

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

| | |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input 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 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| 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 | | | | |
| | | | | |

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

| | | | | |
|---|--|---------|-------------|-----------------------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio Gravity |

| | | |
|---|---|------------------------------------|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL: Top Bottom |
|---|---|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | |
|----------------|-------|---------|------------|--|
| TUBING RECORD: | Size: | Set At: | Packer At: | |
|----------------|-------|---------|------------|--|

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1113

Date 9-29-18 Sec. 16 Twp. 8 Range 18 County Rooks State Ks On Location _____ Finish 6:00 AM

Lease H Rabe Well No. 1 Location Plainville - N to N Rd, W to the Y

Contractor Southwind # 8 Owner S to Curve, 3/4 W, 5 Hints
To Quality Oilwell Cementing, Inc.

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

Hole Size 12 1/4" T.D. 427' Charge To Jason oil

Csg. 8 5/8" Depth 427' Street _____

Tbg. Size _____ Depth _____ City _____ State _____

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

Cement Left in Csg. 15' Shoe Joint 15' Cement Amount Ordered 220 80/20 3% cc 2% gel

Meas Line _____ Displace 26 1/4 BLS

EQUIPMENT

Pumptrk 17 No. _____ Cementer David Common 175

Bulktrk 15 No. _____ Driver Jack Poz. Mix 45

Bulktrk P.U. No. _____ Driver Rick Gel. 4

JOB SERVICES & REMARKS

Remarks: Cement did Circulate Hulls _____

Rat Hole _____ Salt _____

Mouse Hole _____ Flowseal _____

Centralizers _____ Kol-Seal _____

Baskets _____ Mud CLR 48 _____

D/V or Port Collar _____ CFL-117 or CD110 CAF 38 _____

Handling 231 232 Sand _____

Mileage _____

FLOAT EQUIPMENT

Guide Shoe _____

Centralizer _____

Baskets _____

AFU Inserts _____

Float Shoe _____

Latch Down _____

Pumptrk Charge Surface

Mileage 36

Tax _____
Discount _____
Total Charge _____

X Signature William Anderson

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1143

| | | | | | | | | | | | | | | | | | |
|-----------------------------------|---------|------|--|------|--|----------|--|--|-------|--|----|--------------|--|--------|---------|-------------------------|--|
| Date | 11-6-18 | Sec. | | Twp. | | Range | | County | Rooks | State | Ks | On Location | | Finish | 4:15 PM | | |
| Lease | | | | | | | | Well No. | | Owner | | | | | | | |
| Hrabe | | | | | | | | 1 | | The Curve, 3/4 W 51 st Into | | | | | | | |
| Contractor | | | | | | | | Service | | To Quality Oilwell Cementing, Inc. | | | | | | | |
| Superior Oilwell Service | | | | | | | | | | You are hereby requested to rent cementing equipment and furnish | | | | | | | |
| Type Job | | | | | | | | | | Cementing and helper to assist owner or contractor to do work as listed. | | | | | | | |
| Port Collar | | | | | | | | | | Charge To | | | | | | | |
| Hole Size | | | | | | | | T.D. | | Jason Oil | | | | | | | |
| Csg. | | | | | | | | Depth | | Street | | | | | | | |
| 5 1/2" | | | | | | | | | | City | | | | | | | |
| Tbg. Size | | | | | | | | Depth | | State | | | | | | | |
| 2 3/8" | | | | | | | | | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | | | |
| Tool | | | | | | | | Depth | | Cement Amount Ordered | | | | | | | |
| Port Collar | | | | | | | | 1692' | | 325 80/20 QMDC 1/4# Flowseal | | | | | | | |
| Cement Left in Csg. | | | | | | | | Shoe Joint | | Used 185 QMDC 150 com 2% CC | | | | | | | |
| Meas Line | | | | | | | | Displace | | Common | | | | | | | |
| | | | | | | | | H2O | | 150 | | | | | | | |
| EQUIPMENT | | | | | | | | | | | | | | | | | |
| Pumptrk | | 5 | | No. | | Cementer | | Helper | | Poz. Mix | | | | | | | |
| | | | | | | Brett | | | | 185 @ QMDC | | | | | | | |
| Bulktrk | | 21 | | No. | | Driver | | Driver | | Gel. | | | | | | | |
| | | | | | | Doug | | | | Calcium | | | | | | | |
| Bulktrk | | P.M. | | No. | | Driver | | Driver | | 3 | | | | | | | |
| | | | | | | Rick | | | | Hulls | | | | | | | |
| JOB SERVICES & REMARKS | | | | | | | | | | | | | | | | | |
| Remarks: | | | | | | | | test tool to 1000ft tool closed | | | | | | | | Salt | |
| Rat Hole | | | | | | | | open tool pump 40 BUS of | | | | | | | | Flowseal 80# | |
| Mouse Hole | | | | | | | | mud. pump 185 sx Cement. | | | | | | | | Kol-Seal | |
| Centralizers | | | | | | | | Close tool test tool to 1000ft. | | | | | | | | Mud CLR 48 | |
| Baskets | | | | | | | | tool closed. Run 51 st tubing | | | | | | | | CFL-117 or CD110 CAF 38 | |
| D/V or Port Collar | | | | | | | | + wash clean. PTOH. | | | | | | | | Sand 28 | |
| | | | | | | | | Cement did Circulate | | | | | | | | Handling 477 | |
| | | | | | | | | Tag Sand 3313 | | | | | | | | Mileage | |
| | | | | | | | | pumped 6 slk sand | | | | | | | | FLOAT EQUIPMENT | |
| | | | | | | | | perf @ 3132-3305 | | | | | | | | Guide Shoe | |
| | | | | | | | | mix 100 slk displaced | | | | | | | | Centralizer | |
| | | | | | | | | + spudced @ 600PSI | | | | | | | | Baskets | |
| | | | | | | | | Release & Weld | | | | | | | | AFU Inserts | |
| | | | | | | | | | | | | | | | | Float Shoe | |
| | | | | | | | | | | | | | | | | Latch Down | |
| | | | | | | | | | | | | | | | | Pumptrk Charge | |
| | | | | | | | | | | | | | | | | Squeeze | |
| | | | | | | | | | | | | | | | | Mileage | |
| | | | | | | | | | | | | | | | | NC | |
| | | | | | | | | | | | | Tax | | | | | |
| | | | | | | | | | | | | Discount | | | | | |
| | | | | | | | | | | | | Total Charge | | | | | |
| X Signature | | | | | | | | | | | | | | | | | |



Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
January
01
1970

DST #1 **Formation: Lan G-K** **Test Interval: 3228 - 3334'** **Total Depth: 3500'**
Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

Electronic Volume Estimate:
60'

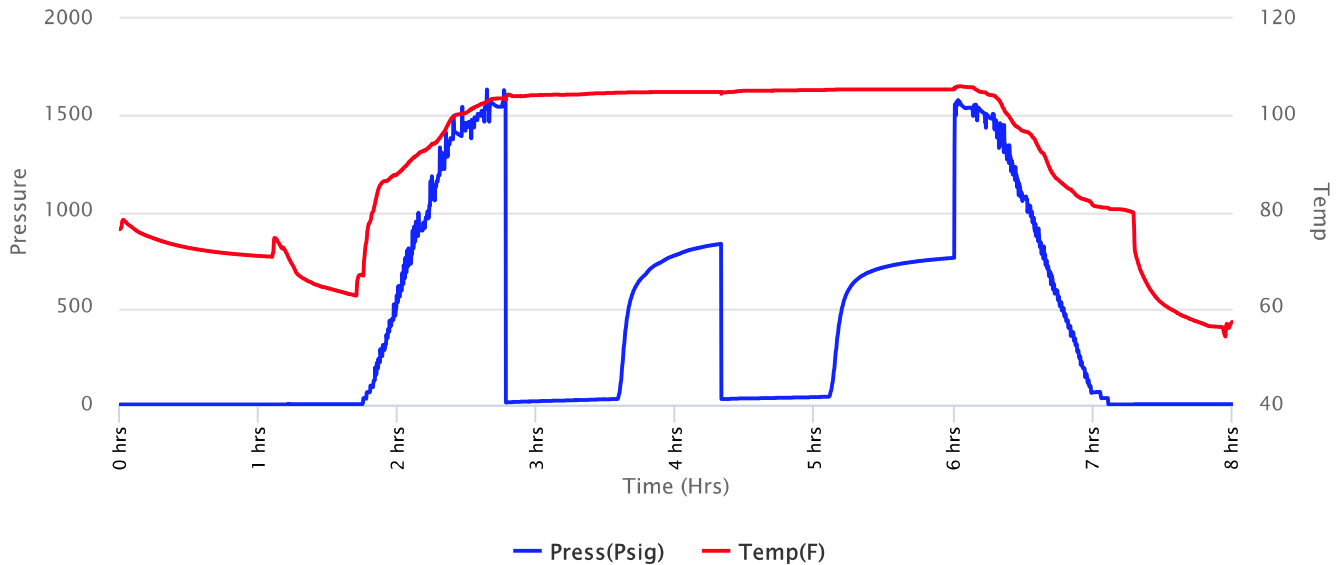
1st Open
Minutes: 45
Current Reading:
4.6" at 45 min
Max Reading: 4.6"

1st Close
Minutes: 45
Current Reading:
0" at 45 min
Max Reading: 0"

2nd Open
Minutes: 45
Current Reading:
2.5" at 45 min
Max Reading: 2.5"

2nd Close
Minutes: 45
Current Reading:
0" at 45 min
Max Reading: 0"

Inside Recorder





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
January
01
1970

DST #1 **Formation: Lan G-K** **Test Interval: 3228 - 3334'** **Total Depth: 3500'**

Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

Recovered

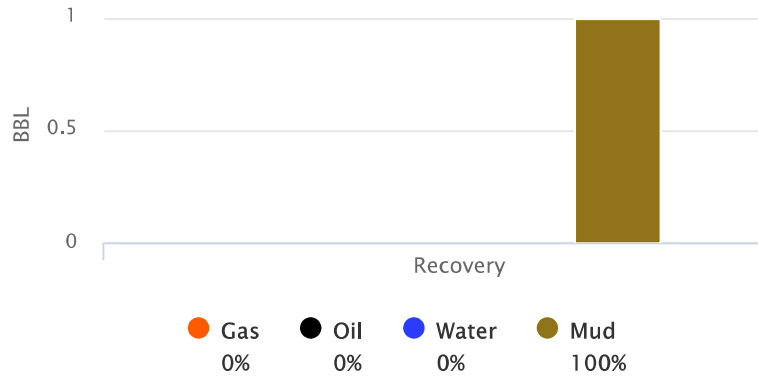
| <u>Foot</u> | <u>BBLs</u> | <u>Description of Fluid</u> | <u>Gas %</u> | <u>Oil %</u> | <u>Water %</u> | <u>Mud %</u> |
|-------------|-------------|-----------------------------|--------------|--------------|----------------|--------------|
| 70 | 0.9961 | M | 0 | 0 | 0 | 100 |

Total Recovered: 70 ft
Total Barrels Recovered: 0.9961

Reversed Out
NO

| | | |
|---|------------|------------|
| Initial Hydrostatic Pressure | 1559 | PSI |
| Initial Flow | 22 to 31 | PSI |
| Initial Closed in Pressure | 835 | PSI |
| Final Flow Pressure | 31 to 42 | PSI |
| Final Closed in Pressure | 763 | PSI |
| Final Hydrostatic Pressure | 1538 | PSI |
| Temperature | 106 | °F |
| Pressure Change Initial Close / Final Close | 8.6 | % |

Recovery at a glance





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
January
01
1970

DST #1 **Formation: Lan G-K** **Test Interval: 3228 - 3334'** **Total Depth: 3500'**
Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

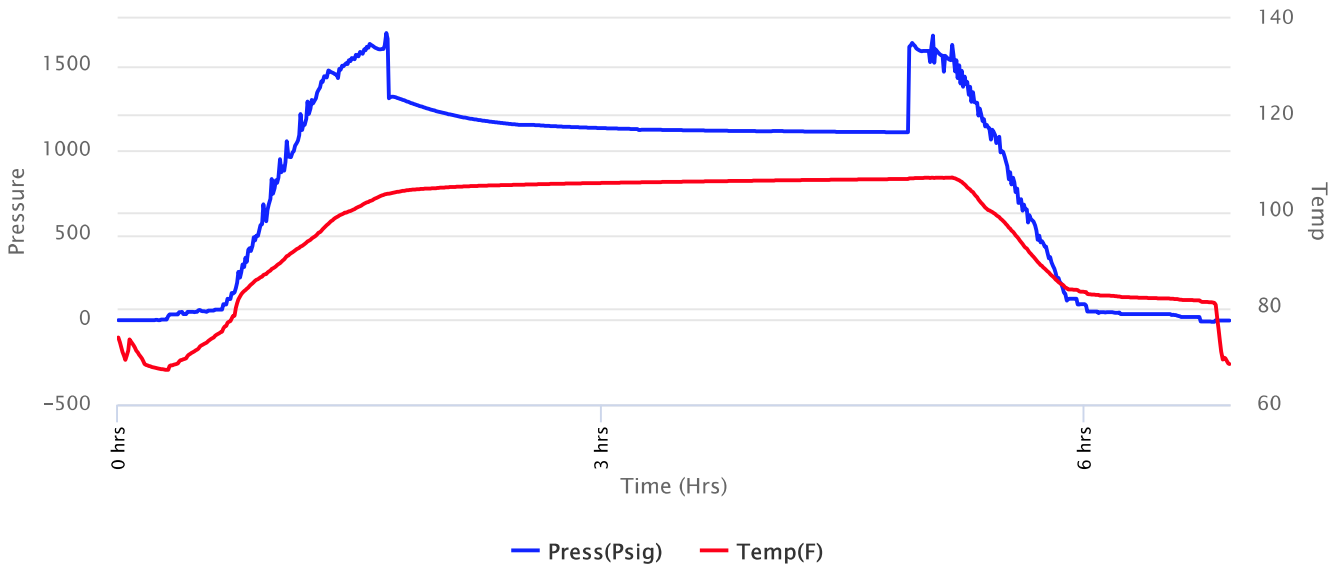
BUCKET MEASUREMENT:

1st Open: Built to 4.6
1st Close: No Blow
2nd Open: Built to 2.5
2nd Close: No Blow

REMARKS:

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud

Below Straddle Recorder





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
January
01
1970

DST #1 Formation: Lan G-K Test Interval: 3228 - 3334' Total Depth: 3500'
Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

Down Hole Makeup

| | |
|---|---|
| Heads Up: 5.519999999999999 FT | Packer 1: 3223.4 FT |
| Drill Pipe: 3208.76 FT <i>ID-3 1/2</i> | Packer 2: 3228.4 FT |
| Weight Pipe: FT <i>ID-2 7/8</i> | Packer 3: 3334 FT |
| Collars: FT <i>ID-2 1/4</i> | Top Recorder: 3215.4 FT |
| Test Tool: 26.16 FT <i>ID-3 1/2-FH</i> | Bottom Recorder: 3325 FT |
| Total Anchor: 105.6 | Below Straddle Recorder: 3498 FT |
| Anchor Makeup | Well Bore Size: 7 7/8 |
| Packer Sub: 1 FT | Surface Choke: 1" |
| Perforations: (top): 29 FT <i>4 1/2-FH</i> | Bottom Choke: 5/8" |
| Change Over: 1 FT | |
| Drill Pipe: (in anchor): 63.6 FT <i>ID-3 1/2</i> | |
| Change Over: 1 FT | |
| Perforations: (below): 10 FT <i>4 1/2-FH</i> | |
| STRADDLE | |
| Straddle Packer(s): 1 FT | |
| Change Over: 1 FT | |
| Drill Pipe: 127.22 FT <i>ID-3 1/2"</i> | |
| Change Over: 1 FT | |
| Perforations (in tail pipe): 3 FT <i>4 1/2-FH</i> | |



