



DRILL STEM TEST REPORT

Prepared For: **K & N Petroleum Inc**

1105 Walnut
Great Bend KS 67530

ATTN: Clint Musgrove

Gatton #7-1

7-21s-12w Stafford,KS

Start Date: 2014.11.16 @ 03:50:00

End Date: 2014.11.16 @ 10:49:30

Job Ticket #: 61885 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.18 @ 11:58:45



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61885

DST#: 1

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 03:50:00

GENERAL INFORMATION:

Formation: **LKC A-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:44:30

Time Test Ended: 10:49:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: S5

Interval: 3244.00 ft (KB) To 3310.00 ft (KB) (TVD)

Reference Elevations: 1864.00 ft (KB)

Total Depth: 3310.00 ft (KB) (TVD)

1856.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6666

Inside

Press@RunDepth: 75.26 psig @ 3306.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.11.16

End Date: 2014.11.16

Last Calib.: 2014.11.16

Start Time: 03:51:00

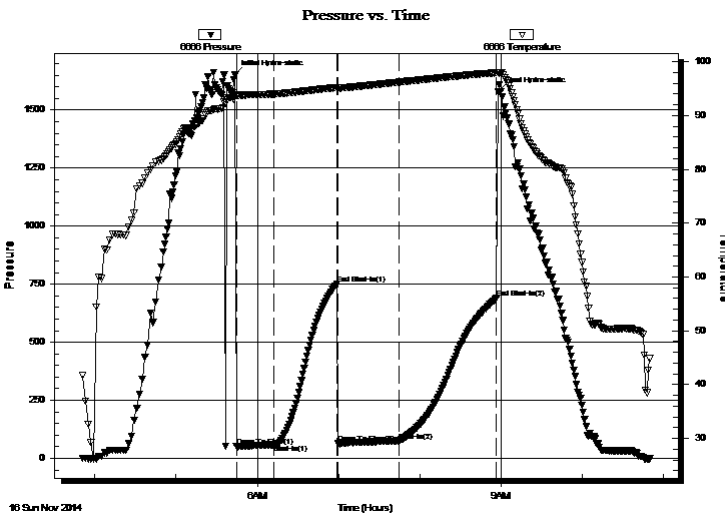
End Time: 10:49:30

Time On Btm: 2014.11.16 @ 05:43:30

Time Off Btm: 2014.11.16 @ 08:57:30

TEST COMMENT: IFP-30 Minutes-Weak blow built bottom of bucket in 22 minutes
ISIP-45 Minutes-No blow back
FFP-45Minutes-Fair blow built bottom of bucket in 10 minutes
FSIP-60 Minutes-No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1651.20 | 93.81 | Initial Hydro-static |
| 1 | 53.29 | 93.70 | Open To Flow (1) |
| 29 | 58.76 | 94.02 | Shut-In(1) |
| 75 | 750.72 | 95.23 | End Shut-In(1) |
| 76 | 63.98 | 95.10 | Open To Flow (2) |
| 121 | 75.26 | 96.23 | Shut-In(2) |
| 193 | 689.46 | 97.99 | End Shut-In(2) |
| 194 | 1579.29 | 98.05 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 30.00 | mud spotoil | 0.42 |
| 60.00 | mud | 0.84 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61885

DST#: 1

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 03:50:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3255.00 ft | Diameter: 3.80 inches | Volume: 45.66 bbl | Tool Weight: 1000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 65000.00 lb |
| | | | <u>Total Volume: 45.66 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 31.00 ft | | | String Weight: Initial 50000.00 lb |
| Depth to Top Packer: | 3244.00 ft | | | Final 50000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 66.00 ft | | | |
| Tool Length: | 86.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3229.00 | |
| Hydraulic tool | 5.00 | | | 3234.00 | |
| Packer | 5.00 | | | 3239.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3244.00 | |
| Change Over Sub | 0.75 | | | 3244.75 | |
| Drill Pipe | 31.50 | | | 3276.25 | |
| Change Over Sub | 0.75 | | | 3277.00 | |
| Anchor | 28.00 | | | 3305.00 | |
| Recorder | 1.00 | 6666 | Inside | 3306.00 | |
| Recorder | 1.00 | 8400 | Outside | 3307.00 | |
| Bullnose | 3.00 | | | 3310.00 | 66.00 Bottom Packers & Anchor |

