

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<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>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<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><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:<br><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:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL:<br>Top Bottom |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|

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

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



77M1130

# BASIC

energy services, L.P.

## TREATMENT REPORT

|                                   |                          |                                    |
|-----------------------------------|--------------------------|------------------------------------|
| Customer <i>Dixon Operating</i>   | Lease No.                | Date <i>2/13/2018</i>              |
| Lease <i>Kiefer</i>               | Well # <i>1-9</i>        |                                    |
| Field Order # <i>16181</i>        | Station <i>Pratt, KS</i> | Casing <i>8 5/8</i>                |
|                                   |                          | Depth <i>311</i>                   |
| Type Job <i>242/8 5/8 Surface</i> | Formation <i>TD-309</i>  | Legal Description <i>9-23s-12w</i> |
|                                   |                          | County <i>Stafford</i>             |
|                                   |                          | State <i>KS</i>                    |

| PIPE DATA             |              | PERFORATING DATA |    | FLUID USED         |            | TREATMENT RESUME |                  |  |
|-----------------------|--------------|------------------|----|--------------------|------------|------------------|------------------|--|
| Casing Size           | Tubing Size  | Shots/Ft         |    | Acid               | RATE       | PRESS            | ISIP             |  |
| <i>8 5/8</i>          |              |                  |    |                    |            |                  |                  |  |
| Depth <i>311</i>      | Depth        | From             | To | Pre Pad            | Max        |                  | 5 Min.           |  |
| Volume <i>11.8</i>    | Volume       | From             | To | Pad                | Min        |                  | 10 Min.          |  |
| Max Press             | Max Press    | From             | To | Frac               | Avg        |                  | 15 Min.          |  |
| Well Connection       | Annulus Vol. | From             | To |                    | HHP Used   |                  | Annulus Pressure |  |
| Plug Depth <i>211</i> | Packer Depth | From             | To | Flush <i>Water</i> | Gas Volume |                  | Total Load       |  |

Customer Representative *Jugn* Station Manager *Justin Westermans* Treater *Darin Franklin*

|               |              |               |               |               |               |  |  |  |  |
|---------------|--------------|---------------|---------------|---------------|---------------|--|--|--|--|
| Service Units | <i>92911</i> | <i>84981</i>  | <i>19843</i>  | <i>19960</i>  | <i>19860</i>  |  |  |  |  |
| Driver Names  | <i>Darin</i> | <i>msitel</i> | <i>msitel</i> | <i>Hanson</i> | <i>Hanson</i> |  |  |  |  |

| Time           | Casing Pressure | Tubing Pressure | Bbls. Pumped | Rate         | Service Log                                                        |
|----------------|-----------------|-----------------|--------------|--------------|--------------------------------------------------------------------|
| <i>7:45pm</i>  |                 |                 |              |              | <i>On location / safety meeting</i>                                |
|                |                 |                 |              |              | <i>350 slk 60/40 P02, 30% calcium chloride, 0.25pps Celloflake</i> |
|                |                 |                 |              |              | <i>14.8 ppg, 1.21 vcl, 5.18 water</i>                              |
| <i>11:00pm</i> | <i>300</i>      |                 | <i>3</i>     | <i>5 1/2</i> | <i>Pump 3 bbls water</i>                                           |
|                | <i>300</i>      |                 | <i>75</i>    | <i>5 1/2</i> | <i>mix 350 slk Cement</i>                                          |
|                |                 |                 |              |              | <i>Shut down</i>                                                   |
|                |                 |                 |              |              | <i>Release Plug</i>                                                |
|                | <i>200</i>      |                 | <i>0</i>     | <i>3</i>     | <i>Start displacement</i>                                          |
| <i>11:30pm</i> | <i>200</i>      |                 | <i>18</i>    | <i>3</i>     | <i>Shut in</i>                                                     |
|                |                 |                 |              |              | <i>Cement did Circulate 10 bbls</i>                                |
|                |                 |                 |              |              | <i>Job Complete / Darin &amp; Crew</i>                             |
|                |                 |                 |              |              | <i>Thank you!!</i>                                                 |

|                             |                       |                                |
|-----------------------------|-----------------------|--------------------------------|
| Customer<br>DIXON OPERATING | Lease No.             | Date<br>2-22-2018              |
| Lease<br>KIEFER             | Well #<br>1-9         |                                |
| Field Order #<br>10277      | Station<br>PRATT, Ks. | Casing<br>5.5" TD              |
| Type Job<br>5 1/2" L.S.     | Depth<br>3850'        | County<br>STAFFORD             |
|                             | Formation             | State<br>Ks                    |
|                             |                       | Legal Description<br>9-235-12W |

| PIPE DATA               |              | PERFORATING DATA |      | FLUID USED             |            | TREATMENT RESUME |                  |  |
|-------------------------|--------------|------------------|------|------------------------|------------|------------------|------------------|--|
| Casing Size #           | Tubing Size  | Shots/Ft         |      | Acid                   | RATE       | PRESS            | ISIP             |  |
| 5.5 x 17                |              |                  | CMT- | 25 SKS SCAVENGER       |            |                  |                  |  |
| Depth<br>3826'          | Depth        | From             | To   | Pre Pad<br>@ 1.40 CUFT | Max        |                  | 5 Min.           |  |
| Volume<br>26.7 BBL      | Volume       | From             | To   | Pad<br>175 SK AA2      | Min        |                  | 10 Min.          |  |
| Max Press<br>3000       | Max Press    | From             | To   | Frac<br>@ 1.40 CUFT    | Avg        |                  | 15 Min.          |  |
| Well Connection<br>P.C. | Annulus Vol. | From             | To   |                        | HHP Used   |                  | Annulus Pressure |  |
| Plug Depth<br>3815.4'   | Packer Depth | From             | To   | Flush<br>28.5 BBL      | Gas Volume |                  | Total Load       |  |

|                                       |                                 |                      |
|---------------------------------------|---------------------------------|----------------------|
| Customer Representative<br>T.J. DIXON | Station Manager<br>J. WESTERMAN | Treater<br>K. LESLEY |
|---------------------------------------|---------------------------------|----------------------|

|               |        |          |         |       |  |  |  |  |  |
|---------------|--------|----------|---------|-------|--|--|--|--|--|
| Service Units | 86531  | 27463    | 19889   | 21010 |  |  |  |  |  |
| Driver Names  | LESLEY | MCCLUIRE | TRAVING |       |  |  |  |  |  |

| Time     | Casing Pressure | Tubing Pressure | Bbls. Pumped | Rate | Service Log                               |
|----------|-----------------|-----------------|--------------|------|-------------------------------------------|
| 12:30 PM |                 |                 |              |      | ON LOCATION - SAFETY MEETING              |
| 3:00 PM  |                 |                 |              |      | RUN 5 1/2" x 17" CSG.                     |
|          |                 |                 |              |      | TURBO - 2, 4, 5, 10, 8, 9, 11, 13, 14, 16 |
|          |                 |                 |              |      | BASKET - PIN END OF #4                    |
| 5:30 PM  |                 |                 |              |      | PCG ON BOTTOM                             |
| 5:25 PM  |                 |                 |              |      | HOOK UP TO CSG. / BREAK CIRC. W/ RIG      |
|          |                 |                 |              |      | ROTATE CSG.                               |
| 7:15 PM  | 250             |                 | 5            | 5    | H2O AHEAD                                 |
| 7:16 PM  | 250             |                 | 12           | 5    | MIND FLUSH                                |
| 7:26 PM  | 250             |                 | 5            | 5    | H2O SPACER                                |
| 7:30 PM  | 250             |                 | 6            | 5    | MIX 25 SKS SCAVENGER @ 13.8 PPG           |
| 7:45 PM  | 200             |                 | 45           | 5    | MIX 175 SKS AA2 CMT. @ 15 PPG             |
| 8:12 PM  |                 |                 |              |      | SHUT DOWN - CLEAR PUMP & LINES            |
| 8:13 PM  |                 |                 |              |      | DRIP LATCH DOWN PLUG                      |
| 8:16 PM  | 0               |                 | 0            | 6    | START DISPLACEMENT                        |
| 8:24 PM  | 250             |                 | 50           | 6    | LIFT PRESSURE                             |
| 8:27 PM  | 500             |                 | 78           | 5    | SLOW RATE                                 |
| 8:30 PM  | 1500            |                 | 88.5         | 3.5  | PLUG DOWN - HELD                          |
|          |                 |                 |              |      | CIRC. THRU VB                             |
| 8:40 PM  |                 |                 | 7.5          |      | PLUG R.H. & M.H.                          |
|          |                 |                 |              |      | JOB COMPLETE                              |
|          |                 |                 |              |      | THANKS - KEVIN LESLEY                     |



