Form 3160-5 (June 1990)

# UNITED STATES

FORM APPROVED					
<b>Budget Bure</b>	au No.	1004-0135			
Expires:	March	31, 1993			

BUREAU OF LAND MANAGEMENT	Expires: March 31, 1993  Lease Designation and Serial No.
SUNDRY NOTICES AND REPORTS ON WELLS	F-078316-F  If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE	If Unit or CA, Agreement Designation
2. Name of Operator Amoco Production Company 3. Address and Telephone No. P.O. Box 800 Denver, Colorado 80201 (303) 830-4982 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	Well Name and No.  Walker Gas Com A #2 2  API Well No. 28615  Field and Pool, or Exploratory Area  Basin Fruitland Coal  County or Parish, State  San Juan N.M.
CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT,	OR OTHER DATA
13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*  Amoco Production intends to drill and complete the subject/well	in the Pictured
Cliffs formation. The original APD was filed for the Fruitlar review the following attachments which include all modifications APD:  A. Pictured Cliffs Drilling Summary B. Drilling and Completion Program C. Pressure Control Equipment Summary D. Amoco Location Schematic  In addition, the well name will be changed to the walker #2.  FROM WAIKER GAS Com A # 1  If there are any questions, please contact Ed Hadlock @ (303) 8	to the original
14. I hereby certify that the foregoing is true and correct	

14. 1 hereby certify that the foregoing is true and correct Signed Supplied	Title Admin. L	ProfystopprovED/6/92
(This space for Federal or State office use)  Approved by	Title	AS AMENDED
Approved by Conditions of approval, if any:	\$1.40°C	13 1992
Title 18 U.S.C. Section 1001, makes it a crime for any person k or representations as to any matter within its jurisdiction.	nowingly and willfully to make to any department	or agency of the United States ANA GIERO (raudulent statement

Submit to Appropriate District Office State Lease - 4 copies Fee Lease - 3 copies

## State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

# OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

DISTRICT I 1'.O. Box 1980, Hobbs, NM 88240

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

### WELL LOCATION AND ACREAGE DEDICATION PLAT

1000 100 DIAZOS 100., 71			All Dist	ances must be	from the outer	boundarios of the	noitoea e		
Uperator				<del></del>	Lease	· · · · · · · · · · · · · · · · · · ·	·····		Well No.
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	oction	100	Township	<del>9</del>	Range	<u> </u>	<del></del>	County	
				4/	0,	/ ,		<u> </u>	T ,
$\mathcal{H}$	3/		31 No.	<u> </u>	$1 - 7 \omega$	est.	NMPM	Sav	Jugh
Actual Footage Locatio	n of Wel	l:	. ,						
1450 se	et from t	the $\Lambda$	orth	line and	890		feet from	the E95	† line
Ground level Elev.		Producing	Formation		Poo!			·	Dedicated Acreage: NF/4
6619'	1	1c.tur	-1 Pl	If5	13/gn	$\mathcal{P}_{1}$	17	Wiffs	1/0
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	1							I hereby ceri	ify that the well location shown
	l i			1		1	1	on this plat	was plotted from field notes of
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CONTRACTOR CONTRACTOR	=	CONTRACTOR OF THE SECOND	PLOTO TRANS	Dva(	POROLUTIZADAD.	> N:430011300	<u> </u>	<b></b>	

Amoco proposes to drill the well to further develop the Pictured Cliffs reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to the production casing point with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used. Amoco will complete the Pictured Cliffs with fracture stimulations.

### SURFACE CASING

<u>Depth</u> <u>Size</u>		<u>Weight</u>	<u>Description</u>	Cement Program		
250'	8 5/8"	24#	K55 LT&C	200 cf Class B, 2% CaCL <sub>2</sub> 15.6 ppg		

#### PRODUCTION CASING

<u>Depth</u>	<u>Size</u> <u>Weight</u>		Description	Cement Program		
3518'	4 1/2"	11.6#	K55 LT&C	916 cf Class B, 65:35:5 10% salt, .25% dispersant 13.1 ppg		
				290 cf Class B, $2$ % CaCL $_2$ 15.6 ppg		

The well bore will be cemented in 2 stages, with the DV placed below the Ojo Alamo. The production string will be cemented from total depth to surface to protect formations. The Base of the Ojo Alomo (potential fresh water zone) is 2189'. The estimated top is 150 ft. above base. Hazards are not anticipated.

#### **EVALUATION**

Please see the attached drilling and completion program.

