



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1150195  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1150195

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](mailto: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  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

July 01, 2013

Leon Rodak  
Murfin Drilling Co., Inc.  
250 N WATER STE 300  
WICHITA, KS 67202-1216

Re: ACO1  
API 15-051-26491-00-00  
Legleiter 1-36  
SE/4 Sec.36-15S-19W  
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Leon Rodak

MDCI Legleiter #1-36 600' FSL 700' FEL Sec. 36-T15S-R19W 1993' KB	Black Diamond Legleiter #3 NW SE SE Sec. 36-T15S-R19W 1961' KB
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Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	1185	+808	-22	1174	+819	-11	1131	+830
B/Anhydrite	1210	+873	-4	1214	+779	-8	1174	+787
Topeka	2965	-972	-6	2964	-971	-5	2927	-966
Heebner	3235	-1242	-6	3233	-1240	-4	3197	-1236
Toronto	3258	-1265	-6	3253	-1260	-1	3220	-1259
Lansing	3281	-1288	-6	3283	-1290	-8	3243	-1282
Stark	3478	-1485	-8	3477	-1484	-7	3438	-1477
BKC	3520	-1527	-6	3521	-1528	-7	3482	-1521
Arbuckle	3584	-1591	Flat	3585	-1592	-1	3552	-1591
Reagan				3614	-1621	-----	NDE	
RTD	3680	-1687					3573	
LTD				3680			3570	





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc,**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Rocky Milford

### **Legleiter #1-36**

### **36-15s-19w Ellis KS**

Start Date: 2013.03.14 @ 05:29:00

End Date: 2013.03.14 @ 11:39:00

Job Ticket #: 52153                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.20 @ 10:40:53



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52153

**DST#: 1**

Test Start: 2013.03.14 @ 05:29:00

## GENERAL INFORMATION:

Formation: **Toronto - Lansing "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:13:00

Time Test Ended: 11:39:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 68

**Interval: 3233.00 ft (KB) To 3318.00 ft (KB) (TVD)**

Reference Elevations: 1986.00 ft (KB)

Total Depth: 3318.00 ft (KB) (TVD)

1981.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8679**

**Inside**

Press @ Run Depth: 59.93 psig @ 3303.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.14

End Date:

2013.03.14

Last Calib.: 2013.03.14

Start Time: 05:29:01

End Time:

11:39:00

Time On Btm: 2013.03.14 @ 07:12:30

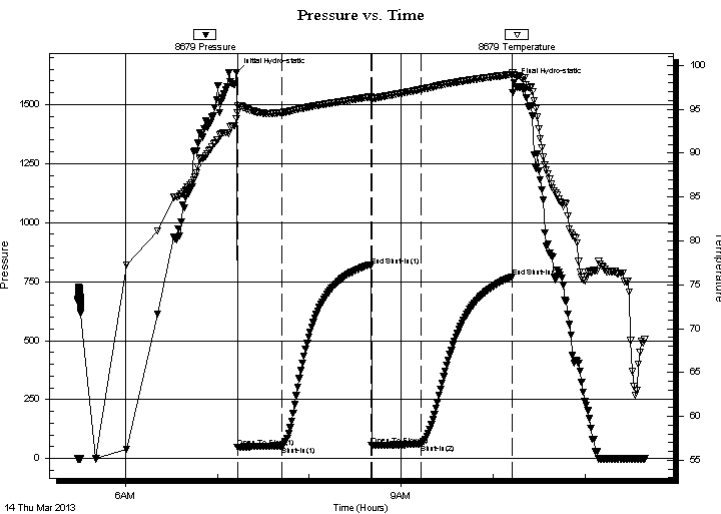
Time Off Btm: 2013.03.14 @ 10:13:30

TEST COMMENT: 30 - IF- 1 3/4" blow

60 - IS- No return

30 - FF- No blow

60 - FS- No return



## PRESSURE SUMMARY

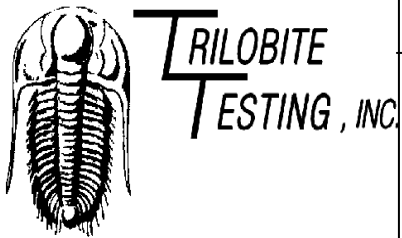
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1636.25	93.90	Initial Hydro-static
1	47.01	94.64	Open To Flow (1)
30	53.80	94.65	Shut-In(1)
88	816.30	96.42	End Shut-In(1)
88	55.77	96.19	Open To Flow (2)
120	59.93	97.25	Shut-In(2)
180	770.40	98.97	End Shut-In(2)
181	1592.10	98.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud, with spots of oil, 100%M	0.07

## Gas Rates

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



# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,

250 N. Water STE 300  
Wichita KS 67202

ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52153

**DST#: 1**

Test Start: 2013.03.14 @ 05:29:00

## GENERAL INFORMATION:

Formation: **Toronto - Lansing "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:13:00

Time Test Ended: 11:39:00

**Interval: 3233.00 ft (KB) To 3318.00 ft (KB) (TVD)**

Total Depth: 3318.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 68

Reference Elevations: 1986.00 ft (KB)

1981.00 ft (CF)

KB to GR/CF: 5.00 ft

## Serial #: 6625

Outside

Press @ Run Depth: psig @ 3303.00 ft (KB)

Start Date: 2013.03.14

End Date: 2013.03.14

Start Time: 05:29:01

End Time: 11:40:10

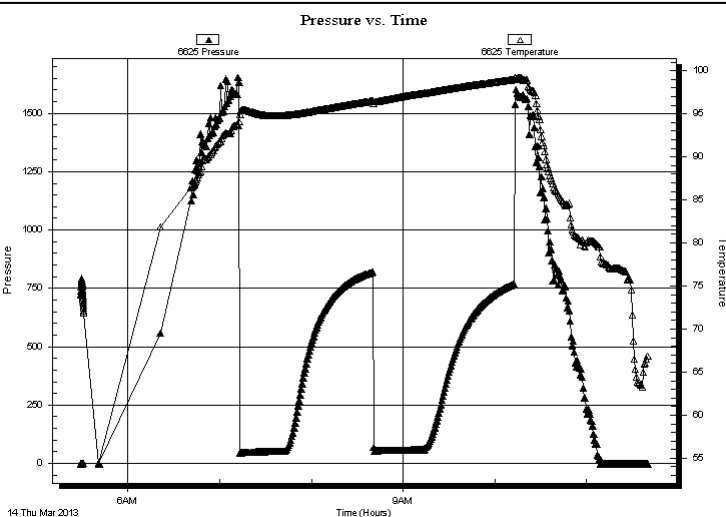
Capacity: 8000.00 psig

Last Calib.: 2013.03.14

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1 3/4" blow  
60 - IS- No return  
30 - FF- No blow  
60 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud, with spots of oil, 100%M	0.07

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52153

**DST#: 1**

Test Start: 2013.03.14 @ 05:29:00

## Tool Information

Drill Pipe:	Length: 3201.00 ft	Diameter: 3.80 inches	Volume: 44.90 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 45.05 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3233.00 ft			Final	43000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	85.00 ft				
Tool Length:	105.00 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			3214.00	
Shut In Tool	5.00			3219.00	
Hydraulic tool	5.00			3224.00	
Packer	4.00			3228.00	20.00 Bottom Of Top Packer
Packer	5.00			3233.00	
Stubb	1.00			3234.00	
Perforations	5.00			3239.00	
Change Over Sub	1.00			3240.00	
Drill Pipe	62.00			3302.00	
Change Over Sub	1.00			3303.00	
Recorder	0.00	6625	Outside	3303.00	
Recorder	0.00	8679	Inside	3303.00	
Perforations	12.00			3315.00	
Bullnose	3.00			3318.00	85.00 Bottom Packers & Anchor

**Total Tool Length: 105.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc,

**36-15s-19w Ellis KS**

250 N. Water STE 300  
Wichita KS 67202

**Legleiter #1-36**

Job Ticket: 52153

**DST#: 1**

ATTN: Rocky Milford

Test Start: 2013.03.14 @ 05:29:00

## 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: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud, with spots of oil, 100%M	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