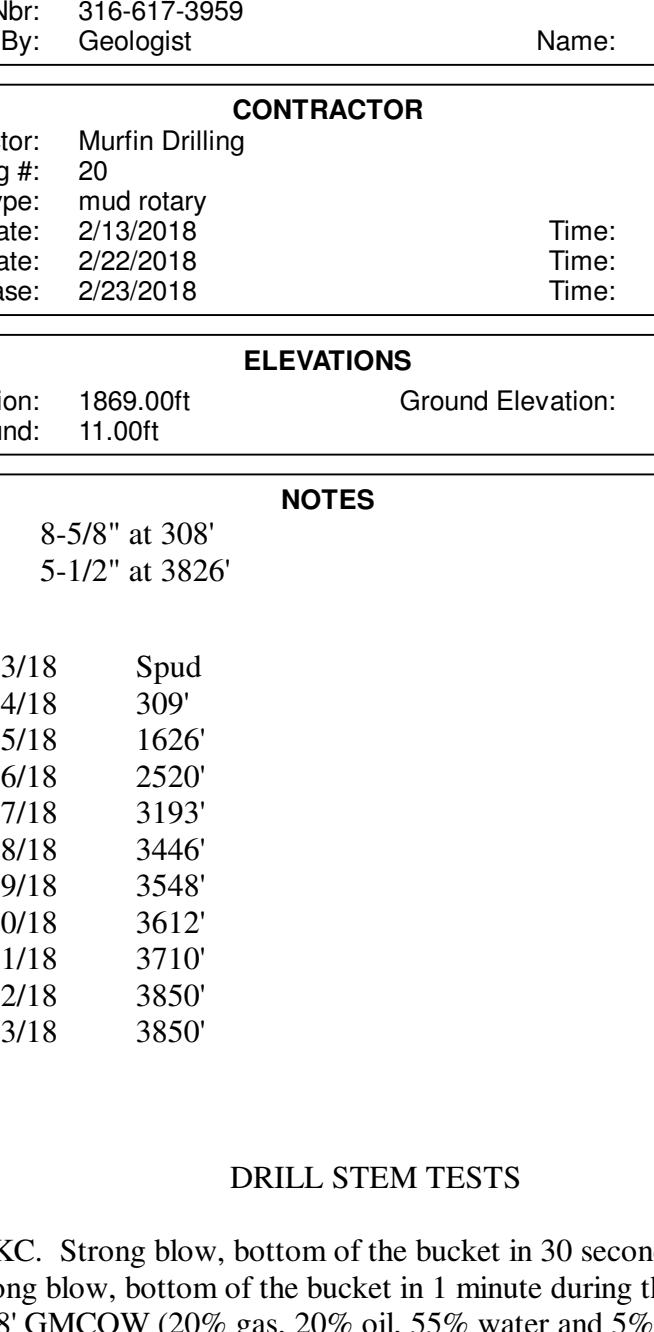
**OPERATOR**  
 Dixon Operating Company, LLC  
 8100 E 22nd  
 BLD 300  
 Wichita, KS 67226

Contact Geologist: Well Name: #1-9 Kieffer  
 Contact Phone Nbr: Section 9-32S-12W API: 15-185-24010  
 Well Location: Pool: Wildcat  
 State: Kansas Country: USA

Scale 1:240 Imperial  
 Well Name: #1-9 Kieffer  
 Surface Location: Section 9-32S-12W  
 Bottom Location: API: 15-185-24010  
 License Number: 2/13/2018 Time: 12:00 PM  
 Spud Dates: Region: Stafford County  
 Drilling Completed: 2/22/2018 Time: 12:00 PM  
 Surface Coordinates: 1600' FSL & 1800' FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1858.00ft  
 K.B. Elevation: 1869.00ft  
 Logged Interval: 2800.00ft To: 3850.00ft  
 Total Depth: 3850.00ft  
 Formation:  
 Drilling Fluid Type: Chemical (MudCo)

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: Latitude:  
 N/S Co-ord: 1600' FSL  
 E/W Co-ord: 1800' FWL



**CONTRACTOR**

Contractor: Murfin Drilling  
 Rig #: 20  
 Spud Date: 2/13/2018 Time: 12:00 PM  
 TD Date: 2/22/2018 Time: 12:00 PM  
 Rig Release: 2/23/2018 Time: 12:00 PM

**ELEVATIONS**

K.B. Elevation: 1869.00ft Ground Elevation: 1858.00ft  
 K.B. to Ground: 11.00ft

**NOTES**

Surface Casing: 8-5/8" at 308'  
 Production Casing: 5-1/2" at 3826'

Daily Penetration:  
 02/13/18 Spud 309'  
 02/14/18 1626'  
 02/15/18 1626'  
 02/16/18 2520'  
 02/17/18 3193'  
 02/18/18 3446'  
 02/19/18 3548'  
 02/20/18 3612'  
 02/21/18 3710'  
 02/22/18 3850'  
 02/23/18 3850'

**DRILL STEM TESTS**

DST #1 3370' to 3446' L/KC. Strong blow, bottom of the bucket in 30 seconds. Gas to surface in 8 minutes (TSTM). Strong blow, bottom of the bucket in 1 minute during the second flow. Recovered: 190' GM, 1328' GMCOV (20% gas, 20% oil, 55% water and 5% mud). IFP: 30" 205-562 psi, ISIP: 60" 1080 psi, FFP: 60" 610-908 psi, FSIP: 90" 1073 psi

DST #2 3490' to 3548' L/KC. Misrun, tool opened prematurely.

DST #3 3490' to 3548' L/KC. Strong blow that built to BOB in 30 seconds during the initial flow period. BOB instantly, with GTS in 14 minutes (TSTM) during the second flow period. Recovered: 32' SOCM (5% oil and 95% mud), 190' GMCO (35% gas, 55% oil and 10% mud). IFP: 30" 49-88 psi, ISIP: 60" 1262 psi, FFP: 60" 67-136 psi, FSIP: 60" 1245 psi

DST #4 3548' to 3612' L/KC. Strong blow that built to BOB in 10 minutes during the initial flow period. Fair blow that built to 7-1/2 inches then died back to 3 inches during second flow. Recovered: 142' GIP, 174' GOCM (5% gas, 20% oil and 75% mud). IFP: 30" 35-61 psi, ISIP: 60" 1179 psi, FFP: 60" 68-99 psi, FSIP: 90" 1164 psi

DST #5 3644' to 3710' Viola. Weak blow that built to 3 inches during the initial flow period. Weak blow that built to 6 inches during the final flow period. Recovered: 16' GIP, 111' WOCM (5% oil, 20% water and 75% mud). IFP: 30" 37-53 psi, ISIP: 60" 1180 psi, FFP: 60" 60-77 psi, FSIP: 90" 1122 psi

**FORMATION TOPS**

| Formation    | Sample Top | Datum | Log Top | Datum | Comparison* |
|--------------|------------|-------|---------|-------|-------------|
| Heebner      | 3199'      | -1330 | 3198'   | -1329 | -6          |
| Brown Lime   | 3336'      | -1467 | 3335'   | -1466 | -4          |
| Lansing      | 3363'      | -1494 | 3360'   | -1491 | -3          |
| Stark        | 3557'      | -1688 | 3552'   | -1683 | -6          |
| Base KC      | 3614'      | -1745 | 3628'   | -1739 | -9          |
| Viola        | 3630'      | -1761 | 3628'   | -1759 | -6          |
| Simpson      | 3716'      | -1847 | 3717'   | -1848 | -19         |
| Simpson Sand | 3748'      | -1879 | 3749'   | -1880 | -18         |
| Arbuckle     | 3783'      | -1914 | 3784'   | -1915 | -19         |

\*Murfin Drilling Company, #1-B Dale, SE SE NE Section 9-23S-12W, Stafford County, Kansas

**ROCK TYPES**

Chl Dolprim Lmsl fw7- shale, gry Carbon Sh Ss

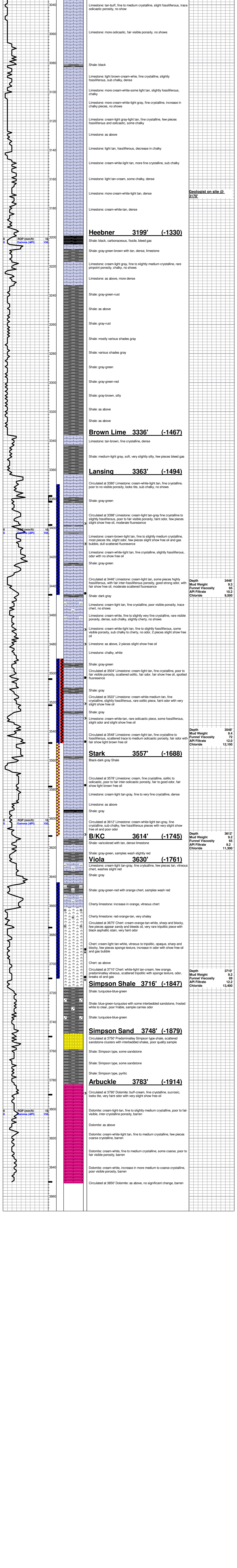
**ACCESSORIES**

MINERAL  
 Sand  
 Chert/White  
 Argillaceous/Shale

**OTHER SYMBOLS**

Oil Show  
 Good Show  
 Fair Show  
 Poor Show  
 Spotted or Trace  
 Questionable Strn  
 Dead Oil Str  
 Fluorescence  
 Gas

DST  
 DST Int  
 DST alt  
 Core  
 Tail pipe





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63403

**DST#: 1**

Test Start: 2018.02.17 @ 21:48:05

## GENERAL INFORMATION:

Formation: **Lans. "A-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:21:11

Time Test Ended: 09:11:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: **3370.00 ft (KB) To 3446.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3446.00 ft (KB) (TVD)

1858.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8524 Outside**

Press@RunDepth: 908.35 psig @ 3371.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.17 End Date: 2018.02.18

