

Southern States Oil Company



A Division of Bates Production Company

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DRILLING & COMPLETION REPORT
BOXBERGER A-B WELL NO. 7
NW NW SW SECTION 24-T14S-R15W
RUSSELL COUNTY, KANSAS

Elevation: 1769' GR., 1774' K.B. Geologist: J. C. Musgrove

- 1/20/81 Woodman & Iannitti M.I.E. & rigging up.
Spudded in @ 5 p.m.
- 1/21/81 Set 265' (6 jts) 8-5/8" 24# casing with 175 sacks common,
2% gel, 3% C.C. Good circulation of cement.
Plug down @ 11 p.m.
- 1/22/81 Drilling @ 1630'
Anhydrite 814' (+960')
- 1/23/81 Drilling @ 2330'
- 1/24/81 Drilling @ 2890'
- 1/25/81 Drilling @ 3030'

DST #1 - 2923-2980' - Douglas

45-30-45-30 minute times

Recovered 5' slight oil gas cut mud
17' gas cut mud

IF 61-84#
FF 107-123#
ISI 423#
FSI 346#

Topeka	2667' (-893')
Heebner	2887' (-1113')
Toronto	2907' (-1133')
Douglas	2925' (-1151')
Lansing Kansas City	2946' (-1172')

DRILLING & COMPLETION REPORT
BOXBERGER A-B WELL NO. 7
RUSSELL COUNTY, KANSAS

1/26/81 Drilled to 3190'

Base Kansas City 3146' (-1372')
Gorham Sand 3183' (-1409')
Arbuckle 3185' (-1411')

Preparing to run DST #2 - Arbuckle & Gorham Sand

1/27/81 Drilled to R.T.D. 3207'

DST #2 3145-3190' - Arbuckle & Gorham Sand

30-30-30-30 minute times

Recovered 75' oil gas cut mud

60' muddy watery oil

Grind out 50% oil, 40% wtr., 10% mud.

Recovered 840' oil and gas cut muddy wtr.

Grind out 10% oil, 50% wtr., 40% mud.

180' Arbuckle disposal water with Iron Sulfide

IF 69-338#

FF 400-500#

ISI 1030#

FSI 1030#

DST #3 3195-3207' - Arbuckle

30-30-30-30 minute times

Recovered 10' slight oil cut mud

335' muddy contaminated water with trace of oil

IF 38-130#

FF 109-207#

ISI 1060#

FSI 1068#

Well Dry & Abandoned - In process of plugging well

1/28/81 Plugged as follows:

Mud to 540' with 40 sacks 50/50 pozmix cement

265' with 25 sacks

40' with 10 sacks

5 sacks in rat hole

Plug down @ 10 a.m.

MAK

BATES OIL CORPORATION
SOUTHERN STATES OIL COMPANY
INTER-OFFICE COMMUNICATION
TULSA DIVISION

TO W. E. DIGGS
FROM WILLIAM M. MEEKS III

DATE 26 SEPTEMBER 1978
SUBJECT REVIEW OF J. BOXBERGER LEASE

A RECENT REVIEW OF THE J. BOXBERGER LEASE WAS CONDUCTED TO DETERMINE THE PRACTICALITY OF TESTING ZONES NOT PREVIOUSLY TESTED. THE POSSIBILITY OF DEEPER ARBUCKLE OR SHALLOWER ZONES OF POROSITY ALREADY BEHIND PIPE WAS CONSIDERED. ALL DRILLING FILES FOR THE J. BOXBERGER LEASE WERE REVIEWED IN DEPTH AND "SCOUT TICKETS" AND WELL LOGS OF ALL WELLS WITHIN 1½ MILES WERE EXAMINED, WHERE AVAILABLE.

IN ADDITION TO THE LANSING/KANSAS CITY AND THE TARKIO, IT WAS NOTED THAT THE FOLLOWING FORMATIONS HAVE PRODUCED OIL AT ONE TIME OR ANOTHER WITHIN THE AREA: INDIAN CAVE, GORHAM, CHECKERBOARD, REAGAN, GRANITE WASH, AND ARBUCKLE.