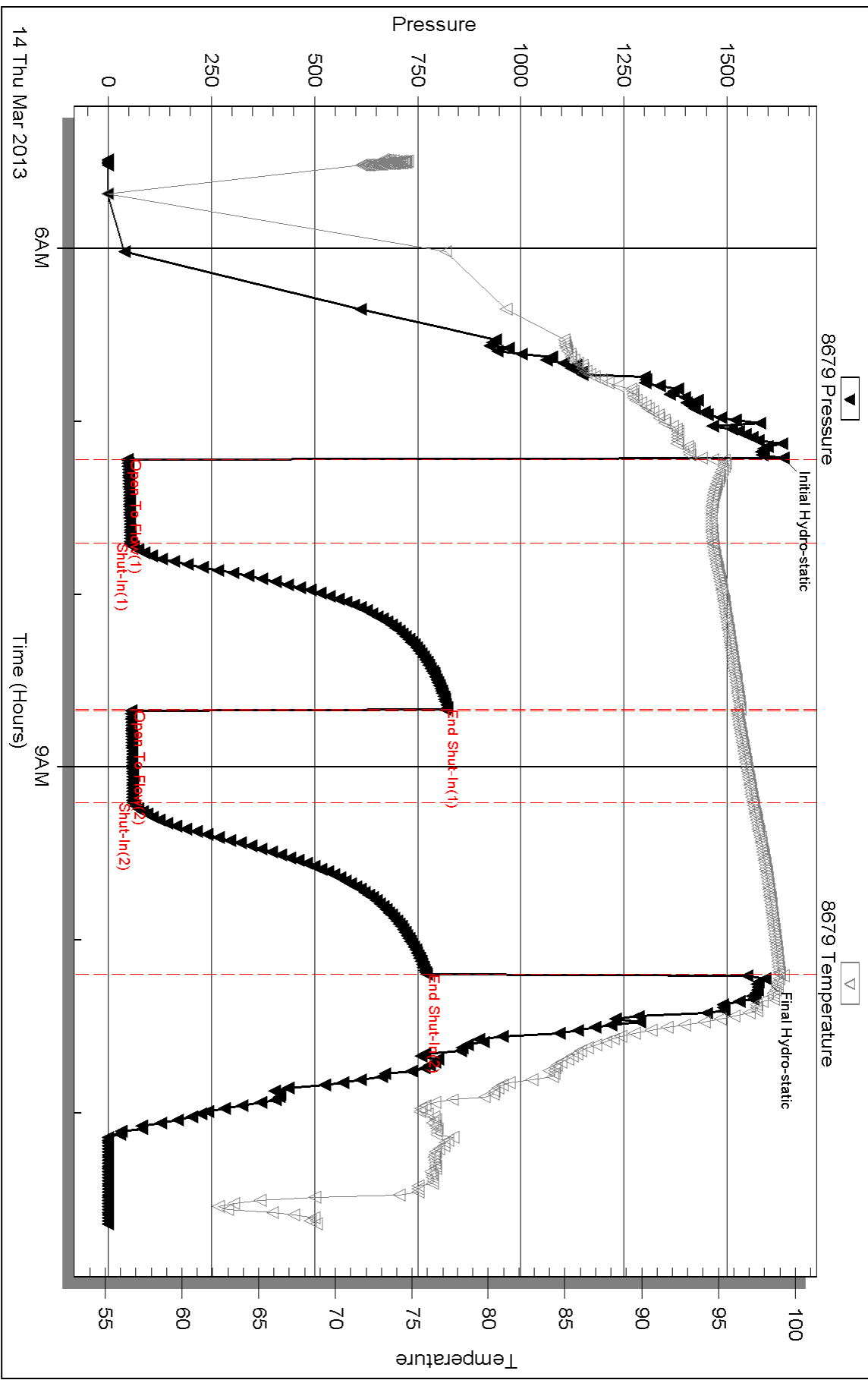
Serial #:

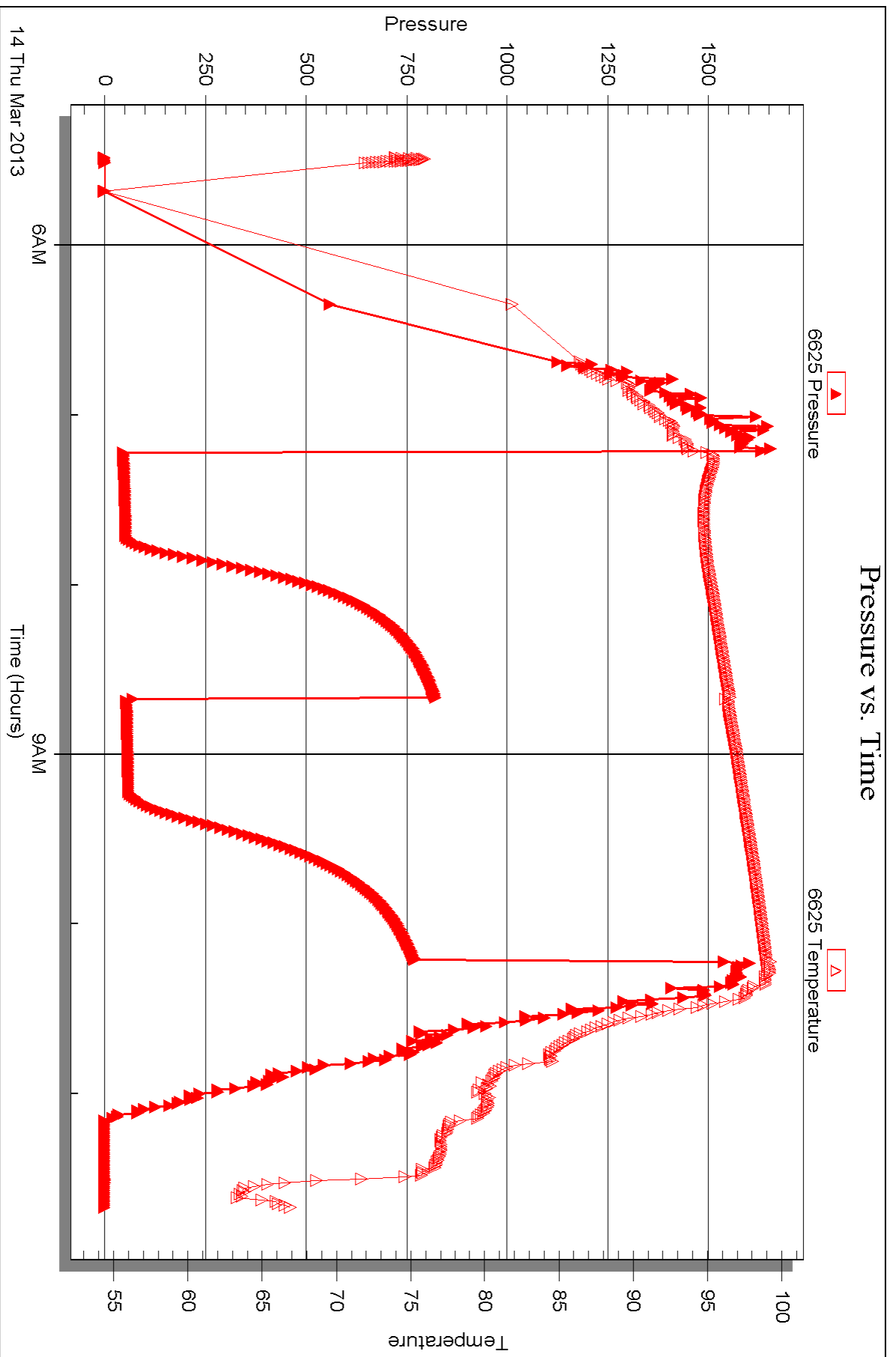
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc,**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Rocky Milford

### **Legleiter #1-36**

#### **36-15s-19w Ellis KS**

Start Date: 2013.03.14 @ 19:30:00

End Date: 2013.03.15 @ 03:24:30

Job Ticket #: 52154                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.20 @ 10:40:17



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52154

**DST#: 2**

Test Start: 2013.03.14 @ 19:30:00

## GENERAL INFORMATION:

Formation: **LKC "D-F"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 21:14:00  
 Tester: Cody Bloedorn  
 Time Test Ended: 03:24:30  
 Unit No: 68  
 Interval: **3316.00 ft (KB) To 3366.00 ft (KB) (TVD)**  
 Reference Elevations: 1986.00 ft (KB)  
 Total Depth: 3318.00 ft (KB) (TVD) 1981.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

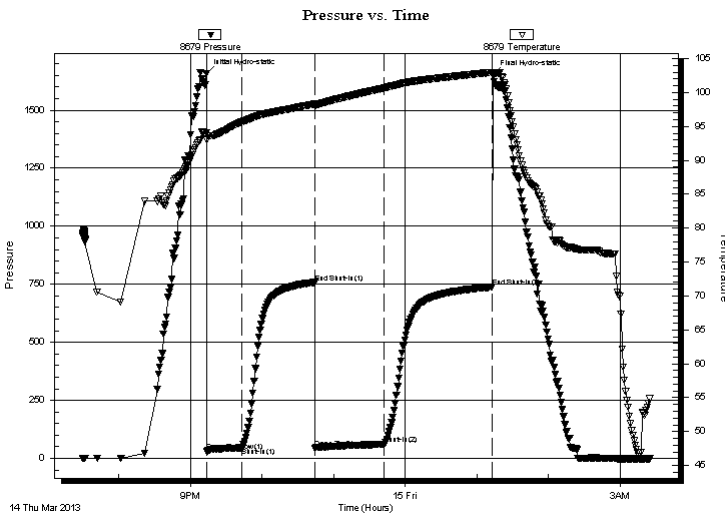
## Serial #: 8679

Inside

Press @ Run Depth: 60.99 psig @ 3355.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.14 End Date: 2013.03.15 Last Calib.: 2013.03.15  
 Start Time: 19:30:01 End Time: 03:24:30 Time On Btm: 2013.03.14 @ 21:13:30  
 Time Off Btm: 2013.03.15 @ 01:13:30

TEST COMMENT: 30 - IF- 6 1/2" blow  
 60 - IS- No return  
 60 - FF- B.O.B. in 17 Minutes  
 90 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1657.80	94.04	Initial Hydro-static
1	31.75	92.98	Open To Flow (1)
30	45.60	95.68	Shut-In(1)
91	757.83	98.29	End Shut-In(1)
91	44.07	98.02	Open To Flow (2)
149	60.99	100.67	Shut-In(2)
239	738.08	102.97	End Shut-In(2)
240	1654.45	102.53	Final Hydro-static

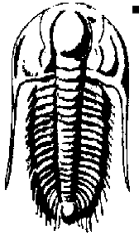
## Recovery

Length (ft)	Description	Volume (bbl)
62.00	OCM, 20%O, 80%M	0.59
15.00	MCO, 40%M, 60%O	0.21
2.00	Free Oil, 100%O	0.03
0.00	294' of G.I.P.	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. Inc,  
 250 N. Water STE 300  
 Wichita KS 67202  
 ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
 Job Ticket: 52154 **DST#: 2**  
 Test Start: 2013.03.14 @ 19:30:00

