CONFIDENTIAL

# Ricketts Testing, Inc.

15-127-20565

ORIGINAL

Company KNIGHTON OIL CO., INC. Lease & Well No. HAILEY #1

Elevation 1473 KB Formation KANSAS CITY Effective Pay ____ ft. Ticket No. 1867

Date 10-13-97 Sec. 11 Twp. 16 Range 7E County MORRIS State KANSAS

Test Approved by DAVE MONTAGUE Ricketts Representative JIM RICKETTS

Formation Test No. 1 Interval Tested from 1369 ft. to 1380 ft. Total Depth 1380 ft.

Packer Depth 1369 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 1366 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 1374 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 1377 ft. Recorder Number 13306 Cap. 4625

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Summit Drilling Rig #1 Drill Collar Length 315 I.D. 2.25 in.

Mud Type Chemical Viscosity 45 Weight Pipe Length ____ I.D. ____ in.

Weight 9.2 Water Loss ____ cc. Drill Pipe Length 1034 I.D. 3.25 in.

Chlorides ____ P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 11 ft. Size 5½ in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Gravity Oil ____ Main Hole Size 7 7/8 in. Tool Joint Size 3½xh in.

Blow: Weak blow building to 6" in water Initial Flow Period.
Strong blow Final Flow Period.

Recovered 1 ft. of Mud

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: No gas detected in pipe.

RELEASED

OCT 05 2000

FROM CONFIDENTIAL

Time Set Packer (s) 5:50 A.M. Time Started Off Bottom 8:15 A.M. Maximum Temperature 74°

| | | | | |
|---|---|---|---|---|
| Initial Hydrostatic Pressure | | (A) | 759 | P.S.I. |
| Initial Flow Period | Minutes 30 | (B) | 37 | P.S.I. to |
| | | (C) | 21 | P.S.I. |
| Initial Closed In Period | Minutes 30 | (D) | 313 | P.S.I. |
| Final Flow Period | Minutes 45 | (E) | 37 | P.S.I. to |
| | | (F) | 21 | P.S.I. |
| Final Closed In Period | Minutes 60 | (G) | 318 | P.S.I. |
| Final Hydrostatic Pressure | | (H) | 759 | P.S.I. |

# RICKETTS TESTING, INC.

## Pressure Data

Date 10-13-97 Test Ticket No. 1867

Recorder No. 13307 Capacity 4650 Location 1374 Ft.

Clock No. Elevation 1473 K.B. Well Temperature 74 °F

| Point | | Pressure | |
|---|---|---|---|
| A | Initial Hydrostatic Mud | 759 | P.S.I. |
| B | First Initial Flow Pressure | 37 | P.S.I. |
| C | First Final Flow Pressure | 21 | P.S.I. |
| D | Initial Closed-in Pressure | 313 | P.S.I. |
| E | Second Initial Flow Pressure | 37 | P.S.I. |
| F | Second Final Flow Pressure | 21 | P.S.I. |
| G | Final Closed-in Pressure | 318 | P.S.I. |
| H | Final Hydrostatic Mud | 759 | P.S.I. |

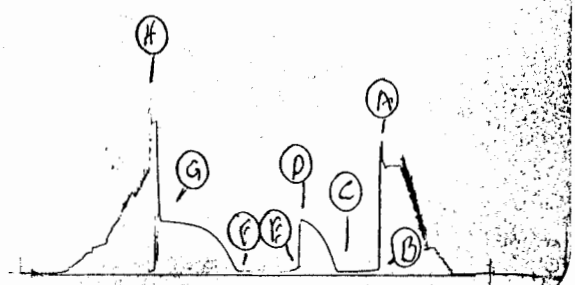
| | Time Given | Time Computed |
|---|---|---|
| Open Tool | 5:50 A M | |
| First Flow Pressure | 30 Mins. | 30 Mins. |
| Initial Closed-in Pressure | 30 Mins. | 30 Mins. |
| Second Flow Pressure | 45 Mins. | 45 Mins. |
| Final Closed-in Pressure | 60 Mins. | 60 Mins. |

## PRESSURE BREAKDOWN

| First Flow Pressure | | Initial Shut-In | | Second Flow Pressure | | Final Shut-In | |
|---|---|---|---|---|---|---|---|
| Breakdown: 6 Inc. | | Breakdown: 10 Inc. | | Breakdown: 9 Inc. | | Breakdown: 20 Inc. | |
| of 5 mins. and a | | of 3 mins. and a | | of 5 mins. and a | | of 3 mins. and a | |
| final inc. of Min. | | final inc. of Min. | | final inc. of Min. | | final inc. of Min. | |
| Point Mins. | Press. | Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
| P 1 0 | 37 | 0 | 21 | 0 | 37 | 0 | 21 |
| P 2 5 | 30 | 3 | 51 | 5 | 32 | 3 | 41 |
| P 3 10 | 25 | 6 | 120 | 10 | 28 | 6 | 97 |
| P 4 15 | 21 | 9 | 171 | 15 | 21 | 9 | 134 |
| P 5 20 | 21 | 12 | 210 | 20 | 21 | 12 | 176 |
| P 6 25 | 21 | 15 | 241 | 25 | 21 | 15 | 203 |
| P 7 30 | 21 | 18 | 268 | 30 | 21 | 18 | 227 |
| P 8 35 | | 21 | 287 | 35 | 21 | 21 | 245 |
| P 9 40 | | 24 | 299 | 40 | 21 | 24 | 261 |
| P10 45 | | 27 | 307 | 45 | 21 | 27 | 273 |
| P11 50 | | 30 | 313 | 50 | | 30 | 281 |
| P12 55 | | 33 | | 55 | | 33 | 287 |
| P13 60 | | 36 | | 60 | | 36 | 294 |
| P14 65 | | 39 | | 65 | | 39 | 299 |
| P15 70 | | 42 | | 70 | | 42 | 303 |
| P16 75 | | 45 | | 75 | | 45 | 308 |
| P17 80 | | 48 | | 80 | | 48 | 311 |
| P18 85 | | 51 | | 85 | | 51 | 314 |
| P19 90 | | 54 | | 90 | | 54 | 316 |
| P20 95 | | 57 | | | | 57 | 317 |
| | | 60 | | | | 60 | 318 |

