

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐		5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-734	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other ☐		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo	
2. NAME OF OPERATOR ARCO Oil and Gas Company, Division of Atlantic Richfield Company		7. UNIT AGREEMENT NAME Horseshoe Gallup	
3. ADDRESS OF OPERATOR P.O. Box 5540, Denver, Colorado 80217		8. FARM OR LEASE NAME Horseshoe Gallup	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements): At surface 100' FSL & 1310' FEL Unit P At top prod. interval reported below At total depth Approx the same		9. WELL NO. 299	
10. FIELD AND POOL, OR WILDCAT Horseshoe Gallup		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA 30-31N-16W	
12. COUNTY OR PARISH San Juan		13. STATE New Mexico	
14. PERMIT NO. BLM		15. DATE SPUDDED 6-8-83	
16. DATE T.D. REACHED 6-10-83		17. DATE COMPL. (Ready to prod.) 7-1-83	
18. ELEVATIONS (DP, RES. RT, GR, ETC.) 5451' GL; 5464.5' DF; 5466' KB		19. ELEV. CASINGHEAD 5451' GL	
20. TOTAL DEPTH, MD & TVD 1400' GL		21. PLUG BACK T.D., MD & TVD 1370' KB	
22. IF MULTIPLE COMPL. HOW MANY? 1		23. INTERVALS DRILLED BY 0-1400'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) Gallup 1160' - 1200' and 1270' - 1294'		25. WAS DIRECTIONAL SURVEY MADE NO	
26. TYPE ELECTRIC AND OTHER LOGS RUN FDC DI/SFL		27. WAS WELL CORED NO	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
13-3/8"	61#	42' GL	17 1/2"
8-5/8"	24#	155' GL	12-1/4"
5-1/2"	14#	1400' GL	7-7/8"
CEMENTING RECORD		AMOUNT PULLED	
SEE ATTACHED-Page 1		NONE	
SEE ATTACHED-Page 1		NONE	
SEE ATTACHED-Page 1		NONE	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
NONE			
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2-7/8"	1323' KB	NONE	
31. PERFORATION RECORD (Interval, size and number)			
Gallup 1160'-1200' 2 SPF			
Gallup 1270'-1294' 2 SPF			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)			
AMOUNT AND KIND OF MATERIAL USED			
SEE ATTACHED-Page 1			
33. PRODUCTION			
DATE FIRST PRODUCTION 7-5-83		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping 2" plunger, 11 SPM, 54" stroke	
WELL STATUS (Producing or shut-in) Producing			
DATE OF TEST 7-5-83	HOURS TESTED 2 hrs	CHOKE SIZE ---	PROD'N. FOR TEST PERIOD ---
OIL—BBL. 3	GAS—MCF. ---	WATER—BBL. 50	GAS-OIL RATIO ---
FLOW. TUBING PRESS. NA	CASING PRESSURE NA	CALCULATED 24-HOUR RATE ---	OIL GRAVITY-API (CORR.) ---
OIL—BBL. 36	GAS—MCF. ---	WATER—BBL. 600	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) NA			
TEST WITNESSED BY ACCEPTED FOR RECORD			
35. LIST OF ATTACHMENTS 2 of #26 above and Daily Well History			
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			
SIGNED W.A. Walther, Jr.		TITLE Operations Manager	
DATE 7-19-83			

*(See Instructions and Spaces for Additional Data on Reverse Side)

NMOCC

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO
BY smn

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 33.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in Item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

SUMMARY OF PRODUCTION ZONES		GEOLOGIC MARKERS	
LOCATION	TOP	NAME	MEAS. DEPTH
NO CORES AND NO DST'S		Gallup	1160'
		Gallup	1270'

RECEIVED
JUL 29 1983
OIL FIELD DIV. 1
3

28. CASING CEMENTING RECORD:

13-3/8", 61#, K-55, STC casing cemented @ 42' GL with 5 bbls water and 75 sx Class "B" with 3% CaCl_2 (1.17 cu.ft./sx. yields 87.75 cu.ft.). Left 20' cement in casing.

8-5/8", 24#, K-55, STC casing with cement nose guide shoe @ 155' GL, FC @ 114' GL. Cemented with 10 bbls fresh water followed by 125 sx Class "B" + 2% CaCl_2 + 1/4#/sx flocele (15.6 ppg @ 1.17 cu.ft./sx. yields 146.25 cu.ft.). Circled 8 bbls cement to surface.

5-1/2", 14#, K-55, STC casing with casing shoe @ 1400' GL and FC @ 1355' GL. Cemented using 20 bbls mud sweep followed by 55 sx lead cement Class "B" with 12-1/2 #/sx gilsonite, 6% gel and 0.6% D-31 (12.9 ppg @ 1.96 cu.ft./sx. yields 107.8 cu.ft.). Tailed in with 143 sx Class "B" and 2% CaCl_2 & 1/4#/sx flocele (15.6 ppg @ 1.17 cu.ft./sx. yields 167.3 cu.ft.). Displace with 34 bbls water. Circled cement to surface. Rec'd 2-5 bbls thin flush lead cement to surface.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.:

1270' - 1294'	Spotted 500 gals 15% HCL
1270' - 1294'	2000 gals 2% KCL water
1270' - 1294'	162 bbls fluid and 15,900# sand
1160' - 1200'	Spotted 500 bbls 2% HCL
1160' - 1200'	40 bbls 2% KCL water
1160' - 1200'	282 bbls fluid and 23,000# sand



HORSESHOE GALLUP UNIT #299
SE SE SECTION 30-31N-16W
SAN JUAN COUNTY, NEW MEXICO

5/4-6/83 Drld conductor hole w/auger, ran & cmt'd 42' of 13-3/8", 61#/ft, K-55, STC. Landed @ 42' GL.