**Company: Jason Oil Company,
LLC**

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo
Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery &
pressures

DATE
January
01
1970

DST #1 Formation: Lan G-K Test Interval: 3228 - Total Depth: 3500'
3334'
Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

Mud Properties

Mud Type: Chemical **Weight:** 9.1 **Viscosity:** 60 **Filtrate:** 7.6 **Chlorides:** 2500 ppm



Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: N/A
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
January
01
1970

DST #1 Formation: Lan G-K Test Interval: 3228 - 3334' Total Depth: 3500'
Time On: 00:00 01/01 Time Off: 07:12 10/04
Time On Bottom: 02:08 10/04 Time Off Bottom: 05:08 10/04

Gas Volume Report

1st Open

2nd Open

| Time | Orifice | PSI | MCF/D |
|------|---------|-----|-------|
|------|---------|-----|-------|

| Time | Orifice | PSI | MCF/D |
|------|---------|-----|-------|
|------|---------|-----|-------|



Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: Harmony Hill NW Ext (1/4 NE)
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

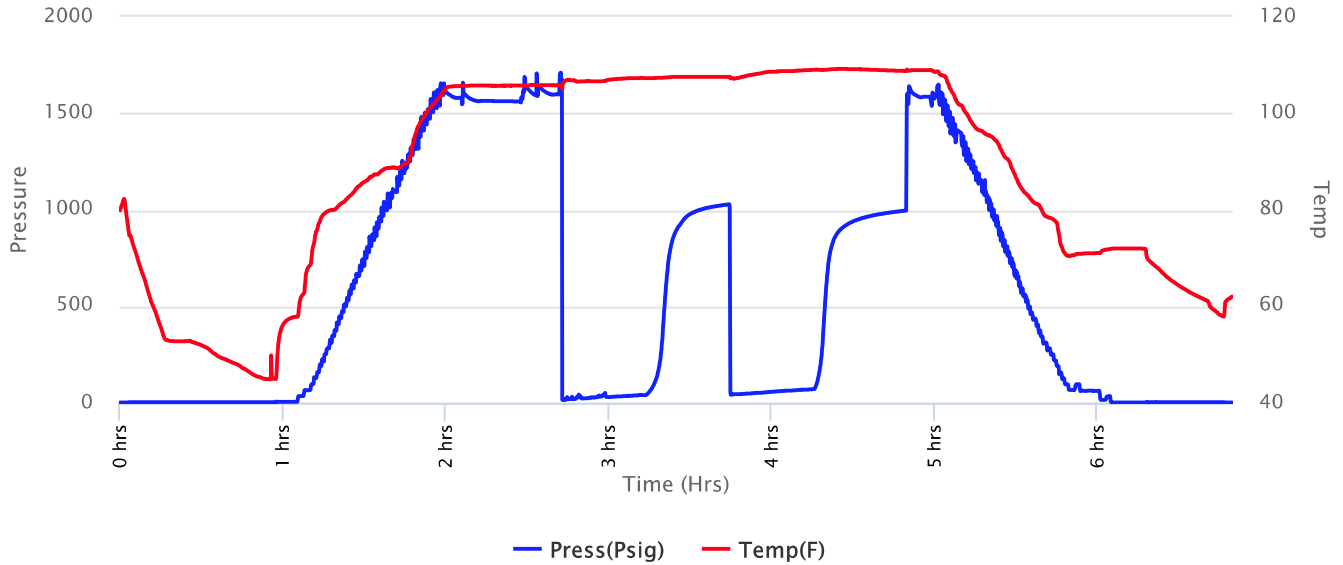
DATE
October
04
2018

DST #2 Formation: Arbuckle Test Interval: 3346 - 3425' Total Depth: 3500'
Time On: 08:45 10/04 Time Off: 15:24 10/04
Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

Electronic Volume Estimate:
256'

| <u>1st Open</u> | <u>1st Close</u> | <u>2nd Open</u> | <u>2nd Close</u> |
|----------------------------------|-------------------------------|----------------------------------|--------------------------------|
| Minutes: 30 | Minutes: 30 | Minutes: 30 | Minutes: 30 |
| Current Reading: 10.3" at 30 min | Current Reading: 0" at 30 min | Current Reading: 18.6" at 30 min | Current Reading: .6" at 30 min |
| Max Reading: 10.3" | Max Reading: 0" | Max Reading: 18.6" | Max Reading: .7" |

Inside Recorder





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
 County: ROOKS
 State: Kansas
 Drilling Contractor: Good Rig (Demo Rig)
 Elevation: 1958 EGL
 Field Name: Harmony Hill NW Ext (1/4 NE)
 Pool: Infield
 Job Number: 232

