

**UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.6.

5. LEASE DESIGNATION AND SERIAL NO.
LC-029410 (B)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
BROWN FEDERAL

9. WELL NO. **2**

10. FIELD AND POOL, OR WILDCAT

Maljamar Grayburg SA

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec 31-T17S-R32E

12. COUNTY OR PARISH **Lea** 13. STATE **NM**

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

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

2. NAME OF OPERATOR
ARROWHEAD OIL CORPORATION

3. ADDRESS OF OPERATOR
BOX 548, ARTESIA, NEW MEXICO 88210

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface **330' FNL & 2310' FEL**

At top prod. interval reported below **SAME**

At total depth **SAME**

14. PERMIT NO. **30-025-30362** DATE ISSUED **5-15-88**

15. DATE SPUDDED **5-17-88** 16. DATE T.D. REACHED **5-25-88** 17. DATE COMPL. (Ready to prod.) **6-3-88** 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* **3880.7' GR** 19. ELEV. CASINGHEAD **3880.7'**

20. TOTAL DEPTH, MD & TVD **4165'** 21. PLUG, BACK T.D., MD & TVD **4132'** 22. IF MULTIPLE COMPL., HOW MANY* **→** 23. INTERVALS DRILLED BY **10'-4165'** ROTARY TOOLS _____ CABLE TOOLS _____

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* **3849'-4030' Grayburg** 25. WAS DIRECTIONAL SURVEY MADE **Yes**

26. TYPE ELECTRIC AND OTHER LOGS RUN **DSN** 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"	24# new	787'	12 1/4"	500sx circ.	none
5 1/2"	17# new	4145.71'	7 7/8"	1800 sx cir	none

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2 7/8"	4060	

31. PERFORATION RECORD (Interval, size and number)

Interval	Size	Number
3849' - 3904'	55'	27'
3904' - 3963'	65'	29'
3963' - 4004'	74'	47'
	90'	50'

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3849'-4030'	2000 gal 15% NE Acid
3849'-4030'	80,000 gal gel, 1200sx sand

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
6-3-88	Flowing & Pumping	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-13-88	24	---	→	80	50	Frac	--

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→	80	50	Frac	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) **sold** TEST WITNESSED BY **Robert Chase**

35. LIST OF ATTACHMENTS
Deviation survey, formation record . Logs to follow.

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

ACCEPTED FOR RECORD

SIGNED Shirley Lopez TITLE **Production clerk** DATE **6-15-88**

*(See Instructions and Spaces for Additional Data on Reverse Side)

SJS
CARLSBAD, NEW MEXICO

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.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
			<p>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</p>	<p>38. GEOLOGIC MARKERS</p>		
See sheet attached			<p>DATE: JUN 17 11 20 AM '88 AREA: [REDACTED]</p>	<p>SALT 7 RIVERS QUEEN GRAYBURG SAN ANDRES</p>	<p>1200' 2426' 3180' 3550' 3952'</p>	

RECEIVED