



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1091845  
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: \_\_\_\_\_

1091845

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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> <i>(Submit ACO-4)</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

Sam Brownback, Governor

August 27, 2012

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

Re: ACO1  
API 15-153-20902-00-00  
Erickson 1-21  
SE/4 Sec.21-05S-31W  
Rawlins 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

		MDC Erickson #1-21 580' FSL 680' FEL Sec. 21-5S-31W 2890' KB					MDC JKB 'B' #1-22 2200FSL 880' FEL Sec. 22-5S-31W 2937' KB		
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum	
Anhydrite	2585	+305	+3	2589	+301	-1	2635	+302	
B/Anhydrite	2627	+263	-4	2624	+266	-1	2670	+267	
Topeka	3674	-784	+3	3675	-785	+2	3724	-787	
Heebner	3846	-956	+3	3848	-958	+1	3896	-959	
Lansing	3898	-1008	+6	3897	-1007	+7	3951	-1014	
Stark	4068	-1178	+3	4069	-1179	+2	4118	-1181	
BKC	4123	-1233	+3	4122	-1232	+4	4173	-1236	
Pawnee	4244	-1354	-3	4242	-1352	-1	4288	-1351	
Cherokee	4321	-1431	-4	4323	-1433	-6	4364	-1427	
Mississippi	4438	-1548	-5	4438	-1548	-5	4480	-1543	
RTD	4538						4565		
LTD				4542			4533		

# Jeff Christian

PETROLEUM GEOLOGIST  
Wichita, Kansas

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **MURFIN DRILLING COMPANY**  
 LEASE **ERICKSON # 1-21**  
 LOCATION **580' FSL & 680' FEL**

SEC. **21** TWPSP **5 S** RANG **31 W**  
 COUNTY **RAWLINS** STATE **KANSAS**  
 FIELD **WILDCAT**

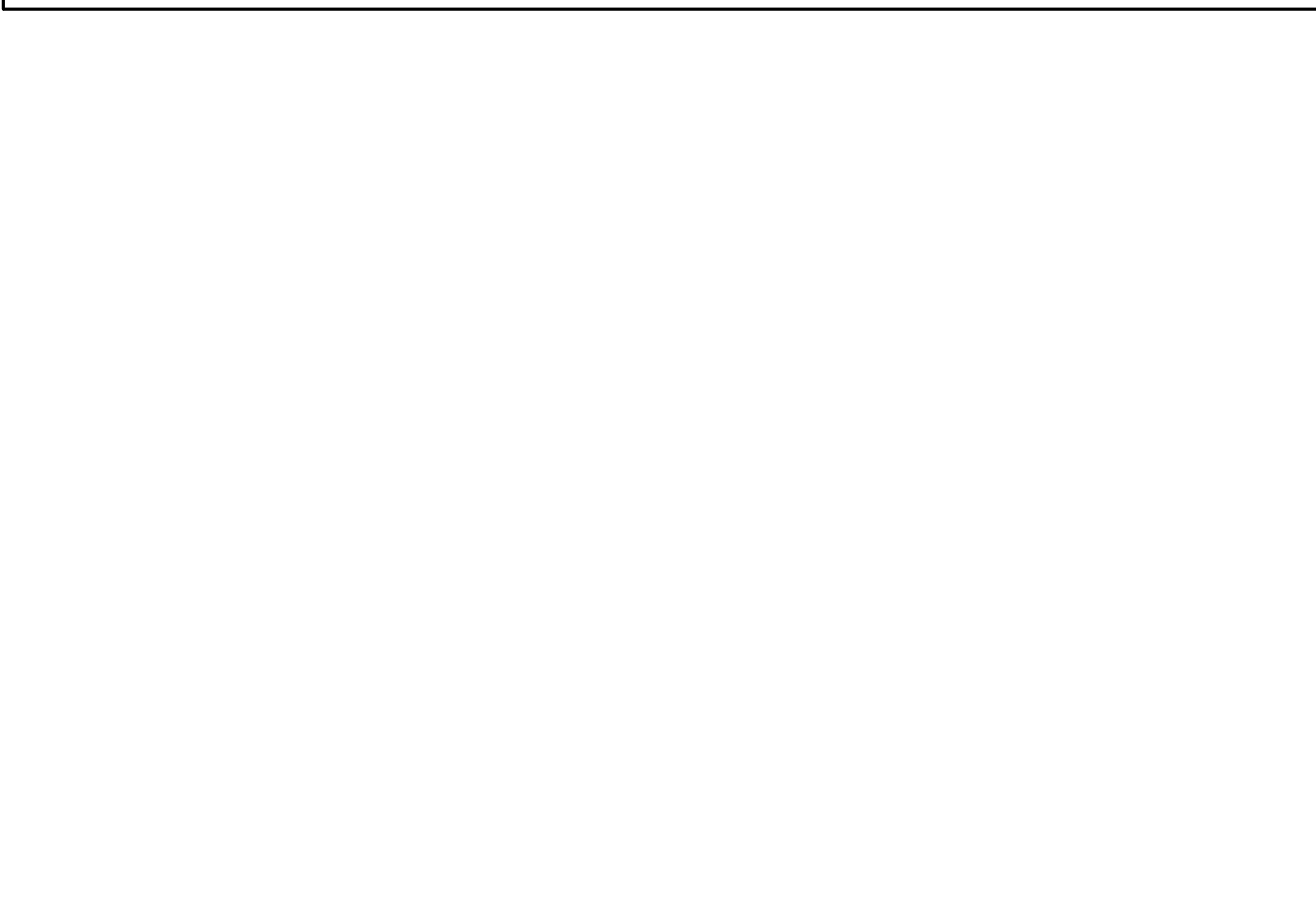
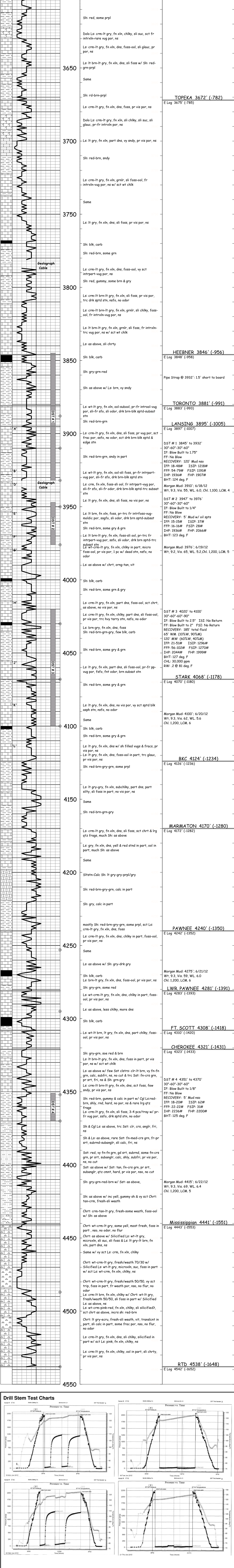
API **15-153-20922**  
 CONTRACTOR **MURFIN** RIG NO. **8**  
 DRILLING STARTED **06/14/2012** COMPLETED **06/22/2012**  
 WILD DISPLACED **3021'** MUD TYPE **CHL/CEM**  
 DRILLING TIME KEPT FROM **3980'** TO **RTD**  
 SAMPLES SAVED FROM **3980'** TO **RTD**  
 SAMPLES EXAMINED FROM **3980'** TO **RTD**  
 GEOLOGICAL SUPERVISION FROM **3605'** TO **RTD**

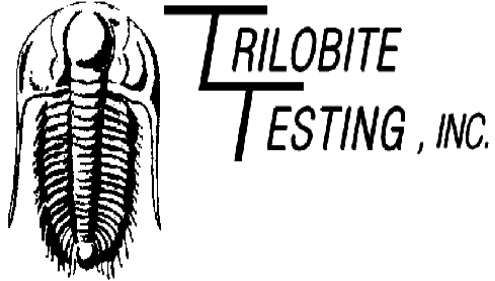
FORMATION NAME	LOG TOP	DATUM	SAMPLE DATE
ANHYDRITE	2589'	(+301)	2585' (-305)
TOPEKA	3675'	(-785)	3674' (-784)
HEEBNER	3848'	(-958)	3846' (-956)
LANSING	3897'	(-1007)	3898' (-1008)
STARK	4070'	(-1180)	4068' (-1178)
BKC	4126'	(-1236)	4123' (-1233)
PAWNEE	4242'	(-1352)	4234' (-1344)
CHEROKEE	4323'	(-1433)	4321' (-1431)
MISSISSIPPIAN	4443'	(-1533)	4438' (-1548)
TOTAL DEPTH	4542'	(-1652)	4538' (-1648)

MEASUREMENTS FROM 6"  
**CASING RECORD**  
 Conductor NONE  
 Surface 8.5/8" @ 220'  
 W/ 1/8" SX  
 Production NONE

DATE	7:00 AM DEPTH	REMARKS
6/14/12	MIRT	SPUD 3:30 pm
6/15/12	450'	DRLG. dev. 1/2 deg. @ 220'
6/16/12	2325'	DRLG.
6/17/12	3350'	DRLG.
6/18/12	3880'	DRLG. dev. 1/2 deg. @ 3932'
6/19/12	3976'	TOH for DST # 2
6/20/12	4100'	TOH for DST # 3
6/21/12	4275'	DRLG.
6/22/12	4410'	DRLG. RTD 4538' @ 2:45 pm dev. 3/4 deg.

