

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions 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. NM-02402	
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 Atlantic Richfield Company		7. UNIT AGREEMENT NAME --	
3. ADDRESS OF OPERATOR 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80295		8. FARM OR LEASE NAME Chacon Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface (SW SE)1840' f/East & 800' f/South lines, Sec. 29 At top prod. interval reported below Approx. same At total depth Approx. same		9. WELL NO. 3	
14. PERMIT NO. 30-039-21583		13. STATE New Mexico	
DATE ISSUED 2-10-78		12. COUNTY OR PARISH Rio Arriba	
15. DATE SPUDDED 6-23-78		10. FIELD AND POOL, OR WILDCAT Chacon Dakota	
16. DATE T.D. REACHED 7-13-78		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 29-24N-3W	
17. DATE COMPL. (Ready to prod.) 7-28-78		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 7125 GR, 7139 RKB	
20. TOTAL DEPTH, MD & TVD 7678'		19. ELEV. CASINGHEAD --	
21. PLUG, BACK T.D., MD & TVD 7520'		23. INTERVALS DRILLED BY --	
22. IF MULTIPLE COMPL., HOW MANY* --		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 7274' to 7314' Dakota A Zone 7393' to 7404' Dakota B Zone	
25. TYPE ELECTRIC AND OTHER LOGS RUN Dual Ind. Lat.; FDC/CNL; CBL-GR		26. WAS DIRECTIONAL SURVEY MADE No	
27. WAS WELL CORED Yes		28. CASING RECORD (Report all strings set in well)	
29. LINER RECORD		30. TUBING RECORD	
31. PERFORATION RECORD (Interval, size and number) 7274'-7314' w/1 jet shot/ft. Dakota A Zone 7393'-7404' w/2 jet shots/ft Dakota B Zone		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. See Completion Record	
33. PRODUCTION DATE FIRST PRODUCTION 7-23-78 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing DATE OF TEST 7-28-78 HOURS TESTED 24 CHOKE SIZE 19/64" PROD'N. FOR TEST PERIOD 148 OIL—BBL. 375 MCFGD GAS—MCF. 333 (Load) WATER—BBL. 2534:1 FLOW. TUBING PRESS. 680# CASING PRESSURE 1090# CALCULATED 24-HOUR RATE 148 OIL—BBL. 375 MCFGD GAS—MCF. 333 (Load) WATER—BBL. 44.3 OIL GRAVITY-API (CORR.)		34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold when flow lines completed. TEST WITNESSED BY C. R. Thompson	
35. LIST OF ATTACHMENTS See back of page for completion record and Geological Tops.		36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records	
SIGNED <u>W. W. W. W.</u>		TITLE Operations Manager	
DATE 8-7-78.			

* (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 CALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERY.

FORMATION		TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		
					NAME	MEAS. DEPTH	TRUE VERT. DEPTH
No Drill Stem Tests.							
Core #1:	Dakota A	- 7255-7251'			Pictured Cliffs	3110'	
Core #2:	"	- 7271-7295'			Mesaverde	4718'	
Core #3:	"	- 7363-7383'			Dakota A	7266'	
					Dakota B	7388'	
					Dakota Silt	7442'	
					Dakota C	7473'	
					Burro Canyon	7552'	
					Morrison	7666'	
					(all meas. from RKB)		
Drld DV tool @ 3227'. CO to 7630', tested casing to to 4000 psi, Jet perf. Burro Canyon Zone w/1 jet shot per/ft 7564-7584', spotted 250 gals 15% MCA over perfs, set pkr @ 7300', Pmpd in acid, no show gas. swbd, set cmt ret @ 7525' & squeeze perfs w/100 sx Cl "B", 90 sx into form. Jet perf. Dakota "B" w/2 jet shots/ft, 7393-7494'. Frac w/47,200 gals trtd. wtr., 38,500# 40/60 sd., max. press. 3000#.							
Set B.P. @ 7355'. Jet perf. Dakota "A" w/1 jet shot/ft. 7274-7314'. Frac w/87,100 gals 2% KCl trtd. wtr., 80,000# 20/40 sd. w 2#/1000 gals fric. reducer, 15#/1000 gals fld loss additive, 250 gals 15% MCA ahead of frac. BD press 1400#, Max.press. 2700#, IR 45 BPM, SID 1500#, 14 min 1300#, 3-1/2 hrs 500#. Drld. out B.P. @ 7355' & CO to 7520'. Landed tub. @ 7215' KB. Swbd. Well started flwg. after 5 hrs thru 19/64" choke.							
