Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Designation and Serial No.
SF-078039

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

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

8. Well Name and No.
Barnes LS 6A

2. Name of Operator
Amoco Production Company

Attention:
Gail M. Jefferson, Rm 1295C

9. API Well No.
3004522396

3. Address and Telephone No.
P.O. Box 800, Denver, Colorado 80201

(303) 830-6157

10. Field and Pool, or Exploratory Area
Blanco PC/Blanco MV

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1720FSL 850FEL Sec. 23 T 32N R 11W Unit O

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	☐ 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 Directional Drill	☐ 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 diretionally drill the well referenced above per the attached procedures.

If you have any technical questions please contact Brad Bilyeu at (303) 830-4832 or Gail Jefferson for any administrative concerns.

RECEIVED
OCT 23 1995
OIL CON. DIV.
DIST. 3

RECEIVED
95 OCT 17 PM 12:51
070 FARMINGTON NM

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

Signed Gail M. Jefferson Title Sr. Admin. Staff Asst. Date 10-16-1995

(This space for Federal or State office use)

APPROVED

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

OCT 19 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, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Hold C-104 For NSL Order (3)

*See Instructions on Reverse Side

NMOCD

October 03, 1995

Barnes LS #6-A
Amoco Rotatable Dual 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 1,000 psi.

3. Pull and lay down rod string. Pull and inspect both tubing strings. Dual string (2.375" at 3,271' with a Baker Model "D" anchor on bottom and 2.375" at 5,540' stung through a Baker Model "F" packer at 3,300'). Pick up a packer mill/plucker on a 3.500" drill string and remove the Model "F" packer. Set a 4.500" retainer at 4,400' and squeeze the Mesaverde with 150 sacks of 50:50 Pozmix containing 2 % gel, 2 % CaCl, 10 #/sx gilsonite 0.50 #/sx flocele mixed at 13.1 ppg (yield of 1.50 cubic feet/sack). Set second retainer at 3,100' in the 7.000" casing and squeeze the Pictured Cliff perforations from 3,204-3,244' with 150 sacks of the same mixture. Obtain a 500 psi test on the squeeze-if necessary pump an additional 100 sacks. WOC. Pick up a 6.250" tooth bit and clean out to the top of the 4.500" liner at 3,396'.

4 Set an oriented whipstock at 3,375', cut window at an approximate 180 degrees. Air drill 6.250" hole to +/-5,400' building and holding angle to 4-5 degrees with an azimuth of 160-180 degrees with the bottom hole assembly. Run single shot surveys while drilling and at 5,450 run a multishot to confirm bottom hole location. (If the direction and angle can not be maintained, pick up a 4.750" Sperry A/D motor and proceed to kick-off point.) KOP at 5,464' TVD.) At KOP, the bottom hole location should be approximately 150' to the South of the surface location.

5. Pick up the Amoco short radius rotational tools, complete with off-center 4.500" bit and build an approximate 90' radius curve into the lower portion of the Point Lookout member of the Mesaverde. Orient this tool to an azimuth of 175 degrees. At 90 degrees of angle and 5,549' TVD, the bottom hole location should be approximately 5,607' MD and 245' South of the surface location. Singleshot survey on wireline using fiberglas rods as sinkers per the research department's recommendation.

6. Drill lateral approximately 400' South 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 6,000', the TVD should be 5,531' and approximately 640' South of the surface location. Bottom hole location of this lateral should be approximately 1,080' FSL and 850' FEL. After reaching TVD, pick up a pilot reamer ream the 4.500" hole to 6.125" from KOP to 5,530' TVD (top of Point Lookout--+/- 60')

7. Lay down the drill string and run 4.500" 11.6 #/ft N-80 LT & C casing to 5,560' MD; into top of the Point Lookout. Utilizing CTC International's ECP's (external casing packer) and a Howco hydraulically set stage tool on bottom to prevent cement from contacting the Point Lookout 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 with a yield of 1.40 feet cubed per sack. Use 3-4 joints of Hydril 521 casing on bottom.