Total Tool Length: 86.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61885

DST#: 1

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 03:50:00

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:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 30.00 | mud spotoil | 0.421 |
| 60.00 | mud | 0.842 |

Total Length: 90.00 ft Total Volume: 1.263 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

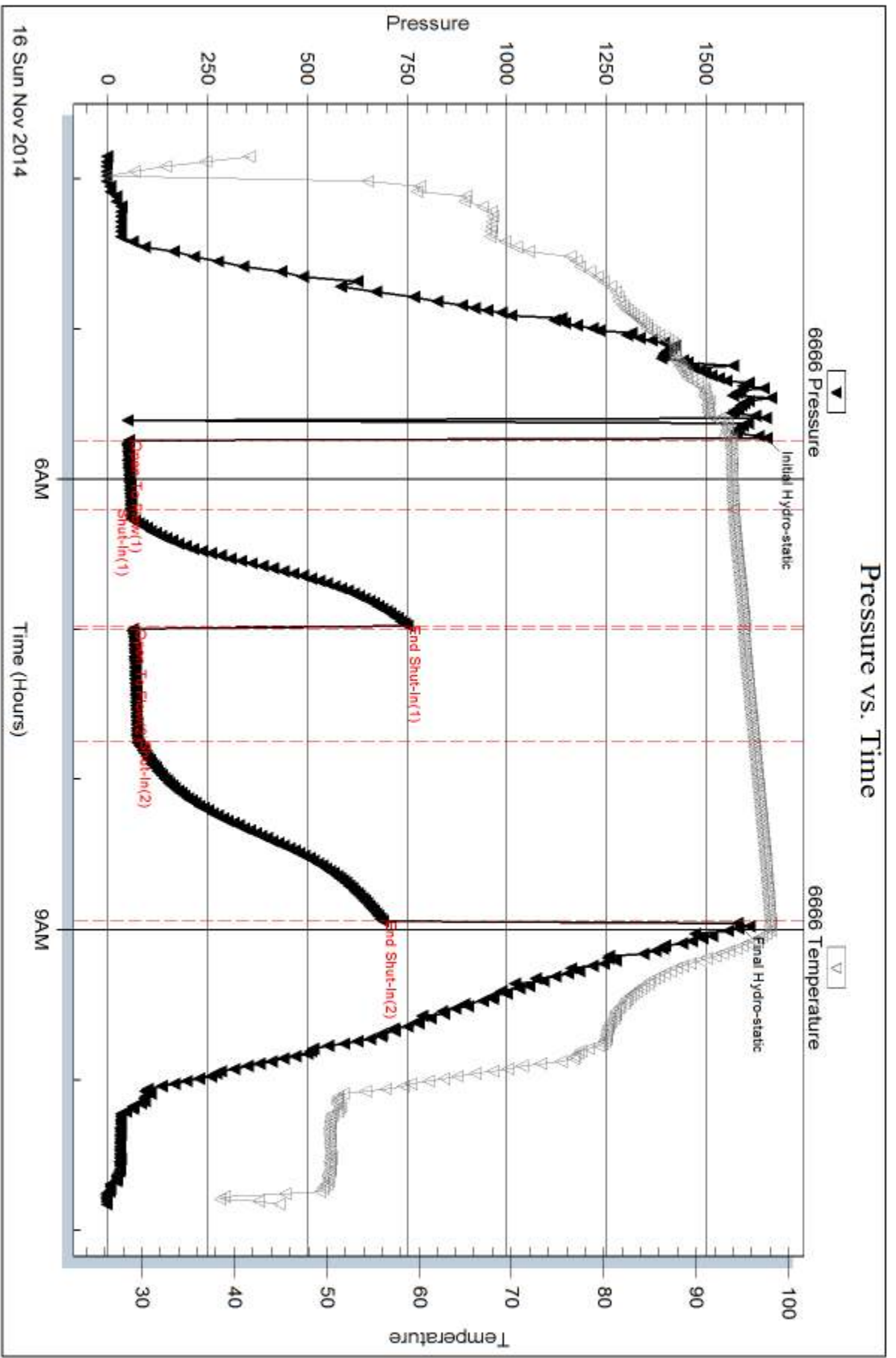
Serial #: 6666

Inside

K & N Petroleum Inc

Gatton #7-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61885

Printed: 2014.11.18 @ 11:58:46



DRILL STEM TEST REPORT

Prepared For: **K & N Petroleum Inc**

1105 Walnut
Great Bend KS 67530

ATTN: Clint Musgrove

Gatton #7-1

7-21s-12w Stafford,KS

Start Date: 2014.11.16 @ 22:08:00

End Date: 2014.11.17 @ 04:31:12

Job Ticket #: 61886 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.11.18 @ 11:58:00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

K & N Petroleum Inc

7-21s-12w Stafford, KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61886

DST#: 2

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 22:08:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:02:25

Time Test Ended: 04:31:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Jared Scheck

Unit No: S5

Interval: 3365.00 ft (KB) To 3396.00 ft (KB) (TVD)

Reference Elevations: 1864.00 ft (KB)