## GENERAL INFORMATION:

Formation: **LKC "D-F"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 21:14:00 Tester: Cody Bloedorn  
 Time Test Ended: 03:24:30 Unit No: 68  
**Interval: 3316.00 ft (KB) To 3366.00 ft (KB) (TVD)** Reference Elevations: 1986.00 ft (KB)  
 Total Depth: 3318.00 ft (KB) (TVD) 1981.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

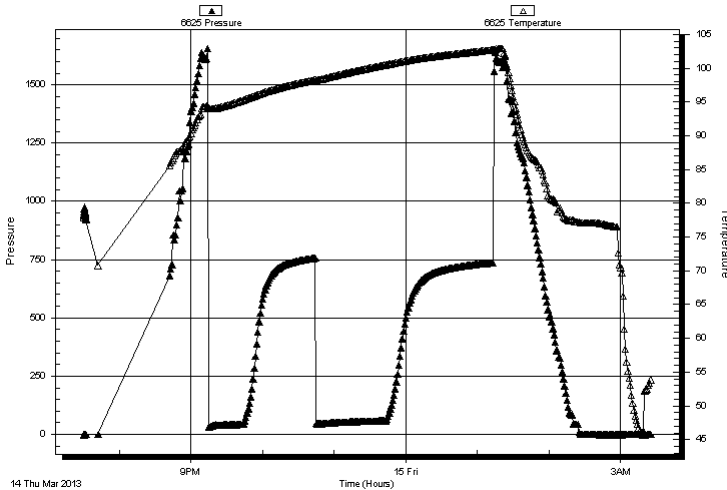
## Serial #: 6625

Outside

Press @ Run Depth: psig @ 3355.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.14 End Date: 2013.03.15 Last Calib.: 2013.03.15  
 Start Time: 19:30:01 End Time: 03:25:50 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30 - IF- 6 1/2" blow  
 60 - IS- No return  
 60 - FF- B.O.B. in 17 Minutes  
 90 - FS- No return

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
62.00	OCM, 20%O, 80%M	0.59
15.00	MCO, 40%M, 60%O	0.21
2.00	Free Oil, 100%O	0.03
0.00	294' of G.I.P.	0.00

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52154

**DST#: 2**

Test Start: 2013.03.14 @ 19:30:00

## Tool Information

Drill Pipe:	Length: 3295.00 ft	Diameter: 3.80 inches	Volume: 46.22 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 46.37 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3316.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	70.00 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			3297.00	
Shut In Tool	5.00			3302.00	
Hydraulic tool	5.00			3307.00	
Packer	4.00			3311.00	20.00 Bottom Of Top Packer
Packer	5.00			3316.00	
Stubb	1.00			3317.00	
Perforations	5.00			3322.00	
Change Over Sub	1.00			3323.00	
Drill Pipe	31.00			3354.00	
Change Over Sub	1.00			3355.00	
Recorder	0.00	6625	Outside	3355.00	
Recorder	0.00	8679	Inside	3355.00	
Perforations	8.00			3363.00	
Bullnose	3.00			3366.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
Job Ticket: 52154      **DST#: 2**  
Test Start: 2013.03.14 @ 19:30:00

## 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: bbl		
Water Loss: 6.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 900.00 ppm			
Filter Cake: inches			

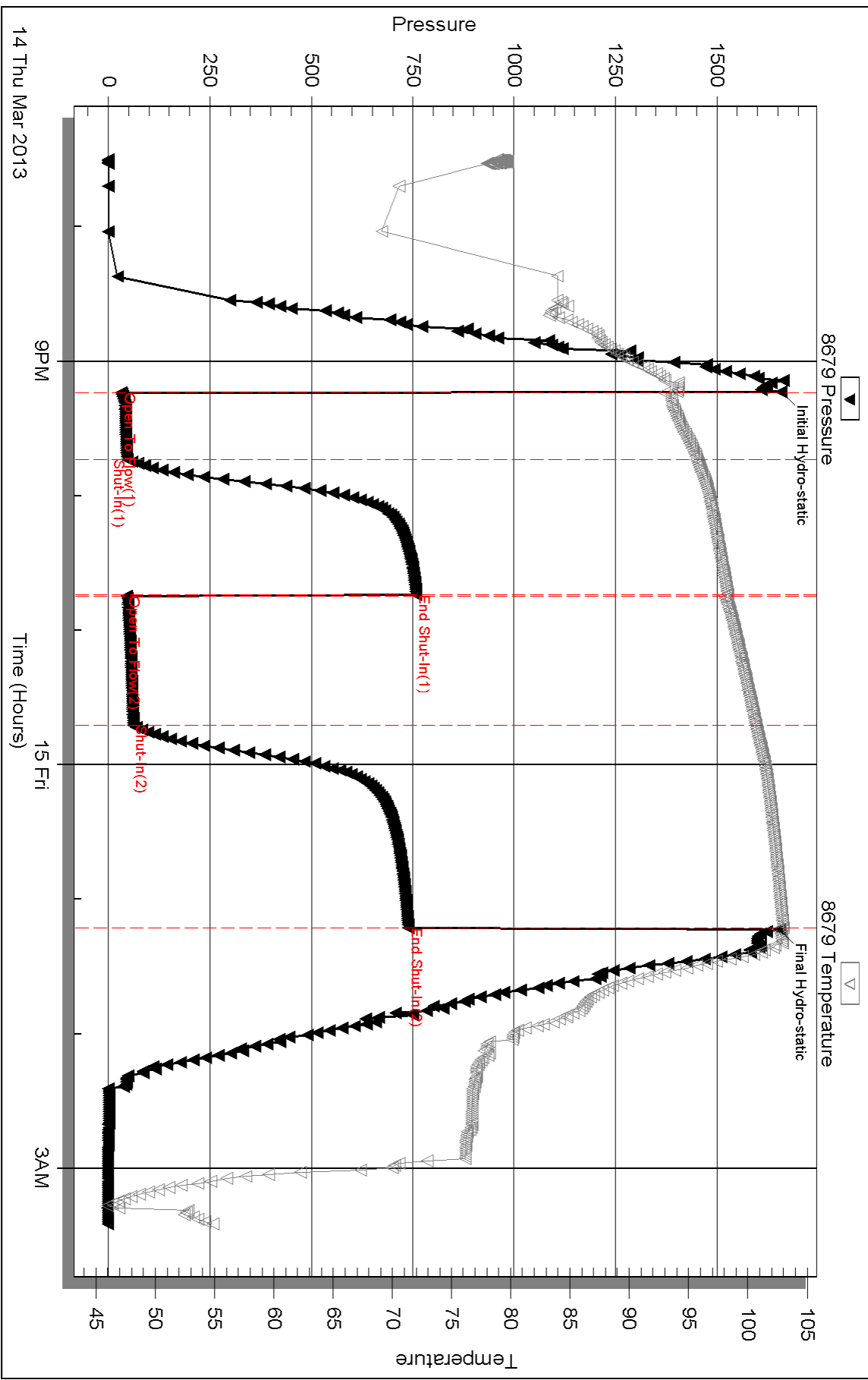
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	OCM, 20%O, 80%M	0.587
15.00	MCO, 40%M, 60%O	0.210
2.00	Free Oil, 100%O	0.028
0.00	294' of G.I.P.	0.000

Total Length: 79.00 ft      Total Volume: 0.825 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time

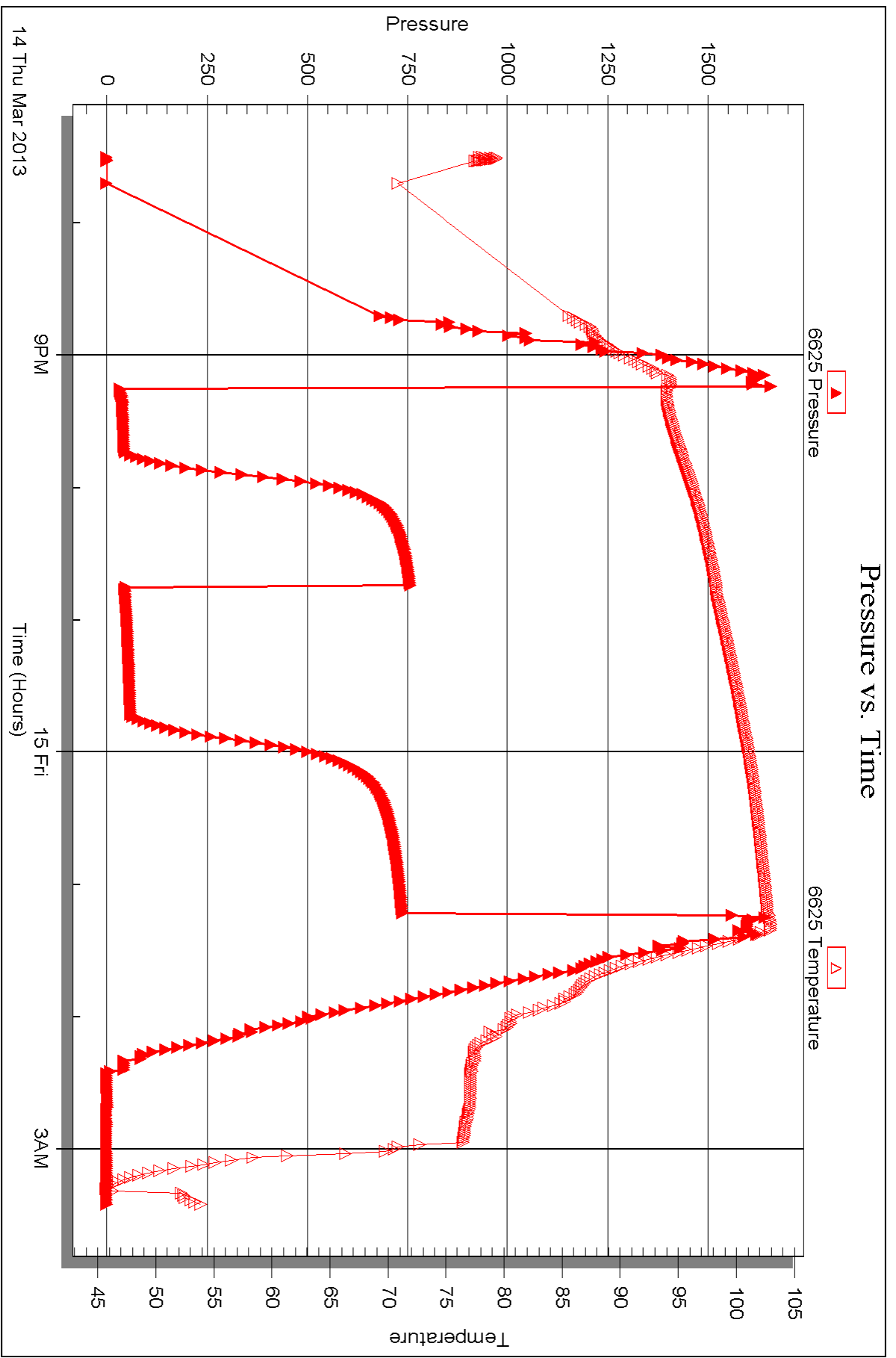


Serial #: 6625

Outside Murfin Drilling Co. Inc.