**Remarks**  
 The Erickson # 1-21 was declared dry and abandoned.  
 All sample shows of oil were condemned by drill stem tests.  
 Electric log measurements correlate about 2' deep compared to rotary measurements.  
 Sample tops corrected to the electric log.  
 Samples deposited at the Kansas Geological Survey in Wichita.  
 Respectfully Submitted,  
*Jeff Christian*  
 Jeff Christian





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Erickson #1-21**

#### **21-5s-31w Rawlins, KS**

Start Date: 2012.06.18 @ 15:41:00

End Date: 2012.06.18 @ 23:04:30

Job Ticket #: 48111                      DST #: 1

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

Printed: 2012.06.27 @ 11:43:14



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

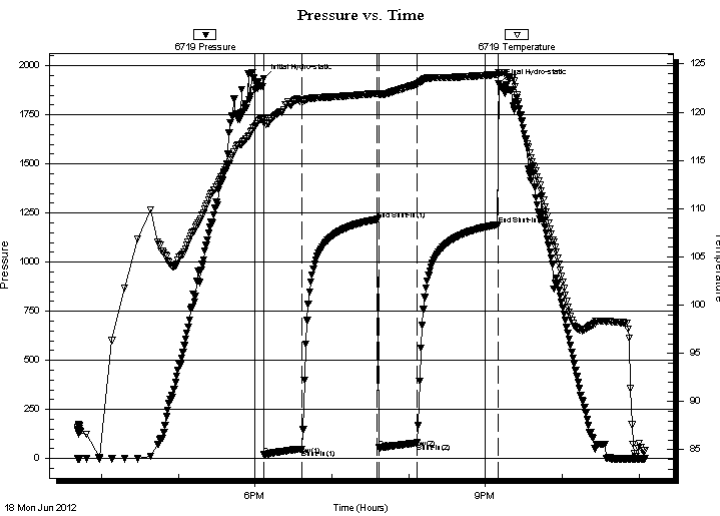
**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
Job Ticket: 48111      **DST#: 1**  
Test Start: 2012.06.18 @ 15:41:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC "A-B"**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 18:07:00      Tester: Kevin Mack  
Time Test Ended: 23:04:30      Unit No: 57  
**Interval: 3845.00 ft (KB) To 3932.00 ft (KB) (TVD)**      Reference Elevations: 2890.00 ft (KB)  
Total Depth: 3932.00 ft (KB) (TVD)      2885.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 6719      Inside**  
Press @ Run Depth: 79.75 psig @ 3846.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.06.18      End Date: 2012.06.18      Last Calib.: 2012.06.18  
Start Time: 15:41:05      End Time: 23:04:29      Time On Btm: 2012.06.18 @ 18:06:30  
Time Off Btm: 2012.06.18 @ 21:10:30

**TEST COMMENT:** 30 - IF- 1/4" Blow built to 1 3/4"  
60 - IS- No Return  
30 - FF- No Blow  
60 - FS- No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.09	119.31	Initial Hydro-static
1	18.94	118.92	Open To Flow (1)
30	48.98	121.15	Shut-In(1)
89	1218.28	121.95	End Shut-In(1)
90	54.09	121.81	Open To Flow (2)
120	79.75	122.93	Shut-In(2)
183	1191.09	123.90	End Shut-In(2)
184	1907.86	124.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud 100M	0.59

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
Job Ticket: 48111      **DST#: 1**  
Test Start: 2012.06.18 @ 15:41:00

**Tool Information**

Drill Pipe:	Length: 3669.00 ft	Diameter: 3.80 inches	Volume: 51.47 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 52.36 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3845.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	115.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3822.00	
Hydraulic tool	5.00			3827.00	
Jars	5.00			3832.00	
Safety Joint	3.00			3835.00	
Packer	5.00			3840.00	28.00      Bottom Of Top Packer
Packer	5.00			3845.00	
Stubb	1.00			3846.00	
Recorder	0.00	6719	Inside	3846.00	
Recorder	0.00	8671	Outside	3846.00	
Perforations	18.00			3864.00	
Change Over Sub	1.00			3865.00	
Drill Pipe	63.00			3928.00	
Change Over Sub	1.00			3929.00	
Bullnose	3.00			3932.00	87.00      Bottom Packers & Anchor

**Total Tool Length: 115.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**21-5s-31w Rawlins, KS**

250 N Water STE #300  
Wichita, KS 67202

**Erickson #1-21**

Job Ticket: 48111

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2012.06.18 @ 15:41:00

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mud 100M	0.590

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

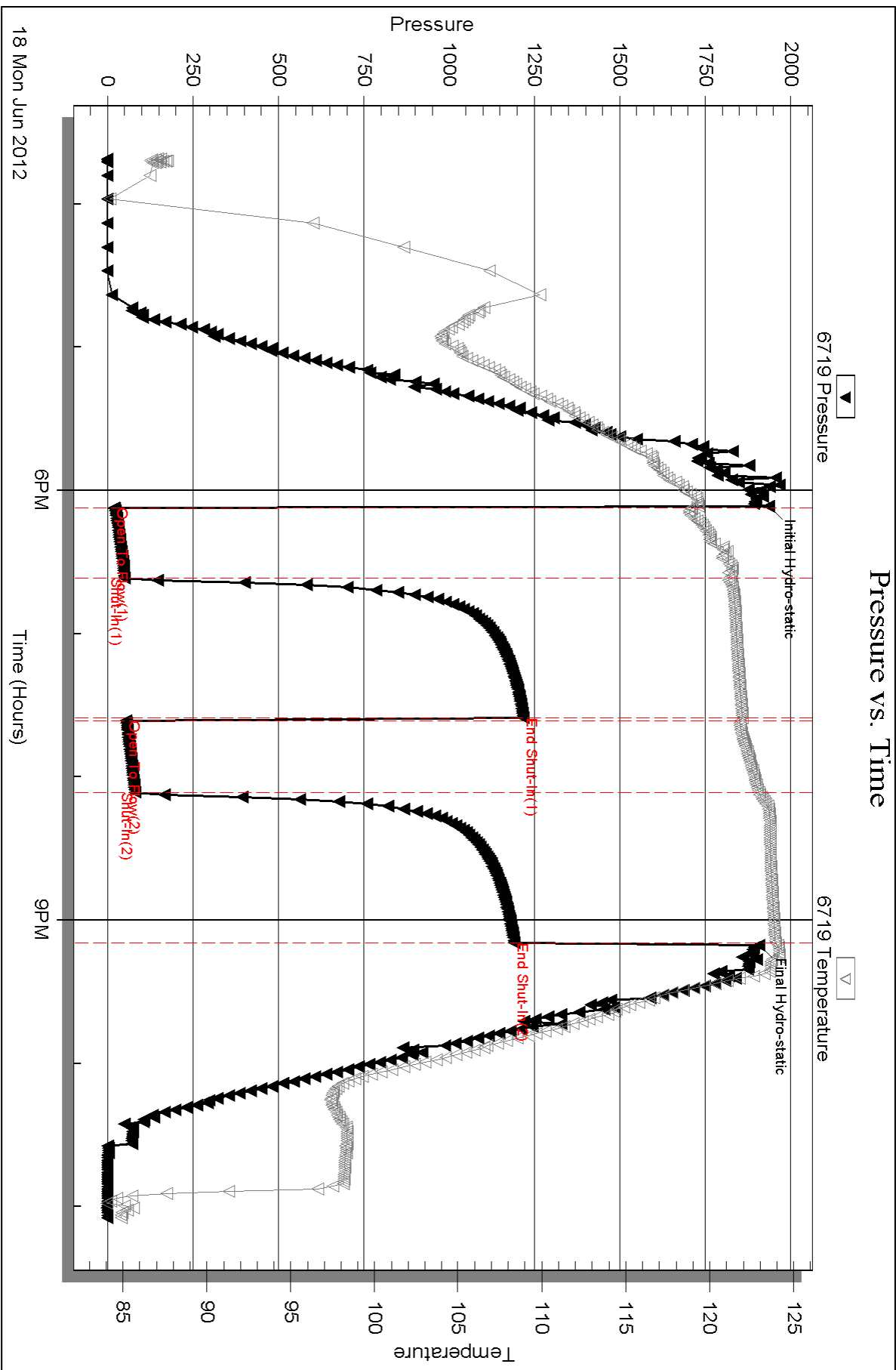
Serial #: 6719

Inside

Murfin Drilling Co.

