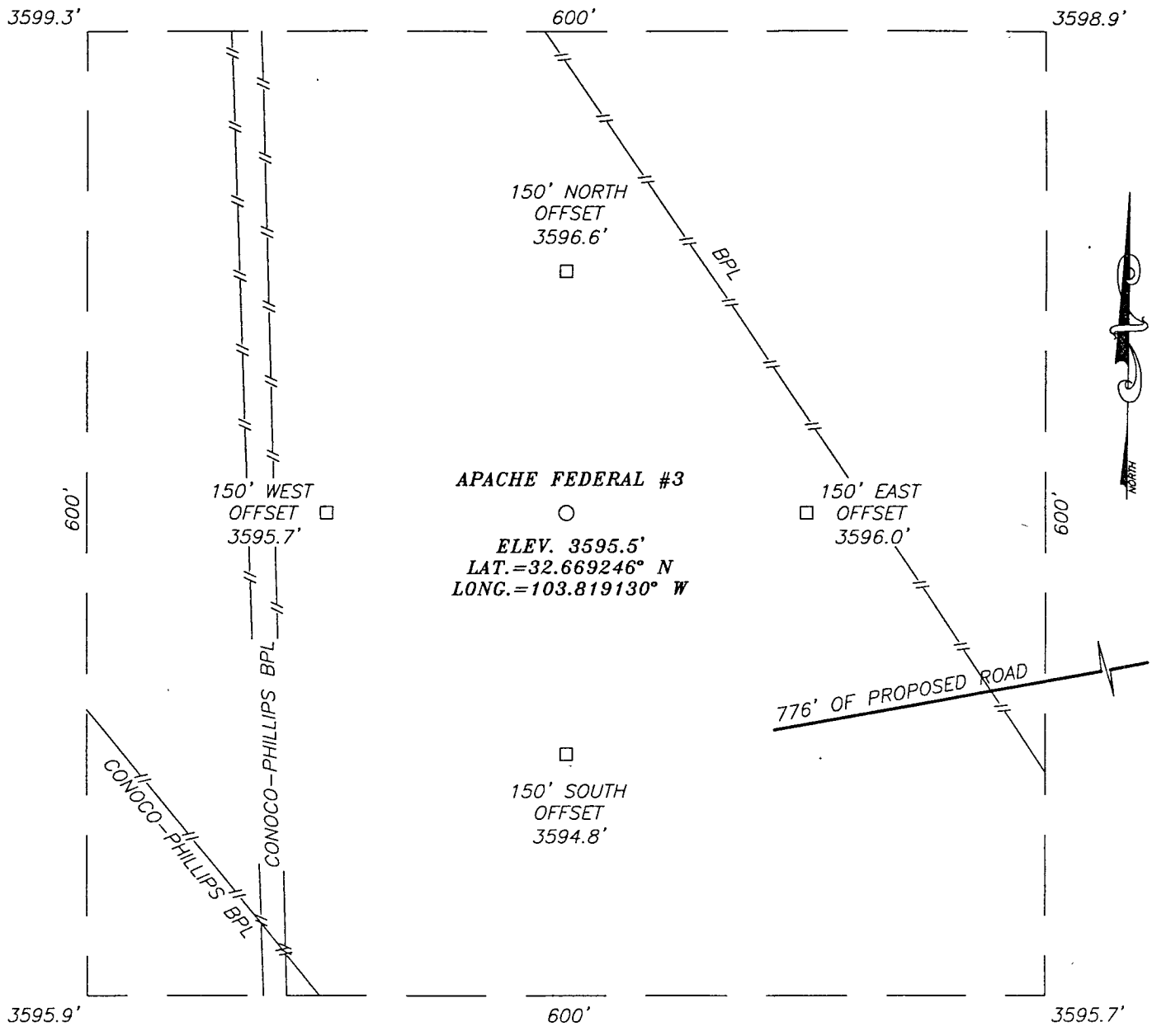
7/05/07

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT "A"

SECTION 12, TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. L-126 (MALJAMAR RD.) AND CO. RD. #248 (LUSK PLANT), GO NORTH ON CO. RD. L-126 APPROX. 1.2 MILES. TURN LEFT AND GO SOUTHWEST APPROX. 0.4 MILES. VEER RIGHT AND GO WEST APPROX. 0.6 MILES. TURN LEFT AND GO SOUTH-SOUTHWEST APPROX. 0.1 MILES. TURN RIGHT AND GO EAST APPROX. 0.3 MILES TO A PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY WEST-SOUTHWEST APPROX. 775 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

