API NO. 15-179-21,060-00-00
County Sheridan
Appx. NE NW NE Sec. 22 Twp. 6 Rge. 26 XXW
490 Feet from NNE (circle one) Line of Section
1650 Feet from NNW (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE SE, NW or SW (circle one)
Lease Name Brandt Farms Well # 1
Field Name
Producing Formation Lansing
Elevation: Ground 2630' KB 2635'
Total Depth 3964' PBTD 3935'
Amount of Surface Pipe Set and Cemented at 339 Feet
Multiple Stage Cementing Collar Used? XX Yes No
If yes, show depth set 2226 Feet
If Alternate II completion, cement circulated from 2226
feet depth to surface w/ 350 ex ccmt.
Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Chloride content 8000 ppm Fluid volume 80 bbls
Dewatering method used evaporation
Location of fluid disposal if hauled offsite:
Operator Name
Well Name
Comp. Date Old Total Depth
Deepening Re-perf. Conv. to Inj/SWO
Plug Back PBTD
Commingled Docket No. Dual Completion Docket No.
Other (SWD or Inj?) Docket No.
12-26-92 1-2-93 3-1-93
Spud Date Date Reached TD Completion Date

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 spud date, recombination, 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 James H. Hess
Title James H. Hess, VP Date 4-26-93
Subscribed and sworn to before me this 26th day of April, 1993.
Notary Public
Date Commission Expires 5-26-93

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
SUV/Rep
KGS
Other (Specify)

Form ACO-1 (7-91)
Operator Name: Hess Oil Company
Lease Name: Brandt Farms
Well #: 1
Sec. 22 Twp. 6 Rge. 26

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
(Attach Additional Sheets.)
[X] Yes [ ] No

Log
Formation (Top), Depth and Ddatum
Sample

<table>
<thead>
<tr>
<th>Name</th>
<th>Top</th>
<th>Datum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhydrite</td>
<td>2249'</td>
<td>(+386')</td>
</tr>
<tr>
<td>Base Anhydrite</td>
<td>2281</td>
<td>(+354')</td>
</tr>
<tr>
<td>Topeka</td>
<td>3552</td>
<td>(-917)</td>
</tr>
<tr>
<td>Heebner</td>
<td>3706</td>
<td>(-1071)</td>
</tr>
<tr>
<td>Lansing</td>
<td>3746</td>
<td>(-1111)</td>
</tr>
<tr>
<td>Base Ks City</td>
<td>3942</td>
<td>(-1307)</td>
</tr>
<tr>
<td>RTD</td>
<td>3964</td>
<td>(-1329)</td>
</tr>
</tbody>
</table>

List All E.Logs Run: Radiation Guard

---

CASING RECORD

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.D.)</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&quot;</td>
<td>8-5/8&quot;</td>
<td>20</td>
<td>339'</td>
<td>60/40 Poz</td>
<td>200</td>
<td>2% gel, 3%ca seal</td>
</tr>
<tr>
<td>Production</td>
<td>7-7/8&quot;</td>
<td>5-1/2&quot;</td>
<td>14.5</td>
<td>3951'</td>
<td>EA-2</td>
<td>150</td>
<td>10%salt, 5%gel</td>
</tr>
</tbody>
</table>

ADDITIONAL CEMENTING/SQUEEZE RECORD

<table>
<thead>
<tr>
<th>Purpose:</th>
<th>Depth Top Bottom</th>
<th>Type of Cement</th>
<th># Sacks Used</th>
<th>Type and Percent Additives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perforate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protect Casing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plug Back TD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plug Off Zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PERFORATION RECORD - Bridge Plugs Set/Type

Specify Footage of Each Interval Perforated

Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)

<table>
<thead>
<tr>
<th>Shots Per Foot</th>
<th>1</th>
<th>3785', 3786, 3808-3811, 3894 (acidized and then squeezed all eventually)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3910, 3917 acidized w/3,000 gal. 15% Hcl</td>
<td></td>
</tr>
</tbody>
</table>