DUE TO THE REPORTING PROCEDURES IT IS IMPOSSIBLE TO DETERMINE THE ACCUMULATIVE PRODUCTION FROM EACH INDIVIDUAL FORMATION. THEREFORE, INITIAL POTENTIAL FIGURES WILL BE QUOTED. THE ALVA BILLINGS #5 DUMLER (SE SE NE SEC. 24-14S-14W) WHICH WAS COMPLETED 11-48 FLOWED 700 BOPD FROM THE INDIAN CAVE FORMATION (2054-276FT). THE SKELLY OIL #13 REIN (SE SE SW SEC. 24-14S-14W) COMPLETED IN 1-53 HAD AN IPP 31 BOPD & 54 BOPD FROM THE INDIAN CAVE (2243FT-508FT). THE SKELLY OIL #11 REIN (SE NE SW SEC. 25-14S-14W) COMPLETED IN 12-52 HAD AN IPP 112 BOPD & 8 BOPD FROM THE INDIAN CAVE (2260FT-512FT). THE SKELLY OIL #10 REIN (NE NE SW SEC. 25-14S-14W) HAD AN IP 86 BOPD & 37 BOPD FROM THE INDIAN CAVE (2259FT). THE INDIAN CAVE FORMATION IS THE ONLY PRODUCING ZONE BEHIND PIPE ON THE J. BOXBERGER LEASE. ONLY ONE ELECTRIC LOG ON THE J. BOXBERGER LEASE, THE BOXBERGER #2W (E/2 NW SE SEC. 26-14S-14W), SHOWS THE ZONE THAT PRODUCED IN SEC.'S 24 & 25. THERE ARE NO DESCRIPTIONS OF WELL CUTTINGS FROM ANY OF THE EIGHT WELLS ON THE LEASE THAT WOULD JUSTIFY A TEST OF THIS ZONE. THE GEOLOGIC DESCRIPTION OF THE BOXBERGER #4 (NE NW SE SEC. 26-14S-14W) INDICATES THAT THE INTERVAL 2040-2055 IS WET. WITH THE AVAILABLE INFORMATION CONSIDERED, IT IS ASSUMED THAT THE INDIAN CAVE FORMATION THAT WAS PRODUCTIVE IN SEC.'S 24 & 25 IS WET ON THE J. BOXBERGER LEASE.

RECENT ACTIVITY WITHIN THE AREA HAS BEEN CONFINED PRIMARILY TO WORK-OVERS AND RECOMPLETIONS IN THE LANSING AND TARKIO. ACTIVITY TO THE WEST AND SOUTH-WEST SEC.'S 28 & 34 INDICATE THE COMPLETION OF SEVERAL NEW GORHAM SAND AND ARBUCKLE WELLS.

EVEN THOUGH CONTROL OF THE DEEPER STRUCTURES IS SPARSE, PRE-CAMBIAN GRANITE WASH WAS FOUND IN THE BOXBERGER #1 (SW SW SE SEC. 26-14S-14W) AND IN THE BOXBERGER #2 (SE SW SE SEC. 26-14S-14W) AT -1395 & -1384 RESPECTIVELY, LEAVING VERY LITTLE POSSIBILITY OF PRODUCTION BELOW THE LANSING FORMATION. THE POSSIBLE EXCEPTION WOULD BE PRODUCTION FROM THE GORHAM SAND WHICH WAS FOUND ONLY IN THE BOXBERGER #1 WITHOUT A SHOW. WELLS #2W THROUGH #8 WERE NOT DRILLED DEEP ENOUGH TO ENCOUNTER THE GORHAM. IT IS FELT THAT THE GORHAM IS NOT ECONOMICALLY ATTRACTIVE BECAUSE OF THE NATURE OF ITS DEPOSITION. IT IS NOT RELATED TO STRUCTURE BUT IS FOUND IN THIN RANDOM STRATIGRAPHIC TRAPS. THERE IS NO GUARANTEE THAT THE GORHAM WILL BE ENCOUNTERED ANYWHERE ELSE ON THE LEASE.

IT IS RECOMMENDED THAT THE J. BOXBERGER LEASE BE PRODUCED AS LONG AS IT IS ECONOMICALLY FEASIBLE AND THEN ABANDONED.

Approved
9-26-78
WEL.