Total Depth: 3396.00 ft (KB) (TVD)

1856.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8400

Inside

Press@RunDepth: 88.52 psig @ 3392.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.11.16

End Date: 2014.11.17

Last Calib.: 2014.11.17

Start Time: 22:21:13

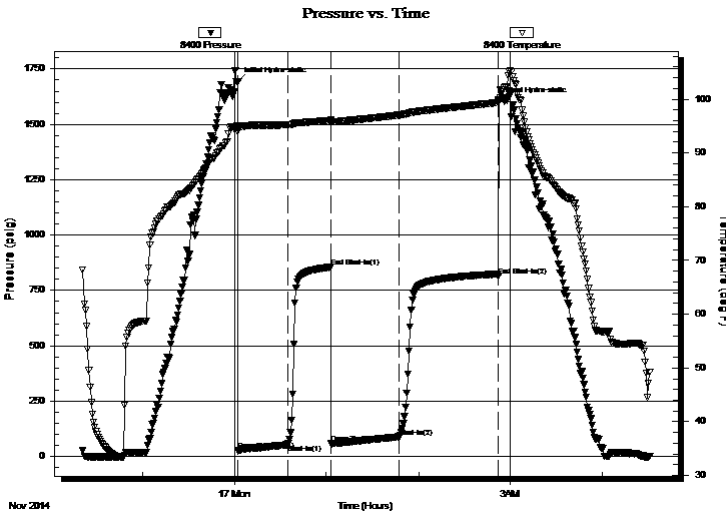
End Time: 04:31:11

Time On Btm: 2014.11.17 @ 00:02:23

Time Off Btm: 2014.11.17 @ 02:52:14

TEST COMMENT: IFP-30 Minutes-Weak blow built 10" into water in 30 minutes
ISIP-30 Minutes-No blow back
FFP-45 Minutes-Weak blow built 11" into bucket in 45 minutes
FSIP-60 Minutes-No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1692.93 | 95.05 | Initial Hydro-static |
| 1 | 26.23 | 94.02 | Open To Flow (1) |
| 33 | 52.82 | 95.24 | Shut-In(1) |
| 61 | 855.07 | 96.07 | End Shut-In(1) |
| 61 | 58.06 | 95.74 | Open To Flow (2) |
| 105 | 88.52 | 97.03 | Shut-In(2) |
| 170 | 815.93 | 99.37 | End Shut-In(2) |
| 170 | 1602.08 | 99.84 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 120.00 | muddy water | 1.68 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61886

DST#: 2

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 22:08:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:02:25

Time Test Ended: 04:31:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Jared Scheck

Unit No: S5

Interval: 3365.00 ft (KB) To 3396.00 ft (KB) (TVD)