APACHE CORPORATION

APACHE FEDERAL #3 WELL
LOCATED 580 FEET FROM THE SOUTH LINE
AND 1650 FEET FROM THE EAST LINE OF SECTION 12,
TOWNSHIP 19 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 06/05/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.0708	Dr By: JR	Rev 1:N/A	
Date: 06/06/07	Disk: CD#7	07110708	Scale:1"=100'

APPLICATION TO DRILL

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

1. LOCATION: ~~560~~ 580' FSL & 1650' FEL SECTION 12 T19S-R31E EDDY CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3596' GL

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: 10,600'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Rustler Anhydrite	750'	1st Bone spring	8225'
Yates	2770'	2nd Bone Spring	9045'
Brushy Canyon	5415'	3rd Bone Spring	9855'
Bone Spring	6883'	Wolfcamp	10,600'

7. POSSIBLE MINERAL BEARING FORMATION:

Bone Spring	Oil
Wolfcamp	Gas

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-775'	13 3/8"	48#	8-R	ST&C	H-40 New
12¼"	0-4500'	9 5/8"	40#	8-R	LT&C	HCK-55 New
7 7/8"	0-10,600'	5½"	20#	8-R	LT&C	HCP-110 New

Collapse 1.125 Burst 1.0 Tension 1.8 Body Yield 1.5

APPLICATION TO DRILL

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix
13 3/8"	Surface	Set 775' of 13 3/8" 48# H-40 ST&C casing. Cement with 300 Sx. of Class "C" fill, tail in with 300 Sx. of Class "C" + Additives. See Detail for yield, and weight.
9 5/8"	Intermediate	Set 4500' of 9 5/8" 40# HCK-55 LT&C casing. Cement with 985 Sx. of Premium Plus Light cement + additives, tail in with 250 Sx. of Premium Plus cement + additives. See detail for Yield, weight and additives.
5½"	Production	Set 10,600' of 5½" 20# HCP-110 LT&C casing. Cement with 800 Sx. of Premium Light cement + additives, tail in with 600 Sx. of Super Class "H" cement + additives, See detail for additives, yield, and weight.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 1500 Series 5000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressure or temperatures are expected while drilling this well. one remote choke as per Exhibit "E"

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-775'	8.6-9.6	34-36	NC	Fresh water, native mud see detail for additives for hole maintance.
775-4500'	9.8-10.1	28-34	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole. See detail.
4500-10,600'	9.0-10.1	34-38	8-15 cc	Same as above, see detail for additives to maintain good hole conditions.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and/or the water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

12. LOGGING, CORING & TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, CNL, LDT, MSFL, NGT, Sonic, Gamma Ray, Caliper from TD back to 9 5/8" casing shoe. CNL,Gamma Ray from 9 5/8" Casing shoe to surface.

B. Core 2nd Bone Spring (120' form 9140-9260'±)

C. Mud logger on hole from 5200' to TD.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. 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 and 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 4000 PSI, and Estimated BHT 185°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 40 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Bone Spring formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an Oil well.

Apache Federal # 3

DRILLING PROGRAM

I. The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.

II. Estimated Tops of Geological Markers:

FORMATION	DEPTH
Quaternary alluvials	Surface
Rustler	750'
Yates	2770'
Brushy Canyon	5415'
Bone Spring	6883'
1st Bone Spring	8225'
2nd Bone Spring	9045'
3rd Bone Spring	9855'
Wolfcamp	10600'
TD	10600'

III. Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

SUBSTANCE	DEPTH
Oil	1st Bone Spring@8225' 2nd Bone Spring@9045' 3rd Bone Spring@ 9855'
Gas	Same as oil listed above
Fresh Water	None anticipated

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

IV. A. Proposed Casing Program:

HOLE SIZE	CASING SIZE OD / ID	GRADE	WEIGHT PER FOOT	DEPTH	SACKS CEMENT	ESTIMATED TOC - REMARKS
17 1/2"	13 3/8" 12.715"	H-40 STC	48#	775'	600	TOC – Surface
12 ¼"	9 5/8" 8.835"	HCK-55 LTC	40#	4,500'	1,235	TOC – Surface
7 7/8"	5 1/2" 4.892"	HCP- 110 LTC	20#	10,600'	1,400	TOC – Inside 9 5/8" Casing