Operation:
 Uploading recovery & pressures

DATE
 October
04
 2018

DST #2 Formation: Arbuckle Test Interval: 3346 - 3425' Total Depth: 3500'

Time On: 08:45 10/04 Time Off: 15:24 10/04
 Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

Recovered

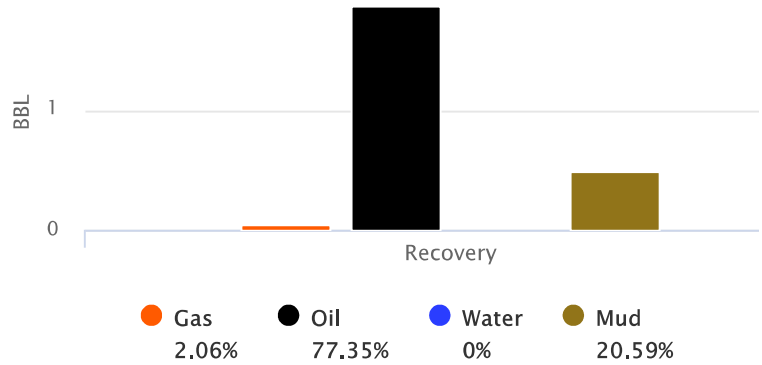
| Foot | BBLs | Description of Fluid | Gas % | Oil % | Water % | Mud % |
|------|--------|----------------------|-------|-------|---------|-------|
| 70 | 0.9961 | SLGCO | 5 | 95 | 0 | 0 |
| 100 | 1.423 | HMCO | 0 | 65 | 0 | 35 |

Total Recovered: 170 ft
 Total Barrels Recovered: 2.4191

Reversed Out
 NO

| | | |
|---|-------------|------------|
| Initial Hydrostatic Pressure | 1598 | PSI |
| Initial Flow | 15 to 41 | PSI |
| Initial Closed in Pressure | 1029 | PSI |
| Final Flow Pressure | 45 to 72 | PSI |
| Final Closed in Pressure | 996 | PSI |
| Final Hydrostatic Pressure | 1583 | PSI |
| Temperature | 110 | °F |
| Pressure Change Initial Close / Final Close | 3.1 | % |

Recovery at a glance





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: Harmony Hill NW Ext (1/4 NE)
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
October
04
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DST #2 Formation: Arbuckle Test Interval: 3346 - 3425' Total Depth: 3500'
Time On: 08:45 10/04 Time Off: 15:24 10/04
Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

BUCKET MEASUREMENT:

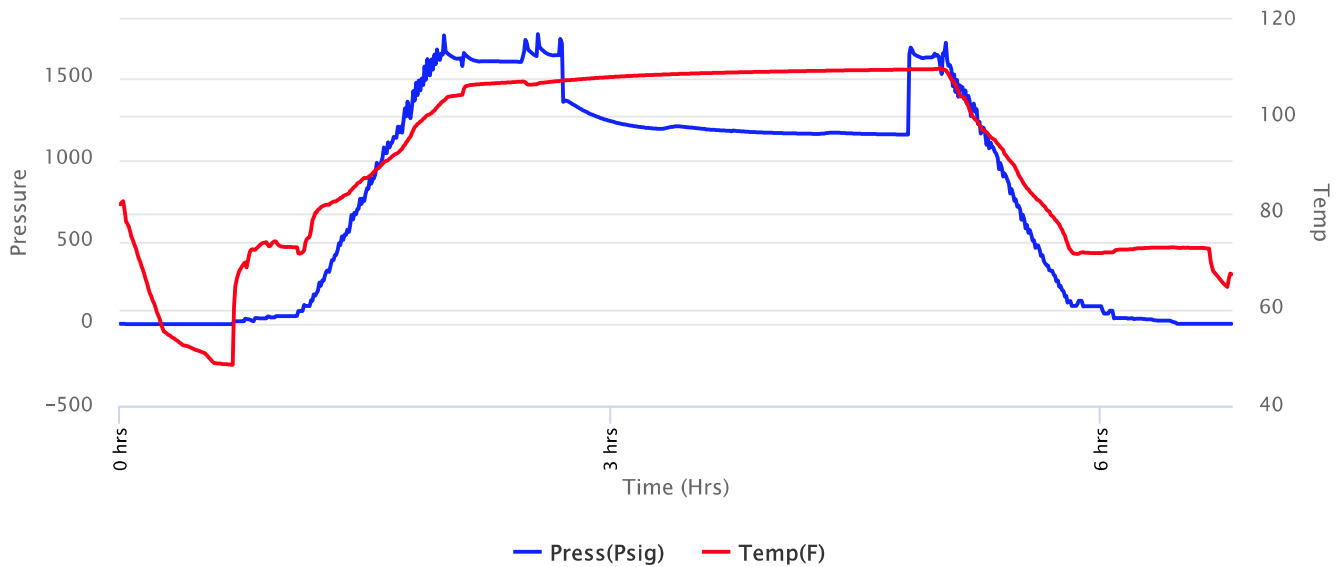
1st Open: Built to 10.3
1st Close: No blow
2nd Open: BOB in 15 min
2nd Close: Built to .7

REMARKS:

Tool Sample: 0% Gas 75% Oil 0% Water 25% Mud

Gravity: 29.4 @ 60 °F

Below Straddle Recorder





Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: Harmony Hill NW Ext (1/4 NE)
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
October
04
2018

