



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1154155  
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: \_\_\_\_\_



1154155

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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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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

August 05, 2013

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

Re: ACO1  
API 15-109-21169-00-00  
Racette 1-12  
NE/4 Sec.12-13S-33W  
Logan 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

Racette #1-12 335' FNL 1100' FEL Sec. 12-T13S-R33W 3052' KB							DFT #3-1 335' FSL 1100' FEL Sec. 1-T13S-R33W 3053' KB	
Formation	SampleTops	Datum	Ref	Log Tops	Datum	Ref	Log Tops	Datum
Anhydrite	2522	+530	+3	2522	+530	+3	2526	+527
B/Anhydrite	2545	+507	+2	2546	+506	+1	2548	+505
Topeka	3755	-703	+6	3757	-705	+4	3762	-709
Heebner	3978	-926	+9	3979	-927	+8	3988	-935
Lansing	4026	-974	+8	4028	-976	+6	4035	-982
Stark	4258	-1206	+9	4259	-1207	+8	4268	-1215
BKC	4326	-1274	+9	4326	-1274	+9	4336	-1283
Pawnee	4457	-1405	+10	4457	-1405	+10	4468	-1415
Mississippi	4663	-1611	+20	4664	-1612	+29	4684	-1631
RTD	4760						4740	
LTD				4761			4736	

Thomas J. Funk  
Petroleum Geologist

**Geologists' Report  
Drilling Time and Sample Log**

**OPERATOR** Murfin Drilling Co., Inc  
**LEASE** Racette  
**FIELD** Field Ext  
**LOCATION** 335' FNL & 1100' FEL  
**SEC.** 12  
**COUNTY** Logan

**API** 15-109-21169  
**WELL NO** #1-12  
**ELEVATION** KB 3052'  
**DF** GL 3041'  
**Measurements** Are All From **KB**

**CONTRACTOR** Murfin Drilling Co  
**COMM** 4/10/13  
**RTD** 4/76'  
**SAMPLES SAVED FROM** 3650'  
**DRILLING TIME KEPT FROM** 3650'  
**PRODUCTION** TO 4720'

**CASING RECORD**  
**SURFACE** 8 5/8" at 217' KB w/175sx  
**PRODUCTION** TO 4720'

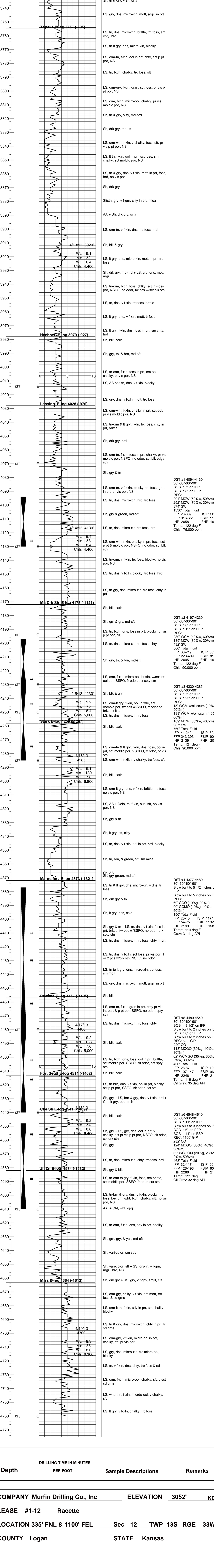
**NEOLOGICAL SUPERVISION FROM** 3700' TO 4720'  
**MUD/DP** 3200  
**TYPE MUD** Chemical

FORMATION	LOG TOP DATUM	SAMPLE TOP DATE	STRUCT COMP
Amygdrite	2522 (+430)	2522 (+430)	+3
B/Amygdrite	2546 (+508)	2545 (+507)	+4
Topeka	3757 (+705)	3755 (+703)	+1
Heabene Sh	3979 (-927)	3978 (-926)	+8
Lansing	4028 (-976)	4026 (-974)	+6
Murder Creek	4173 (-1121)	4172 (-1120)	+9
Stark Sh	4259 (-1207)	4258 (-1206)	+8
Marmaton	4373 (-1321)	4372 (-1320)	+8
Pawnee	4457 (-1405)	4457 (-1405)	+10
Cherokee Sh	4541 (-1489)	4539 (-1487)	+15
Johnson Zone	4584 (-1532)	4583 (-1531)	+15
Mississippian	4664 (-1612)	4663 (-1611)	+19