DST #1 TK # 1867






This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 754 | 759 | PSI |
| (B) | First Initial Flow Pressure | 35 | 37 | PSI |
| (C) | First Final Flow Pressure | 23 | 21 | PSI |
| (D) | Initial Closed-in Pressure | 324 | 313 | PSI |
| (E) | Second Initial Flow Pressure | 35 | 37 | PSI |
| (F) | Second Final Flow Pressure | 23 | 21 | PSI |
| (G) | Final Closed-in Pressure | 324 | 318 | PSI |
| (H) | Final Hydrostatic Mud | 754 | 759 | PSI |

COMPANY KNIGHTON OIL CO., INC. LEASE AND WELL NO. HAILEY #1 SEC. 11 TWP. 16 RGE. 7E TEST NO. 1 DATE 10-13-97

CONFIDENTIAL

# Ricketts Testing, Inc.

15-127-20565

ORIGINAL

Company KNIGHTON OIL CO., INC. Lease & Well No. HEILEY #1

Elevation 2473 K.B. Formation KANSAS CITY Effective Pay ____ ft. Ticket No. 1868

Date 10-14-97 Sec. 11 Twp. 16 Range 7E County MORRIS State KANSAS

Test Approved by DAVE MONTAGUE Ricketts Representative JIM RICKETTS

Formation Test No. 2 Interval Tested from 1380 ft. to 1394 ft. Total Depth 1394 ft.

Packer Depth 1380 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 1377 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 1385 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 1388 ft. Recorder Number 13306 Cap. 4625

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Summit Drilling Rig #1 Drill Collar Length 315 I.D. 2.25 in.

Mud Type Chemical Viscosity ____ Weight Pipe Length ____ I.D. ____ in.

Weight 9.3 Water Loss 7.6 cc. Drill Pipe Length 1045 I.D. 3.25 in.

Chlorides 1000 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 14 ft. Size 5½ in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Gravity Oil ____ Main Hole Size 7 7/8 in. Tool Joint Size 3½xh in.

Blow: Strong blow Initial Flow Period. Gas to surface in 11 minutes.
Strong blow Final Flow Period. Gauged 15,400 CFPD.

Recovered 30 ft. of Mud.

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

RELEASED

FROM CONFIDENTIAL

Remarks: ____

Time Set Packer (s) 10:46 P M. Time Started Off Bottom 2:16 A M. Maximum Temperature 73°

Initial Hydrostatic Pressure ..... (A) 709 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 17 P.S.I. to (C) 17 P.S.I.

Initial Closed In Period ..... Minutes 60 (D) 357 P.S.I.

Final Flow Period ..... Minutes 60 (E) 17 P.S.I. to (F) 17 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 357 P.S.I.

Final Hydrostatic Pressure ..... (H) 698 P.S.I.

# Ricketts Testing

## GAS FLOW REPORT

Date 10-14-97 Ticket 1868 Company Knighton Oil Co., Inc.

Well Name and No. Hailey #1 Dst No. 2 Interval Tested 1380-1394

County Morris State Kansas Sec. 11 Twp. 16 Rg. 7E

| Time Gauge Pre-Flow | Time Gauge in Min. | P.S.I. on Merla Orifice Well Tester | P.S.I. on Pitot Tester | P.S.I. on Side Static Tester | P.S.I. on U-Tube Tester | Description of Flow |
|---|---|---|---|---|---|---|
| 1/4" Orifice | | | | **PRE FLOW** | | |
| 11:06PM | 20 | 24 IOW | | | | 8,220 CFPD |
| 11:16 | 30 | 26 IOW | | | | 8,560 CFPD |
| | | | | | | |
| | | | | | | |
| | | | GAS TO SURFACE IN 11 MINUTES INITIAL FLOW PERIOD. | | | |
| | | | | | | |
| 1/2" Orifice | | | | **SECOND FLOW** | | |
| 12:26AM | 10 | 6 IOW | | | | 15,400 CFPD |
| 12:36AM | 20 | 6 IOW | | | | 15,400 CFPD |
| 12:46AM | 30 | 6 IOW | | | | 15,400 CFPD |
| 12:56AM | 40 | 6 IOW | | | | 15,400 CFPD |
| 1:06AM | 50 | 6 IOW | | | | 15,400 CFPD |
| 1:16AM | 60 | 6 IOW | | | | 15,400 CFPD |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**GAS BOTTLE**

Serial No. _____ Date Bottle Filled 10-14-97 Date to be Invoiced _____

Requisition and Provisions for high pressure steel gas bottles. Ricketts Testing shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Ricketts Testing within thirty (30) days free of charge or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

FORM 6

# RICKETTS TESTING, INC.

## Pressure Data

Date 10-14-97 Test Ticket No. 1868

Recorder No. 13306 Capacity 4625 Location 1388 Ft.