# AMOCO PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

File: A:\WALK46.WK3 Date: 10/21/92

Lease: Walker

County: San Juan, New Mexico

Well No. 2

Field: Ignacio Blanco PC

Location: 1450' FNL x 890' FEL, Sec. 31-31N-9W

OBJECTIVE: De	evelop Pictured Cliff Reser	ves.				· · · · · · · · · · · · · · · · · · ·
	METHOD OF DRILLING		APPROXIMATE	DEPTHS OF GEOL	OGICAL MARKER	
TYPE OF TOOLS		F DRILLING	Actual GL: 6619'	Estimate KB: 66		
Rotary	0 - TD		Marker			
	OG PROGRAM		i	Depth	Elevation	
Туре		ment	Ojo Alamo	2189'	4442'	
1300	Depth Inte	ervai	Fruitland	2980'	3651'	
Dil (OD		_	Lemon			
DIL/GR	BSC - TI		Ignacio			
FDC/CNL/GR/CA		LOG INTERVAL) T	D Cottonwood			
MICROLOG	(TD+MIN	LOG INTERVAL) - T	D Cahn			
			Pictured Cliffs # *	3368'	3263'	
				,	1 0200	
REMARKS:			TOTAL DEPTH:	3518'	3113'	
Run FDC at slow	speed, high sample rate	thru bottom	# Probable comp		0110	
1000' of hole, Bu	lk density presentation as	per standard	* Possible pay.			
coal log format. (	Customer edit 9-track LIS	tape to B. Pelzman	n			
in Denver ASAP,		Top to Dir oizillari		NG SAMPLES	DRILLIN	O TIME
	SPECIAL TESTS		FREQUENCY		DRILLIN	
TYPE		TERVAL, ETC	None	DEPTH	FREQUENCY	DEPTH
· · · <del>-</del>	DEI III IN	ILIIVAL, EIU			Geolograph	0 – TD
None			Remarks:	1 11 22		
Remarks:			Correct for actual	elevation, if necessar	y. Drill 300' below Po	C top.
MUD PROGRAM Approx Interval	<b>√</b> : Type Mud	Weight,	#/gal Vis, sec	·/q;	W/L, cc's/30 min	
				•	, = , 00 0, 00 111111	
0' - 250' 250' - TD	SPUD	8.5 - 9.		ent to clean hole and	maintain hole condi	tions for logs.
250 - 10	LSND	8.8 – 11	.0	•		
REMARKS:						
* Use minimum r	mud weight to control forr	nation pressures.				
CASING PROGE	ЗАМ:					
Casing String	Estimated Depth	Casing Size	Hole Size	Landing Poin	it, Cement, Etc	
		ū		2	n, comon, Elo	
Conductor						
Surface	250'	8-5/8*	12-1/4"	Cement to be	e circulated to surfac	e.
Production	TD	4-1/2"	7-7/8*		e circulated to surfac	
Remarks:						
Southern Rockies set below the Ojo	Drilling Engineer to design Alamo.	gn cement programs	s. The 4 1/2" casing w	vill be cemented in tw	o stages with the DV	,
OFNERAL SEC	ADICO					
GENERAL REMA					,, ,	
Southern Hockies	Engineers to design com	pletion program.				
<b>-</b>						
Form 46 Reviewe	d by:	Logging progr	am reviewed by:			
PREPARED BY:		APPROVED:	0 10		APPROVED:	
B. Pelzmann/F. Se	eidel	1 1 11 16 1	andalin .	0-11	THE TED.	
Form 46 7-84bw		For Production	an aliv fi n Dept	\$10/29/92	For Exploration [	)ent
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# SAN JUAN BASIN PICTURED CLIFFS FORMATION PRESSURE CONTROL EQUIPMENT

#### Background

The objective Pictured Cliffs formation maximum surface pressure is anticipated to be 1400 PSI, based on completion testing. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below surface to total depth in the Pictured Cliffs.

## Equipment Specification

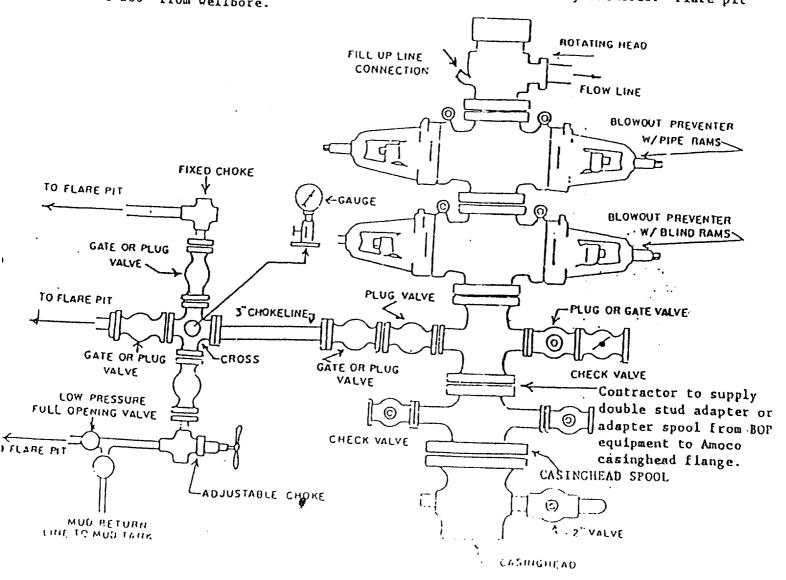
Interval
Below Surface Casing
to
Total Depth

BOP Equipment
12" nominal, 3000 PSI double ram
preventer with rotating head (see
Exhibit No. 1 - BOPE)

All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, floor safety valves and choke manifold which will also be tested to equivalent pressure.

Please direct any questions to Frank Seidel at (303) 830-4832 in our Denver office.

- 1. Blowout Preventers and Master Valve to be fluid operated, and all fittings must be in good condition. Handwheels must be installed prior to drilling out.
- 2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
- 3. All fittings to be flanged, (except for flare line).
- 4. Full opening safety valve and inside BOP valve must be available on rig floor at all times with proper connection or sub for drill pipe and drill collars.
- 5. Run choke line as straight as possible. All sharp turns must be block teed or equipped with lead filled bull plugs.
- 6. Flare lines to be threaded 2 7/8" tubing which has been securely anchored. Flare pit



# BLOWOUT PREVENTER HOOKUP

API Series " 200

EXHIBIT D-4

Operation of BOP by closing both pipe and blind rams will be tested each trip or, on long hit runs, pipe rams will be closed once each 24 hours.