LOG TOP DATUM	SAMPLE TOP DATE	STRUCT COMP
2522 (+430)	2522 (+430)	+3
2546 (+508)	2545 (+507)	+4
3757 (+705)	3755 (+703)	+1
3979 (-927)	3978 (-926)	+8
4028 (-976)	4026 (-974)	+6
4173 (-1121)	4172 (-1120)	+9
4259 (-1207)	4258 (-1206)	+8
4373 (-1321)	4372 (-1320)	+8
4457 (-1405)	4457 (-1405)	+10
4541 (-1489)	4539 (-1487)	+15
4584 (-1532)	4583 (-1531)	+15
4664 (-1612)	4663 (-1611)	+19

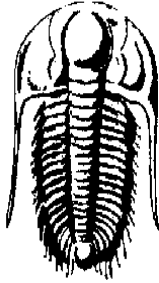
Date	Depth	NO. Size	Make	Type	Depth Out	Feet	Hours
4/10/13	Stud	1	12 1/4" GMS	RR	228	228	3
4/11/13	840'	12	7 7/8" HTC	DP906F	3650	3422	29
4/12/13	3020'	2	7 7/8" HTC	GX22s	4760	1110	59
4/13/13	3785'	3	7 7/8" HTC	GX22s	4760	1110	59
4/14/13	4130'						
4/15/13	4230'						
4/16/13	4285'						
4/17/13	4480'						
4/18/13	4540'						
4/19/13	4620'						
4/20/13	4760' TD						

**Remarks And Recommendations:**  
Based upon log analysis, DST recovery, and sample examination, it was decided to run production casing to further evaluate the #1-12 Racette.  
Thomas Funk  
Petroleum Geologist



<b>COMPANY</b> Murfin Drilling Co., Inc	<b>ELEVATION</b> 3052'	<b>KB</b>
<b>LEASE</b> #1-12 Racette		
<b>LOCATION</b> 335' FNL & 1100' FEL	<b>Sec</b> 12	<b>TWP</b> 13S <b>RGE</b> 33W
<b>COUNTY</b> Logan	<b>STATE</b> Kansas	

REFERENCE WELL FOR STRUCTURAL COMPARISON: Murfin Drilling Co. #3-1 DFT 335' FSL & 1100' FEL sec. 1-13S-33W, Logan Co. KS



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.14 @ 08:10:00

End Date: 2013.04.14 @ 16:16:00

Job Ticket #: 49974                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.24 @ 09:48:46

Murfin Drilling Company, Inc.  
12-13s-33w Logan,KS  
Racette #1-12  
DST # 1  
Kansas City "E&F"  
2013.04.14



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49974

**DST#: 1**

ATTN: Tom Funk

Test Start: 2013.04.14 @ 08:10:00

## GENERAL INFORMATION:

Formation: **Kansas City "E&F"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 09:59:15 Tester: Jace McKinney  
 Time Test Ended: 16:16:00 Unit No: 46  
 Interval: **4094.00 ft (KB) To 4130.00 ft (KB) (TVD)** Reference Elevations: 3052.00 ft (KB)  
 Total Depth: 4130.00 ft (KB) (TVD) 3041.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

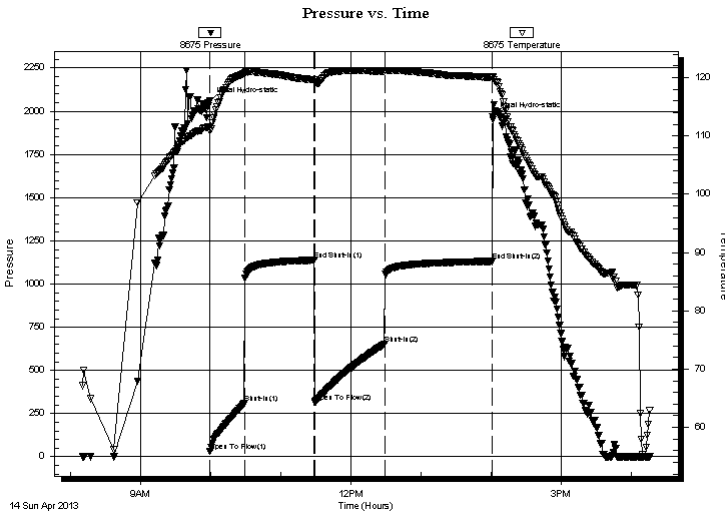
## Serial #: 8675

Inside

Press @ Run Depth: 651.42 psig @ 4095.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.14 End Date: 2013.04.14 Last Calib.: 2013.04.14  
 Start Time: 08:10:15 End Time: 16:16:00 Time On Btm: 2013.04.14 @ 09:59:00  
 Time Off Btm: 2013.04.14 @ 14:01:00