Reference Elevations: 1864.00 ft (KB)

Total Depth: 3396.00 ft (KB) (TVD)

1856.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6666 Outside

Press@RunDepth: 821.91 psig @ 3393.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.11.16 End Date: 2014.11.17

Last Calib.: 2014.11.17

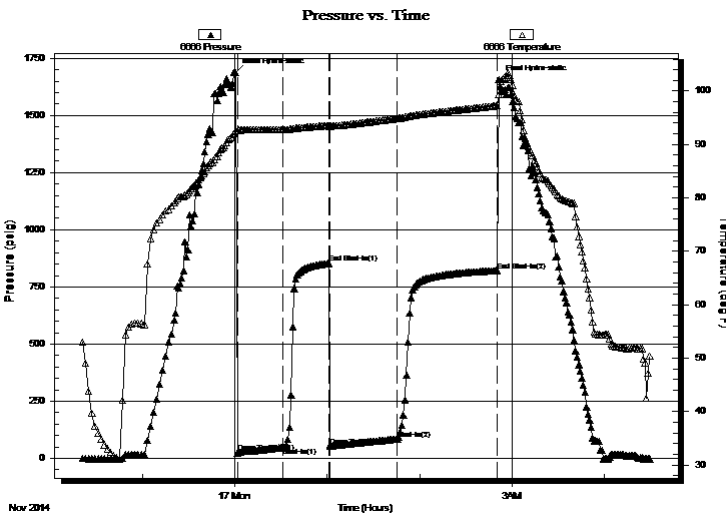
Start Time: 22:21:00 End Time: 04:30:00

Time On Btm: 2014.11.17 @ 00:00:30

Time Off Btm: 2014.11.17 @ 02:51:30

TEST COMMENT: IFP-30 Minutes-Weak blow built 10" into water in 30 minutes
ISIP-30 Minutes-No blow back
FFP-45 Minutes-Weak blow built 11" into bucket in 45 minutes
FSIP-60 Minutes-No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1688.28 | 92.67 | Initial Hydro-static |
| 1 | 25.03 | 92.58 | Open To Flow (1) |
| 31 | 47.92 | 92.77 | Shut-In(1) |
| 61 | 853.06 | 93.58 | End Shut-In(1) |
| 62 | 54.46 | 93.43 | Open To Flow (2) |
| 105 | 85.57 | 94.87 | Shut-In(2) |
| 170 | 821.91 | 97.25 | End Shut-In(2) |
| 171 | 1657.61 | 99.33 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 120.00 | muddy water | 1.68 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61886

DST#: 2

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 22:08:00

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3351.00 ft | Diameter: 3.80 inches | Volume: 47.01 bbl | Tool Weight: | 1000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: | 64000.00 lb |
| | | | <u>Total Volume: 47.01 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 6.00 ft | | | String Weight: Initial | 50000.00 lb |
| Depth to Top Packer: | 3365.00 ft | | | Final | 50000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 31.00 ft | | | | |
| Tool Length: | 51.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Shut In Tool | 5.00 | | | 3350.00 | |
| Hydraulic tool | 5.00 | | | 3355.00 | |
| Packer | 5.00 | | | 3360.00 | 20.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3365.00 | |
| Anchor | 26.00 | | | 3391.00 | |
| Recorder | 1.00 | 8400 | Inside | 3392.00 | |
| Recorder | 1.00 | 6666 | Outside | 3393.00 | |
| Bullnose | 3.00 | | | 3396.00 | 31.00 Bottom Packers & Anchor |

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

K & N Petroleum Inc

7-21s-12w Stafford,KS

1105 Walnut
Great Bend KS 67530

Gatton #7-1

Job Ticket: 61886

DST#: 2

ATTN: Clint Musgrove

Test Start: 2014.11.16 @ 22:08:00

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:

20000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 120.00 | muddy water | 1.683 |

Total Length: 120.00 ft Total Volume: 1.683 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rW .25 @ 60degree