Last Calib.: 2018.02.18

Start Time: 21:48:06 End Time: 09:11:40

Time On Btm: 2018.02.18 @ 01:19:56

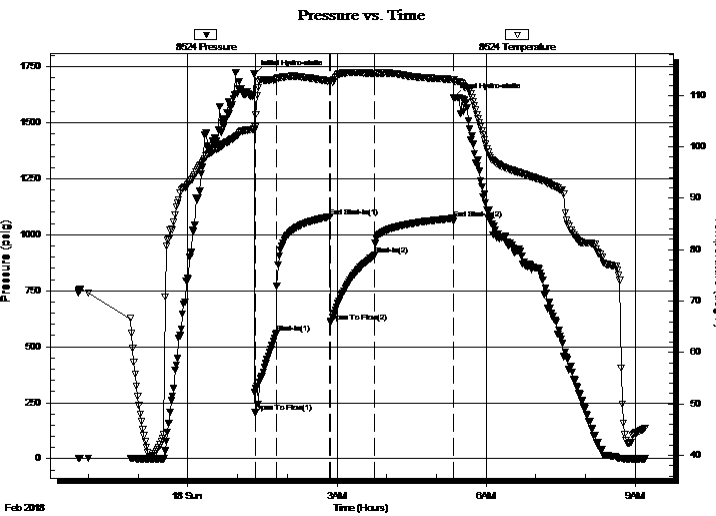
Time Off Btm: 2018.02.18 @ 05:20:56

TEST COMMENT: 30- IF- BOB 30secs. Gas to surface 8mins(TSTM)

60- IS- .5" blow

60- FF- BOB 1min

90- FSI- 1" blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1716.31         | 103.50       | Initial Hydro-static |
| 2           | 205.36          | 103.85       | Open To Flow (1)     |
| 27          | 561.90          | 113.13       | Shut-In(1)           |
| 92          | 1080.25         | 112.73       | End Shut-In(1)       |
| 93          | 609.56          | 112.82       | Open To Flow (2)     |
| 146         | 908.35          | 114.26       | Shut-In(2)           |
| 241         | 1072.80         | 113.09       | End Shut-In(2)       |
| 241         | 1610.68         | 113.11       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                | Volume (bbl) |
|-------------|----------------------------|--------------|
| 1328.00     | GMCOV, 20%G 20%O 55%W 5%M  | 18.56        |
| 190.00      | GM, 10%G 90%M              | 2.69         |
| 0.00        | Gas to surface 8mins(TSTM) | 0.00         |
|             |                            |              |
|             |                            |              |

## Gas Rates

|  | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|  |                |                 |                  |







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dixon Operating Company, LLC  
8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**9-23S-12W Stafford, KS**  
**Kiefer #1-9**  
Job Ticket: 63403      **DST#: 1**  
Test Start: 2018.02.17 @ 21:48:05

## Mud and Cushion Information

|                                  |                            |                            |
|----------------------------------|----------------------------|----------------------------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API: 32 deg API        |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: 105000 ppm |
| Viscosity: 57.00 sec/qt          | Cushion Volume: bbl        |                            |
| Water Loss: 8.39 in <sup>3</sup> | Gas Cushion Type:          |                            |
| Resistivity: ohm.m               | Gas Cushion Pressure: psig |                            |
| Salinity: 6500.00 ppm            |                            |                            |
| Filter Cake: inches              |                            |                            |

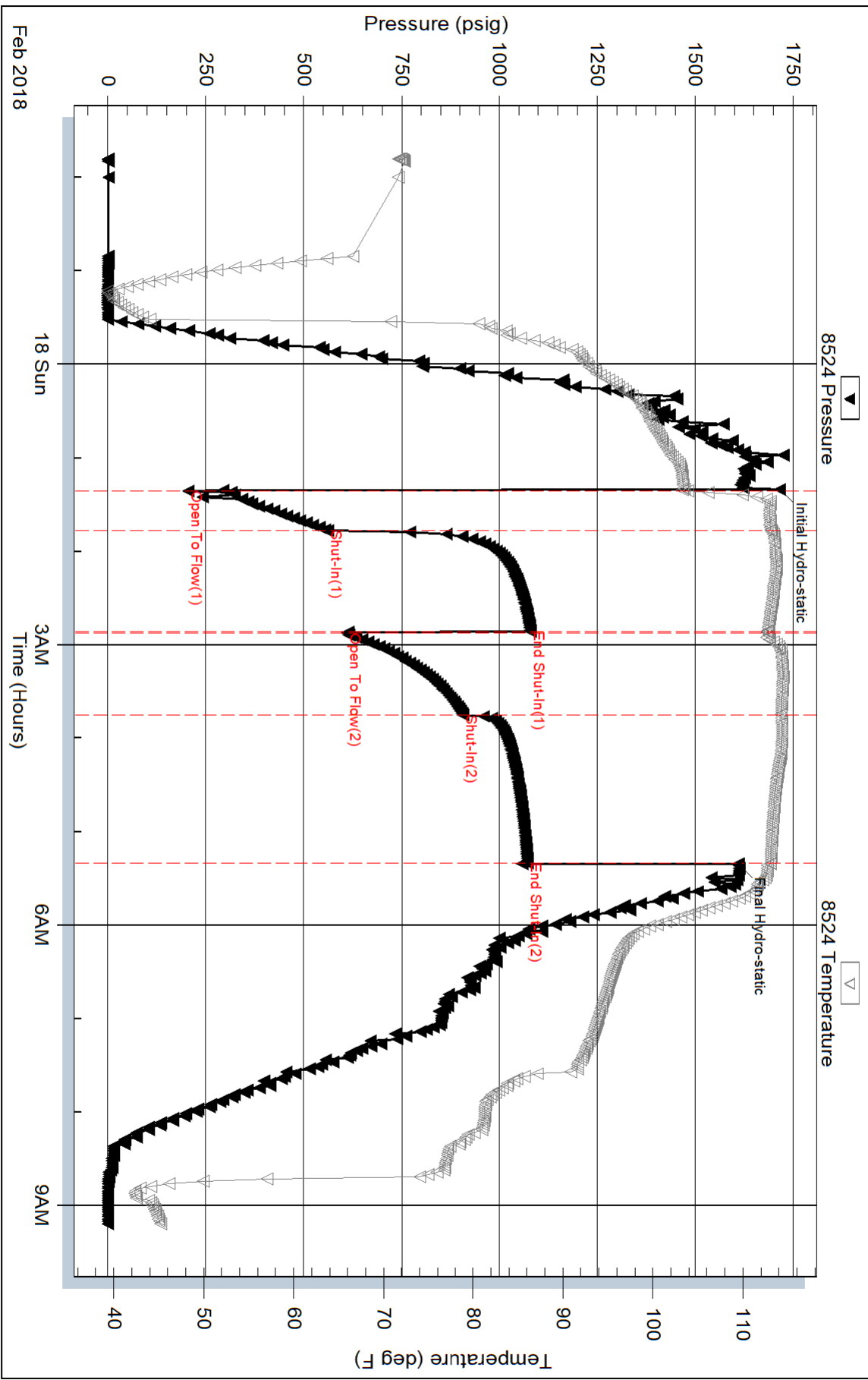
## Recovery Information

Recovery Table

| Length<br>ft | Description                | Volume<br>bbl |
|--------------|----------------------------|---------------|
| 1328.00      | GMCOV, 20%G 20%O 55%W 5%M  | 18.556        |
| 190.00       | GM, 10%G 90%M              | 2.693         |
| 0.00         | Gas to surface 8mins(TSTM) | 0.000         |

Total Length: 1518.00 ft      Total Volume: 21.249 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW: .10@45deg