TUBING RECORD

<table>
<thead>
<tr>
<th>Size</th>
<th>2-3/8&quot;</th>
<th>Set At</th>
<th>3830'</th>
<th>Packer At</th>
<th>Liner Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of First, Resumed Production, SWD or Inj.</td>
<td>4-17-93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producing Method</td>
<td>Flowing, Pumping, Gas Lift, Other (If Any)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Production Per 24 Hours</td>
<td>Oil 4 Bbls., Gas MCF, Water 30 Bbls., Gas-Oil Ratio 1:1, Gravity 42</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

METHOD OF COMPLETION

[X] Open Hole [ ] Perf. | Dually Comp. | Commingled |
[ ] Other (Specify)

PRODUCTION INTERVAL

3910', 3917'
DST #1: 3760'-3790'. 60-45-60-45. 1st blow strong - bottom of bucket in 6 min. 2nd, weak - building to 6" fair blow. Recovered 2' clean oil, 45' slightly oil cut mud (3% oil, 97% mud), 248' slightly oil cut muddy wtr (3% oil, 77% wtr, 20% mud), 665' water. IH 1944, IF 45-333, ISI 805, FF377-530, FSI 804, FH 1841. BHT 119.

DST #2: 3795'-3850'. 60-45-60-45. 1st blow strong - bottom of bucket in 6 min. for 20 min., then decreasing to 8" before shut in. 2nd, very weak surface blow. Recovered 248' gas in pipe, 124' clean gassy oil (10% gas, 90% oil), 206' oil cut gassy mud (10% gas, 40% oil, 50% mud). IH 1910, IF 107-163, ISI 210, FF 163-163, FSI 240, FH 1855. BHT 108.

DST #3: 3870'-3900'. 17-0-0-0. No blow, flushed tool - good surge, waited 10 min. - flushed tool - good surge. Recovered 60' drilling mud. IH 1936, IF 45-67, ISI ---, FF ---, FSI ---, FH 1880. BHT 108.

DST #4: 3870'-3950'. 60-45-14-0. 1st blow 1.25" decreasing to very weak surface blow after 60 min. 2nd, no blow - flushed tool. Recovered 248' heavy oil cut gassy mud (10% gas, 30% oil, 60% mud), 112' heavy oil cut gassy mud (20% gas, 30% oil, 50% mud). IH 1966, IF 79-199, ISI 1160, FF 228-236, FSI 1905. BHT 111.
BRANDT FARMS #1

448' FNL, 1640' FEL of
SECTION 22 - 6S - 26W
SHERIDAN COUNTY, KANSAS

Commenced: 12-26-92
Completed: 1-2-93
Contractor: Mallard J.V.
Production: Lansing Formation

Elevations: 2630' GR, 2635' KB
Surface Pipe: 200' of 8-5/8"
Production Pipe: 5 ½" to 3951' KB

One foot drilling time was kept from 2240' to 2300' KB and from 3200' to total depth. Ten foot samples (wet & dry) were kept from 3400' KB to total depth.

Following are sample tops, descriptions of zones of interest (including shows of oil & gas), and results of all drill stem tests.

**ANHYDRITE**
2249  (+386)

**BASE ANHYDRITE**
2281  (+354)

**TOPEKA**
3552  (-917)
HESS OIL COMPANY
412 East Douglas, Suite One
Wichita, Kansas 67202
(316) 263-2243

Brandt Farms #1
Page 2

HEEBNER

3706 (-1071)

LANSING

3746 (-1111)

3746-52' KB
White, very finely crystalline, slightly oolitic, fossiliferous, limestone. Slight show of free oil in very poor intercrystalline porosity, no odor, fair staining, and a weak cut.

3770-74' KB
White, very finely crystalline, slightly oolitic, limestone. Slight show of free oil in poor intercrystalline porosity, no odor, fair stain, and a weak cut.

3784-88' KB
Grey, fine to medium crystalline, weathered, limestone. Great show of free oil in good intercrystalline porosity, no odor, good stain, and a strong cut. (some barron porosity and some heavy tar stain)

DRILL STEM TEST #1

3760' to 3790' KB
30' Anchor

Blow: Bottom of bucket during both openings.

