

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.

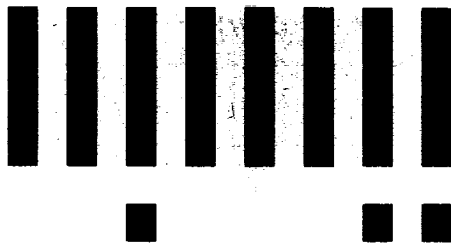
Item 29: "Seals Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

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		38. GEOLOGIC MARKERS				
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
No cores and no drill stem tests.				Ojo Alamo	1860'	
				Kirtland	2202'	
				Fruitland	3107'	
				Pictured Cliffs	3459'	
				Lewis Shale	3670'	
				Mesaverde	5070'	
				Point Lookout	5713'	
				Upper Mancos	5955'	

11/12/77	220	WOC. SPUD 14-3/4" hole 7:00 p.m. 11/11/77, drld to 220'. Ran 5 jts 9-5/8" OD 36# K-55 8rd LT&C R-3, 203.60', set @ 216'KB, cmtd w/260 sx CI "B" w/2% CaCl, PD 7:00 a.m. 11/12, circ'd 14 bbl cmt. Cent @ 210, 140 & 60'.	
11/13/77	392	Drlg. 1/4" @ 200'. 75 RPM, 15M#. 18 hrs, WOC, nip up, inst & tst BOP, blind & pipe rams @ 1000# f/15 min ea., held OK. Top cmt @ 175', start drlg out @ 1:00 a.m. B#2, Smith, F-3, in @ 220' & drlg, 172' in 4-1/2 hrs. \$ 11,955	
11/14/77	1195	Drlg. 1/2" @ 755'. 75 RPM, 25M#. Mud: 9#, 29 vis, 10.2 WL, FC 2/32, Ph 9.5, solids 2%. B#2, Smith, F-3, in @ 220', out @ 1080', 860' in 22-3/4 hrs. B#3, HTC, in @ 1080' & drlg, 115' in 3 hrs. \$ 23,180	
11/15/77	2015	Drlg. 1/2" @ 1290' & 1792'. 70 RPM, 25-30M#. Mud: 9.2#, vis 29, WL 10, FC 2/32, Sd .5%, Ph 10, Pv 2, Yld 1, Gels 1/2, solids 6%. B#3, 8-3/4", HTC, J-22, in @ 1080' & drlg, 935' in 26-1/2 hrs. \$ 34,470	
11/16/77	2480	Drlg. 3/4" @ 2295'. 60 RPM, 25-30M#. Mud: 9.2#, vis 32, WL 12, FC 2/32, Sd 1/2%, Ph 10, solids 4.5, Pv 5, Yld 3, Gels 1/4. B#3, HTC, J-22, 1080-2170', 1090' in 33-1/4 hrs. B#4, HTC, J-22, 2170' & drlg, 310' in 13-1/2 hrs. \$42,650	
11/17/77	2895	Drlg. 1-1/2" @ 2608'. 60-70 RPM, 30M#. Mud: 9#, vis 28, WL 10.6, FC 2/32, Sd .5%, Ph 10, Pv 3, Yld 1, Gels 1/2, solids 5-1/4%. B#4, 8-3/4", HTC, J-22, 2170-2608', 438' in 20-1/2 hrs. B#5, 8-3/4", Sm., F-2, in @ 2608' & drlg, 287' in 13-3/4 hrs. \$ 49,000	
11/18/77	3375	Drlg. 60 RPM, 30M#. Mud: 9#, vis 29, WL 8, FC 1/32, Sd .5%, Ph 8.5, Pv 3, Yld 1, Gels 1/1, solids 5-1/4%. B#5, 8-3/4", Sm., F-2, in @ 2608' & drlg, 767' in 34 hrs. \$ 56,510	
11/19/77	3795	Drlg. 1-3/4" @ 3450'. 60 RPM, 30M#. Mud: 9.7#, vis 40, WL 7.2, FC 2/32, Sd 1%, Ph 8.5, solids 8%, LCM 6%, Pv 14, Yld 10, Gels 2/15. B#5, Sm., F-2, in @ 2608' & drlg, 1187' in 57-1/2 hrs. \$ 65,765	
11/20/77	3840	LD DP. Ran induction, CNL-FDC w/GR & cal logs. WLTD 3840'. Ran WL fm tst in Ojo Alamo (Jones bringing in). 1" @ 3840'. 60 RPM, 30M#. Mud: 10.2#, vis 46, 7.6 WL, 1/32 FC, Ph 8.5, Pv 18, Yld 11, Gels 2/13, solids 12-3/4%. B#5, Sm., F-2, 2608-3840', 1232' in 62-1/4 hrs. \$ 76,805	
11/21/77	3840	WOC. LD DP & DC. Ran 89 jts, 3829', 7" OD 20# K-55 8rd ST&C R-3 N csg. set @ 3839'KB, cmtd w/210 sx Dowell 65-35 "Lite" w/6% gel & 2% CaCl, 13.1#/gal, fol w/100 sx Ty "B" w/2% CaCl, gd circ, PD 3 pm 11/20/77. Cent'l'zr @ 3830' & every other jt to 19th jt, top @ 3000'±, FC @ 3796'. \$107,455	
11/22/77	3963	Drlg w/gas. WOC. RU. Blew hole dry. 45 RPM, 10M#. Schlumber repeat fm. tester, Ojo Alamo; set 2181', SIP 760#, no rec'y; set 1988', SIP 0#, no rec'y; set 1990', SIP 695#, no rec'y; set 1877', SIP 582#, no rec'y; set 1762', SIP 541# initial, 220# final, rec'y 1700 cc, rec'y time 48.3 min. B#6, 6-1/4", HTC, J-55, in @ 3840' & drlg, 123' in 3-1/2 hrs. \$ 112,675	
11/23/77	4870	Drlg. 1-1/4" @ 4341'; 1-1/2" @ 4839'. 45 RPM, 10-15M#. Gas press 175#. B#6, HTC, J-55, in @ 3840' & drlg, 1030' in 26-1/2 hrs. \$125,405	
11/24/77	5352	Blowing hole, on btn. Made trip to rec survey tool. Gas - 175#. 45 RPM, 10-15M# B#6, HTC, J-55, 3840-5352', 1512' in 40-3/4 hrs. \$133,240	
11/25/77	5960	Drlg. 3/4" @ 5374' & 5872'. Drlg w/gas - 180#. B#7, 6-1/4", Sec., M-88, in @ 5352' & drlg, 603' in 22-1/4 hrs. \$142,585	
11/26/77	6070	TD - WOC. LD DP. Ran Ind GR, FDC-SNP w/GR & Caliper logs, WLTD 6063'. Ran 55 jts 4-1/2" OD 10.5# K-55 ST&C 8rd R-3 N csg, hung on TIW Mod. HL liner hanger, top @ 3707', set @ 6064'KB (csg 2344.82', 12' hanger & float equip). Cmtd w/260 sx Type "B" w/2% gel, prec w/30 bbl gelled wtr, PD 3:10 am 11/26. Rev 10-12 bbl cmt. Cntrl'zrs @ 6055', 5891', 5807', 5723', 5555', 5468'. FC & GS. RR 4:30 am 11/26/77. \$168,210	
11/27/77	6070	TD - WOC. TD & MORT. \$168,210	
11/28/77	6070	TD - WOC. \$168,210	
11/29/77	6070	TD - WOC. MORT. WOC. \$168,210	
11/30/77	6070	TD - WO completion. \$168,210	
12/01-24	6070	TD - WO completion.	
12/25/77	6070	TD - MI Serv Unit & SD f/Holidays. \$168,210	
12/26&27	6070	TD - SD f/Holidays. Prep RU unit.	
12/28/77	6070	TD - Prep POH w/bit & scraper, run 3-7/8" bit. RU Farmington Well Serv. Cut off 7" csg., instl'd OCT Ty "T" 1600, 7" OD 10" x 6" tbg head. Ran in hole w/6-1/4" bit & csg scraper to top liner, 3709', KB tbg meas. SDON. \$171,830	
12/29/77	6017	PB - Prep displ hole w/KCl wtr, POH & log. POH w/6-1/4" bit, scraper & tbg. Ran 3-7/8" bit, csg scraper on 2-3/8" tbg to 6017.10'KB tbg tally. Hook up Allied Services, press csg liner & BOP to 2500# for 15 min. held OK. SDON. \$173,528	