### Pressure vs. Time



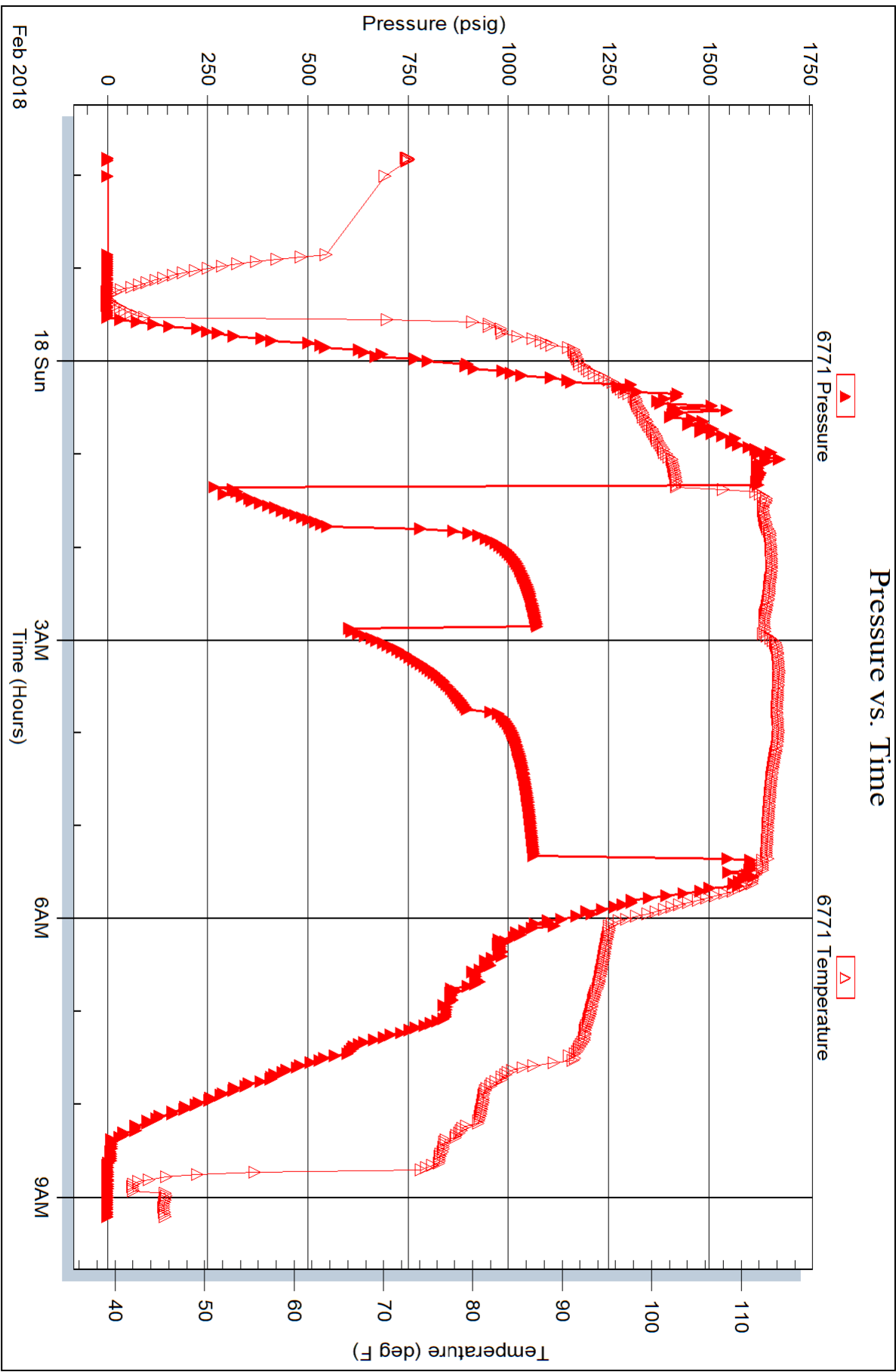
Serial #: 6771

Inside

Dixon Operating Company, LLC

Kiefer #1-9

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63404

**DST#: 2**

Test Start: 2018.02.18 @ 20:08:43

## GENERAL INFORMATION:

Formation: **L/KC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:43:04

Time Test Ended: 06:20:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

**Interval: 3490.00 ft (KB) To 3548.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3548.00 ft (KB) (TVD)

1858.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8524 Outside**

Press@RunDepth: 634.03 psig @ 3491.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.18

End Date:

2018.02.19

Last Calib.:

2018.02.19

Start Time: 20:08:44

End Time:

06:20:33

Time On Btm:

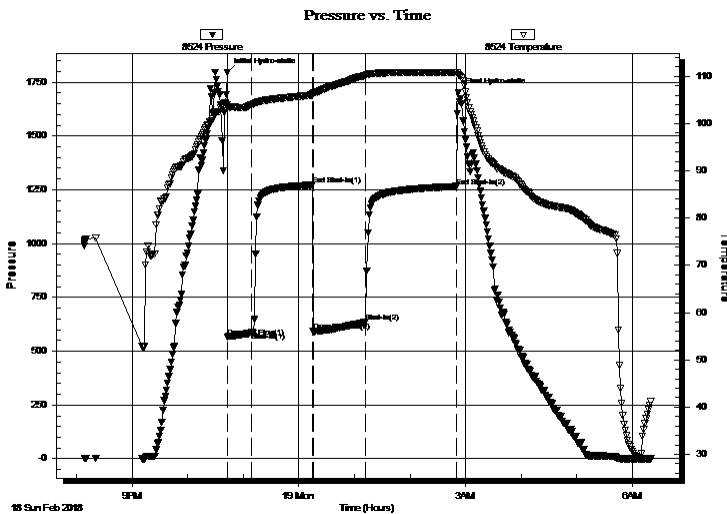
2018.02.18 @ 22:42:34

Time Off Btm:

2018.02.19 @ 02:52:04

**TEST COMMENT:** 30- IF- BOB 21mins  
60- IS- Slow ly built to 8"  
60- FF- BOB 13mins  
90- FSI- Slow ly built to 6"

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1794.34         | 104.04       | Initial Hydro-static |
| 1           | 564.07          | 103.56       | Open To Flow (1)     |
| 27          | 587.02          | 104.00       | Shut-In(1)           |
| 92          | 1271.93         | 106.07       | End Shut-In(1)       |
| 93          | 591.27          | 106.35       | Open To Flow (2)     |
| 149         | 634.03          | 110.23       | Shut-In(2)           |
| 248         | 1265.47         | 110.87       | End Shut-In(2)       |
| 250         | 1702.01         | 110.30       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 253.00      | GOCM, 30%G 5%O 65%M | 3.32         |
| 886.00      | GOSM, 10%G 90%M     | 12.56        |
| 0.00        | 190' GIP            | 0.00         |
|             |                     |              |
|             |                     |              |

## Gas Rates

|  | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|  |                |                 |                  |

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC  
 8100 E. 22nd St. N. Bldg. 300  
 Suite 200  
 Wichita, KS 67226  
 ATTN: Bruce Reed

**9-23S-12W Stafford, KS**

**Kiefer #1-9**

Job Ticket: 63404

**DST#: 2**

Test Start: 2018.02.18 @ 20:08:43

## GENERAL INFORMATION:

Formation: **L/KC "H-J"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 22:43:04  
 Tester: Brannan Lonsdale  
 Time Test Ended: 06:20:33  
 Unit No: 73  
 Interval: **3490.00 ft (KB) To 3548.00 ft (KB) (TVD)**  
 Reference Elevations: 1869.00 ft (KB)  
 Total Depth: 3548.00 ft (KB) (TVD)  
 1858.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

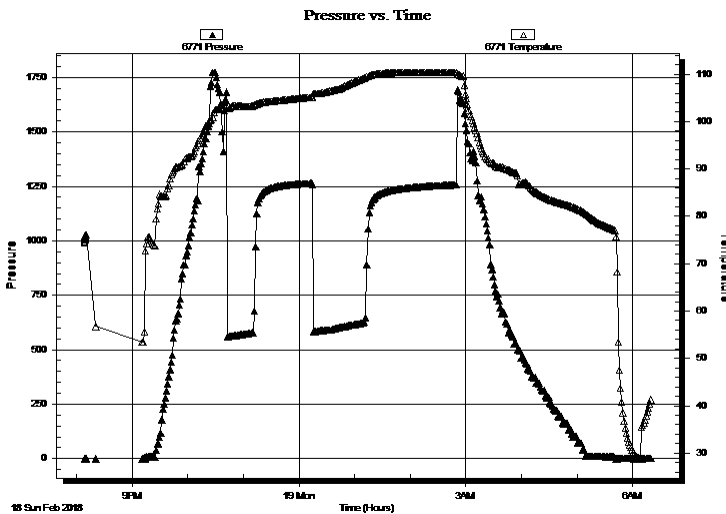
**Serial #: 6771**

**Inside**

Press@RunDepth: psig @ 3491.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.02.18 End Date: 2018.02.19 Last Calib.: 2018.02.19  
 Start Time: 20:08:37 End Time: 06:20:11 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30- IF- BOB 21mins  
 60- IS- Slow ly built to 8"  
 60- FF- BOB 13mins  
 90- FSI- Slow ly built to 6"

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 253.00      | GOCM, 30%G 5%O 65%M | 3.32         |
| 886.00      | GOSM, 10%G 90%M     | 12.56        |
| 0.00        | 190' GIP            | 0.00         |
|             |                     |              |
|             |                     |              |

## Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63404

**DST#: 2**

Test Start: 2018.02.18 @ 20:08:43

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 65.00 sec/qt

Water Loss: 10.19 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 9500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

32 deg API

Water Salinity: ppm

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 253.00       | GOCM, 30%G 5%O 65%M | 3.318         |
| 886.00       | GOSM, 10%G 90%M     | 12.559        |
| 0.00         | 190' GIP            | 0.000         |

Total Length: 1139.00 ft      Total Volume: 15.877 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

