

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.
NM-012708
6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Lindsey A 1A
9. API Well No.

3004529218
10. Field and Pool, or Exploratory Area
Blanco Mesaverde
11. County or Parish, State

San Juan New Mexico

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator Attention:
Amoco Production Company Patty Haefele

3. Address and Telephone No.
P.O. Box 800, Denver, Colorado 80201 (303) 830-4988

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
790' FSL 1100' FEL Sec. 19 T 30N R 8W Unit P

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other APD revision	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Amoco Production Company requests your approval of the attached casing, cementing, and BOP revisions to the APD approved on March 24, 1995.

RECEIVED
SEP 1 9 1995
OIL CON. DIST.
DIST. 8

14. I hereby certify that the foregoing is true and correct

Signed Patty Haefele Title Staff Assistant Date 09-13-1995

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

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, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED
SEP 15 1995
Original Signed: STEPHEN
DISTRICT MANAGER

AMOCO PRODUCTION COMPANY
DRILLING and COMPLETION PROGRAM

Lease: Lindsey A LS
 County: San Juan New Mexico
 Former name:

Well No. #1A
 Surface Location: 790' FNL & 1100' FEL of Section 19, T30N, R08W
 Field:

OBJECTIVE: Single MV			
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER	
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL-----Estimated KB	5737 5749
Rotary	Ground Level - TD	Marker	Depth (ft.) SS Elev. (ft.)
LOGGING PROGRAM		Ojo Alamo	1,240 4,509
TYPE	DEPTH	Kirtland	1,520 4,229
		Fruitland Coal	2,145 3,604
		PC	2,428 3,321
		Lewis Shale	2,503 3,246
		Cliff House *	4,154 1,595
		Menefee Shale *	4,237 1,512
		Point Lookout *	4,654 1,095
No open hole logs required.		Mancos	5,054 695
Logging Program Remarks:		Gallup	
		Greenhorn	
		Dakota	
		TOTAL DEPTH	5,154 595
		* Possible pay	
		**Probable completion	
		Ojo Alamo is possible usable water	
SPECIAL TESTS		DRILL CUTTING SAMPLES	
TYPE	DEPTH INTERVAL, ETC	FREQUENCY	DEPTH
None		Geologist	Surf - TD
Remarks:		Remarks:	
		Mud Logging Program: None	
		Coring Program: None	

MUD PROGRAM:				
Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min.
50' - 2653' (1) (2)	Water	8.6 - 9.2	Sufficient to clean hole	N/C
2653' - TD (3)	Air/Gas			

Mud Program Remarks:
 1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.
 2 - If required to mud up, mud up with a LSND designed for good hole cleaning.
 3 - If required to mud up, mud up with a LSND designed for good hole cleaning, API WL between 10 -15.

CASING PROGRAM:				
Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor	120	8-5/8"	12.25"	
Surface	2,653	5-1/2"	7.875"	1, 2
Production	5,154	2-7/8"	4.75"	3

Casing Program Remarks:
 1 - Circulate cement to surface.
 2 - Set casing 150' into the Lewis Shale.
 3 - Circulate cement at least 300' into the surface casing overlap.

GENERAL REMARKS:

Business Unit Engineering staff to design completion program.

Form 46 Reviewed by:		Logging program reviewed by:	
PREPARED BY:		APPROVED:	
P. Edwards/Craig/Ovitz			
Form 46 7-84bw		For Exploration Dept	
Date: 8/22/95	Rev. Date: 9/13/95 13:43	File: linal1a.xlw	

Version No. 2
09/01/95
671A2.XLS

CEMENTING PROGRAM

Lindsey 'A' LS #1A

blp

Well Name: Lindsey 'A' LS #1A
Location: sec 19-T30N-R08W, 790' FSL " 1100' FEL
County: San Juan
State: New Mexico

Field: Basin Mesa Verde
API No. 30-045-29218
Well Flac 714708
KB Elev. (est.) 5749 ft.
GL Elev. (est.) 5737 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Casing Weight (lb/ft.)	Casing Grade	Thread	TOC (ft.)	Stage Tool (ft.)
Conductor	50 12.25	12.25	8.625	24	J-55	8R, ST&C	Surface	NA
Surface	2653	7.88	5.500	14	J-55	8R, ST&C	Surface	NA
Production	5154	4.750	2.875	6.5	N-80	EUE	2400	

