

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

API NO. 15- 189-220350000

County Stevens

SE - NW - SW Sec. 9 Twp. 32S Rge. 37 X W E

1375 Feet from S/N (circle one) Line of Section

1250 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 Moorhead #1 Unit Well # 4

Field Name Hugoton

Producing Formation Chase

Elevation: Ground 3145 KB 3145

Total Depth 2956 PBTD 2894

Amount of Surface Pipe Set and Cemented at 677 Feet

Multiple Stage Cementing Collar Used? Yes X No

If yes, show depth set NA Feet

If Alternate II completion, cement circulated from NA

feet depth to NA w/ NA sx cmt.

Drilling Fluid Management Plan alt I 6-6-96  
(Data must be collected from the Reserve Pit) Li

Chloride content 7,000 ppm Fluid volume 165 bbls

Dewatering method used Waste Minimization Mud System

Location of fluid disposal if hauled offsite: KANSAS CORPORATION COMMISSION

Operator Name Mobil Oil Corporation APR 04 1996

Lease Name Hill #3 SWD License No. 5208  
CONSERVATION DIVISION

SW Quarter Sec. 3 Twp. 33 S Rge. 37 X W E

County Stevens Docket No. CD-117710

Operator: License # 5208

Name: Mobil Oil Corporation

Address P.O. Box 2173  
2319 North Kansas Avenue

City/State/Zip Liberal, KS 67905-2173

Purchaser: Spot Market

Operator Contact Person: Sharon Cook

Phone (316) 626-1142

Contractor: Name: Norseman Drilling Inc.

License: 3779

Wellsite Geologist: L. J. Reimer

Designate Type of Completion  
X New Well Re-Entry Workover

Oil SWD SLOW Temp. Abd.  
X Gas ENHR SIGW  
Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Deepening Re-perf. Conv. to Inj/SWD  
Plug Back PBTD

Commingled Docket No. \_\_\_\_\_  
Dual Completion Docket No. \_\_\_\_\_  
Other (SWD or Inj?) Docket No. \_\_\_\_\_

12-20-95 12-23-95 1-12-96  
Spud Date Date Reached TD Completion Date

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 207B, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion 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 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report 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 Sharon A. Cook Sharon A. Cook

Title Regulatory Assistant Date 4-3-96

Subscribed and sworn to before me this 3rd day of April, 19 96.

Notary Public Kathleen R. Poulton

Date Commission Expires August 18, 1998

6-100.kcc

K.C.C. OFFICE USE ONLY

F Letter of Confidentiality Attached

C Wireline Log Received

C Geologist Report Received

Distribution

KCC SWD/Rep NGPA  
KGS Plug Other  
(Specify)

NOTARY PUBLIC - State of Kansas  
KATHLEEN R. POULTON  
My Appt. Exp. 08-18-98

SIDE TWO

Operator Name Mobil Oil Corporation Lease Name Moorhead #1 Unit Well # 4  
 Sec. 9 Twp. 32S Rge. 37  East  West  
 County Stevens

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<br>(Attach Additional Sheets.) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Log Formation (Top), Depth and Datums | <input type="checkbox"/> Sample |
| Samples Sent to Geological Survey                     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Name   | Top Datum                       |
| Cores Taken   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |                                 |
| Electric Log Run<br>(Submit Copy.)                    | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  |                                 |
| List All E.Logs Run:                                  |   |  |                                 |
| NO LOGS RUN   |   |  |                                 |

| CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used |                   |                           |                 |               |                    |              |                            |
|---|-------------------|---------------------------|-----------------|---------------|--------------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc.           |                   |                           |                 |               |                    |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs./Ft. | Setting Depth | Type of Cement     | # Sacks Used | Type and Percent Additives |
| Surface Casing  | 12.250            | 8.625                     | 24#             | 677           | Class C<br>Class C | 225<br>125   | 50:50 C/poz<br>50:50 C/poz |
| Production Casing   | 7.875             | 5.500                     | 14#             | 2946          | Class C<br>Class C | 150<br>75    | 3% D79<br>2% B28           |

| ADDITIONAL CEMENTING/SQUEEZE RECORD     |                  |                |             |                            |  |
|---|------------------|----------------|-------------|----------------------------|--|
| Purpose:                                | Depth Top Bottom | Type of Cement | #Sacks Used | Type and Percent Additives |  |
| <input type="checkbox"/> Perforate      |                  |                |             |                            |  |
| <input type="checkbox"/> Protect Casing |                  |                |             |                            |  |
| <input type="checkbox"/> Plug Back TD   |                  |                |             |                            |  |
| <input type="checkbox"/> Plug Off Zone  |                  |                |             |                            |  |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br>(Amount and Kind of Material Used) | Depth |
|----------------|---|---|-------|
| 1 SPF          | 2638-48   | Acid: 750 gals 7.5% HCL   |       |
|                | 2694-2704   | Fract: 29,820 gals 20# Crosslink gel  |       |
|                | 2752-67   | 141,060 lbs 12/20 Brady Sand  |       |
|                | 2804-19   |   |       |

| TUBING RECORD                                  | Size   | Set At  | Packer At   | Liner Run     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|--|--|---------|-------------|---------------|---|
| Date of First, Resumed Production, SWD or Inj. | Producing Method <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) |         |             |               |   |
| 1-16-96  |  |         |             |               |   |
| Estimated Production Per 24 Hours              | Oil Bbls.  | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity   |
|  |  | 432     |             |               |   |