Clock No. Elevation 1473 K.B. Well Temperature 73 °F

| Point | Pressure | | Time Given | Time Computed |
|---|---|---|---|---|
| A Initial Hydrostatic Mud | 709 P.S.I. | Open Tool | 10:46 $P_M$ | |
| B First Initial Flow Pressure | 17 P.S.I. | First Flow Pressure | 30 Mins. | 30 Mins. |
| C First Final Flow Pressure | 17 P.S.I. | Initial Closed-in Pressure | 60 Mins. | 60 Mins. |
| D Initial Closed-in Pressure | 357 P.S.I. | Second Flow Pressure | 60 Mins. | 60 Mins. |
| E Second Initial Flow Pressure | 17 P.S.I. | Final Closed-in Pressure | 60 Mins. | 60 Mins. |
| F Second Final Flow Pressure | 17 P.S.I. | | | |
| G Final Closed-in Pressure | 357 P.S.I. | | | |
| H Final Hydrostatic Mud | 698 P.S.I. | | | |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

| Point Mins. | Press. |
|---|---|
| P 1 0 | 17 |
| P 2 5 | 17 |
| P 3 10 | 17 |
| P 4 15 | 17 |
| P 5 20 | 17 |
| P 6 25 | 17 |
| P 7 30 | 17 |
| P 8 35 | |
| P 9 40 | |
| P10 45 | |
| P11 50 | |
| P12 55 | |
| P13 60 | |
| P14 65 | |
| P15 70 | |
| P16 75 | |
| P17 80 | |
| P18 85 | |
| P19 90 | |
| P20 95 | |

**Initial Shut-In**
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of ____ Min.

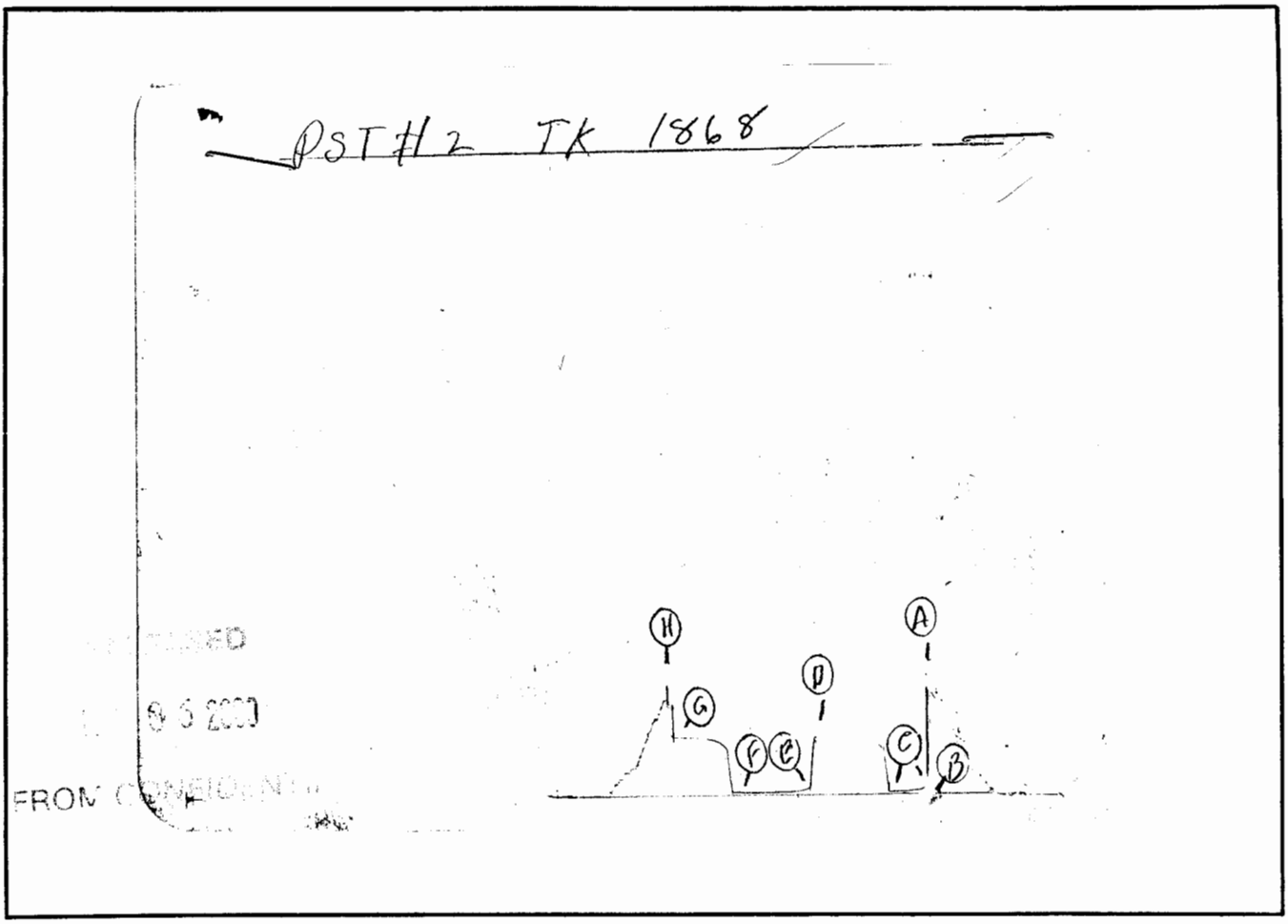
| Point Minutes | Press. |
|---|---|
| 0 | 17 |
| 3 | 200 |
| 6 | 284 |
| 9 | 312 |
| 12 | 331 |
| 15 | 338 |
| 18 | 345 |
| 21 | 348 |
| 24 | 352 |
| 27 | 354 |
| 30 | 356 |
| 33 | 357 |
| 36 | 357 |
| 39 | 357 |
| 42 | 357 |
| 45 | 357 |
| 48 | 357 |
| 51 | 357 |
| 54 | 357 |
| 57 | 357 |
| 60 | 357 |

