

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. SF - 078039
2. Name of Operator AMOCO PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name
3a. Address P.O. BOX 3092 HOUSTON, TX 77253		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (Include area code) Ph: 281.366.4491 Fx: 281.366.0700		8. Well Name and No. BARNES LS 8M
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 26 T32N R11W Mer SWSW 36.57000 N Lat, 107.57900 W Lon		9. API Well No. 30-045-30349
		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVERDE
		11. County or Parish, and State SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> APDCH
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/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 recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The subject well was originally permitted on 9/29/2000 to be drilled and completed into the Blanco Mesaverde Pool. Application was amend on 01/09/2001 requesting permission to deepen into the Basin Dakota Pool and commingle production downhole with the Mesaverde Pool.

We respectfully request permission to amend our drilling and completion program as per the attached two (2) documents. The major change is to the cementing program.

No DHC issued 6-5-1

14. I hereby certify that the foregoing is true and correct. Electronic Submission #4548 verified by the BLM Well Information System For AMOCO PRODUCTION COMPANY, sent to the Farmington Committed to AFMSS for processing by Maurice Johnson on 05/30/2001 ()	
Name (Printed/Typed) MARY CORLEY	Title AUTHORIZED REPRESENTATIVE
Signature	Date 05/27/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date 6/1/01
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.		Office _____

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.

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**AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Prospect Name: Barnes LS
Lease: BARNES LS
County: San Juan
State: New Mexico
Date: May 27, 2001

Well No: 8M
Surface Location: 26-32N-11W, 710 FSL, 1030 FWL
Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 450' below the base of the Greenhorn Limestone, set 4 1/2" production casing, Stimulate LS, CH, MF, PL and DK intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		Estimated GL: 6331		Estimated KB: 6345	
Rotary		0 - TD			
LOG PROGRAM					
TYPE		DEPTH INVERAL			
<u>OPEN HOLE</u>					
GR-Induction		TD to 7" shoe			
Density/Neutron		TD to 7" shoe			
<u>CASED HOLE</u>					
GR-CCL-TDT		TDT – TD to 7" shoe			
CBL		Identify 4 ½" cement top			
REMARKS:					
- Please report any flares (magnitude & duration).					

MUD PROGRAM:							
Approx. Interval			Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0	-	200	3 jts.	Spud	8.6-9.2		
200	-	3320	(1)	Water/LSND	8.6-9.2	<6	
3320	-	7645		Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore		
7645		7935	(2)	LSND	9.0-9.2	<6	

REMARKS:
 (1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.
 (2) Mud up 50' above Morrison +/-.

CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)						
Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	200	9 5/8"	H-40 ST&C	32#	12.25"	1
Intermediate 1	3320	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7935	4 1/2"	J-55	11.6#	6.25"	3

REMARKS:
 (1) Circulate Cement to Surface
 (2) Set casing 100' into Lewis Shale
 (3) Bring cement 100' above 7" shoe

CORING PROGRAM:

None

COMPLETION PROGRAM:

Rigless, 4-6 Stage Limited Entry Hydraulic Frac

GENERAL REMARKS:

Notify BLM/NMOCDD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: _____ Logging program reviewed by: N/A

PREPARED BY:	APPROVED:	DATE:	
HGJ/KAT		May 3, 2001	
Form 46 12-00 KAT		Version 3.0	

BOP Test Pressure

Amoco Production Company BOP Pressure Testing Requirements

Well Name: Barnes LS
County: San Juan

8M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1845		
Fruitland Coal	2680		
PC	3095		
Lewis Shale	3220		
Cliff House	4899	500	0
Menefee Shale	4987		
Point Lookout	5359	600	0
Mancos	5575		
Dakota	7510	2600	1374

** Note: Determined using the following formula: $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 3000 psi

Cementing Program

Well Name: Barnes LS 8M Location: 26-32N-11W, 710 FSL, 1030 FEL County: San Juan State: New Mexico	Field: Blanco Mesaverde / Basin Dakota API No. Well Flac Formation: Dakota MesaVerde KB Elev (est) 6345 GL Elev. (est) 6331
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Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	200	12.25	9.625	ST&C	Surface	NA	
Intermediate	3320	8.75	7	LT&C	Surface	NA	
Production -	7935	6.25	4.5	?	3220	NA	

Casing Properties:

