Form 3160-5 (November 1994)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR

Do not use this form for proposals to drill or reenter an

abandoned well. Use Form 3160-3 (APD) for such proposals.

Casing Repair Change Plans

**BUREAU OF LAND MANAGEMENT** SUNDRY NOTICES AND REPORTS ON WELLS

5. Lease Serial No.

Jicarılla Contract 149

6 If Indian. Allottee or Tribe Name

FORM APPROVED

OMB No 1004-0135

Expires July 31 1996

If Unit or CA/Agreement, Name and/or N

Other

Jicarilla Apache

SUBMIT IN TRIPLICATE - Other instructions on reverse side

		PK II	
1. X Oil Well X Gas Well		in the security was account in	8 Well Name and No.
	☐ Other	JUL_19 2012	
2. Name of Operator		• • • • • • • • • • • • • • • • • • •	Jicarilla Apache F #18
Elm Ridge Exploration, Co	LLC	Ruman of Land Management	9. API Well No.
3a Address		3b. Fallene Nor(mehide affearode)	30-039-29873
P.O. Box 156 Bloomfield, NI	M 87413	505-632-3476	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec.,	T, R, M., or Survey Descript	ion)	Blanco Pictured Cliffs S.
			11 County or Parish, State
A - Sec.18-T25N-R5W			Die Anales Ossantis NINA
880' FNL X 730' FEL			Rio Arrıba County, NM
12. CHECK APPROPRIATE BOX	X(ES) TO INDICATE NA	TURE OF NOTICE, REPORT, OR C	OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION		
Notice of Intent	Acidize	Deepen Production	on (Start/Resume) Water Shut-Off
WEN	Alter Casing	Fracture Treat Reclamat	· ' <b>=</b>
1/1/N	Pal Anto Casing	ractuse ricat rectained	La well integrity

Convert to Injection Plug Back

Elm Ridge Exploration Co LLC would like to change the proposed Total Depth from 3000' (Blanco Pictured Cliffs S. to 6250' (West Lindrith Gallup Dakota). WE also would like to change the 5 1/2" 15.5# casing depth to 6250' as well-

Plug and Abandon Temporarily Abandon

Water Disposal

Chacra - 2150' Cliff House - 4220' Point Lookout - 4740' Mancos - 4935' Gallup - 5918' L. Gallup - 6143'

Subsequent Report

Final Abandonment Notice

CONDITIONS OF APPROVAL Adhere to previously issued stipulations. RCVD AUG 27'12 OIL CONS. DIV. DIST. 3

TD - 6250' I hereby certify that the foregoing is true and correct Title Name (Printed/Typ Administrative Manager my Mackey Signature Date July 18, 2012 THIS SPACE FOR FEDERAL OR STATE USE Approved by Petroleum Engineer Conditions of approval, if any, are attached. Approval of this notice does not warrant or

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

Office

(Instructions on reverse)

PLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER **AUTHORIZATION REQUIRED FOR OPERATIONS** ON FEDERAL AND INDIAN LANDS

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

PV

Describe Proposed or Completed Operations (clearly state all perfunent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and including estimated and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perferred or provide the Bond No on file with BILM/BIA. Required subsequent reports shall be filed within 30 days. Following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Ferm 3160-4 shall be filled only after all requirements, including reclamation, have been completed, and the operator has determined that the other credit for their unspectable. Festing has been completed. Final Abandoni determined that the site is ready for final inspection.)

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

<u>District IV</u>

1220 S. St. Francis Dr., Santa Fe, NM 87506

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

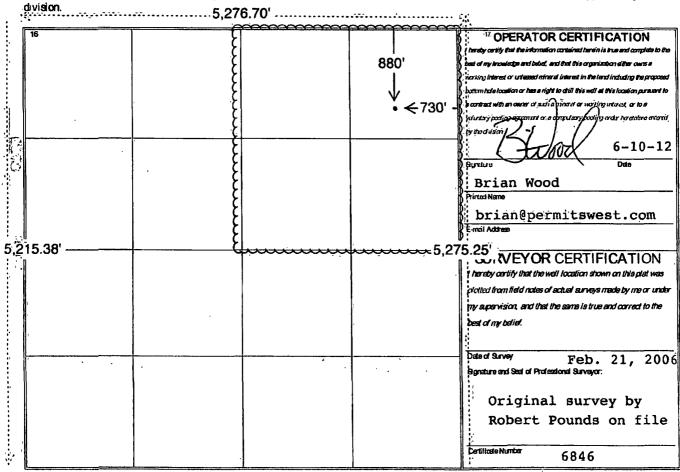
Form C-102 Revised July 16, 2010 Submit one copy to appropriate District Office

MENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-039-	API Numbe 29873	7	'Pool Code 'Pool Name 39189 Lindrith Gallup-Dakota					est	
Property 1902	Code	'Property Name  Jicarilla Apache F				• ٧	*Well Number 18		
'ogrid 14905			Elm	Ridge	Operator N Explorat	ame tion Compan	ay LLC		Elevation 67,87,6639
					10 Surface L	_ocation			
UL or lot no.	Section	Township	Renge	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	25 N	5 W		880	North	730	East	Rio Arriba
			<sup>11</sup> Bo	ttom Hole	Location If	Different Fron	n Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West tine	County
			],			Į		RCV	D AUG 27 '1
<sup>12</sup> Dedicated Acre 160	o InioL <sup>u</sup> se	r Infill 1	Consolidation	Code 15 Ord	ler No.			OIL	CONS. DIV
100		1		į į					DICT O