B. Proposed Cement Program:

Spacer 20.0 bbl Fresh Water @ 8.33 ppg

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
13 3/8"	300 sacks Interfill C: 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Slurry Weight (ppg) 11.90 Slurry Yield (cf/sack) 2.45 Amount of Mix Water (gps) 14.11	300 sacks Premium Plus Cement 1% Calcium Chloride (Accelerator), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.34 Amount of Mix Water (gps)6.34	122 bbls Fresh Water @ 8.33 ppg

13 3/8" Casing: Volume Calculations:

735 ft	x	0.6946 cf/ft	with	100% excess	=	1021 cf
40 ft	x	1.0190 cf/ft	with	0% excess	=	40.8 cf
40 ft	x	0.8817 cf/ft	with	0% excess	=	35.26 cf (inside pipe)
		TOTAL SLURRY VOLUME			=	1097.06 cf
					=	195.38 bbls

Spacer 40.0 bbl Fresh Water Gel Pill @ 8.33 ppg

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
9 5/8"	985 sacks Light Premium Plus 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Slurry Weight (ppg) 12.9 Slurry Yield (cf/sack) 1.78 Amount of Mix Water (gps) 9.53;	250 sacks Premium Plus Cement 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.33 Amount of Mix Water (gps)6.32	341 bbls Fresh Water @ 8.33 ppg

9 5/8" Casing: Volume Calculations:

775ft	x	0.3765 cf/ft	with	0% excess	=	291.8 cf
3725ft	x	0.3132 cf/ft	with	100% excess	=	2333.34 cf
40 ft	x	0.4257 cf/ft	with	0% excess	=	17.02 cf (inside pipe)
		TOTAL SLURRY VOLUME			=	2642.16 cf
					=	470.55 bbls

Spacer 1000.0 gal Mud Flush @ 8.40 ppg

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
5 ½"	800 sacks Light Premium Cement 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Slurry Weight (ppg) 12.4 Slurry Yield (cf/sack) 2.00 Amount of Mix Water (gps) 11.18	600 sacks Super H Cement 0.5% LAP-1 (Low Fluid Loss Control), 0.4% CFR-3 (Dispersant), 0.25 lbm/sk D-AIR 3000 (Defoamer), 3lbm/sk Salt (Salt), 0.3% HR-7 (Retarder) Slurry Weight (ppg) 13.2 Slurry Yield (cf/sack) 1.64 Amount of Mix Water (gps) 8.46	235 bbls 2% KCL Water @ 8.43 ppg

V. A. Proposed Mud Program

DEPTH	MUD PROPERTIES	REMARKS
0 – 775'	Weight: 8.6 – 9.6 ppg Viscosity: 34 – 36 sec/qt pH: NC Filtrate: NC	Native spud mud is recommended with fresh water, circulating a controlled portion of the reserve pit. Utilize premixed Anco Gel (15-18lb/bbl) pills for hole cleaning. Additions of 2-4 qt Anco Drill N down the drill pipe at connections to sweep and condition the hole, for inhibition of the red beds, and flocculate fine drill solids enabling maximum rates of penetration. Control pH at 9.0-10.0 with additions of Lime at 0.25-0.5lb/bbl while circulating the reserve pit.
775' – 4,500'	Weight: 9.8 – 10.1 ppg Viscosity: 28 – 34 sec/qt pH: 9-10 Filtrate: NC	Drill out from under the surface casing with Brine Water. Paper should be added at 2 bags after every 100' drilled to control seepage losses. Use Lime to maintain pH at 9.5-10. Mix one gallon of Anco Drill N at flowline every 250 feet drilled to promote solids settling. Premixed Anco Salt Gel at 15-20lb/bbl with viscosity 38-42 sec/qt pumped as 50 bbl sweeps to reduce excess torque or drag.
4,500' – TD	Weight: 9.0 – 10.1 ppg Viscosity: 34 – 38 sec/qt pH: 9-10 Filtrate: 8-15 cm/30 min	From 4500' to Total Depth, return circulation to steel pits. Maintain 28-30sec/qt viscosity with 10-12lb/bbl of Anco Salt Gel and lower the filtrate 10-12 cc with 3.5-4.5lb/bbl of Anco Starch White. Maintain a sufficient amount of 10lb/gal brine water on location to control formation pressures if encountered. Prior to trip out of hole to log, circulate a 100bbl high viscosity Anco Salt Gel sweep to clean the hole.

