API No. 15-163-23,211

Rooks

SE NW NW, Sec. 28, Twp. 6, Rge. 20W

Feet from S/N (circle one) Line of Section
Feet from E/W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

Lease Name: Nanette Hilgers
Well #: 2
Field Name: Todd East

Producing Formation: Arbuckle

Elevation: Ground 2218'
KB 2223

Total Depth: 3701'
PBTQ 3700

Amount of Surface Pipe Set and Cemented at 205 feet

Multiple Stage Cementing Collar Used? X Yes ___ No

If yes, show depth set 1786'

If Alternate II completion, cement circulated from 1786'

Drilling Fluid Management Plan ALT 12-91
(Data must be collected from the Reserve Pit)

Chloride Content: 1350 ppm
Fluid Volume: 598 bbls

Dewatering method used: evaporation

Location of fluid disposal if not treated:

Operator Name: [Blank]
Lease Name: [Blank]
License No: [Blank]

Quarter Sec.: [Blank]
Twp.: [Blank]
S Rng.: [Blank]
E/W: [Blank]

County: Kans.
Docket No: [Blank]

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spudd date, recompletion, workover or completion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of one year. One copy of all wireline logs and geologist well reports shall be attached with this form. All cementing tickets must be attached. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature
Title
Date (12-18-92)

Subscribed and sworn to before me this 18th day of December 1992.
Notary Public
Date Commission Expires

LISA THIMMESCH
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 8-24-95
**OPERATOR NAME:** Ritchie Exploration, Inc.  **LEASE NAME:** Nanette Hilgers  **Well #:** 2

**Sec. 28**  **Twp. 6**  **Rge. 20W**  **East**  **County:** Rooks

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

**Drill Stem Tests Taken**
- [ ] Yes  [ ] No  
  (Attach Additional Sheets.)

**Samples Sent to Geological Survey**
- [ ] Yes  [ ] No

**Cores Taken**
- [ ] Yes  [ ] No

**Electric Log Run**
- [ ] Yes  [ ] No
  (Submit Copy.)

**List All E. Logs Run:**
- R.A. Guard Log
  See Attached Sheet

---

### CASING RECORD

- [ ] New  [ ] Used
- Report all strings set-conductor, surface, intermediate, production, etc.

<table>
<thead>
<tr>
<th>Purpose of String</th>
<th>Size Hole Drilled</th>
<th>Size Casing Set (in O.O.)</th>
<th>Weight Lbs./Ft.</th>
<th>Setting Depth</th>
<th>Type of Cement</th>
<th># Sacks Used</th>
<th>Type and Percent Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>surface</td>
<td>12 1/4</td>
<td>8 5/8</td>
<td>28'</td>
<td>205</td>
<td>60/40 poz</td>
<td>160</td>
<td>2% gel 3% CC</td>
</tr>
<tr>
<td>production</td>
<td>7 7/8</td>
<td>5 1/2</td>
<td>14'</td>
<td>3695'</td>
<td>60/40 poz</td>
<td>110</td>
<td>10% salt 3% gilsonite</td>
</tr>
</tbody>
</table>

---

### ADDITIONAL CEMENTING/SQUEEZE RECORD

- [ ] Perforate
- [ ] Protect Casing
- [ ] Plug Back To
- [ ] Plug Off Zone

### PERFORATION RECORD - Bridge Plugs Set/Type

<table>
<thead>
<tr>
<th>Shots Per Foot</th>
<th>Depth Specify Footage of Each Interval Perforated</th>
<th>Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100 gal 15% INS</td>
<td>3699'</td>
</tr>
</tbody>
</table>

---

### TUBING RECORD

<table>
<thead>
<tr>
<th>Size Set At</th>
<th>Packer At</th>
<th>Liner Run</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 3/8&quot;</td>
<td>3697'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Date of First, Resumed Production, SWD or Inj. 10-13-92**

**Producing Method**
- [ ] Flowing
- [ ] Pumping
- [ ] Gas Lift
- [ ] Other (Explain)

**Estimated Production Per 24 Hours**
- Oil: 14.26 Bbls.
- Gas: 0.00 Mcf
- Water: 0.14 Bbls.
- Gas-Oil Ratio: 0.14

**Disposition of Gas:**
- [ ] Vented
- [ ] Sold
- [ ] Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**
- [ ] Open Hole
- [ ] Perf.
- [ ] Dually Comp.
- [ ] Commingled
- [ ] Other (Specify)
#2 Nanette Hilgers
SE NW NW
Section 28-6S-20W
Rooks County, Kansas
API# 15-163-23,211