**Second Flow Pressure**
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of ____ Min.

| Point Minutes | Press. |
|---|---|
| 0 | 17 |
| 5 | 17 |
| 10 | 17 |
| 15 | 17 |
| 20 | 17 |
| 25 | 17 |
| 30 | 17 |
| 35 | 17 |
| 40 | 17 |
| 45 | 17 |
| 50 | 17 |
| 55 | 17 |
| 60 | 17 |
| 65 | |
| 70 | |
| 75 | |
| 80 | |
| 85 | |
| 90 | |
| | |

**Final Shut-In**
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of ____ Min.

| Point Minutes | Press. |
|---|---|
| 0 | 17 |
| 3 | 224 |
| 6 | 289 |
| 9 | 314 |
| 12 | 331 |
| 15 | 343 |
| 18 | 347 |
| 21 | 350 |
| 24 | 352 |
| 27 | 353 |
| 30 | 354 |
| 33 | 355 |
| 36 | 356 |
| 39 | 357 |
| 42 | 357 |
| 45 | 357 |
| 48 | 357 |
| 51 | 357 |
| 54 | 357 |
| 57 | 357 |
| 60 | 357 |




This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 708 | 709 | PSI |
| (B) | First Initial Flow Pressure | 19 | 17 | PSI |
| (C) | First Final Flow Pressure | 19 | 17 | PSI |
| (D) | Initial Closed-in Pressure | 353 | 357 | PSI |
| (E) | Second Initial Flow Pressure | 19 | 17 | PSI |
| (F) | Second Final Flow Pressure | 19 | 17 | PSI |
| (G) | Final Closed-in Pressure | 352 | 357 | PSI |
| (H) | Final Hydrostatic Mud | 708 | 698 | PSI |

COMPANY KNIGHTON OIL CO., INC. LEASE AND WELL NO. HAILEY #1 SEC. 11 TWP. 16 [illegible] 7E [illegible] 2 [illegible] 10-14-

CONFIDENTIAL

# Ricketts Testing, Inc.

15-127-20565

ORIGINAL

Company KNIGHTON OIL CO., INC. Lease & Well No. HAILEY #1

Elevation 1473 K.B. Formation KANSAS CITY Effective Pay ____ ft. Ticket No. 1869

Date 10-15-97 Sec. 11 Twp. 16 Range 7E County MORRIS State KANSAS

Test Approved by DAVE MONTAGUE Ricketts Representative JIM RICKETTS

Formation Test No. 3 Interval Tested from 1394 ft. to 1410 ft. Total Depth 1410 ft.

Packer Depth 1394 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 1391 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 1399 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 1402 ft. Recorder Number 13306 Cap. 4625

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Summit Drilling Rig #1 Drill Collar Length 315 I.D. 2.25 in.

Mud Type Chemical Viscosity 41 Weight Pipe Length ____ I.D. ____ in.

Weight 9.3 Water Loss 8 cc. Drill Pipe Length 1059 I.D. 3.25 in.

Chlorides 1000 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 16 ft. Size 5½ in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Gravity Oil ____ Main Hole Size 7 7/8 in. Tool Joint Size 3½xh in.

Blow: Strong blow Initial Flow Period. Gas to surface in 29 minutes.

Strong blow Final Flow Period. Gauged 21,900 CFPD

Recovered 31 ft. of Mud.

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: ____

RELEASED

DEC 03 2007

FROM CONFIDENTIAL

Time Set Packer (s) 9:52 A M. Time Started Off Bottom 1:37 P M. Maximum Temperature 75°

Initial Hydrostatic Pressure ..... (A) 720 P.S.I.

Initial Flow Period ..... Minutes 45 (B) 30 P.S.I. to (C) 23 P.S.I.

