

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE \*

(See other instructions on reverse side)

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

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  
Texaco Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 3756, Los Angeles, CA 90051

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1670' South and 251' East from North 1/4 corner  
or Sec 17, T19S, R20E, WBTM

At top prod. interval reported below N/A

At total depth straight hole

14. PERMIT NO. \_\_\_\_\_ DATE ISSUED 9-9-80  
Approved J.P. Wagner on \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NO.  
OR 10058

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.  
#17-1

10. FIELD AND POOL, OR WILDCAT  
Logan Butte

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec 17, T19S, R20E WBTM

12. COUNTY OR PARISH  
Crook

13. STATE  
OR

15. DATE SPUNDED 10-29-80 16. DATE T.D. REACHED 2-5-81 17. DATE COMPL. (Ready to prod.) Abandoned 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5100' GR 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 6525' 21. PLUG, BACK T.D., MD & TVD \_\_\_\_\_ 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY surf - T.D. ROTARY TOOLS \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
Abandoned

25. WAS DIRECTIONAL SURVEY MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN FDC-CNL-GR 6300'-2000', Dipmeter 1992'-380' + 6490'-2000' 27. WAS WELL CORED  
OIL 1987'-380' + 6484'-2002', BHC Sonic 1987'-380' + 6450'-2000' Yes

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20"	94 #	35'	26"	cement to surface	
13 3/8"	54.5 #	385'	17 1/2"	313 cu ft	
9 5/8"	40 #	2000'	12 1/4"	950 cu ft	

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION \_\_\_\_\_ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) \_\_\_\_\_ WELL STATUS (Producing or shut-in) \_\_\_\_\_

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) \_\_\_\_\_ TEST WITNESSED BY \_\_\_\_\_

35. LIST OF ATTACHMENTS

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

SIGNED Leo McCann TITLE Orig & Prod Mgr DATE 4/27/81

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

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1980

- 10-27 Moved in and started rigging up J&N Drilling rig.
- 10-28 Continued to rig up.
- 10-29 Continued to rig up. Spudded in at 11:00 p.m.
- 10-30 Picked up drill collars and 17½" bit. Drilled three feet in three hours. Mud Weight: 8.8 ppg, 50 sec. visc., 20 cc. water loss, 3/32" wallcake
- 10-31 Drilled to 37'.
- 11-1 Opened hole to 37' with 17½" hole opener. Changed to 26" hole opener and opened hole from 19' to 37'. Set 20" conductor pipe at 35'.
- 11-2 Tried to drill rat hole with 12¼" bit. Would not drill. Picked up 9-7/8" bit and drilled rat hole to 43'. 8½" rat hole casing would not go in. Changed to 12¼" bit.
- 11-3 Opened rat hole from 9-7/8" to 12¼" hole. Set rat hole casing. Drilled 12¼" hole to 147'. Mud Weight: 8.9 ppg, 47 sec. visc., 9.8 cc. water loss, 2/32" wallcake.
- 11-4 Drilled to 210'. Pulled out of hole to change bit. Ran back in hole and drilled to 295'. Rotary table locked. Burned out high clutch. Pulled out of hole. Started repairing rig.
- 11-5 Repairing rig.
- 11-6 Installed new rotary table. Ran in hole and drilled to 387'. Pulled out of hole and attempted to run in hole with 17½" hole opener. Rotary table was too small (17") and hole opener would not go through.
- 11-7 Moved hole opener under table and made it up in cellar. Opened hole from 35' to 114'.
- 11-8 Drilled 17½" hole to 147'. Mud Weight: 9.2 ppg, 40 sec. visc., 12 cc. water loss. 2/32" wallcake.
- 11-9 Drilled ahead with 17½" hole to 346'.
- 11-10 Drilled to 385'. Mud Weight 9.5 ppg, 45 sec. visc., 10 cc. water loss, 2/32" wallcake. Circulated clean with both pumps. Pulled out of hole. Ran 10 joints 13-3/8" K-55 STC casing. Could not break circulation. Pressure to 1500 psi. Pulled and laid down one joint.
- 11-11 Pressured to 2500 psi at 200 psi intervals - failed to pump out shoe. Pulled out of hole and laid down 13-3/8" casing. Could not break out last three joints. Made up spear and attempted to spud through float collar - no success. Set last three joints in slips. Ran in hole and prepared to mill with 8½" mill.

