ronal of -1

STATE OF KANSAS
STATE CORPORATION COMMISSION

Give All Information Completely

15-079-20367-0000

WELL PLUGGING RECORD

| Make Required Affidavit | H | arvey | Cour | ity. Sec. 1 | 0 Twp | 23S Rge. 3W | E/W |
|---|--|-------------|--|---|--------------|--|---------------|
| Mail or Deliver Report to | Location | | | or foota | | | • |
| Conservation Division | | | | d 330' EWI | | | |
| State Corporation Comm. | Lease O | | m Schra | | | | . |
| 245 North Water | Lease Na | | hrag #1 | | We | 11 No. | |
| Wichita, KS 67202 | Office / | | | , Burrton, | | | |
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| | Was per | nission of | rtained | from the | Conservati | on Division | |
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| Name of Conservation Agent who su | | | - | | on Thomps | | |
| Producing formation | | h to top | | | | th of Well 3 | 3661 |
| Show depth and thickness of all w | | | | | - | | • |
| • | • | · · | | | | | |
| OIL, GAS OR WATER RECORDS | | | | | , (| ASING RECORD | 1 |
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| FORMATION C | ONTENT | . FROM | то | 8-5/8" | 272 | None | |
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| (If additional des | crintion | is necess | 277 1100 | BACK of | thicychool | The ornaran | |
| Name of Plugging Contractor | | SING PULL | | , 2011 01 | | a, Kansas | |
| Tagging contractor | CHASE, K | | TING | | #310HE. | ., stanou. | |
| | CHADE, K | ANDAD | | | | | === |
| TATE OF Kansas | . cornin | TF 077 | Rice | | | | |
| | COUNT | X OF | | | | 5S. | . 4 \ |
| R. Darrell Kelso f the above-described well, being he facts, statements, and matters s filed and that the same are true. | g first du s herein c | ontained | on oath | , says: T | hat I have | | f |
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| | forgu | ature) | 11/6 | and, | T-life | | |
| | • | | Chase, | Kansas | ddycaal | | |
| SUBSCRIBED AND SWORN TO before | re me this | 10th | day d | • | ddress) mber | , 19 80 | |
| uCTARL | | | _ | Joan > | Elso- | | |
| y commission expires My | JOAN KELSO State of Kansas Appt, Exp. Oct. 15, | 1984 | | <u> </u> | No | tary Public. | |

H. C. HOPKINS

PETROLEUM GEOLOGIST 8801 MAPLE DRIVE OVERLAND PARK, KANSAS 66207 913-648-5439

15-679-20367-0000

Dulling Back

TOM SCHRAG
NO. 1 SCHRAG

Sample Analysis Report

By

H. C. Hopkins

Tom Schrag
No. 1 Schrag
900' SNL-330' EWL-NE/4
Sec. 10-23S-3W
Harvey County, Kansas

STATE CORPORATION COMMISSION

JUL 3 1 1880

Wichita, Kansas

H. C. HOPKINS

PETROLEUM GEOLOGIST 8801 MAPLE DRIVE OVERLAND PARK, KANSAS 66207 913-648-5439

Tom Schrag
No. 1 Schrag
900' SNL-330' EWL-

900' SNL-330' EWL-NE/4
Sec. 10-23S-3W

Sec. 10-23S-3W Harvey County, Kansas Elevation:

1474 RB 1471 DF

1469 GL

Spudded: July 14, 1978

Surface Casing: 8 5/8" 28# @ 272' with 250 sacks common cement,

2% Gel, 3% CaCl₂

Drilling Contractor: Bergman Drilling, Inc.

Rotary Total Depth: 3366 feet

SAMPLE ANALYSIS REPORT

One (1') foot drilling time was recorded from 2200 feet to rotary total depth. Ten (10') foot samples were kept from 2200 to 3200 feet and five (5') foot samples were kept from 3200 feet to rotary total depth.

The following data was compiled from sample analysis, time log and electric log interpretation and correlation. All tops and zones of porosity are corrected to rotary bushing measurements.

