

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) (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: | |
|----------------|-------|---------|------------|--|

| | |
|-----------|---------------------------|
| Form | ACO1 - Well Completion |
| Operator | Murfin Drilling Co., Inc. |
| Well Name | Sutton 'A' 1-18 |
| Doc ID | 1272013 |

All Electric Logs Run

| |
|------|
| |
| DIL |
| DUCP |
| MEL |
| BHCS |



Prod-MG

P.O. Box 205803
Dallas, TX 75320-5803

Voice: (832) 482-3742
Fax: (832) 482-3738

INVOICE

Invoice Number: 151130
Invoice Date: Oct 26, 2015
Page: 1

Federal Tax I.D.#: 20-8651475

| |
|---|
| Bill To: |
| Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202 |

| Customer ID | Field Ticket # | Payment Terms | |
|--------------|----------------|---------------|----------|
| Murfin | 67742 | Net 30 Days | |
| Job Location | Camp Location | Service Date | Due Date |
| KS1-01 | Oakley | Oct 26, 2015 | 11/25/15 |

| Quantity | Item | Description | Unit Price | Amount |
|----------|--------------------|---|------------|-----------|
| 1.00 | WELL NAME | Sutton A #1-18 | | |
| 210.00 | CEMENT MATERIALS | Class A Common | 17.90 | 3,759.00 |
| 395.00 | CEMENT MATERIALS | Gel | 0.50 | 197.50 |
| 592.00 | CEMENT MATERIALS | Chloride | 1.10 | 651.20 |
| 227.08 | CEMENT SERVICE | Cubic Feet Charge | 2.48 | 563.16 |
| 518.00 | CEMENT SERVICE | Ton Mileage Charge | 2.75 | 1,424.50 |
| 1.00 | CEMENT SERVICE | Surface | 1,512.25 | 1,512.25 |
| 50.00 | CEMENT SERVICE | Pump Truck Mileage | 7.70 | 385.00 |
| 50.00 | CEMENT SERVICE | Light Vehicle Mileage -- No Charge | | |
| 1.00 | CEMENT SERVICE | Swedge Rental -- No Charge | | |
| 1.00 | JOB DISCOUNT | Job Discount if paid within terms -- Material | 2,303.85 | -2,303.85 |
| 1.00 | JOB DISCOUNT | Job Discount if paid within terms -- Cement Service | 1,942.45 | -1,942.45 |
| 1.00 | CEMENT SUPERVISOR | Paul Beaver | | |
| 1.00 | EQUIPMENT OPERATOR | Darren Racette | | |
| 1.00 | EQUIPMENT OPERATOR | Monty Phillips | | |

| | | |
|--|------------------------|-----------------|
| <p>ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE</p> <p>Nov 25, 2015</p> <p>1 1/2% CHARGED THEREAFTER.</p> | Subtotal | 4,246.31 |
| | Sales Tax | 190.07 |
| | Total Invoice Amount | 4,436.38 |
| | Payment/Credit Applied | |
| | TOTAL | 4,436.38 |

m502



Margo

INVOICE

P.O. Box 205803
Dallas, TX 75320-5803

Invoice Number: 151178
Invoice Date: Nov 4, 2015
Page: 1

Voice: (832) 482-3742
Fax: (832) 482-3738

Federal Tax I.D.#: 20-8651475

| |
|---|
| Bill To: |
| Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202 |

IC 103
FH R

| Customer ID | Field Ticket # | Payment Terms | |
|--------------|----------------|---------------|----------|
| Murfin | LIB1511041400 | Net 30 Days | |
| Job Location | Camp Location | Service Date | Due Date |
| KS1-02 | Liberal | Nov 4, 2015 | 12/4/15 |

| Quantity | Item | Description | Unit Price | Amount |
|----------|------------------|---------------------|------------|----------|
| 1.00 | WELL NAME | Sutton A #1-18 | | |
| 1.00 | CEMENT SERVICE | Long String | 2,558.75 | 2,558.75 |
| 1.00 | CEMENT SERVICE | CMLP | 275.00 | 275.00 |
| 1.00 | CEMENT SERVICE | Rotation Tool | 275.00 | 275.00 |
| 648.00 | CEMENT SERVICE | PHDL | 2.48 | 1,607.04 |
| 1,364.00 | CEMENT SERVICE | DRYG | 2.75 | 3,751.00 |
| 50.00 | CEMENT SERVICE | MILV | 4.40 | 220.00 |
| 50.00 | CEMENT SERVICE | MIHV | 7.70 | 385.00 |
| 4.00 | CEMENT SERVICE | Waiting on Location | 440.00 | 1,760.00 |
| 1.00 | EQUIPMENT SALES | 5.5 AFS | 545.00 | 545.00 |
| 1.00 | EQUIPMENT SALES | 5.5 LBP | 660.00 | 660.00 |
| 3.00 | EQUIPMENT SALES | 5.5 CB | 395.00 | 1,185.00 |
| 15.00 | EQUIPMENT SALES | 5.5 TUB | 95.00 | 1,425.00 |
| 12.00 | CEMENT MATERIALS | CW-HVS | 25.00 | 300.00 |
| 300.00 | CEMENT MATERIALS | CB-ALWA | 19.88 | 5,964.00 |
| 75.00 | CEMENT MATERIALS | CLC-CPF | 2.97 | 222.75 |
| 200.00 | CEMENT MATERIALS | CB-ASA | 23.50 | 4,700.00 |
| 1,000.00 | CEMENT MATERIALS | CLC-KDL | 0.98 | 980.00 |
| 113.00 | CEMENT MATERIALS | CFL-330 | 23.10 | 2,610.30 |
| 28.00 | CEMENT MATERIALS | CDF-100P | 3.50 | 98.00 |
| 45.00 | CEMENT MATERIALS | CB-ALWA | 19.88 | 894.60 |

| | | |
|---|------------------------|------------------|
| <p>ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE</p> <p>Dec 4, 2015</p> <p>1 1/2% CHARGED THEREAFTER.</p> | Subtotal | Continued |
| | Sales Tax | Continued |
| | Total Invoice Amount | Continued |
| | Payment/Credit Applied | |
| | TOTAL | Continued |



P.O. Box 205803
 Dallas, TX 75320-5803

Voice: (832) 482-3742
 Fax: (832) 482-3738

INVOICE

Invoice Number: 151178
 Invoice Date: Nov 4, 2015
 Page: 2

Federal Tax I.D.#: 20-8651475

| |
|---|
| Bill To: |
| Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202 |

| | | | |
|---------------------|-----------------------|----------------------|-----------------|
| Customer ID | Field Ticket # | Payment Terms | |
| Murfin | LIB1511041400 | Net 30 Days | |
| Job Location | Camp Location | Service Date | Due Date |
| KS1-02 | Liberal | Nov 4, 2015 | 12/4/15 |

| Quantity | Item | Description | Unit Price | Amount |
|----------|--------------------|---|------------|------------|
| 12.00 | CEMENT MATERIALS | CLC-CPF | 2.97 | 35.64 |
| 2.00 | CEMENT MATERIALS | KCL | 26.90 | 53.80 |
| 1.00 | JOB DISCOUNT | Job Discount if paid within terms -- Material & Equipment | 10,820.75 | -10,820.75 |
| 1.00 | JOB DISCOUNT | Job Discount if paid within terms -- Cement Service | 5,957.48 | -5,957.48 |
| 1.00 | CEMENT SUPERVISOR | Aldo Espinoza | | |
| 1.00 | EQUIPMENT OPERATOR | Alejandro Ayala | | |
| 1.00 | OPERATOR ASSISTANT | Ivan Carrillo | | |
| 1.00 | CEMENT SUPERVISOR | Lenny Baeza | | |

| | | |
|---|------------------------|------------------|
| ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE <div style="border: 1px solid black; padding: 2px; display: inline-block;"> Dec 4, 2015 </div> 1 1/2% CHARGED THEREAFTER. | Subtotal | 13,727.65 |
| | Sales Tax | 752.53 |
| | Total Invoice Amount | 14,480.18 |
| | Payment/Credit Applied | |
| | TOTAL | 14,480.18 |

Field Ticket Number: Lib1511041400 Field Ticket Date: Saturday, November 7, 2015

Bill To:
Murfin Drilling Company Inc.
Wichita, Kansas 67202
#N/A

Job Name: 02 Production/Long String
Well Location: Cheyenne, Kansas
Well Name: Sutton "A"
Well Number: 1-18
Well Type: New Well
Rig Number: Murfin # #2
Shipping Point: Liberal, KS
Sales Office: Mid Con

| PERSONEL | | EQUIPMENT | |
|---------------|--|-----------|--|
| Aldo Espinoza | | 774-550 | |
| Alex Ayala | | 956-841 | |
| Ivan Camilo | | 705-842 | |
| Lenny Baeza | | | |

SERVICES - SERVICES - SERVICES

| Description | Quantity | Unit | Rate | Amount | Discount | Net | Tax | Final |
|----------------------------------|----------|-------------|----------|---------|----------|-------|-----|----------|
| PUMP, CASING CEMENT 3001-4000 FT | 1.00 | min. 4 hr | 2,558.75 | 2558.75 | 1,151.44 | 55.0% | | 1,151.44 |
| CMLP | 1.00 | per day | 275.00 | 275.00 | 123.75 | 55.0% | | 123.75 |
| Rotation tool | 1.00 | per day | 275.00 | 275.00 | 123.75 | 55.0% | | 123.75 |
| PHDL | 648.00 | per cu. Ft. | 2.48 | 1607.04 | 1.12 | 55.0% | | 723.17 |
| DRYG | 1364.00 | ton-mile | 2.75 | 3751.00 | 1.24 | 55.0% | | 1,687.95 |
| MILV | 50.00 | per mile | 4.40 | 220.00 | 1.98 | 55.0% | | 99.00 |
| MIHV | 50.00 | per mile | 7.70 | 385.00 | 3.47 | 55.0% | | 173.25 |

FLOAT EQUIPMENT -- FLOAT EQUIPMENT -- FLOAT EQUIPMENT

| | | | | | | | | |
|-----------|-------|------|--------|----------|--------|-------|--|--------|
| AFFS-5.5 | 1.00 | each | 545.00 | 545.00 | 245.25 | 55.0% | | 245.25 |
| LBP-5.5 | 1.00 | each | 660.00 | 660.00 | 297.00 | 55.0% | | 297.00 |
| CB-5.5 | 3.00 | each | 395.00 | 1,185.00 | 177.75 | 55.0% | | 533.25 |
| TUB - 5.5 | 15.00 | each | 95.00 | 1,425.00 | 42.75 | 55.0% | | 641.25 |

MATERIALS - MATERIALS - MATERIALS

| | | | | | | | | |
|----------|---------|-------|-------|----------|-------|-------|--|----------|
| CW-HVS | 12.00 | bbl | 25.00 | 300.00 | 11.25 | 55.0% | | 135.00 |
| CB-ALWA | 300.00 | sack | 19.88 | 5,964.00 | 8.95 | 55.0% | | 2,683.80 |
| CLC-CPF | 75.00 | pound | 2.97 | 222.75 | 1.34 | 55.0% | | 100.24 |
| CB-ASA | 200.00 | sack | 23.50 | 4,700.00 | 10.58 | 55.0% | | 2,115.00 |
| CLC-KOL | 1000.00 | pound | 0.98 | 980.00 | 0.44 | 55.0% | | 441.00 |
| CFL-330 | 113.00 | pound | 23.10 | 2,610.30 | 10.40 | 55.0% | | 1,174.64 |
| CDF-100P | 28.00 | pound | 3.50 | 98.00 | 1.58 | 55.0% | | 44.10 |
| CB-ALWA | 45.00 | sack | 19.88 | 894.60 | 8.95 | 55.0% | | 402.57 |
| CLC-CPF | 12.00 | pound | 2.97 | 35.64 | 1.34 | 55.0% | | 16.04 |
| KCL | 2.00 | gal | 26.90 | 53.80 | 12.11 | 55.0% | | 24.21 |