Disposition of Gas: METHOD OF COMPLETION Production Interval  
 Vented  Sold  Used on Lease  Open Hole  Perf.  Dually Comp.  Commingled 2638  
 (If vented, submit ACO-18.)  Other (Specify) 2819

**CEMENTING SERVICE REPORT**

Schlumberger  
Dowell

**DOWELL SCHLUMBERGER INCORPORATED**

|                                 |                             |
|---------------------------------|-----------------------------|
| TREATMENT NUMBER<br><b>8203</b> | DATE<br><b>2/22/95</b>      |
| STAGE<br><b>DS</b>              | DISTRICT<br><b>OKS 0310</b> |

DS-496-A PRINTED IN U.S.A.

|  |   |
|--|---|
| WELL NAME AND NO.<br><b>Mane Head #1-4</b> | LOCATION (LEGAL)<br><b>SK 9-225-37w</b> |
| FIELD-POOL<br><b>London</b>                | FORMATION<br><b>Chase</b>               |
| COUNTY/PARISH<br><b>Stroms</b>             | STATE<br><b>Kansas</b>                  |
| API. NO.<br><b>199</b>                     | <b>15</b>                               |
| NAME<br><b>Mid. 1</b>                      |   |
| AND  |   |
| ADDRESS                                    |   |
| ZIP CODE                                   |   |

|  |                            |             |             |       |
|--|----------------------------|-------------|-------------|-------|
| RIG NAME:<br><b>Naisman</b>                                    | WELL DATA:                 |             | BOTTOM      | TOP   |
| BIT SIZE<br><b>7 7/8</b>                                       | CSG/Liner Size             |             |             |       |
| TOTAL DEPTH  | WEIGHT                     | <b>14</b>   |             |       |
| <input type="checkbox"/> ROT <input type="checkbox"/> CABLE    | FOOTAGE                    | <b>2100</b> |             |       |
| MUD TYPE   | GRADE                      |             |             |       |
| <input type="checkbox"/> BHST<br><input type="checkbox"/> BHCT | THREAD                     | <b>A-11</b> |             |       |
| MUD DENSITY  | LESS FOOTAGE SHOE JOINT(S) | <b>46</b>   |             |       |
| MUD VISC.  | Disp. Capacity             | <b>2900</b> | <b>70.9</b> | TOTAL |

**ORIGINAL**

SPECIAL INSTRUCTIONS  
**Safety comm 5/2 production csg  
as per customer order**

IS CASING/TUBING SECURED?  YES  NO

LIFT PRESSURE **2598** PSI CASING WEIGHT ÷ SURFACE AREA (3.14 x R<sup>2</sup>)

PRESSURE LIMIT **1500** PSI BUMP PLUG TO **1200** PSI

ROTATE RPM RECIPROCATE FT No. of Centralizers

|  |                             |
|--|-----------------------------|
| NOTE: Include Footage From Ground Level To Head In Disp. Capacity  |                             |
| Float TYPE DEPTH <b>2900</b>   | Stag Tool TYPE DEPTH        |
| Stag Tool TYPE <b>2950</b> DEPTH   |                             |
| Head & Plugs <input type="checkbox"/> TBG <input type="checkbox"/> D.P. SQUEEZE JOB                                    |                             |
| <input type="checkbox"/> Double SIZE   | TOOL TYPE DEPTH             |
| <input checked="" type="checkbox"/> Single <input type="checkbox"/> WEIGHT   |                             |
| <input type="checkbox"/> Swage <input type="checkbox"/> GRADE  | TAIL PIPE: SIZE DEPTH       |
| <input type="checkbox"/> Knockoff <input type="checkbox"/> THREAD  | TUBING VOLUME Bbls          |
| TOP <input type="checkbox"/> OR <input type="checkbox"/> CW <input type="checkbox"/> NEW <input type="checkbox"/> USED | CASING VOL. BELOW TOOL Bbls |
| BOT <input type="checkbox"/> OR <input type="checkbox"/> CW DEPTH  | TOTAL ANNUAL VOLUME Bbls    |