Times: Open 60, Closed 45, Open 60, Closed 45.

Recovered: 2' Oil
45' Slightly Oil Cut Mud.
913' Salt Water

Pressures: IH 1936# IF 44-330# ISIP 779#
FH 1841# FF 374-527# FSIP 779#

3811-14' KB
Clear, medium crystalline, oolistic, slightly oolitic, limestone. Great show of free oil in great intercrystalline porosity, strong odor, lots of light staining, and great cut.
(some gas bubbles)

3821-29' KB
Brown, very finely crystalline, dense, limestone. Fair show of free oil in poor to fair intercrystalline porosity, no odor, fair stain, and a fair cut.
LANSONG (cont.)

DRILL STEM TEST #2 3795' to 3850' KB 55' Anchor

Blow: Bottom of bucket in 6 min. -- back up to 8" in 20 min. as blow weakened.
2cd Opening --- weak surface blow.

Times: Open 60, Closed 45, Open 60, Closed 45.

Recovered: 248' Gas
124' (10% Gas, 90% Oil)
206' (10% Gas, 40% Oil, 50% Mud)

Pressures: IH 1905# IF 77-154# ISIP 209#
FH 1852# FF 165-165# FSIP 253#

3861-63' KB White, very finely crystalline, dense, limestone.
Slight show of free oil in poor intercrystalline porosity, no odor, weak stain, and a poor cut.

3882-87' KB White, very finely crystalline, oolitic, limestone.
Slight show of free oil in very poor to poor intercrystalline porosity, no odor, weak stain, and a very weak cut.

3896-99' KB White, very finely crystalline, limestone.
Great show of free oil in fair intercrystalline porosity, fair odor, great stain, and a very strong cut. (Gas-bubbles)

DRILL STEM TEST #3 3870' to 3900' KB 30' Anchor

Blow: No blow --- Flushed tool 3 times.

Times: Open 17, Closed 0, Open 0, Closed 0.

Recovered: 60' Mud

Pressures: IH 1926# IF 44-64# ISIP ----
FH 1880# FF ---- FSIP ----

3910-15' KB Tan, very finely crystalline, dense, limestone.
Fair show of free oil in poor intercrystalline porosity, fair odor, good stainning, and a fair cut. (gas bubbles)
BASE KANSAS CITY 3942 (-1307)

DRILL STEM TEST #4 3870' to 3950' KB 80' Anchor

Blow: Weak 1 1/2" down to 1/2" --- 2cd opening dead blow. Flushed tool & pulled.

Times: Open 60, Closed 45, Open 14, Closed 0.

Recovered: 360' (10% Gas, 30% Oil, 60% Mud)

Pressures: IH 1957#  IF 55-165#  ISIP 1156#
            FH 1894#  FF 220-220##  FSIP ----

RTD 3964 (-1329)

It was decided that we should run casing to produce the 70' zone of the Lansing Formation and to try the lower zones. A Radiation Guard Log was run for correlation. 5 1/2" Casing was set at 3951' KB with a 10' shoe jt. and cemented to surface.

Sincerely,

James C. Hess
Geoloist
# Mallard JV, Inc.

**Drilling Contractors**
P. O. Box 1009
McPherson, KS 67460

## Driller's Log

<table>
<thead>
<tr>
<th>Operator</th>
<th>Hess Oil Company</th>
<th>Well</th>
<th>Brandt Farms #1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>P. O. Box 1009</td>
<td>API #</td>
<td>15-179-21,060-00-00</td>
</tr>
<tr>
<td></td>
<td>McPherson, KS 67460</td>
<td>Location</td>
<td>Approx. NE NW NE 490' FNL, 1650' FEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section 22, Township 6S, Range 26W Sheridan County, KS</td>
</tr>
</tbody>
</table>

