

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. SF-079456	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other ☐		6. IF INDIAN, ALLOTTEE OR TRIBE NAME -----	
2. NAME OF OPERATOR ARCO Oil & Gas Company Division of Atlantic Richfield Company		7. UNIT AGREEMENT NAME -----	
3. ADDRESS OF OPERATOR Suite 501 Lincoln Tower 1860 Lincoln Street, Denver, Colorado 80295		8. FARM OR LEASE NAME Chacon Hill	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1850' FNL & 1850' FEL (SW NE) Unit G At top prod. interval reported below At total depth Approx. the same		9. WELL NO. 2	
14. PERMIT NO. Mr. Barrick		10. FIELD AND POOL, OR WILDCAT Chacon - Dakota	
DATE ISSUED 9-7-79		11. SEC., T., R., M., OR BLOCK AND SURVEY OF AREA 20-24N-3W	
15. DATE SPUNDED 9-14-79		12. COUNTY OR PARISH Rio Arriba	
16. DATE T.D. REACHED 9-29-79		13. STATE New Mexico	
17. DATE COMPL. (Ready to prod.) 10-15-79		19. ELEV. CASINGHEAD ---	
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 6902' GL 6916' KB		20-24N-3W	
20. TOTAL DEPTH, MD & TVD 7610' TD		21. PLUG, BACK T.D., MD & TVD 7566' PBDT	
22. IF MULTIPLE COMPL., HOW MANY* 1		23. INTERVALS DRILLED BY 0 - 7610'	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)* Dakota "A" 7187'-7231' (OA); "B" 7305'-7312'; "C" 7395'-7413' (OA)		25. WAS DIRECTIONAL SURVEY MADE NO	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL; CNL-FDC w/GR		27. WAS WELL CORED NO	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
8-5/8"	24#	293'	12-1/4"
5-1/2"	17# & 15.5#	7608'	7-7/8"
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
NONE			
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
2-3/8"	7128"	NONE	
31. PERFORATION RECORD (Interval, size and number)			
Dakota "A" 7187'- 7231' (OA) 1 JSPP			
Dakota "B" 7305'- 7312' 4 JSPP			
Dakota "C" 7395'- 7413' (OA) 2 JSPP			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
7187'- 7231' (OA)		500 gals 15% MCA acid	
7187'- 7213' (OA)		62M gals KCL & 80M# Sand	
7305'- 7312'		250 gals 15% MCA acid	
7305'- 7312'		32M gals KCL & 38.5M# Sand	
33.* PRODUCTION (OVER)			
DATE FIRST PRODUCTION 10-15-79		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) Flow	
DATE OF TEST 10-15-79		WELL STATUS (Producing or shut-in) Producing	
HOURS TESTED 4	CHOKE SIZE 1/2"	PROD'N. FOR TEST PERIOD	
FLOW. TUBING PRESS. 375#	CASING PRESSURE 900#	OIL--BBL. 270	GAS--MCF. 387
CALCULATED 24-HOUR RATE		WATER--BBL. 170	GAS-OIL RATIO 1433:1
OIL--BBL. 270		OIL GRAVITY API (CORR.) 44.3°	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold			
35. LIST OF ATTACHMENTS 2 of #26 above and daily well history Will forward when received			
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 10-14-79			

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

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 35.

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.)

37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
NO DST'S AND NO CORES				Pictured Cliffs	3006'	
				Chacra	3859'	
				Mesaverde	4644'	
				Gallup	6242'	
				Greenhorn	7105'	
				Graneros	7172'	
				Dakota "A"	7182'	
				Dakota "B"	7299'	
				Dakota Silt	7350'	
				Dakota "C"	7383'	
				Burro Canyon	7461'	
				Morrison	7597'	
32. Continued						
	7395' - 7413'	500 gals 15% MCA acid				
	7395' - 7413'	32M gals KCL & 38.5M# Sand				