ADDITIONAL ITEMS - ADDITIONAL ITEMS - ADDITIONAL ITEMS

| | | | | | | | | |
|--|------|----------|--------|----------|--------|-------|--|--------|
| Additional hours, in excess of set hours | 4.00 | per hour | 440.00 | 1,760.00 | 198.00 | 55.0% | | 792.00 |
|--|------|----------|--------|----------|--------|-------|--|--------|

| | Gross | Discount | Final |
|------------------|-----------|----------|----------|
| Services Total | 9,071.79 | 4,989.48 | 4,082.31 |
| Equipment Total | 3,815.00 | 2,098.25 | 1,716.75 |
| Materials Total | 15,859.09 | 8,722.50 | 7,136.59 |
| Additional Items | 1,760.00 | 968.00 | 792.00 |

Sulton 'A' #1-18
 1980 FNL 330 FEL
 Sec. 18-1S-35W
 3235' KB

| Formation | Sample top | Datum | Ref | Log tops | Datum | Ref |
|-------------|------------|-------|------|----------|-------|------|
| Anhydrite | 3122 | +113 | Flat | 3122 | +113 | Flat |
| B/Anhydrite | 3160 | +75 | -1 | 3158 | +77 | +1 |
| Foraker | 3731 | -496 | Flat | 3729 | -494 | +2 |
| Topeka | 3940 | -705 | +2 | 3939 | -704 | +3 |
| Oread | 4048 | -813 | +3 | 4050 | -815 | +1 |
| Lansing | 4158 | -923 | +2 | 4160 | -925 | Flat |
| Stark | 4378 | -1144 | -4 | 4374 | -1140 | Flat |
| BKC | 4427 | -1192 | -2 | 4425 | -1190 | Flat |
| RTD | 4527 | -1292 | | | | |
| LTD | | | | 4528 | -1293 | |



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Sutton A #1-18

18-1s-35w RawlinsKS

Start Date: 2015.10.29 @ 06:40:00

End Date: 2015.10.29 @ 14:00:30

Job Ticket #: 62787 DST #: 1

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

Printed: 2015.11.04 @ 14:58:47



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62787

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.10.29 @ 06:40:00

GENERAL INFORMATION:

Formation: **Foraker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:16:10

Time Test Ended: 14:00:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

Interval: 3698.00 ft (KB) To 3748.00 ft (KB) (TVD)

Reference Elevations: 3235.00 ft (KB)

Total Depth: 3748.00 ft (KB) (TVD)

3224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 18.91 psig @ 3699.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.29 End Date: 2015.10.29

Last Calib.: 2015.10.29

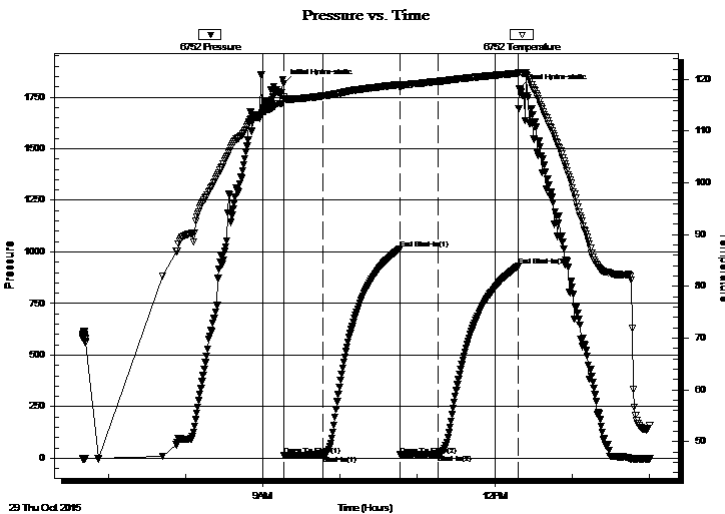
Start Time: 06:40:01 End Time: 14:00:30

Time On Btm: 2015.10.29 @ 09:16:00

Time Off Btm: 2015.10.29 @ 12:19:09

TEST COMMENT: 30 IF - 1/4" blow
60 ISI - No return
30 FF - No blow
60 FSI - No return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1814.13 | 116.61 | Initial Hydro-static |
| 1 | 13.42 | 116.22 | Open To Flow (1) |
| 31 | 15.41 | 116.78 | Shut-In(1) |
| 91 | 1015.14 | 119.00 | End Shut-In(1) |
| 91 | 16.58 | 118.36 | Open To Flow (2) |
| 121 | 18.91 | 119.62 | Shut-In(2) |
| 183 | 930.13 | 121.18 | End Shut-In(2) |
| 184 | 1789.41 | 121.36 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------|--------------|
| 4.00 | Mud w / oil spots 100%M | 0.02 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62787

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.10.29 @ 06:40:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3497.00 ft | Diameter: 3.80 inches | Volume: 49.05 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 179.00 ft | Diameter: 2.25 inches | Volume: 0.88 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 49.93 bbl</u> | Tool Chased 3.00 ft |
| Drill Pipe Above KB: | 5.00 ft | | | String Weight: Initial 60000.00 lb |
| Depth to Top Packer: | 3698.00 ft | | | Final 65000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 50.00 ft | | | |
| Tool Length: | 77.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3672.00 | |
| Shut In Tool | 5.00 | | | 3677.00 | |
| Hydraulic tool | 5.00 | | | 3682.00 | |
| Jars | 5.00 | | | 3687.00 | |
| Safety Joint | 2.00 | | | 3689.00 | |
| Packer | 5.00 | | | 3694.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3698.00 | |
| Stubb | 1.00 | | | 3699.00 | |
| Recorder | 0.00 | 6752 | Inside | 3699.00 | |
| Recorder | 0.00 | 8322 | Outside | 3699.00 | |
| Perforations | 13.00 | | | 3712.00 | |
| Change Over Sub | 1.00 | | | 3713.00 | |
| Drill Pipe | 31.00 | | | 3744.00 | |
| Change Over Sub | 1.00 | | | 3745.00 | |
| Bullnose | 3.00 | | | 3748.00 | 50.00 Bottom Packers & Anchor |

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62787

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.10.29 @ 06:40:00

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------|---------------|
| 4.00 | Mud w / oil spots 100%M | 0.020 |

Total Length: 4.00 ft Total Volume: 0.020 bbl

Num Fluid Samples: 0

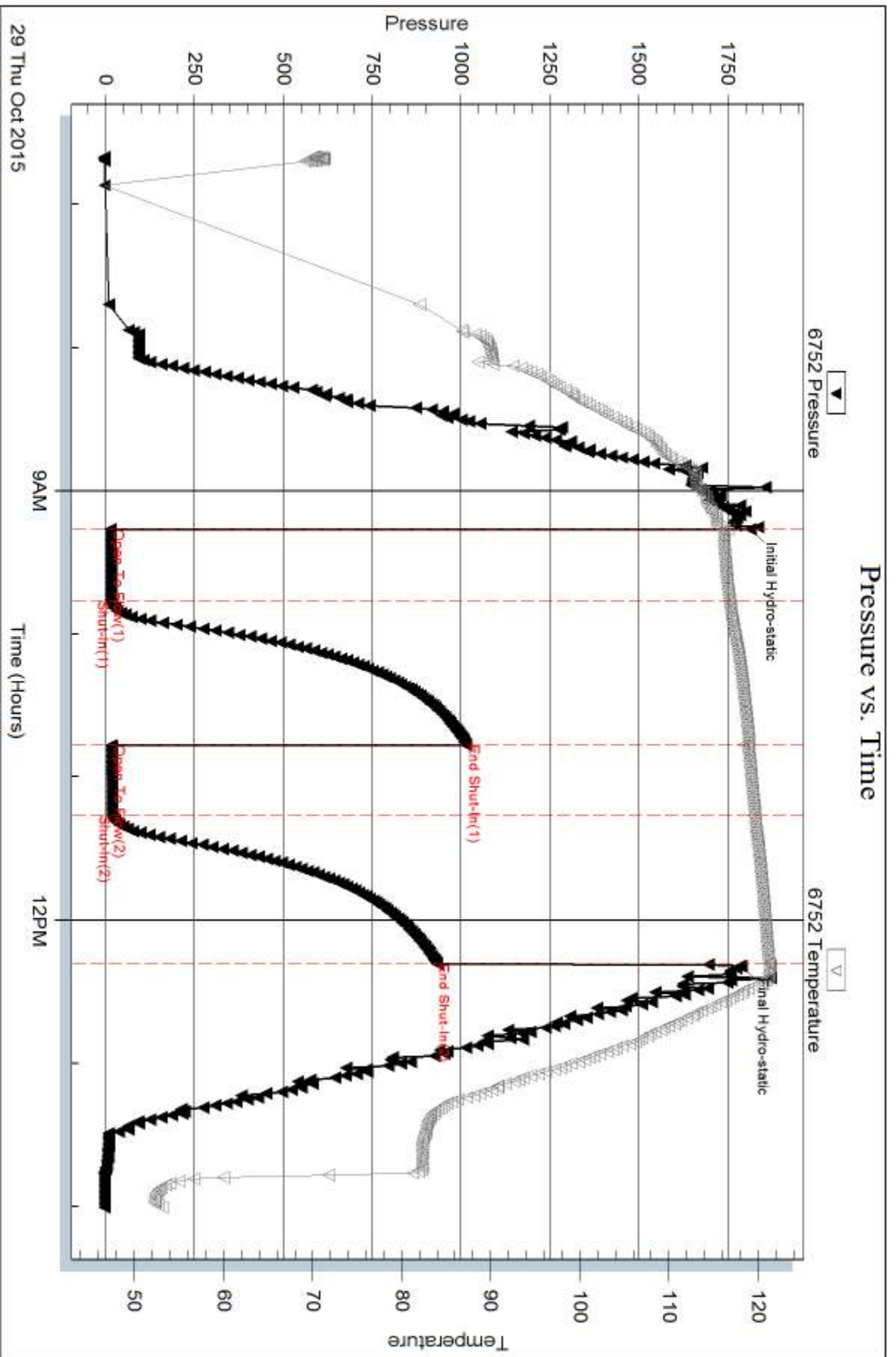
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

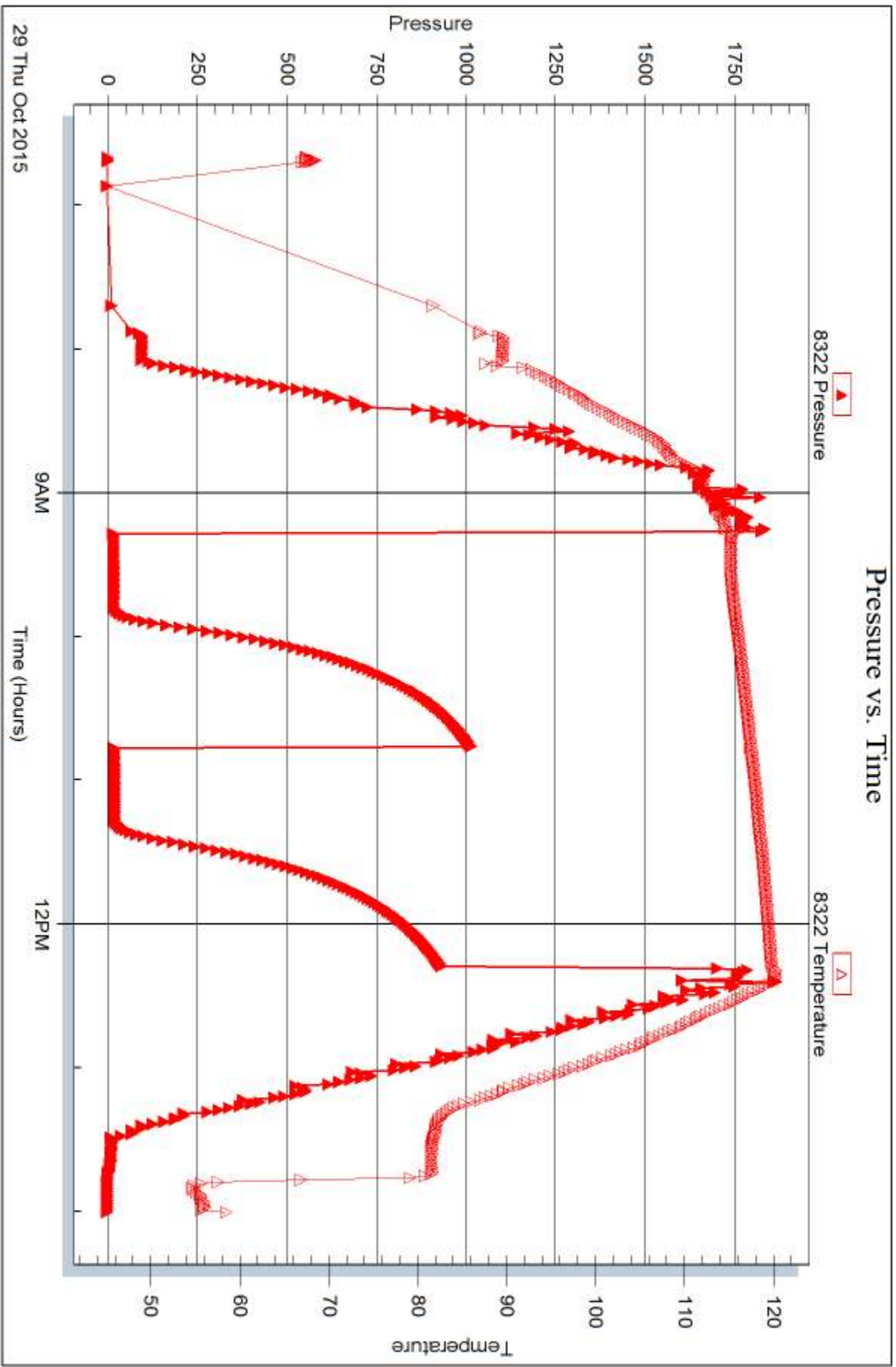


Serial #: 8322

Outside Murfin Drilling Co.