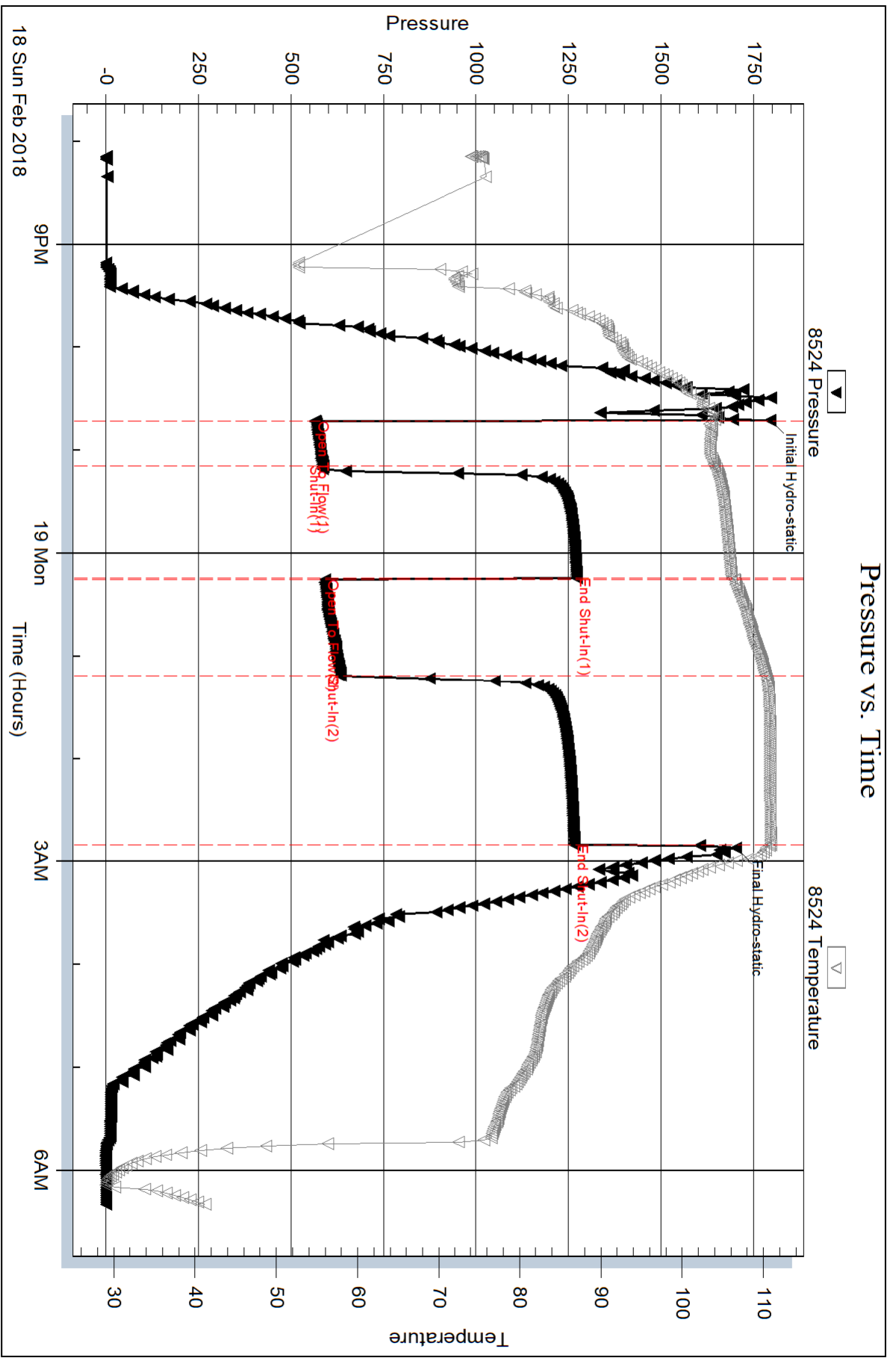
Recovery Comments:

Serial #: 8524

Outside Dixon Operating Company, LLC

Kiefer #1-9

DST Test Number: 2





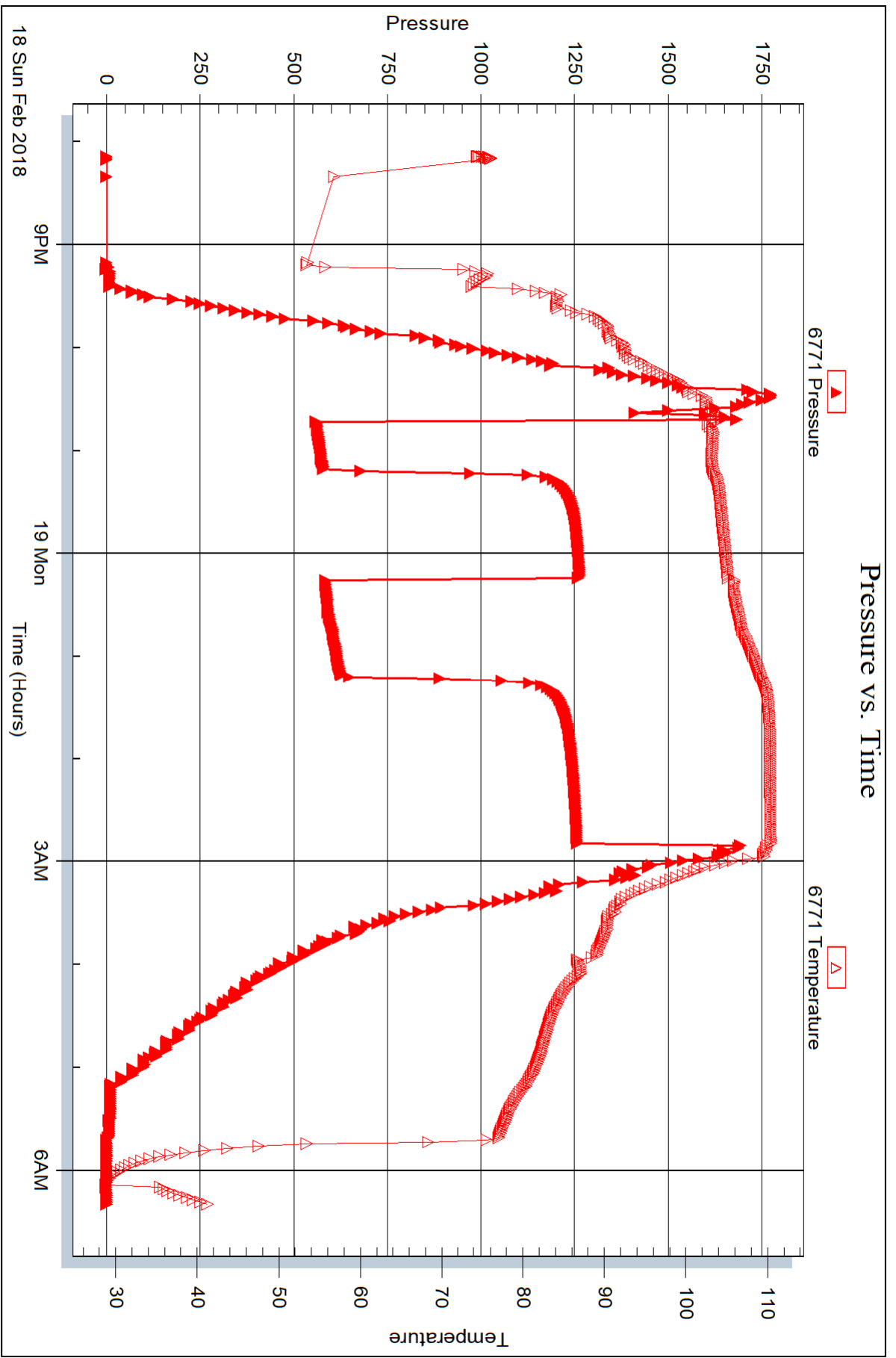
Serial #: 6771

Inside

Dixon Operating Company, LLC

Kiefer #1-9

DST Test Number: 2





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63405

**DST#: 3**

Test Start: 2018.02.19 @ 07:26:38

## GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:01:59

Time Test Ended: 15:39:44

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

**Interval: 3490.00 ft (KB) To 3548.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3548.00 ft (KB) (TVD)

1858.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8524 Outside**

Press@RunDepth: 135.65 psig @ 3491.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.19 End Date: 2018.02.19

Last Calib.: 2018.02.19

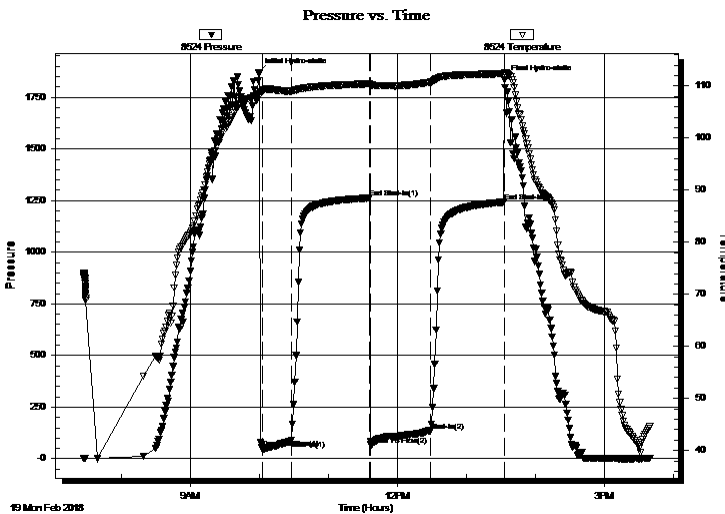
Start Time: 07:26:39 End Time: 15:39:44

Time On Btm: 2018.02.19 @ 09:58:59

Time Off Btm: 2018.02.19 @ 13:33:14

**TEST COMMENT:** 30- IF- BOB 30 secs Blow built to 274"  
60- IS- No blow  
60- FF- BOB instantly. Gas to surface 14 mins (TSTM)  
90- FSI- No blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1869.93         | 108.46       | Initial Hydro-static |
| 3           | 49.27           | 108.95       | Open To Flow (1)     |
| 29          | 87.91           | 109.07       | Shut-In(1)           |
| 97          | 1262.29         | 110.42       | End Shut-In(1)       |
| 98          | 67.22           | 110.18       | Open To Flow (2)     |
| 150         | 135.65          | 110.74       | Shut-In(2)           |
| 214         | 1242.84         | 112.34       | End Shut-In(2)       |
| 215         | 1835.05         | 112.58       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                 | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 190.00      | VGMCO, 35%G 10%M 55%O       | 2.42         |
| 32.00       | SOCM, 5%O 95%M              | 0.45         |
| 0.00        | Gas to surface 44mins(TSTM) | 0.00         |
|             |                             |              |
|             |                             |              |