VI. Proposed Control Equipment:

Will install on the 9 5/8" surface casing a 11" x 5000 psi WP Double Ram BOP and will test before drilling out of surface casing. See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

11" x 5000 psi double BOP/blind & pipe ram
41/2" x 3000 psi Kelly valve
11" x 5000 psi mud cross – H_2S detector on production hole
Gate-type safety valve 3" choke line from BOP to manifold
2" adjustable chokes – 3" blowdown line

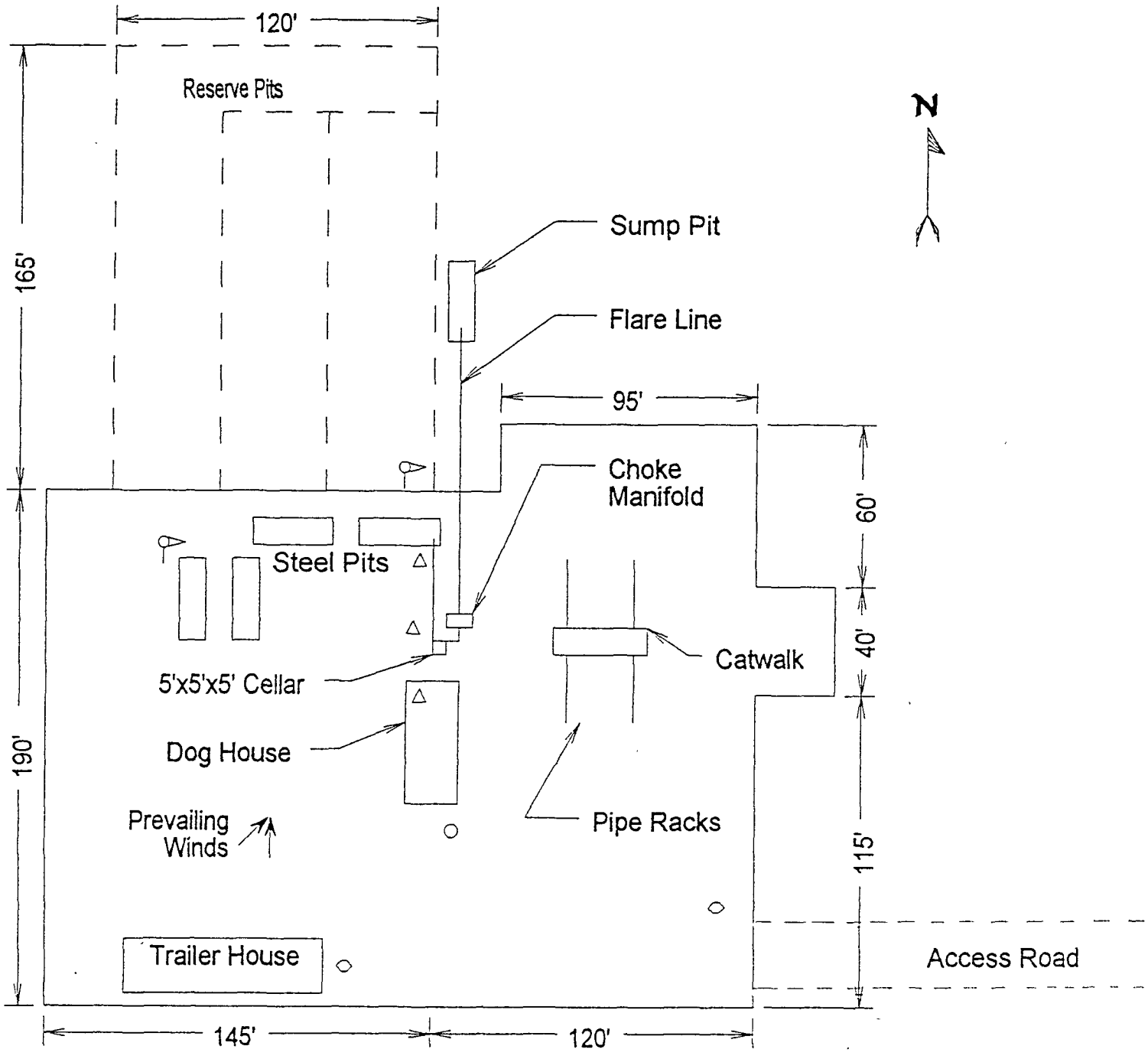
VIII A. Testing Program: None planned

B. Logging Program: The following logs may be run:
CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-4,500'
CNL, GR from TD-Surface