Legleiter #1-36

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52154

Printed: 2013.03.20 @ 10:40:20



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc,**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Rocky Milford

### **Legleiter #1-36**

### **36-15s-19w Ellis KS**

Start Date: 2013.03.15 @ 17:16:00

End Date: 2013.03.15 @ 23:49:00

Job Ticket #: 52155                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.20 @ 10:39:29



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52155

**DST#: 3**

Test Start: 2013.03.15 @ 17:16:00

## GENERAL INFORMATION:

Formation: **LKC "H-K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:05:30  
 Time Test Ended: 23:49:00  
 Interval: **3405.00 ft (KB) To 3500.00 ft (KB) (TVD)**  
 Total Depth: 3500.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 68  
 Reference Elevations: 1986.00 ft (KB)  
 1981.00 ft (CF)  
 KB to GR/CF: 5.00 ft

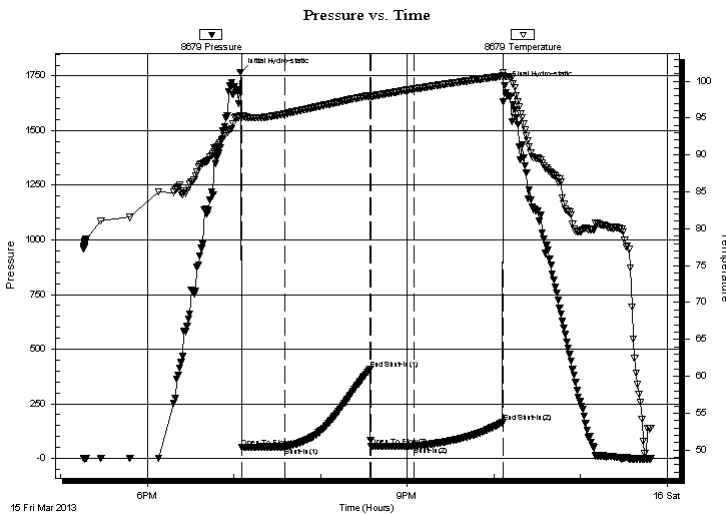
## Serial #: 8679

Inside

Press @ Run Depth: 57.07 psig @ 3475.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.15 End Date: 2013.03.15 Last Calib.: 2013.03.15  
 Start Time: 17:16:01 End Time: 23:49:00 Time On Btm: 2013.03.15 @ 19:04:30  
 Time Off Btm: 2013.03.15 @ 22:07:30

**TEST COMMENT:** 30 - IF- 1/2" blow in 8 Minutes. Died back to a surface blow  
 60 - IS- No return  
 30 - FF- No blow  
 60 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.37	95.35	Initial Hydro-static
1	49.19	95.11	Open To Flow (1)
31	53.36	95.57	Shut-In(1)
90	406.86	98.06	End Shut-In(1)
91	54.92	97.94	Open To Flow (2)
120	57.07	98.93	Shut-In(2)
182	166.03	100.70	End Shut-In(2)
183	1706.29	100.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud, with show of oil, 100%M	0.05

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
Job Ticket: 52155      **DST#: 3**  
Test Start: 2013.03.15 @ 17:16:00

### GENERAL INFORMATION:

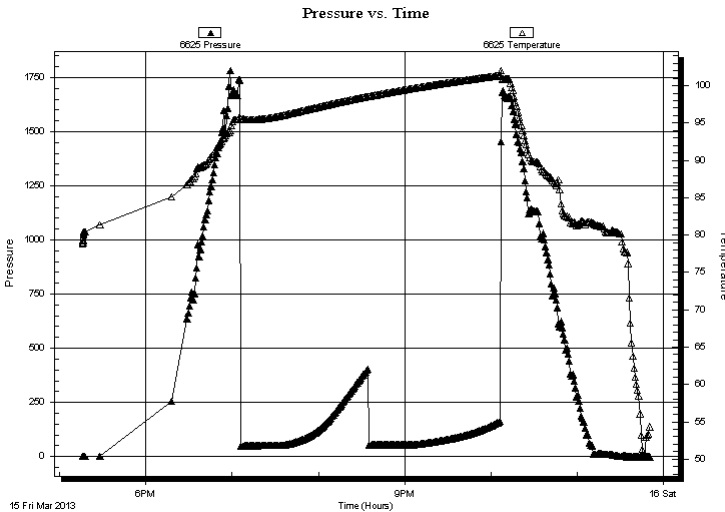
Formation: <b>LKC "H-K"</b>	
Deviated: No Whipstock: ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 19:05:30	Tester: Cody Bloedorn
Time Test Ended: 23:49:00	Unit No: 68
<b>Interval: 3405.00 ft (KB) To 3500.00 ft (KB) (TVD)</b>	Reference Elevations: 1986.00 ft (KB)
Total Depth: 3500.00 ft (KB) (TVD)	1981.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair	KB to GR/CF: 5.00 ft

### Serial #: 6625      Outside

Press @ Run Depth:      psig @      3475.00 ft (KB)	Capacity:      8000.00 psig
Start Date:      2013.03.15      End Date:      2013.03.15	Last Calib.:      2013.03.15
Start Time:      17:16:01      End Time:      23:50:30	Time On Btm:
	Time Off Btm:

**TEST COMMENT:** 30 - IF- 1/2" blow in 8 Minutes. Died back to a surface blow  
60 - IS- No return  
30 - FF- No blow  
60 - FS- No return

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud, with show of oil, 100%M	0.05

\* 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. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52155

**DST#: 3**

Test Start: 2013.03.15 @ 17:16:00

## Tool Information

Drill Pipe:	Length: 3360.00 ft	Diameter: 3.80 inches	Volume: 47.13 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 47.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3405.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.00 ft			
Tool Length:	115.00 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			3386.00	
Shut In Tool	5.00			3391.00	
Hydraulic tool	5.00			3396.00	
Packer	4.00			3400.00	20.00 Bottom Of Top Packer
Packer	5.00			3405.00	
Stubb	1.00			3406.00	
Perforations	5.00			3411.00	
Change Over Sub	1.00			3412.00	
Drill Pipe	62.00			3474.00	
Change Over Sub	1.00			3475.00	
Recorder	0.00	6625	Outside	3475.00	
Recorder	0.00	8679	Inside	3475.00	
Perforations	22.00			3497.00	
Bullnose	3.00			3500.00	95.00 Bottom Packers & Anchor

**Total Tool Length: 115.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
Job Ticket: 52155      **DST#: 3**  
Test Start: 2013.03.15 @ 17:16:00

## 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: bbl		
Water Loss: 6.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud, w ith show of oil, 100%M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