| Commenced         | December 26, 1992 | Location| Approx. NE NW NE 490' FNL, 1650' FEL |
|-------------------|-------------------|         | Section 22, Township 6S, Range 26W Sheridan County, KS |

| Completed         | January 2, 1993   | Location| Approx. NE NW NE 490' FNL, 1650' FEL |
|-------------------|-------------------|         | Section 22, Township 6S, Range 26W Sheridan County, KS |

| Total Depth       | 3964'             | Elevation| 2630' GL, 2635' KB |

## Status
- Set Casing – Lansing Formation

| Spud              | 5:15 pm 12/26/92  |           |               |

| Size Hole Drilled | 12-1/4" x 340'   |           |               |

| Surface Casing Size | 8-5/8" x 20# x 332.25' (9 jts.) |           |               |

| Set At            | 338.85'           |           |               |

| Cements           | 200 sacks 60/40 Pozmix, 2% gel, 3% cc |           |               |

| Size Hole Drilled | 7-7/8" x 3964' |           |               |

| Production Casing | 5-1/2" x 14.5# x 3951' (98 jts.) |           |               |

| Set At            | 3951'           |           |               |

| Dv Tool At        | 2226'           |           |               |

| Cement 1st Stage | 150 sacks EA-2 expanding cement, 10% salt, 5% calseal |           |               |

| Cement Top Stage | 350 sacks HLC, 4% addgel, 1/4# floseal and 5# gilsonite/sk |           |               |

| Pd               | 2:40 pm 1/2/93  |           |               |

### Drill Stem Tests
- 4

### Electric Log
- Yes

---

### Certificate

I, James H. Hess, Vice-President of Mallard JV, Inc., hereby certify that this is a true and correct copy of the log of the Brandt Farms #1 well as reflected by our files.

[Signature]

James H. Hess, Vice-President

---

STATE OF KANSAS
COUNTY OF McPherson

Subscribed and sworn to before me this 12th day of January, 1993.

[Signature]

Bryan K. Hess
Notary Public
**JOB SUMMARY**

**WELL DATA**
- **Field:** 22 Es 28w
- **County:** Sheridan
- **State:** KS
- **Formation Name:** 
- **Type:** 
- **Formation Thickness:** From to 
- **Initial Prod.:** Oil BPO, Water BWD, Gas BGD, MCFD 
- **Present Prod.:** Oil BPO, Water BWD, Gas BGD 
- **Completion Date:** 
- **Mud Type:** Mud WT 
- **Bottom Hole Temp.:** 
- **Well Date:** 
- **Total Depth:** 3562 ft

**TOOL AND ACCESSORIES**
- **Type and Size:**
  - **QTY.**
  - **Make:**

**FLOTT/COLLAR**
- **Type and Size:**
- **QTY.**
- **Make:**

**FLOAT SHOE**
- **Type and Size:**
- **QTY.**
- **Make:**

**GUIDE SHOE**
- **Type and Size:**
- **QTY.**
- **Make:**

**CENTRALIZERS**
- **Type and Size:**
- **QTY.**

**BOTTOM Plug**
- **Type and Size:**
- **QTY.**

**TOP Plug**
- **Type and Size:**
- **QTY.**

**HEAD**
- **Type and Size:**
- **QTY.**

**PACKER**
- **Type and Size:**
- **QTY.**

**MATERIALS**
- **Treat./Fluid:**
- **Density:**
- **Displ./Fluid:**
- **Density:**
- **Prop./Type:**
- **Size:**
- **Prop. Type:**
- **Size:**

**Cement**
- **Type:**
- **Brand:**
- **Bulk:**

**ADDITIVES**
- **Yield Cu.Ft./Skpb:**
- **Mixed Lbs./Gal:**

**PRESSURES IN PSI**
- **Circulating:**
- **Displacement:**
- **Breakdown:**
- **Maximum:**
- **Average:**
- **Fracture Gradient:**
- **Shut-in Instant:**
- **Hydraulic Horsepower:**