Erickson #1-21

DST Test Number: 1

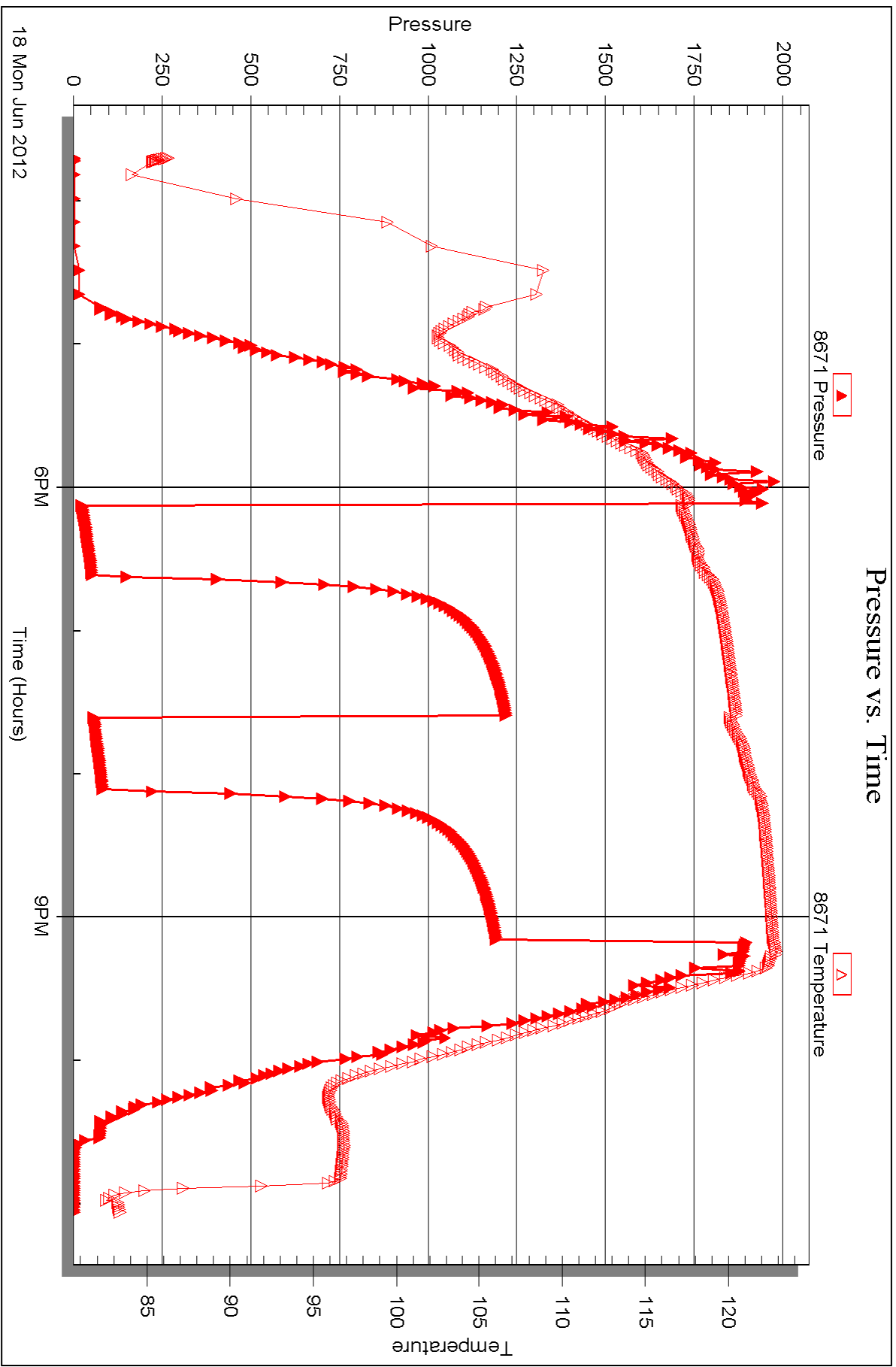


Serial #: 8671

Outside Murfin Drilling Co.

Erickson #1-21

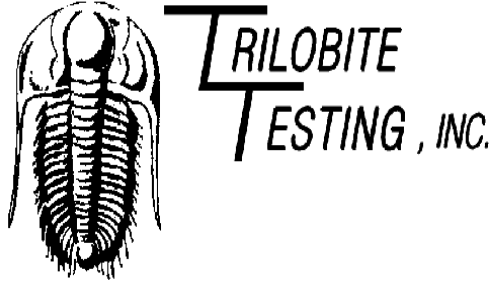
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48111

Printed: 2012.06.27 @ 11:43:16



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Erickson #1-21**

#### **21-5s-31w Rawlins, KS**

Start Date: 2012.06.19 @ 07:40:00

End Date: 2012.06.19 @ 15:04:30

Job Ticket #: 48112                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.27 @ 11:42:29



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
Job Ticket: 48112      **DST#: 2**  
Test Start: 2012.06.19 @ 07:40:00

## GENERAL INFORMATION:

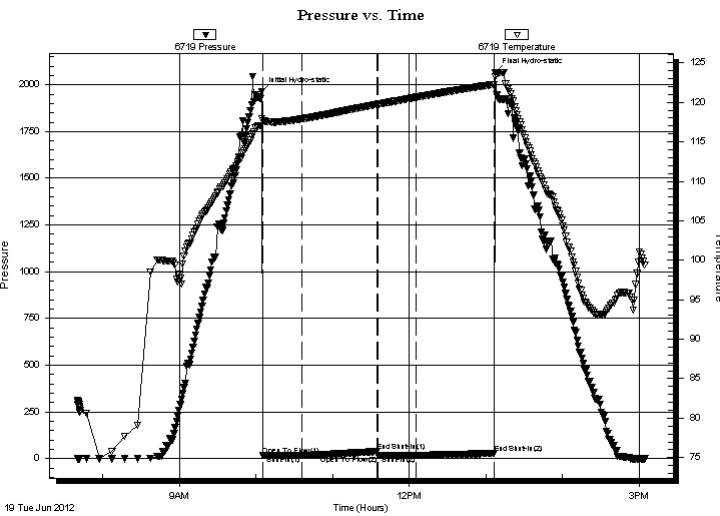
Formation: **LKC "E-F"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 10:05:30  
Time Test Ended: 15:04:30  
Interval: **3947.00 ft (KB) To 3976.00 ft (KB) (TVD)**  
Total Depth: 3976.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Kevin Mack  
Unit No: 57  
Reference Elevations: 2890.00 ft (KB)  
2885.00 ft (CF)  
KB to GR/CF: 5.00 ft

## Serial #: 6719

Inside

Press @ Run Depth: 16.61 psig @ 3948.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.06.19 End Date: 2012.06.19 Last Calib.: 2012.06.19  
Start Time: 07:40:05 End Time: 15:04:29 Time On Btm: 2012.06.19 @ 10:04:30  
Time Off Btm: 2012.06.19 @ 13:07:30

TEST COMMENT: 30 - IF- 1/8" Blow built to 1/4" Then died back to weak 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	1963.60	117.90	Initial Hydro-static
1	15.87	117.64	Open To Flow (1)
31	15.78	117.89	Shut-In(1)
90	37.33	119.74	End Shut-In(1)
91	16.42	119.76	Open To Flow (2)
121	16.61	120.64	Shut-In(2)
182	28.11	122.28	End Shut-In(2)
183	2066.61	123.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100M (oil spots)	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
Job Ticket: 48112      **DST#: 2**  
Test Start: 2012.06.19 @ 07:40:00