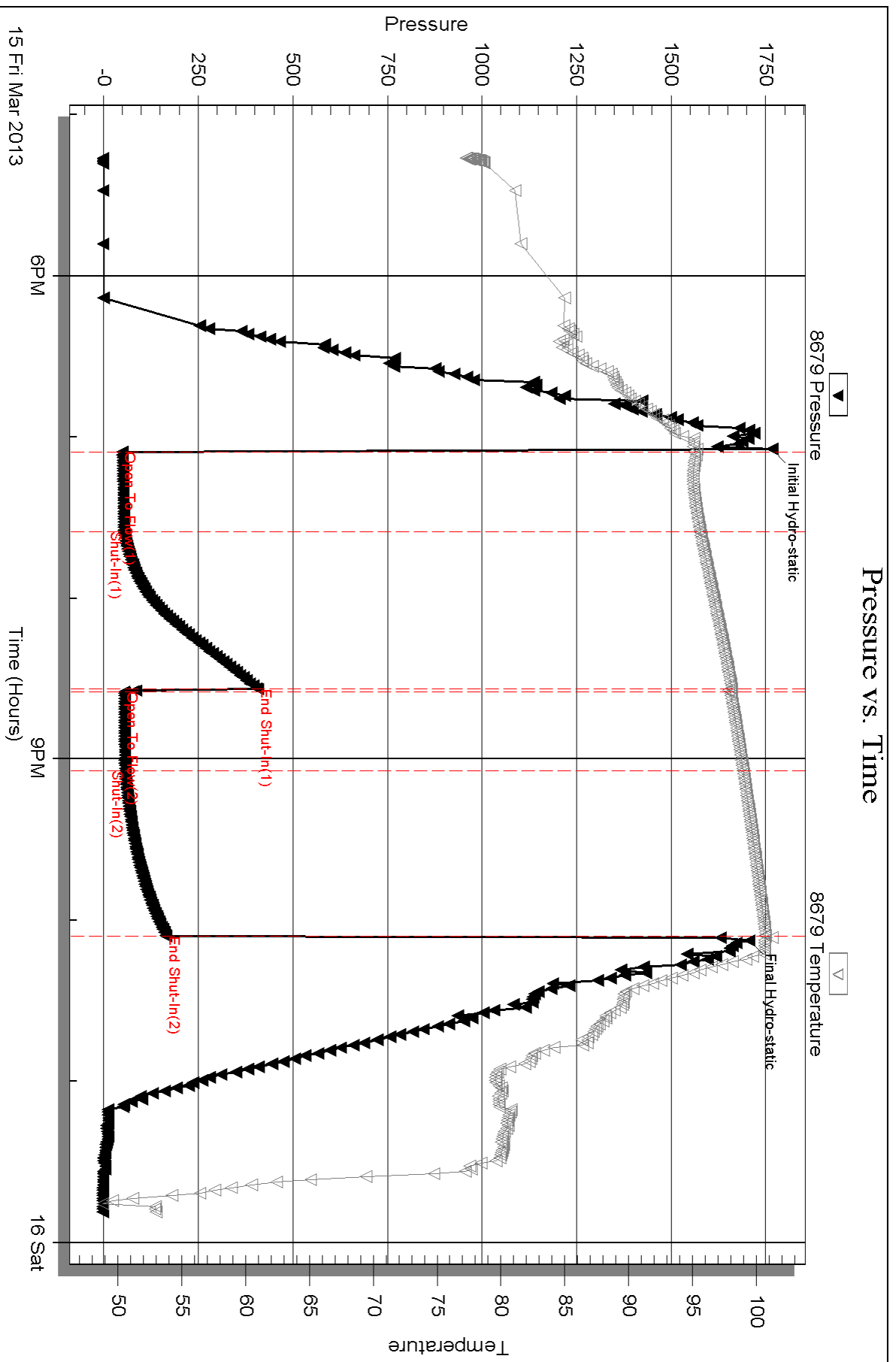
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:



# Pressure vs. Time

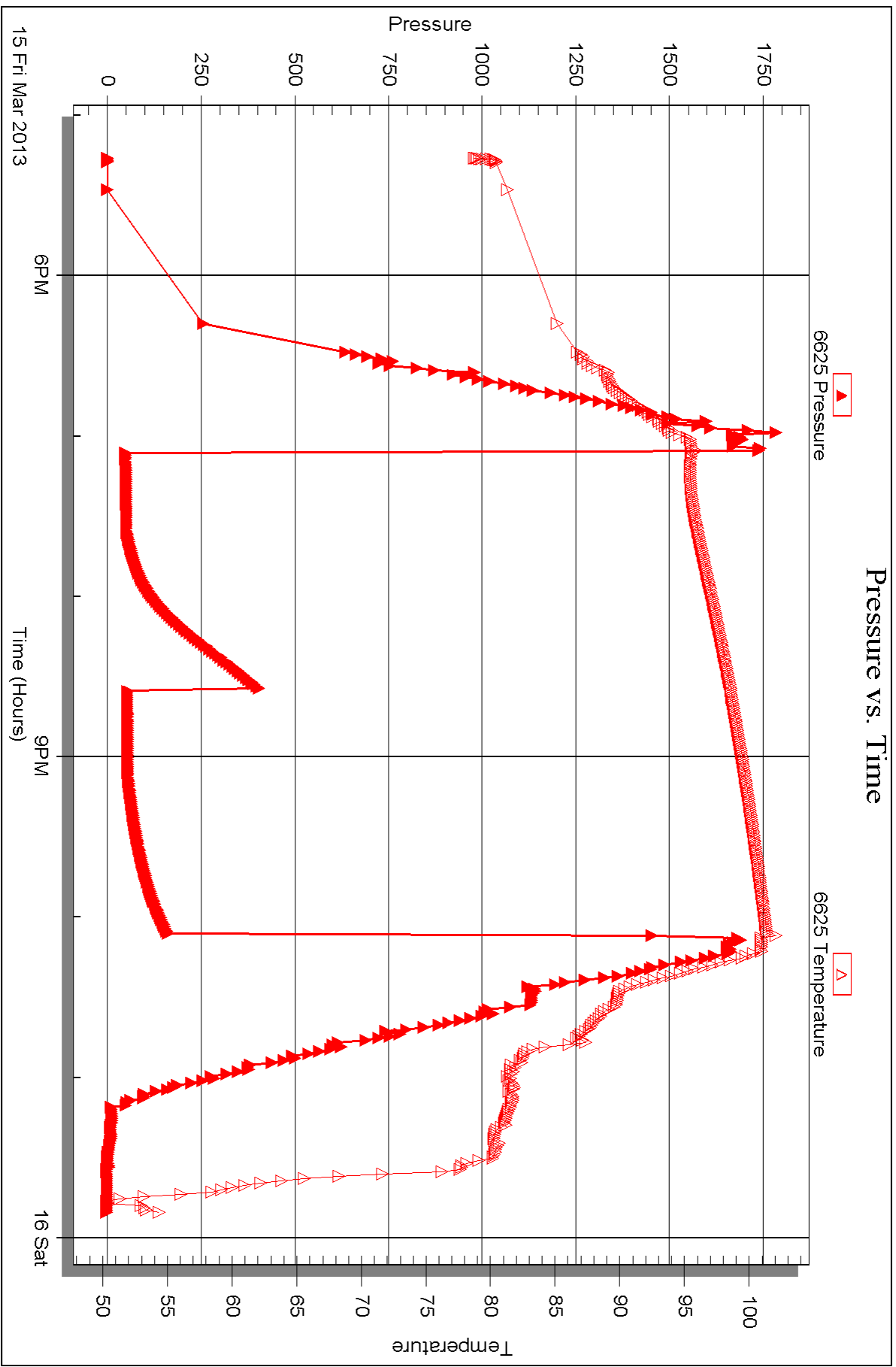


Serial #: 6625

Outside Murfin Drilling Co. Inc.

Legleiter #1-36

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co. Inc,**

250 N. Water STE 300  
Wichita KS 67202

ATTN: Rocky Milford

### **Legleiter #1-36**

### **36-15s-19w Ellis KS**

Start Date: 2013.03.16 @ 09:56:00

End Date: 2013.03.16 @ 17:00:00

Job Ticket #: 52156                      DST #: 4

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.20 @ 10:38:49



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc,  
 250 N. Water STE 300  
 Wichita KS 67202  
 ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52156

**DST#: 4**

Test Start: 2013.03.16 @ 09:56:00

## GENERAL INFORMATION:

Formation: **Conglomerate Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:49:30

Time Test Ended: 17:00:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 68

**Interval: 3563.00 ft (KB) To 3590.00 ft (KB) (TVD)**

Reference Elevations: 1986.00 ft (KB)

Total Depth: 3590.00 ft (KB) (TVD)

1981.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8679**

**Inside**

Press @ Run Depth: 1132.22 psig @ 3564.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.16

End Date:

2013.03.16

Last Calib.:

2013.03.16

Start Time: 09:56:01

End Time:

17:00:00

Time On Btm:

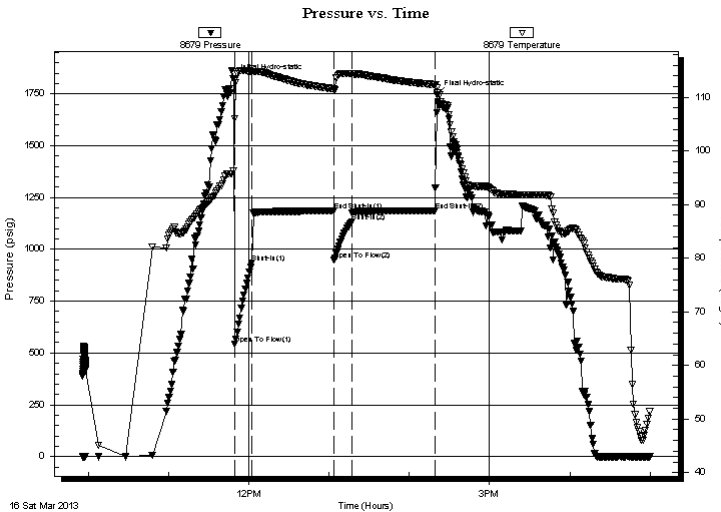
2013.03.16 @ 11:48:30

Time Off Btm:

2013.03.16 @ 14:21:00

**TEST COMMENT:** 15 - IF- B.O.B. in 30 Seconds.  
 60 - IS- No return  
 15 - FF- B.O.B. in 30 Seconds  
 60 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1825.05	96.29	Initial Hydro-static
1	543.76	106.07	Open To Flow (1)
14	936.12	114.80	Shut-In(1)
75	1185.12	111.56	End Shut-In(1)
76	950.19	111.37	Open To Flow (2)
89	1132.22	114.38	Shut-In(2)
151	1185.52	112.37	End Shut-In(2)
153	1748.60	110.81	Final Hydro-static

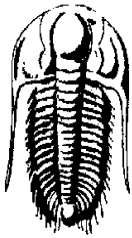
## Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW, 40%M, 60%W	1.46
2223.00	MW	31.18
248.00	GWM, 5%G,5%W, 90%M	3.48

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Murfin Drilling Co. Inc,  
 250 N. Water STE 300  
 Wichita KS 67202  
 ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
 Job Ticket: 52156 **DST#: 4**  
 Test Start: 2013.03.16 @ 09:56:00

