

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

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Designation and Serial No.  NM-013688
2. Name of Operator Amoco Production Company		6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 800, Denver, CO 80201 (303) 830-4988		7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1610' FNL 1430' FEL Sec. 24 T 31N R 10W Unit G		8. Well Name and No. Atlantic LS 2R
		9. API Well No. 30-045-29384
		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
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Directional Drill (REVISE APP)
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> 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 plans to directionally drill this new drill well per the attached procedure.

RECEIVED  
JUL 11 1996  
OIL CON. DIV.  
DIST. 3

RECEIVED  
BLM  
96 JUL -5 PM 12:43  
070 FARMINGTON, NM

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

Signed Patty Haeefe Title Staff Assistant Date 06-30-1996  
(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_  
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.

NMOC

APPROVED  
JUL 9 1996  
DISTRICT MANAGER

July 02, 1996

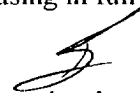
***Atlantic LS #2-R***

**Drilling Procedures**

1,610' FNL, 1,430' FEL Sect. 24, T31N, R10W  
San Juan County, New Mexico

1. Preset 120' of 9.625" conductor pipe with service unit. Cement to surface with class "B" cement containing 2 % CaCL<sub>2</sub>.
2. MIRURT complete with 3.500" drill string, pitless circulating equipment, air package and misting equipment. NU diversion equipment.
3. Drill 8.750" hole to 3,568' (150' into Lewis) with mud. Run and cement 7.000", 23#, K-55, LTC at total depth. Cement back to surface as recommended by Howco.
4. NU BOP's and test to 250 and 750 psi.
5. Air drill vertical hole to 4,000'.
6. Pick up premium, gage protected, 6.125" TC bit (Smith diamond enhanced F37 DODPD) on motor and directional equipment (EM MWD preferred). Build 15-18 degrees of hole angle at 90 degrees azimuth with the motor, lay down the motor and pick up slight angle building assembly. (Bit, three point reamer in gage, monel collar, drill collar, and an undergage integral blade stabilizer.) **Monitor direction and angle with single shot surveys to insure that the bottom hole location will remain within the legal drilling window.** (The maximum vertical section that can be cut if the azimuth is due East is 640' per attached diagram and directional program.) A final directional plot will be required at TMD by the NMOCD. Generally, the directional program is as follows.

KOP--	4,000' TVD
Orientation--	90 degrees
Curve--	1.5-2.0 degrees/100'
Maximum angle--	20-25 degrees
Total depth--	5,900' TVD    6,015' TMD
4. Lay down the 3.500" drill string, run 4.500" used casing using a marker joint at 1,000' from bottom. Utilize stand-off bands (4.625" x 6.000") every second joint on the lower 20 joints and every third joint thereafter up to 100' inside the 7.000" casing.
5. Cement per Halliburton recommendations. Utilize two wiper plugs (discuss w/ Howco-- attempt to ensure that the cement is completely wiped from the casing to allow a rigless completion). This single stage job should bring cement at least 500' inside the 7.000" casing. Reciprocate the casing throughout the cement job, passing joints. Land casing in full tension. Run temperature survey 10-12 hours after bumping plug.
6. RDMORT.



brad  
07/02/96 9:50 AM

## Atlantic LS #2R

1. MIRU wireline unit. Run gauge ring to ensure clean casing. Tag for and report PBTD.
2. Run GR/CCL/TMD from TD' to 500' above to top of Cliffhouse. Fax log copy to Denver to select perforation intervals.
3. RU perforating equipment. Perforate PLO pay intervals using limited entry techniques. Perf intervals will be identified from TMD log. Utilize 3 1/8" HCP w/ 12.5 g charges (0.34" EHD, 13.13" Penetration).
4. Break down perforations using 2% Kcl water and 7/8" RCN balls w/ 1.1 SG. Recover balls with junk basket.
5. RU fracture stimulation equipment. Fracture stimulate PLO pay according to frac schedule A. Flowback well as soon as stimulation equipment is disconnected and moved off. Flow well back starting with 1/4" choke gradually increasing to 1/2" choke. Flow well back overnight or over weekend. Record flowing and shutin pressures, choke size, and liquid recoveries.
6. TIH w/ wireline and tag for fill. If sand fill is below next perf interval(s) then set wireline CIBP between MN and PLO. If sand fill is into MN section then a rig or CTU will be required to clean out fill prior to proceeding with completion.
7. Once CIBP is set, pressure test to ensure good seal.
8. RU perforating equipment. Perforate MN pay intervals using limited entry techniques. Perf intervals will be identified from TMD log. Utilize 3 1/8" HCP w/ 12.5 g charges (0.34" EHD, 13.13" Penetration).
9. Break down perforations using 2% Kcl water and 7/8" RCN balls w/ 1.1 SG. Recover balls with junk basket.
10. RU fracture stimulation equipment. Fracture stimulate MN pay according to frac schedule A. Flow back well as soon as stimulation equipment is disconnected and out of the way. Flow well back starting with 1/4" choke gradually increasing to 1/2" choke. Flow well back overnight or over weekend. Record flowing and shutin pressures, choke size, and liquid recoveries.
11. TIH w/ wireline and tag for fill. If sand fill is below next perf interval(s) then set wireline RBP between CH and MN. If sand fill is into CH section then a rig or CTU will be required to clean out fill prior to proceeding with completion.
12. Once RBP is set, pressure test to ensure good seal.
13. RU perforating equipment. Perforate CH pay intervals using limited entry techniques. Perf intervals will be identified from TMD log. Utilize 3 1/8" HCP w/ 12.5 g charges (0.34" EHD, 13.13" Penetration).
14. Break down perforations using 2% Kcl water and 7/8" RCN balls w/ 1.1 SG. Recover balls with junk basket.