Casing Properties:

Casing String	Casing Weight (lb/ft.)	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Torque(ft. lbs.) Opt/Min/Max	Drift (in.)
Conductor	24	2950.00	1370	244	0.0636		7.972
Surface	14	4270	3120	172	0.0244		6.241
Production	6.5	10570	11160	105	0.00579		2.347

Mud Program:

Apex Interval (ft.)	Mud Type	Mud Weight (lb/gal)	Recommended Mud Properties Prior Cementing:	
			PV	<20
Surface	Spud	8.4 - 8.6	YP	<10
Intermediate	LSND	8.6 - 8.8	Fluid Loss	<15
Production	Air + N2/Gas	NA		

Cementing Program:

	Conductor	Surface	Production
Excess %, Bit	75	60	30
Excess %, Caliper	NA	20	20
BHST, deg. F (est.)	60	110	145
Pipe Movement	Rotate 10-20 rpm	Rotate 10-20 rpm	Rotate 10-20 rpm
Rate, Max. (bpm)	1 truck	8	6 (air)
Rate, Recommended (bpm)	15	6	4 (air)
Pressure, Max. (psi)	200	2000	2000
Shoe Joint	40'	80'	80'
Batch Mix	NA	NA	NA
Circulating prior cmtng (hr.)	1	1.5	1
Time Between Stages, (hr.)	NA	NA	NA
Special Instructions	1,5,7	1,3,5,6,9	3,5,8

- 1 Do not wash pumps and lines
- 2 Do not reverse out
- 3 Run Blend Test on Cement
- 4 Record Rate, Pressure, and Density on 3.5" disk
- 5 Confirm densometer with pressurized mud scales
- 6 Run a temperature survey 12 hr. after bumping the plug if cement is not circulated to surface.
- 7 If cement is not circulated to surface, then 1" cement to surface.
- 8 Drop the plug on the fly.
- 9 If cement is not circulated to surface and temp. survey shows TOC below surface casing, then perforate and circulate cement to surface.

Notes:

- 1 The area is known for natural fractures in the Mesa Verde group.
- 2 Wash pumps and lines on the long string. Displace with 2% KCl water.
This is to be a rigless completion.

Version No. 2
09/01/95
671A2.XLS

CEMENTING PROGRAM

Lindsey 'A' LS #1A

blp

Conductor:

Preflush	10 bbl.	Fresh Water	
Slurry 1 TOC@Surface	100 40 sk	Standard Cement + 2% CaCl ₂ + 1/4 lb/sk floccle	47.2 cu. ft.
Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry1	15.60	1.18	5.20
Casing Equipment:	(Halliburton)	8 5/8" , 8R, ST&C	
	1 Top Wooden Plug		

Surface:

Preflush	20 bbl. 20 bbl.	Mud Flush Fresh Water + dye marker	
Lead Slurry 1 TOC@Surface		50/50 Standard Cement/Blended Silicalite + 02% gel (total) + 0.5% Versaset + 0.4% Haled-344 + 02% CaCl ₂ + 1/4 lb/sk floccle	735 cu. ft.
Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	12.00	2.03	11.45
Casing Equipment:	(Halliburton)	5 1/2", 8R, LT&C, (no need to cut long pin)	
	1 Type Regular Guide Shoe		
	1 Super Seal II Float Collar		
	1 Weld A		
	15 S-4 Centralizer	1 ea. on 1st 12 joints, 1 ea. above and below Ojo Alamo	
	1 Top Rubber Plug		

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09/01/95
671A2.XLS

CEMENTING PROGRAM

Lindsey 'A' LS #1A

blp

Production: (air drilled)

Preflush, 1st stage	5 bbl.	Chemical Wash	
	2 bbl.	Fresh Water + 2% KCl	
Lead, 1st stage		50/50 Std. Cmt/Poz A	280 cu. ft.
slurry 1		+ 2% gel (total)	
TOC@TOL + 200 ft.		+ 5 lb/sk gilsonite	
		+ 0.4% Halad-344	
		+ 1/4 lb/sk floccle	

Slurry Properties:

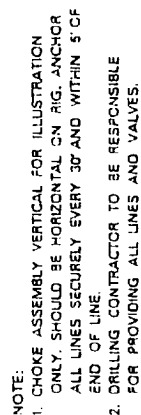
	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	13.50	1.32	5.59

Note: The job should be pumped at 4 bpm max rate. Do not exceed 2 bpm on displacement.
Slow to 2 bpm for the displacement. Displace with 2% KCl or 0.2% Clay Fix II water.
This is to be a rigless completion. Wash pumps and lines before displacing.