POWELL & RUWWE

PETROLEUM GEOLOGISTS

1003 UNION NATIONAL BUILDING
WICHITA, KANSAS 67202

STEPHEN B. POWELL
RALPH W. RUWWE

316-263-9728

BOXBERGER "A", BOXBERGER "B", MILBERGER AND WITTMAN LEASES

SE $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ & SW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ 24-14S-15W

THE ABOVE NAMED LEASES ARE LOCATED IN THE BIG CREEK SECTOR OF THE GORHAM FIELD OF SOUTHWESTERN RUSSELL COUNTY, KANSAS. THE BIG CREEK FIELD WAS DISCOVERED IN 1935 AND LATER COMBINED WITH THE GORHAM FIELD INTO WHAT BECAME ONE OF THE LARGER FIELDS IN KANSAS. PRODUCTION IN THE FIELD IS FROM THE LANSING, GORHAM SAND, ARBUCKLE AND REAGAN SAND.

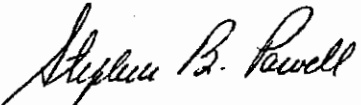
THE GORHAM SAND IS A LOCAL TERM AND REFERS TO A BASAL PENNSYLVANIAN SAND WHICH OVERLIES THE ARBUCKLE DOLOMITE EITHER IN DIRECT CONTACT WITH IT OR SEPARATED BY ONLY A FEW FEET OF SHALE. THE REAGAN SAND IS BASAL CAMBRIAN AND UNDERLIES THE ARBUCKLE IN CONTACT WITH THE PRE-CAMBRIAN ROCKS. IN CASES WHERE THE ARBUCKLE IS COMPLETELY ERODED AWAY, THE SAND FOUND IN CONTACT WITH THE PRE-CAMBRIAN IS PROBABLY GORHAM IN AGE SINCE THE SEVERE EROSION WHICH REMOVED THE ARBUCKLE WOULD, IN ALL PROBABILITY, REMOVE THE REAGAN ALSO. THE SANDS ARE SO SIMILAR IN APPEARANCE THAT UNLESS THE ARBUCKLE SEPARATES THEM IT IS VERY DIFFICULT TO IDENTIFY THEM.

RECOVERY IN THE GORHAM FIELD HAS BEEN EXCELLENT WITH MANY LEASES GOING OVER THE 100,000 BARREL PER WELL MARK WITH THE OVERALL AVERAGE BEING IN THE 65,000 BARREL PER WELL RANGE. THE BOXBERGER "A" AND "B" LEASES HAVE, THROUGH 1973, PRODUCED 602,917 BARRELS OF OIL FROM 7 WELLS FOR A PER WELL AVERAGE OF 86,131 BARRELS. THE MILBERGER LEASE HAD PRODUCED 418,732 BARRELS FOR AN AVERAGE OF ALMOST 70,000 BARRELS PER WELL, WHILE THE WITTMAN LEASE HAD PRODUCED ON 54,223 BARRELS FROM 2 WELLS FOR SLIGHTLY OVER 27,000 BARRELS PER WELL.

THE MILBERGER AND WITTMAN LEASES HAVE BEEN FULLY DEVELOPED ON A TEN ACRE PATTERN AND NO ADDITIONAL LOCATIONS ARE INDICATED. THE BOXBERGER "A" LEASE ALSO HAS 4 WELLS ON THE 40 ACRES AND THERE IS NO LOCATION WHICH APPEARS TO HAVE POSSIBILITIES FOR A PROFITABLE PRODUCER. THE BOXBERGER "B" LEASE HAS ONLY 3 WELLS ON 80 ACRES BUT THERE ARE STRONG INDICATIONS THAT BOTH THE LANSING AND ARBUCKLE UNDER THE CENTER OF THE LEASE ARE QUITE LOW. FOR THIS REASON THIS LEASE IS CONSIDERED TO BE FULLY DEVELOPED AND NO ADDITIONAL DRILLING IS RECOMMENDED.