Sutton A #1-18

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62787

Printed: 2015.11.04 @ 14:58:48



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Sutton A #1-18

18-1s-35w RawlinsKS

Start Date: 2015.10.30 @ 11:47:00

End Date: 2015.10.30 @ 18:43:00

Job Ticket #: 62789 DST #: 2

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

Printed: 2015.11.04 @ 14:58:27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62789

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.10.30 @ 11:47:00

GENERAL INFORMATION:

Formation: **Stotler**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:52:10

Time Test Ended: 18:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 3858.00 ft (KB) To 3974.00 ft (KB) (TVD)

Reference Elevations: 3235.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

3224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 73.42 psig @ 3859.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.30

End Date:

2015.10.30

Last Calib.: 2015.10.30

Start Time: 11:47:01

End Time:

18:43:00

Time On Btm: 2015.10.30 @ 13:51:50

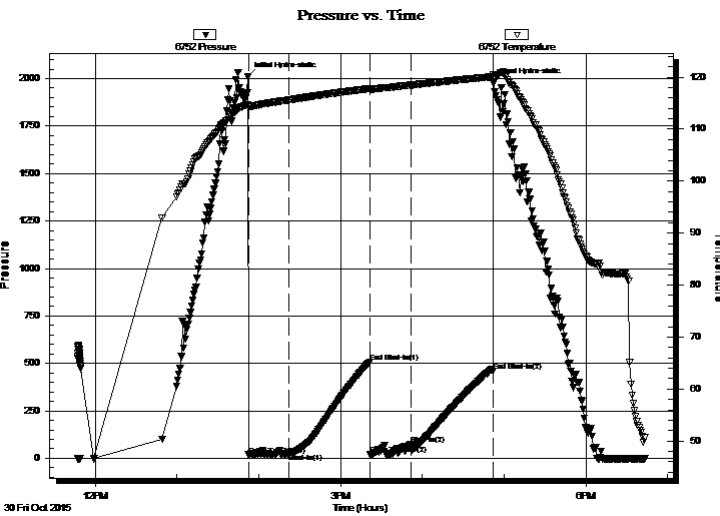
Time Off Btm: 2015.10.30 @ 16:52:09

TEST COMMENT: 30 IF - Surface blow built to 1/4"

60 ISI - No return

30 FF - No blow

60 FSI - No return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2008.13 | 114.71 | Initial Hydro-static |
| 1 | 17.86 | 114.41 | Open To Flow (1) |
| 30 | 23.98 | 115.56 | Shut-In(1) |
| 90 | 507.48 | 117.78 | End Shut-In(1) |
| 90 | 20.90 | 117.52 | Open To Flow (2) |
| 120 | 73.42 | 118.46 | Shut-In(2) |
| 180 | 459.15 | 120.06 | End Shut-In(2) |
| 181 | 1977.05 | 120.47 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 5.00 | Mud 100%M | 0.02 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62789

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.10.30 @ 11:47:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3683.00 ft | Diameter: 3.80 inches | Volume: 51.66 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 179.00 ft | Diameter: 2.25 inches | Volume: 0.88 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 52.54 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 31.00 ft | | | String Weight: Initial 60000.00 lb |
| Depth to Top Packer: | 3858.00 ft | | | Final 60000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 116.00 ft | | | |
| Tool Length: | 143.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|--------------------------------|
| Change Over Sub | 1.00 | | | 3832.00 | |
| Shut In Tool | 5.00 | | | 3837.00 | |
| Hydraulic tool | 5.00 | | | 3842.00 | |
| Jars | 5.00 | | | 3847.00 | |
| Safety Joint | 2.00 | | | 3849.00 | |
| Packer | 5.00 | | | 3854.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3858.00 | |
| Stubb | 1.00 | | | 3859.00 | |
| Recorder | 0.00 | 6752 | Inside | 3859.00 | |
| Recorder | 0.00 | 8322 | Outside | 3859.00 | |
| Perforations | 15.00 | | | 3874.00 | |
| Change Over Sub | 1.00 | | | 3875.00 | |
| Drill Pipe | 95.00 | | | 3970.00 | |
| Change Over Sub | 1.00 | | | 3971.00 | |
| Bullnose | 3.00 | | | 3974.00 | 116.00 Bottom Packers & Anchor |

Total Tool Length: 143.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62789

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.10.30 @ 11:47:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 5.00 | Mud 100%M | 0.025 |

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

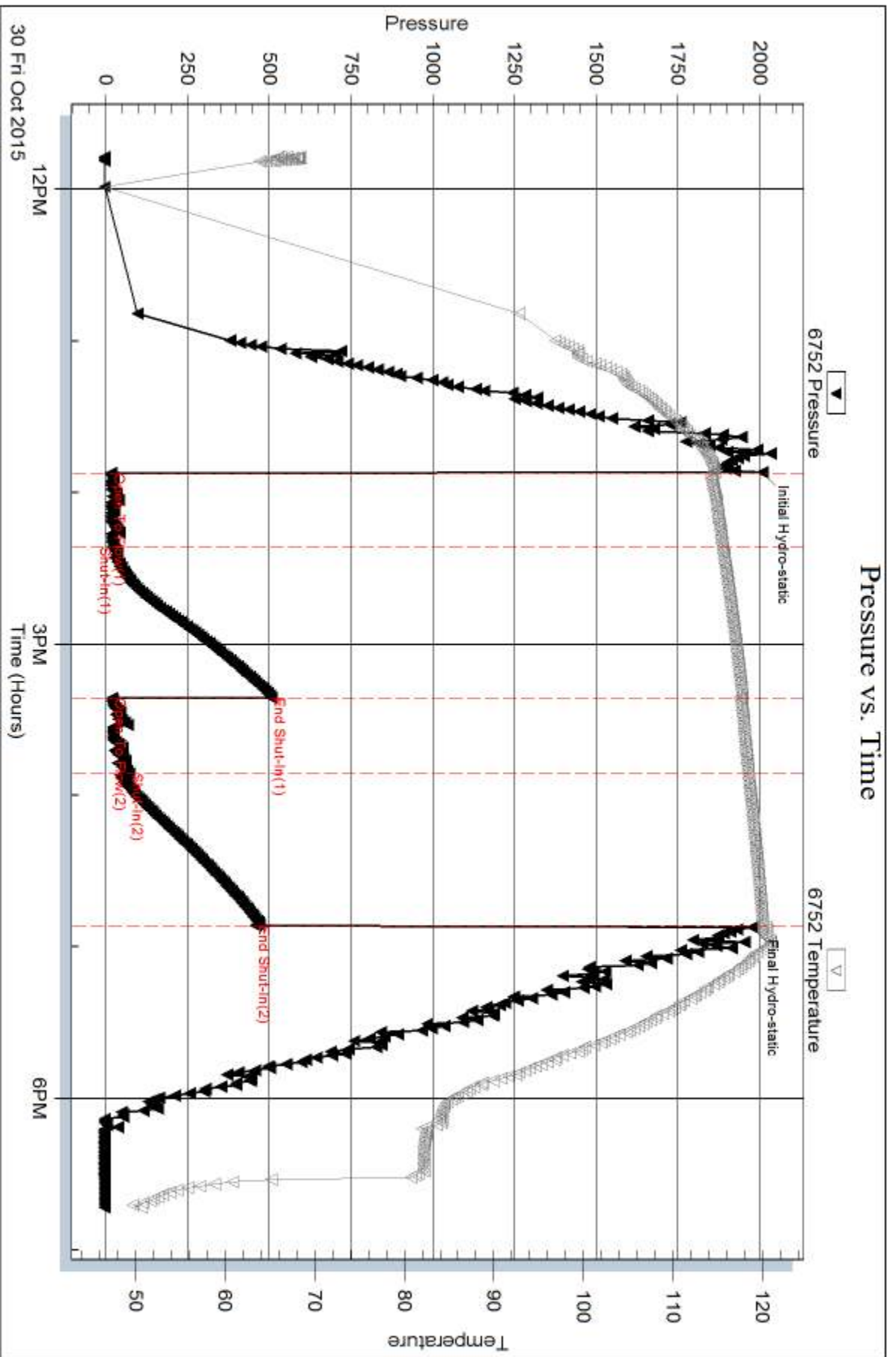
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

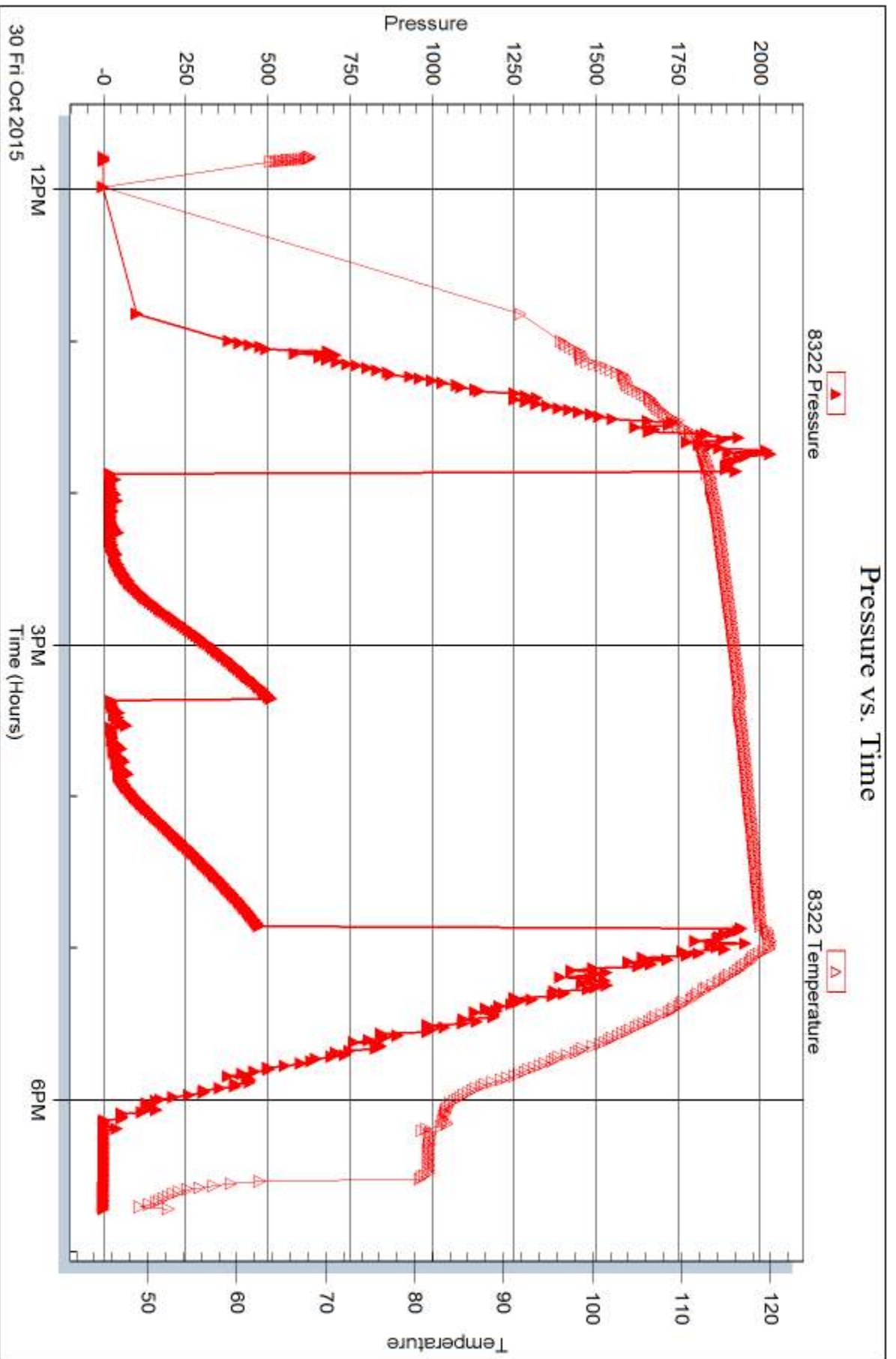


Serial #: 8322

Outside Murfin Drilling Co.