Samples were examined from 2200 feet to total depth. The test well was under geological supervision from 2875 feet to total depth of 3366 feet.

| Heebner Shale | 2232 | (-758) |
|---------------|------|---------|
| Douglas | 2295 | (-821) |
| Lansing | 2532 | (-1058) |
| Kansas City | 2609 | (-1135) |

Several zones of porosity were observed in the samples through this series. All the zones were barren.

The porosity zone 2912-2919: Gas logged this zone, Cable Tool hole drilled 1926.

| Base Kansas City | 3045 | (-1571) |
|----------------------|------|---------|
| Cherokee | 3190 | (-1716) |
| Conglomerate | 3238 | (-1764) |
| Mississippi (Warsaw) | 3251 | (-1777) |

3251-3255 Limestone, cream-brown, medium crystalline, slightly dolomitic, trace white chert, dense, trace of glauconite, no show.

3263-3269 Limestone, light gray, very fine crystalline, dolomitic, trace chert, fair scattered pin point porosity, trace gas in wet sample, no stain, no odor.

Tom Schrag
No. 1 Schrag
Sec. 10-23S-3W
Harvey County, Kansas

3274-3281 Limestone, buff-cream, fine crystalline, very poor pin point porosity, light stain, good show gas and free oil, good odor.

DRILL STEM TEST

Packer set at 3260', total depth 3286', 26 feet of anchor. Time intervals 25"-30"-30"-30". Tool opened with strong blow. Gas to surface 2". (Gas will burn)

5 min. Gauge 3/4 choke 245,000 CFG First Opening: 15 min. Gauge 3/4 choke 211,000 CFG 3/4 choke 25 min. Gauge 175,000 CFG 3/4 choke Second Opening: 10 min. Gauge 133,000 CFG 3/4 choke 20 min. Gauge 93.000 CFG 30 min. Gauge 3/4 choke 93,000 CFG

Recovered 30 feet gas cut mud. IF 70#-35# ICIP 229#/30" FF 53#-35# FCIP 194#/30" Temperature: 100°

3293-3302 Limestone, white-buff, medium crystalline, trace fair scattered vugular porosity, trace scattered stain, free gassy oil, fair odor, with dolomite streaks, tan, very fine crystalline, poor intercrystalline porosity, good even stain, good show free oil.

3305-3310 Dolomite, tan, very fine crystalline, trace poor pin point porosity, good even stain, free oil, good odor.

3319-3321 Dolomite, tan, fine crystalline, trace poor pin point porosity, good even stain, trace free oil, fair odor.

3324-3326 Same description as 3319-3321.

Osage 3330 (-1856)

3330-3335 Chert, white, sharp, angular, china, fair vugular porosity, trace poor scattered light stain, trace free oil, no odor.

3337-3366 Chert, white, sharp, angular, china, good vugular porosity, no show.

Rotary Total Depth: 3366 feet.

Tom Schrag
No. 1 Schrag
Sec. 10-23S-3W
Harvey County, Kansas

COMMENTS AND RECOMMENDATIONS

The Tom Schrag No. 1 Schrag was drilled to a total depth of 3366 feet.

The test well was structurally higher than offsetting producing wells and encountered excellent shows of gas and oil in the Mississippi formation. The recovery of gas in the drill stem test indicated probable commercial production, therefore it was recommended that $4\frac{1}{2}$ " casing be set for production tests.

Correlation of time log and sample data reveal that five separate zones within the Mississippi offer the best prospects for production. They are as follows:

Zone 1 3324-3326, 3319-3321

Zone 2 3305-3310

Zone 3 3293-3302

Zone 4 3274-3281

Zone 5 3263-3269

Melding of all data indicates that Zone 1 should be productive of oil with water. Zone 2 should be productive of oil, probably with water. Zone 3 should be productive of oil and a volume of gas after stimulative treatment. Zone 4 and Zone 5 should be productive of gas, probably large volume after stimulative treatment.

The low bottom hole pressure as indicated by the drill stem test may require some type of compressor to raise production to pipe line pressure.

The five zones should be evaluated on the N-GR Log, perforated and tested. The zone 2912-2919 should be tested before final abandonment.

Production casing, $4\frac{1}{2}$ " 9#, was set and cemented at 3364 feet with 75 sacks of 60/40 Pozmix.