**Tool Information**

Drill Pipe:	Length: 3764.00 ft	Diameter: 3.80 inches	Volume: 52.80 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 53.69 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3947.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3924.00	
Hydraulic tool	5.00			3929.00	
Jars	5.00			3934.00	
Safety Joint	3.00			3937.00	
Packer	5.00			3942.00	28.00      Bottom Of Top Packer
Packer	5.00			3947.00	
Stubb	1.00			3948.00	
Recorder	0.00	6719	Inside	3948.00	
Recorder	0.00	8671	Outside	3948.00	
Perforations	25.00			3973.00	
Bullnose	3.00			3976.00	29.00      Bottom Packers & Anchor

**Total Tool Length: 57.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**21-5s-31w Rawlins, KS**

250 N Water STE #300  
Wichita, KS 67202

**Erickson #1-21**

Job Ticket: 48112

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.06.19 @ 07:40:00

## 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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100M (oil spots)	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

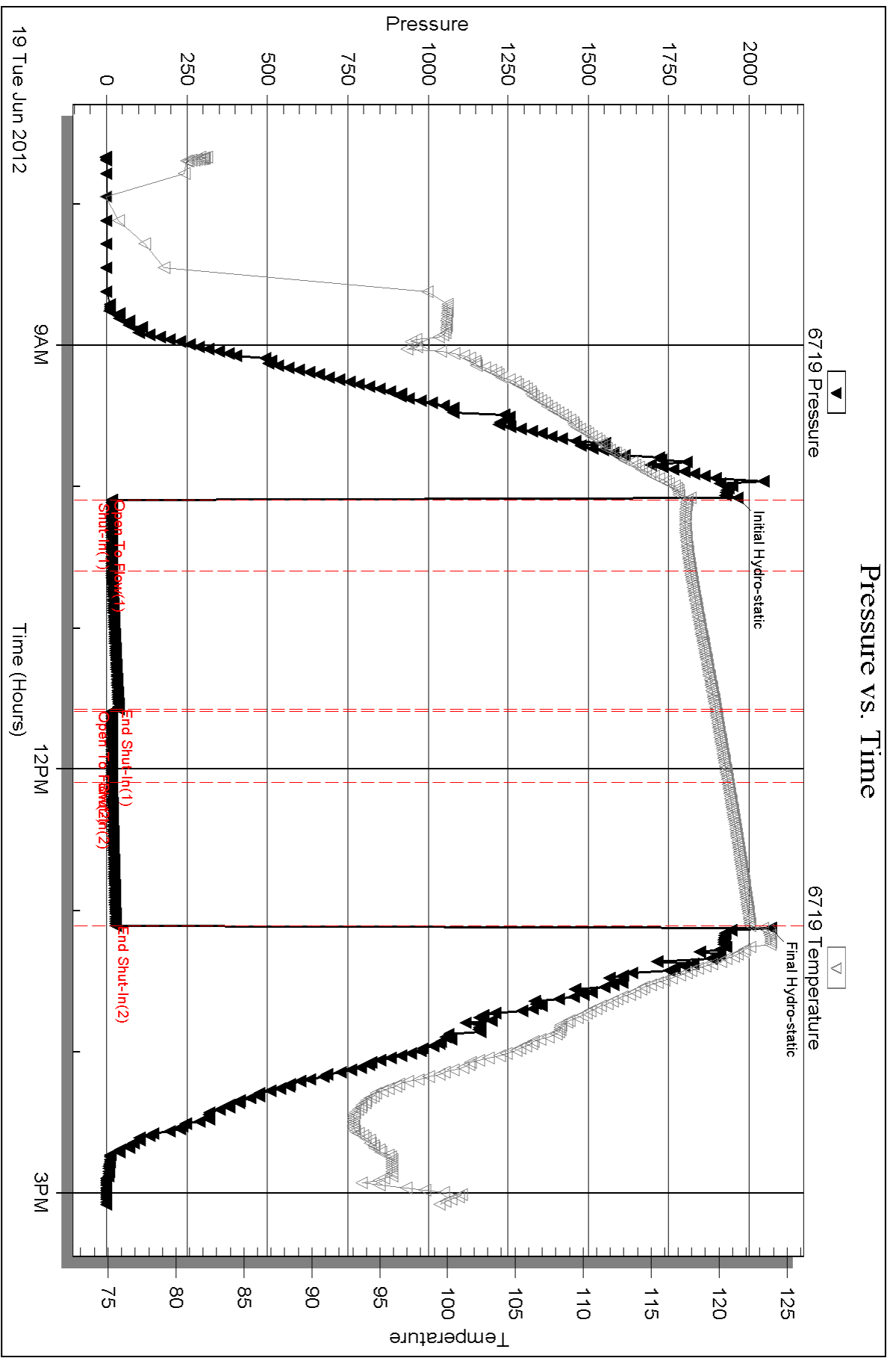
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

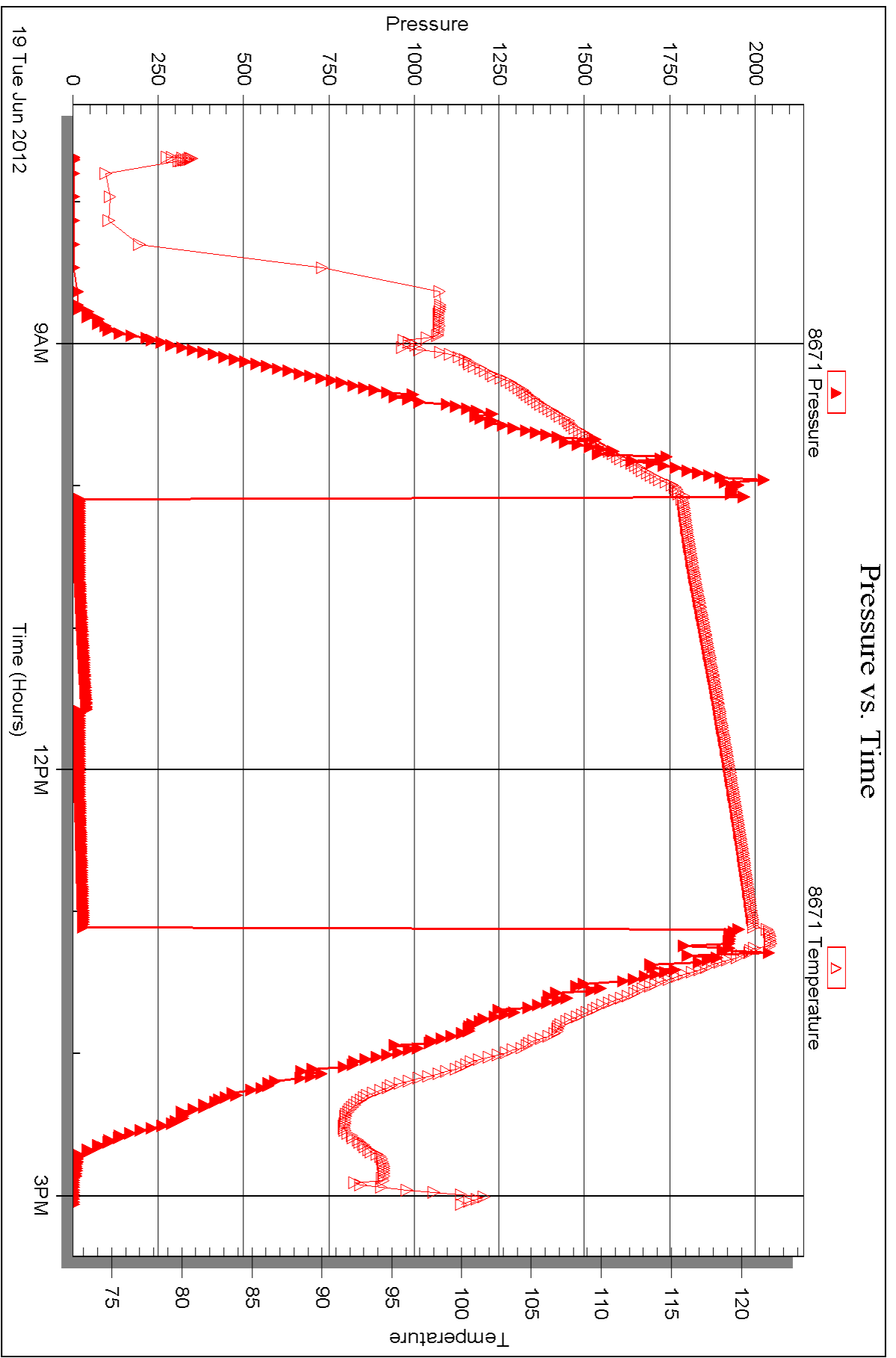


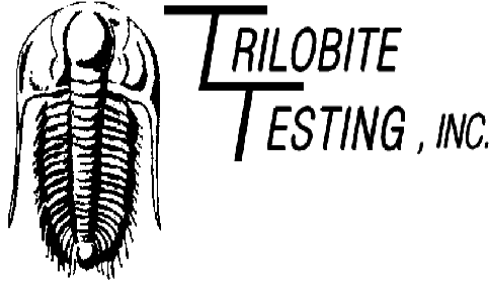
Serial #: 8671

Outside Murfin Drilling Co.