Sutton A #1-18

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62789

Printed: 2015.11.04 @ 14:58:29



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Sutton A #1-18

18-1s-35w RawlinsKS

Start Date: 2015.10.31 @ 22:19:00

End Date: 2015.11.01 @ 05:09:30

Job Ticket #: 62790 DST #: 3

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

Printed: 2015.11.04 @ 14:57:31



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62790

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.10.31 @ 22:19:00

GENERAL INFORMATION:

Formation: **LKC " A - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:12:20

Time Test Ended: 05:09:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4119.00 ft (KB) To 4228.00 ft (KB) (TVD)

Reference Elevations: 3235.00 ft (KB)

Total Depth: 4228.00 ft (KB) (TVD)

3224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6752

Inside

Press@RunDepth: 29.14 psig @ 4120.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.31

End Date:

2015.11.01

Last Calib.: 2015.11.01

Start Time: 22:19:01

End Time:

05:09:30

Time On Btm: 2015.11.01 @ 00:12:10

Time Off Btm: 2015.11.01 @ 03:13:09

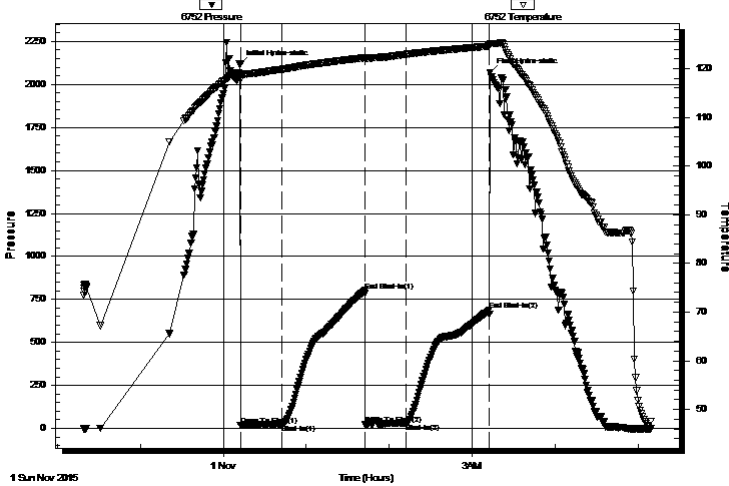
TEST COMMENT: 30 IF - Surface blow built to 1/4"

60 ISI - No return

30 FF - No blow

60 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2116.36 | 119.01 | Initial Hydro-static |
| 1 | 18.32 | 117.86 | Open To Flow (1) |
| 31 | 23.17 | 119.86 | Shut-In(1) |
| 91 | 801.22 | 122.24 | End Shut-In(1) |
| 91 | 24.77 | 122.01 | Open To Flow (2) |
| 121 | 29.14 | 122.94 | Shut-In(2) |
| 181 | 687.33 | 124.63 | End Shut-In(2) |
| 181 | 2067.51 | 125.21 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 7.00 | Mud 100%M | 0.03 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62790

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.10.31 @ 22:19:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3937.00 ft | Diameter: 3.80 inches | Volume: 55.23 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 179.00 ft | Diameter: 2.25 inches | Volume: 0.88 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 56.11 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 24.00 ft | | | String Weight: Initial 64000.00 lb |
| Depth to Top Packer: | 4119.00 ft | | | Final 64000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 109.00 ft | | | |
| Tool Length: | 136.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

| | | | | | |
|-----------------|-------|------|---------|---------|--------------------------------|
| Change Over Sub | 1.00 | | | 4093.00 | |
| Shut In Tool | 5.00 | | | 4098.00 | |
| Hydraulic tool | 5.00 | | | 4103.00 | |
| Jars | 5.00 | | | 4108.00 | |
| Safety Joint | 2.00 | | | 4110.00 | |
| Packer | 5.00 | | | 4115.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4119.00 | |
| Stubb | 1.00 | | | 4120.00 | |
| Recorder | 0.00 | 6752 | Inside | 4120.00 | |
| Recorder | 0.00 | 8322 | Outside | 4120.00 | |
| Perforations | 8.00 | | | 4128.00 | |
| Change Over Sub | 1.00 | | | 4129.00 | |
| Drill Pipe | 95.00 | | | 4224.00 | |
| Change Over Sub | 1.00 | | | 4225.00 | |
| Bullnose | 3.00 | | | 4228.00 | 109.00 Bottom Packers & Anchor |

Total Tool Length: 136.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62790

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.10.31 @ 22:19:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 7.00 | Mud 100%M | 0.034 |

Total Length: 7.00 ft Total Volume: 0.034 bbl

Num Fluid Samples: 0

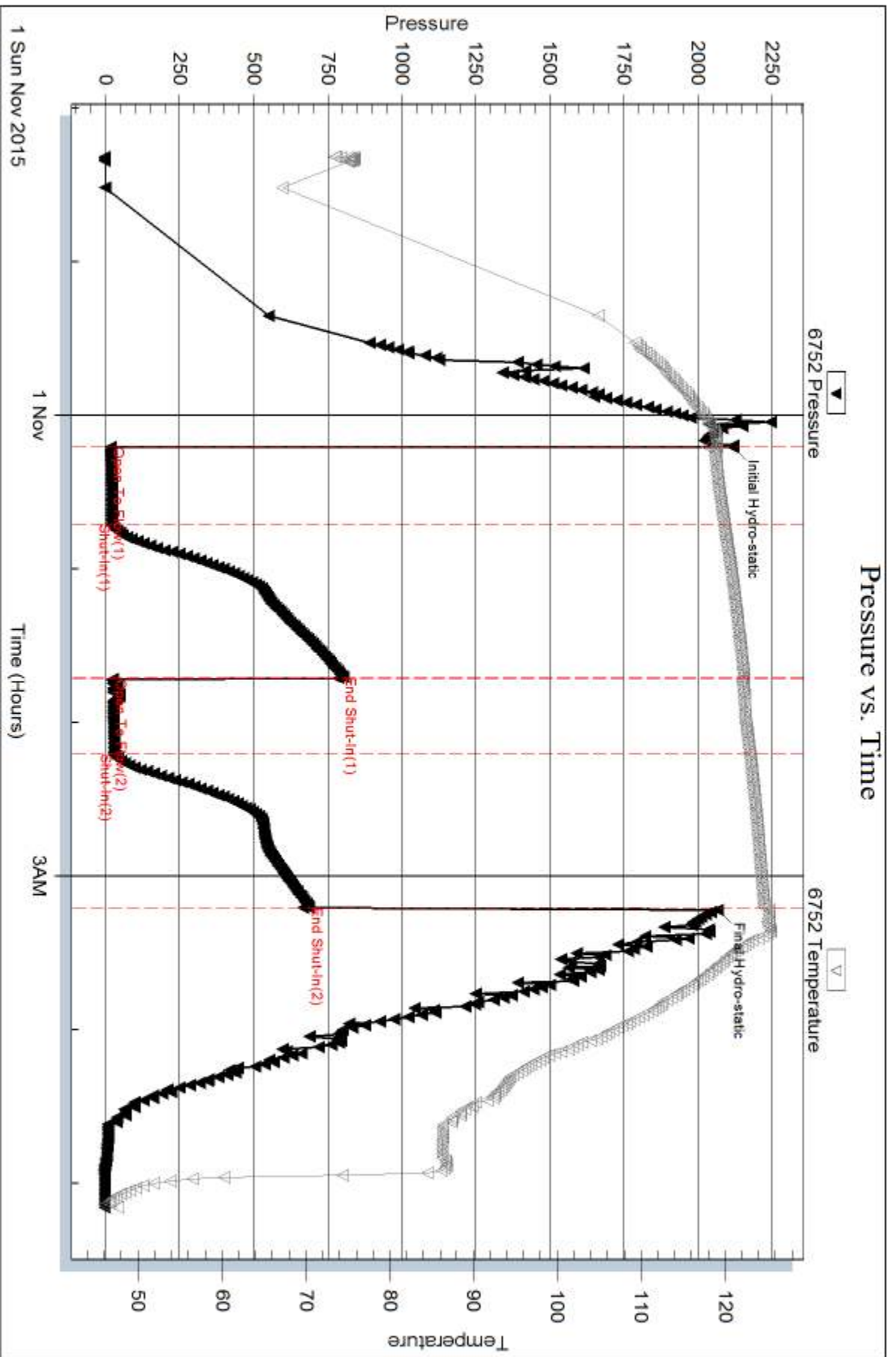
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Sutton A #1-18

18-1s-35w RawlinsKS

Start Date: 2015.11.01 @ 14:27:00

End Date: 2015.11.01 @ 22:58:30

Job Ticket #: 62791 DST #: 4

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

Printed: 2015.11.04 @ 14:57:08

Murfin Drilling Co. 18-1s-35w RawlinsKS Sutton A #1-18 DST # 4 LKC " G " 2015.11.01



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62791

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.11.01 @ 14:27:00

GENERAL INFORMATION:

Formation: **LKC " G "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:39:00

Time Test Ended: 22:58:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4221.00 ft (KB) To 4283.00 ft (KB) (TVD)

Reference Elevations: 3235.00 ft (KB)

Total Depth: 4283.00 ft (KB) (TVD)

3224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 164.11 psig @ 4222.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.01 End Date: 2015.11.01

Last Calib.: 2015.11.01

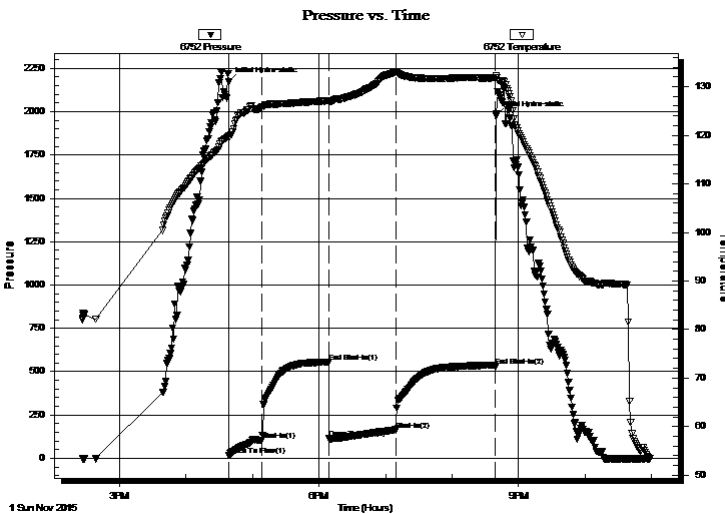
Start Time: 14:27:01 End Time: 22:58:30

Time On Btm: 2015.11.01 @ 16:38:50

Time Off Btm: 2015.11.01 @ 20:39:30

TEST COMMENT: 30 IF - Surface blow built to 9 1/2"
60 ISI - No return
60 FF - Surface blow started @ 1 min built to BoB @ 35 mins
90 FSI - Surface blow started @ 6 mins died @ 50 mins