|              |                    |                   |  |   |  |
|--------------|--------------------|-------------------|--|---|--|
| TIME         | PRESSURE           | VOLUME PUMPED BBL | JOB SCHEDULED FOR TIME: <b>12:00</b> DATE: <b>2/22</b> | ARRIVE ON LOCATION TIME: <b>12:00</b> DATE: <b>2/22</b> | LEFT LOCATION TIME: <b>10:00</b> DATE: <b>2/22</b> |
| 0001 to 2400 | TBG OR D.P. CASING | INCREMENT CUM     | INJECT RATE FLUID TYPE FLUID DENSITY                   | SERVICE LOG DETAIL                                      |  |

| TIME  | TBG OR D.P. | CASING | INCREMENT | CUM | INJECT RATE | FLUID TYPE | FLUID DENSITY | SERVICE LOG DETAIL                     |
|-------|-------------|--------|-----------|-----|-------------|------------|---------------|--|
|       | NA          |        |           |     | 1.5         | 1/20       | 8.33          | PRE-JOB SAFETY MEETING <b>Not done</b> |
| 20:28 |             |        | 20        |     | 5.7         |            | 8.33          | <b>Man Ahead</b>                       |
| 20:31 |             |        | 73        |     | 25.7        | Cent       | 11.5          | <b>Start Cement</b>                    |
| 20:42 |             |        | 18        |     | 25.0        | Cent       | 14.8          | <b>Start Tail cmt</b>                  |
| 20:47 |             |        |           |     |             |            |               | <b>split Gum wash down (1) plug</b>    |
| 20:51 |             |        | 709       |     | 5.8         | 1/20       | 8.33          | <b>Displace</b>                        |
| 21:02 |             |        |           |     | 2           | ↓          | ↓             | <b>slow rate</b>                       |
| 21:07 |             |        |           |     | 2           | ↓          | ↓             | <b>Bump plug<br/>Pump held</b>         |

**RECEIVED**  
KANSAS CORPORATION COMMISSION

APR 04 1996

CONSERVATION DIVISION  
WICHITA, KS

REMARKS

| SYSTEM CODE | NO. OF SACKS | YIELD CU. FT/SK | COMPOSITION OF CEMENTING SYSTEMS              |  | SLURRY MIXED |         |
|-------------|--------------|-----------------|---|--|--------------|---------|
|             |              |                 |   |  | BBLs         | DENSITY |
| 1.          |              | 2.75            | Chase C + 3% D79 + 2% D410 + 1/4 #10 Flake    |  | 13.4         | 11.5    |
| 2.          |              | 1.37            | Chase C + 2% B28 + 2% S1 + 10% D410 + 2% D410 |  | 18.3         | 14.8    |
| 3.          |              |                 |   |  |              |         |
| 4.          |              |                 |   |  |              |         |
| 5.          |              |                 |   |  |              |         |
| 6.          |              |                 |   |  |              |         |

|   |  |   |                            |   |
|---|--|---|----------------------------|---|
| BREAKDOWN FLUID TYPE                    | VOLUME   | DENSITY   | PRESSURE                   | MAX. <b>1200</b> MIN: <b>0</b>                                      |
| <input type="checkbox"/> HESITATION SQ. | <input type="checkbox"/> RUNNING SQ.                     | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | Cement Circulated To Surf. | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| BREAKDOWN                               | PSI  | FINAL   | PSI                        | DISPLACEMENT VOL. <b>709</b> Bbls                                   |
| Washed Thru Peris                       | <input type="checkbox"/> YES <input type="checkbox"/> NO | TO  | FT.                        | MEASURED DISPLACEMENT <input checked="" type="checkbox"/> WIRELINE  |
| PERFORATIONS                            | TO   | TO  | CUSTOMER REPRESENTATIVE    | DS SUPERVISOR   |
|   |  |   | <b>Tom Quinning</b>        | <b>Allen Black</b>  |

CEMENTING SERVICE REPORT

Schlumberger

Dowell

DOWELL SCHLUMBERGER INCORPORATED

TREATMENT NUMBER: 0-75-1993 DATE: 12-20-95  
 STAGE: DS DISTRICT: 1115505 Kc

DS-496-A PRINTED IN U.S.A.

|                                     |                                    |   |
|-------------------------------------|------------------------------------|---|
| WELL NAME AND NO.<br>Munrohead #1-4 | LOCATION (LEGAL)<br>Sec. 9-325-37W | RIG NAME:<br>Norseman #2  |
| FIELD-POOL                          | FORMATION                          | WELL DATA:  |
| COUNTY/PARISH<br>Stevens            | STATE<br>Kc.                       | API. NO.  |
| NAME<br>Mobil Oil Corp              | AND                                | ADDRESS   |
| SPECIAL INSTRUCTIONS                | ZIP CODE                           | NOTE: Include Footage From Ground Level To Head In Disp. Capacity |