Erickson #1-21

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Erickson #1-21**

#### **21-5s-31w Rawlins, KS**

Start Date: 2012.06.20 @ 07:47:00

End Date: 2012.06.20 @ 16:11:30

Job Ticket #: 48113                      DST #: 3

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

Printed: 2012.06.27 @ 11:41:46



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
 250 N Water STE #300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
 Job Ticket: 48113 **DST#: 3**  
 Test Start: 2012.06.20 @ 07:47:00

## GENERAL INFORMATION:

Formation: **LKC "H-K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:05:30  
 Time Test Ended: 16:11:30  
 Interval: **4020.00 ft (KB) To 4100.00 ft (KB) (TVD)**  
 Total Depth: 4100.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 57  
 Reference Elevations: 2890.00 ft (KB)  
 2885.00 ft (CF)  
 KB to GR/CF: 5.00 ft

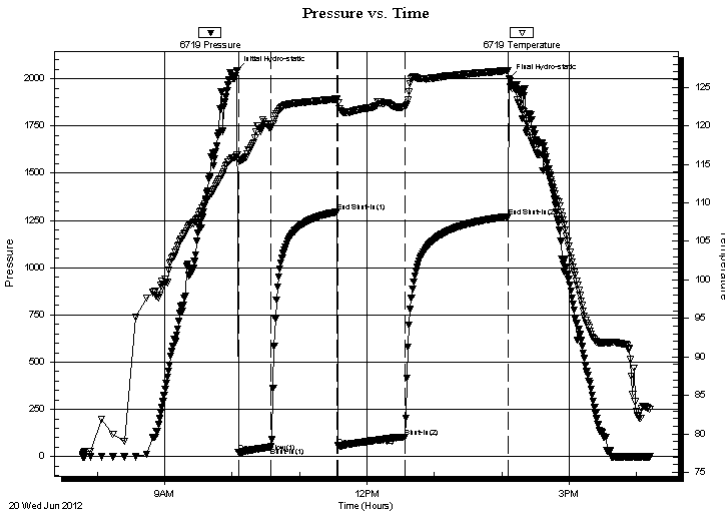
## Serial #: 6719

Inside

Press @ Run Depth: 102.77 psig @ 4021.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.06.20 End Date: 2012.06.20 Last Calib.: 2012.06.20  
 Start Time: 07:47:05 End Time: 16:11:29 Time On Btm: 2012.06.20 @ 10:04:30  
 Time Off Btm: 2012.06.20 @ 14:06:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 2 1/2"  
 60 - IS- No Return  
 60 - FF- Blow started at 20 min. Built to 2"  
 90 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2044.76	116.22	Initial Hydro-static
1	21.74	115.59	Open To Flow (1)
30	51.71	119.79	Shut-In(1)
89	1296.05	123.49	End Shut-In(1)
90	56.39	123.03	Open To Flow (2)
149	102.77	122.50	Shut-In(2)
241	1270.95	127.21	End Shut-In(2)
242	1999.48	126.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 40M 60W	0.59
65.00	WM 90M 10W	0.37

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**21-5s-31w Rawlins, KS**

250 N Water STE #300  
Wichita, KS 67202

**Erickson #1-21**

Job Ticket: 48113

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.06.20 @ 07:47:00

## Tool Information

Drill Pipe:	Length: 3827.00 ft	Diameter: 3.80 inches	Volume: 53.68 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 54.57 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4020.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3997.00	
Hydraulic tool	5.00			4002.00	
Jars	5.00			4007.00	
Safety Joint	3.00			4010.00	
Packer	5.00			4015.00	28.00 Bottom Of Top Packer
Packer	5.00			4020.00	
Stubb	1.00			4021.00	
Recorder	0.00	6719	Inside	4021.00	
Recorder	0.00	8671	Outside	4021.00	
Perforations	10.00			4031.00	
Change Over Sub	1.00			4032.00	
Drill Pipe	64.00			4096.00	
Change Over Sub	1.00			4097.00	
Bullnose	3.00			4100.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 108.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**21-5s-31w Rawlins, KS**

250 N Water STE #300  
Wichita, KS 67202

**Erickson #1-21**

Job Ticket: 48113

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.06.20 @ 07:47:00

## 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:

30000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MW 40M 60W	0.590
65.00	WM 90M 10W	0.365

Total Length: 185.00 ft      Total Volume: 0.955 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .2 @ 81 deg. = 30,000ppm



Serial #: 6719

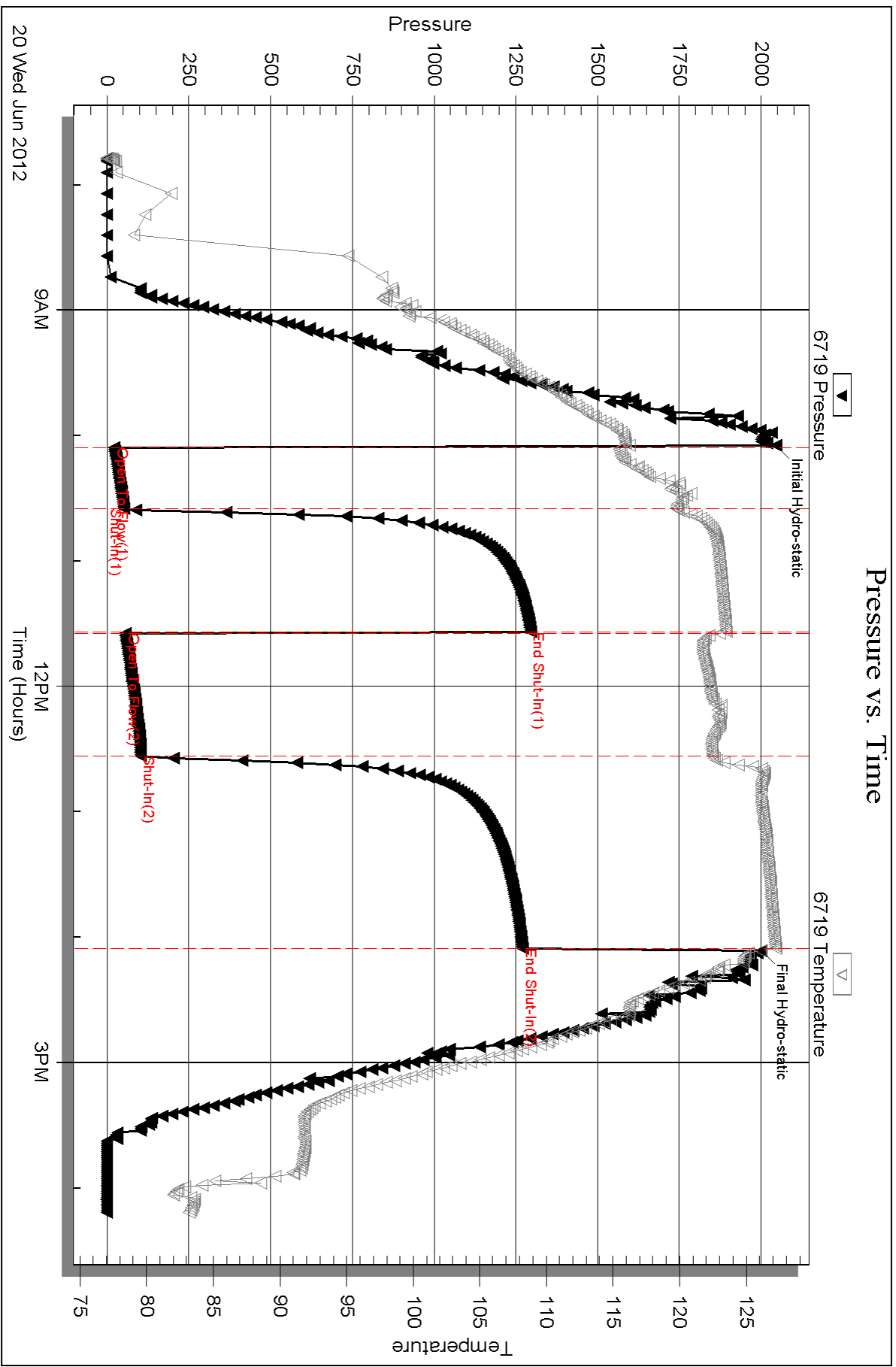
Inside

Murfin Drilling Co.

