

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

(See other instructions on reverse side)

FOR APPROVED  
OMB NO. 1004-0137  
Expires: December 31, 1991

**RECEIVED**

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

5. LEASE DESIGNATION AND SERIAL NO. **SF-078387-A**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME **54**

8. FARM OR LEASE NAME, WELL NO. **KERNAGHAN B # 3B**

9. API WELL NO. **30-045-29719**

10. FIELD AND POOL, OR WILDCAT **BLANCO MESAVERDE**

11. SEC., T., R., M., OR BLOCK, AND SURVEY OR AREA  
Section **29**  
Township **31N** Range **8W**

12. COUNTY OR PARISH **San Juan**

13. STATE **New Mexico**

14. PERMIT NO. **070** DATE ISSUED **APR 12 1999**

15. DATE SPUNDED **02/09/1999** 16. DATE T.D. REACHED **02/18/1999** 17. DATE COMPL. (Ready to prod.) **04/02/1999** 18. ELEVATIONS (DF, RKB, RT, GR, ETC.) **6368' GR** 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD **5908** 21. PLUG, BACK T.D., MD & TVD **5821'** 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY 24. ROTARY TOOLS **YES** 25. CABLE TOOLS **NO**

25. WAS DIRECTIONAL SURVEY MADE **NO**

26. TYPE ELECTRIC AND OTHER LOGS RUN **CBL TDT** 27. WAS WELL CORED **N**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER  **99 APR - 7 AM 9:54**

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  OTHER  Attention: **MARY CORLEY**

2. NAME OF OPERATOR **AMOCO PRODUCTION COMPANY**

3. ADDRESS AND TELEPHONE NO. **P.O. BOX 3092 HOUSTON, TX 281-366-4491**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface **1160' FSL 1890' FEL**  
At top prod. interval reported below  
At total depth

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9 5/8" K-55	36#	278'	12 1/4"	297 SXS CLS B TO SURFACE	
7" K-55	20 & 23#	3368'	8 3/4"	440 SXS CLS B LEAD & TAIL TOP 400'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
4 1/2"	3170'	5908'	303 SXS	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	5146'	

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5441' - 5600'	24000 GAL. WTR; 70% QUALITY FOAM & 82000# 16/30 ARIZONA SAND
5441' - 5600'	24520 GAL. WTR; 70% QUALITY FOAM & 74084# 16/30 ARIZONA SAND

PERFORATION RECORD (Interval, size, and number)  
5084 - 5600': 1 JSPF. 300 INCH DIAMETE. TOTAL 32 SHOTS (SEE SUBSEQUENT REPORT FOR INDIVIDUAL PERFS.)

33.\* PRODUCTION

DATE FIRST PRODUCTION **04/02/1999** PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) **F** WELL STATUS (Producing or shut-in) **SI**

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS-OIL RATIO
04/02/1999	12	3/4"		TRACE	1950	TRACE	

FLOW TUBING PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
110#	300#					

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

TO BE SOLD

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 Mary Corley TITLE SR. BUSINESS ANALYST DATE 04-06-1999

**ACCEPTED FOR RECORD**

**APR 08 1999**

# KERNAGHAN B # 3B

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):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Ojo Alamo	2026					
Kirtland	2122					
Fruitland Coal	2748					
Pictured Cliffs	3170					
Lewis Shale	3370					
Cliff House	5080					
Menefee	5148					
Point Lookout	5432					
Mancos	5800					

**KERNAGHAN B # 3B**  
**COMPLETION SUBSEQUENT REPORT**  
**4/6/99**

*2/20/99 MIRUSU & ran TDT Logs from bottom to surface for perforating depth control.*

*2/23/99 NU TBG head and pressure test casing to 3000# for 30 min. Held ok.*

*3/5/99 MIRUSU & ran CBL log from liner top (3170') to Surface. Good CMT from 400' to 2470' behind 7" CSG. CSG held when tested to 3000#. RU & perf Mesaverde @ the following intervals with 1 JSPF, .300 inch diameter, total 32 shots*

<i>5600'</i>	<i>5548'</i>	<i>5506'</i>	<i>5462'</i>	<i>5328'</i>	<i>5252'</i>	<i>5203'</i>	<i>5127'</i>
<i>5586'</i>	<i>5538'</i>	<i>5500'</i>	<i>5425'</i>	<i>5322'</i>	<i>5242'</i>	<i>5188'</i>	<i>5113'</i>
<i>5571'</i>	<i>5531'</i>	<i>5488'</i>	<i>5441'</i>	<i>5268'</i>	<i>5221'</i>	<i>5180'</i>	<i>5096'</i>
<i>5564'</i>	<i>5524'</i>	<i>5477'</i>	<i>5336'</i>	<i>5260'</i>	<i>5216'</i>	<i>5134'</i>	<i>5084'</i>

