

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM MAIL ROOM

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

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

95 OCT 20 PM 2:02
070 FARMINGTON, NM

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Amoco Production Company

Attention:

Patty Haelele

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)

1750' FNL 1650' FEL Sec. 27 T 31N R R9W Unit G

5. Lease Designation and Serial No.

NM-013685

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Schwerdtfeger LS 2

9. API Well No.

3004510343

10. Field and Pool, or Exploratory Area

Blanco Mesaverde

11. County or Parish, State

San Juan New Mexico

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

TYPE OF SUBMISSION

TYPE OF ACTION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other repair-horizontal drill

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ 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 permission to horizontally drill the subject well per the attached procedure.

RECEIVED
OCT 30 1995
OIL CON. DIV.
DIST. 3

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

Signed

Patty Haelele

Title

Staff Assistant

Date

10-19-1995

(This space for Federal or State office use)

APPROVED

Approved by

Title

Conditions of approval, if any:

OCT 23 1995

DISTRICT MANAGER

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 statement or representations as to any matter within its jurisdiction.

August 27, 1995

Schwerdtfeger LS #2

Amoco Rotatable Short Radius Horizontal
San Juan County, New Mexico

DRILLING PROCEDURES

1. Move in and rig up Aztec Well Service Rig #124 complete with two double-gate ram preventers, dual 6 inch blooie lines, air package and associated safety equipment.
2. Nipple down tree, install casing spool to allow hanging a full string of 4.500" casing and nipple up blowout prevention equipment. Test to 250 and 2,000 psi.
3. Pull and inspect the tubing (supposed to be 2.375" at 5,363'). Run gyroscopic survey to determine present bottom hole location. (Well was blown with 1,710 quarts of nitro and then sidetracked at 4,687' so additional direction work will be necessary to insure no collisions.) Pick up cement retainer on 2.375" tubing and set at 3,650'. Mix and pump 200 sx of 50:50 Pozmix containing 1/2 lb per sack of flocele and 10 lb per sack of gilsonite. If no pressure obtained on pump in, clear retainer and tubing. WOC 6 hours. Test cement to 500 psi. If lower zones do not test, mix and pump an additional 100 sacks of the same mix. POH, stand back tubing, pick up a 4.500" spear and cut casing at 3,600'. Lay down casing, GIH w/tubing and spot 25 sx of the same cement on top of stub, reverse out at 3,400'. POH, lay down tubing. WOC 8 hours, test the 7.000" casing to 500 psi and if a leak is found, isolate and squeeze with 100 sacks of the same cement. While WOC, pick up the non-magnetic and standard 4.750" drill collars and 25 joints of 3.500" weight pipe.
4. Set an oriented whipstock at 3,400', cut window at an approximate 45 degrees. Air drill 6.125" hole to +/-4,700' building and holding angle to 6-8 degrees with an azimuth of 45-60 degrees with the bottom hole assembly. Run single shot surveys while drilling and at 4,700 run a multishot to confirm bottom hole location. (If the direction and angle can not be maintained, 4876' pick up a 4.750" Sperry A/D motor and proceed to kick-off point.) KOP at 4,884' TVD.) At KOP, the bottom hole location should be approximately 150' to the Northwest of the surface location. Hole will need to be turned gradually to Southeast in last 3-400' above KOP.
5. Pick up the Amoco short radius rotational tools, complete with off-center 4.750" bit and build an approximate 90' radius curve into the lower portion of the Cliff House member of the Mesaverde. Orient this tool to an azimuth of 135 degrees. At 90 degrees of angle and 4,956' TVD, the bottom hole location should be approximately 5,015' MD and 180' East of the surface location. Singleshot survey on wireline using fiberglass rods as sinkers per the research department's recommendation.
6. Drill lateral approximately 400' Southeast holding a 93-94 degree build angle. Make every effort to maintain this build to allow gravity drainage towards the vertical hole. At a MD of 5,320', the TVD should be 4,939' TVD and approximately 440' southeast of East. After reaching TVD, pick up a pilot reamer ream the 4.500" hole to 6.125" from 4,860' to 4,925' MD-4,905' TVD (top of Cliff House).

