

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
I-149-IND-8470

6. If Indian, Allottee or Tribe Name

Allotted

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Amoco Production Company

3. Address and Telephone No.

P. O. Box 800, Denver, Colorado 80201 (303) 830-6157

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1850' FSL 820' FEL Section 30-T28N-R12W Unit I

7. If Unit or CA, Agreement Designation

Gallegos Canyon Unit

8. Well Name and No.

Gallegos Canyon Unit #320

9. API Well No.

3004524732

10. Field and Pool, or Exploratory Area

11. County or Parish, State

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Squeeze Fruitland
& Stimulate PC

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

Amoco Production Company requests permission to Plug Fruitland and stimulate the PC per the attached.

If you have any technical questions please contact Wayne Peterson at (303) 830-4332 or Gail Jefferson at (303) 830-6157 for any administrative concerns.

RECEIVED
MAR 18 1998
OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed Gail E. Jefferson

Title Sr. Admin. Staff Asst.

Date 3/9/98

(This space for Federal or State office use)

Approved by AS/ Duane W. Spencer

Title Team Lead

Date MAR 13 1998

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

NMCCD

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

SPECIFIC INSTRUCTIONS

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 13—Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et. seq., 351 et. seq., 25 U.S.C. et. seq.; 43 CFR 3160.

PRINCIPAL PURPOSE — The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operations, on a Federal or Indian lease.

ROUTINE USES:

- (1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.
- (2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2).
- (3) Analyze future applications to drill or modify operations in light of data obtained and methods used.
- (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION — Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that: This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases. This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized. Response to this request is mandatory for the specific types of activities specified in 43 CFR Part 3160.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20503.

GCU 320

Sec. 30 T 28 R 12

Completed 6/81

PBTD=1390, CIPB=1298

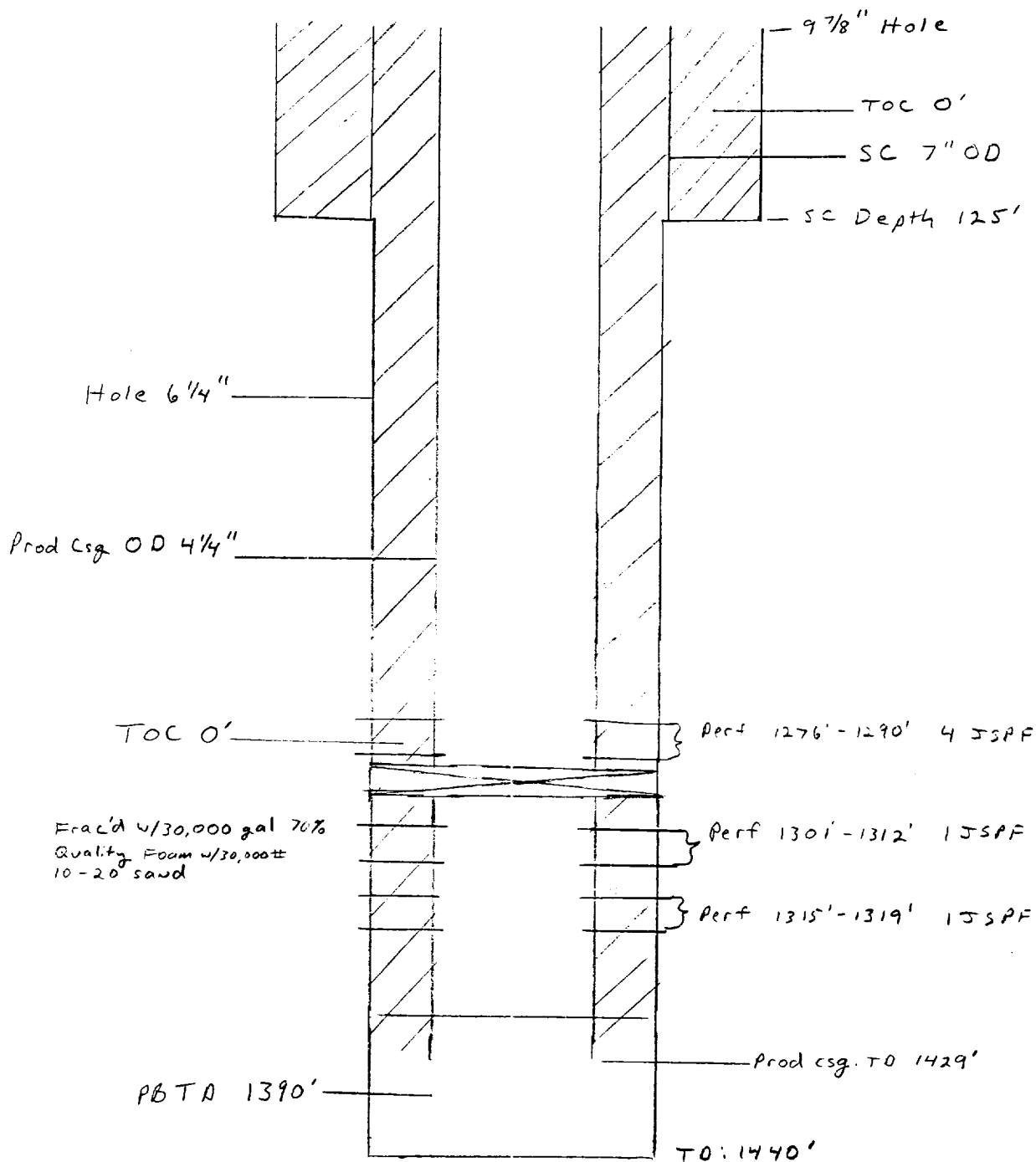
FT Perfs - 1276-90, PC Perfs=1301-12, 1315-19

