Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: NM 012711
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement Designation: 14-20-001-2457
1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other
8. Well Name and No.: Howell #2
2. Name of Operator: Amoco Production Company Attn: E. R. Nicholson
9. API Well No.: 30 045 09703
3. Address and Telephone No.: P. O. Box 800, Denver. CO 80201 (303) 830-5014
10. Field and Pool, or Exploratory Area: Blanco-Mesaverde
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 1850' FNL, 1825' FEL; Sec. 10-T30N-R8W Unit G
11. County or Parish, State: San Juan, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Bradenhead Repair	☐ Dispose Water

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

RECEIVED
MAR 5 1993
OIL CON. DIV
DIST. 3

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 intends to perform the attached workover procedure required to eliminate bradenhead pressure.

Amoco also requests approval to construct a temporary 15'x15'x5' (Maximum size) blow pit for return fluids. This pit will be reclaimed upon completion of this operation.

If there are any questions, please contact E. R. Nicholson at (303) 830-5014.

RECEIVED
BLM
93 FEB 25 AM 11:24
070 FARMINGTON, NM

(VERBAL APPROVAL RECEIVED 2-22-93 FROM WAYNE TOWNSEND)

14. I hereby certify that the foregoing is true and correct
Signed E R Nicholson Title Sr. Admin. Analyst Date 2-18-93

(This space for Federal or State office use)

Approved by _____ Title _____ Date APPROVED
Conditions of approval, if any:

MAR 02 1993

AREA MANAGER

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

Workover Procedure
Howell #2
Sec.10-T30N-R08W
San Juan County, NM

1. Contact Federal or State agency prior to starting repair work.

2. Catch gas and/or water sample off of bradenhead and casing, and have analyzed.

3. Install and/or test anchors.

4. MIRUSU. Check and record tubing, casing and bradenhead pressures.

5. Blow well down, kill well if necessary with 2% KCL.

6. Nipple down well head, nipple up and pressure test BOP's.

7. Trip in the hole and tag PBTD, check for fill, trip and tally out of hole with tubing checking condition of tubing. IF FILL COVERING PERFS THEN CLEAN OUT TO PBTD W/BAILER OR NITROGEN

8. Trip in the hole with bit and scraper to the top of the ~~perforations.~~ PBTD A seating nipple and standing valve may be run in order to pressure test the tubing.

9. Trip in the hole with RBP and PKR. Set RBP ~~50-100 ft. above perforations~~ @ 4400 ft. Trip out of hole one joint and set PKR and pressure test RBP to 1500 psi. Release PKR and pressure test csg to 1000 psi. If no leak is found, spot sand on RBP, trip out of hole and skip step 10.

10. Trip out of hole isolating leak in casing. NOTE: Once leak is located contact Michelle Monteaux in Denver at (303) 830-4535. Spot sand on RBP and trip out of hole with PKR.

TEMP SURVEY IS INCLUDED IN PACKET

11. Determine from well file and history if a CBL needs to be run from the top of RBP to bottom of intermediate casing shoe. If this is needed, run CBL under 1000 psi and report results to Denver.

12. Bleed off any intermediate casing pressure and check for flow, fill annulus with 2% KCL water. Nipple down BOP's and tubing head, spear casing and remove slips, nipple up BOP's.

13. Run freepoint and back off casing as deep as possible but not below the intermediate casing shoe. Trip out of hole laying down and checking condition of casing.

14. Trip in the hole with bit and scraper to top of casing back off, circulate hole clean and trip out with scraper.

15. Trip in the hole with RBP and PKR and set RBP above casing backoff, trip out of hole one joint and set PKR and pressure test RBP.

16. Release packer and trip out of hole isolating leak in casing. NOTE: IF this can not be accomplished contact Michelle Monteaux in Denver (303) 830-4535.

17. Release PKR and spot sand on RBP and trip out of hole.

18. Run, ~~if necessary~~ a CBL & CCL to determine cement top on the intermediate casing, IF CEMENT DOES NOT CIRCULATE TO SURFAC

19. Perforate casing, if necessary with ~~4~~ 2 JSPF and circulate dye to determine cement volume. Depending on the depth of the hole and circulating pressure, a PKR or a cement retainer may be needed. CIRCULATE UNTIL RETURNS ARE VERY CLEAN.

20. Mix and pump sufficient cement (class B or equivalent with two hour setting time) to circulate to surface. Shut bradenhead valve and attempt to obtain a squeeze pressure and WOC.

21. Trip in the hole with bit and scraper and drill out cement and pressure test casing. Re-squeeze leaks if casing fails pressure test.

22. Trip in the hole with retrieving head for RBP, circulate sand off of RBP and trip out of hole with plug.

23. Trip in the hole with casing and tag casing backoff. Circulate the top of the back off clean with 2% KCL water. Circulate PKR fluid to fill annulus if no additional squeeze work is required. ~~This will be determined from the previous CBL run.~~ Tie back onto production casing and pressure test casing.

24. Nipple down BOP's and tubing head, set slips and make cut off. Install tubing head and BOP's and pressure test.

25. Trip in the hole with retrieving head for RBP, circulate sand off of RBP with 2% KCL and trip out of hole with plug. SWAB FLUID LEVEL TO 3500'.

ACID TREATMENT → See attached PROCEDURES

26. Trip in hole with a sawtooth collar and/or bailer and clean out to PBTD and trip out of hole. WITH BAILER OR NITROGEN.

27. Trip in the hole with the production string (1/2 mule shoe on bottom and a seating nipple one joint off bottom), land tubing ~~to original depth~~. Nipple down BOP's, nipple up well head. @ 5020 ft.

28. Swab well in and put well on production.

29. Rig down move off service unit.

ATTACHMENT

Acid Treatment for Ben E Howell 2.

1. Trip in hole with 2 3/8" work string.

2. TIH with pinpoint injection packer having 10' spacing. Clean up scale on perforations with 2280 gallon of 15% HCl (10 gal/ft) according to the following schedule at rate of **1 BBL/min:**

PPI RANGE	GALLONS 15% HCl
5010'-5020'	100
5000'-5010'	100
4990'-5000'	100
4980'-4990'	100
4970'-4980'	100
4960'-4970'	100
4950'-4960'	100
4940'-4950'	100
4930'-4940'	100
4920'-4930'	100
4914'-4920'	60

Second set of perfs: **1 BBL/min**

4596'-4606'	100
4586'-4596'	100
4576'-4686'	100
4566'-4576'	100
4556'-4666'	100
4546'-4556'	100
4536'-4646'	100
4526'-4536'	100
4516'-4626'	100
4506'-4516'	100
4496'-4506'	100
4484'-4496'	120

3. Retrieve RFC valve, standing valve and PPI tool.

4. Swab test **ASAP.**