Form 3160-5 (November 1953)  UNITED ST	ATES SUBMIT IN TRIPLICAL (Other Instructions on	Budget Bureau No. 1004-0135 Expires August 31, 1985
(November 19-33) (Formerly 9-331)  DEPARTMENT OF THE INTERIOR verse side)		5. LEASE DESIGNATION AND SERIAL NO.  Jicarilla #127
BUREAU OF LAND	<del></del>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
SUNDRY NOTICES AND  (Do not use this form for proposals to drill or to use "APPLICATION FOR PERM	REPORTS ON WELLS deepen or plug back to a different reservoir. IIT—" for such proposals.)	Jicarilla Apache
OIL GAS OTHER		C. UNIT AGREEMENT NAME
2. NAME OF OPERATOR		S. FARM OR LEASE NAME
Apache Corporation  3. ADDRESS OF OPERATOR  1700 Lincoln Ste. Ste. 1900, Denver, CO 80203-4519  4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*  See also space 17 below.)  At surface		Apache 9. WBLL NO.
		100
		Lindrith Gallup Dakota  11. SEC. T. E. M., OR BLK. AND SURVEY OR AREA
435' FNL, 475' FEL	(Show whether DF, RT, GR, etc.)	Sec. 3-T24N-R4W
4000	KB	Rio Arriba NM
	To Indicate Nature of Notice, Report, o	
NOTICE OF INTENTION TO:		SEQUENT REPORT OF:
TEST WATER SHUT-OFF PULL OR ALTER CA		ALTERING CASING
FRACTURE TREAT  SHOOT OR ACIDIZE  ABANDON®	XX SECOTING OR ACIDIZING	ABANDONMENT®
REPAIR WELL CHANGE PLANS	(Other)	
(Other)  17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly proposed work. If well is directionally drilled, give	Completion or Reco	uits of multiple completion on Well ompletion Report and Log form.)
Attached are changes made tand Steve Mason on 12/12/90 Steve at 8:30 a.m. on 12/12	/ Verbal approval for w	
SIGNED David M. Talbott (This space for Federal or State office use)	TITLEST Drlg/Prod Engine	APPROVED  er 12/12/90  DEC 3 1 1990
CONDITIONS OF APPROVAL, IF ANY:		- 1 M - 1
	The second of th	AREA MANAGER FARMINGTON RESOURCE FOR
*S	ee Instructions on Reverse Side	5.5.0 (1200.5);

CONTRACTOR ASSESSMENT AND THE

# APACHE #100 NE NE SEC 3-T24N-R4W RIO ARRIBA COUNTY, NM LEASE CONTRACT NO. 127 WEST LINDRITH GALLUP/DAKOTA FIELD

#### PLUGGING PROCEDURE

**DECEMBER 11, 1990** 

GROUND ELEVATION: 6876' KB ELEVATION: 6889'

CASING LANDED @ 7600'

CASING 4-1/2" 11.6 #/FT 31 JTS 7600'-6618'
10.5 #/FT 205 JTS 6618'-SURF
(CAP 10.5# 11.167 FT/CU-FT)

DV TOOL @ 5504'

CALCULATED CMT TOP: 1ST STAGE 6200'; 2ND STAGE 2900'

#### PERFS:

DAKOTA: 7307-7326, 7334-7342, 7376-7385, 7467-7475, 7512-7518, 7526-7542

GALLUP: 6422-6430, 6434-6442, 6454-6468, 6480-6486, 6508-6512, 6518-6526, 6578-6584, 6588-6596, 6600-6614

SURF CASING 8-5/8" 23 #/FT SET @ 255' CMT TO SURF.