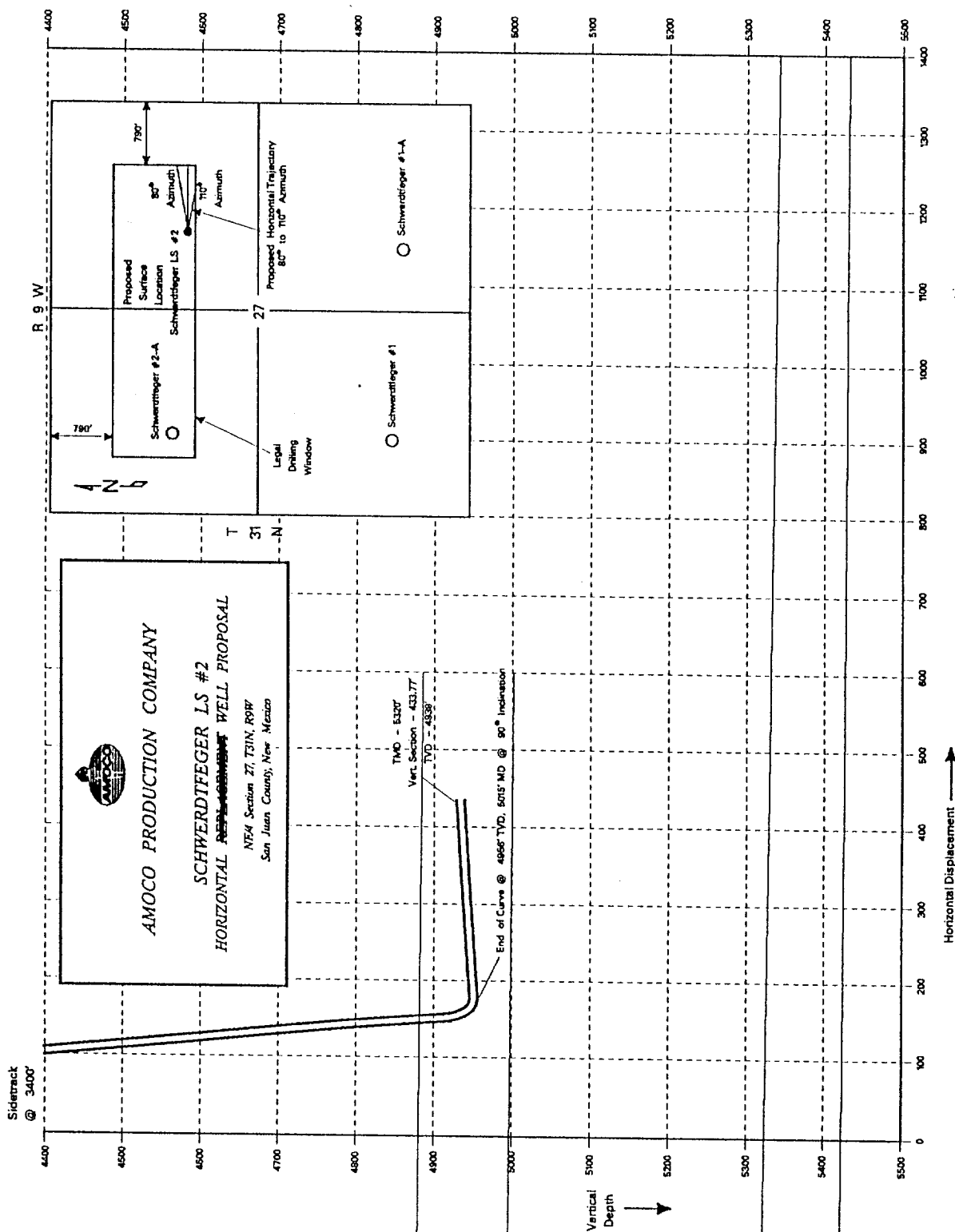
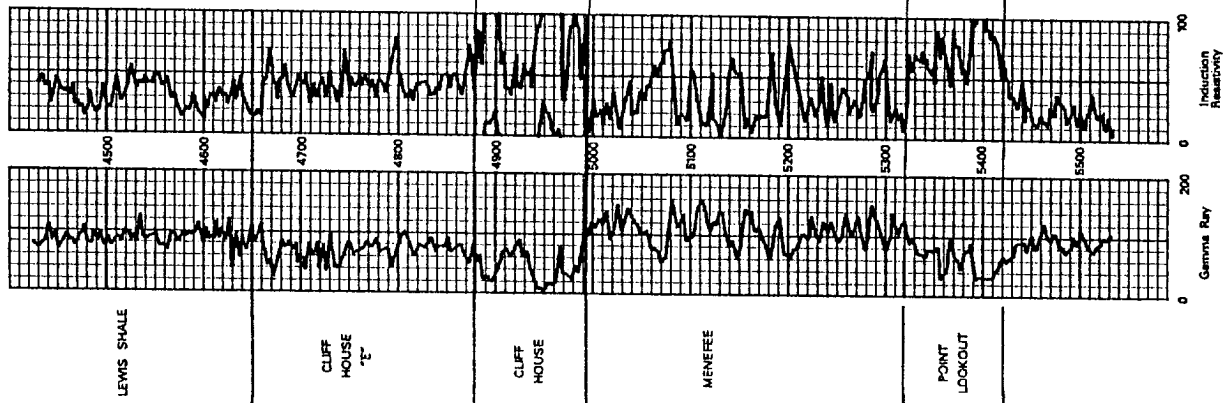
7. Lay down the drill string and run 4.500" 11.6 #/ft N-80 LT & C casing to 4,925' MD; into top of Cliff House. Utilizing Applied Technology or CTC International's ECP's (external casing packer) and a Howco hydraulically set stage tool on bottom to prevent cement from contacting the Cliff House in the open hole. Cement will be run back into the 7.000" casing from the top of the ECP. The cement shall be 50:50 Pozmix containing 2% gel, 0.25 #/sx flocele, 0.4% Halad 344 and 6 % salt mixed and pumped at 13.5 ppg. Use 3-4 joints of Hydril 521 casing on bottom.
8. Pick up a 3.750" bit on 2.375" tubing and cleanout to the shoe--Use several joints of "wedge thread" tubing on bottom. Complete as required and if well is capable of flowing without artificial lift, run 2.375" tubing to the deepest TVD. Use a mule shoe on bottom, one joint of tubing, a seating nipple, the remainder of the special tubing, a 2.375" SN and the remainder of the EUE tubing. If the well requires artificial lift, attempt to apply the jet pump technology to pump from the horizontal.