C. Coring Program: Take 120' of core in the 2nd Bone Spring from approximately 9,140' to 9,260'.

D. Mudlogging Program: Unit on by 5,200' and samples taken every 10' from 5,200' to TD

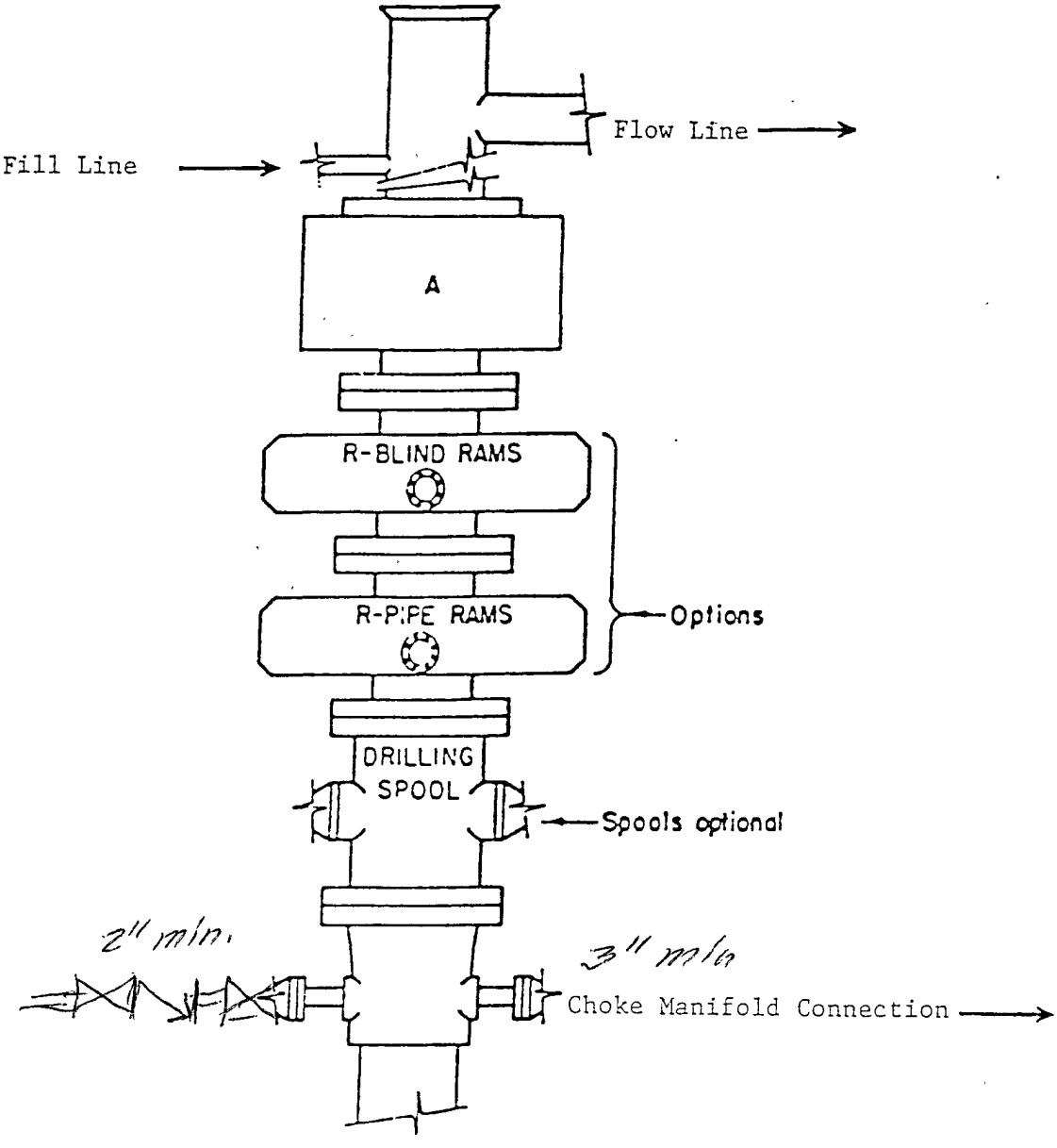
IX. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. The estimated maximum bottom hole pressure is 4,000 psi.