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2171.40 | 119.96 | Initial Hydro-static |
| 1 | 18.56 | 119.53 | Open To Flow (1) |
| 30 | 105.83 | 125.78 | Shut-In(1) |
| 90 | 555.56 | 127.08 | End Shut-In(1) |
| 91 | 113.39 | 126.92 | Open To Flow (2) |
| 151 | 164.11 | 132.94 | Shut-In(2) |
| 241 | 529.97 | 131.82 | End Shut-In(2) |
| 241 | 1974.63 | 132.17 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------------|--------------|
| 120.00 | OMCW - 2%o 78%W - 20%M | 0.59 |
| 60.00 | GOWCM - 5%G - 5%o - 40%W - 50%M | 0.30 |
| 63.00 | GOWCM - 10%G - 10%o - 10%W - 70%M | 0.88 |
| 68.00 | OWCM - 35%o - 5%W - 60%M | 0.95 |
| 25.00 | GO - 10%G - 90%o | 0.35 |
| 0.00 | 157' GIP | 0.00 |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

18-1s-35w RawlinsKS

Sutton A #1-18

Job Ticket: 62791

DST#: 4

Test Start: 2015.11.01 @ 14:27:00

GENERAL INFORMATION:

Formation: **LKC " G "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:39:00

Time Test Ended: 22:58:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4221.00 ft (KB) To 4283.00 ft (KB) (TVD)

Total Depth: 4283.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3235.00 ft (KB)

3224.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8322 Outside

Press@RunDepth: psig @ 4222.00 ft (KB)

Start Date: 2015.11.01

End Date:

2015.11.01

Start Time: 14:27:01

End Time:

22:58:30

Capacity: 8000.00 psig

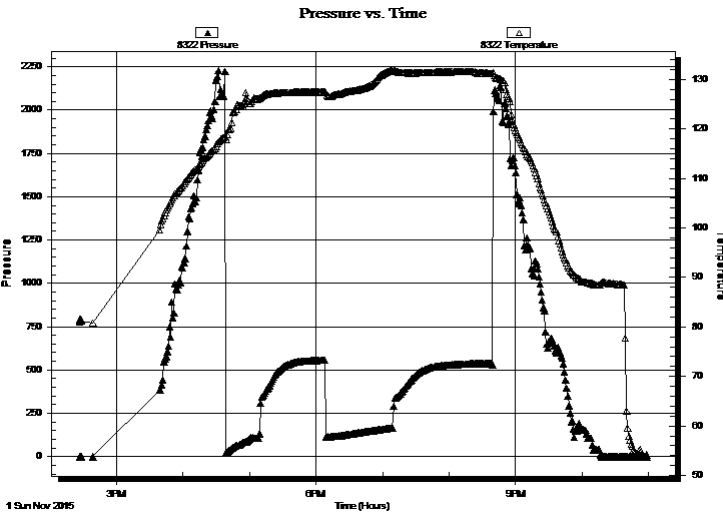
Last Calib.:

2015.11.01

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - Surface blow built to 9 1/2"
60 ISI - No return
60 FF - Surface blow started @ 1 min built to BoB @ 35 mins
90 FSI - Surface blow started @ 6 mins died @ 50 mins



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------------|--------------|
| 120.00 | OMCW - 2%o 78%W - 20%M | 0.59 |
| 60.00 | GOWCM - 5%G - 5%o - 40%W - 50%M | 0.30 |
| 63.00 | GOWCM - 10%G - 10%o - 10%W - 70%M | 0.88 |
| 68.00 | OWCM - 35%o - 5%W - 60%M | 0.95 |
| 25.00 | GO - 10%G - 90%o | 0.35 |
| 0.00 | 157' GIP | 0.00 |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62791

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.11.01 @ 14:27:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4032.00 ft | Diameter: 3.80 inches | Volume: 56.56 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 2500.00 lb |
| Drill Collar: | Length: 179.00 ft | Diameter: 2.25 inches | Volume: 0.88 bbl | Weight to Pull Loose: 72000.00 lb |
| | | | <u>Total Volume: 57.44 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 17.00 ft | | | String Weight: Initial 65000.00 lb |
| Depth to Top Packer: | 4221.00 ft | | | Final 66000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 62.00 ft | | | |
| Tool Length: | 89.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4195.00 | |
| Shut In Tool | 5.00 | | | 4200.00 | |
| Hydraulic tool | 5.00 | | | 4205.00 | |
| Jars | 5.00 | | | 4210.00 | |
| Safety Joint | 2.00 | | | 4212.00 | |
| Packer | 5.00 | | | 4217.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4221.00 | |
| Stubb | 1.00 | | | 4222.00 | |
| Recorder | 0.00 | 6752 | Inside | 4222.00 | |
| Recorder | 0.00 | 8322 | Outside | 4222.00 | |
| Perforations | 24.00 | | | 4246.00 | |
| Change Over Sub | 1.00 | | | 4247.00 | |
| Drill Pipe | 32.00 | | | 4279.00 | |
| Change Over Sub | 1.00 | | | 4280.00 | |
| Bullnose | 3.00 | | | 4283.00 | 62.00 Bottom Packers & Anchor |

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62791

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.11.01 @ 14:27:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|-----------------------------------|----------------|
| 120.00 | OMCW - 2%o 78%W - 20%M | 0.590 |
| 60.00 | GOWCM - 5%G - 5%o - 40%W - 50%M | 0.304 |
| 63.00 | GOWCM - 10%G - 10%o - 10%W - 70%M | 0.884 |
| 68.00 | OWCM - 35%o - 5%W - 60%M | 0.954 |
| 25.00 | GO - 10%G - 90%o | 0.351 |
| 0.00 | 157' GIP | 0.000 |

Total Length: 336.00 ft Total Volume: 3.083 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

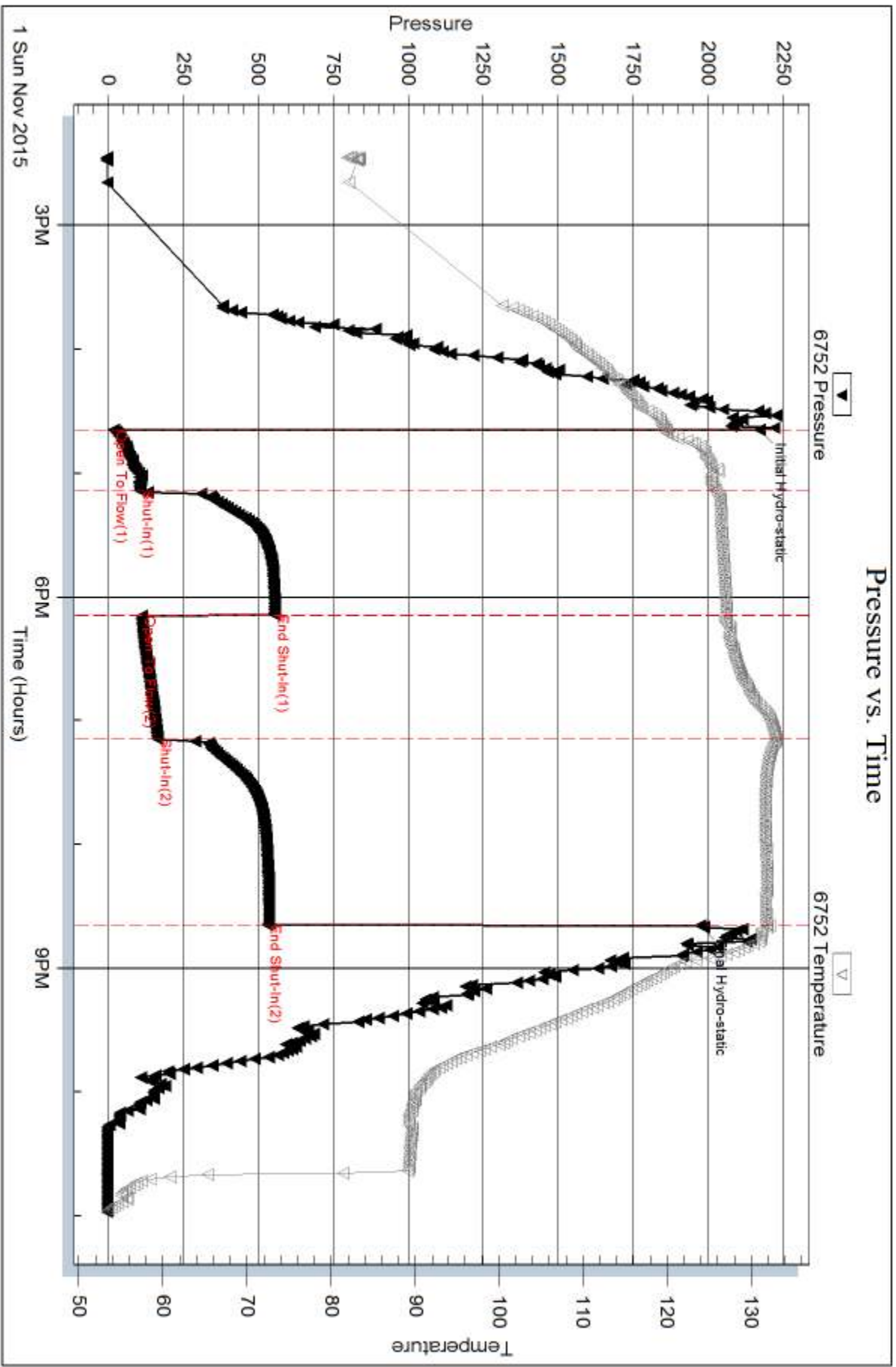
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .985 @ 51 DEG F CHLORIDES = 9,000 PPM

OIL API = 37 @ 70 DEG F - 36 COR 60 DEG F

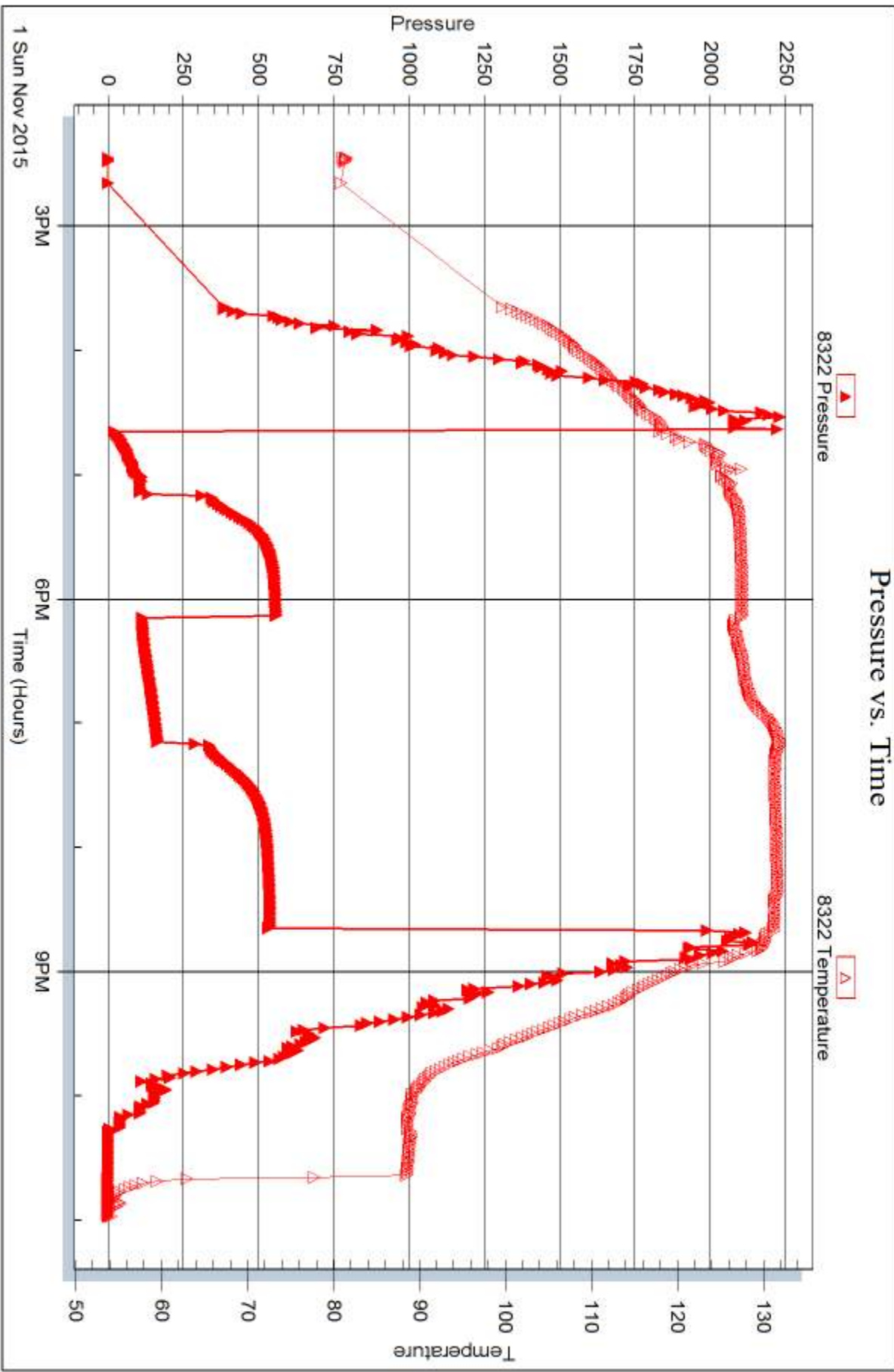


Serial #: 8322

Outside Murfin Drilling Co.