TEST COMMENT: B.O.B. in 6 1/2 min.  
 Bled off for 5 min. No return blow  
 B.O.B. in 7 1/2 min.  
 Bled off for 5 min, No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2057.82	111.61	Initial Hydro-static
1	33.47	110.89	Open To Flow (1)
30	309.11	120.68	Shut-In(1)
90	1137.64	119.61	End Shut-In(1)
90	315.54	119.28	Open To Flow (2)
150	651.42	121.09	Shut-In(2)
242	1131.13	120.03	End Shut-In(2)
242	1968.43	120.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
874.00	100% Water	10.91
252.00	mcw 30%M 70%W	3.53
204.00	mcw 50%M 50%W	2.86

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.  
 250 N Water STE 300  
 Wichita, KS 67202-1216  
 ATTN: Tom Funk

**12-13s-33w Logan, KS**

**Racette #1-12**

Job Ticket: 49974

**DST#: 1**

Test Start: 2013.04.14 @ 08:10:00

**GENERAL INFORMATION:**

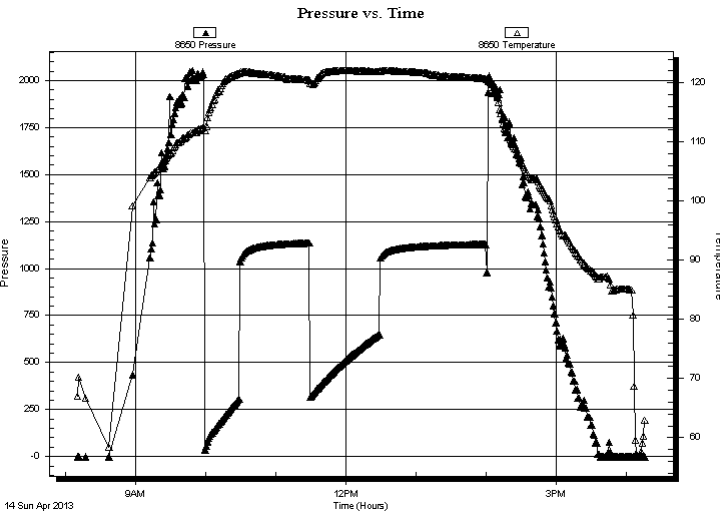
Formation: <b>Kansas City "E&amp;F"</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 09:59:15		Tester: Jace McKinney	
Time Test Ended: 16:16:00		Unit No: 46	
<b>Interval: 4094.00 ft (KB) To 4130.00 ft (KB) (TVD)</b>		Reference Elevations: 3052.00 ft (KB)	
Total Depth: 4130.00 ft (KB) (TVD)		3041.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 11.00 ft	

**Serial #: 8650**

**Outside**

Press @ RunDepth: psig @ 4095.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2013.04.14	End Date: 2013.04.14	Last Calib.: 2013.04.14
Start Time: 08:10:15	End Time: 16:15:45	Time On Btm:
		Time Off Btm:

**TEST COMMENT:** B.O.B. in 6 1/2 min.  
 Bled off for 5 min. No return blow  
 B.O.B. in 7 1/2 min.  
 Bled off for 5 min, No return blow



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
874.00	100% Water	10.91
252.00	mcw 30%M 70%W	3.53
204.00	mcw 50%M 50%W	2.86

**Gas Rates**

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49974

**DST#: 1**

ATTN: Tom Funk

Test Start: 2013.04.14 @ 08:10:00

## Tool Information

Drill Pipe:	Length: 3948.62 ft	Diameter: 3.80 inches	Volume: 55.39 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: 20000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.66 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4094.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	56.00 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			4075.00	
Shut In Tool	5.00			4080.00	
Hydraulic tool	5.00			4085.00	
Packer	5.00			4090.00	20.00 Bottom Of Top Packer
Packer	4.00			4094.00	
Stubb	1.00			4095.00	
Recorder	0.00	8675	Inside	4095.00	
Recorder	0.00	8650	Outside	4095.00	
Perforations	32.00			4127.00	
Change Over Sub	0.00			4127.00	
Drill Pipe	0.00			4127.00	
Change Over Sub	0.00			4127.00	
Bullnose	3.00			4130.00	36.00 Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49974