#32. Continued

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9/15/79	300	POH to run surf csg. MIRU & spudded 10 pm 9/14/79. (RKB to GL = 14'). Drld 12-1/4" hole to 300'. 1° @ 295'. 110 RPM, 2-10M#. Mud: 8.8#, vis 45. B#1, 12-1/4", HTC, OSC3, made 300' in 7 hrs.
9/16/79	516	Drig sd & sh. Ran 8 jts 8-5/8" 24# K-55 ST&C, 3 cntrlzrs, set @ 293' RKB (TP 297'). Cmt'd w/300 sx Cl "B" & 2% CaCl + 1/4# Flocele/sx. Circ 15 bbls cmt to surf. NU BOP & tstd 1000#, held OK. 85 RPM, 20M#. Mud: 8.4#, vis 35, WL 8.2, FC 1/32, salt 500, Ph 10, Pv 14, Yld 8, Gels 2/4, solids 1%, Ca 80, oil 7%. (B#2).
9/17/79	1660	Drig sd & sh. 2° @ 870', 1° @ 1391' & 1438'. 85 RPM, 30M#. Mud: 8.4#, vis 38, WL 6.8, FC 2/32, Sd-tr, salt 550, Ph 10.5, Pv 13, Yld 6, Gels 1/2, solids 1%, Ca tr, oil 7%. B#2, 7-7/8", Sm., DT, made 1246' in 17-1/2 hrs. (B#3).
9/18/79	2751	Trip f/bit, sd & sh. 1° @ 2490', 1/4° @ 2751'. 85 RPM, 30M#. Mud: 8.8#, vis 39, WL 6, FC 2/32, Sd-tr, salt 550, Ph 9.5, Pv 12, Yld 8, Gels 2/8, solids 3%, Ca 20, oil 5%. B#3, 7-7/8", Sm., DT, made 1313' in 24 hrs.
9/19/79	3577	Drig sd & sh. 1° @ 3271'. 65 RPM, 30M#. Mud: 8.3#, vis 35, WL 6.8, FC 2/32, sd tr, salt 450, Ph 9, Pv 18, Yld 10, Gels 3/9, solids 3%, Ca 20, oil 6%. (B#4)
9/20/79	4003	Sd & sh. 1/2° @ 3868'. 60 RPM, 40M#. Mud: 8.8#, vis 40, WL 6.16, FC 2/32, sd tr, salt 500, Ph 8.5, Pv 14, Yld 6, Gels 1/3, solids 3%, Ca 60, oil 6%. B#4, 7-7/8", Sm, OG, made 1117' in 29-1/2 hrs. (B#5)
9/21/79	4510	Drig sd & sh. 1/2° @ 4309'. 60 RPM, 40M#. Mud: 9#, vis 38, WL 7.6, FC 2/32, Sd tr, salt 250, Ph 8.5, Yld 5, Gels 1/3, Pv 12, solids 5%, Ca 40, oil 6%. (B#5)
9/22/79	5042	Drig sd & sh. Lost 200 BM 4800-50'. Treated w/LCM, OK. 65 RPM, 40M#. Mud: 9#, vis 37, WL 7.4, FC 2/32, sd tr, salt 300, Ph 8.5, Pv 8, Yld 4, Gels 0/1, solids 7%, Ca 40, oil 8%. (B#5)
9/23/79	5495	Drig sd & sh. 1/2° @ 5378'. 65 RPM, 40M#. Mud: 9.2#, vis 44, WL 7.2, FC 2/32, sd 1/4%, salt 300, Ph 8.5, Pv 10, Yld 5, Gels 2/5, solids 8%, Ca 40, oil 6%. (B#5)
9/24/79	5818	Trip f/bit, sd & sh. Lost circ @ 5700'. Lost 300 BM, regained circ after 1-1/2 hrs. 1-1/2° @ 5818'. 65 RPM, 40M#. Mud: 9.1#, vis 38, WL 7.2, FC 2/32, sd 1/4%, salt 400, Ph 8.5, Pv 10, Yld 2, Gels 1/2, solids 5.5%, Ca 20, LCM 5%, oil 6%. B#5, 7-7/8", HTC, J-22, made 1950' in 94-1/2 hrs.
9/25/79	6035	Drig sd & sh. 65 RPM, 40M#. Mud: 8.9#, vis 45, WL 5.6, FC 2/32, sd 1/4%, salt 450, Ph 8.5, Pv 16, Yld 10, Gels 3/7, solids 4%, CA 40, LCM 4%, oil 6%. (B#6)
9/26/79	6439	Drig Gallup. @ 6300' lost 150 bbls mud. Lost partial returns only; regained OK. 65 RPM, 40M#. Mud: 9.1#, vis 42, WL 7.2, FC 2/32, sd 1/2, salt 450, Ph 8.5, Pv 14, Yld 7, Gels 1/5, Solids 5%, CA 20, LCM 6%, oil 6%. (B#6)
9/27/79	6790	Drig sd & sh. 65 RPM, 40M#. Mud: 8.3#, vis 46, WL 8.6, FC 2/32, Sd 1%, Salt 450, Ph 8.5, Pv 18, Yld 8, Gels 3/11, Solids 9%, Ca 160, LCM 6%, Oil 7.5%. (B#6)
9/28/79	7228	Drig Dakota. 65 RPM, 40M#. Mud: 9.1#, vis 45, WL 7, FC 2/32, Sd 1%, Salt 500, Ph 9, Pv 18, Yld 9, Gels 3/10, Solids 9%, Ca 60, LCM 6%, oil 6% (B#6)
9/29/79	7364	Drig Dakota. 3° @ 7247'. 65 RPM, 42M#. Mud: 9#, vis 50, WL 7.2, FC 2/32, Sd 1, Salt 550, Ph 9.5, Pv 9, Yld 3, Solids 7, Ca 40, LCM 6%, oil 6.5%. B#6, 7-7/8", HTC, J-22, made 1429' in 87-1/2 hrs. (B#7)
9/30/79	7610	TD - Short trip prep to log Morrison. 65 RPM, 42M#. Mud: 9.4#, vis 100, WL 5, FC 2/32, Sd 1, Salt 450, Ph 8.5, Pv 18, Yld 9, Gels 1/5, Solids 8, Ca 80, LCM 4, Oil 6%. B#7, 7-7/8", Sm, F-5, made 363' in 35-1/2 hrs.
10/1/79	7610	TD - Circ & cond mud to run csg. Ran DIL f/TD to surf pipe. Ran CNL-FDC/w/GR f/TD to 6150'; 3450-5750' & 3150-2750'. Ran caliper f/TD to 2800'.
10/2/79	7610	TD - MORT. Ran 186 jts 5-1/2" csg, landed @ 7608' KB, auto fillup flt shoe, diff clr, & DV tool. Ran 31 jts 17# K-55 R3 ST&C (1313.91') & 155 jts 15.50# K-55 R3 ST&C (6302.37'); tools (5.92'); total of 7622', DV tool @ 4141', top of jt #84. FC top of jt #1 (7578'), cntrlzrs on jts, 1,3,7,9,11,13,15,17, 19,21,23,25,27,29. Ran 30 scratchers, 20 spcg (f/TD to 7000'). Cmt bskts on jts 82 & 83. Cntrlzrs on 83,85,87,89,91. Cmt'd first stage 1000 gals mud flsh & 10 BW, 240 sx 50/50 poz, 2% gel, 6.5# gilsonite/sx, .075% D-65/sx, tailed 2/275 sx RFC. 134.7 bbls slurry, displc'd w/181 BW. Closed DV tool w/25000#. 2nd stage 200 sx 50/50 poz, 2% gel, 6.5# gilsonite/sx, tailed w/ 100 sx Reg Cl "B" cmt. 68 bbls slurry, displc'd w/98 BW. PD @ 1:30 a.m., 10/2/79. Closed DV tool w/2500#. Moving rig to Jicarilla #108.
10/3/79	7610	TD - Prep to clean loc. (Drop f/report til compltn commences.)
10/11/79	7610	TD - Prep to PU big & csg scrpr & drl DV tl. MI & RU Big "A" Well Srvc. NU BOP. Set pipe racks, unload tbgs. SDON. (Dropped f/report of 10/3/79.)
10/12/79	7566	PB - Getting SIP after Dakota "C" zone frac. TIH. Drld DV tool, CO to 7566', circ hole clean. POH. RU D-A. Ran CBL, GR correl log w/var dens f/PB (7566') to 6100', vy gd bond. F/4200-2900' fair to poor bond. Press tst csg to 4M#, held OK f/7 min. TIH w/ 2-3/8" tbgs opn ended. Circ hole w/1% KCl wtr. Tbg landed @ 7430'. Sptd 500 gals 15% MCA. POH. Perf'd Dakota "C" perfs 7395-7402' & 7407-7413' (13', 2 holes/ft, 26 holes). D-A CBL meas as correl to Schl FDC-CBL log. WO Halliburton to find sd trucks & RU to frac. AR 42 BPM, avg trtg press 2800#, ISIP 2050#. (complete frac rept tomorrow).