Sutton A #1-18

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 62791

Printed: 2015.11.04 @ 14:57:10



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Sutton A #1-18

18-1s-35w RawlinsKS

Start Date: 2015.11.02 @ 14:12:00

End Date: 2015.11.02 @ 23:22:49

Job Ticket #: 62792 DST #: 5

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

Printed: 2015.11.04 @ 14:56:53



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62792

DST#: 5

ATTN: Robert Hendrix

Test Start: 2015.11.02 @ 14:12:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:27:00

Time Test Ended: 23:22:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4285.00 ft (KB) To 4376.00 ft (KB) (TVD)

Reference Elevations: 3235.00 ft (KB)

Total Depth: 4376.00 ft (KB) (TVD)

3224.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 140.17 psig @ 4286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.02

End Date:

2015.11.02

Last Calib.:

2015.11.02

Start Time: 14:12:01

End Time:

23:22:49

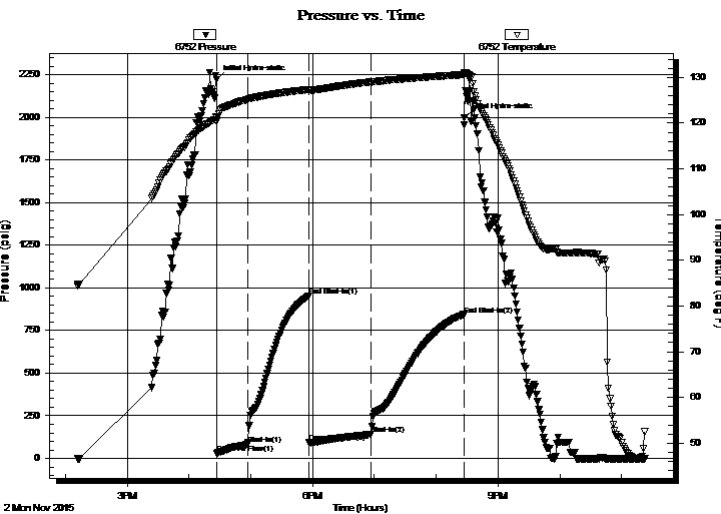
Time On Btm:

2015.11.02 @ 16:26:50

Time Off Btm:

2015.11.02 @ 20:27:30

TEST COMMENT: 30 IF - 1/2" blow built to BoB @ 15 mins
60 ISI - Surface blow started @ 3 mins built to 1"
60 FF - Surface blow built to BoB @ 27 mins
90 FSI - Surface blow started @ 3 mins built to 3" died back to 1 1/2"



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2221.87 | 121.18 | Initial Hydro-static |
| 1 | 27.16 | 120.28 | Open To Flow (1) |
| 31 | 81.43 | 125.18 | Shut-In(1) |
| 90 | 953.64 | 127.35 | End Shut-In(1) |
| 90 | 94.86 | 127.12 | Open To Flow (2) |
| 150 | 140.17 | 128.99 | Shut-In(2) |
| 240 | 842.90 | 130.59 | End Shut-In(2) |
| 241 | 1996.32 | 131.11 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------|--------------|
| 60.00 | OCM - 5%o - 95%M | 0.30 |
| 60.00 | OCM - 20%o - 80%M | 0.30 |
| 189.00 | GO - 40%G - 60%o | 2.11 |
| 63.00 | GO - 45%G - 55%o | 0.88 |
| 30.00 | GO - 20%G - 80%o | 0.42 |
| 0.00 | 850 GIP | 0.00 |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water STE 300
Wichita KS 67206
ATTN: Robert Hendrix

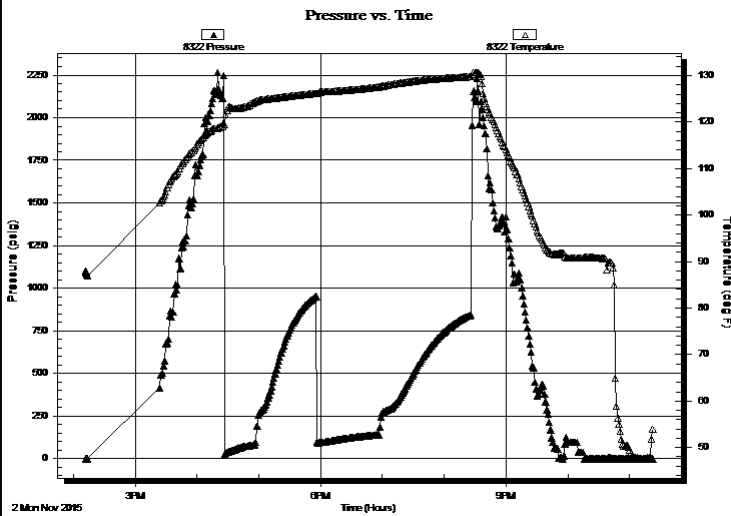
18-1s-35w RawlinsKS
Sutton A #1-18
Job Ticket: 62792 **DST#: 5**
Test Start: 2015.11.02 @ 14:12:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 16:27:00 Tester: Ryan Nichols
Time Test Ended: 23:22:49 Unit No: 78
Interval: 4285.00 ft (KB) To 4376.00 ft (KB) (TVD) Reference Elevations: 3235.00 ft (KB)
Total Depth: 4376.00 ft (KB) (TVD) 3224.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8322 Outside
Press@RunDepth: psig @ 4286.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.02 End Date: 2015.11.02 Last Calib.: 2015.11.02
Start Time: 14:12:01 End Time: 23:22:49 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 IF - 1/2" blow built to BoB @ 15 mins
60 ISI - Surface blow started @ 3 mins built to 1"
60 FF - Surface blow built to BoB @ 27 mins
90 FSI - Surface blow started @ 3 mins built to 3" died back to 1 1/2"



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------|--------------|
| 60.00 | OCM - 5%o - 95%M | 0.30 |
| 60.00 | OCM - 20%o - 80%M | 0.30 |
| 189.00 | GO - 40%G - 60%o | 2.11 |
| 63.00 | GO - 45%G - 55%o | 0.88 |
| 30.00 | GO - 20%G - 80%o | 0.42 |
| 0.00 | 850 GIP | 0.00 |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62792

DST#: 5

ATTN: Robert Hendrix

Test Start: 2015.11.02 @ 14:12:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4097.00 ft | Diameter: 3.80 inches | Volume: 57.47 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 179.00 ft | Diameter: 2.25 inches | Volume: 0.88 bbl | Weight to Pull Loose: 75000.00 lb |
| | | | <u>Total Volume: 58.35 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 18.00 ft | | | String Weight: Initial 68000.00 lb |
| Depth to Top Packer: | 4285.00 ft | | | Final 70000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 91.00 ft | | | |
| Tool Length: | 118.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4259.00 | |
| Shut In Tool | 5.00 | | | 4264.00 | |
| Hydraulic tool | 5.00 | | | 4269.00 | |
| Jars | 5.00 | | | 4274.00 | |
| Safety Joint | 2.00 | | | 4276.00 | |
| Packer | 5.00 | | | 4281.00 | 27.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4285.00 | |
| Stubb | 1.00 | | | 4286.00 | |
| Recorder | 0.00 | 6752 | Inside | 4286.00 | |
| Recorder | 0.00 | 8322 | Outside | 4286.00 | |
| Perforations | 22.00 | | | 4308.00 | |
| Change Over Sub | 1.00 | | | 4309.00 | |
| Drill Pipe | 63.00 | | | 4372.00 | |
| Change Over Sub | 1.00 | | | 4373.00 | |
| Bullnose | 3.00 | | | 4376.00 | 91.00 Bottom Packers & Anchor |

Total Tool Length: 118.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

18-1s-35w RawlinsKS

250 N. Water STE 300
Wichita KS 67206

Sutton A #1-18

Job Ticket: 62792

DST#: 5

ATTN: Robert Hendrix

Test Start: 2015.11.02 @ 14:12:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 56.00 sec/qt
Water Loss: 8.39 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 29 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------|---------------|
| 60.00 | OCM - 5%o - 95%M | 0.295 |
| 60.00 | OCM - 20%o - 80%M | 0.295 |
| 189.00 | GO - 40%G - 60%o | 2.114 |
| 63.00 | GO - 45%G - 55%o | 0.884 |
| 30.00 | GO - 20%G - 80%o | 0.421 |
| 0.00 | 850 GIP | 0.000 |

Total Length: 402.00 ft Total Volume: 4.009 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: OIL API = 30 @ 70 DEG F = 29 COR 60 DEG F

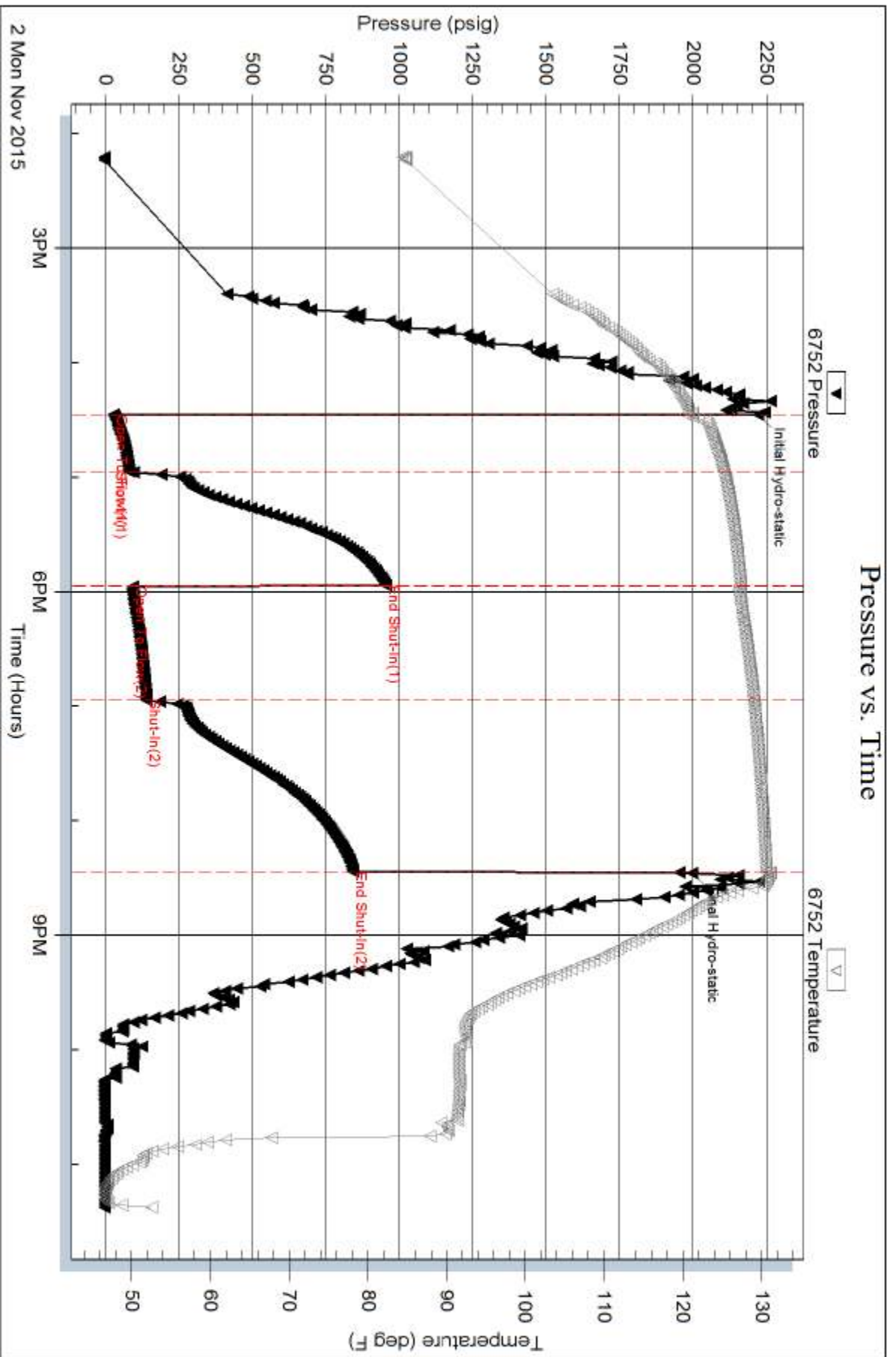
Serial #: 6752

Inside

Murfin Drilling Co.