1. Test anchors.
2. MIRUSU. Blow down well. NDWH. NUBOP.
3. CO to CIPB.
4. Squeeze FT according to attached procedure.
5. WOC and drill out to CIPB. Pressure test squeeze perfs to 500psi (.8 FG). Then drill out CIPB and CO to +/- 1370.
6. Reperforate PC intervals 1301-12, 1315-19 w/ 2jsf.
7. Fracture PC down csg according to attached procedure.
8. Land 2 3/8" tubing. Clean out / swab if necessary.
9. ND BOP's. NU and test wellhead. RDMOSU.

13-782 500 SHEETS FULLER 5 SQUARE
 42-381 50 SHEETS EYE-EASE 5 SQUARE
 42-382 100 SHEETS EYE-EASE 5 SQUARE
 42-383 100 SHEETS EYE-EASE 5 SQUARE
 42-384 100 SHEETS EYE-EASE 5 SQUARE
 42-385 100 SHEETS EYE-EASE 5 SQUARE
 42-386 100 SHEETS EYE-EASE 5 SQUARE
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 42-397 100 SHEETS EYE-EASE 5 SQUARE
 42-398 100 SHEETS EYE-EASE 5 SQUARE
 42-399 100 SHEETS EYE-EASE 5 SQUARE
 42-400 100 SHEETS EYE-EASE 5 SQUARE
 Made in U.S.A.



KB: 5,633'



Gallegos Canyon Unit #320

Frac Schedule - A

ac2

Special Instructions:

- 1 Pull rods and tubing and tag CIPB at 1298 ft. Squeeze off Fruitland Perfs with 50 ex Standard
- 2 Pull tubing and let cement set 48 hours; Drill out and pressure test with water to 600 psi.
- 3 Drill out CIBP and circulate clean at 1370 ft PB; Reperf PC with 2 SPF
- 4 Frac down: 4 1/2 " 10.5 lb/ft Casing
- 5 Optimal frac rate is: 30 bpm
- 6 Anticipated WHTP: 1,200 psi.
- 7 Pressure on the annulus is: 100 psi.
- 8 Monitor and record annular pressure during frac job. Y
- 9 Maximum pressure on the casing is: 3000 psi.
- 10 Maximum pressure on the tubing is: NA psi.
- 11 Set pressure relief valve for the frac at: NA psi.
- 12 Set pressure kick-outs on fluid and N2 pumps at: 2500 psi.
- 13 Displace with: 900 gals. N2 Volume
- 14 Displace frac to 1200 ft. (100' above zone.)
- 15 **Use breaker as required for a 1 hour break at 100 F
- 16 Flow well back immediately on 1/4" choke.
- 17 Please provide Denver with the following # of fracture stimulation reports:
un-bound 3 ea