RESPECTFULLY SUBMITTED,

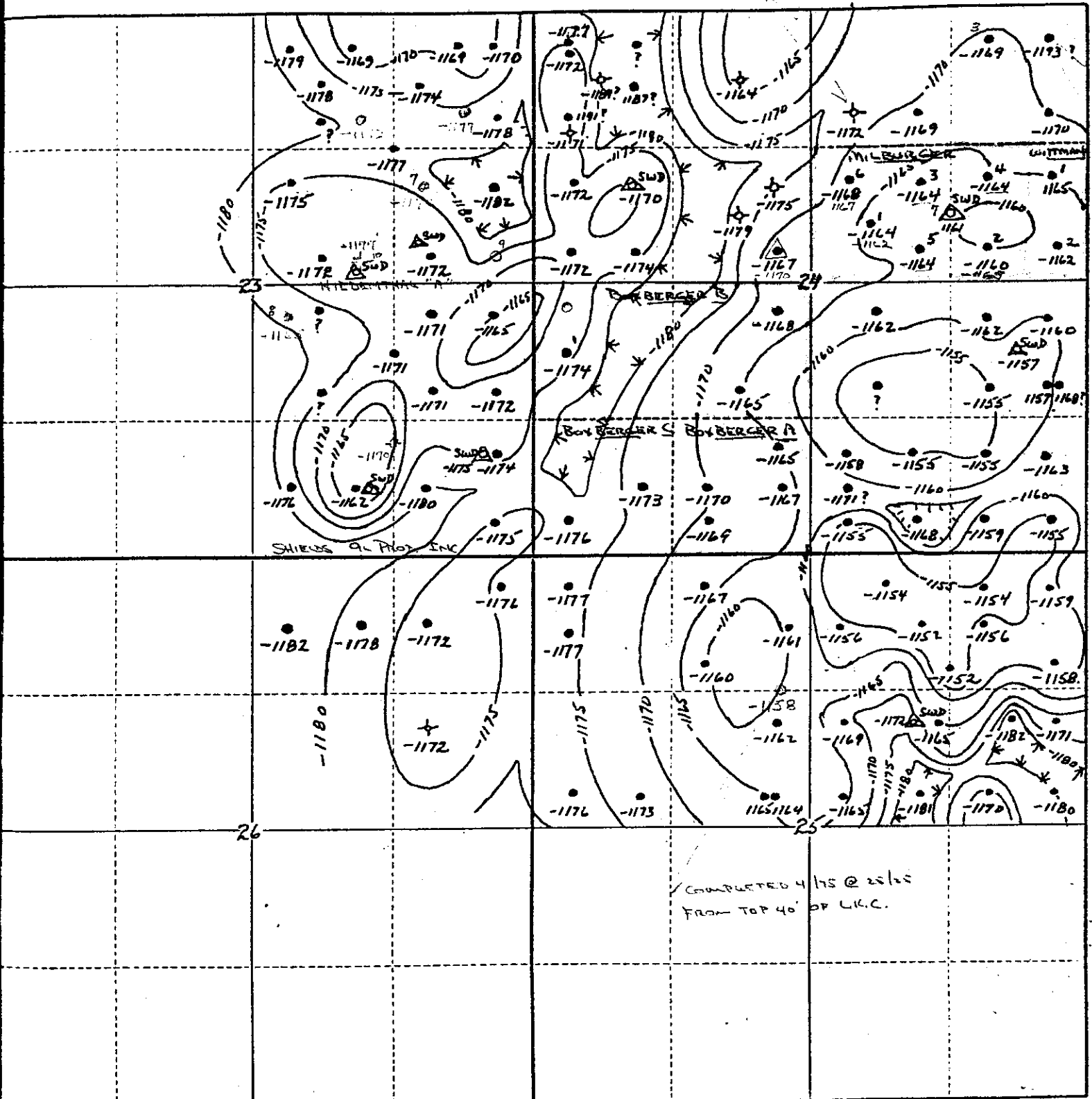
POWELL & RUWWE


STEPHEN B. POWELL

JAY HUTCHISON OR OHR
#1 EICHMAN OWNED - 2 1/2 ACRES
KBC 1825

FARSON OIL CO.
#2 MILBERGER OWNED
KBC 1848

Township 14 S Range 15 W County RUSSELL State KANSAS S 1/4 @ 3310' (G' OFF B.M.)



COMPLETED 4/15 @ 20/25
FROM TOP 40' OF L.I.C.