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- 11-12 Cleaned out to float. Milled on float. No success. Pulled out of hole, picked up spear, ran in hole and attempted to spud on float. No success. Pulled out of hole. Rigged up cementing head and pressured up to 2000 psi. No good. Laid cementing head down. Cut and laid down three joints of 13-3/8" casing. Float was full of gravel. Ran in hole with hole opener, circulated and conditioned mud. Pulled out of hole and prepared to run 13-3/8" casing.
- 11-13 Ran ten joints 13-3/8", 54.5#, K-55 casing. Cemented with 313 cu. ft. of Class G cement with 2% CaCl<sub>2</sub> (50% excess). Had 80 to 100 cu. ft. of returns to surface. Waited<sup>2</sup> four hours. Cut casing and welded on 12" 3000 psi wellhead. Rigged up B.O.P. *Shoe at 385'*
- 11-14 Rigged up B.O.P. Noticed crack in casing head at weld. Cut head off 13-3/8" casing and rewelded. Finished rigging up B.O.P. Started repairing high clutch mainshaft.
- 11-15 Repaired high clutch mainshaft.
- 11-16 Finished rig repairs. Ran in hole with 12 1/4" bit. Broke circulation at 300'. Flowline plugged up. Could not unplug flowline. Attempted to remove flowline with catline. Drawworks failed again. New bearing on mainshaft locked up. Began repairing rig.
- 11-17 Rig repairs.
- 11-18 Rig repairs.
- 11-19 Rig repairs. Finished running in hole. Top of plug at 337'. Drilled plug, 3' cement, baffle at 340', 40' of cement and shoe at 380'. Drilled 5' of cement below shoe.
- 11-20 Drilled 12 1/4" hole to 635'.
- 11-21 Drilled to 910'. Mud Weight: 9.1 ppg, 45 sec. visc., 12 cc. water loss, 2/32" wallcake.
- 11-22 Drilled to 927'. Surveyed and drilled ahead to 1122'.
- 11-23 Drilled to 1270'. Lost pump pressure. Pulled out of hole. Drill collar was unscrewed from bit sub. Laid down drill collars. Ran in hole to attempt to screw in.
- 11-24 Ran in hole with open-ended drill collars. Screwed into fish and chain tonged out of hole with fish. Ran in hole. Attempted to break circulation. No returns. Pumped +200 barrels away. Mixed mud.
- 11-25 Drilled to 1413'. Mud Weight: 9.7 ppg, 41 sec. visc., 10.4 cc. water loss, 2/32" wallcake.
- 11-26 Drilled to 1560'.
- 11-27 Pulled out of hole. Ran in hole with heavy wall drill pipe to shoe. Cleaned out mud pits.