6/7/83 Ready to receive Aztec Rig #56.

5/8/83 156 Day-1 (114') - WOC. (8-5/8" @ 155' GL)
MW: 9.0# Vis: 40 (Spud Mud)
MI & RU. GL Elev: 5451', DF: 5464.5', RKB: 5466'. SPUD 1630 hrs 6/7/83.
Drld 12-1/4" hole to PD. Ran 4 jts (170.6' LF) 8-5/8", 24#/ft, K-55, STC
w/FS @ 155' GL & FC @ 114' GL. BJ cmt'd csg w/125 sx Cl "B" + 2% CaCl₂ +
1/4#/sx Flocele mixed @ 15.6 ppg. Full returns thruout cmtg oprn & circ
approx 8 bbls cmt to surf.

5/9/83 156 Day-2 (0') - Drlg cmt. (8-5/8" @ 155' GL)
Wtr.
WOC & cut off csg. NU & tstd BOPs to 1100 psi. RIH w/B#2 & drlg vy hard
cmt.

5/10/83 1400 Day-3 GL (1245') - Circ & cond hole f/log. (8-5/8" @ 155' GL)
MW: 8.8# Vis: 53 Pv/Yp: 14/8
Drld vy hard cmt & shoe. Drld to PD & circ'g f/log.

5/11-13/83 1400 Day-5 PBD: 1355' (FC) - WO completion. (5-1/2" @ 1400' GL)
Circ hole cln & POH. Schl ran DIL/FDC/GR/Calip. Ran 34 jts (1436' LF)
5-1/2", 14#/ft, K-55, STC w/shoe @ 1400' GL & FC @ 1355' GL. BJ cmt'd csg
w/55 sx Cl "B" + 12-1/2#/sx Gilsonite + 6% gel mixed @ 12.9 ppg foll'd by
143 sx Cl "B" + 2% CaCl₂ + 1/4#/sx Flocele. Gd returns thruout cmtg oprn &
had ±4 bbls of lead slurry back to surf - CIP @ 1730 hrs 6/10/83. PU BOPs
to set slips & noticed cmt backflw thru annulus. Set slips w/19M#
tension. Shut in wellhd valve, instl'd press gauge & the gauge indicates
20 psi. Schl ran temp log indicating temp anomalies @ 1250', 1080' &
170'. Ran CBL/VDL; poor quality. ND & RR 1300 hrs 6/11/83. (Drop f/report
until completion commences.)

13 CON

HORSESHOE GALLUP UNIT #299
SE SE SECTION 30-31N-16W
SAN JUAN COUNTY, NEW MEXICO

6/28/83	1400	Day-1 PBD: 1370' - Prep to acid frac. MI RU 6/27/83 & NJ BOPs. RIH w/ 4-3/4" bit & csg scraper on 2-7/8", 6.5#, J-55, EUE tbq. Tagged PBTD @ 1370' KB & displ'd hole w/2% KCl wtr. Closed pipe rams & tstd csg to 2000 psi. Welex perf'd 1270-1294' @ 2 SPF w/4" csg gun (Welex ran CBL/VDL/CCL/GR on 6/23/83 also). RIH w/ 2-7/8" tbq to 1307' & SWIFN. (Dropped f/report of 6/11-13/83.)
6/29/83	1400	Day-2 PBD: 1370' - Prep to acid frac upper zone. W/tbg @ 1307' GL, sptd 500 gal 15% Hcl & POH. Frac stimulated perfs w/162 BF + 15,900# dn 5-1/2" csg & screened out. Avg rate was 20 BPM @ 1100 psi avg & max press was 2300 psi.
6/30/83	1400	Day-3 PBD: 1370' - Prep to spt acid. RIH w/notch clr on 2-7/8" tbq, tagged sd @ 515' KB & CO to 1322'. POH. Dropped approx 1300 lbs sd dn csg, closed rams and able to bld press up to 2000 psi. Welex ran dummy gun & tagged sd @ 1237' KB. Perf'd 1160-1200' @ 2 SPF w/4" csg gun. RIH w/tbg to 1207' & SWIFN.
7/1/83	1400	Day-4 PBD: 1370' - Prep to CO sd. Spt 500 gal 15% HCl across perfs 1160-1200'. POH. Frac dn 5-1/2" csg. frac w/23M# 10/20 sd & 305 BF (2% KCl wtr w/5% diesel).
7/2-5/83	1400	Day-5 PBD: 1370' - WO pmpg unit & elec. RIH w/ 2-7/8" tbq & CO sd 1237-1370'. POH. Welex ran GR tracer survey 1370-1100'. Ran tbq & rods & pmp. RD CU 7/1/83 & move to HSG #300. SD f/holiday.
7/6/83	1400	Day-5 PBD: 1370' - WO pmpg unit & elec. (Drop f/report WO pmpg unit).
7/7/83	1400	Day-5 PBD: 1370' - Pmpg. Set pmpg unit 7/6/83 & tstd f/2 hrs making 3 BO & 50 BW. Est 24 hr rate @ 36 BOPD & 600 BWPD w/2" plunger, 11 SPM & 54" stroke.
7/8/83	1400	Day-5 PBD: 1370' - Drop f/report. Waiting on final production test.
7/13/83	1400	Day-5 PBD: 1370' - FINAL REPORT - COMPLETED OIL WELL, 7/12/83. Final tst 12 BO & 434 BW f/Gallup perfs 1160-1200', 1270-1294'.