8. Set an oriented retrievable whipstock at 180 degrees in the 4.500" casing at 5,005' TVD, pick up a 2.375" drill string and cut window in the 4.500" casing. Run the smaller Amoco rotatable short radius tools and cut a 90' curve into the Cliff House. At the bottom of the curve, TVD should be 5,090', TMD at 5,145'. Drill laterally at 93 degrees angle to the South for approximately 450'. At Total Depth, the TVD should be +/- 5,067'. Bottom hole location should be 1,180' FSL and 850' FEL. Retrieve whipstock

9. Pick up a 3.750" bit on 2.375" drill string and cleanout to the shoe. Lay down drill string and pick up 2.375" tubing. 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 show on bottom, one joint of tubing, a seating nipple, the remainder of the special tubing, a second seating nipple and EUE tubing to surface. If the well requires artificial lift, apply the jet pump technology to pump from the horizontal.

brad
10/07/95 12:08 PM

Amoco Production Company

ENGINEERING CHART

SHEET NO. OF

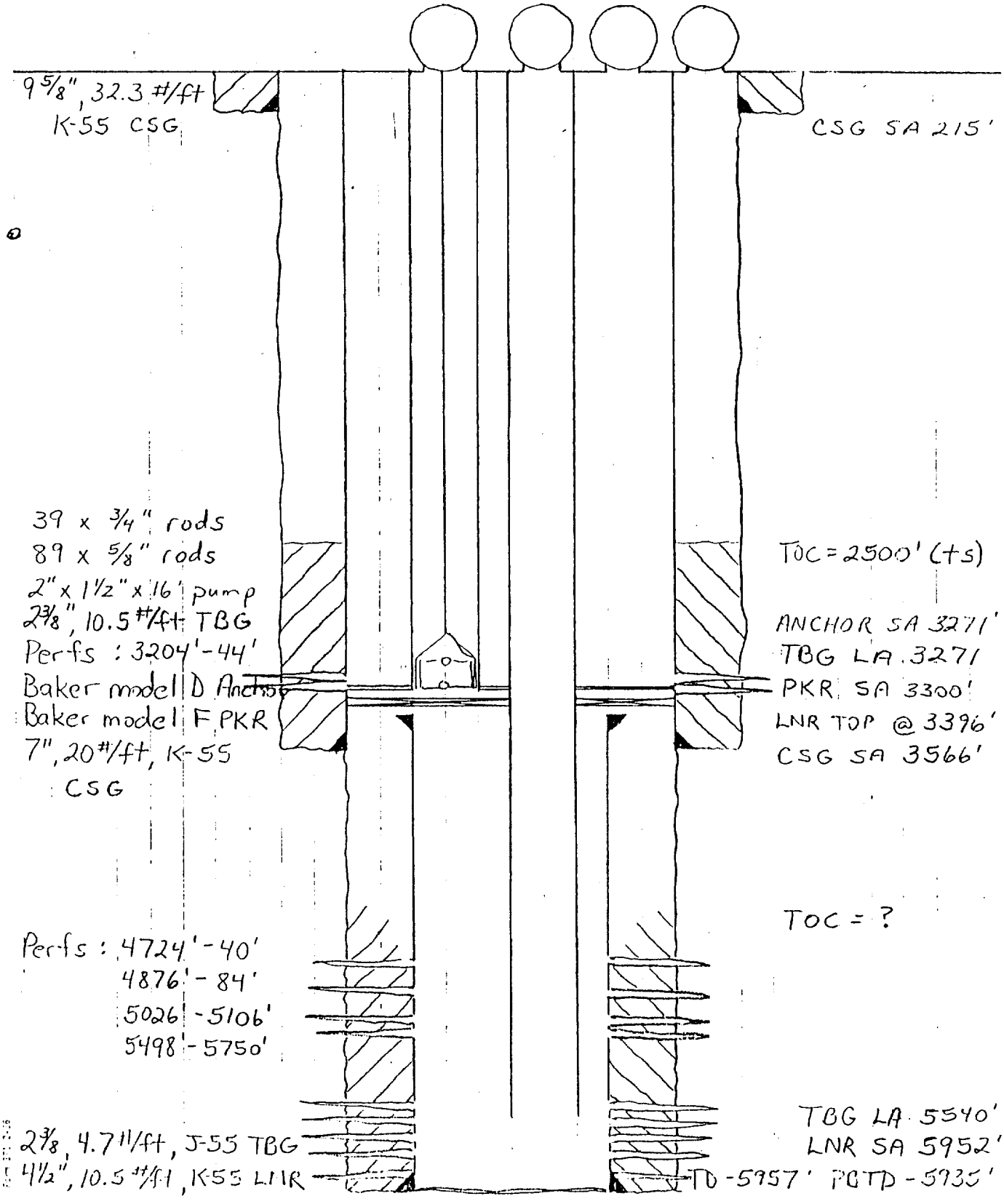
FILE

APPR

DATE 10/2/92

BY

SUBJECT Barnes LS 6A



Barnes LS # 6
Point Lookout
10/07/95

Units are FEET

T I	Meas. Depth	Survey Incl	Dir	Depth (TVD)	North -South	East -West	Vert. Section	Closure Dist	Dir	Dog Leg
	.00	.00	180.00	.00	.00	.00	.00	0	0	.0
	3375.00	.00	180.00	3375.00	.00	.00	.00	0	0	.0
	3500.00	4.50	180.00	3499.87	-4.91	.00	4.91	5	180	3.6
	4000.00	4.00	180.00	3998.50	-41.96	.00	41.96	42	180	.1
	4500.00	5.00	180.00	4496.95	-81.19	.00	81.19	81	180	.2
	5000.00	4.00	180.00	4995.40	-120.42	.00	120.42	120	180	.2
	5470.00	4.50	180.00	5464.11	-155.25	.00	155.25	155	180	.1