brad

August 29, 1995

Typical M.V. Log
T31N, R9W
San Juan County, New Mexico



FINAL COPY

AMOCO PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

 File No.: scotls3
 Date: 8/29/85

 Lease: Schwertfeger Well No. LS2
 County: San Juan, New Mexico Location: NE Section 27, T31N, R09W
 Former name: Same Field: Short radius/rotated

8/29/85 15:58

OBJECTIVE: Exploit horizontal Mesaverde			
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER	
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL-----Estimated KB 6241 6254	
Rotary	0 - TD	Marker	Depth (ft.) SS Elev. (ft.)
LOGGING PROGRAM		Ojo Alamo, base	2,258 3,998
TYPE	DEPTH	Fruitland	2,588 3,088
NONE		Pictured Cliffs	2,958 3,298
		Lewis Shale	3,064 3,200
		Cliff House *	4,900 1,354
		KOP-----	4,842 TVD
REMARKS:		TOTAL DEPTH	
		MEASURED DEPTH	5,320
			4,939
		* Possible pay	
		# Probable completion	
		OJO ALAMO IS POSSIBLE USEABLE WATER	
SPECIAL TESTS		DRILL CUTTING SAMPLES	DRILLING TIME
TYPE	DEPTH INTERVAL, ETC	FREQUENCY DEPTH	FREQUENCY DEPTH
NONE		None	Geolograph 0 - TD
Remarks:		Remarks:	
		Mud Logging Program: **Full two-man mud logging services/Benchmark	
		Coring Program: None	

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt.	W/L, cc's/30 min.
0-----SCP	existing			
SCP---ICP	existing			
ICP---TD	air or air/mist			

REMARKS:

CLIFF HOUSE WILL BE DRILLED HORIZONTALLY TO INTERCEPT FRACTURE SYSTEM

CASING PROGRAM:

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	171	9.625		CASING SET
Intermediate	4,596	Idetrack at 3,400 7		CASING SET
Production		4.500 to 4,925' M	6.125 to 4,850	
		2.875 to 4,920' M	4.750 to 5,560' 4.500" csg will be cemented back into 7.000" csg, +/-	

Remarks:**GENERAL REMARKS:**

Southern Rockies Dakota Engineer to design completion program.

Form 46 Reviewed by:

Logging program reviewed by:

PREPARED BY: StJohn/TerBest/bilyeu	APPROVED:	APPROVED:
Form 46 7-84bw	For Production Dept	For Exploration Dept.