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- ◇ Briefing Areas
- ○ Remote BOP Closing Unit
- □ Sign and Condition Flags

EXHIBIT "G"
RIG LAY OUT PLAT

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM



ARRANGEMENT SRRA

1500 Series
5000 PSI WP

EXHIBIT "H"
SKETCH OF B.O.P. TO BE USED ON

APACHE CORPORATION
APACHE FEDERAL #3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

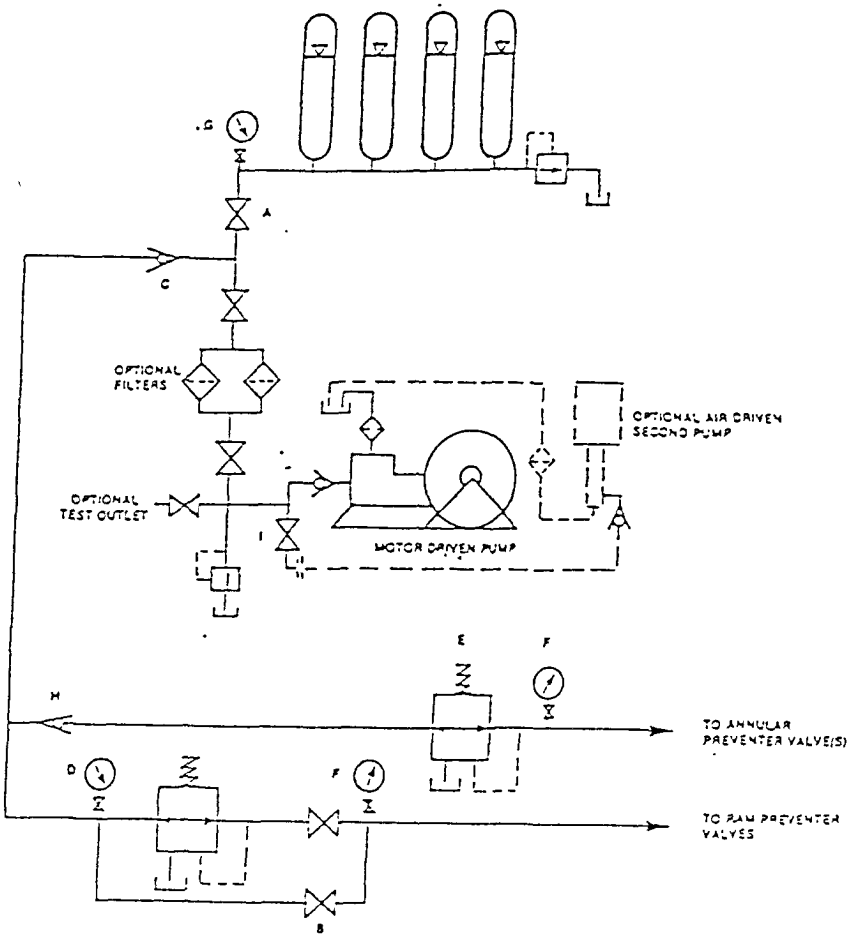


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

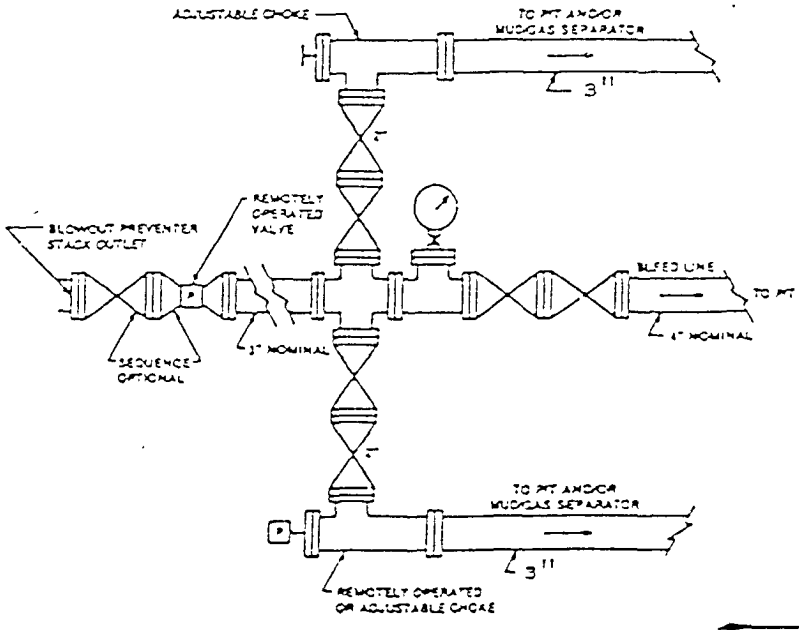


FIGURE K-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E"
CHOKE MANIFOLD & CLOSING UNIT