Initial Closed In Period ..... Minutes 60 (D) 357 P.S.I.

Final Flow Period ..... Minutes 60 (E) 30 P.S.I. to (F) 23 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 357 P.S.I.

Final Hydrostatic Pressure ..... (H) 720 P.S.I.

# Ricketts Testing

## GAS FLOW REPORT

Date 10-15-97 Ticket 1869 Company Knighton Oil Co., Inc.

Well Name and No. Hailey #1 Dst No. 3 Interval Tested 1394-1410

County Morris State Kansas Sec. 11 Twp. 16 Rg. 7E

| Time Gauge Pre-Flow | Time Gauge in Min. | P.S.I. on Merla Orifice Well Tester | P.S.I. on Pitot Tester | P.S.I. on Side Static Tester | P.S.I. on U-Tube Tester | Description of Flow |
|---|---|---|---|---|---|---|
| 1/4" Orifice | | | | **PRE FLOW** | | |
| 10:32AM | 40 | 34 IOW | | | | 9,790 CFPD |
| 10:37 | 45 | 34 IOW | | | | 9,790 CFPD |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 1/2" Orifice | | | | **SECOND FLOW** | | |
| 11:47AM | 10 | 9 IOW | | | | 18,800 CFPD |
| 11:57AM | 20 | 10 IOW | | | | 19,900 CFPD |
| 12:07PM | 30 | 10 IOW | | | | 19,900 CFPD |
| 12:17PM | 40 | 11 IOW | | | | 20,900 CFPD |
| 12:27PM | 50 | 11 IOW | | | | 20,900 CFPD |
| 12:37PM | 60 | 12 IOW | | | | 21,900 CfPD |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**GAS BOTTLE**

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure steel gas bottles. Ricketts Testing shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Ricketts Testing within thirty (30) days free of charge or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

FORM 6

# RICKETTS TESTING, INC.

## Pressure Data

Date 10-15-97 Test Ticket No. 1869

Recorder No. 13306 Capacity 4625 Location 1402 Ft.

Clock No. Elevation 1473 K.B. Well Temperature 75 °F

| Point | Pressure | | Time Given | Time Computed |
|---|---|---|---|---|
| A Initial Hydrostatic Mud | 720 P.S.I. | Open Tool | 9:52 A M | |
| B First Initial Flow Pressure | 30 P.S.I. | First Flow Pressure | 45 Mins. | 45 Mins. |
| C First Final Flow Pressure | 23 P.S.I. | Initial Closed-in Pressure | 60 Mins. | 60 Mins. |
| D Initial Closed-in Pressure | 357 P.S.I. | Second Flow Pressure | 60 Mins. | 60 Mins. |
| E Second Initial Flow Pressure | 30 P.S.I. | Final Closed-in Pressure | 60 Mins. | 60 Mins. |
| F Second Final Flow Pressure | 23 P.S.I. | | | |
| G Final Closed-in Pressure | 357 P.S.I. | | | |
| H Final Hydrostatic Mud | 720 P.S.I. | | | |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 9 Inc. of 5 mins. and a final inc. of Min.

| Point Mins. | Press. |
|---|---|
| P 1 0 | 30 |
| P 2 5 | 30 |
| P 3 10 | 28 |
| P 4 15 | 28 |
| P 5 20 | 28 |
| P 6 25 | 28 |
| P 7 30 | 26 |
| P 8 35 | 25 |
| P 9 40 | 24 |
| P10 45 | 23 |
| P11 50 | |
| P12 55 | |
| P13 60 | |
| P14 65 | |
| P15 70 | |
| P16 75 | |
| P17 80 | |
| P18 85 | |
| P19 90 | |
| P20 95 | |