12/30/77	5988	PB - Prep to perf. POH w/3-7/8" bit & scraper. Corr on PB. Should be 5987.86' RU Welex. Problem w/logging tools. Ran CBL. Var dens & GR correl log. SDON. \$177,073												
12/31/77	5988	PB - SD, W0 frac crew til 1/2/78. Perf'd Mesaverde w/Welex 3-1/2" carrier select-fire 1 shot each @ 5863', 60', 53', 49', 33', 23', 18', 14', 06', 5796', 90', 82', 80', 55', 53', 46', 41', 28', 22'. RD Welex. Ran 4-1/2" retrv' Bkr pkr on 2-3/8" tbq, set pkr @ 5674'. Unable to get frac crew, SD til 1/2/78. \$181,168												
1/1&2/78	5988	PB - Prep to frac. SD unable to get frac crew.												
1/3/78	5988	PB - Prep CO sd. Hook up Dowell, ac perfs 5722-5863' w/1500 gal 15% HCl. Pmp ac @ 6 BPM, brk @ 3200#, used 25 ball sealers, gd ball action, balled off w/1- 1/2 bbl ac in tbq. POH w/tbg & pkr after knocking balls off perfs. Frac dn 7" as follows: 21,000 gal pad 900#; 5,000 gal 1/2"/gal 20-40, 900-1000#, 2500# sd; 20,000 gal, 1"/gal, 1000-700#, 20,000# sd; 12,000 gal, 1-1/2"/gal, 700#, 18,000# sd; 19,000 gal, 2"/gal, 700-800#, 38,000# sd; 23,000 gal, 2-1/2"/gal, 800-1900#, 57,500# sd; 7,600 gal flush, 1900-2450#; Total 107,600 gals, 136,000 20-40 sd. JC 2:45 pm 1/2/78. Fld w/2% KCl, 2#/1000 gal fric reducer, 30#/1000 gal fld loss additive, AIR 38 BPM, Avg 970#, MP 2500#, Final 2450#, ISD 750#, 15' on vac. Ran 2-3/8" tbq w/SN. Tag sd @ 5865'. \$222,033												
1/4/78	5988	PB - Rigging dn unit. Hook up NOWSCO & Allied Services. Used foam + N2 to CO sd. LD 9 jts tbq. Landed 2-7/8" tbq <table border="0" style="margin-left: 40px;"> <tr> <td>1 jt 2-3/8" EUE 8rd J-55 4.7#</td> <td style="text-align: right;">29.42'</td> </tr> <tr> <td>1 SN 2-3/8" EUE API</td> <td style="text-align: right;">1.14'</td> </tr> <tr> <td>187 Jts 2-3/8" EUE 8rd J-55</td> <td style="text-align: right;">5666.10'</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">5696.66'</td> </tr> <tr> <td style="text-align: right;">donut - KB</td> <td style="text-align: right;">12.50'</td> </tr> <tr> <td style="text-align: right;">at</td> <td style="text-align: right; border-top: 1px solid black;">5709.16' KB</td> </tr> </table> NU tree. OCT w/B-1 bonnet, Master valve 2" WKM 2000# WP, wing valve, 2" WKM 2000# WP, Ser #480859-3. Left flwg to pit on 3/4" ch O'nite, too wet to meas. 1/5/78 5988 PB - SI 1/4/78 f/ 7 day build-up. \$227,423	1 jt 2-3/8" EUE 8rd J-55 4.7#	29.42'	1 SN 2-3/8" EUE API	1.14'	187 Jts 2-3/8" EUE 8rd J-55	5666.10'		5696.66'	donut - KB	12.50'	at	5709.16' KB
1 jt 2-3/8" EUE 8rd J-55 4.7#	29.42'													
1 SN 2-3/8" EUE API	1.14'													
187 Jts 2-3/8" EUE 8rd J-55	5666.10'													
	5696.66'													
donut - KB	12.50'													
at	5709.16' KB													
1/12/78	5988	PB - COMPLETED GAS WELL 1/11/78. 7 day SICP 1089#, SITP 1089#, in 3 hrs FCP 686#, FTP 437#, gas vol 3117 MCFPD, 3/4" ch. 3 hr AOF 4281 MCF. Prover press 260#, temp 76°, 3/4" plate. Mv perfs 5722-5863'OA. \$227,423												