10/13/79 7566 PB - Flwg to pits after frac'g Dakota "A" zone; 40 BPH frac wtr w/tr oil & gas. Frac'd Dakota "C" 7395-7413' w/47,400 gals 1% KCl wtr containing 2#/1000 gal fric reducer; 15#/1000 gals fld loss add & 38,500# 20/40 mesh sd. Frac'd total 8,000 gals pad, 32,000 gals wtr & 38,500# sd. ISIP 2050#, 15 min 1500#. Initial brk dn 1650#. AIR 42 BPM, avg TP 2700#, max TP 2900#, min TP 2500#. RU D-A & ran Bkr Mod "S" BP & set @ 7365'. Press tstd f/10 min to 4000#, OK. TIH w/236 jts 2-3/8" tbg & chk'd BP @ 7365'. PU to 7313' & sptd 250 gals 15% MCA acid. POH. RU D-A & perf'd 4 JPF f/7305-7312' (CBL meas as correl'd to Schl dens log). RU HOWCO & frac'd Dakota "B" w/47,300 gals 1% KCl w/same add & 38,500# 20/40 mesh sd: total frac 8,000 gals pad; 32,000 gals wtr; 38,500# sd. ISIP 1400#, 15 min 1150#, brk dn 2200#, avg TP 2300#, max TP 2700#, min TP 2100#. RU D-A & ran Bkr Mod "S" BP, set @ 7285' (CBL meas corr'd to dens log). Held 10 min press tst OK. TIH w/ 232 jts 2-3/8" tbg to 7250' & sptd 500 gals 15% MCA acid. POH. Perf'd Dakota "A" 7187-7195' & 7199-7231' w/1 JSPP. Frac'd "A" zone w/87,000 gals 1% KCl wtr w/same add & 80,000# 20/40 mesh frac sd: total frac 18,000 gals pad, 62,000 gals wtr & 80,000# sd. ISIP 1750#, 15 min 1450#, brk dn 1600#, AIR 43 BPM, avg TP 2500#, max TP 3300#, min TP 2250#. Total bbls to recover f/3 fracs is 4877. Flwd "A" zone to pit & stock tks w/initial CP 1300# & at 6 am 75# CP. Flwd 441 BFW back f/"A" zone (load yet to recover is 4436 bbls f/all Dakota zones).