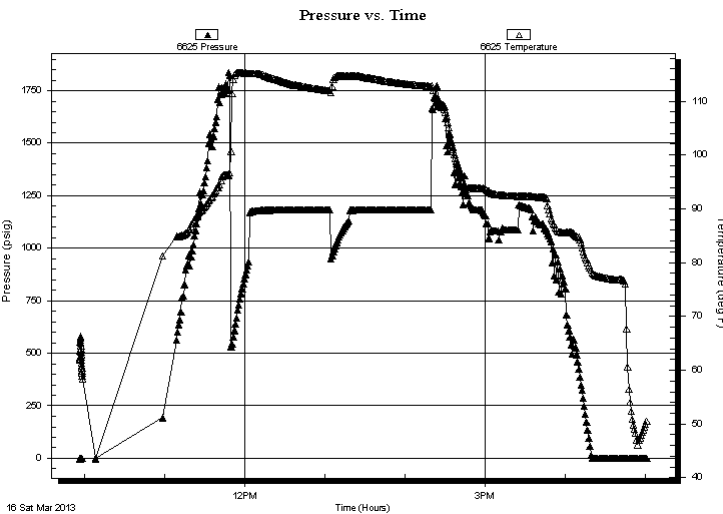
**GENERAL INFORMATION:**

Formation: **Conglomerate Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:49:30  
 Time Test Ended: 17:00:00  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 68  
 Interval: **3563.00 ft (KB) To 3590.00 ft (KB) (TVD)**  
 Reference Elevations: 1986.00 ft (KB)  
 Total Depth: 3590.00 ft (KB) (TVD) 1981.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 6625 Outside**

Press @ Run Depth: psig @ 3564.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.16 End Date: 2013.03.16 Last Calib.: 2013.03.16  
 Start Time: 09:56:01 End Time: 17:01:20 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 15 - IF- B.O.B. in 30 Seconds.  
 60 - IS- No return  
 15 - FF- B.O.B. in 30 Seconds  
 60 - FS- No return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
124.00	MW, 40%M, 60%W	1.46
2223.00	MW	31.18
248.00	GWM, 5%G,5%W, 90%M	3.48

**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. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**

**Legleiter #1-36**

Job Ticket: 52156

**DST#: 4**

Test Start: 2013.03.16 @ 09:56:00

## Tool Information

Drill Pipe:	Length: 3517.00 ft	Diameter: 3.80 inches	Volume: 49.33 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	56000.00 lb
			<u>Total Volume: 49.48 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3563.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	47.00 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			3544.00	
Shut In Tool	5.00			3549.00	
Hydraulic tool	5.00			3554.00	
Packer	4.00			3558.00	20.00 Bottom Of Top Packer
Packer	5.00			3563.00	
Stubb	1.00			3564.00	
Recorder	0.00	6625	Outside	3564.00	
Recorder	0.00	8679	Inside	3564.00	
Perforations	23.00			3587.00	
Bullnose	3.00			3590.00	27.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>47.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc,  
250 N. Water STE 300  
Wichita KS 67202  
ATTN: Rocky Milford

**36-15s-19w Ellis KS**  
**Legleiter #1-36**  
Job Ticket: 52156      **DST#: 4**  
Test Start: 2013.03.16 @ 09:56:00

## 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:	35000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

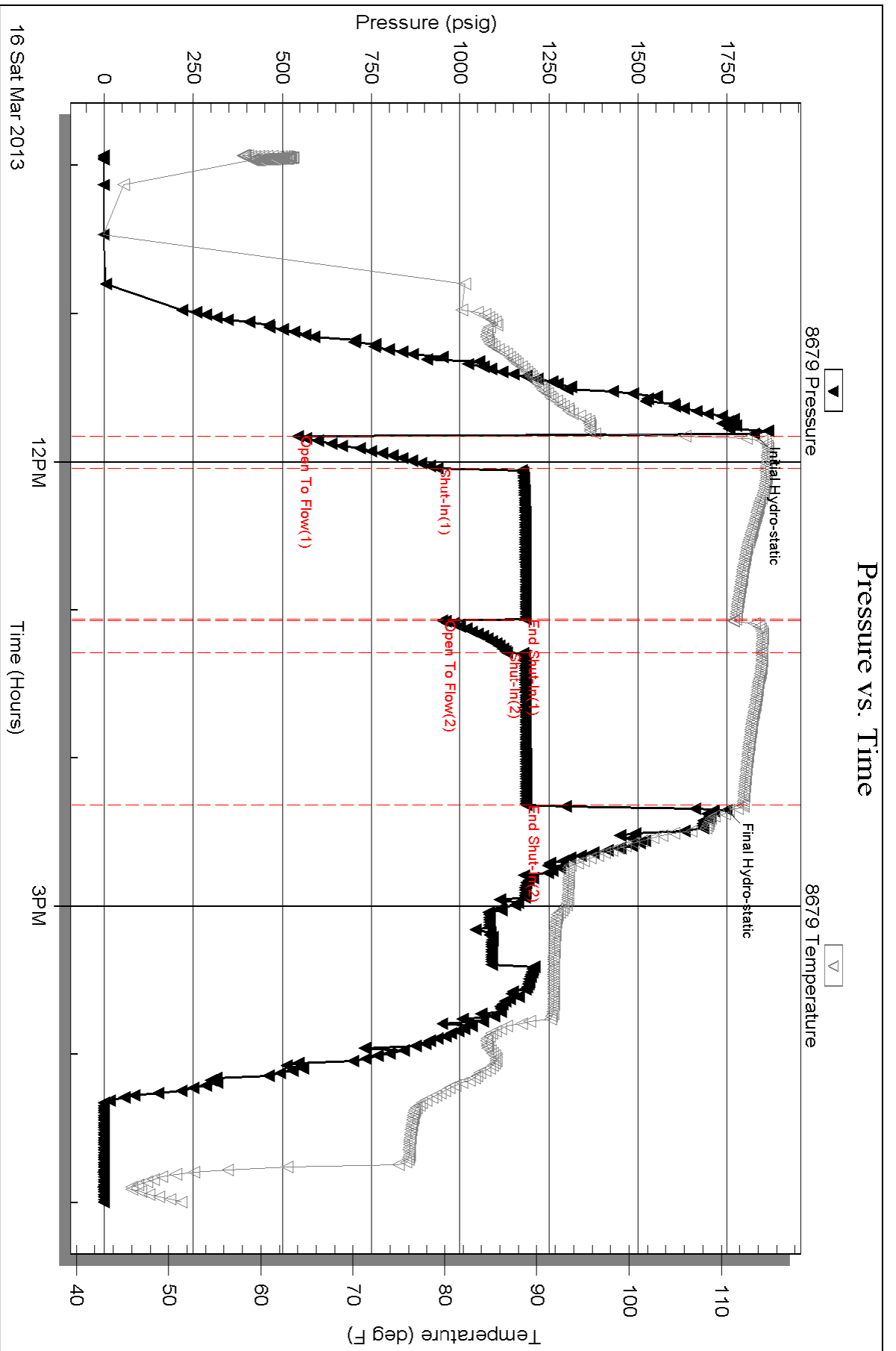
Length ft	Description	Volume bbl
124.00	MW, 40%M, 60%W	1.457
2223.00	MW	31.183
248.00	GWM, 5%G,5%W, 90%M	3.479

Total Length: 2595.00 ft      Total Volume: 36.119 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: .35 @ 40 Degrees = 35000 Salinity