Casing Equipment: Halliburton 2 7/8", 8R, EUE, (no need to cut long pin)

- 1 Super Seal II Float Shoe
- 10 S-4 Fluidmaster Centralizer
- 1 Lock Clamp
- 1 Weld A
- 1 Omega Latch Down Plug and Baffle

Typical Dakota /Mesaverde Air /Mud (SRBU)



NOTE:
1. ALL UNMARKED VALVES TO BE FULL-OPENING
GATE OR PLUG VALVES, METAL TO METAL SEAL,
3000 PSI W.P.

9. NO COLLECTOR BOTTLES, SURGE TANKS OR BUFFER CHAMBERS DOWNSTREAM OF THE CHOKE MANIFOLD.
10. ALL TURNS TO BE MADE WITH TARGETED TEES (18-72" MIN.) NO BENDS OR SWEEPS IN LINE FROM BOF TO CHOKE MANIFOLD.
11. IF A FLEXIBLE HOSE IS TO BE USED AS A CHOKE LINE, IT MUST BE APPROVED BY AMOCO PRIOR TO RIGGING UP.
12. LOCK TO BE INSTALLED ON BLIND RAM CONTROL.

NOTE:

1. SLOW OUT PREVENTER AND ALL FITTINGS MUST BE IN GOOD CONDITION (RATED W.P. OF 3000 PSI).
2. ALL CONNECTIONS FROM DRILLING SPOOL THROUGH CHOKE MANIFOLD TO BE WELDED, CLAMPED OR FLANGED (NO THREADED CONNECTIONS).
3. A STRING INSIDE BOP AND A FULL BORE, 3000 PSI W.P. SAFETY VALVE WITH PROPER CONNECTIONS MUST BE AVAILABLE ON RIG FLOOR AT ALL TIMES.
4. ALL CHOKE AND KILL LINES TO BE SECURELY ANCHORED, ESPECIALLY ENDS OF CHOKE LINES.
5. KILL LINE MUST BE CONNECTED AT ALL TIMES.
6. EQUIPMENT THROUGH WHICH SIT MUST PASS SHALL BE AS LARGE AS INSIDE DIAMETER OF THE CASING BEING DRILLED THROUGH.
7. MUST HAVE UPPER AND LOWER KELLY COCK ON KELLY.
8. BLOW-OUT PREVENTER CLOSING EQUIPMENT SHALL HAVE SUFFICIENT CAPACITY TO FULFILL REQUIREMENTS OF CURRENT FEDERAL REGISTER (43 CFR) DATED NOV 1988.
9. NO COLLECTOR BOTTLES, SURGE TANKS OR BUFFER CHAMBERS DOWNSTREAM OF THE CHOKE MANIFOLD.
10. ALL TURNS TO BE MADE WITH TARGETED TEES (18-24" MIN.). N BENS OR SWEEPS IN LINE FROM BOP TO CHOKE MANIFOLD.
11. IF A FLEXIBLE HOSE IS TO BE USED AS A CHOKE LINE, IT MUST BE APPROVED BY AMOCO PRIOR TO RIGGING UP.
12. LOCK TO BE INSTALLED ON BLIND RAM CONTROL.

**SAN JUAN BASIN
MESAVERDE FORMATION
PRESSURE CONTROL EQUIPMENT**

Background

The objective Mesaverde formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. 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 the 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. No abnormal temperature, pressures, or Hydrogen Sulfide gas is anticipated.

Equipment Specification

Interval

BOP Equipment

Below surface casing to total depth

11" or 7 1/16", 3000 psi double ram preventer with rotating head.

All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 750 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure at the appropriate intervals.

Amoco Production Company
BOP Pressure Testing Requirements

Lease: Lindsey A LS
County: San Juan

Well No. #1A
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1,240		
Kirtland	1,520		
Fruitland Coal	2,145		
PC	2,428		
Lewis Shale	2,503		
Cliff House *	4,154	1200	286.12
Menefee Shale *	4,237		
Point Lookout *	4,654	900	0
Mancos	5,054		
Gallup	0		
Greenhorn	0		
Dakota	0		

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

Requested BOP Pressure Test Exception:

500