## Atlantic LS #2R

15. RU fracture stimulation equipment. Fracture stimulate CH pay according to frac schedule A. Flow back well as soon as stimulation equipment is disconnected and out of the way. Flow well back starting with 1/4" choke gradually increasing to 1/2" choke. Flow well back overnight or over weekend. Record flowing and shutin pressures, choke size, and liquid recoveries.
16. MIRUSU. TIH w/ tubing x bit and scraper. Clean out fill to RBP. Pull RBP. Clean out MN interval. DO CIBP. Clean out to PBTD.
17. Land 2 3/8" production tubing. Set tbg at approximately mid-perf depth' (1/2 mile shoe on bottom w/ seating nipple one joint up). Final setting depth will be selected based on pay intervals from TMD log. Flow well to clean up. Swab well in if necessary. RDMOSU.
18. Obtain gas and water samples. SI well pending equipment hook up. Turn well over to production.

# Amoco Production Company

## ENGINEERING CHART

Sheet No. \_\_\_\_\_

Of \_\_\_\_\_

File \_\_\_\_\_

Appn \_\_\_\_\_

Date \_\_\_\_\_

By \_\_\_\_\_

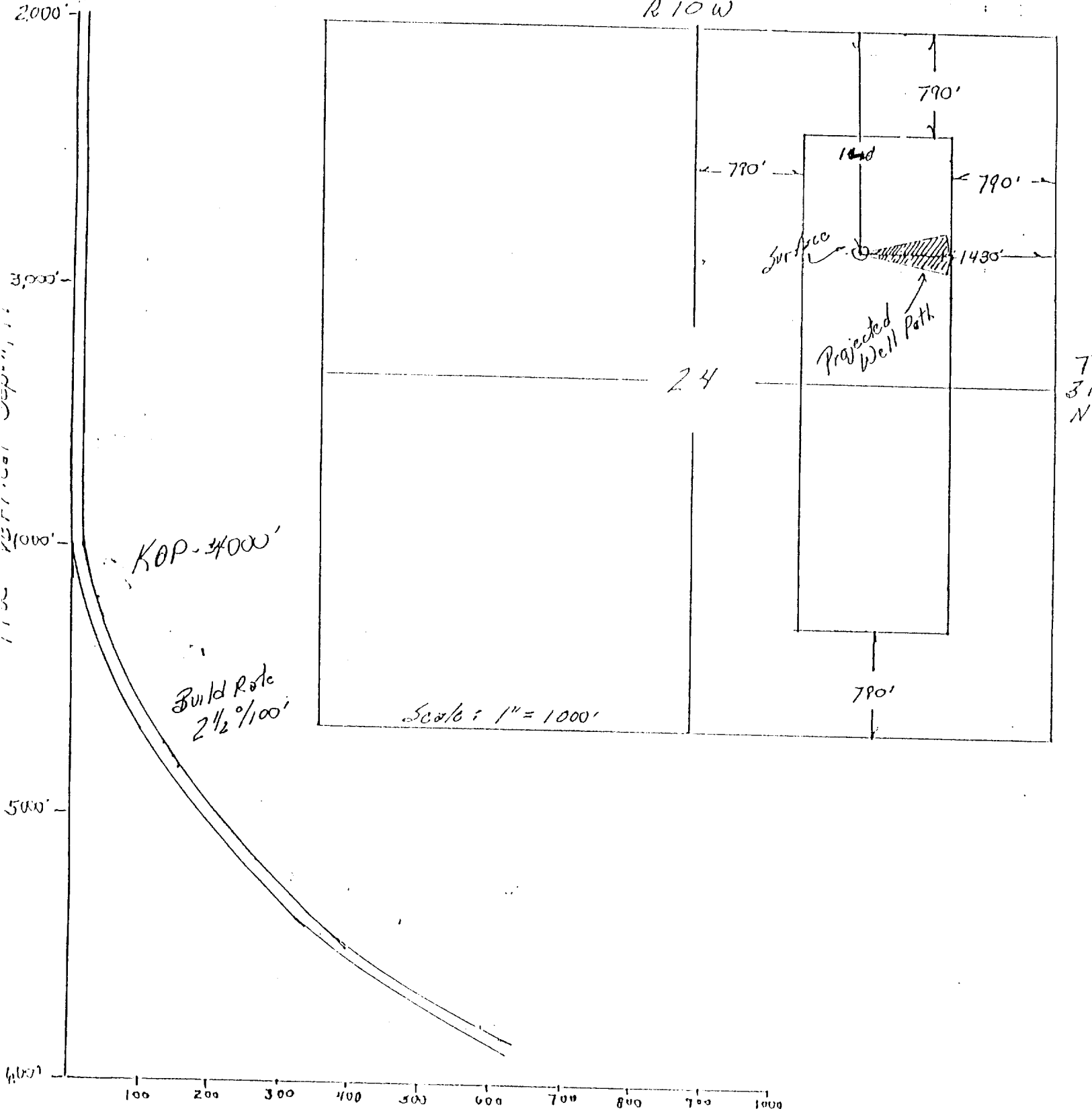
SUBJECT

*Atlantic LS #2-R*

*1610' ENL, 1430' EEL Sect 24, T1N, 10W  
San Juan County, New Mexico*

*June 28, 1982*

*JLH*



Vertical Section (depth, ft)

<b>Amoco Production Company</b>									
Atlantic LS #2-R									
1610' FNL, 1430' FEL									
Section 24G, T31N, R10W									
San Juan County, New Mexico									
Proposed Directional Program									
Meas'd	Survey-----		Depth	North	East	Vert'l.	Closure-----		