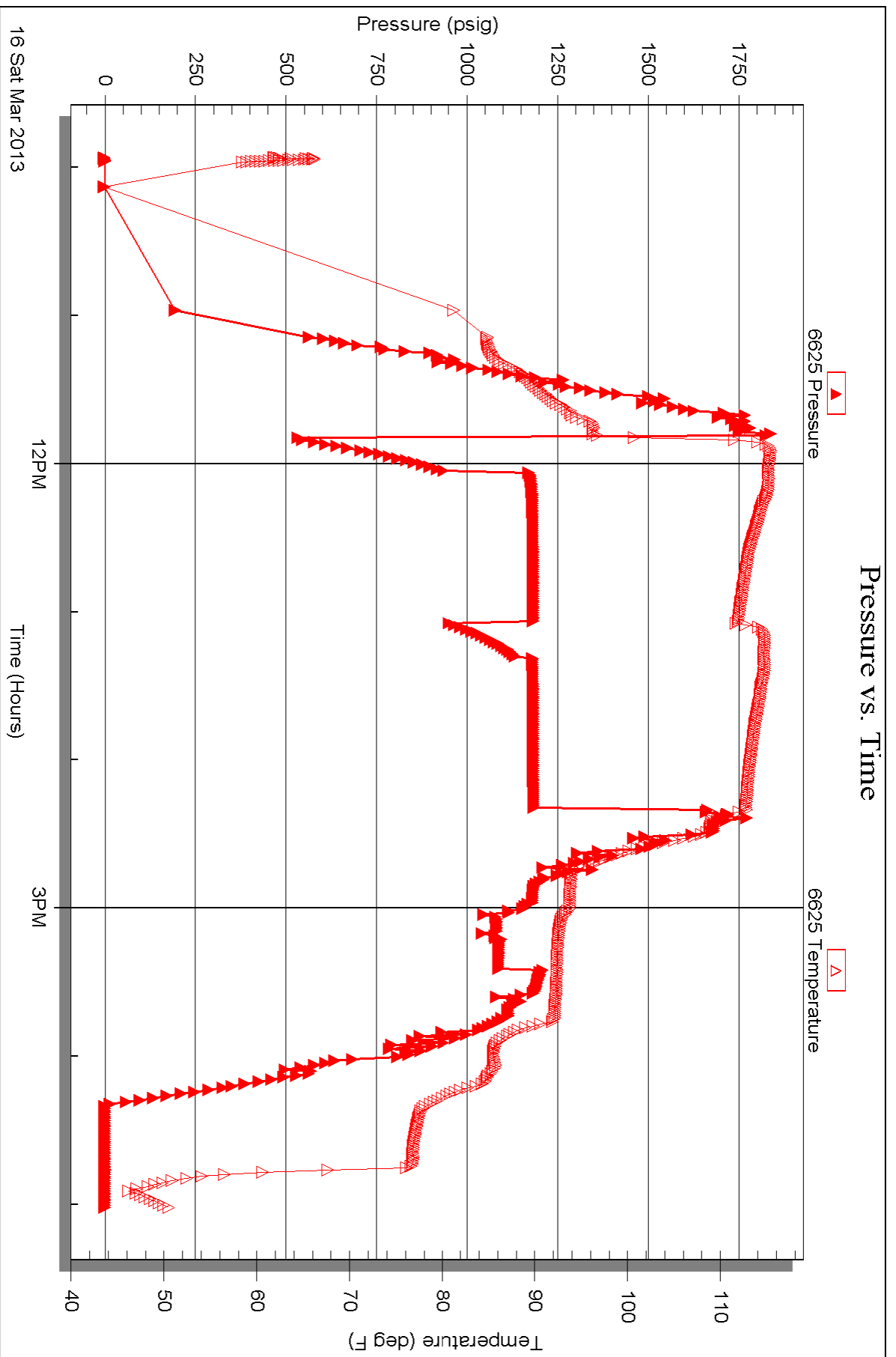


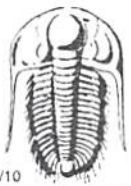
Serial #: 6625

Outside Murfin Drilling Co. Inc.

Legleiter #1-36

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52153

Well Name & No. Legleiter 1-36 Test No. 1 Date 3-14-13  
 Company Murfin Drilling Co INC Elevation 1986 KB 1981 GL  
 Address 250 N water STE 300, Wichita KS, 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin 16  
 Location: Sec. 36 Twp. 15s Rge. 19w Co. Ellis State KS

Interval Tested 3233-3318 Zone Tested Toronto-Lansing "B"  
 Anchor Length 85' Drill Pipe Run 3201 Mud Wt. 9.0  
 Top Packer Depth 3228 Drill Collars Run 31 Vis 56  
 Bottom Packer Depth 3233 Wt. Pipe Run — WL 6.4  
 Total Depth 3318 Chlorides 900 ppm System LCM —

Blow Description IF-1.75" blow  
ISI- No return  
FF- No blow  
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud with oil 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 15' BHT 98° Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>1636</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>4:28am</u>
(B) First Initial Flow <u>47</u>	<input type="checkbox"/> Jars	T-Started <u>5:29am</u>
(C) First Final Flow <u>53</u>	<input type="checkbox"/> Safety Joint	T-Open <u>7:13am</u>
(D) Initial Shut-In <u>816</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>10:13am</u>
(E) Second Initial Flow <u>55</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>11:40am</u>
(F) Second Final Flow <u>59</u>	<input checked="" type="checkbox"/> Mileage <u>38 RT</u> 58.90	Comments
(G) Final Shut-In <u>770</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1592</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

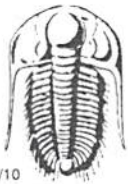
Sub Total 1208.90

Sub Total 1208.90

Total 1208.90  
 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Cody Bl...

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. 52154

4/10

Well Name & No. ~~2001~~ Legleiter 1-36 Test No. 2 Date 3-14-13  
 Company Murfin Drilling Co, INC Elevation 1986 KB 1981 GL  
 Address 250 N. Water STE 300, Wichita KS, 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin 16  
 Location: Sec. 36 Twp. 15S Rge. 19W Co. Ellis State KS

Interval Tested 3316 - 3366 Zone Tested Lansing "D-F"  
 Anchor Length 50' Drill Pipe Run 3295' Mud Wt. 9.0  
 Top Packer Depth 3311 Drill Collars Run 31' Vis 56  
 Bottom Packer Depth 3316 Wt. Pipe Run — WL 6.4  
 Total Depth 3366 Chlorides 900 ppm System LCM —

Blow Description IF- 6.5" blow  
 ISI- No return  
 FF- B.O.B. in 17 Minutes  
 FSI- No return.

Rec	Feet of	%gas	%oil	%water	%mud
62	OCM	20		80	
15	MCO	60		40	
2	Free oil	100			
	294' of G.I.P.				

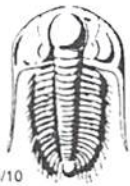
Rec Total 77 BHT 102° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 1657  Test 1150 T-On Location 7:15 pm  
 (B) First Initial Flow 31  Jars T-Started 7:30 pm  
 (C) First Final Flow 45  Safety Joint T-Open 9:15 pm  
 (D) Initial Shut-In 757  Circ Sub T-Pulled 1:15 am  
 (E) Second Initial Flow 44  Hourly Standby T-Out 3:27 am  
 (F) Second Final Flow 60  Mileage 38 RT 58.90  
 (G) Final Shut-In 738  Sampler  
 (H) Final Hydrostatic 1654  Straddle  Ruined Shale Packer

Initial Open 30  Shale Packer  Ruined Packer  
 Initial Shut-In 60  Extra Packer  Extra Copies  
 Final Flow 60  Extra Recorder Sub Total 0  
 Final Shut-In 90  Day Standby Total 1208.90  
 Accessibility MP/DST Disc't  
 Sub Total 1208.90

Approved By \_\_\_\_\_ Our Representative Cody Blay

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. 52155

Well Name & No. Legleiter 1-36 Test No. 3 Date 3-15-13  
 Company Murfin Drilling Co Inc Elevation 1986 KB 1981 GL  
 Address 250 N. Water STE 300, Wichita KS, 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin 16  
 Location: Sec. 36 Twp. 15s Rge. 19w Co. Ellis State KS

Interval Tested 3405 - 3500 Zone Tested Lansing "H-K"  
 Anchor Length 95' Drill Pipe Run 3360 Mud Wt. 8.9  
 Top Packer Depth 3400 Drill Collars Run 31' Vis 54  
 Bottom Packer Depth 3405 Wt. Pipe Run — WL 6.8  
 Total Depth 3500 Chlorides 1,000 ppm System LCM —

Blow Description IF - 1/2" blow in 8 Minutes. Died back to surface blow  
ISI - No return  
FF - No blow  
FSI - No return

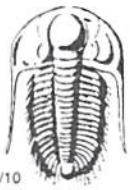
Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud, with show of oil</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT 100° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1766</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>3:47pm</u>
(B) First Initial Flow <u>49</u>	<input type="checkbox"/> Jars	T-Started <u>5:16pm</u>
(C) First Final Flow <u>53</u>	<input type="checkbox"/> Safety Joint	T-Open <u>7:06pm</u>
(D) Initial Shut-In <u>406</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>10:06pm</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>11:51pm</u>
(F) Second Final Flow <u>57</u>	<input checked="" type="checkbox"/> Mileage <u>38 RT</u> 58.90	Comments
(G) Final Shut-In <u>166</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1706</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1208.90</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1208.90</u>	

Approved By \_\_\_\_\_ Our Representative Cody Bleedorn

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. 52156

Well Name & No. Legleiter 1-36 Test No. 4 Date 3-16-13  
 Company Murfin Drilling Co Inc Elevation 1986 KB 1981 GL  
 Address 250 N. Water STE 300, Wichita KS, 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin 16  
 Location: Sec. 36 Twp. 15s Rge. 19w Co. Ellis State KS

Interval Tested 3563 - 3590 Zone Tested CGI sand  
 Anchor Length 27' Drill Pipe Run 3517' Mud Wt. 9.2  
 Top Packer Depth 3558 Drill Collars Run 31' Vis 56  
 Bottom Packer Depth 3563 Wt. Pipe Run - WL 6.8  
 Total Depth 3590 Chlorides 4,000 ppm System LCM -  
 Blow Description IF - B.O.B. in 30 seconds  
ISI - No return  
FF - B.O.B. in 30 seconds  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<del>124'</del>	<del>MW</del>				
124'	MW			60%	40%
2223'					
248'	GWM	5%		5%	90%

Rec Total 2595' BHT 112° Gravity - API RW .35 @ 40° F Chlorides 35,000 ppm

(A) Initial Hydrostatic <u>1825</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>9:45am</u>
(B) First Initial Flow <u>543</u>	<input type="checkbox"/> Jars	T-Started <u>9:56am</u>
(C) First Final Flow <u>936</u>	<input type="checkbox"/> Safety Joint	T-Open <u>11:49am</u>
(D) Initial Shut-In <u>1185</u>	<input checked="" type="checkbox"/> Circ Sub <u>Dropped bar 50</u>	T-Pulled <u>2:19pm</u>
(E) Second Initial Flow <u>950</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>5:01pm</u>
(F) Second Final Flow <u>1132</u>	<input checked="" type="checkbox"/> Mileage <u>38RT</u> 58.90	Comments
(G) Final Shut-In <u>1185</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1748</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	
	<input type="checkbox"/> Extra Packer	
	<input type="checkbox"/> Extra Recorder	
	<input type="checkbox"/> Day Standby	
	<input type="checkbox"/> Accessibility	
Initial Open <u>15</u>	Sub Total <u>1258.90</u>	
Initial Shut-In <u>60</u>		
Final Flow <u>15</u>		
Final Shut-In <u>60</u>		

Approved By \_\_\_\_\_ Our Representative Cody Bl...

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.