ELECTRIC LOG TOPS
Anhydrite 1813'(+ 410)
B/Anhydrite 1846'(+ 377)
Topeka 3213'(- 990)
Heebner 3414'(-1191)
Toronto 3438'(-1215)
Lansing 3451'(-1228)
B/KC 3643'(-1420)
Ero. Arb. Absent
Arbuckle 3678'(-1455)
LTD 3697'(-1474)

DST #1 from 3414' to 3470' (Toronto and Top Zone). Recovered 5' mud, no show of oil.
  IFP:67-67#/30";ISIP:76#/30";
  FFP:67-67#/30";FSIP:67#/30".

DST #2 from 3563' to 3650' (140' - 220' zones). Recovered 10' oil and water cut mud (25% oil, 25% water, 50% mud) and 60' oil cut watery mud (30% oil, 15% water, 55% mud).
  IFP:86-86#/45";ISIP:884#/45";
  FFP:96-105#/45";FSIP:884#/45".

DST #3 from 3680' to 3694' (Erosional Arbuckle/Arbuckle). Recovered 600' gas in pipe and 900' clean gassy oil.
  IFP:67-221#/30";ISIP:836#/45";
  FFP:307-346#/30";FSIP:788#/45".

DST #4 from 3694' to 3701' (Arbuckle). Recovered 430' clean gassy oil.
  IFP:48-105#/45";ISIP:894#/45";
  FFP:134-163#/45";FSIP:846#/45".

RECEIVED
KANSAS CORPORATION COMMISSION
DEC 18 1992
CONServation Division
Wichita, KS

RELEASED
FEB 1 4 1995
FROM CONFIDENTIAL
ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31
Russell, Kansas 67665

3352

9-19-92  28  65°  20°  3:15 P.M.  5:30 P.M.  6:00 P.M.  6:30 P.M.

Sec.   Twp.   Range   Called Out   On Location   Job Start   Finish

Lease: None  H. Higgin  Well No. 2
Location: Logan 10  1/4  YSE

Contractor: Marlin Dolny  Co.  Rig 8
Type Job: Set Surface Pipe

Hole Size: 12 1/4"  T.D.  206'
Casing: 8 1/4"  Depth  205'
Thy. Size:  Depth
Drill Pipe:  Depth
Tool:  Depth
Cement Left in Casing: 12'  Shoe Joint
Press Max.:  Minimum
Meas Line:  Displace

Perf.  DEC 18

EQUIPMENT

No.  Cementer  Helper  Helper  Driver
Pumptrk  177  Gary H.  Marilyn K.
Pumptrk  212  Paul D.
Bulkerk  FROM CONFIDENTIAL

CEMENT

Amount Ordered  180 sks  $400.00  2 200.00  365.00
Consisting of  125 sks  e  200  sks  180.00
Common  25 sks  e  50  sks  180.00
Poz. Mix.  22.00  2.50  55.00
Gel.  5 sks  e  11.00  55.00
Chloride  5 sks  e  21.00  105.00
Quickset  
Sales Tax  Handling $1.07/sk. (180 sks)  $180.00
Mileage 0.41/sk/mi. (34 mi)  $144.80
Sub Total  $1,174.80
Total  $1,303.80

Floating Equipment  Thanks

RECEIVED
KANSAS CORPORATION COMMISSION
CONSERVATION DIVISION
WICHITA, KS

DEC 18 1992  SEP 24 1992

Remarks: Cement Circulated
**ALLIED CEMENTING CO., INC.**

**Home Office P. O. Box 31**

**Russell, Kansas 67665**

**DEC 18, 1992**

**CONFIDENTIAL**

**Date:** 9-25-92

**Sec.:** 28  
**Twp.:** 6S  
**Range:** 20W  
**Calif.**  
**On Location:** Logan 105-45E  
**Job Start:** 9-26-92  
**Finish:** 1-15 A.M.