	5490.00	16.00	180.00	5483.75	-158.80	.00	158.80	159	180	57.5
	5515.00	32.00	180.00	5506.52	-168.94	.00	168.94	169	180	64.0
	5540.00	48.00	180.00	5525.61	-184.96	.00	184.96	185	180	64.0
	5565.00	64.00	180.00	5539.54	-205.61	.00	205.61	206	180	64.0
	5590.00	80.00	180.00	5547.24	-229.31	.00	229.31	229	180	64.0
	5607.00	90.00	180.00	5548.72	-246.23	.00	246.23	246	180	58.8
	5700.00	93.00	180.00	5546.29	-339.18	.00	339.18	339	180	3.2
	5800.00	93.00	180.00	5541.05	-439.05	.00	439.05	439	180	.0
	5900.00	93.00	180.00	5535.82	-538.91	.00	538.91	539	180	.0
	6000.00	93.00	180.00	5530.59	-638.77	.00	638.77	639	180	.0

Barnes LS 6-H
Cliff House
10/07/95

Units are FEET

T I	Meas. Depth	Survey Incl	Dir	Depth (TVD)	North -South	East -West	Vert. Section	Closure Dist	Dir	Dog Leg
	.00	.00	180.00	.00	.00	.00	.00	0	0	.0
	3375.00	.00	180.00	3375.00	.00	.00	.00	0	0	.0
	3500.00	4.50	180.00	3499.87	-4.91	.00	4.91	5	180	3.6
	4000.00	4.00	180.00	3998.50	-41.96	.00	41.96	42	180	.1
	4500.00	5.00	180.00	4496.95	-81.19	.00	81.19	81	180	.2
	5010.00	4.00	180.00	5005.37	-121.20	.00	121.20	121	180	.2
	5030.00	16.00	180.00	5025.03	-124.67	.00	124.67	125	180	60.0
	5055.00	32.00	180.00	5047.79	-134.81	.00	134.81	135	180	64.0
	5080.00	48.00	180.00	5066.88	-150.82	.00	150.82	151	180	64.0
	5105.00	64.00	180.00	5080.82	-171.48	.00	171.48	171	180	64.0
	5130.00	80.00	180.00	5088.52	-195.18	.00	195.18	195	180	64.0
	5145.00	90.00	180.00	5089.82	-210.10	.00	210.10	210	180	66.7
	5200.00	94.00	180.00	5087.90	-265.06	.00	265.06	265	180	7.3
	5300.00	94.00	180.00	5080.93	-364.82	.00	364.82	365	180	.0
	5400.00	94.00	180.00	5073.95	-464.57	.00	464.57	465	180	.0
	5500.00	94.00	180.00	5066.98	-564.33	.00	564.33	564	180	.0