**Initial Shut-In**
Breakdown: 20 Inc. of 3 mins. and a final inc. of Min.

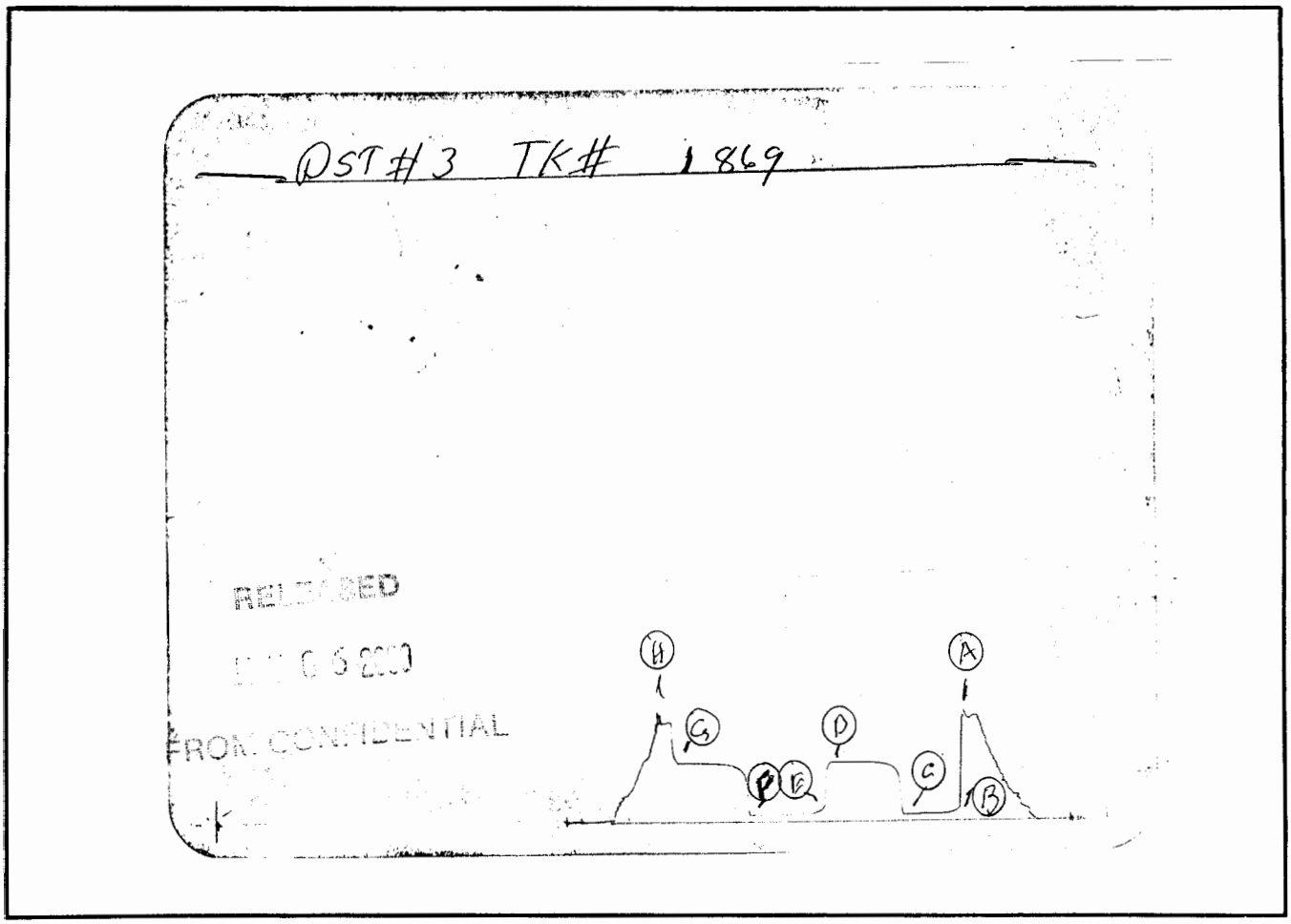
| Point Minutes | Press. |
|---|---|
| 0 | 23 |
| 3 | 218 |
| 6 | 305 |
| 9 | 324 |
| 12 | 343 |
| 15 | 346 |
| 18 | 348 |
| 21 | 350 |
| 24 | 354 |
| 27 | 355 |
| 30 | 356 |
| 33 | 357 |
| 36 | 357 |
| 39 | 357 |
| 42 | 357 |
| 45 | 357 |
| 48 | 357 |
| 51 | 357 |
| 54 | 357 |
| 57 | 357 |
| 60 | 357 |

**Second Flow Pressure**
Breakdown: 12 Inc. of 5 mins. and a final inc. of Min.

| Point Minutes | Press. |
|---|---|
| 0 | 30 |
| 5 | 30 |
| 10 | 29 |
| 15 | 28 |
| 20 | 27 |
| 25 | 26 |
| 30 | 25 |
| 35 | 24 |
| 40 | 23 |
| 45 | 23 |
| 50 | 23 |
| 55 | 23 |
| 60 | 23 |
| 65 | |
| 70 | |
| 75 | |
| 80 | |
| 85 | |
| 90 | |

**Final Shut-In**
Breakdown: 20 Inc. of 3 mins. and a final inc. of Min.

| Point Minutes | Press. |
|---|---|
| 0 | 23 |
| 3 | 208 |
| 6 | 298 |
| 9 | 321 |
| 12 | 332 |
| 15 | 343 |
| 18 | 345 |
| 21 | 347 |
| 24 | 349 |
| 27 | 351 |
| 30 | 353 |
| 33 | 355 |
| 36 | 357 |
| 39 | 357 |
| 42 | 357 |
| 45 | 357 |
| 48 | 357 |
| 51 | 357 |
| 54 | 357 |
| 57 | 357 |
| 60 | 357 |




This is an actual photograph of recorder chart.

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 720 | 720 | PSI |
| (B) | First Initial Flow Pressure | 30 | 30 | PSI |
| (C) | First Final Flow Pressure | 19 | 23 | PSI |
| (D) | Initial Closed-in Pressure | 376 | 357 | PSI |
| (E) | Second Initial Flow Pressure | 30 | 30 | PSI |
| (F) | Second Final Flow Pressure | 19 | 23 | PSI |
| (G) | Final Closed-in Pressure | 376 | 357 | PSI |
| (H) | Final Hydrostatic Mud | 720 | 720 | PSI |

COMPANY KNIGHTON OIL CO., INC. LEASE AND WELL NO. HAILEY #1 SEC. 11 TWP. 16 RGE. 7E TEST NO. 3 DATE 10-15-97

ORIGINAL

# Ricketts Testing, Inc.

15-127-20565

CONFIDENTIAL

Company KNIGHTON OIL CO., INC. Lease & Well No. HAILEY #1

Elevation 1473 K.B. Formation SIMPSON SAND Effective Pay ____ ft. Ticket No. 1870

Date 10-16-97 Sec. 11 Twp. 16 Range 7E County MORRIS State KANSAS

Test Approved by DAVE MONTAGUE Ricketts Representative JIM RICKETTS

Formation Test No. 4 Interval Tested from 1849 ft. to 1865 ft. Total Depth 1865 ft.