Depth	Incl.	Direct'n.	TVD	-South	-West	Section	Distance	Direction	Dogleg
0.00	0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	90.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
4100.00	2.00	90.00	4099.98	0.00	1.75	1.75	2.00	90.00	2.00
4200.00	4.50	90.00	4199.81	0.00	7.41	7.41	7.00	90.00	2.50
4300.00	7.00	90.00	4299.30	0.00	17.43	17.43	17.00	90.00	2.50
4400.00	9.50	90.00	4398.26	0.00	31.78	31.78	32.00	90.00	2.50
4500.00	12.00	90.00	4496.49	0.00	50.43	50.43	50.00	90.00	2.50
4600.00	14.50	90.00	4593.82	0.00	73.35	73.35	73.00	90.00	2.50
4700.00	17.00	90.00	4690.06	0.00	100.49	100.49	100.00	90.00	2.50
4800.00	19.50	90.00	4785.02	0.00	131.81	131.81	132.00	90.00	2.50
4900.00	22.00	90.00	4878.53	0.00	167.23	167.23	167.00	90.00	2.50
5000.00	24.50	90.00	4970.40	0.00	206.70	206.70	207.00	90.00	2.50
5100.00	25.00	90.00	5061.22	0.00	248.57	248.57	249.00	90.00	0.50
5200.00	25.00	90.00	5151.85	0.00	290.83	290.83	291.00	90.00	0.00
5300.00	25.00	90.00	5242.48	0.00	333.09	333.09	333.00	90.00	0.00
5400.00	25.00	90.00	5333.11	0.00	375.35	375.35	375.00	90.00	0.00
5500.00	24.50	90.00	5423.92	0.00	417.22	417.22	417.00	90.00	0.50
5600.00	24.00	90.00	5515.10	0.00	458.29	458.29	458.00	90.00	0.50
5700.00	23.00	90.00	5606.80	0.00	498.17	498.17	498.00	90.00	1.00
5800.00	22.00	90.00	5699.19	0.00	536.43	536.43	536.00	90.00	1.00
5900.00	21.00	90.00	5792.23	0.00	573.08	573.08	573.00	90.00	1.00
6000.00	20.00	90.00	5885.90	0.00	608.10	608.10	608.00	90.00	1.00
6015.00	20.00	90.00	5899.99	0.00	613.23	613.23	613.00	90.00	0.00