\* Recovery from multiple tests

## Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63405

**DST#: 3**

Test Start: 2018.02.19 @ 07:26:38

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description                 | Volume<br>bbl |
|--------------|-----------------------------|---------------|
| 190.00       | VGMCO, 35%G 10%M 55%O       | 2.425         |
| 32.00        | SOCM, 5%O 95%M              | 0.454         |
| 0.00         | Gas to surface 44mins(TSTM) | 0.000         |

Total Length: 222.00 ft      Total Volume: 2.879 bbl

Num Fluid Samples: 0

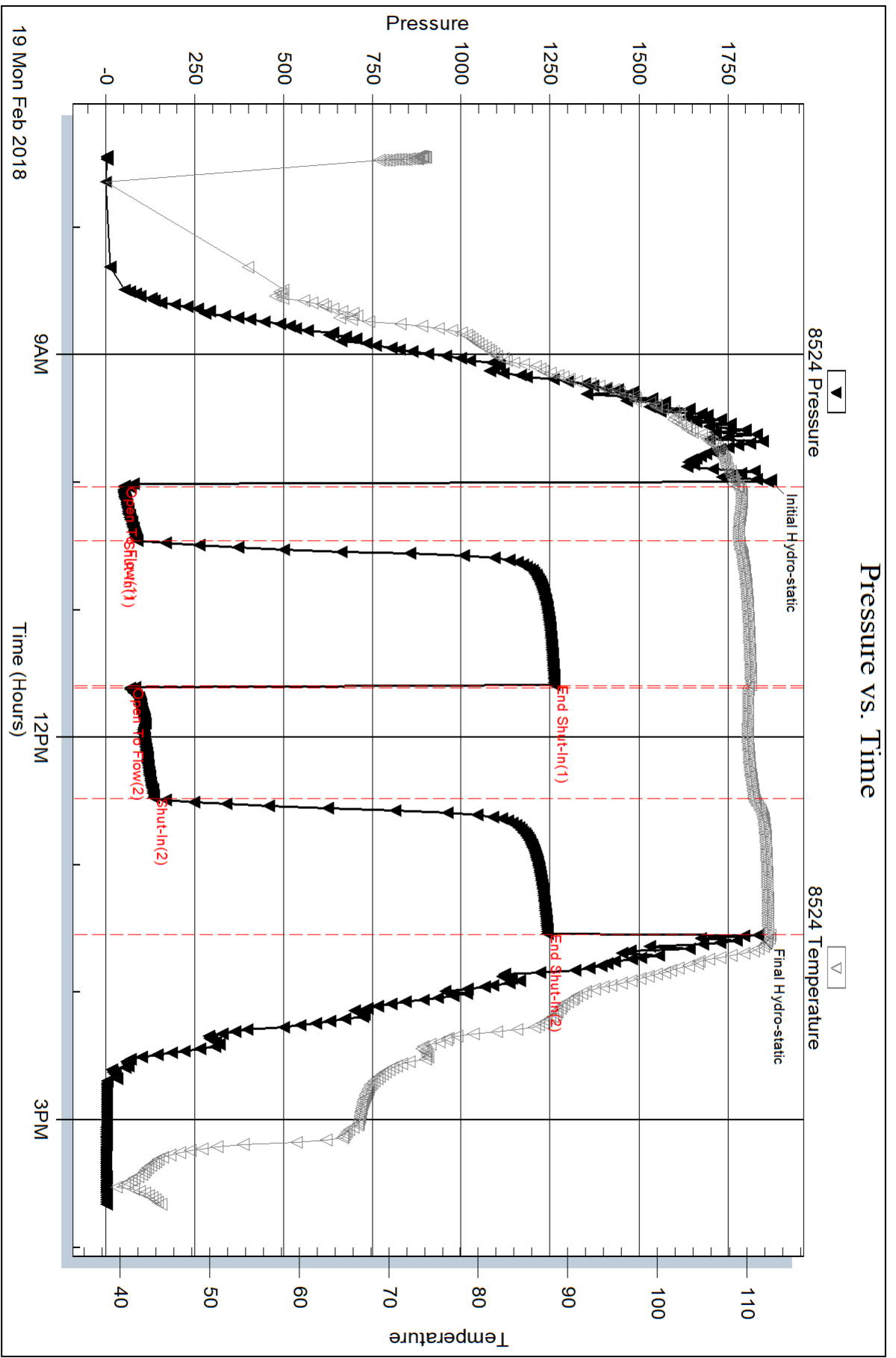
Num Gas Bombs: 0

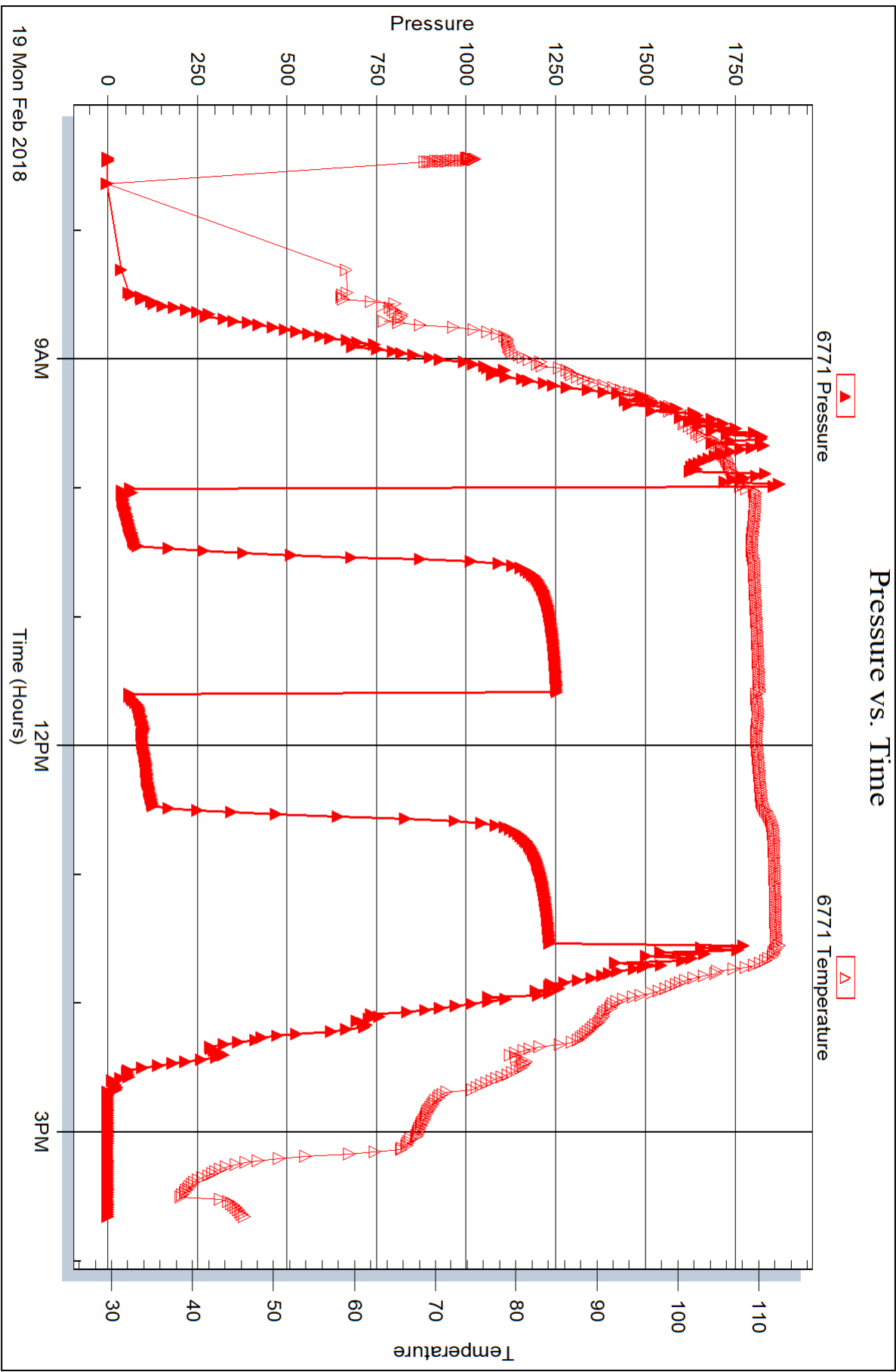
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63406

**DST#: 4**

Test Start: 2018.02.20 @ 01:00:58

## GENERAL INFORMATION:

Formation: **L/KC "K&L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:05:19

Time Test Ended: 12:13:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

**Interval: 3548.00 ft (KB) To 3612.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3612.00 ft (KB) (TVD)

1858.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

**Serial #: 8524 Outside**

Press@RunDepth: 98.75 psig @ 3549.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.20 End Date: 2018.02.20

