Form 3160-4
(November 1983)
(formerly 9-330)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

RECEIVED
BLM ROOM
91 MAY 20 AM 10:34
FARMINGTON RESOURCE AREA
NEW MEXICO

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: NM-16586

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

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

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal I

2. NAME OF OPERATOR: BCO, Inc.

9. WELL NO.: 5

3. ADDRESS OF OPERATOR: 135 Grant, Santa Fe, NM 87501

10. FIELD AND POOL, OR WILDCAT: Lybrook Gallup Ext.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 1650' FNL and 2270' FEL

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec 21 T23N R7W NMPM

At top prod. interval reported below: Same

At total depth: Same

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
		Sandoval	NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
2/3/91	2/10/91	5/13/91	GL 7380'	7383'

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
5980'	5896		→	XX	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 5608 - 5850 Gallup

25. WAS DIRECTIONAL SURVEY MADE: Submitted to OCD 2/20/91

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Induction, Dual Compensated Porosity and Cement Bond Log

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#	363'	12 1/4"	275 Sacks	
4 1/2"	11.6#	5950'	7 7/8"	1475 Sacks	

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"	5840	

31. PERFORATION RECORD (Interval, size and number)
One 0.32" select fire shot at 5850, 5842, 5820, 5816, 5806, 5738, 5735, 5722, 5719, 5616, 5612, 5608.

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5608 - 5850	500 gallons 7 1/2% HCL 70% quality foam frac, 388,409 # 16-30 sand, 3,222,318 scf nitrogen

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
5/13/91	Gas lift	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
5/16/91	24	16/64		42	252	5	6000

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
240	500		42	252	5 recovered frac water	42

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Vented - will sell as soon as all nitrogen recovered.

TEST WITNESSED BY: R. Ramirez

35. LIST OF ATTACHMENTS: Details of cement jobs

ACCEPTED FOR RECORD
MAY 30 1991
NMOCD
FARMINGTON RESOURCE AREA
BY

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

SIGNED Elizabeth B. Keeshan TITLE President DATE 5/17/91

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

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.

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
Ojo Alamo	1584	1584
Kirtland	1730	1730
Fruitland	1906	1906
Pictured Cliffs	2146	2146
Chacra	2620	2620
Cliff House	3686	3686
Menefee	3710	3710
Point Lookout	4554	4554
Mancos	4700	4700
Gallup	5600	5600

ATTACHMENT TO FORM 3160-4

Federal I #5
(Well Name)

Sec 21 T23N R7W
(Sec, T, R)

NM-16586
(Lease No.)

The following summarizes the cement job on the above well as required by item 28 of 3160-4 and the approved APD.

8-5/8" surface casing 363 ' to surface. 275 sacks Class B, 2% CaC1, 1/4# flocele per sack mixed at 15.6 lbs with a yield of 1.18 or 325 cubic feet. Cement circulated to surface.

4-1/2" casing, Stage 1: T.D. to 4936 '. Ran 20 barrels mud flush, 75 sacks Class G mixed with 8 lbs salt per sack, 1/2#flocele per sack, 6 1/4 lbs Gilsonite per sack. Mixed at 15.2 lbs per gallon. Yield 1.377 cubic feet per sack or a total of 103 cubic feet. 225 sacks Class G mixed with 2% CaC1, 8# salt per sack, 6 1/4# Gilsonite per sack, 1/2# flocele per sack, mixed at 15.2# with a yield of 1.377 or 310 cubic feet. Cement was designed to circulate above cement stage tool. Circulated 6 barrels slurry when opened cement stage tool.

4-1/2" casing, Stage 2: 4936 ' to surface'. Pumped 5 barrels of water, pumped 10 barrels CaC1 water, pumped 10 barrels water spacer, pumped 20 barrels Superflush, pumped 10 barrels water. 1175 sacks of 50/50 Class G poz mix mixed with 2% gel, 2% KCL by weight of water, 12# Gilsonite per sack. Mixed at 12.8 lbs per gallon with a yield of 1.46 cubic feet per sack or a total of 1716 cubic feet. Cement was designed to circulate. Circulated 120 barrels slurry.