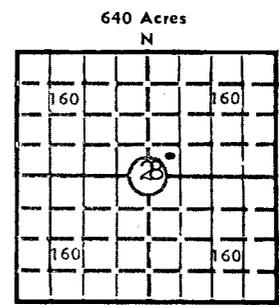


KANSAS DRILLERS LOG & GEOLOGICAL REPORT

API No. 15 — 031 — 20,578
 County Number

Operator: Lincoln - 77
 Address: 8485 Kathy Lane, Lincoln, Nebraska 68526
 Well No. 1 Lease Name: Flake
 Footage Location: 320 north feet from (N) (S) line 350 west feet from (E) (W) line from C
 Principal Contractor: B & F Drilling Co. Geologist: Richard B. Schmidt
 Spud Date: May 25, 1976 Total Depth: 1027 P.B.T.D.: 1020
 Date Completed: June 2, 1976 Oil Purchaser: Mid-America Refining Co. Inc.

S. 28 T. 22 R. 16 E east
 Loc. SW SW NE 1/4
 County Coffey



640 Acres N
 Locate well correctly
 Elev.: Gr. 1,000 estimated from USGS topo map
 DF _____ KB _____

CASING RECORD

Report of all strings set — surface, intermediate, production, etc.

| Purpose of string | Size hole drilled | Size casing set (in O.D.) | Weight lbs/ft. | Setting depth | Type cement | Sacks | Type and percent additives |
|-------------------|-------------------|---------------------------|----------------|---------------|-------------|-------|----------------------------|
| Fresh water | 9 1/2 | 7 in. | | 45 | common | 15 | |
| OIL PRODUCTION | 6 1/4 | 4 1/2 in. | 10.5 | 1025 | common | 30 | |
| | | | | | | | |
| | | | | | | | |

LINER RECORD

CORNISH LOG PERFORATION RECORD Gamma Ray - N

| Top, ft. | Bottom, ft. | Sacks cement | Shots per ft. | Size & type total | Depth interval |
|----------|-------------|--------------|---------------|-------------------|----------------|
| | | | 2 | total 15 | 996 to 1003 |

TUBING RECORD seating nipple

| Size | Setting depth | Packet set at | Description |
|----------------|---------------|---------------|--|
| 2 inch regular | 1017 | 992 | 25 ft. mud anchor with top foot made into perforations set 3 feet above bottom |

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

| Amount and kind of material used | Depth interval treated |
|---|------------------------|
| 50 gallons of 15% acid; 25 sacks of 12-30 frac sand; | 996 to 1003 |
| 100 sacks of 10-20 frac sand with 250 barrels of Mid-America crude oil | |
| with the whole job engineered by Consolidated Services, Chanute, Kansas | |

INITIAL PRODUCTION

Date of first production: _____ Producing method (flowing, pumping, gas lift, etc.):
 flowing about 30 barrels per day

| RATE OF PRODUCTION PER 24 HOURS | Oil | Gas | Water | Gas-oil ratio |
|---------------------------------|----------|------------|------------|---------------|
| | 30 bbls. | 10,000 MCF | none bbls. | CFPB |

Disposition of gas (vented, used on lease or sold): used on lease to flow well
 Producing interval (s): 996 to 1003 feet

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Drillers Log shall be transmitted to the State Geological Survey of Kansas, 4150 Monroe Street, Wichita, Kansas 67209. Copies of this form are available from the Conservation Division, State Corporation Commission, 3830 So. Meridian (P.O. Box 17027), Wichita, Kansas 66217. Phone AC 316-522-2206. If confidential custody is desired, please note Rule 82-2-125. Drillers Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044.

Operator LINCOLN - 77, 8485 Kathy Lane, Lincoln, Nebraska 68526
 DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWD, ETC.: OIL WELL

Well No. 1 Lease Name Flake SW, SW, NE 1/4

S 28 T 22 R 16 E east W

WELL LOG

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.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

| FORMATION DESCRIPTION, CONTENTS, ETC. | TOP | BOTTOM | NAME | DEPTH |
|---|--------|----------------------|--------------------------|-------|
| Alluvian = fresh water | 13 | 24 | Alluvian | |
| Douglas shale | | 202 | Douglas | |
| Lime | 202 | 246 | LANSING + 798 | |
| Shale | 246 | 330 | Vilas | |
| Lime | 330 | 346 | Plattsberg | |
| Shale | 346 | 358 | Lane | |
| Lime | 358 | 464 | IOLA = KC | |
| W Lime Westerville & Winterset | 494 | 574 | Westerville & Winterset | |
| Shale | 574 | 580 | Stark | |
| Lime | 580 | 598 | Swope | |
| Shale | 598 | 602 | Hush | |
| Lime | 602 | 620 | Snibar of Hertha | |
| Shale | 620 | 624 | Mound City of Hertha | |
| Lime BASE OF KANSAS CITY | 624 | 628 | Critzler of Hertha | |
| Big shale | 628 | 784 | Pleasanton | |
| lime | 784 | 800 | Lenapah | |
| lime | 808 | 815 | Altamount | |
| lime | 874 | 905 | Pawnee | |
| lime | 905 | 947 | Higginsville | |
| shale = black | 947 | 950 | Little Osage | |
| Dense lime = also called 5 foot | 950 | 956 | Black Jack Creek | |
| Black shale | 956 | 959 | EXCELLO of CHEROKEE + 44 | |
| Gray shale, 1st cap rock 991 | 959 | 994.4 | cherokee | |
| Laminated very shaly sandstone | 994.4 | 995.1 | LAGONDA = SQUIRREL | |
| Dark brown sandston, very gassy oil | 995.1 | 995.8 | | |
| Gray sandy shale | 995.8 | 996.1 | | |
| Dark slightly shaly sandston, oil | 996.1 | 996.7 | | + 4 |
| Dark fine grained sandstone, oil & gas | 996.7 | 998.7 | | |
| Dark shaly sandstone, gas & oil | 998.7 | 999.3 | | |
| Dark sandstone, gassy oil | 999.3 | 1003.7 | | |
| Dark very shaly sandstone, less oil | 1003.7 | 1005.0 | | |
| Gray sandy shale, no shows | 1005.0 | 1005.5 | Cherokee shale | |
| Gray shale with no shows | 1005.5 | 1027.0 | " " | |
| OIL FIELD RESEARCH LABORATORIES, Chanute, Kansas | | | | |
| Average porosity, 19.6; average permeability, | | 58.9 millidarcys; | | |
| total feet of permeable sand 9.3, total feet of | | floodable sand, 7.1; | | |
| Total oil content Blls/Acre, 6,333, estimated total oil recovery primary & waterflooding, 2,293 blls. per acre. | | | | |

USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.

Date Received

Richard B. Schmidt
 Richard B. Schmidt, Signature 1219 College Avenue
 Topeka, Kansas, Petroleum geologist

Title

July 3, 1976

Date

Core Description
Lincoln 77 # 1 Flake
SW SW NE ; 28 - 22 S - 16 E
(Cherokee)

991 - 993 dark gray shale.

993 - 993.6 Shaly sandstone.

993.6 - 997 Sandstone, cross-bedded, with oil stain.

997 - 1006 Sandstone, cross-bedded, with heavy oil stain.