ORIGINAL

|   |                          |  |   |               |                              |
|---|--------------------------|--|---|---------------|------------------------------|
| IS CASING/TUBING SECURED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | LIFT PRESSURE<br>280 PSI | CASING WEIGHT ÷ SURFACE AREA<br>(3.14 x R <sup>2</sup> ) | IS CASING/TUBING SECURED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | LIFT PRESSURE | CASING WEIGHT ÷ SURFACE AREA |
| PRESSURE LIMIT  | PSI                      | BUMP PLUG TO   | PSI   | ROTATE        | RPM                          |
| RECIPROCATE   | FT                       | No. of Centralizers                                      |   |               |                              |

| TIME         | PRESSURE    |        | VOLUME PUMPED BBL |     | JOB SCHEDULED FOR |      |      | ARRIVE ON LOCATION |      |      | LEFT LOCATION |      |  |
|--------------|-------------|--------|-------------------|-----|-------------------|------|------|--------------------|------|------|---------------|------|--|
|              | TBG OR D.P. | CASING | INCREMENT         | CUM | TIME              | DATE | TIME | DATE               | TIME | DATE | TIME          | DATE |  |
| 0001 to 2400 |             |        |                   |     |                   |      |      |                    |      |      |               |      |  |
| 1531         | 0           | 10     |                   |     | 5.3               | H70  |      |                    |      |      |               |      |  |
| 1533         | 220         | 78     |                   |     | 5.3               | cmf  | 12.8 |                    |      |      |               |      |  |
| 1541         | 150         | 44     |                   |     | 5.3               | cmf  | 12.8 |                    |      |      |               |      |  |
| 1552         | 170         | 28     |                   |     | 4                 | cmf  | 14.6 |                    |      |      |               |      |  |
| 1555         | 210         | 21     |                   |     | 5.2               | cmf  | 14.6 |                    |      |      |               |      |  |
| 1557         | 0           |        |                   |     |                   |      |      |                    |      |      |               |      |  |
| 1559         | 0           | 41     |                   |     | 5.2               | H70  |      |                    |      |      |               |      |  |
| 1601         | 100         | 10     |                   |     | 5.2               | H70  |      |                    |      |      |               |      |  |
| 1603         | 190         | 30     |                   |     | 5.2               |      |      |                    |      |      |               |      |  |
| 1606         | 200         | 33     |                   |     | 3                 |      |      |                    |      |      |               |      |  |
| 1608         | 220         | 39     |                   |     | 3                 |      |      |                    |      |      |               |      |  |
| 1609         | 200         | 41     |                   |     | 3                 |      |      |                    |      |      |               |      |  |

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 KANSAS CORPORATION COMMISSION  
 APR 04 1996  
 CONSERVATION DIVISION  
 WICHITA, KS

REMARKS

| SYSTEM CODE | NO. OF SACKS | YIELD CU. FT/SK | COMPOSITION OF CEMENTING SYSTEMS                    |   |   |   | SLURRY MIXED |         |      |
|-------------|--------------|-----------------|---|---|---|---|--------------|---------|------|
|             |              |                 | 1   | 2 | 3 | 4 | BBLs         | DENSITY |      |
| 1.          |              | 1.89            | 50% cement + 10% gel + 3% calc + 5% DV4 + 1/4 #1179 |   |   |   |              | 15.1    | 12.8 |
| 2.          |              |                 |   |   |   |   |              |         |      |
| 3.          |              | 1.22            | 50% cement + 2.5% calc + 1/4 #1179                  |   |   |   |              | 27.1    | 14.6 |
| 4.          |              |                 |   |   |   |   |              |         |      |
| 5.          |              |                 |   |   |   |   |              |         |      |
| 6.          |              |                 |   |   |   |   |              |         |      |

|   |  |                  |   |   |
|---|--|------------------|---|---|
| BREAKDOWN FLUID TYPE                    | VOLUME   | DENSITY          | PRESSURE  | MAX.  |
| <input type="checkbox"/> HESITATION SQ. | <input type="checkbox"/> RUNNING SQ.                     | CIRCULATION LOST | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | 8.25 Bbls   |
| BREAKDOWN                               | PSI  | FINAL            | PSI   | DISPLACEMENT VOL. 40.8 Bbls                             |
| Washed Thru Perfs                       | <input type="checkbox"/> YES <input type="checkbox"/> NO | TO               | FT.   | MEASURED DISPLACEMENT <input type="checkbox"/> WIRELINE |
| PERFORATIONS                            | TO   | TO               | CUSTOMER REPRESENTATIVE   | DS SUPERVISOR   |
|   |  |                  | Tom Dunning   | Hub Equival   |