Sutton A #1-18

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 62792

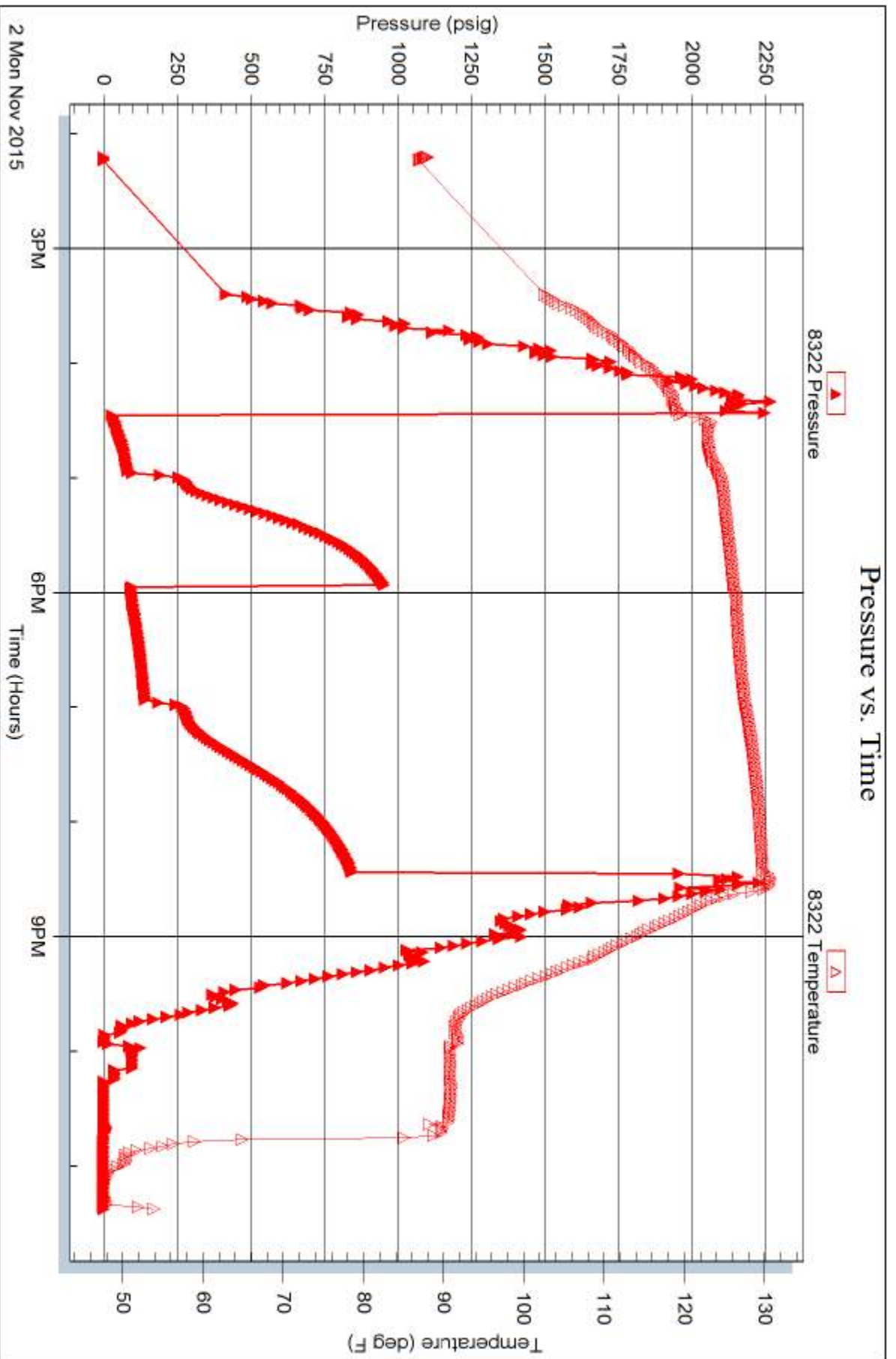
Printed: 2015.11.04 @ 14:56:55

Serial #: 8322

Outside Murfin Drilling Co.

Sutton A #1-18

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 62792

Printed: 2015.11.04 @ 14:56:55



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62787

Well Name & No. Sutton 'A' # 1-18 Test No. 1 Date 10/29/15
 Company Martin Drilling Company Elevation 3235 KB 3225 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Martin # 2
 Location: Sec. 18 Twp. 15 Rge. 35 W Co. Rawlins State KS

Interval Tested 3698-3748 Zone Tested Foreaker
 Anchor Length 50' Drill Pipe Run 3497' Mud Wt. 8.9
 Top Packer Depth 3693 Drill Collars Run 179' Vis 54
 Bottom Packer Depth 3698 Wt. Pipe Run 0' WL 6.0
 Total Depth 3748 Chlorides 700 ppm System LCM 8

Blow Description IF - 1/4" blow
ISI - No return
FF - No blow
FSI - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------------------|--------------|------|------------|------|
| <u>4</u> | <u>Mud w/oil spots</u> | <u>Spots</u> | | <u>100</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 4' BHT 121° Gravity — API RW — @ — °F Chlorides — ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>1814</u> | <input checked="" type="checkbox"/> Test <u>1050</u> | T-On Location <u>06:00</u> |
| (B) First Initial Flow <u>13</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>06:40</u> |
| (C) First Final Flow <u>15</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>09:17</u> |
| (D) Initial Shut-In <u>1015</u> | <input checked="" type="checkbox"/> Circ Sub <u>NC</u> | T-Pulled <u>12:17</u> |
| (E) Second Initial Flow <u>17</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>14:00</u> |
| (F) Second Final Flow <u>19</u> | <input checked="" type="checkbox"/> Mileage <u>108 RT</u> | Comments |
| (G) Final Shut-In <u>930</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>1789</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>30</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Day Standby | Total <u>1483</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1483</u> | |

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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **62789**

Well Name & No. Sutton A #1-18 Test No. 2 Date 10/30/15
 Company Martin Drilling Company Elevation 3235 KB 3224 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Murfin # 2
 Location: Sec. 18 Twp. 1S Rge. 35W Co. Rawlins State KS

Interval Tested 3858 - 3974 Zone Tested Statler
 Anchor Length 116' Drill Pipe Run 3683' Mud Wt. 7.2
 Top Packer Depth 3853 Drill Collars Run 179' Vis 56
 Bottom Packer Depth 3858 Wt. Pipe Run 0' WL 6.8
 Total Depth 3974 Chlorides 900 ppm System LCM 6

Blow Description IF - Surface built to 1/4"
ISI - No return
FF - No blow
FSI - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|------|------|------------|------|
| <u>5'</u> | <u>Mud</u> | | | <u>100</u> | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 5' BHT 120° Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

- (A) Initial Hydrostatic 2008
- (B) First Initial Flow 18
- (C) First Final Flow 24
- (D) Initial Shut-In 507
- (E) Second Initial Flow 21
- (F) Second Final Flow 73
- (G) Final Shut-In 459
- (H) Final Hydrostatic 1977

- Test 1050
- Jars 250
- Safety Joint 75
- Circ Sub NC
- Hourly Standby _____
- Mileage 108 RT
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____
- Sub Total 1483

T-On Location 11:40
 T-Started 11:47
 T-Open 13:52
 T-Pulled 18:52
 T-Out 18:43

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1483
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62790

Well Name & No. Sutton 'A' #1-18 Test No. 3 Date 10/31/15
 Company Martin Drilling Company Elevation 3235 KB 3224 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Martin #3
 Location: Sec. 18 Twp. 15 Rge. 35W Co. Rawlins State KS

Interval Tested 4119-4228 Zone Tested LKC "A-D"
 Anchor Length 109' Drill Pipe Run 3937' Mud Wt. 9.1
 Top Packer Depth 4114 Drill Collars Run 179' Vis 51
 Bottom Packer Depth 4119 Wt. Pipe Run 0' WL 6.0
 Total Depth 4228 Chlorides 800 ppm System LCM 7
 Blow Description IF - Surface blow built to 1"
ISI - No return
FF - No blow
FSI - No return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|------|------|-------------|------|
| <u>7'</u> | <u>Mud</u> | | | <u>100%</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 7' BHT 125° Gravity — API RW — @ — ° F Chlorides — ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2116</u> | <input checked="" type="checkbox"/> Test <u>1150</u> | T-On Location <u>022:00</u> |
| (B) First Initial Flow <u>14</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>22:19</u> |
| (C) First Final Flow <u>23</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>00:12</u> |
| (D) Initial Shut-In <u>801</u> | <input checked="" type="checkbox"/> Circ Sub <u>NC</u> | T-Pulled <u>03:12</u> |
| (E) Second Initial Flow <u>25</u> | <input type="checkbox"/> Hourly Standby | T-Out <u>05:09</u> |
| (F) Second Final Flow <u>29</u> | <input checked="" type="checkbox"/> Mileage <u>108KT</u> | Comments |
| (G) Final Shut-In <u>687</u> | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic <u>2068</u> | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| Initial Open <u>30</u> | <input type="checkbox"/> Shale Packer | <input type="checkbox"/> Ruined Packer |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Final Flow <u>30</u> | <input type="checkbox"/> Extra Recorder | Sub Total <u>0</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Day Standby | Total <u>1583</u> |
| | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total <u>1583</u> | |

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

62791

NO.