COMPLETED OIL WELL 7-28-78. Flwd 148 BO, 333 BW, 375 MCF in 24 hrs. thru 19/64" choke. from Dakota A and B Zones.							

6/24/78	315	WOC. Spud 4:25 p.m. 6/23/78. Ran & cmt'd 7 jts 8-5/8" 24# K-55 ST&C 8rd Rge 3 new csg, 296.58', set @ 311' KB. (KB-GL 14'). Cmt'd w/275 sx Cl "B" 2% CaCl ₂ , 1/4# Flocele/sx. PD 12:30 a.m. 6/24. 3/4" @ 300'. 60 RPM, all wgt. B#1, 12-1/4", Hughes, OSC-3, surf-315', 315' in 4-3/4 hrs. \$14,850
6/25/78	1122	Drig. Trip f/survey. 3/4" @ 1092'. 60 RPM, 35M#. Mud: 8.8#, vis 46, WL 4.0, FC 2/32, Ph 9.0, Pv 20, Yld 16, Gels 3/9, oil 10%, solids 2%. B#2, 7-7/8", Sm., S-33, 315-1092', 777' in 9 hrs. B#3, 7-7/8", Sm., DT, in @ 1092' & drlg, 30' in 1/4 hr. \$27,385
6/26/78	2452	Drig. 1" @ 2365'. 55 RPM, 40M#. Mud: 8.9#, vis 44, WL 3, FC 2/32, Sd 1%, Ph 8, Pv 12, Yld 5, Gels 0/1, oil 8%, solids 12%. B#3, 7-7/8", Sm., DT, 1092-2365' 1273' in 17 hrs. B#4, 7-7/8", Sec., S-84F, in @ 2365' & drlg, 87' in 2-3/4 hrs. \$44,445
6/27/78	3280	Drig. 60 RPM, 40M#. Mud: 8.9#, vis 45, WL 3, FC 2/32, Ph 8, Pv 20, Yld 13, Gels 1/9, oil 8%, solids 10%. B#4, 7-7/8", Sec., S-84F, in @ 2365' & drlg, 915' in 26-1/2 hrs. \$57,235
6/28/78	3865	Drig. 60 RPM, 35M#. Mud: 8.8#, vis 44, WL 4, FC 2/32, Sd 1-1/2%, Ph 7.8, oil 8%. B#4, 7-7/8", Sec., S-84F, in @ 2365' & drlg, 1500' in 50-1/4 hrs. \$66,260
6/29/78	4194	Drig. Plugged bit while going in hole. POH, unplugged bit. 1-1/4" @ 4100'. 60 RPM, 38M#. Mud: 8.8#, vis 41, WL 2, FC 2/32, Ph 7.5, Pv 15, Yld 5, Gels 0/1, oil 9%, solids 9%. B#4, 7-7/8", Sec., S-84F, 2365-4100', 1735' in 60-3/4 hrs. (B#5). \$72,740
6/30/78	4698	Drig. 60 RPM, 35-40M#. Mud: 8.8#, vis 43, WL 2.2, FC 2/32, Sd 1/2%, Ph 7.5, Pv 20, Yld 10, Gels 1/5, oil 10%, solids 10%. (B#5). \$81,690
7/1/78	5290	Drig. 60 RPM, 40M#. Mud: 8.8#, vis 43, WL 2.8, FC 2/32, Sd 1/2%, Ph 7.2, Pv 16, Yld 5, Gels 1/4, oil 9%. (B#5). \$91,710
7/2/78	5795	Drig. 58 RPM, 40M#. Mud: 8.8#, vis 43, WL 6.0, FC 2/32, Sd 1/2%, Ph 7.5, Pv 17, Yld 6, Gels 1/9, oil 7%. (B#5). \$100,765
7/3/78	6030	Drig. B#6 plugged while att circ @ 3000' while going in w/new bit. POH & unplugged & re-ran. 1" @ 5972'. 58 RPM, 40M#. Mud: 8.9#, vis 38, WL 3.5, FC 1/32, Ph 7.0, oil 10%. B#5, 7-7/8" Sm., F-2, made 1872' in 86 hrs. (B#6). \$106,420
7/4/78	6501	Drig. 58 RPM, 38M#. Mud: 9.0#, vis 44, WL 5.2, Sd 1/2%, Ph 7.2, LCM 5-6%, oil 8%. (B#6). \$114,100
7/5/78	6895	Drig. 58 RPM, 35M#. Mud: 9.0#, vis 46, WL 6.4, FC 1/32, Sd 1/4%, Ph 7.2, Pv 20, Yld 10, Gels 3/8, oil 14%, solids 12%. (B#6). \$125,070