Erickson #1-21

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48113

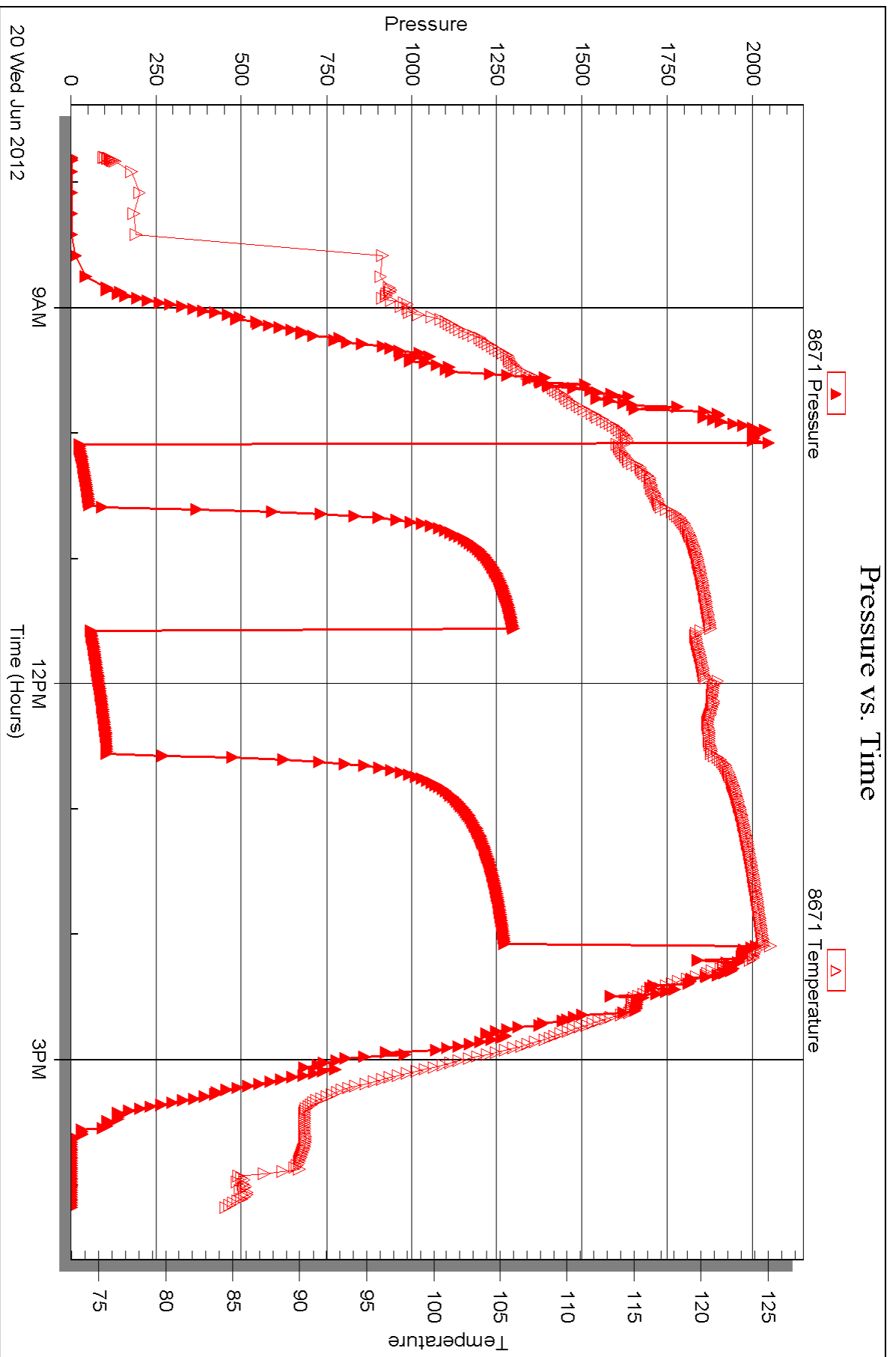
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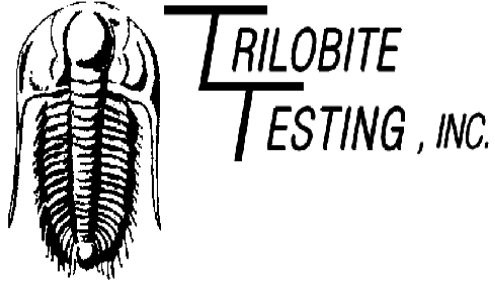
Serial #: 8671

Outside Murfin Drilling Co.

Erickson #1-21

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Erickson #1-21**

#### **21-5s-31w Rawlins, KS**

Start Date: 2012.06.21 @ 19:15:00

End Date: 2012.06.22 @ 02:23:00

Job Ticket #: 48114                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.27 @ 11:40:54







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**21-5s-31w Rawlins, KS**  
**Erickson #1-21**  
Job Ticket: 48114      **DST#: 4**  
Test Start: 2012.06.21 @ 19:15:00

**Tool Information**

Drill Pipe:	Length: 4175.00 ft	Diameter: 3.80 inches	Volume: 58.56 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:	25000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 59.45 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4351.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	19.00 ft				
Tool Length:	47.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			4328.00	
Hydraulic tool	5.00			4333.00	
Jars	5.00			4338.00	
Safety Joint	3.00			4341.00	
Packer	5.00			4346.00	28.00      Bottom Of Top Packer
Packer	5.00			4351.00	
Stubb	1.00			4352.00	
Recorder	0.00	6719	Inside	4352.00	
Recorder	0.00	8671	Outside	4352.00	
Perforations	15.00			4367.00	
Bullnose	3.00			4370.00	19.00      Bottom Packers & Anchor