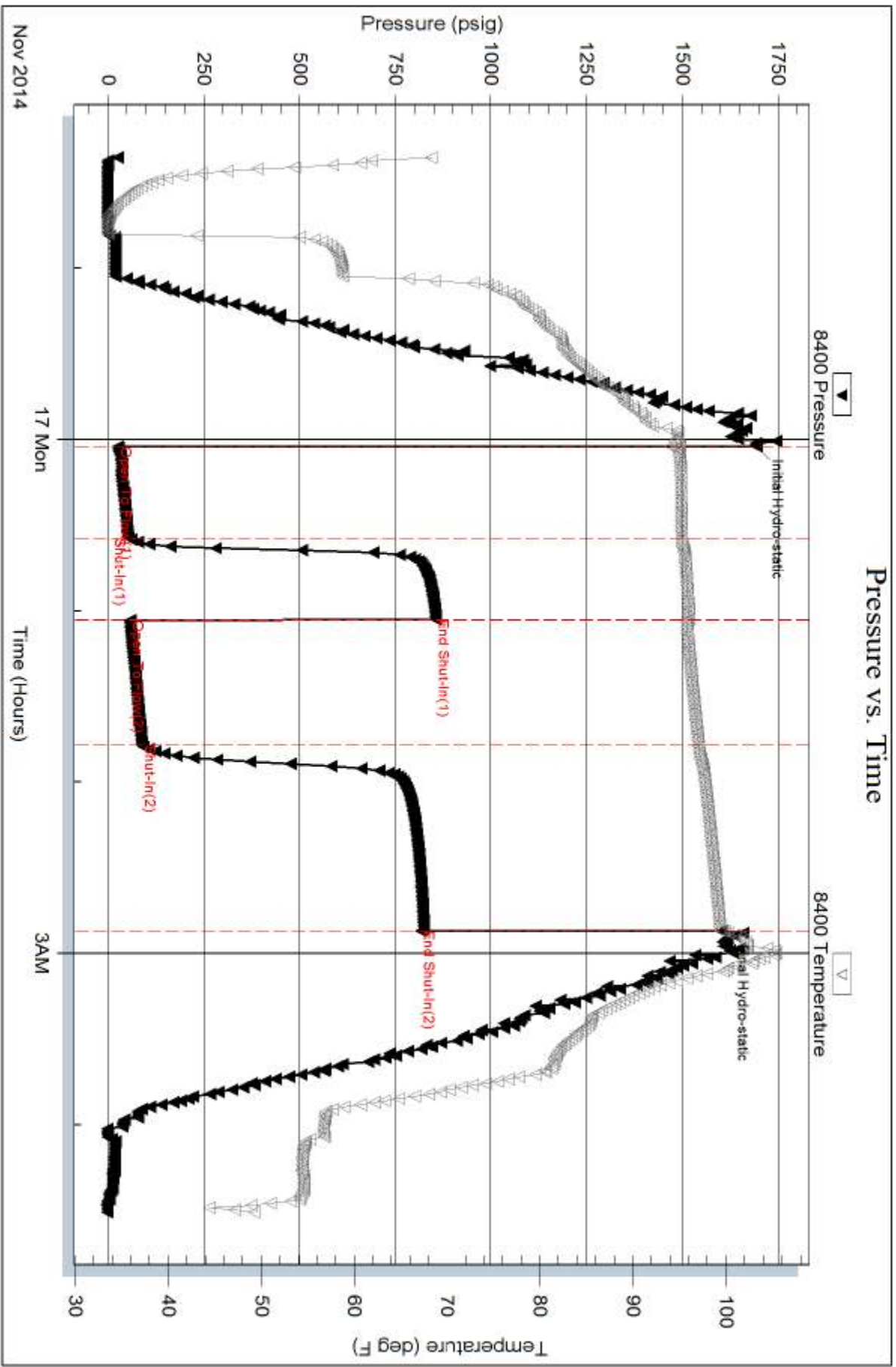
Serial #: 8400

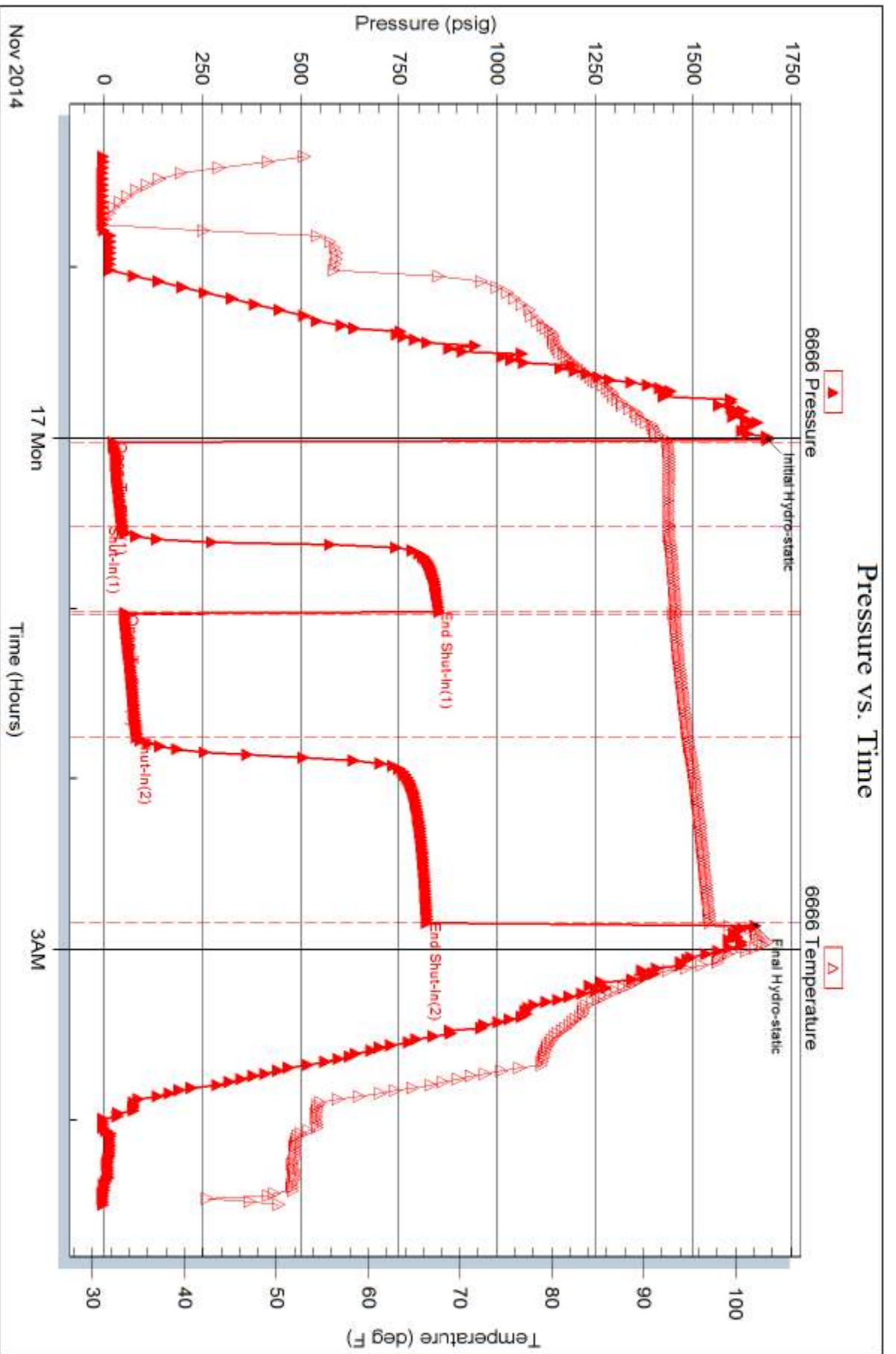
Inside

K & N Petroleum Inc

Gatton #7-1

DST Test Number: 2







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61885

4/10

Well Name & No. Gaillon # 7-1 Test No. 1 Date 11-16-2014
 Company K&N Petroleum Inc Elevation 1864 KB 1856 GL
 Address 1105 Walnut Great Bend KS 67530
 Co. Rep / Geo. Clint Musgrave Rig Saxmund Drilling Rigs # 6
 Location: Sec. 7 Twp. 21 Rge. 12 Co. Stafford State KS