**Lease:** Nanette Higgins  
**Well No.:** 2  
**Location:** Logan 105-45E  
**County:** Rooks  
**State:** KS

**Contractor:** Martin Drilling Co.  
**Rig #:** 8

**Owner:** Same

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

**Charge:** To Ritchie Exploration, Inc.

**Street:** 125 N. Market, Suite 1800  
**City:** Wichita  
**State:** KS 67202-1775

The above was done to satisfaction and supervision of owner agent or contractor.

**Purchase Order #:**

**KANSAS CORPORATION COMMISSION:**

**PERF.**

**DEC 18, 1992**

**Cement**

**Amount Ordered:** 125 sks 60% poz 10% salt.

Consisting of:

- 375 gal. silicate $5.00/gal. WER II
- 33.4 gal. silicate $3.75/gal.  
- 33.4 gal. silicate $3.75/gal.  
- 12 sks 4% Hydro  
- 2 sks 4% Hydro  
- 1 sks 4% Hydro  
- 1 sks 4% Hydro  
- 1 sks 4% Hydro  
- 1 sks 4% Hydro

**Quickset:**

- 500 gal. 504/gal.  
- 250.00

**Sales Tax:**

- 125.00

**Handling:**

- 1 sks 125.00

**Mileage:**

- 0.00  
- 0.00  
- 0.00  
- 0.00  
- 0.00  
- 0.00  
- 0.00  
- 0.00  
- 0.00

**Sub Total:** 1246.42

**Total:**

- 1246.42

**Remarks:**

- Float Held
- Plugged out hole w/15 sks.

**Thanks**

**OCT 5, 1992**
**ALLIED CEMENTING CO., INC.**
Home Office P.O. Box 31
Russell, Kansas 67665

<table>
<thead>
<tr>
<th>Date</th>
<th>Sec.</th>
<th>Fwp.</th>
<th>Range</th>
<th>Called Out</th>
<th>On Location</th>
<th>Job Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-9-92</td>
<td>28</td>
<td>6 S</td>
<td>20 W</td>
<td>9:00 AM</td>
<td>1:00 PM</td>
<td>1:45 PM</td>
<td>6:45 PM</td>
</tr>
</tbody>
</table>

**Contractor:** Leon's Drilling Service

**Type Job:** PORT COLLAR (CIRC. CEMENT)

<table>
<thead>
<tr>
<th>Hole Size</th>
<th>Casing</th>
<th>T.D.</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 1/2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tg. Size</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drill Pipe</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1786</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tool</th>
<th>X-PIER (Dick)</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1786</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cement Left in Casing</th>
<th>Shoe Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Press Max.</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 #</td>
<td>600 #</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meas Line</th>
<th>Displace</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Owner:** 5N 4E

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cements and helper to assist owner or contractor to do work as listed:

**Charge To:** Ritchie Exploration

**Street:** 1705 Anthony Drive

**City:** Hays

**State:** Kansas

**County:** Rooks

**State:** Kansas

The above was done to satisfaction and supervision of owner agent or contractor.

**Purchase Order No.**

**Cement**

<table>
<thead>
<tr>
<th>Amount Ordered</th>
<th>390 SK 5% 90 PCE 9% GEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consisting of</td>
<td></td>
</tr>
<tr>
<td>Common</td>
<td>19.5 SKS 0 5 50</td>
</tr>
<tr>
<td>Poz. Mix</td>
<td>19.5 SKS 0 2 30</td>
</tr>
<tr>
<td>Gel</td>
<td>20 SKS 0 6 75</td>
</tr>
<tr>
<td>Chloride</td>
<td>135 00</td>
</tr>
<tr>
<td>Quicksand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 75</td>
</tr>
<tr>
<td>Handling</td>
<td>390 00</td>
</tr>
<tr>
<td>Mileage</td>
<td>48.60</td>
</tr>
</tbody>
</table>

**RECEIVER**

**DISPATCH**

KANSAS CORPORATION COMMISSION

**CONSERVATION DIVISION**

**WICHITA, KS**

**DEPT.**

2 5 9 3 35

**Remarks:**

Load hole & Test Bridge Plug to 1,000 # & Held, Spot Sand @ 1835

Came up & Opened Port Collar (1786) Mixed SK Cement, Had Good Circulation, Displaced 68% & Closed Port Collar. Washed Tubing Clean. Went Down to 3160 & Washed Sand Off Bridge Plug

Came out w/ Tubing & Loaded Hole.

**OCT 22 1992**