DST #2 Formation: Arbuckle Test Interval: 3346 - 3425' Total Depth: 3500'
Time On: 08:45 10/04 Time Off: 15:24 10/04
Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

Down Hole Makeup

| | |
|---|---|
| Heads Up: 16.62 FT | Packer 1: 3341.13 FT |
| Drill Pipe: 3337.59 FT <i>ID-3 1/2</i> | Packer 2: 3346.13 FT |
| Weight Pipe: FT <i>ID-2 7/8</i> | Packer 3: 3425 FT |
| Collars: FT <i>ID-2 1/4</i> | Top Recorder: 3333.13 FT |
| Test Tool: 26.16 FT <i>ID-3 1/2-FH</i> | Bottom Recorder: 3416 FT |
| Total Anchor: 78.87 | Below Straddle Recorder: 3494 FT |
| Anchor Makeup | Well Bore Size: 7 7/8 |
| Packer Sub: 1 FT | Surface Choke: 1" |
| Perforations: (top): 34 FT <i>4 1/2-FH</i> | Bottom Choke: 5/8" |
| Change Over: 1 FT | |
| Drill Pipe: (in anchor): 31.87 FT <i>ID-3 1/2</i> | |
| Change Over: 1 FT | |
| Perforations: (below): 10 FT <i>4 1/2-FH</i> | |
| STRADDLE | |
| Straddle Packer(s): 1 FT | |
| Change Over: 2 FT | |
| Drill Pipe: 63.54 FT <i>ID-3 1/2"</i> | |
| Change Over: 1 FT | |
| Perforations (in tail pipe): 7 FT <i>4 1/2-FH</i> | |



**Company: Jason Oil Company,
LLC**

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo
Rig)
Elevation: 1958 EGL
Field Name: Harmony Hill NW Ext
(1/4 NE)
Pool: Infield
Job Number: 232

Operation:
Uploading recovery &
pressures

DATE
October
04
2018

DST #2 Formation: Arbuckle Test Interval: 3346 - Total Depth: 3500'
3425'

Time On: 08:45 10/04 Time Off: 15:24 10/04
Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

Mud Properties

Mud Type: Chemical **Weight:** 9.1 **Viscosity:** 68 **Filtrate:** 7.2 **Chlorides:** 2500 ppm



Company: Jason Oil Company, LLC

Lease: Hrabe #1

SEC: 16 TWN: 8S RNG: 18W
County: ROOKS
State: Kansas
Drilling Contractor: Good Rig (Demo Rig)
Elevation: 1958 EGL
Field Name: Harmony Hill NW Ext (1/4 NE)
Pool: Infield
Job Number: 232

Operation:
Uploading recovery & pressures

DATE
October
04
2018

DST #2 Formation: Arbuckle Test Interval: 3346 - 3425' Total Depth: 3500'
Time On: 08:45 10/04 Time Off: 15:24 10/04
Time On Bottom: 11:25 10/04 Time Off Bottom: 13:25 10/04

Gas Volume Report

1st Open

2nd Open

| Time | Orifice | PSI | MCF/D |
|------|---------|-----|-------|
|------|---------|-----|-------|

| Time | Orifice | PSI | MCF/D |
|------|---------|-----|-------|
|------|---------|-----|-------|

Scale 1:240 Imperial

Well Name: HRABE #1
Surface Location: NE SW SW NE Sec. 16 - 8S 18W
Bottom Location:
API: 15-163-24374
License Number: 33813
Spud Date: 9/28/2018 Time: 6:30 PM
Region: ROOKS COUNTY
Drilling Completed: Time:
Surface Coordinates: 3289' FSL & 2310' FEL
Bottom Hole Coordinates:
Ground Elevation: 1954.00ft
K.B. Elevation: 1964.00ft
Logged Interval: 0.00ft To: 0.00ft
Total Depth: 0.00ft
Formation: LANSING - KANSAS CITY; ARBUCKLE
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: JASON OIL COMPANY, LLC
Address: 3718 183rd RD
P.O. BOX 701
RUSSELL, KS 67665
Contact Geologist: SHELDON BENNETT
Contact Phone Nbr: (785) 483-4204
Well Name: HRABE #1
Location: NE SW SW NE Sec. 16 - 8S 18W
API: 15-163-24374
Pool: Field: HARBE
State: KANSAS Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.3329172
Latitude: 39.3593010
N/S Co-ord: 3289' FSL
E/W Co-ord: 2310' FEL

LOGGED BY



Company: BIG CREEK CONSULTING, INC.
Address: 1909 MAPLE
ELLIS, KS 67637
Phone Nbr: (785) 259-3737
Logged By: GEOLOGIST Name: JEFF LAWLER

CONTRACTOR

Contractor: SOUTHWIND DRILLING
Rig #: 8
Rig Type: MUD ROTARY
Spud Date: 9/28/2018 Time: 6:30 PM
TD Date: Time:
Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1964.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 1954.00ft