Well Name & No. Sutton 'A' #1-18 Test No. 4 Date 11/1/15
 Company Martin Drilling Company Elevation 3235 KB 3224 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Martin #2
 Location: Sec. 18 Twp. 15 Rge. 35W Co. Rawlins State KS

Interval Tested 4221 - 4283 Zone Tested LKC "G"
 Anchor Length 62' Drill Pipe Run 4032' Mud Wt. 9.1
 Top Packer Depth 4216 Drill Collars Run 179' Vis 58
 Bottom Packer Depth 4221 Wt. Pipe Run 0' WL 6.0
 Total Depth 4283 Chlorides 700 ppm System LCM 8

Blow Description IF - Surface blow built to 9 1/2" mins
ISL - No return
FF - Surface blow started @ 1 min built to BoB @ 35 mins
FSI - Surface blow started @ 6 mins died @ 50 mins

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|--------------|-----------|-----------|-----------|-----------|
| <u>25'</u> | <u>GO</u> | <u>10</u> | <u>90</u> | | |
| <u>68'</u> | <u>OWCM</u> | <u>35</u> | <u>5</u> | <u>60</u> | |
| <u>63'</u> | <u>GOWCM</u> | <u>10</u> | <u>10</u> | <u>10</u> | <u>70</u> |
| <u>60'</u> | <u>GOWCM</u> | <u>5</u> | <u>5</u> | <u>40</u> | <u>50</u> |
| <u>120'</u> | <u>OMCW</u> | | <u>2</u> | <u>78</u> | <u>20</u> |

Rec Total 336' BHT 132° Gravity 36 API RW 985 @ 51 °F Chlorides 9,000 ppm

(A) Initial Hydrostatic 2171 Test 1150 T-On Location 14:00
 (B) First Initial Flow 19 Jars 250 T-Started 14:27
 (C) First Final Flow 106 Safety Joint 75 T-Open 16:39
 (D) Initial Shut-In 556 Circ Sub NC T-Pulled 20:39
 (E) Second Initial Flow 113 Hourly Standby _____ T-Out 22:58
 (F) Second Final Flow 164 Mileage 108 RT Comments 157' GIP
 (G) Final Shut-In 530 Sampler _____
 (H) Final Hydrostatic 1975 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1583

Initial Open 30
 Initial Shut-In 20
 Final Flow 60
 Final Shut-In 90

Sub Total 1583 Total 1583 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62792

Well Name & No. Sutton 'A' # 1-18 Test No. 5 Date 11/2/15
 Company Martin Drilling Company Elevation 3235 KB 3224 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Martin # 2
 Location: Sec. 18 Twp. 15 Rge. 35W Co. Rawlins State KS

Interval Tested 4285 - 4376 Zone Tested 2KC "H-J"
 Anchor Length 91' Drill Pipe Run 4097' Mud Wt. 9.3
 Top Packer Depth 4280 Drill Collars Run 179' Vis 5.6
 Bottom Packer Depth 4285 Wt. Pipe Run 0' WL 8.4
 Total Depth 4376 Chlorides 1000 ppm System LCM 7

Blow Description IF-1/2" blow built to BoB @ 15 mins
ISI - Surface blow started @ 3 mins built to 1"
FF - Surface blow built to BoB @ 27 mins
FST - Surface blow started @ 3 mins built to 3" died back to 1/2"

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|------------|-----------|-----------|--------|-----------|
| <u>30'</u> | <u>60</u> | <u>20</u> | <u>80</u> | | |
| <u>63</u> | <u>60</u> | <u>45</u> | <u>55</u> | | |
| <u>189'</u> | <u>60</u> | <u>40</u> | <u>60</u> | | |
| <u>60</u> | <u>OCM</u> | | <u>20</u> | | <u>80</u> |
| <u>60</u> | <u>OCM</u> | | <u>5</u> | | <u>95</u> |

Rec Total 402' BHT 131° Gravity 29 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2222 Test 1150 T-On Location 13:00
 (B) First Initial Flow 27 Jars 250 T-Started 14:12
 (C) First Final Flow 81 Safety Joint 75 T-Open 16:27
 (D) Initial Shut-In 955 Circ Sub NC T-Pulled 20:27
 (E) Second Initial Flow 95 Hourly Standby _____ T-Out 23:22
 (F) Second Final Flow 140 Mileage 108 RT Comments 850' GIP
 (G) Final Shut-In 843 Sampler _____
 (H) Final Hydrostatic 1996 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1583
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1583

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.

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc.**

LEASE **Sutton 'A' #1-18**

FIELD **Wittcat**

LOCATION **19807h1 & 3307e1**

SEC **18** TWSP **1s** RGE **35w**

COUNTY **Rawlins** STATE **Kansas**

CONTRACTOR **Murfin Drilling Co. Inc. Rig #2**

SPUD **10/26/2015** COMP **11/4/2015**

RTD **4527'** LTD **4298'**

MUD UP **3386'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3630'** TO **TD**

DRILLING TIME KEPT FROM **3608'** TO **TD**

SAMPLES EXAMINED FROM **3530'** TO **TD**

GEOLOGICAL SUPERVISION FROM **3607'**

GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

ANHYDRITE **3122' (+113)**

FORAKER **3731 (-496)**

TOPEKA **3940 (-705)**

OREAD **4048 (-813)**

LANSING **4158 (-923)**

STARK **4378 (-1143)**

BKC **4427 (-1192)**

ELEVATIONS

KB **3935'**

DF **_____**

GL **3224'**

Measurements Are All From **Kelly Bushing**

CASING

CONDUCTOR SURFACE **8-5/8" at 258'**

PRODUCTION **5-1/2"**

Electrical Surveys

Densily/Induction/Microlog/Seis

Pioneer Wireline Services

AP# 15-153-21170

REMARKS:

LEGEND

| | | | | | | | | | | | | | | | |
|--|-----------|--|-----------|--|-----------|--|-------|--|---------|--|-----------|--|-------|--|----------|
| | Anhydrite | | Sandstone | | Limestone | | Shale | | Carb Sh | | Cherty LS | | Chert | | Dolomite |
|--|-----------|--|-----------|--|-----------|--|-------|--|---------|--|-----------|--|-------|--|----------|

| DEPTH | LITHOLOGY | SAMPLE DESCRIPTION | REMARKS |
|-------|-----------|---|---|
| 3100 | | | Anhydrite 3122 (+113) |
| 3150 | | | Base Anhydrite 3151 (+84) |
| 3600 | | Shale: red, gray, silty | bit trip at 3607' strap 0.06' long to board Geologist on location at bit trip at 6:00pm 10/28/2015 |
| 3650 | | Limestone: white, f-ixn, sl chalky, oolitic, fossiliferous, no vis por, ns Shale: red, silty | Neva 3618 (-383) |
| 3700 | | Shale: red, gray, brown, silty Sandstone: gray to green, glauconitic, fngm, submd, mod sorted, calcareous, no vis por Shale: red, brown, silty, sandy | Red Eagle 3684 (-449) |
| 3750 | | Limestone: white, f-ixn, sl oolitic, mostly dense, cherty (orange), fossiliferous, no vis por, ns Shale: red, brown, gray, silty Shale: red, gray, silty | Foraker 3731 (-496) |
| 3800 | | Limestone: white, f-ixn, sl chalky, sl cherty, granular, fossiliferous, pr interxln to sl pp por, lt to dark sat stain, frsfo (light), faint odor, occasional gas bubble Shale: gray, silty Limestone: tan to brown, mxln, granular, no vis por, ns Limestone: tan to brown, mxln, granular, no vis por, ns Shale: gray, black Dolomite: tan to brown, f-ixn, sl chalky, granular, sl fossiliferous, fr interxln por, ns Shale: red, gray | 8:00am, 10/29/2015 wt 8.9, vis. 54, lcm 8# Morgan Mud, Dave Lines |
| 3850 | | Limestone: white to lt gray, f-ixn, sl chalky, sl granular, v-fossiliferous, no vis por Shale: gray, red, black Shale: red, brown, silty Limestone: white to gray, f-ixn, oolitic, fossiliferous, no vis por Limestone: white to lt gray, f-ixn, fossiliferous, no vis por Shale: gray, red, green, silty Limestone: gray, f-mxln, granular, fossiliferous, no vis por Shale: red, gray | Stotler 3880 (-645) |
| 3900 | | Limestone: white to tan, f-mxln, sl chalky, oolitic, v-fossiliferous, pr interxln por, gd dark sat stain, prsfo, faint odor Shale: red, gray, silty Limestone: tan to white, m-ixn, oolitic, fossiliferous, no vis por Shale: gray, red Limestone: lt gray, f-mxln, oolitic, fossiliferous, no vis por, few pieces lt sat stain, slsfo, no odor Limestone: white to lt gray, mxln, oolitic, fossiliferous, pellicoidal, no vis por, 2 pieces, dark spotty to sat stain, nfo, no odor Shale: gray, red Shale: red, gray, black | Topeka 3940 (-705) |
| 3950 | | Limestone: tan to white, mxln, oolitic, fossiliferous, no vis por Shale: gray, red Limestone: white, m-ixn, oolitic, fossiliferous, dense, lt calcite replacement, no vis por Shale: gray, red | 8:00am, 10/30/2015 wt 9.2, vis. 56, lcm 8# Morgan Mud, Dave Lines |
| 4000 | | Shale: gray, red, brown Shale: red, brown, silty Limestone: tan to white, f-ixn, chalky, fossiliferous, no vis por, ns Shale: red, gray, brown, green, silty Shale: gray, green, red, silty | Oread 4048 (-813) |
| 4050 | | Limestone: white, f-ixn, chalky, fossiliferous, no vis por, several pieces dark spotty stain, nfo, no odor Shale: gray, red Limestone: tan to white, f-ixn, chalky, dense, no vis por, ns Limestone: white to lt gray, f-ixn, chalky, sl fossiliferous, granular, no vis por, ns Shale: gray, brown, silty Limestone: brown, v-ixn, sl fossiliferous, dense, no vis por, ns Sandstone: white, opaque, fngm, well sorted, submd, calcareous, friable, no por, ns Shale: gray, red, silty | 8:00am, 10/31/2015 wt 9.1, vis. 51, lcm 7# Morgan Mud, Dave Lines |
| 4100 | | Limestone: tan to white, f-mxln, fossiliferous, pr interxln por, dark spotty to sat stain, slsfo, no odor Limestone: tan to white, f-ixn, fossiliferous, pr vug por, dark spotty to sat stain, slsfo, no odor Shale: red, gray, silty, sandy Sandstone: lt green, opaque, fngm, well sorted, submd, calcareous, friable, pr intergranular por, few pieces lt sat stain, nfo, no odor Shale: red, gray, green | Lansing 4158 (-923) |
| 4150 | | Limestone: white to tan, f-mxln, chalky, pyritic, sl fossiliferous, pr interxln some foss por, dark sat stain, slsfo, no odor Limestone: white, f-ixn, chalky, pyritic, pr interxln por, 1% sample lt sat stain, slsfo, no odor Shale: gray, red, silty | 8:00am, 11/1/2015 wt 9.2, vis. 58, lcm 8# Morgan Mud, Dave Lines |
| 4200 | | Limestone: white to tan, f-ixn, chalky, dense, fossiliferous, no vis por, ns Shale: red, gray, silty Limestone: white to tan, f-ixn, chalky, fossiliferous, sl pyritic, fr pp to vug por, gd dark to lt sat stain, prsfo mostly on break, gd odor Limestone: white, mxln, sl chalky, fossiliferous, sl pyritic, fr pp to vug por, gd lt sat stain, frsfo some bleeding, good odor Shale: red, gray, dark gray Limestone: tan, f-ixn, fossiliferous, pyritic, fr pp to pr vug por, gd dark sat stain, prsfo, gd odor Shale: red, gray, green | Stark 4378 (-1143) |
| 4250 | | Limestone: white, f-mxln, fossiliferous in part, fr to gd interxln to vug por, gd spotty to sat stain, frsfo some bleeding, gd odor Limestone: white, f-mxln, chalky, fossiliferous, sl interxln por, few pieces black sat stain, nfo, faint odor Shale: gray, red Limestone: tan, f-ixn, dense, sl fossiliferous, no vis por, dark surface stain, nfo, no odor Shale: red, gray, silty | 8:00am, 11/2/2015 DST #5 4285-4376 30-60-60-90 1st open: bob 15 min 1st shut in: return built to 1" 2nd open: bob 27 min 2nd shut in: blow built to 3" died back to 1 1/2" Rec: 30' go 20/80 63' go 45/55 189' go 40/60 60' ocmw 5/95 850' gip hydro: 2122-1996 psi lf: 27-81 psi ff: 95-140 psi sip: 95-843 psi bht: 131°F gravity: 29°api |
| 4300 | | Limestone: white, f-ixn, chalky, sl fossiliferous, sl interxln por, 1% sample lt spotty to sat stain, nfo, no odor Shale: gray, black, red, brown Shale: gray, dark gray, red, silty Limestone: white, f-ixn, sl chalky, oolitic in part, no vis por, ns Limestone: white, f-ixn, sl chalky, oolitic in part, fossiliferous, sl interxln por, 2 pieces spotty, stain, nfo, no odor Shale: gray, green, red, brown Limestone: tan to white, f-ixn, sl chalky, oolitic, fossiliferous, no vis por, ns Shale: red, gray, silty | BKC 4427 (-1192) |
| 4350 | | Limestone: tan, f-mxln, chalky, oolitic, fossiliferous, no vis por, ns Shale: red, gray, brown, silty Limestone: tan, f-ixn, oolitic, sl cherty, fossiliferous, no vis por Shale: red, silty, sandy Shale: red, gray, silty, sandy Limestone: lt gray to white, f-ixn, sl chalky, fossiliferous, no vis por | 8:00am, 11/3/2015 RTD 4527 (-1292) wt 9.1, vis. 54, lcm 4# Morgan Mud, Dave Lines Geologist off location at 12:21am, 11/4/2015 |