10/14/79 7566 PB - Flwg to frac tks. 4 hrs flw "A" zone to frac tks, ICP 75#, FCP 75#. REc'd 160 BLW w/tr oil & gd show gas. Final rate 40 BPH. Kill well w/30 bbls 1% KCl wtr. Ran 4-7/8" bit, sub & flt on 2" tbg. Sd @ 7231'. RU power swivel & CO sd 7231-7285'. Drld BP @ 7285'. Found sd 7315-7365'. CO & drld BP @ 7365'. Then CO sd 7526-7566' PB. Circ hole clean. POH. Ran 228 jts 2-3/8" OD EUE 4.7# J-55 8R R-2 tbg, set @ 7128'KB, SN top 1st jt f/btm @ 7097'. Stripped off BOP & NU Xmas tree. Pmpd out plug w/300#. Turned well to frac tks 8-1/2 hr, flwd to frac tk 1/2" chk - Dakota A, B & C zones. ICP 225#, present CP 425#, present TP 175#. Rec'd 473 BF, 24 BO & 449 BW - approx 5% oil cut. Load to recover 3821 BW.

10/15/79 7566 PB - Flwg well to tst tks, 24 hrs, 1/2" chk, 1150# CP, 375# TP, rec'd 502 BF (115 BO & 387 BW). Frac fld yet to recover 3333 bbls.

10/16/79 7566 PB - COMPLETED OIL WELL, 10/15/79, Dakota "A", "B" & "C" zones. Flwg well thru prod equip f/clean up. 5 hrs flwd to frac tks, 1/2" chk, CP 1150#, TP 375#. Rec'd 100 BF (3 BO & 97 BW). Total frac load = 4877 bbls; total rec'd 1643 bbls; frac wtr yet to recover 3234 bbls. Turned well thru prod equip. Rel SU 6 p.m. 10/15/79. On 4 hr well tst 10/15, flwd well @ rate of 270 BOPD & 170 BFWPD, 387 MCFD f/Dakota "A" perfs 7187-7195' & 7199-7231'; Dakota "B" perfs 7305-7312'; Dakota "C" perfs 7395-7402' & 7407-7413'. GOR 1433:l, TP 375#, CP 900#, adj chk, oil gvty 44.3° API @ 60°F. LPP 7413'.