ALL PLUGGING PRACTICES TO CONFORM TO: GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES (SEE ATTACHMENT)

- A. NOTIFY BLM FARMINGTON OFFICE 24 HOURS BEFORE PLUGGING OPERATIONS COMMENCE @ 505-326-6201.
- B. MIRU SU
- C. KILL WELL IF REQUIRED.
- D. ND WH
- E. NU BOP
- F. TOOH W/ TBG
- G. RU WIRELINE COMPANY

- H. RUN IN HOLE W/ GAUGE RING TO 7300'
- I. RUN IN HOLE W/ CIBP SET @ 7300'
- J. DUMP BAIL 5 SXS CMT ON TOP OF CIBP
- K. RUN IN HOLE W/ CMT RETAINER SET @ 6400'
- L. RD WIRELINE COMPANY
- M. TIH W/ TBG & STINGER
- N. STING INTO RETAINER ESTABLISH INJ
- O. STING OUT OF RETAINER
- P. ROLL HOLE W/ 9 PPG PLUG MUD.

NOTE: PLUG MUD SPEC'S PER BLM: MIN 15#/BBL SODIUM BENTONITE, AND A NONFERMENTING POLYMER, MINIMUM CONSISTENCY MUST BE 9 PPG W/ A MIN VIS 50 SEC/QT MIX W/ FRESH WTR.

- Q. STING INTO RETAINER
- R. CMT SQ PERF W/ 50 SXS CLASS G OR H CMT (DISPLACE TO RETAINER)
- S. STING OUT OF RETAINER, SPOT 25 SXS ON TOP OF RETAINER (ABOUT 330' OF CMT @ 1.18 YIELD)
- T. POOH TO SPOT CMT PLUG INSIDE CASING FROM 4830'-4730' PLUS 50% EXCESS CMT VOLUME
- U. POOH TO SPOT CMT PLUG INSIDE CASING FROM 4050'-3850' PLUS 50% EXCESS CMT VOLUME
- V. POOH TO SPOT CMT PLUG INSIDE CASING FROM 3185'-2960' PLUS 50% EXCESS CMT VOLUME (NOTE BLM IS REQUIRING PERFORATIONS AT 2882' SO TOP OF PLUG SHOULD NOT EXCEED 2900')
- W. POOH 10 STAND REVERSE TBG CLEAN
- X. POOH W/ REMAINING TBG
- Y. RU WIRELINE COMPANY

### Z. PERF @ 2882' W/ 4 SHOTS

NOTE: THIS IS AT THE REPORTED KIRKLAND TOP AND NOT THE DESIRED 50 FEET BELOW THE KIRKLAND TOP BECAUSE THE REPORTED CALCULATED TOP OF CMT IS 2900'.

- AA. RUN IN HOLE W/ CMT RETAINER, SET @ 2840'
- AB. RD WIRELINE
- AC. TIH W/ STINGER & TBG
- AD. STING INTO RETAINER ESTABLISH INJECTION
- AE. CMT SQ PERFS W/ 50 SXS CLASS A CMT
- AF. STING OUT OF RETAINER, SPOT 50 FT CMT ON TOP OF RETAINER.
- AG. POOH W/ 10 STAND REVERSE TBG CLEAN
- AH. POOH W/ REMAINING TBG (LAY DOWN TBG AS NEEDED)
- AI. RU WIRELINE COMPANY
- AJ. PERF @ 2550' W/ 4 SHOTS

NOTE: THIS DEPTH IS 50 FT ABOVE TOP OF OJO ALAMO.

- AK. RUN IN HOLE CMT RETAINER SET @ 2500'
- AL. RD WIRELINE COMPANY
- AM. TIH W/ TBG & STINGER
- AN. STING INTO RETAINER ESTABLISH INJECTION

IF UNABLE TO ESTABLISH INJECTION THEN THERE IS PROBABLY CMT BEHIND CASING FROM KIRKLAND SQ. SPOT 25 SXS CMT ON TOP OF RETAINER.