18 Fluid composition per 1000 gallons base fluid:

LGC-8	6.00 gallons	(guar liquid gel concentrate)
HC-2	7.00 gallons	(foamer/surfactant)
BE-6	0.19 pounds	(bactericide)
Clay Fix II	1.00 gallons	(clay control)
Sand Wedge	0.15 gals per 100 lbs of sand	(proppant flow back control)
Optiflo HTE	as req. pounds	(breaker)
GBW-30	as req. pounds	(enzyme breaker)

- 19 Perform ALL quality control checks.
- 20 Water trucks and tanks should be clean prior to filling.
- 21 Bactericide should be added to the tanks prior to filling.
- 22 Water used should be city water or water filtered to 5 micron absolute.
- 23 Record strap, pH, temp, and appearance for each tank. Amoco rep to get this data prior to pumping.
- 24 The following pre and post job inventories should be included in the frac report:

Fluid	Proppant
Gas	Chemicals

Sand sieve acceptable limits:

	40/70	20/40	16/30	12/20	SAND
<0.1% REMAIN	30	18	12	8	MESH
> 90% REMAIN	70	40	30	20	MESH
<1.0% GO THRU	100	50	40	30	MESH

GCU #320

Ramp Pump Schedule									
Well Name:	GCU #320					KB elev.	5633		
Location:	SE, Sec 30, T28N, R12W					API No.	0		
County:	San Juan					Well Flac	0		
State:	New Mexico					Formation:	Pictured Cliff		
		from	to					RATE	
PERF FROM -		1301	1319	18				30 (bpm)	
PERF @		1301	1319	18	2 SPF				
		0	0	0	FT			4 1/2" 10.5 LBW Casing	
		total net feet perforated			18			Frac down the casing	

Ramp Treatment Schedule

STAGE NUM.	STAGE TYPE	STAGE VOLUME (gallons)	PROP FROM (lb/gal)	CONC. TO (lb/gal)	PROP TYPE	FLUID TYPE	QUALITY IPF (%)	SAND TOTAL (lbs)	SUM SAND (lbs)	STAGE TIME (min)	SUM TIME (min)
1	Pad	10,000	0.00	0.00	NA	Foam	0.75	0	0	7.94	7.94
2	SLF	4,000	0.50	1.50	16/30	Foam	0.70	4000	4000	3.25	11.18
3	SLF	6,000	1.50	2.50	16/30	Foam	0.70	12000	16000	5.09	16.27
4	SLF	10,000	2.50	4.00	16/30	Foam	0.70	32500	48500	8.94	25.11
5	SLF	1,000	4.00	4.00	16/30	Foam	0.70	4000	52500	0.94	26.05
6	Flush	900	0.00	0.00	NA	Foam	0.50	0	0	0.54	26.59

Blender and Pumping Schedule

STAGE	STAGE	VOLUME	FLUID	PROP	CONC	DENSITY	SLURRY	SUM	AVG.	STAGE AVG	N2 RATE	N2 RATE
NUM.	TYPE	FLUID	SUM	FROM	TO	(lb/gal)	VOLUME	SLURRY	DIM.	SLRY RATE	START	FINISH
		(gallons)	(gallons)	(lb/gal)	(lb/gal)		(gallons)	(gallons)		(bpm)	(scf/min)	(scf/min)
1	Pad	2500'	2500	0.00	0.00	8.33	2500	2500	1.00	7.50	8425	0
2	SLF	1255	3755	1.63	4.68	10.72	1435	3935	1.14	10.29	8158	7159
3	SLF	1964	5719	4.68	7.49	11.79	2509	6444	1.28	11.50	7159	6730
4	SLF	3445	9163	7.49	11.29	12.95	4920	11364	1.43	12.85	6730	6157
5	SLF	355	9518	11.29	11.29	12.95	537	11901	1.51	13.63	6157	6152
	Flush	450	9968	0.00	0.00	8.33	450	12351	1.00	15.00	6152	6152
	Totals:											
			Foam									
			Water (less tank bottoms)				31,900		gallons			
			Tanks (500 bbl)				14,000		gallons			
			Proppant, 16/30 Arizona Sand				1		tanks			
			Nitrogen (less cool down)				52,500		pounds			
							200		MSCF			