Interval Tested 3244-3310 Zone Tested hansley A-F
 Anchor Length 66 Drill Pipe Run _____ Mud Wt. 8.4
 Top Packer Depth 3239 Drill Collars Run _____ Vis 58
 Bottom Packer Depth 3244 Wt. Pipe Run _____ WL 8.0
 Total Depth 3310 Chlorides 6000 ppm System LCM _____

Blow Description IFP - weak Blow Built Bottom of Bucket in 22 minutes
ISIP - NO Blow Back
FFP - Fair Blow Built Bottom of Bucket in 10 minutes
FSIP - NO Blow Back

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|-------------------|------|------|--------|------|
| <u>30</u> | <u>mud sp oil</u> | | | | |
| <u>60</u> | <u>mud</u> | | | | |
| ____ | ____ | | | | |
| ____ | ____ | | | | |
| ____ | ____ | | | | |

Rec Total 90 BHT _____ Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 1657 Test 1150 T-On Location 2:00 A
 (B) First Initial Flow 53 Jars _____ T-Started 3:50 A
 (C) First Final Flow 58 Safety Joint _____ T-Open 5:50 A
 (D) Initial Shut-In 750 Circ Sub _____ T-Pulled 8:50 A
 (E) Second Initial Flow 63 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 75 Mileage 30 RT Great Bend 46.50 Comments _____
 (G) Final Shut-In 689 Sampler _____
 (H) Final Hydrostatic 1579 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1196.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1196.50

Approved By _____ Our Representative [Signature]

TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61886

Well Name & No. Gatton #7-1 Test No. 2 Date 11-16-2014
 Company H & N Petroleum Inc Elevation 1864 KB 1856 GL
 Address 1105 Walnut Great Bend KS 67530
 Co. Rep / Geo. Clint M. Dsgrove Rig Southwind Drilling Rig #6
 Location: Sec. 7 Twp. 21 Rge. 12 Co. Stafford State KS

Interval Tested 3365 - 3396 Zone Tested Lansing H zone
 Anchor Length 31 Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 3360 Drill Collars Run _____ Vis 47
 Bottom Packer Depth 3365 Wt. Pipe Run _____ WL 8.0
 Total Depth 3396 Chlorides 11200 ppm System LCM 1

Blow Description IJP - Weak Blow Built 2 inches from Bottom of Bucket 10 inches
ISIP - NO Blow Back
FFP - 11 inches into Bucket in 45 minutes
FSIP - NO Blow Back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|------------------|------|------|--------|------|
| <u>125</u> | <u>mud water</u> | | | | |
| _____ | _____ | | | | |
| _____ | _____ | | | | |
| _____ | _____ | | | | |
| _____ | _____ | | | | |

Rec Total 125 BHT _____ Gravity _____ API RW 25 @ 60 ° F Chlorides 20,000 ppm

(A) Initial Hydrostatic 1692 Test 1150 T-On Location 9:25 pm
 (B) First Initial Flow 26 Jars _____ T-Started 10:20 pm
 (C) First Final Flow 52 Safety Joint _____ T-Open 11:58 pm
 (D) Initial Shut-In 855 Circ Sub _____ T-Pulled 2:43
 (E) Second Initial Flow 58 Hourly Standby _____ T-Out 4:31
 (F) Second Final Flow 88 Mileage 30 RT Great Bend Comments Chlorides 20,000
 (G) Final Shut-In 815 Sampler 46.50 _____
 (H) Final Hydrostatic 1602 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 30 Ruined Packer _____
 Final Flow 45 Extra Copies _____
 Final Shut-In 60 Sub Total 0
 Total 1196.50
 MP/DST Disc't _____
 Sub Total 1196.50

Approved By _____ Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.