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- 11-28 Finished cleaning out mud pits. Finished running back in hole and drilled to 1621'. Rotary chain broke. Started repairing it.
- 11-29 Finished fixing rotary chain and drilled ahead to 1815'.
- 11-30 Drilled ahead to 1975'. Mud Weight: 9.7 ppg, 45 sec. visc., 7 cc. water loss, 2/32" wallcake.
- 12-1 Drilled to 2000'. Dropped survey and pulled out of hole. Magnafluxed drill collars. Ran in hole.
- 12-2 Finished running in hole. Conditioned hole for loggers. Mud Weight: 9.6 ppg, 42 sec. visc., 7.4 cc. water loss, 2/32" wallcake. Pulled out of hole. Rigged up Schlumberger and ran DIL-SP log in first run from 1987' to 13-3/8" casing shoe. Second run ran BHC sonic with gamma ray from 1987' to 13-3/8" casing shoe.
- 12-3 Ran Dipmeter from 1992' to 13-3/8" casing shoe. Rigged down loggers. Ran in hole and circulated and conditioned mud for cementing.
- 12-4 Pulled out of hole. Ran 47 joints, 9-5/8", 40#, K-55 STC. Cemented casing with 130 cu. ft. of preflush, 700 cu. ft. of Halliburton Light Cement with 2% CaCl<sub>2</sub> and 250 cu. ft. of Class G cement with 2% CaCl<sub>2</sub>.  
*shoe at 2000'*
- 12-5 Cut off 9-5/8" casing. Removed B.O.P. Cut off 13-3/8" casing head and welded on 10", 3000 psi W.P. SO&W casing head. Installed B.O.P.
- 12-6 Finished installing B.O.P. and tested it to 1500 psi. USGS would not allow drilling out cement with open flame heaters on the floor. Started winterizing rig.
- 12-7 Ran in hole and circulated. Winterized rig. Tested pipe rams, hydril and Kelly cock to 1000 psi. Witnessed by USGS.
- 12-8  
to  
12-13 Winterizing rig.
- 12-14 Finished winterizing. Drilled out cement from 1911' to 2000' and drilled to 2066'. Mud Weight: 9.0 ppg, 45 sec. visc., 18 cc. water loss, 2/32" wallcake.
- 12-15 Drilled ahead to 2265'.
- 12-16 Drilled ahead to 2518'. Mud Weight: 9.4 ppg, 45 sec. visc., 18 cc. water loss, 2/32" wallcake.
- 12-17 Drilled ahead to 2682'.
- 12-18 Drilled ahead to 3008'.
- 12-19 Drilled ahead to 3134'. Mud Weight: 10.2 ppg, 45 sec. visc., 8.8 cc. water loss, 2/32" wallcake.

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- 12-20 Drilled ahead to 3391'.
- 12-21 Drilled ahead to 3462'.
- 12-22 Drilled ahead to 3642'.
- 12-23 Drilled ahead to 3722'. Mud Weight: 10.4 ppg, 40 sec. visc., 10 cc. water loss, 2/32" wallcake.
- 12-24 Drilled to 3799'. Pulled up to shoe. Pumps broke down. Started repairing them.
- 12-25 Repaired pumps.
- 12-26 Repaired pumps.
- 12-27 Repaired pumps.
- 12-28 Repaired pumps.
- 12-29 Repaired pumps.
- 12-30 Repaired pumps. Circulated with #2 pump. Repaired compound on rig.
- 12-31 Worked on compound.
- 1981
- 1-1 Repaired rig.
- 1-2 Ran in hole to 2916' and circulated and conditioned mud. Mud Weight: 10.1 ppg, 44 sec. visc., 8 cc. water loss, 2/32" wallcake.
- 1-3 Ran in hole to 3660'. Conditioned mud. Ran in hole to bottom and drilled to 3922'. H<sub>2</sub>S at 3839' (17½ ppm) and 3865' (7½ ppm).
- 1-4 Drilled to 3953'. Mud Weight: 10.4 ppg, 49 sec. visc., 7 cc. water loss, 2/32" wallcake.
- 1-5 Pulled up to shoe. Repaired rig.
- 1-6 Finished rig repairs and drilled to 4085'.
- 1-7 Drilled ahead to 4266'.
- 1-8 Drilled ahead to 4462'. Mud Weight: 10.4 ppg, 45 sec. visc., 6.8 cc. water loss, 2/32" wallcake.
- 1-9 Drilled ahead to 4574'.
- 1-10 Drilled ahead to 4746'. H<sub>2</sub>S at 4600' and 4735'. Raised mud weight to 10.6 ppg.