7/6/78	7255	Circ & cond mud f/Core #1. Lost circ @ 7252'. Pld 10 stnds DP. Mixed LCM, pmpd 300+ bbls mud. Regain ret. Mixed pit of mud. Went back to btm. Drld 3' hole, circ to CO f/core. 58 RPM, 40M#. Mud: 8.8#, vis 60, WL 5, FC 2/32, Ph 7.4, LCM 10%, oil 6%. B#6, 7-7/8", Sm., F-2, made 1283' in 67 hrs. \$133,115
7/7/78	7271	GIH w/CG for #2. Pld 2 stnds, went to btm press hi 1480#. Cored 15-20 min/ft. Hi press-bbl jammed. Core #1, Dakota "A", 7255-7271', cut 16', rec'd 15-1/2'. 55 RPM, 20M#. Mud: 9.0#, vis 60, WL 4.0, Ph 6.8, Pv 60, Yld 42, Gels 8/15, oil 5%, solids 7%. B#7, 7-7/8", Christ. MC-23, made 16' in 6-1/4 hrs. \$141,895
7/8/78	7295	GIH w/B#9. Core #2, 7271-7295', cut 24', rec'd 23-1/2'. 55 RPM, 20-25M#. Mud: 8.8#, vis 56, WL 4.0, FC 2/32, Ph 7.6, Pv 25, Yld 14, Gels 4/18, LCM 4%, oil 6%, solids 8%. B#8, 7-7/8", Christ. M-20, made 24' in 15-1/2 hrs. (B#9) \$147,980
7/9/78	7366	Coring #3. Bridges @ 7040' to 7363'. Core #3, start @ 7363'. 50 RPM, 40-20M#. Mud: 8.9#, vis 70, WL 5.8, FC 2/32, Sd 1/4%, Ph 7.2, Pv 22, Yld 16, Gels 8/23, oil 5%, LCM 5%, solids 3.5%. B#9, 7-7/8", HTC, J-55R, made 68' in 9-3/4 hrs. (B#10). \$153,090
7/10/78	7419	Drig. Core #3, 7363-7383', cut 20', rec'd 20'. 45 RPM, 40M#. Mud: 8.8#, vis 54, WL 5, FC 2/32, Sd 1/4%, Ph 7.2, Pv 23, Yld 14, Gels 3/24, oil 4%, solids 4-1/2%. B#10, 7-7/8", Christ. M-20, made 20' in 8-3/4 hrs. (B#11). \$160,025
7/11/78	7541	Drig. 1" @ 7535'. 42 RPM, 40M#. Mud: 8.9#, vis 52, WL 5, FC 2/32, Sd 1/4%, Ph 7.6, Pv 23, Yld 14, Gels 4/11, LCM 3%, oil 3%, solids 7%. B#11, 7-7/8", Hughes, J-55R, made 152' in 20 hrs. (B#12). \$163,135
7/12/78	7677	Logging w/Sch. Pipe strap 7655' to 7677'. (Corr DP TD to 7677'). LTD 7680'. Ran DIL logs. Now rng CNL-FDC log. Log Tops: Dakota "A" 7266', Dakota "B" 7388', Dakota "C" 7473', Morrison 7666'. 42 RPM, 40M#. Mud: 9#, vis 90, WL 3.8, FC 2/32, Sd 1/4%, Ph 7, Pv 32, Yld 23, Gels 4/40, oil 2%, solids 8%. B#12, 7-7/8", Hughes, J-55R, made 130' in 11-1/2 hrs. \$168,045
7/13/78	7678	Circ between cmt stages. PU & ran 188 jts 5-1/2" 17# & 15.5# K-55 8R R-2 & 3, csg (32 jts 17# = 1396.27'; 156 jts 15.5# ST&C + DV tool + FC = 6289.84': total 7686'), set @ 7678' KB. Cmt'd 1st stage w/160 sx 50/50 Poz + 4% gel, .2% HB-4, 3/4% CFR-2, tailed in w/120 sx Cl "B" neat. PD 4:45 am 7/13. Cent @ 7668' & top jts #2, 4, 6, 7, 9, 10, 11 & 13. Top of Cent @ 7110'. Cent @ top jt #107, 109, 111 & 113. DV top jt #108 & 3237', FC @ 7635'. \$237,000
7/14/78	7678	TD - Clearing location. 2nd stage cmt job 130 sx 50/50 Poz w/4% gel, 6-1/2"/sx Gilsonite, 3/4% CFR-2, flwd w/130 sx Ty "B" neat. PD 8:30 am 7/13. Gd circ thruout job. Rig rel 12:00 noon 7/13/78. \$239,000
7/15 & 16/78	7678	TD - Clearing location.