(No Safety Factor Included)								
Casing String	Size (in.)	Weight (lb/ft)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Surface		9.625	32 H-40	3370	1400	254	0.0787	8.845
Intermediate		7	20 K-55	3740	2270	234	0.0405	6.456
Production -		4.5	11.6 J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	<u>Recommended Mud Properties Prio Cementing:</u>	
			PV	<20
			YP	<10
			Fluid Loss<15	
0 - SCP	Water/Spud	8.6-9.2		
SCP - ICP	Water/LSND	8.6-9.2		
ICP - ICP2	Gas/Air Mist	NA		
ICP2 - TD	LSND	8.6 - 9.2		

Cementing Program:

	Surface	Intermediate	Production
Excess %, Bit	100%	80	10
Excess %, Caliper	NA	NA	30
BHST (est deg. F)	60	120	160
Pipe Movement	NA	Rotate/Reciprocate	Rotate/Reciprocate
Rate, Max (bpm)	7	4	2
Rate Recommended (bpm)	6	4	2
Pressure, Max (psi)	200	2000	2000
Shoe Joint	40	80	40
Batch Mix	NA	NA	NA
Circulating prior cmtng (hr)	0.5	1.5	2
Time Between Stages, (hr)	NA	NA	NA
Special Instructions	1,6,7	1,6,8	2,4,6

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

Notes:

- *Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.
 *** Run TMD cased hole logs to identify pay; Perforating and CH logs can be run rigless.

Surface:

Preflush	20 bbl.	FreshWater
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Cementing Program

Slurry 1	108 sx Class G Cement	125 cuft
TOC@Surface	+ 2% CaCl ₂ (accelerator)	
	0.25 #/sk Cellophane Flake (lost circulation additive)	0.3132 cuft/ft OH
	0.1% D46 antifoam	100 % excess

Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft ³ /sk)	(gal/sk)
Slurry 1	15.8	1.16	4.95

Casing Equipment:

- 9-5/8", 8R, ST&C
- 1 Guide Shoe
- 1 Top Wooden Plug
- 1 Autofill insert float valve
- 4 Centralizers
- 1 Stop Ring
- 1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water
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Lead	256 sx Class "G" Cement	744 cuft
Slurry 1	+ 3% D79 extender	
TOC@Surface	+ 2% S1 Calcium Chloride	
	+1/4 #/sk. Cellophane Flake	
	+ 0.1% D46 antifoam'	

Tail	107 sx 50/50 Class "G"/Poz	135 cuft
Slurry 2	+ 2% gel (extender)	

500 ft fill	0.1% D46 antifoam	0.1503 cuft/ft OH
	+1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
	+ 2% CaCl ₂ (accelerator)	80 % excess

Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft ³ /sk)	(gal/sk)
Slurry 1	11.4	2.9	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment:

7", 8R, ST&C

- 1 Float Shoe (autofill with minimal LCM in mud)
- 1 Float Collar (autofill with minimal LCM in mud)
- 1 Stop Ring
- 10 Centralizers (one in middle of first joint, then every third collar)
- 2 Fluidmaster vane centralizers @ base of Ojo
- 7 Centralizers one every 4th joint from Ojo to base of surface casing
- 1 Top Rubber Plug
- 1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100
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Lead	217 LiteCrete D961 / D124 / D154	464 cuft
Slurry 1	+ 0.03 gps D47 antifoam	
TOC@Surface	+ 0.5% D112 fluid loss	

Cementing Program

+ 0.11% D65 TIC

Tail
Slurry 2

500 ft fill

39 sx 50/50 Class "G"/Poz
+ 5% D20 gel (extender)
+ 0.1% D46 antifoam
+ 1/4 #/sk. Cellophane Flake
+ 0.25% D167 Fluid Loss

56 cuft
+ 5 #/sk D24 gilsonite
+ 0.15% D65 TIC
+ 0.1% D800 retarder

Slurry Properties:

Density
(lb/gal)

Yield
(ft³/sk)

Water
(gal/sk)

0.1026 cuft/ft OH
10 % excess
0.1169 cuft/ft csg ann

Slurry 1
Slurry 2

9.5
13

2.14
1.44

6.38
6.5

Casing Equipment:

4-1/2", 8R, ST&C

1 Float Shoe (autofill with minimal LCM in mud)
1 Float Collar (autofill with minimal LCM in mud)
1 Stop Ring
39 Centralizers (every third joint)

1 Top Rubber Plug
1 Thread Lock Compound

Note:

1. The job should be pumped at 2-3 bpm max rate. Do not exceed 3 bpm on displacement
2. Wash pump and lines before displacement. Slow to 1 bpm for the last 30 bbl of displacement.