**Total Tool Length: 47.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**21-5s-31w Rawlins, KS**

250 N Water STE #300  
Wichita, KS 67202

**Erickson #1-21**

Job Ticket: 48114

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2012.06.21 @ 19:15:00

## 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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

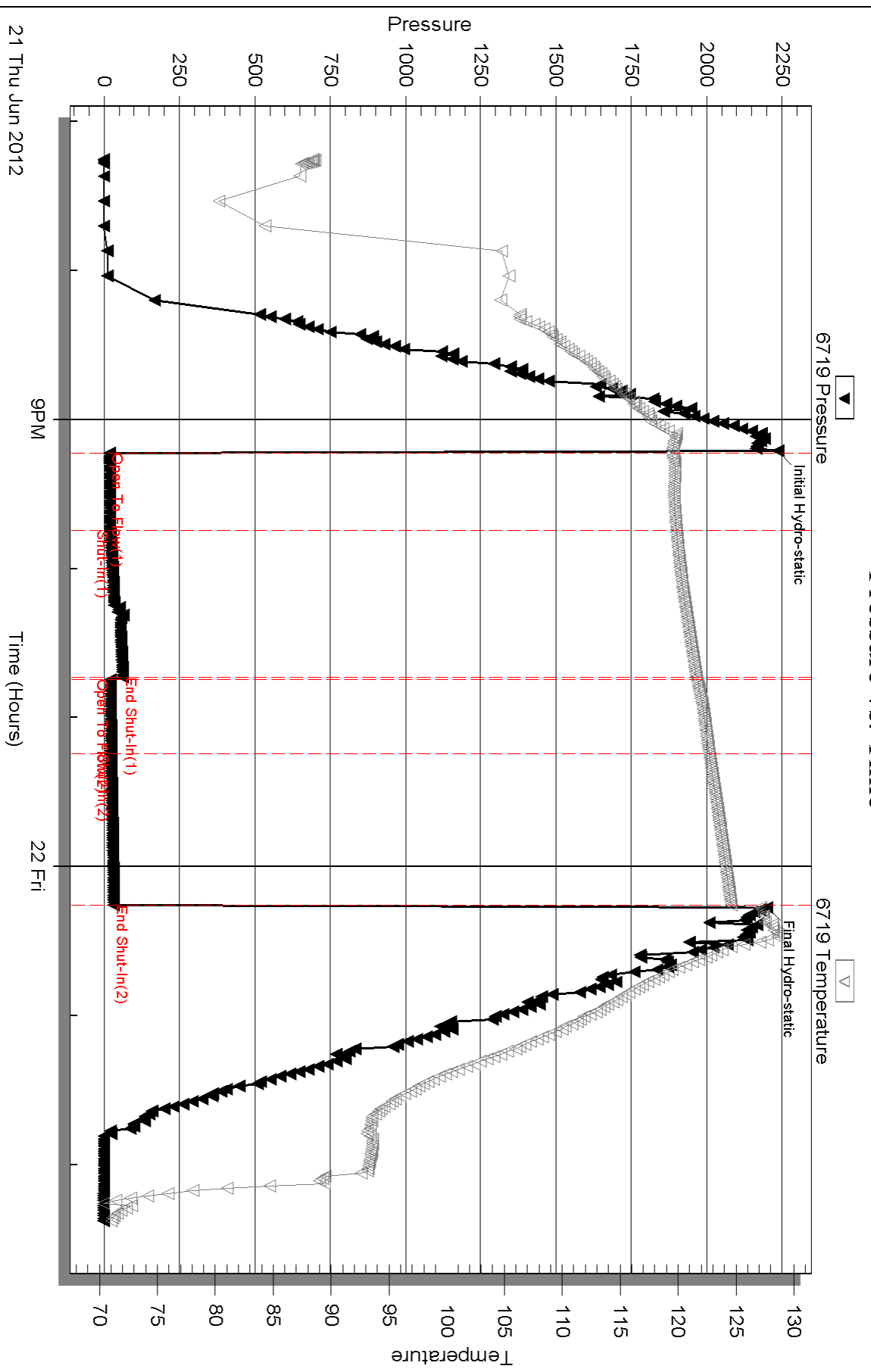
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



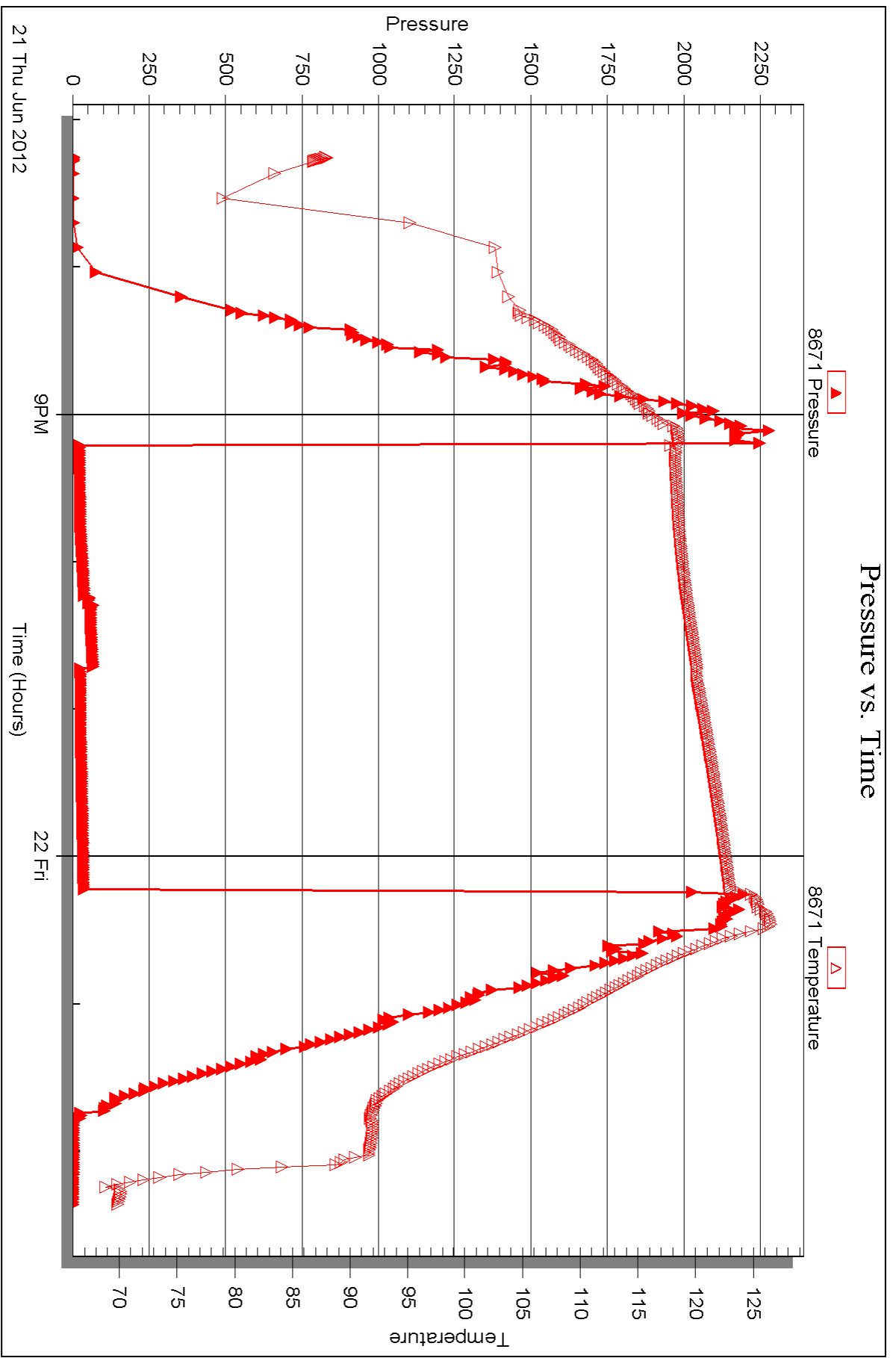


Serial #: 8671

Outside Murfin Drilling Co.

Erickson #1-21

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 48114

Printed: 2012.06.27 @ 11:40:57



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48111

Well Name & No. Erickson #1-21 Test No. 1 Date 6-18-12  
 Company Murphy Drilling Co. Elevation 2890 KB 2825 GL  
 Address 250 N Water STE #300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murphy #8  
 Location: Sec. 21 Twp. 5s Rge. 31w Co. Rawlins State KS

Interval Tested 3845-3932 Zone Tested Toronto-LKC "A-B"  
 Anchor Length 87' Drill Pipe Run 3669 Mud Wt. 9.3  
 Top Packer Depth 3841 Drill Collars Run 180' Vis 55  
 Bottom Packer Depth 3845 Wt. Pipe Run Ø WL 6.0  
 Total Depth 3932 Chlorides 1,100 ppm System LCM 4.0 #  
 Blow Description IF- 1/4" Blow built to 1 3/4"  
IS- NO Return  
EF- NO Blow  
FS- NO Return

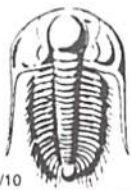
Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 124 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1936</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>2:15 PM</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>3:41 PM</u>
(C) First Final Flow <u>48</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>6:06 PM</u>
(D) Initial Shut-In <u>1218</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>9:06 PM</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>11:02 PM</u>
(F) Second Final Flow <u>74</u>	<input checked="" type="checkbox"/> Mileage <u>62 RT</u> 96.10	Comments _____
(G) Final Shut-In <u>1191</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1907</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1571.10</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1571.10</u>	

Approved By \_\_\_\_\_ Our Representative

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48112

Well Name & No. Erickson # 1-21 Test No. 2 Date 6-19-12  
 Company Murfin Drilling Co. Elevation 2890 KB 2885 GL  
 Address 250 N Wacker STE # 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 21 Twp. 5s Rge. 31w Co. Rawlins State KS