LTR



Job separation sheet

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1/11/78	
Company Atlantic Richfield Company				Connection None	
Pool Blanco Mesa Verde				Formation Mesa Verde	
Completion Date 1/4/78		Total Depth 6070		Plug Back TD 5988	
Elevation 6552 GL		Farm or Lease Name Jacquez			
Cup. Size 4 1/2"	Wt. 10.5#	d 4.052"	Set At 3707 to 6064	Perforations: From 5722 To 5863	
Flg. Size 2 3/8"	Wt. 4.7#	d 1.995"	Set At 5709	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F 8	
Baro. Press. - P _a 5709		State New Mexico			
L 5709	H 5709	G _g 0.700(est)	% CO ₂	% N ₂	% H ₂ S
Prover 2"		Meter Run		Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2"	X	0.750"	260		76	437		686		3 hours
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Comp. Factor F _{pv}	Rate of Flow Q, Mcfd
1.	9.453		272	0.9850	1.195	1.030	3117
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.41	536	1.37	0.943	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas 0.700(est) _____
3.					Specific Gravity Flowing Fluid _____
4.					Critical Pressure 668 _____ P.S.I.A.
5.					Critical Temperature 392 _____ R

P _r 1101	P _c 1212201					
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.5264$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 4281$
1	201601	647	418030	794171		
2						
3						
4						
5						

Absolute Open Flow	4281	Mcf/d @ 15.025	Angle of Slope	0.750
Remarks: Well tested thru 48/64" choke				

Approved By Commission	Conducted By C. R. Thompson Jr.	Calculated By C. R. Thompson Jr.	Checked By
------------------------	------------------------------------	-------------------------------------	------------