Last Calib.: 2018.02.20

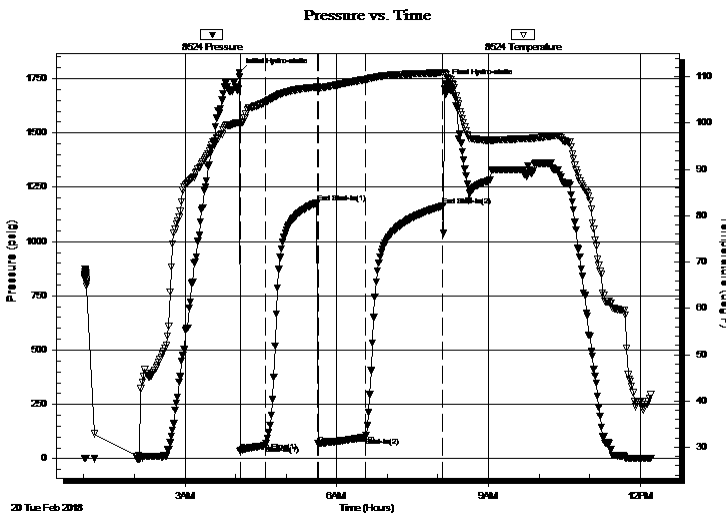
Start Time: 01:00:59 End Time: 12:13:33

Time On Btm: 2018.02.20 @ 04:04:34

Time Off Btm: 2018.02.20 @ 08:08:34

**TEST COMMENT:** 30- IF- BOB 10mins(14.49")  
60- IS- No blow  
60- FF- Built to 7.5" then slowly died back to 3"  
90- FS- No blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1778.62         | 100.17       | Initial Hydro-static |
| 1           | 34.77           | 99.72        | Open To Flow (1)     |
| 31          | 60.51           | 104.45       | Shut-In(1)           |
| 93          | 1179.36         | 107.78       | End Shut-In(1)       |
| 94          | 67.83           | 107.56       | Open To Flow (2)     |
| 150         | 98.75           | 109.43       | Shut-In(2)           |
| 242         | 1163.58         | 110.89       | End Shut-In(2)       |
| 244         | 1728.74         | 110.63       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 174.00      | GOCM, 5%G 20%O 75%M | 2.20         |
| 0.00        | 142' GIP            | 0.00         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

\* Recovery from multiple tests

## Gas Rates

|  | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|  |                |                 |                  |



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC  
 8100 E. 22nd St. N. Bldg. 300  
 Suite 200  
 Wichita, KS 67226  
 ATTN: Bruce Reed

**9-23S-12W Stafford, KS**

**Kiefer #1-9**

Job Ticket: 63406

**DST#: 4**

Test Start: 2018.02.20 @ 01:00:58

## GENERAL INFORMATION:

Formation: **L/KC "K&L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:05:19

Time Test Ended: 12:13:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

**Interval: 3548.00 ft (KB) To 3612.00 ft (KB) (TVD)**

Total Depth: 3612.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1869.00 ft (KB)

1858.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: psig @ 3549.00 ft (KB)

Start Date: 2018.02.20

End Date: 2018.02.20

Start Time: 01:00:49

End Time: 12:13:08

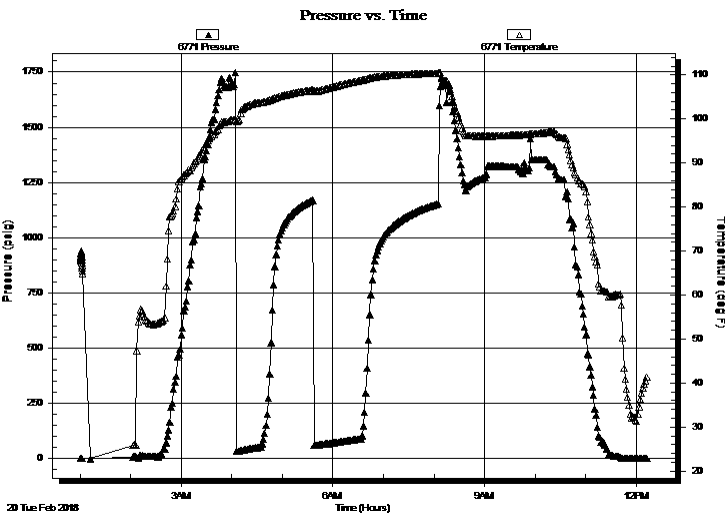
Capacity: 8000.00 psig

Last Calib.: 2018.02.20

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30- IF- BOB 10mins(14.49")  
 60- IS- No blow  
 60- FF- Built to 7.5" then slowly died back to 3"  
 90- FS- No blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 174.00      | GOCM, 5%G 20%O 75%M | 2.20         |
| 0.00        | 142' GIP            | 0.00         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

## Gas Rates

|  | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|  |                |                 |                  |

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63406

**DST#: 4**

Test Start: 2018.02.20 @ 01:00:58

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 72.00 sec/qt

Water Loss: 11.99 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 12100.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

32 deg API

Water Salinity: ppm

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 174.00       | GOCM, 5%G 20%O 75%M | 2.198         |
| 0.00         | 142' GIP            | 0.000         |

Total Length: 174.00 ft      Total Volume: 2.198 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

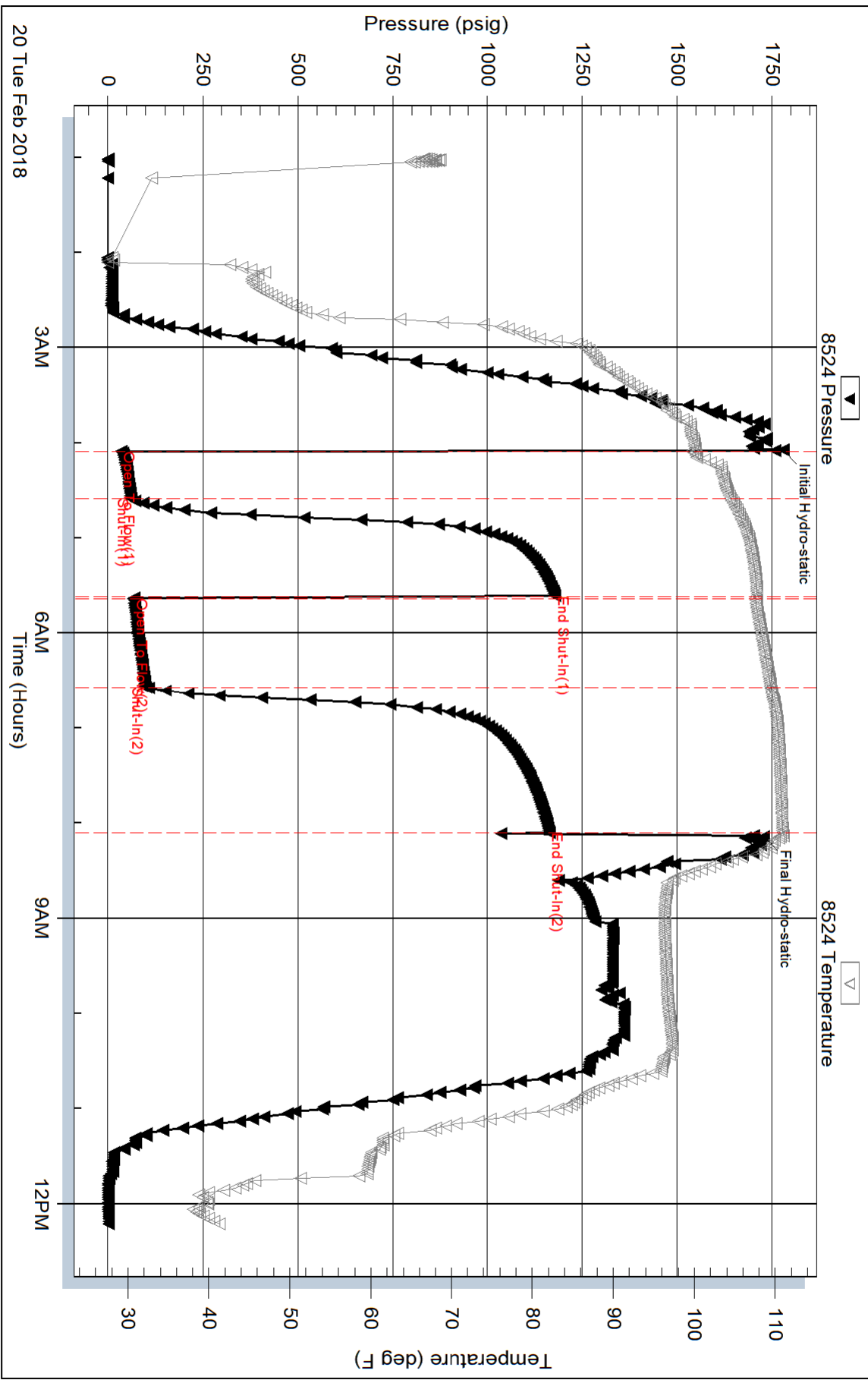
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time



