# **UNITED STATES** DEPARTMENT OF THE INTERIOR

OMB No. 1004-0135 Expires: January 31, 2004

FORM APPROVED

Title Petroleum Engineer

.3-31-2008

Date

BUREAU OF LAND MANAGEMENT 5. Lease Serial No. **SUNDRY NOTICES AND REPORTS ON WELLS** MDA 701-04-0014 Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 6. If Indian, Allottee or Tribe Name Iicarilla Anache Nation

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SUBMIT IN TR	RIPLICATE - Other instruc		/EID	7. If Unit or CA	/Agreement, Name and/or No.		
1. Type of Well		A F P C I A					
Oil Well Gas Well	nna 🗀	8. Well Name	and No.				
2. Name of Operator		MAR 2 7 2	<del>900</del>	JAECO 28-3 No. 8			
Jicarilla Apache Energy Corp		Dumay of Land Mar	nagement	9. API Well No			
3a. Address							
DO D 710 D 1 N N	. 07700				ool, or Exploratory Area		
P.O. Box 710 Dulce, New Me		505-759-3224		Blanco MV	,		
4. Location of Well (Footage, Sec.,	1, R., M., or Survey Description)		<u> </u>	11. County or P	arish. State		
660' FSL & 660" FWL, Sec 10	), T28N, R3W, NMPM			Rio Arriba, 1			
12. CHECK API	PROPRIATE BOX(ES) TO	INDICATE NATURE O	F NOTICE, REI	PORT, OR O	THER DATA		
TYPE OF SUBMISSION	,	TYPE OI	ACTION				
	Acidize	Deepen .	Production (Start/R	esume)	Water Shut-Off		
✓ Notice of Intent	Alter Casing		Reclamation		Well Integrity		
Cuboon and Bound	Casing Repair	New Construction	Recomplete		Other		
Subsequent Report	☑ Change Plans	Plug and Abandon	Temporarily Abane	don			
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal				
Originally JAECO planned to dri Blanco MV section, only - with a Your approval of this sundry is a	ill the JAECO 28-3 No.8 well to a new proposed TD of 6330'. At	tached is a new Ten Point D	nas changed plans rilling Plan consi	stant with this	drill this well through the proposed change. RCVD APR 2 '08 OIL CONS. DIV. DIST. 3		
					OF APPROVAL saly issued stipulations.		
14. 1 hereby certify that the foregoing Name (PrintedlTyped)	g is true and correct						
Charles Neeley	1.1	Title Consultin	g Engineer				
Signature //mh	Tuley !	Date March 26					
V	THIS SPACE FO	R FEDERAL OR STATE	OFFICE USE				

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.

Approved by (Signature)

Conditions of approval, if any, are attached. Approval of this notice 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.

Name

(Printed/Typed) Office

# Jicarilla Apache Energy Corp JAECO 28-3 No. 8

660' FSL & 660' FWL Section 10, T28N, R3W, NMPM Rio Arriba County, New Mexico

# TEN POINT DRILLING PLAN

1. Surface Formation: San Jose

2. Surface Elevation: 7103' UGL Est KB, ft: 7115

3. Estimated Formation Tops:

	Top	Top		
Formation	MD (KB), ft	Subsea, ft	Rock Type	Comments
San Jose	Surface	Surface	Sandstone & Shale	Sticking
Nacimiento	2251	4864	Shale & Sandstone	Bit ballling, sticking & LC
Ojo Alamo	3396	3719	Sandstone	Gauge Hole
Kirtland	3540	3575	Shale w/Sandstone	
Fruitland	3638	3477	Coal, Shale, Sandstone	Gas, Water
Pictured Cliffs	3700	3415	Sandstone, Shale, Coal	Gas - Mud Loss
Lower PC	3886	3229	Sandstone & Shale	Gas - Mud Loss
Lewis	4146	2969	Shale	``
Huerfanito	4546	2569	Shale	Bentonite
Cliff House	5784	1331	Sandstone	Gas
Menefee	5797	1318	Coal, Shale, Sandstone	Gas & Oil
Pt. Lookout	6050	1065	Sandstone & Shale	Gas
Mancos Shale	6256	859	Shale	Shale
Total Depth:	6330	785		

# 4. Casing and Cementing Program:

Drill a 12 1/4" Hole to 320'. A string of new 9 5/8" 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 180 sacks (212.5 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 2% CaCl<sub>2</sub> and 1/4 lb/sack cellophane flake. Slurry volume assumes 100% excess over calculated hole volume. Clearance between couplings and hole is 1.625". If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus.

Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull whichever is greater.

Hole	Casing Data					Burst	Jt. Strength
Dia	OD	Wt/FT	Grade	Thread	(psi)	(psi)	(Lbs.)
12 1/4"	9 5/8"	36	J-55	STC	2,020	3,520	394,000
	,	36	K-55	STC	2,020	3 <del>,950</del>	4 <del>52,</del> 000

520 423

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Install proper size test plug, calibrated test guage and recorder. Pressure test BOPE at 250 psi for 5 minutes and 2000 psi for 10 minutes. Pull test plug, drill wiper plug, float collar and cement to within 10' of casing shoe. Close pipe rams and pressure test surface casing to 1500 psi for 30 minutes.

#### 4. Casing and Cementing Program: Continued

Drill an 8 3/4" hole to 4216' feet, approximately 70' feet into the Lewis Shale.

Run Induction and Compensated density/neutron logs from  $\underline{4216}$ ° to the surface casing shoe.

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A string of new 7" 20#, J-55, <del>LTC</del> Intermediate casing will be set at <u>4216</u> with a mechanical DV tool set at <u>2306</u>, 55' below Nacimiento top. Stage 1 (<u>4216</u>' - <u>2306</u>', 1910') will be cemented with <u>173</u> sacks (<u>324.6 cf</u>) of 35/65 Poz/B + 6% Gel + 5#/sk Gilsonite and 1/4 #/sk cellophane flake mixed at 12.1 ppg, yield 1.88 cf/sk. Followed by <u>149</u> sacks (188.1 cf) Class B with 5#/sk Gilsonite. ½#/sk cellophane flake and mixed at 15.2 ppg, yield 1.26 cf/sk.

Circulate and WOC between stages for four (<u>4</u>) hours. Stage 2 (<u>2306</u>' - surface) will be cemented with <u>281</u> sacks (<u>534.6 cf</u>) of 35/65 Poz/B + 6% Gel + 10#/sk Gilsonite and 1/4 #/sk cellophane flake mixed at 12.5 ppg, yield 1.90 cf/sk. Followed by 50 sks (63cf) Class B with 5#/sk Gilsonite and 1/4 #/sk cellophane flake, mixed at 15.2 ppg, yield 1.26 cf/sk. Slurry volumes assume a 75% excess over gauge hole volume for stage 1 and 83% over gauge volume for stage 2 (consistant with our experience in the area). Cement type and volume is subject to change after review of open hole caliper logs. Clearance between couplings and hole is 1.094 ". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

Hole	Casing Data				Collapse	Burst	Jt. Strength
Dia	OD _	Wt/FT	Grade	Thread	(psi)	(psi)	(Lbs.)
8.75"	7.0" 💝	20	J-55	STC	2,270	3,740	234,000

<u>WOC 12 Hours:</u> Nipple up BOP, tag cement & drill out DV, pressure test casing to 500 psi, drill out float collar and cement to within 10' of casing shoe, close pipe rams and pressure test casing/BOPE to 2000 psi for 30 minutes.

Air drill a 6 1/4" hole from 4216' to 6330' TD, approximately 75' feet into the Upper Mancos.

Run Dual Induction and Compensated density/neutron logs from TD to the intermediate casing.

A new 4 ½" 10.5 #, J-55, STC production liner will be run from 6330\_ TD to a minimum overlap of 120 feet inside the 7" intermediate casing (6330' - 4096', 2234'). This string will be cemented in a single stage with 10 bbls POZ spacer w/4% gel, .2% Halad 9, .15# Fe & 3% KCl mixed at 11.0 ppg followed by 260 sacks (343.5\_cf) 50/50 Poz/H containing 2% Gel, 5#/sk Gilsonite, 1/4 #/sk Flocele, 4% H-9 and 0.2% HR-5, mixed at 13.5 ppg, yield 1.32 cf/sk. Slurry volume assumes a 50% excess over gauge hole volume. Cement volume is subject to change after review of the open hole caliper log. Clearance between couplings and hole is 1.25". Safety factors utilized in the design of this casing string were burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

Γ.	Hole		Casi	ng Data	Collapse	Burst	Jt Strength	
	Dia	OD	Wt/FT	Grade	Thread	(psi)	(psi)	(Lbs.)
.Γ	6.25"	4.5"	10.5	J-55	STC	4.010	4,790-	132,000

Drilling Plan
Jicarilla Apache Energy Corporation
JAECO 28-3 No. 8

#### 4. Casing and Cementing Program: Continued

Bits: 12 1/4" surface hole - MT class 115 or 116 to ~320 feet.