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



5280'

Elm Ridge Exploration Company, LLC Jicarilla Apache F 18 880' FNL & 730' FEL Sec. 18, T. 25 N., R. 5 W. Rio Arriba County, New Mexico

### **Drilling Program**

### 1. ESTIMATED FORMATION TOPS

Formation Name	<b>GL</b> Depth	KB Depth	<b>Elevation</b>
San Jose	0'	10'	+6,787'
Chacra Ss	2,150'	2,160'	+4,637'
Cliff House Ss	4,220'	4,230'	+2,567'
Point Lookout Ss	4,740'	4,750'	+2,047'
Mancos Shale	4,935'	4,945'	+1,852'
Gallup Ss	5,918'	5,928'	+869'
Lower Gallup	6,143'	6,153'	+644'
Total Depth (TD)*	6,250'	6,260'	+537'

<sup>\*</sup> all elevations reflect the ungraded ground level of 6,787'

### 2. NOTABLE ZONES

Oil & Gas Zones	Water Zones	Coal Zone
Pictured Cliffs	San Jose	Fruitland
Chacra	Ojo Alamo	
Gallup	Fruitland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

### 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3. The ≥3,000 psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling the surface casing plug. It will remain in use until the well is completed or



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abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings that are set and cemented in place.

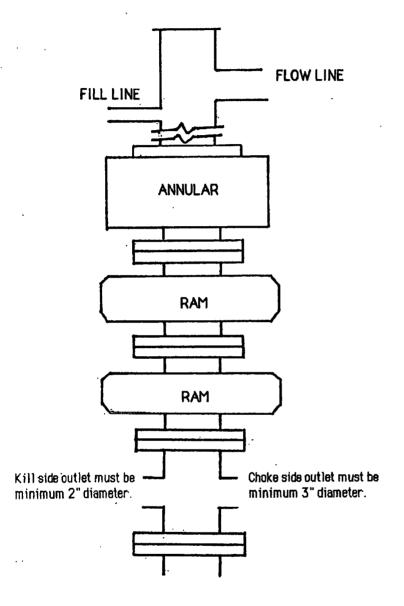
### 4. CASING & CEMENT

Hole Size	Ω. D	Weight (lb/fi	c) Grade	. Type	Age	GL Setting Depth
12-1/4"	8-5/	/ <b>8"</b> 24	J-55	ST&C	New	259 320
7-7/8"	5-1,	<b>/2"</b> 15.5	J-55	LT&C	New	6,250'
Surface Production	Drift inch 7.972 4.653	Torque <u>feet-pounds</u> 3070 2020	Burst psi 2950 4810	Collapse psi 1370 4040	Tension 1000 psi 381 248	Pressure Test psi 1000 3500

Surface casing was cemented with 200 sacks Class G with poly flake. Twenty barrels of good cement were circulated to the surface. Bryce Hammond witnessed the job.

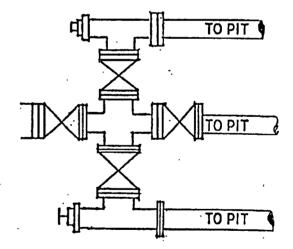
Production casing will be cemented to the surface in two stages with  $\geq 75\%$  excess. A DV tool will be set at  $\approx 4,735$ ' ( $\approx 200$ ' above the Mancos). Will pressure test to  $\approx 2,000$  psi for  $\approx 30$  minutes.





# TYPICAL BOP STACK & CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.

Safety valve and subs will fit all drill string connections in use.

All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

Elm Ridge Exploration Company, LLC Jicarilla Apache F 18 880' FNL & 730' FEL Sec. 18, T. 25 N., R. 5 W. Rio Arriba County, New Mexico

First stage volume will be  $\approx 1,493$  cubic feet. First stage will consist of 370 sacks ( $\approx 691$  cubic feet) Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl<sub>2</sub> mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by 680 sacks (802 cubic feet) Class B + 2% CaCl<sub>2</sub> mixed at a yield of 1.18 cubic feet per sack and a weight of 15.2 pounds per gallon.

Second stage volume will be  $\approx$ 928 cubic feet. Second stage will consist of  $\approx$ 465 sacks (869 cubic feet) of Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl<sub>2</sub> mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by  $\approx$ 50 sacks (59 cubic feet) Class B + 2% CaCl<sub>2</sub> mixed at a yield of 1.18 cubic feet per sack and a weight of 15.2 pounds per gallon.

### 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	ppg	<b>Viscosity</b>	Fluid Loss	Hq
259' - TD'	Fresh water gel	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and prevent a blowout will be available at the well site while drilling. Rig personnel will check the mud hourly. Material to soak up possible oil or fuel spills will be on site.

### 6. CORES. TESTS. & LOGS

No cores or drill stem tests are planned. Spectral density, high resolution induction, and cement bond logs will be run the base of the surface casing to TD. Samples will be collected every ≈10' from ≈200' above the Point Lookout to and through the Gallup and Dakota.



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### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum bottom hole pressure will be  $\leq 2,706$  psi.

### 8. OTHER INFORMATION

Spud date was June 21, 2012. Initial goal was the Pictured Cliffs sandstone. Goal will now be the Gallup sandstone instead. It is expected it will take  $\approx 1$  week to finish drilling and  $\approx 3$  weeks to complete the well.