Interval Tested 3947-3976 Zone Tested LKC "E-F"  
 Anchor Length 29' Drill Pipe Run 3764 Mud Wt. 9.2  
 Top Packer Depth 3943 Drill Collars Run 180' Vis 65  
 Bottom Packer Depth 3947 Wt. Pipe Run Ø WL 5.2  
 Total Depth 3976 Chlorides 1,200 ppm System LCM 5#  
 Blow Description IF- 1/8" Blow built to 1/4" then died back to work surface.  
IS- NO Return  
FF- NO Blow  
FS- NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OSM</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	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 123 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1963</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>7:10 AM</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>7:40 AM</u>
(C) First Final Flow <u>15</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:05 AM</u>
(D) Initial Shut-In <u>37</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>1:05 PM</u>
(E) Second Initial Flow <u>16</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>3:04 PM</u>
(F) Second Final Flow <u>16</u>	<input checked="" type="checkbox"/> Mileage <u>62 RT</u> 96.10	Comments
(G) Final Shut-In <u>28</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2066</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>1571.10</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1571.10</u>	

Approved By \_\_\_\_\_ Our Representative 

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48113

Well Name & No. Erickson #1-2 Test No. 3 Date 6-20-12  
 Company Murfin Drilling Co. Elevation 2890 KB 2885 GL  
 Address 250 N Water STE #200 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 21 Twp. 5s Rge. 31w Co. Rawlins State KS

Interval Tested 4020-4100 Zone Tested LKC "H-K"  
 Anchor Length ~~70~~ 80' Drill Pipe Run 3827 Mud Wt. 9.3  
 Top Packer Depth ~~4020~~ 4016 Drill Collars Run 120 Vis 62  
 Bottom Packer Depth ~~4000~~ 4020 Wt. Pipe Run 8 WL 5.6  
 Total Depth 4100 Chlorides 1,200 ppm System LCM 6#  
 Blow Description IF - 1/4" Blow built to 2 1/2"  
IS - NO Return  
FF - Surface blow started at 20 min. Built to 2"  
FS - NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>WM</u>		<u>10</u>	<u>90</u>	
<u>120</u>	<u>MW</u>		<u>60</u>	<u>40</u>	

Rec Total 185 BHT 127 Gravity \_\_\_\_\_ API RW 2 @ 81 ° F Chlorides 30,000 ppm

(A) Initial Hydrostatic 2044  Test 1250 T-On Location 4:15 AM  
 (B) First Initial Flow 21  Jars 250 T-Started 7:47 AM  
 (C) First Final Flow 51  Safety Joint 75 T-Open 10:04 AM  
 (D) Initial Shut-In 1296  Circ Sub N/C T-Pulled 2:04 PM  
 (E) Second Initial Flow 56  Hourly Standby 2h 200 T-Out 4:10 PM  
 (F) Second Final Flow 102  Mileage 62 RT 96.10  
 (G) Final Shut-In 1270  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1999  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

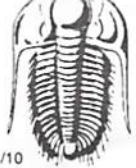
Sub Total 1871.10

Comments Rig was tripping back in to clean hole when I arrived. I was not called

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1871.10  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative 

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# KILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48114

Well Name & No. Erickson # 121 Test No. 4 Date 6-21-12  
 Company Murfin Drilling Co. Elevation 2890 KB 2885 GL  
 Address 200 N Water STE #300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 21 Twp. 5s Rge. 31w Co. Rawlins State Ks

Interval Tested 4351-4370 Zone Tested Cherokee  
 Anchor Length 19' Drill Pipe Run 4175 Mud Wt. 9.3  
 Top Packer Depth 4347 Drill Collars Run 180 Vis 59  
 Bottom Packer Depth 4351 Wt. Pipe Run Ø WL 6.0  
 Total Depth 4370 Chlorides 1200 ppm System LCM 6#  
 Blow Description IF- 1/8" Blow did not build or die  
IS- No Return  
FF- No Blow  
FS- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</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 5 BHT 125 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2236</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>6:45 PM</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>7:15 PM</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>9:13 PM</u>
(D) Initial Shut-In <u>62</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>12:13 AM</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:23 AM</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>62 RT X2</u> 192.20	Comments <u>Loaded tools at 12:00 AM 6-22-12</u>
(G) Final Shut-In <u>31</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2200</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>1767.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1767.20</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.



*uclt  
fig*

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 131516

Invoice Date: Jun 14, 2012

Voice: (817) 546-7282

Page: 1

Fax: (817) 246-3361



<b>Bill To:</b>
Murfin Drig. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Erickson 1-21	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jun 14, 2012	7/14/12

Quantity	Item	Description	Unit Price	Amount
185.00	MAT	Class A Common	16.25	3,006.25
7.00	MAT	Chloride	58.20	407.40
194.25	SER	Cubic Feet	2.10	407.93
358.24	SER	Ton Miles	2.35	841.85
1.00	SER	Surface	1,125.00	1,125.00
40.00	SER	Heavy Vehicle Mileage	7.00	280.00
40.00	SER	Light Vehicle Mileage	4.00	160.00
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Dane Retzloff		
1.00	OPER ASSIST	Ethan Glassman		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

**\$ 2179.95**

ONLY IF PAID ON OR BEFORE  
**Jul 9, 2012**

Subtotal	6,228.43
Sales Tax	274.80
Total Invoice Amount	6,503.23
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,503.23</b>

*OK  
JR*

# ALLIED CEMENTING CO., LLC. 035408

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

Federal Tax I.D.# 20-5975804

SERVICE POINT: Ogkly

DATE <u>6/14/12</u>	SEC. <u>21</u>	TWP. <u>5</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30am</u>	JOB FINISH <u>8:15am</u>
LEASE <u>Erickson</u>	WELL # <u>1-21</u>	LOCATION <u>Benford N 70 Y 1W 2N</u>		COUNTY <u>Haskell</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one)		<u>1 1/4 W 14 N W into</u>					

CONTRACTOR MarFin 8 OWNER Same

TYPE OF JOB Suckers

HOLE SIZE \_\_\_\_\_ T.D. 220'

CASING SIZE 8 7/8 DEPTH 220'

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 15'

PERFS. \_\_\_\_\_

DISPLACEMENT 13.0585

CEMENT AMOUNT ORDERED 185 Com  
370 CC

COMMON 185 @ 16.25 3006.25

POZMIX \_\_\_\_\_ @ \_\_\_\_\_

GEL \_\_\_\_\_ @ \_\_\_\_\_

CHLORIDE 7 @ 58.20 407.40

ASC \_\_\_\_\_ @ \_\_\_\_\_

EQUIPMENT

PUMP TRUCK # 431 CEMENTER Alan Ryan

BULK TRUCK # 404 HELPER Dane Retzloff

BULK TRUCK # \_\_\_\_\_ DRIVER Ethan Glassman

BULK TRUCK # \_\_\_\_\_ DRIVER \_\_\_\_\_

HANDLING 194.25 CF @ 2.10 407.93

MILEAGE 2.96700 @ 84/25 250.25

TOTAL 4663.93

REMARKS:  
Run Cag, Circulate, Mix Cement  
Displace Cement.  
Cement Did Circulate  
T. Amick, Ryan, Alan, Dane, Ethan

CHARGE TO MarFin Drilling

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB 220'

PUMP TRUCK CHARGE 1125.00

EXTRA FOOTAGE @ \_\_\_\_\_

MILEAGE 40 miles @ 7.25 290.00

MANIFOLD @ \_\_\_\_\_

W/overhead 40 miles @ 4.00 160.00

TOTAL 1565.00

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

To Allied Cementing Co., LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Rodney Farr

SIGNATURE Rodney Farr

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 6,228.43

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

*acct.  
Prod-LizH*

# INVOICE

Invoice Number: 131669

Invoice Date: Jun 23, 2012

Page: 1

<b>Bill To:</b>
Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202



Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Erickson #1-21	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Jun 23, 2012	7/23/12

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Class A Common	16.25	2,145.00
88.00	MAT	Pozmix	8.50	748.00
7.00	MAT	Gel	21.25	148.75
55.00	MAT	Flo Seal	2.70	148.50
236.28	SER	Handling	2.10	496.19
394.63	SER	Drayage	2.35	927.38
1.00	SER	Plug to Abandon	1,250.00	1,250.00
40.00	SER	Pump Truck Mileage	7.00	280.00
40.00	SER	Light Vehicle Mileage	4.00	160.00
1.00	EQP	8.5/8 Dry Hole Plug	92.00	92.00
1.00	CEMENTER	Andrew Florslund		
1.00	EQUIP OPER	Dane Retzloff		
1.00	CEMENTER	Terry Heinrich		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

**\$2238.54**

ONLY IF PAID ON OR BEFORE

**Jul 18, 2012**

Subtotal	6,395.82
Sales Tax	514.86
Total Invoice Amount	6,910.68
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,910.68</b>

*OKM*



