KANSAS DRILLERS LOG

API No. 15 — 023 — 20,107 —

Operators
Cities Service Company

Address
209 E. William, Wichita, Kansas 67202

Well No.
4

Location
Northrup "A"

Feet Location
990 feet from (W) SW line
2310 feet from (E) WX line

Principal Contractor
Rains and Williamson

Geologist
Well Site - Sam Houston

Spud Date
5-24-79

Date Completed
6-4-79

Total Depth
4990 Ft.

P.B.T.D.

CASING RECORD

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

<table>
<thead>
<tr>
<th>Purpose of string</th>
<th>Size hole drilled</th>
<th>Size casing set (in O.D.)</th>
<th>Weight lbs/ft.</th>
<th>Setting depth</th>
<th>Type cement</th>
<th>Sacks</th>
<th>Type and percent additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>12 1/2&quot;</td>
<td>8 5/8&quot;</td>
<td>24#</td>
<td>372 Ft.</td>
<td>50-50 Pozmix</td>
<td>300</td>
<td>2% CaCl-2</td>
</tr>
</tbody>
</table>

LINER RECORD

PERFORATION RECORD

TUBING RECORD

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

INITIAL PRODUCTION

Date of first production
Dry Hole

Rate of production
Oil
Gas
Water
Gas-oil ratio

Disposition of gas (vented, used on lease or sold)

Producing interval(s)

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Driller's 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 S. Meridian (P.O. Box 170227), Wichita, Kansas 66227. Phone AC 316-522-2206. If confidential custody is desired, please note rule 82-2-125. Driller's Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044.
Operator: Cities Service Company

Well No.: 4

Lease Name: Northrup "A"

DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.: Dry Hole

<table>
<thead>
<tr>
<th>FORMATION DESCRIPTION, CONTENTS, ETC.</th>
<th>TOP</th>
<th>BOTTOM</th>
<th>NAME</th>
<th>DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(See Attached)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Date Received: 

Signature: E. W. Peterman
Region Operations Manager

Title: 

June 11, 1979

Date: 

DRILLER'S LOG 15-023-20107-00-00

COMPANY: Cities Service Company

WELL NAME: Northrup "A" #4

RIG NO.: #1

TOTAL DEPTH: 4990'

COMMENCED: 5-24-79  COMPLETED: 6-4-79

CONTRACTOR: Rains & Williamson Oil Co., Inc.

CASING RECORD:
SURFACE: 8 5/8" @ 371' w/300 sx. Class A, 2% cc.

PRODUCTION: D&A

LOG
(Figures Indicate Bottom of Formations)

Shale 374
Shale & Sand 1914
Sand & Shale 2516
Shale & Sand 3716
Shale & Lime 4335
Lime & Shale 4440
Shale & Lime 4585
Lime & Shale 4709
Lime 4990

ROTARY TOTAL DEPTH 4990

STATE OF Kansas  
COUNTY OF Sedgwick

1, Wilson Rains, President of Rains & Williamson Oil Co., Inc.

upon oath state that the above and foregoing is a true and correct copy of the log of the

Northrup "A" #4 well.

__ Wilson Rains

Subscribed and sworn to before me this 7 day of June, 1979.

__ Sherry Harrell

Appointment Expires: 1-5-82