- AO. CMT SQ PERFS W/ 50 SXS CLASS A CMT
- AP. STING OUT OF RETAINER, SPOT 25 SXS CMT ON TOP OF RETAINER.
- AQ. POOH TO LAND TBG @ 300'

# AR. SPOT 300' CMT PLUG (300'- SURF')

NOTE: THIS SHOULD ELIMINATE PRESSURE TST REQUIREMENTS OF STEP 5A: TESTING FIRST PLUG BELOW SURFACE PLUG OF BLM GENERAL REQUIREMENTS

- AS. RU TO 8-5/8" & 4-1/4" ANNULUS
- AT. PUMP 125 SXS CMT TO FILL BACKSIDE TO 300'
- AU. CUT OFF CSG 3' BELOW GROUND LEVEL
- AV. SET 10' DRY HOLE MARKER W/ WELLNAME & LOCATION WELDED ON PIPE. HAVE MIN OF 6 FT EXPOSED ABOVE CUT OFF.
- AW. RD SU
- AX. RESTORE LOCATION

# UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LA PLATA HIGHWAY FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 100 Apriche

## CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. Mark Kelly with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 326-6201.
- 3. Blowout prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

Office Hours: 7:45 a.m. to 4:30 p.m.

# GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON RESOURCE AREA

- 1. Secure prior approval either on a Sundry Notice (Form 3160-5) or verbally from the Fluids Drilling & Production Section at this office before changing the approved plugging program.
- 2. Plugging equipment used shall have separate mixing and displacement pumps and a calibrated tank to assure proper displacement of plugs. The Operator is responsible for providing all measuring devices needed to assure proper measurement of materials being used.
- 3. A proper tank or pit will be used to contain all fluids pumped from the well during plugging operations. Unattended pits are to be fenced.
- 4. All cement plugs are to be placed through tubing (or drillpipe) and shall be a minimum of 100 feet in length with 50% excess inside casing or 100% excess when plug is set in open hole or squeezed into perforations. 15.6%/gal slurry weight is to be used when using class B neat cement or when CaCl<sub>2</sub> is used. Use the recommended slurry weight of other type cements when they are used (Class C, Pozzolan etc.).
- 5. Any cement plugs placed when well is not full of fluid, or when well may be taking fluid, (i.e. across perfs-unless bridge plug or retainer is used, across bad csg., or fresh water formations) will be tagged (touched) after cement has set to verify proper location.
  - 5a. Testing The first plug below the surface plug shall generally be tested by either tagging the plug with the working pipe string, or pressuring to a minimum pump (surface) pressure of 1000 psig, with no more than a 10 percent drop during a 15-minute period (cased hole only). If the integrity of any other plug is questioned, it must be tested in the same manner. Also, any cement plug which is the only isolating medium for a fresh water interval or a zone containing a valuable mineral deposit should be tested by tagging with the drill string.
- 6. Mud must be placed between plugs. Plugging mud is to be made up with a minimum of 15 lbs/bbl of sodium bentonite, and a nonfermenting polymer.

  Minimum consistency of plugging mud must be 9 lbs/gal and with a minimum viscosity of 50 sec/qt. Fresh water is to be utilized for mixing mud.
- 7. Following the placement of a cement plug, the withdrawl rate for at least the length of the cement plug shall not exceed 30 ft/min, in order to minimize the contamination of the plug.

- 8. Within 30 days after plugging work is completed, file a Sundry Notice (Subsequent Report of Abandonment, Form 3160-5), in quintuplicate with Area Manager, Bureau of Land Management, 1235 La Plata Highway, Farmington, NM 87401. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date well was plugged.
- 9. All permanently abandoned wells are to be marked with a regulation marker (4" pipe extending 4' above the ground line) containing the information as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10. After plugging work is completed the surface is to be rehabilitated in accord with instructions from the Fluids Surface Management Section of the Farmington Resource Area Office.

All above are minimum requirements. The period of liability under the bond of record will not be terminated until the lease is inspected and surface work approved.

Please advise this office when the well location is ready for final inspection.

Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1.

You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.