Packer Depth 1849 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Packer Depth 1846 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 1854 ft. Recorder Number 13307 Cap. 4650

Bottom Recorder Depth (Outside) 1857 ft. Recorder Number 13306 Cap. 4625

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Summit Drilling Rig #1 Drill Collar Length 315 I.D. 2.25 in.

Mud Type Chemical Viscosity 45 Weight Pipe Length ____ I.D. ____ in.

Weight 9.3 Water Loss 8.0 cc. Drill Pipe Length 1514 I.D. 3.25 in.

Chlorides 800 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make ____ Serial Number ____ Anchor Length 16 ft. Size 5½ in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Gravity Oil ____ Main Hole Size 7 7/8 in. Tool Joint Size 3½xh in.

Blow: Very weak blow Initial Flow Period. Died in 22 minutes.

No blow Final Flow Period.

Recovered 2 ft. of Mud with a show of oil.

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

RELEASED

FROM CONFIDENTIAL

Remarks: ____

Time Set Packer (s) 6:38 P M. Time Started Off Bottom 9:08 P M. Maximum Temperature 84°

Initial Hydrostatic Pressure ..... (A) 935 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 23 P.S.I. to (C) 23 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 38 P.S.I.

Final Flow Period ..... Minutes 30 (E) 23 P.S.I. to (F) 23 P.S.I.

Final Closed In Period ..... Minutes 45 (G) 45 P.S.I.

Final Hydrostatic Pressure ..... (H) 932 P.S.I.

# RICKETTS TESTING, INC.

## Pressure Data

Date 10-16-97 Test Ticket No. 1870

Recorder No. 13307 Capacity 4650 Location 1854 Ft.

Clock No. Elevation 1473 K.B. Well Temperature 84 °F

| Point | | Pressure | |
|---|---|---|---|
| A | Initial Hydrostatic Mud | 935 | P.S.I. |
| B | First Initial Flow Pressure | 23 | P.S.I. |
| C | First Final Flow Pressure | 23 | P.S.I. |
| D | Initial Closed-in Pressure | 38 | P.S.I. |
| E | Second Initial Flow Pressure | 23 | P.S.I. |
| F | Second Final Flow Pressure | 23 | P.S.I. |
| G | Final Closed-in Pressure | 45 | P.S.I. |
| H | Final Hydrostatic Mud | 932 | P.S.I. |

| | Time Given | Time Computed |
|---|---|---|
| Open Tool | 6:38 P M | |
| First Flow Pressure | 30 Mins. | 30 Mins. |
| Initial Closed-in Pressure | 45 Mins. | 45 Mins. |
| Second Flow Pressure | 30 Mins. | 30 Mins. |
| Final Closed-in Pressure | 45 Mins. | 45 Mins. |

## PRESSURE BREAKDOWN

**First Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

| Point Mins. | Press. |
|---|---|
| P 1 0 | 23 |
| P 2 5 | 23 |
| P 3 10 | 23 |
| P 4 15 | 23 |
| P 5 20 | 23 |
| P 6 25 | 23 |
| P 7 30 | 23 |
| P 8 35 | |
| P 9 40 | |
| P10 45 | |
| P11 50 | |
| P12 55 | |
| P13 60 | |
| P14 65 | |
| P15 70 | |
| P16 75 | |
| P17 80 | |
| P18 85 | |
| P19 90 | |
| P20 95 | |

**Initial Shut-In**
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of ____ Min.

| Point Minutes | Press. |
|---|---|
| 0 | 23 |
| 3 | 23 |
| 6 | 24 |
| 9 | 24 |
| 12 | 25 |
| 15 | 25 |
| 18 | 26 |
| 21 | 26 |
| 24 | 27 |
| 27 | 27 |
| 30 | 28 |
| 33 | 30 |
| 36 | 32 |
| 39 | 34 |
| 42 | 36 |
| 45 | 38 |
| 48 | |
| 51 | |
| 54 | |
| 57 | |
| 60 | |

