(Rev. 5-68)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: LC-067858

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

RECEIVED
AUG 13 1979
O. C. C.
ARTESIA, OFFICE

7. UNIT AGREEMENT NAME:

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

8. FARM OR LEASE NAME: Empire Abo Pressure Maintenance Project

2. NAME OF OPERATOR: ARCO Oil and Gas Company ✓
Division of Atlantic Richfield Company

9. WELL NO.: Empire Abo Unit "M"

3. ADDRESS OF OPERATOR: Box 1710, Hobbs, New Mexico 88240

10. FIELD AND POOL, OR WILDCAT: 132

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 625' FNL & 175' FWL (Unit letter D)
At top prod. interval reported below: as above
At total depth: as above

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 11-18S-27E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Eddy	N.M.

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
12/18/78	12/31/78	8/1/79	3540.6' GR	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
6200'	6148'		→	0-6200'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 6090-6100' Abo Reef

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: CNL-FDC w/caliper, DLL w/RXO

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8" OD	24# K-55	1000'	11"	625 sx	
5½" OD	15.5# K-55	6190'	7-7/8"	1300 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8" OD	6063'	6063'

31. PERFORATION RECORD (*Interval, size and number*): 6090-6100' (20 .48" holes) 2 JSPF

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6030-6040'	Acidized w/150 gal 15% HCL-LSTNE-FE, 1000 gal gelled CaCl wtr, 1000 gal gelled LC, 1500 gal same acid. Flushed w/26 BLC. (cont'd on attached page)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
1/13/79	Flwg	Prod

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
8/2/79	24 hrs	-		84	106	0	1262:1.

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-	Pkr		84	106	0	44°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Sold

TEST WITNESSED BY: N. H. Truitt

35. LIST OF ATTACHMENTS: Logs as listed in Item 26 above & Inclination Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED SRK for L.D.LANE TITLE Dist. Drlg. Supt. DATE 8/6/79

*(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.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Abo Reef	5908'	

☆GPO 782-929

32. Acid, Shot, Fracture, Cement Squeeze, etc (cont'd)

Depth Interval	Amt & Kind Material Used
6030-6040'	Squeezed Pengo tool w/100 sx LWL cmt & 50 sx Cl C cmt w/2% CaCl. Rev out 24 sx cmt.
6090-6100'	Acidized w/150 gals 15% HCL-LSTNE-FE acid.
6090-6100'	Acidized w/150 gals 15% HCL-LSTNE-FE acid, 1500 gal gelled CaCl wtr, 1500 gal gelled LC, 1000 gal 15% HCL-LSTNE-FE acid, flushed w/24 BLC.

N.M.O.C.D. COPY

FIELD Empire Abo COUNTY Eddy OCC NUMBER

OPERATOR Atlantic Richfield Company ADDRESS P. O. Box 1710, Hobbs, New Mexico 88240

LEASE Empire Abo Unit M WELL NO. 132 SURVEY 625' FNL & 175' FWL Sec 11, T-18S, R-27E

RECORD OF INCLINATION

DEPTH (FEET)	ANGLE OF INCLINATION (DEGREES)
500	3/4
1000	1
1472	1
1981	1
2484	1 1/4
2955	1 1/2
3429	1 3/4
3901	2
4409	2 1/2
4911	3
5161	4 1/2
5318	4 1/2
5442	4 3/4
5631	4 1/2
5710	4 3/4
5910	4 3/4
6200	3 1/2

Certification of personal knowledge inclination data:

I hereby certify that I have personally assembled the data and facts placed on this form, and such information given above is true and complete to the best of my knowledge.

HONDO DRILLING COMPANY

BY: Walter Frederickson
Vice President

Sworn and subscribed to before me the undersigned authority, on this the 17th day of January, 1979.

Notary Public in and for Midland County, Texas

Margaret B. Anderson