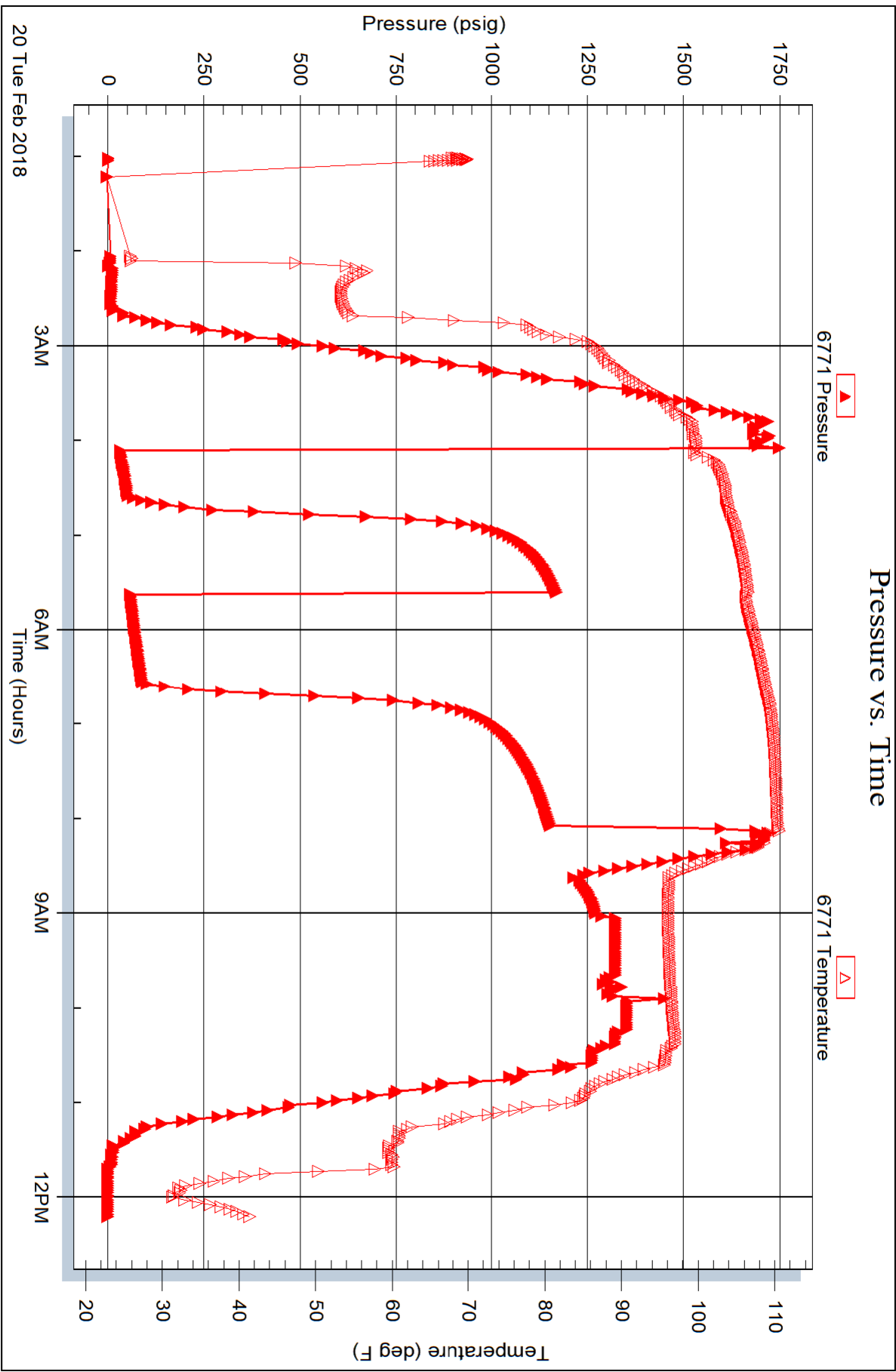
Serial #: 6771

Inside

Dixon Operating Company, LLC

Kiefer #1-9

DST Test Number: 4





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63407

**DST#: 5**

Test Start: 2018.02.20 @ 23:12:58

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:31:04

Time Test Ended: 08:48:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

**Interval: 3644.00 ft (KB) To 3710.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3710.00 ft (KB) (TVD)

1858.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8524 Outside**

Press@RunDepth: 76.74 psig @ 3645.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.02.20

End Date:

2018.02.21

Last Calib.:

2018.02.21

Start Time: 23:12:59

End Time:

08:48:33

Time On Btm:

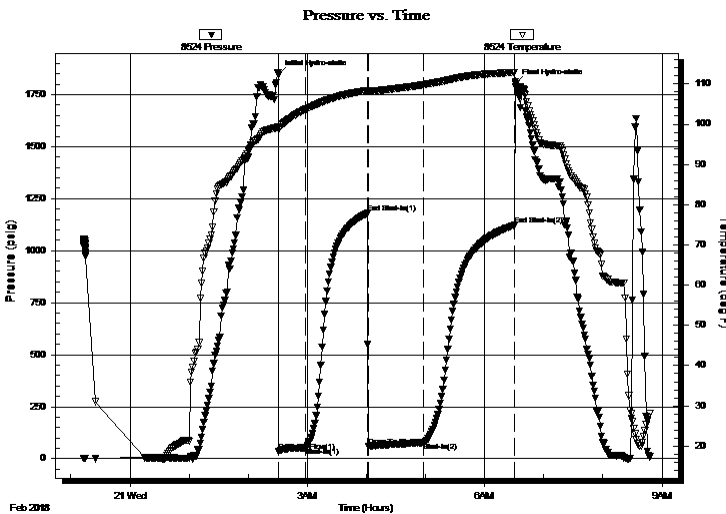
2018.02.21 @ 02:30:49

Time Off Btm:

2018.02.21 @ 06:31:34

**TEST COMMENT:** 30- IF- Weak blow slow ly built to 3"  
60- IS- No blow  
60- FF- Weak blow built slow ly to 6"  
90- FSI- No blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1844.80         | 99.21        | Initial Hydro-static |
| 1           | 37.25           | 98.84        | Open To Flow (1)     |
| 28          | 53.05           | 103.67       | Shut-In(1)           |
| 91          | 1180.14         | 108.35       | End Shut-In(1)       |
| 92          | 60.49           | 108.13       | Open To Flow (2)     |
| 148         | 76.74           | 109.84       | Shut-In(2)           |
| 240         | 1122.11         | 112.86       | End Shut-In(2)       |
| 241         | 1804.34         | 109.33       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 111.00      | WOCM, 20%W 5%O 75%M | 1.31         |
| 0.00        | 16' GIP             | 0.00         |
|             |                     |              |
|             |                     |              |
|             |                     |              |

\* Recovery from multiple tests

## Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Dixon Operating Company, LLC

9-23S-12W Stafford, KS

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63407

**DST#: 5**

Test Start: 2018.02.20 @ 23:12:58

### GENERAL INFORMATION:

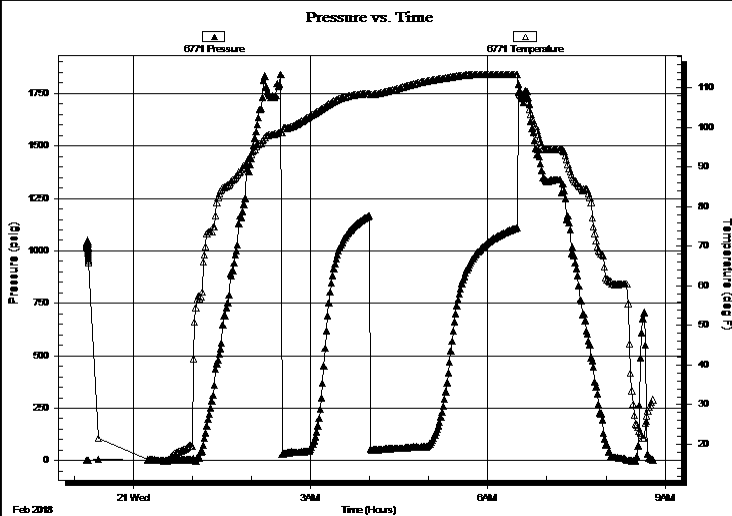
Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 02:31:04  
 Tester: Brannan Lonsdale  
 Time Test Ended: 08:48:33  
 Unit No: 73  
**Interval: 3644.00 ft (KB) To 3710.00 ft (KB) (TVD)**  
 Reference Elevations: 1869.00 ft (KB)  
 Total Depth: 3710.00 ft (KB) (TVD)  
 1858.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 6771**

**Inside**

|                                        |                        |
|----------------------------------------|------------------------|
| Press@RunDepth: psig @ 3645.00 ft (KB) | Capacity: 8000.00 psig |
| Start Date: 2018.02.20                 | End Date: 2018.02.21   |
| Last Calib.: 2018.02.21                | Time On Btm:           |
| Start Time: 23:12:47                   | End Time: 08:48:21     |
|                                        | Time Off Btm:          |

**TEST COMMENT:** 30- IF- Weak blow slow ly built to 3"  
 60- IS- No blow  
 60- FF- Weak blow built slow ly to 6"  
 90- FS- No blow



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |
|             |                 |              |            |

### Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 111.00      | WOCM, 20%W 5%O 75%M | 1.31         |
| 0.00        | 16' GIP             | 0.00         |
|             |                     |              |
|             |                     |              |
|             |                     |              |
|             |                     |              |

### Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |
|                |                 |                  |
|                |                 |                  |
|                |                 |                  |

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dixon Operating Company, LLC

**9-23S-12W Stafford, KS**

8100 E. 22nd St. N. Bldg. 300  
Suite 200  
Wichita, KS 67226  
ATTN: Bruce Reed

**Kiefer #1-9**

Job Ticket: 63407

**DST#: 5**

Test Start: 2018.02.20 @ 23:12:58

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbbl |
|--------------|---------------------|----------------|
| 111.00       | WOCM, 20%W 5%O 75%M | 1.305          |
| 0.00         | 16' GIP             | 0.000          |

Total Length: 111.00 ft      Total Volume: 1.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .36@39deg