8 3/4" intermediate hole - TCI class 447 to  $\sim$  4216'.

6 1/4" production hole - Air hammer and bit - to TD

#### Centralizers:

<u>Surface string:</u> 3 - 9 5/8" X 12 1/4": One centralizer run in middle of shoe joint with lock ring and one centralizer each on the next two joints of casing.

Intermediate string: 4-7° X 8 ¾ turbolizers will be spaced such that one is just below the Basal Fruitland Coal, three (3) across the Fruitland/Kirtland and one (1) into the Ojo Alamo. One centralizer will be run on the 1st jt of casing, the PC will be centralized, a centralizer will be run above and one centralizer will be run below the DV tool.

Production liner: N/A

## Float Equipment:

Surface string: Texas pattern guide shoe w/insert float (1 jt above shoe).

Intermediate string: Cement nose guide shoe, float collar and DV tool with 2 cement

baskets below DV tool.

Production liner: Cement nose float shoe and a float collar (1 jt above shoe).

## 5. Pressure Control Equipment:

A 2,000 psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to 2000 psig before drilling out of surface casing. Pipe rams will be operated daily. Pipe and blind rams will be operated on each trip. BOPE, intermediate casing and choke manifold will be pressure tested to 2000 psi prior to drill out of the 7" intermediate casing shoe.

7" & 4 ½" casing rams will be installed prior to running intermediate and production casing, respectfully.

A full opening internal blowout preventor or drill pipe safety valve (capable of fitting all connections in use) will be on the rig floor at all times.

An upper kelly cock will be utilized. The handle will be available on rig floor at all times. A BOPE pit level drill shall be conducted weekly for each drilling crew.

#### 6. Mud Program:

The well will be spudded and drilled to surface casing depth with a high viscosity slurry of bentonite, lime and fresh water. A fresh water, low solids, non-dispersed mud system will be utilized to drill the well from surface casing to intermediate casing depth. Air will be used to drill from intermediate casing depth to total TD; Mud circulating equipment, water, and mud materials (not mixed) sufficient to maintain the capacity of the hole and circulating pits will be in place and operational during air drilling operations.

Sufficient mud materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures.

Mud volume markers will be in place and visually monitored and recorded on a routine basis.

# Drilling Plan Jicarilla Apache Energy Corporation JAECO 28-3 No. 8

# 6. Mud Program: Continued

**Mud Property Guidelines:** 

				<del>-</del>	
Interval (ft)	Weight (ppg)	Vis (sec/qt)	pН	Fluid Loss (cc/30 min)	
0 – 320'	8.6 – 9.2	40 - 35	9 – 9.5	No Control	
320 - <u>4216</u>	8.6 – 9.2	30 – 35	8.0 - 8.5	< 10	
4216` – TD	Air	Air	Air	Air	

Note: Raise mud viscosity to 45-60 for logging. Thin mud viscosity to 40-45 to run casing. Lost Circulation: may occur anywhere from the Nacimiento formation to intermediate depth. Have a minimum of 10% LCM in mud prior to running and cementing intermediate casing. Mud pH will be maintained with lime at the recommended levels to assure drill pipe corrosion protection.

## 7. Auxiliary Equipment:

All applicable equipment defined in Onshore Order No. 2 will be in place and operational during Air Drilling Operations.

# 8. Logging Program:

Dual Induction with GR and Neutron / Density logs will be run from TD to surface casing shoe.

#### Coring and Drill Stem Testing Program:

No cores or drill stem tests are planned

#### 9. Abnormal Pressure and/or Temperature:

Although not expected, abnormal pressures are possible in the Fruitland formation. Abnormal temperatures are not expected.

**Estimated Bottom Hole, Pressure:** 1970 psig BHT: 140 deg F

10. Anticipated Starting Date: April 20, 2008

**Duration of Operations**: It is estimated a total of 15 days will be required for drilling operations.