**AVG. ORDERED:**
- **Available:**
- **Used:**
- **Average Rates in BPM:**

**TREATING:**
- **Disp.:**
- **Overall:**
- **Cement Left in Pipe:**

**REMARKS**
- **See Job Log:**
- **Thank You:**

**PERSONNEL AND SERVICE UNITS**
- **Name:**
- **Unit No. & Type:**
- **Location:**

**DEPARTMENT:**
- **Cement**

**DESCRIPTION OF JOB:**
- **Cement Prod. Ceg. w/50sks EA-2 1st Stage. 350 HLC 2nd Stage**

**JOB DONE THRU:**
- **Tubing:**
- **Casing:**
- **Annul:**
- **Trg./Ann:**

**CUSTOMER REPRESENTATIVE:**
- **Jack Moore**

**HALLIBURTON OPERATOR:**
- **Stampers**

**COPIES REQUESTED:**

**CEMENT DATA**

<table>
<thead>
<tr>
<th>Stg</th>
<th># of Sacks</th>
<th>Cement</th>
<th>Brand</th>
<th>Bulk Sacred</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>150</td>
<td>EA-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>350</td>
<td>HLC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>VOLUMES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Load &amp; BKON:</strong> BBL-GAL.</td>
</tr>
<tr>
<td><strong>Pad:</strong> BBL-GAL.</td>
</tr>
<tr>
<td><strong>TREATMENT:</strong> BBL-GAL.</td>
</tr>
<tr>
<td><strong>Cement Slurry:</strong> BBL-GAL.</td>
</tr>
<tr>
<td><strong>Total Volume:</strong> BBL-GAL.</td>
</tr>
</tbody>
</table>

**REMARKS**
- **See Job Log:**
- **Thank You:**

**FORM 2255-92**
# ALLIED CEMENTING CO., INC.

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

Date: 12-26-92
Sec.: 22
Twp.: 4 S
Range: 26 W
Called Out: 4:00 P.M.
On Location: 8:45 P.M.
Job Start: 11:30 P.M.
Finish: Midnight

Lease: Brandt Farms
Well No.: 1
Location: Lucerne 2N4W S.Side.
County: Sheridan
State: KS

Contractor: Mallard Joint Venture, Inc. Rig #2

Type Job: Set Surface Pipe

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12 3/4&quot;</td>
<td>340'</td>
<td>8 7/8&quot;</td>
<td>Depth</td>
<td>Depth</td>
<td>Depth</td>
<td>15'</td>
<td>Minimum</td>
<td>Displace</td>
<td>x</td>
</tr>
</tbody>
</table>

Owner: Some

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: Hess Oil Company
Street: P.O. Box 1009
City: McPherson, State KS, 67460

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

Purchase Order No.

x

CEMENT

<table>
<thead>
<tr>
<th>Equipment</th>
<th>No.</th>
<th>Cementer</th>
<th>Helper</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumperk</td>
<td>191</td>
<td>Mary H.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pumperk</td>
<td>192</td>
<td>Marilyn K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulkirk</td>
<td>212</td>
<td></td>
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</tr>
<tr>
<td>Bulkirk</td>
<td></td>
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</table>

DEPT OF JOB

<table>
<thead>
<tr>
<th>Reference</th>
<th>Type</th>
<th>#</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Pumptruck - surface</td>
<td>380</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>Mileage</td>
<td>132</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>#3</td>
<td>8 7/8 wooden plug</td>
<td>42</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>554 00</td>
</tr>
</tbody>
</table>

Total

Remarks:
Cement Circulated.

Amount Ordered
200 sks 60 / 40.00 2 sks 38.00

Consisting of
Common 120 sks @ 80 / sk
Poz. Mix 80 sks @ 2.00 / sk
Gel. 4 sks @ 1.00 / sk
Chloride 60 sks @ 21.00 / sk
Quickset 120.00

Handling 0.10 / sk.
Mileage 204 / sk / mi. (66 mi)

Sub Total 1714.00

Total

Floating Equipment

Thanks

Sales Tax

Handling 200.00
Mileage 528.00
Sub Total 1714.00

Total

1714.00