Respectfully submitted,

H. C. Hopkins

Geologist

Tom Schrag No. 1 Schrag Sec. 10-23S-3W Harvey County, Kansas

DRILLING TIME LOG

| | • ' | = | DICTIONAL TAIL | 1 100 | |
|---------------|------------------------------------|--|---|---|-----------------|
| Depth From | То | Time | | | Remarks |
| 2200 | 20 40 60 80 | 2 2 2 3 3 4 5 6 6 5 5 7 5 6 4 4 3 3 2 1 2 2 1 2 | 4 6 6 6 5 5 7 5 5 4 5 3 3 3 4 4 2 3 2 2 1 1 2 2 | 3 5 4 3 3 2 3 1 3 | |
| | 2300 20 40 60 | 2 2 3 3 3 3 2 2 2 2 2 2 2 3 3 2 3 3 3 3 3 3 3 | 2 3 3 3 4 4 6 6 5 2 2 2 2 2 2 2 2 2 4 4 2 3 3 4 | 2 2 2 2 3 2 3 3 4 2 2 2 1 2 1 1 2 3 4 3 3 3 5 3 3 6 7 | |
| | 80 2400 20 40 60 80 | 8 7 6 5 6 5 3 1 2 1 2 1 2 3 3 2 2 3 1 1 1 1 1 1 1 1 2 1 1 2 4 4 4 4 4 3 | 6 6 6 5 7 4 3 1 1 2 2 2 4 6 6 6 6 5 7 1 2 1 1 1 2 1 1 3 3 5 4 3 4 3 3 3 2 2 | 2 3 3 2 2 2 2 2 2 2 7 5 2 2 2 2 2 4 1 2 2 1 1 1 1 1 1 1 2 4 5 4 6 4 3 3 4 4 | |
| | 2500 20 40 60 80 | 5 5 4 4 4 5 2 2 3 3 7 3 3 4 4 3 3 4 3 3 3 3 3 | 3 3 2 3 3 3 4 3 4 3 3 4 2 2 3 2 3 2 3 2 | 3 3 3 3 3 3 2 3 3 5 3 3 7 4 3 3 4 4 2 4 4 3 5 4 4 3 3 4 3 4 4 4 3 3 2 2 | Kelly Corr.2544 |
| | 2600 20 40 60 | 3 3 3 2 2 3 3 3 1 1 1 1 3 4 4 1 3 2 4 4 4 3 2 3 | 2 3 2 1 2 3 2 2 2 4 3 4 2 2 2 2 1 3 3 2 3 3 3 4 | 3 4 3 2 2 2 3 4 4 3 4 4 2 2 3 3 2 5 2 4 2 1 1 1 2 3 4 3 4 3 4 3 4 4 4 | |
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| | 80 2900 20 40 60 | 3 4 1 5 5 4 7 8 8 9 8 9 4 4 3 4 4 5 6 5 5 5 5 5 4 4 4 4 4 4 | 5 4 3 4 5 6 3 3 6 6 5 5 | 8 7 7 9 8 5 2 3 4 4 3 4 4 4 4 5 5 6 6 6 5 5 4 4 4 4 4 4 4 4 4 4 | |
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| | 80 3100 | 7 8 6 6 5 1 5 5 7 8 7 7 | 763787547567 | 96444475 | |

Tom Schrag No. 1 Schrag Sec. 10-23S-3W Harvey County, Kansas

DRILLING TIME LOG

| Depth From | To_ | Time | Remarks |
|---------------|--|---|-------------|
| 3100 | 20 40 60 80 3200 20 40 60 80 | 7 7 8 7 5 8 8 7 7 9 8 8 7 5 6 6 6 6 5 8 7 7 9 7 8 7 8 7 7 8 8 4 7 5 5 5 4 4 4 5 4 5 5 4 6 5 6 7 8 6 8 8 9 8 7 5 6 5 5 4 5 4 4 4 5 7 9 5 5 7 8 8 7 7 8 6 8 9 9 7 8 7 7 7 6 7 7 6 7 7 5 5 4 6 7 6 7 7 5 6 7 6 6 6 6 6 6 6 6 6 6 5 4 5 5 4 4 6 6 6 6 | ItemaTRS |
| 5. | 3300 20 40 60 66 | | OST 3260-86 |