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- 1-11 Drilled ahead to 4899'. Mud Weight: 10.5 ppg, 45 sec. visc., 8.0 cc. water loss, 2/32" wallcake.
- 1-12 Drilled ahead to 4998'.
- 1-13 Drilled ahead to 5012'. Rotary clutch failed. Started rig repairs.
- 1-14 Repaired rig.
- 1-15 Repaired rig.
- 1-16 Drilled ahead to 5154'. Mud Weight: 10.4 ppg, 47 sec. visc., 10.0 cc. water loss, 2/32" wallcake.
- 1-17 Drilled ahead to 5293'.
- 1-18 Drilled ahead to 5378'.
- 1-19 Drilled ahead to 5474'. Mud Weight: 10.4 ppg, 45 sec. visc., 8.0 cc. water loss, 2/32" wallcake.
- 1-20 Drilled ahead to 5592'.
- 1-21 Drilled ahead to 5669'.
- 1-22 Drilled to 5747'. Bit torqued up. Pulled out of hole. Changed bit and ran in hole with junk sub. Worked junk sub 1½ hours. Drilled to 5750'.
- 1-23 Drilled ahead to 5840'.
- 1-24 Drilled ahead to 5897'.
- 1-25 Drilled ahead to 6047'. Mud Weight: 10.5 ppg, 45 sec. visc., 7.0 cc. water loss, 2/32" wallcake.
- 1-26 Drilled ahead to 6153'.
- 1-27 Drilled ahead to 6183'. Repaired mud pumps.
- 1-28 Finished repairing pumps. Drilled to 6246'. Mud Weight: 10.3 ppg, 40 sec. visc., 7.0 cc. water loss, 2/32" wallcake.
- 1-29 Drilled to 6279'. Repaired pumps.
- 1-30 Finished repairing pumps and drilled to 6298'.
- 1-31 Drilled ahead to 6431'.
- 2-1 Drilled to 6505'. Circulated and conditioned mud prior to logging.
- 2-2 Pulled out of hole. Rigged up Schlumberger. Ran DIL with SP, BHC Sonic with Gamma Ray, Neutron Density and Dipmeter logs from 6490' to 2000'.

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- 2-3 Finished running Dipmeter. Ran velocity survey. Rig down Schlumberger and run in hole with bit.
- 2-4 Drilled to 6512'. Pulled out of hole. Ran in hole with 7-5/8" Core Barrel #1 and cored from 6512' to 6525'.
- 2-5 Finished coring from 6512' to 6525'. Pulled out of hole. Cored 13' and recovered 13'. Prepared to run in hole with test tools.
- 2-6 Ran in hole with test tools (Lynes). Set top inflatable packer at 3216', bottom at 3315'. Inflated both packers. Set down with 20,000# tool opened, but immediately slipped down hole, causing tool to close. Continued down hole 29' - took only 5000# weight with both packers inflated. Pulled out of hole. Both packers distorted - egg-shaped. Recovered 61' of mud - no gas. Ran in hole with bit to 3450'.
- 2-7 Circulated and conditioned mud for logging. Pulled out of hole. Rigged up Schlumberger. Ran repeat formation Tester log. Tested tight sand - no permeability - no recovery. Set at 3305' - Hydrostatic pressure. 1830 psi, open ten minutes from 42 psi to 47 psi. Set at 3307' - Hydrostatic pressure. 1834 psi, open ten minutes from 40 psi to 43 psi. Set at 3303' - hole too large. Set at 3304' - hole too large. Set at 3308' - hole too large. Set at 3274' - hole too large. Set at 3278' - hole too large. Set at 3248' - Hydrostatic pressure. 1832 psi, open 15 minutes from 42 psi to 54 psi.
- 2-8 Rigged down Schlumberger. Ran in hole to shoe and waited on Halliburton.
- 2-9 Ran in hole with open-ended drill pipe to 3405'. Pumped 200 sacks Class G cement with 3% CaCl<sub>2</sub>. Waited on cement. Tagged top plug at 2670'. O.k. with USGS. Pulled up to 2108'. Pumped 100 sacks Class G cement with 2% CaCl<sub>2</sub>. Waited on cement four hours. Could not tag plug. Waited two more hours. Tried to tag plug, could not. Circulated out cement; contained mud. Pulled up to 2106', pumped in 100 sacks Class G cement with 3% CaCl<sub>2</sub>. Waited on cement.
- 2-10 Tagged plug at 1815'. Approved by USGS. Started rigging down B.O.P.
- 2-11 Finished rigging down B.O.P. Cut off casing 3' below surface. Tacked welded plate on casing. Released rig. *DOGAMI 1 To Do top PLUG*

FINAL MECHANICAL CONDITIONS:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Depth</u>	<u>Cement</u>
26"	20"	94#	H-40	35'	Cemented to surface
17½"	13-3/8"	54.5#	K-55	385'	313 cu. ft.
12¼"	9-5/8"	40#	K-55	2000'	950 cu. ft.
8½" open hole from 3405' to 6525' T.D.					
Cement plug from 3405' to 2670'.					
Cement plug from 2106' to 1815'.					