*3/15/99 RU & breakdown formation w/130 ball sealers - Formation broke @ 2200#. Average injection rate 5 BPM. Had complete ball off. MIRUSU & ND frac valve & ND BOP. SDFN.*

*3/16/99 TIH w/ ret. BP, PKR & TBG. Set BP @ 5630'; set PKR @ 5405'. Pump into Point Lookout zone (5441' - 5600'). Est rate of 1.5 BPM @ 450#. Swab well to drop fluid level to seating nipple. RU slickline & set TBG plug. Shutin well overnight for pressure buildup.*

*3/17/99 Pull TBG plug & unseat PKR & Ret BP. Reset Ret. BP @ 5405' & reset PKR @ 5170'. Pump down TBG an est. rate of 3.3 BPM @ 750#. RU & swab down to & reset TBG plug to test the Menefee zone (5180' - 5336'). Shutin well overnight for pressure buildup.*

*3/18/99 Pull TBG plug & unseat PKR & Ret BP. Reset Ret. BP @ 5160' & reset PKR @ 5406'. Pump down TBG an est. rate of 2.7 BPM @ 8750#. RU & swab down to & reset TBG plug to test the Cliffhouse zone (5084' - 5134'). Shutin well overnight for pressure buildup.*

*3/19/99 Pull TBG plug & Ret. bombs. Unseat PKR & Ret BP & TOH. TIH w/PKR & TBG & set PKR @ 5370'. RU & breakdown Point Lookout w/500 gallons 7 1/2% acid & dropped 25 ball sealers. Est. rate of 1200# @ 6.5 BPM. Finished @ 900# @ 6.5 BPM. Had complete ball off @ 3000#. Unseat PKR & TIH knocking balls off perfs. PU & reset PKR.*

*3/20/99 RU & set pressure bombs. RU & swab down to changeover. RU to set TBG plug. Unable to get plug thru heavy duty changeover from 2 7/8" to 2 3/8". SI well @ surface.*

*3/22/99 RU slickline & pull downhole pressure gauges. RU & frac Point Lookout w/24000 gallons of WTR & 70% quality foam & 82000# of 16/30 Arizona sand. RU & start flow back with 1/4" choke & watchman, upsize to 1/2", then 3/4" choke. FTP 110#. Flowed well overnight.*

**KERNAGHAN B # 3B**  
**COMPLETION SUBSEQUENT REPORT**  
**4/6/99**

*3/23/99 Unseat PKR & TOH. LD frac string & RU & TIH w/CIBP & PKR. Set BP @ 5390'. PU & set PKR @ 5370' to pressure test. Held OK. Start TOH w/TBG & PKR.*

*3/24/99 Finish TOH w/TBG & PKR. RU tree saver. RU & Frac Point Lookout with 24520 gallons of WTR & 70% quality foam & 74084# of 16/30 Arizona sand. ISIP 1337#. RU to flowback Frac w/watchman & 1/4" choke, FCP 500#. Upsize choke to 1/2" - FCP 300#. Upsize to 3/4" choke - FCP 110#.*

*3/25/99 Flowed well overnight with watchman & upsized to 3/4" choke - FCP 110#. Flow well overnight with 3/4" choke - FCP 83#.*

*3/26/99 Flowed well overnight with watchman & 3/4" choke - FCP 97#. TIH w/mill & tag fill @ 5200'. Clean out fill to 5390'. Drill up CIBP @ 5390'. Circ clean. TIH to bottom & tag fill @ 5500' & clean up sand to 5728'. PU TBG above liner top & SI for weekend.*

*3/29/99 Well SI over weekend. SICP 490#. Blow well down. TIH & tag fill @ 5698'. Clean out to 5761'. PU & flow well for 1 hr. & tagged 5' fill. Cleanout & PU to flow well w/watchman overnight.*

*3/30/99 TIH w/mill & TBG. TIH w/production TBG. Tagged fill @ 5726'. Cleanout fill to 5771'. Pull up to liner & flow well overnight.*

*3/31/99 TIH & Tag 0 fill. PU & land TBG @ 5146'. ND BOP 7 NU wellhead. Pull TBG plug. Rig released @ 1700 hrs 3/31/99.*

*4/1/99 Open well to check for flow. Ok. RU & set gauges. SI well overnight.*

*4/2/99 Prepare for Del test. SICP 430#, SITP 420#. Flow well up TBG for 12 hrs. for Del test. Gas 1,950 MCF, trace oil, trace water, FFCP 300#, FFTP 110# on 3/4" choke. SI well @ 2200 hrs.*