NOTES

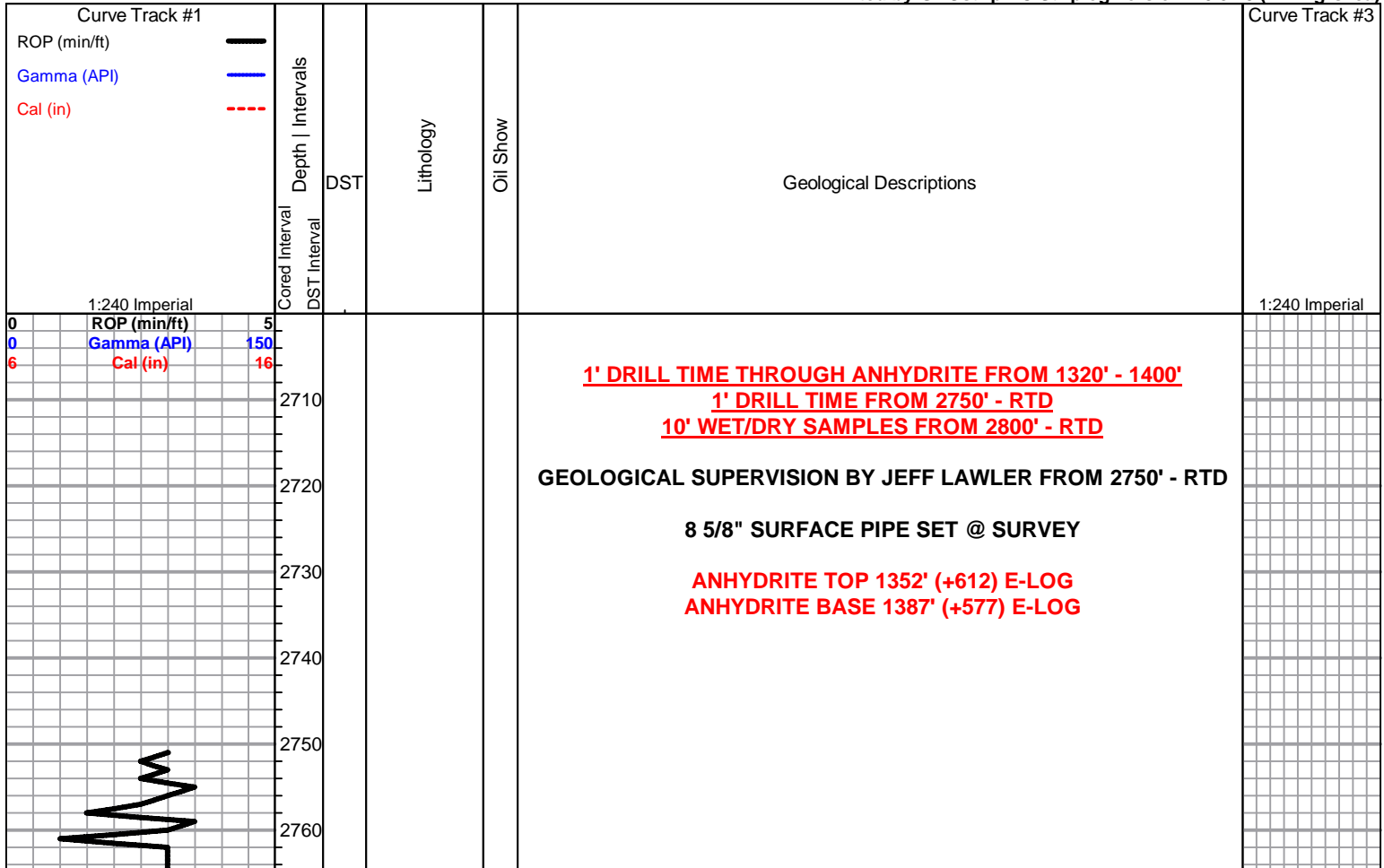
WELL COMPARISON SHEET

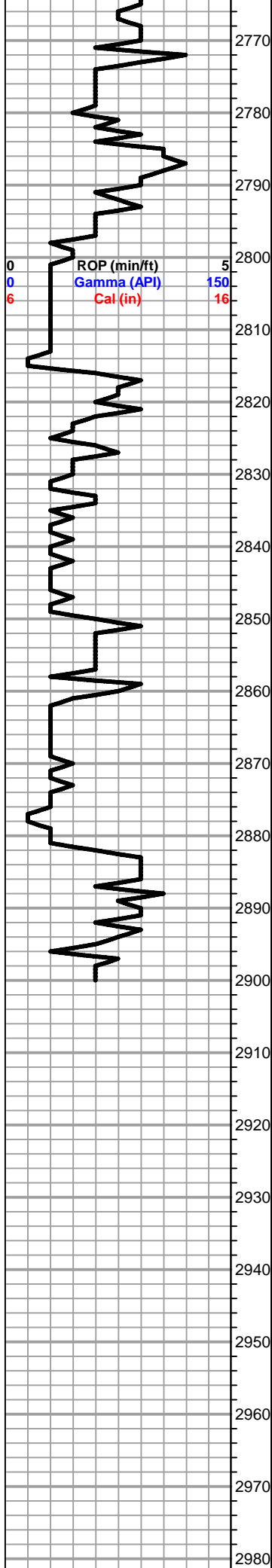
| FORMATION | HRABE #1 | | | | NENESW 16-8-18 | | | | SE NW SE 16-8-18 | | | | SE SE NE 16-8-18 | | | | NENE 16-8-16 | | | |
|-------------------|----------|-------|-------------|-------|----------------|-------|-------|-------|------------------|-------|-------|-------|------------------|-------|-------|-------|--------------|--|--|--|
| | 1964 | | 1954 | | 1966 | | 1955 | | 1937 | | 1937 | | 1937 | | 1937 | | | | | |
| | LOG TOPS | | SAMPLE TOPS | | LOG | | LOG | | LOG | | LOG | | LOG | | LOG | | | | | |
| | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | DEPTH | DATUM | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| ANHYDRITE TOP | | 1352 | 612 | 1343 | 623 | | | 1330 | 625 | | | 1333 | 604 | | | 1323 | 614 | | | |
| BASE | | 1387 | 577 | 1377 | 589 | | | 1360 | 595 | | | | | | | 1357 | 580 | | | |
| TOPEKA | | 2882 | -918 | 2882 | -916 | | | 2864 | -909 | | | 2863 | -926 | | | 2863 | -926 | | | |
| HEEBNER SHALE | | | | 3090 | -1124 | | | 3071 | -1116 | | | 3073 | -1136 | | | 3072 | -1135 | | | |
| TORONTO | | | | 3110 | -1144 | | | 3095 | -1140 | | | 3096 | -1159 | | | 3096 | -1159 | | | |
| LKC | | | | 3132 | -1166 | | | 3116 | -1161 | | | 3117 | -1180 | | | 3116 | -1179 | | | |
| BKC | | | | 3349 | -1383 | | | 3329 | -1374 | | | 3339 | -1402 | | | 3333 | -1396 | | | |
| REWORKED ARBUCKLE | | | | | | | | | | | | | | | | | | | | |
| ARBUCKLE | | | | 3423 | -1457 | | | 3364 | -1409 | | | 3387 | -1450 | | | 3355 | -1418 | | | |
