1. oil

well 🔯

gas

well

of Atlantic Richfield Company

### UNITED STATES DEPARTMENT OF THE INTERIOR **GEOLOGICAL SURVEY**

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)

other

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	,	14-20-603-734	

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6.	IF INDIAN, ALLOTTEE OR TRIBE NAM
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6.	IF INDIAN, ALLOTTEE OR TRIBE	NAME
	Navajo	

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7. UNIT AGREEME	NT NAME	
Horseshoe	Gallup	Unit

8. FARM OR LEASE NA	ME
Horseshoe Ga	11un Ilnit

9. WELL NO.

285

## 2. NAME OF OPERATOR ARCO Oil and Gas Co., Div

10. FIELD OR WILDCAT NAME

3. ADDRESS OF OPERATOR	Horsesnoe Gallup
P. O. Box 5540, Denver, Colo. 80217	11. SEC., T., R., M., OR BLK. AND SURVEY OR
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) Unit G-65	AREA Sec. 32-31N-16W
AT SURFACE: 2606 FNL & 2580 FEL, Sec. 32 AT TOP PROD. INTERVAL: Appx. same	12. COUNTY OR PARISH 13. STATE San Juan New Mexico
AT TOTAL DEPTH: Appx. same	14. API NO.
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	30-045-21501
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD)
PULL OR ALTER CASING	5356 GL  IVED  NOTE: Report results of multiple completion or zone change on Form 9–330.)
(other)Addn'l.Compl. of Upper Gallup and St	imulation of Present Lower Gallup Perfs.

17. 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.)\*

Well #285 was completed in October, 1974 as a development well and initially tested 44 BOPD and 291 BWPD from the Lower Gallup formation. Production has declined to 10 BOPD and 225 BWPD presently. This well is located in a part of the field where scale problems are common. Stimulation of the well should restore the Lower Gallup to a reasonable production rate and decline.

The Upper Gallup sand has never been completed in this well. We propose to perforate the Upper Gallup formation from 1108-1142', and stimulate the present Lower Gallup perforations in this well.

Attached is the proposed workover procedure for this work.

Subsurface Safety Valve: Manu, and Type	Set @	_ Ft.
18. I hereby certify that the foregoing is true and correct  SIGNED Stephen Reserving Titue Dist. Prod. Supt. DAY	E June 7, 1982	
S. APPROVED space for Federal or State office use)		_ <del></del>
CONDITIONS OF APPROVALUNANYO 198	ATE	<del></del>
DISTRICT ENGINEER		
See Instructions on Reverse Side	A COLOR OF THE PARTY	

# Proposed Workover Procedure HSGU #285

#### Well Data:

Location: 2605' FNL and 2580' FEL, Section 32-31N-16W

San Juan County, New Mexico

Elevation: GL-5356' KB-5367'

Log measured from KB.

Casing: 5-1/2" 15.5# J-55 set @ 1294' KB, cemented w/100

sx Lo Dense and 90 sx Neat Class 'A'

Perfs: 1226-52' ELM (Lower Gallup)

Tubing: 1 Jt. 2-7/8" EUE, 8R, J-55, 6.5# 31.55

1 SN 2-7/8" EUE, 8R 1.10 38 Jts. 2-7/8" EUE, 8R, J-55, 6.5# 1191.30

RKB to top of tbg head 11.50 1235.45

TD: 1294'

PBTD: 1260'

#### Workover Procedure:

- 1. MIRU. Pull rods and pump. Squeeze Lower Gallup perfs (1226-52' ELM) w/l drum S-271 scale inhibitor.
- 2. Pull tbg. Clean out hole to PBTD w/csg scraper. Set retrievable bridge plug @ 1200' ± w/wireline. Pressure test plug and csg to 2000 psi.
- 3. Run Gamma Ray-CCL correlation log. Perf csg opposite Upper Gallup f/1108-42' ELM w/2 JET SPF.

- 4. RIH w/tbg and fill up csg and tbg w/water. Spot 500 gallons 7-1/2% HCl w/l drum S-271 scale inhibitor.
  - Acid also to contain 2 gal/1,000 NAI-161 corrosion inhibitor, 2 gal/1,000 NNE-257 non-emulsifier and 1 gal/1,000 NCS-227 clay stabilizer.
- 5. Pull tbg and rig up to frac down 5-1/2" csg.
- 6. Displace acid with Nowsco NOWFRAC II LR-40. Breakdown formation. Shut down and record ISIP.
- 7. Frac formation at 20 BPM at approximately 1000 psi using 10,000 gallons pre-gelled Nowsco\* NOWFRAC II LR-40 and 28,600 pounds 10/20 sand. Include radioactive sand for tracer survey following job. (Nowsco is not licensed to handle the radioactive material, so to save money, ARCO should set this up independently.)

Gals	Bbls	Prop	Prop Conc	Fluid
2,000 700 1,000 1,400 2,800 2,100 1,110	48 17 24 33 67 50 26	10/20 10/20 10/20 10/20 10/20	1 ppg 2 ppg 3 ppg 4 ppg 5 ppg Flush	Pad-NOWFRAC II LR-40 NOWFRAC II LR-40 2% KC1 Water

- \* This job was designed for Nowsco Services fluids. It cannot be expected that the same results will be obtained with other fluids. If Nowsco Services does not do the job, please notify Engineering Department for redesign.
- 8. Run tracer survey. If sand is covering perfs, clean out to 10' below bottom perf and then run survey.
- 9. Allow sufficient time for gel to break. Clean out sand to bridge plug.
- 10. Retrieve bridge plug, run pumping equipment, put well on test. (Upper and Lower Gallup commingled production.)