7/17 - 7/20	7678	TD - WO completion.

7/21/78	7678	TD - Prep to run cased hole logs. Coming out of hole w/csg scraper & bit. MI & RU Aztec Well Serv. NU tbg head & BOP. Tally & PU 2-3/8" EUE tbg, bit & scraper. Drld DV tool 3227'. CO to 7630'. Dip hole w/1% KCl wtr. \$278,500
7/22/78	7678	TD - FFT. Ran CBL w/var dens f/7630-6100' & 3300-2800', gd bond. Tstd 5-1/2" csg to 4000#, held OK. Jet perf Burro Canyon 7564-84' w/1 hole/ft. Ran tbg, spotted 250 gals 15% MCA over perfs, set pkr @ 7300'. Pmpd in acid, max press 3400#, IR 8 BPM. ISD 1000#, 500# in 15 min. Opnd well. Flwd 6 BW. Swbd dn to 6000', avg 10 BWPH, no show gas. SDON.
7/23/78	7678	TD - Prep to run tbg. Swb Burro Canyon perfs 7564-84' @ rate of 10 BWPH f/4 hrs, no show gas. Pld tbg & pkr. Set cmt ret @ 7525' & squeeze perfs w/100 sx Cl "B", 90 sx into fm. Max & stdg press 1000#. Pld tbg. WOC 8 hrs. Jet perf Dakota "B" 7393-7404' w/2 holes/ft. Wtr frac trtd these perfs dn csg w/47,200 gals 1% KCl wtr w/additives & 38,500# 40/60 sd. Max press 3000#, AIR 40 BPM, @ 2500#. ISD 1000#, 15 min 670#. SDON.
7/24/78	7678	TD - Prep to set BP. Ran 2-3/8" tbg, set pkr @ 7314'. Swb well, std flwg. Flwd 61 BO, 176 BLW, 426 MCFD gas thru 19/64" ch f/Dak "B" perfs 7393-7404'. FTP \$316,080
7/25/78	7678	TD - Prep to frac. Killed well w/fresh wtr. Pld tbg & pkr. Set BP @ 7360'. Unable to rel setting tool, pld out of rope socket. Ran OS & jars on 2-3/8" tbg. Pld loose @ 12,000#. Rec'd BP. Set new BP @ 7355'. Tstd csg to 4000#, held OK. Jet perfd Dak "A" 7274-7314' w/1 jet/ft (41 holes). \$318,580
7/26/78	7520	PB - Prep to swb. Wtr frac trtd Dak. "A" 7274-7214', dn 5-1/2" csg w/ 87,100 gals 2% KCl wtr & 80,000# 20-40 sd (2#/1000 gals fric reducer, 15#/1000 gals fld loss add). 250 gals 15% MCA ahead of frac. Brk dn press 1400#, avg 2450#; Max press 2700#, IR 45 BPM, ISD 1500#, 14 min 1300#, 3-1/2 hrs 500#. Bled off press, ran tbg w/ 4-3/4" bit & csg scraper. Drld out BP @ 7355' & CO to 7520'-PBD. Pld bit & scraper. Ran 2-3/8" tbg (234 jts) 4.7# J-55 w/ SN @ 7215' on btm. \$324,150.
7/27/78	7520	PB - prep to FFT. Swbd 5 hrs, well kicked off. Flwd to pit to 4:00 p.m. Rig compl rel 4:00 p.m. 7/26 \$327,250.
7/28/78	7520	PB - Cont to test. Rng 24-hr tst. \$327,250.
7/29/78	7520	PB - WELL SI - WO gas line connection. COMPLETED OIL WELL. 7/28/78, Dakota Fm. - Flowed at rate of 148 BO 14.3° API Corr. gvtty @ 60°F and 375 MCFD thru 19/64" choke in 24 hrs. f/ Dakota "A" perfs 7274-7314' and "B" perfs 7393-7404'. Lowest prod. poss. 7404'. FTP 680#, FCP 1585#. \$327,250.