| TOTAL DEPTH | | | | 3682 | -1716 | | | 3494 | -1539 | | | 3396 | -1459 | | | 3412 | -1475 | | | |

OTHER SYMBOLS

- DST**
■ DST Int
■ DST alt

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Lm- Cream Buff, FXLN, dense, fsl, well cemented, sctrd XLN porosity, some sl chalky in part, barren

Lm- A/A w/ black trash fsl high-energy bioclastic, dense XLN porosity

Sh/Ss- Gray, dense & waxy, some gummy wash, shaley Ss/sandy shale

Sh- Gray argillaceous clumps

Lm- Buff Cream, FXLN, fsl, dense high-energy mix, sctrd-dense XLN porosity, some chalky in part

Sh- Gray Green, argillaceous clumps, Ss- Fn Grn, consolidated & well sorted, loosely cemented, intergranular porosity, barren, sl micaceous

Sh- A/A w/ dark gray, dense & waxy

Lm- Off White Gray, Fn Grn, loosely & well cemented arenaceous Ls w/ sctrd intergranular to poor vis. porosity, barren

Sh- Gray Maroon Green, abundant gummy wash & argillaceous clumps Ss- Frosted, Fn Grn, friable, consolidated & well sorted, sub-rounded, barren, calcareous micaceous gray shale

TOPEKA 2882' (-918) E-LOG Lm- Cream, VFXLN, dense, vry well cemented, tight w/ min. vis. porosity, trace of clear replacement cementation, barren

Lm- Gray Buff Tan, VF-FXLN, well cemented & tight, fsl, sctrd micro XLN porosity

2990

3000

3010

3020

3030

3040

3050

3060

3070

3080

3090

3100

3110

3120

3130

3140

3150

3160

3170

3180

3190

3200

ROP (min/ft)
Gamma (API)
Cal (in)

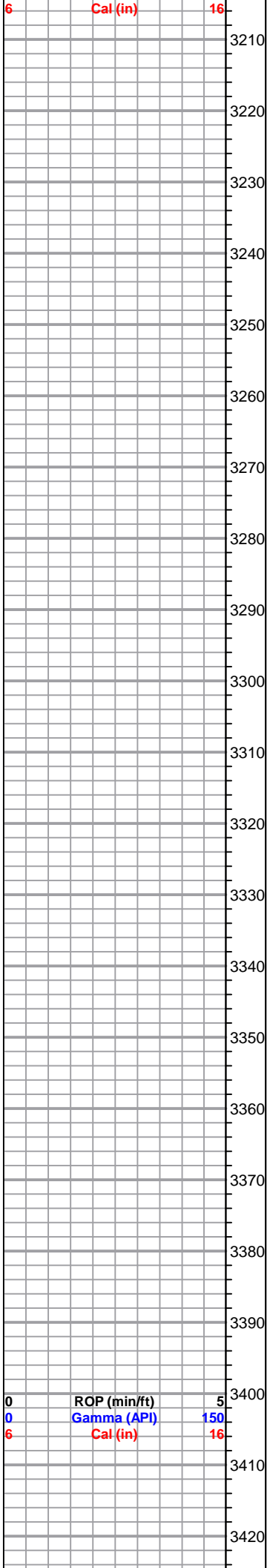
0
0
6

5
150
16

ROP (min/ft)
Gamma (API)

0
0

5
150



3430
3440
3450
3460
3470
3480
3490