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Hobbs New Mexico take U.S. Hi-way 62-180 West for 37± miles to the junction of State road 176 and 243, turn Right (North) follow road 4.5± miles, turn Right (North) go 7± miles turn Left (West) go 1± mile to well in the SW/4 of SW/4 section 7 T19S-R32E, continue West approximately 2200' to location.

D. Exhibit "C" shows a topographic map with proposed road and powerline.

2. PLANNED ACCESS ROADS: Approximately 2200' of new road will be needed to location.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells - One approximately 1.5 miles Southeast of location.

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells - As shown on Exhibit "A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads , flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.

B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.

C. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a State approved disposal site. Later the pits will be broken out to speed drying. Water produced during completion will be stored in tanks and disposed of in State approved disposal site. Oil and condensate produced during completion will be put in storage tanks and sold.

D. Drill cuttings will be disposed of in resebev pits or if necessary will be taken to a State approved landfarm and disposed of properly.

E. Any remaining salts or mud additives will be collected by the supplier and to stock, this includes all broken bags.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

SURFACE USE PLAN

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the proposed well site layout.

B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.

C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.

D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than12 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.

E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out.If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

11. OTHER MISCELLANEOUS INFORMATION:

A. Topography is flat with very slight dip, minor drainage is to the South into Greenwood Lake. Vegetation consists of scattered Mesquite, various native grasses. Soil consists of sandy loam with caliche nodules.

B. The surface and minerals are owned by The U.S. Department of Interior and is administered by The Bureau of Land Management.

C. An Archaeological survey will be conducted on the location and proposed road and the report will be filed with The BLM field office in Carlsbad New Mexico.

D. There are no domestic dwellings located within 2 miles of the location.

E. The surface is used to graze livestock and the production of Oil and Gas.

SURFACE USE PLAN

APACHE CORPORATION
APACHE FEDERAL # 3
UNIT "O" SECTION 12
T19S-R31E EDDY CO. NM

CERTIFICATION:

Before construction:

TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
JOE T. JANICA
OFFICE PH. 505-391-8503
CELL PH. 505-390-1598

During and after construction:

APACHE CORPORATION
6120 SOUTH YALE
SUITE 1500
TULAS, OKLAHOMA 74136-4224
LANA WILLIAMS
OFFICE PH 918-491-4980

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads, and that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge are true and correct, and that the work associated with the operations proposed herein will be performed by APACHE CORPORATION it's contractors/subcontractors is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false report.

NAME : Joe T. Janica Joe T. Janica

TITLE : Agent

DATE : 07/06/07

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: **Apache Corporation**
Well Name & No. **3-Apache Federal**
Location: **0580' FSL, 1650' FEL, Sec. 12, T-19-S, R-31-E, Eddy County, NM**
Lease: **NM-23002**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 2 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

B. Hydrogen Sulfide has not been reported in this section. It has been reported in Sections 19, 21, and 24 in the township to the east measuring 200-3000 ppm in gas streams and 200-3000 ppm in STVs.

C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

D. When floor controls are required, (3M or Greater), controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13-3/8** inch surface casing shall be set **a minimum of 25 feet into the Rustler Anhydrite at approximately 775 feet** and cemented to the surface.

1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours, 24 hours in the potash area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 2 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
4. **If cement falls back, remedial action will be done prior to drilling out that string.**

Possible lost circulation in the Artesia Group.
Possible lost circulation in the Capitan Reef if it is encountered.
Possible water flows in the Artesia and Salado Groups.
Possible high pressure gas in the Wolfcamp.
The Strawn, Atoka, and Morrow formations may be over pressured.

B. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is **for cement to come to surface.** If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement to extend a minimum of 200' inside the intermediate casing. Prior to moving the rig, please provide verification of cement top.**

D. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

B. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad - 505-706-2779

WWI 072307