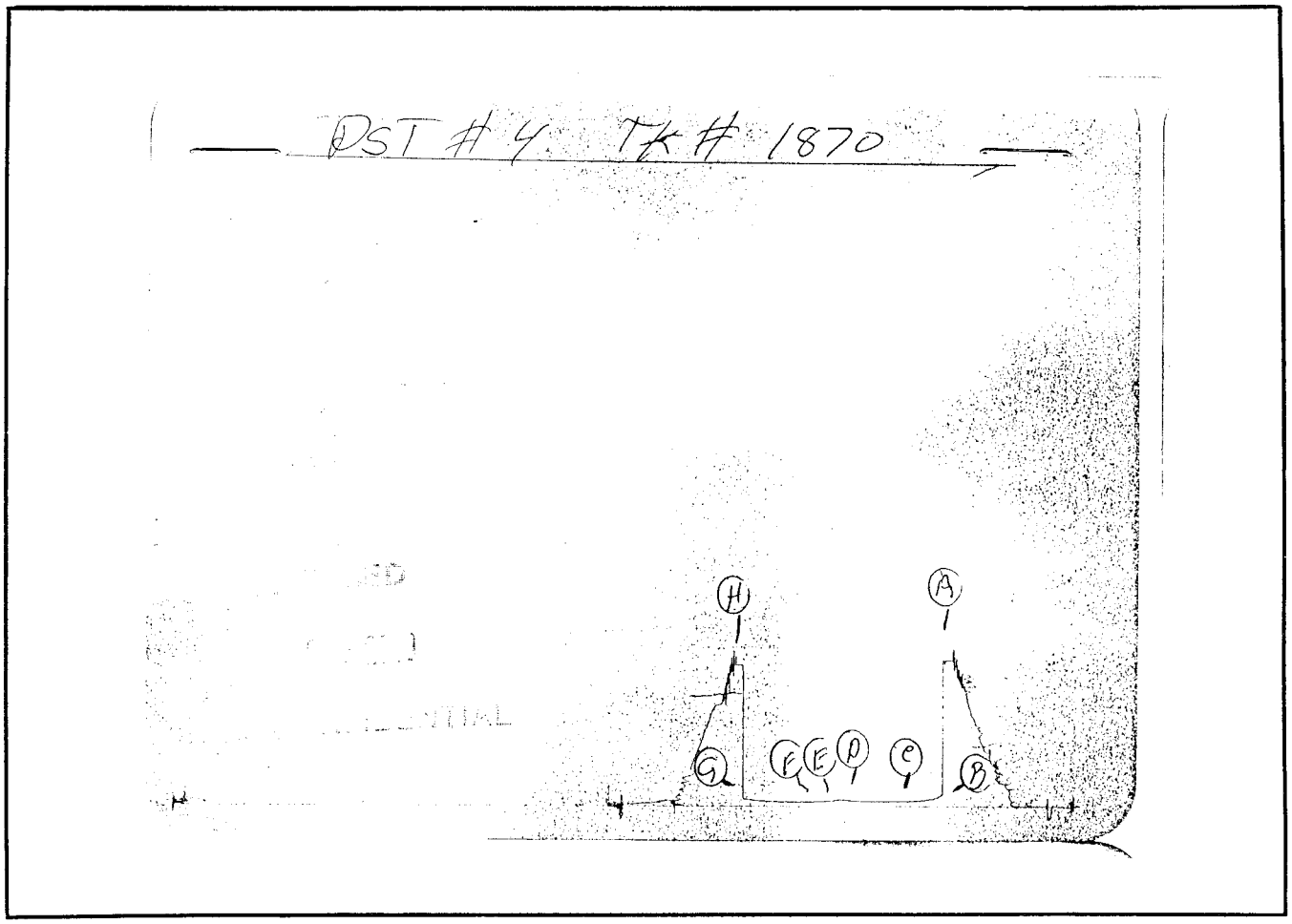
**Second Flow Pressure**
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of ____ Min.

| Point Minutes | Press. |
|---|---|
| 0 | 23 |
| 5 | 23 |
| 10 | 23 |
| 15 | 23 |
| 20 | 23 |
| 25 | 23 |
| 30 | 23 |
| 35 | |
| 40 | |
| 45 | |
| 50 | |
| 55 | |
| 60 | |
| 65 | |
| 70 | |
| 75 | |
| 80 | |
| 85 | |
| 90 | |

**Final Shut-In**
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of ____ Min.

| Point Minutes | Press. |
|---|---|
| 0 | 23 |
| 3 | 23 |
| 6 | 24 |
| 9 | 24 |
| 12 | 25 |
| 15 | 25 |
| 18 | 26 |
| 21 | 28 |
| 24 | 30 |
| 27 | 32 |
| 30 | 35 |
| 33 | 37 |
| 36 | 39 |
| 39 | 41 |
| 42 | 43 |
| 45 | 45 |
| 48 | |
| 51 | |
| 54 | |
| 57 | |
| 60 | |

COMPANY KNIGHTON OIL CO., INC. LEASE AND WELL NO. HAILEY #1 SEC. 11 TWP. 16 RGE. 7E TEST NO. 4 DATE 10-16-97




This is an actual photograph of recorder chart

| POINT | | PRESSURE Field Reading | Office Reading | |
|---|---|---|---|---|
| (A) | Initial Hydrostatic Mud | 928 | 935 | PSI |
| (B) | First Initial Flow Pressure | 21 | 23 | PSI |
| (C) | First Final Flow Pressure | 21 | 23 | PSI |
| (D) | Initial Closed-in Pressure | 35 | 38 | PSI |
| (E) | Second Initial Flow Pressure | 21 | 23 | PSI |
| (F) | Second Final Flow Pressure | 21 | 23 | PSI |
| (G) | Final Closed-in Pressure | 46 | 45 | PSI |
| (H) | Final Hydrostatic Mud | 928 | 932 | PSI |