**QUALITY OILWELL CEMENTING, INC**  
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

**PROD COPY**

Date: 3/12/2013  
 Invoice # 6459

acct.  
 Prod - LH

P.O.#:  
 Due Date: 4/11/2013  
 Division: Russell

# Invoice

**Contact:**  
 Murfin Drilling Company  
**Address/Job Location:**  
 Murfin Drilling Company  
 P.O. Box 288  
 Russell Ks 67665

USED FOR Drilling  
 APPROVED [Signature]

**Reference:**  
 LEGLEITER 1-36

**Description of Work:**  
 LONG SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,275.15	No				
Common-Class A	630	\$ 8,577.36	Yes				
Bulk Truck Matl-Material Service Charge	734	\$ 1,593.83	No				
Calcium Chloride	23	\$ 1,190.14	Yes				
Premium Gel (Bentonite)	11	\$ 194.43	Yes				
Pump Truck Mileage-Job to Nearest Camp	16	\$ 173.37	No				
8 5/8" Top Rubber Plug	1	\$ 115.09	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 97.71	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	16	\$ 101.45	No				

**Invoice Terms:**  
 Net 30

Account	Unit	W	No.	Amount	
<u>10203</u>	Fig	L		<u>11865.60</u>	<u>Cement S. (3g) #1-36</u>
					SubTotal: \$ 13,318.52
					Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed-terms-of-invoice: \$ (1,997.78)
					SubTotal for Taxable Items: \$ 8,648.52
					SubTotal for Non-Taxable Items: \$ 2,672.23
					Total: \$ 11,320.74
					Tax: \$ 544.86
					6.30% Ellis County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 11,865.60**  
**Applied Payments:**  
**Balance Due: \$ 11,865.60**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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Q141

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6459

Date	3-11-13	Sec.	36	Twp.	15	Range	19	County	Ellis	State	KS	On Location		Finish	3:45 A.M.
Location													Schrocken 2w to 230 15 1w 21 1/2		

Lease	Leggett	Well No.	1-36	Owner	
Contractor	Murphy #16	To Quality Oilwell Cementing, Inc.			
Type Job	Surface	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size	12 1/4	T.D.	976	Charge To	Murphy Drilling
Csg.	8 5/8	Depth	965	Street	
Tbg. Size		Depth		City	
Tool		Depth		State	

Cement Left in Csg.	42.59	Shoe Joint	42.59	Cement Amount Ordered	600 com 3% CC 2% LBL
Meas Line		Displace	58 3/4 BCL		100 com 4% CC

EQUIPMENT					
Pumptrk	9	No.	Cement Helper	Common	630
Bulktrk	13	No.	Driver	Poz. Mix	
Bulktrk	1	No.	Driver	Gel.	11
			Driver	Calcium	23

JOB SERVICES & REMARKS			
Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
8 5/8 on bottom. Baffle @ 922.41.		Sand	
Mix 600 SK Cement + Displace Plug.		Handling	734
		Mileage	

FLOAT EQUIPMENT			
Cement Circulated? Plug Down 1:30 PM		Guide Shoe	8 5/8 Rubber Plug
		Centralizer	Baffle Plate
Top old 30 SK com 4% CC		Baskets	
		AFU Inserts	
		Float Shoe	
		Latch Down	

Pumptrk Charge	Long Surface
Mileage	16

X Signature	[Signature]	Tax	
		Discount	
		Total Charge	



**PROD COPY**

Date: 3/13/2013  
Invoice # 6460

*acct Prod-LH*

**QUALITY OILWELL CEMENTING, INC.**  
PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
Phone: 785-324-1041 fax: 785-483-1087  
Email: cementing@ruraltel.net

P.O.#:  
Due Date: 4/12/2013  
Division: *Russell*

# Invoice

**Contact:**  
Murfin Drilling Company  
**Address/Job Location:**  
Murfin Drilling Company  
P.O. Box 288  
Russell Ks 67665

USED FOR *Drilling*  
APPROVED *[Signature]*

**Reference:**  
LEGLEITER 1-36  
  
**Description of Work:**  
CIR CEMENT

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
Common-Class A	100	\$ 1,361.49	Yes				
Bulk Truck Matl-Material Service Charge	104	\$ 225.83	No				
Calcium Chloride	4	\$ 206.98	Yes				
Pump Truck Mileage-Job to Nearest Camp	16	\$ 173.37	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	16	\$ 101.45	No				

Account	No.	Amount	Description
<i>10203</i>		<i>2685.42</i>	<i>Cement S. (By) # 1-36</i>
			SubTotal: \$ 3,060.50
		<i>3,452.00</i>	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice: \$ (459.07)
			SubTotal for Taxable Items: \$ 1,333.20
			SubTotal for Non-Taxable Items: \$ 1,268.23

**Invoice Terms:**  
Net 30

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

Total: \$ 2,601.43  
Tax: \$ 83.99  
**Amount Due: \$ 2,685.42**  
Applied Payments:  
**Balance Due: \$ 2,685.42**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
This does not include any applicable taxes unless it is listed.  
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*OK*



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

none 785-483-2025  
Cell 785-324-1041

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

No. 6460

Date	3-11-13	Sec.		Twp.		Range		County	Ellis	State	KS	On Location		Finish	1:30 p.m.		
Lease								Location		Hays S 10 line 4 W 1/4							
Well No.								1-36		Owner							
Contractor								Murfin #16		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job								1" Backs. or		Charge To							
Hole Size								1 7/8"		T.D.		Merfin Drilling					
Csg.								Depth		Street							
Tbg. Size								Depth		City		State					
Tool								Depth		The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.								Shoe Joint		Cement Amount Ordered							
Meas Line								Displace		100000 40000							
<b>EQUIPMENT</b>																	
Pumptrk		15		No.		Cementer		Craig		Common		100					
						Helper				Poz. Mix							
Bulktrk				No.		Driver		Mike		Gel.							
Bulktrk		13		No.		Driver		Billy		Calcium		4					
<b>JOB SERVICES &amp; REMARKS</b>																	
Remarks:								Hulls									
Rat Hole								Salt									
Mouse Hole								Flowseal									
Centralizers								Kol-Seal									
Baskets								Mud CLR 48									
D/V or Port Collar								CFL-117 or CD110 CAF 38									
1" to 20' line cement with								Sand									
50SK								Handling		104							
1" to 20' 25SK								Mileage									
<b>FLOAT EQUIPMENT</b>																	
Calar top off with 25SK								Guide Shoe									
								Centralizer									
								Baskets									
								AFU Inserts									
								Float Shoe									
								Latch Down									
								Pumptrk Charge									
								Mileage		16							
Tax																	
Discount																	
Total Charge																	
Signature								As listed									



**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665

Phone: 785-324-1041 fax: 785-483-1087

Email: cementing@ruraltel.net

Date: 3/25/2013  
Invoice # 6483

*acct. Prod.-LH*

P.O.#:

Due Date: 4/24/2013

Division: Russell

**PROD COPY**

**Invoice**

**Contact:**

Murfin Drilling Company

**Address/Job Location:**

Murfin Drilling Company

P.O. Box 288

Russell Ks 67665

USED FOR Drilling

APPROVED \_\_\_\_\_

**Reference:**

LEGLEITER 1-36

**Description of Work:**

PLUG JOB

**OPERATOR PAY MDC  
LEASE: Legleiter  
1-36  
13**

*To Plug*

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	Yes				
Common-Class A	141	\$ 1,919.69	Yes				
Bulk Truck Matl-Material Service Charge	243	\$ 527.66	Yes				
POZ Mix-Standard	94	\$ 469.46	Yes				
Premium Gel (Bentonite)	8	\$ 141.40	Yes				
Flo Seal	59	\$ 128.11	Yes				
Pump Truck Mileage-Job to Nearest Camp	6	\$ 65.01	Yes				
<u>Dry Hole Plug</u>	1	\$ 60.80	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	6	\$ 38.04	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 4,341.58

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (651.24)

SubTotal for Taxable Items: \$ 3,690.34

SubTotal for Non-Taxable Items: \$ -

Total: \$ 3,690.34

Tax: \$ 232.49

6.30% Ellis County Sales Tax

Amount Due: \$ 3,922.83

Applied Payments:

Balance Due: \$ **3,922.83**

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)

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Invoice #	Amount	Description
10203	3,922.83	PTA
3	4,527.0001	

*Q-149*

*1-36*

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 6483

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-17-13	36	15	19	ELLIS	KANSAS		2:00 pm
Lease				Location			
LEGETTER				HAYS ST. CL. RD. 3 1/2 W. N/INTO			
Well No. #1-36				Owner MUREIN DRILLING			
Contractor MUREIN #110				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job P.T.A				Charge To MUREIN DRILLING			
Hole Size 7 7/8"		T.D. 31080		Street 250 N WATER STE 300			
Csg. 4 1/2"		Depth		City WICHITA State KS, 67202			
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Tool		Depth		Cement Amount Ordered 235 60% 40 JOE 4 GEL 1/4 FLO			
Cement Left in Csg.		Shoe Joint					
Meas Line				Displace			
EQUIPMENT				Common 141			
Pumptrk #15 No.		Cementer Helper NICK W.		Poz. Mix 94			
Bulktrk #14 No.		Driver LONNIE M.		Gel. 8			
Bulktrk P/W No.		Driver CISCO A.		Calcium			
JOB SERVICES & REMARKS				Hulls			
Remarks:				Salt			
Rat Hole				Flowseal 59#			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
				Handling 243			
15@3562				50 SKS			
2nd@1200				25 SKS			
3rd@1010				40 SKS			
4TH@490				80 SKS			
5TH@40				10 SKS			
RATHOLE				30 SKS			
TOTAL ->				235 SKS			
				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				1 - 8 5/8" WOODEN PLUG			
				Pumptrk Charge plug			
				Mileage 6			
THANK YOU!							
X Signature Ay Seal				Tax			
				Discount			
				Total Charge			