**DST#: 1**

ATTN: Tom Funk

Test Start: 2013.04.14 @ 08:10:00

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
874.00	100% Water	10.911
252.00	mcw 30%M 70%W	3.535
204.00	mcw 50%M 50%W	2.862

Total Length: 1330.00 ft      Total Volume: 17.308 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .10 @ 70 F = 75,000

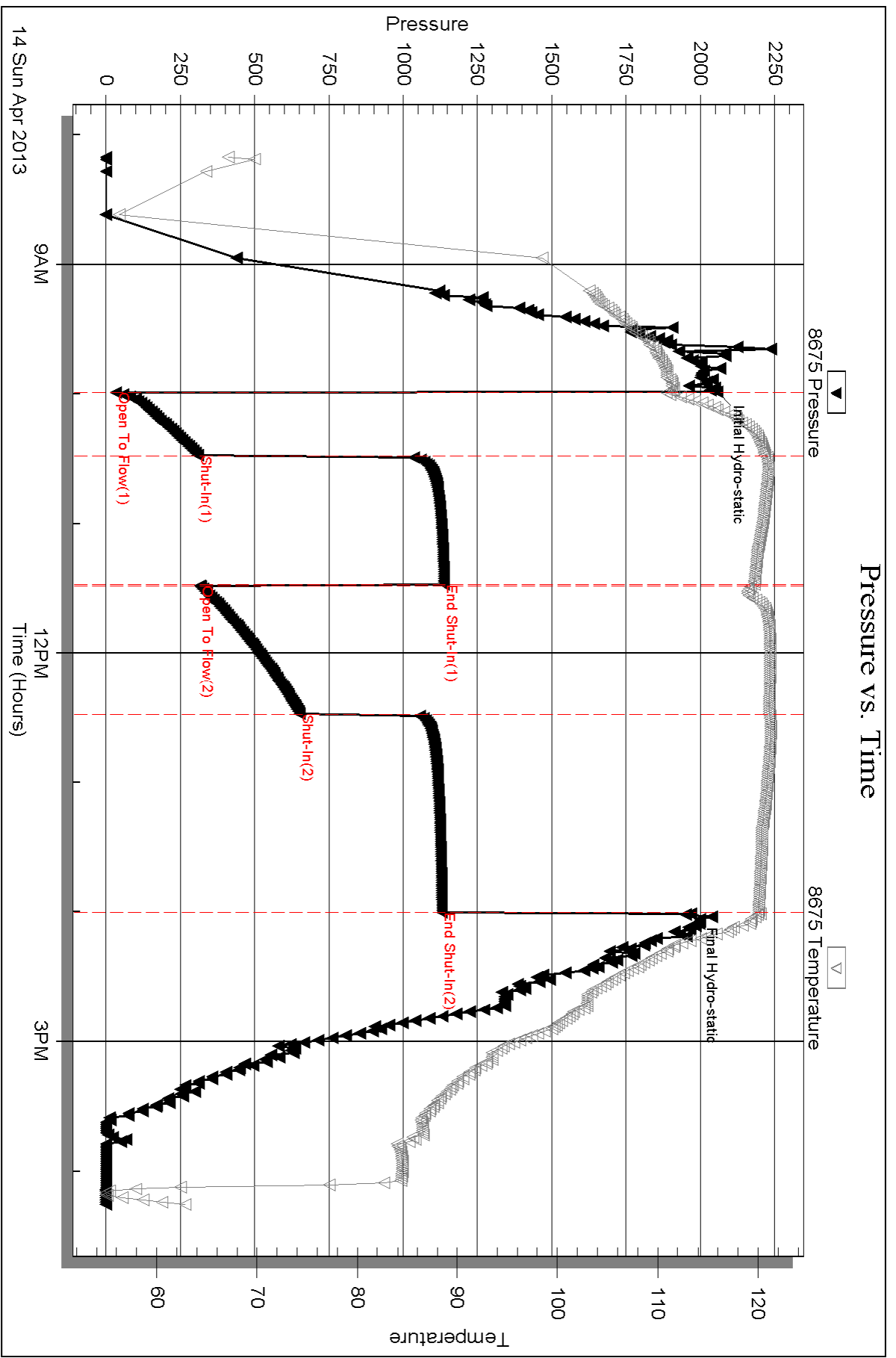
Serial #: 8675

Inside

Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49974

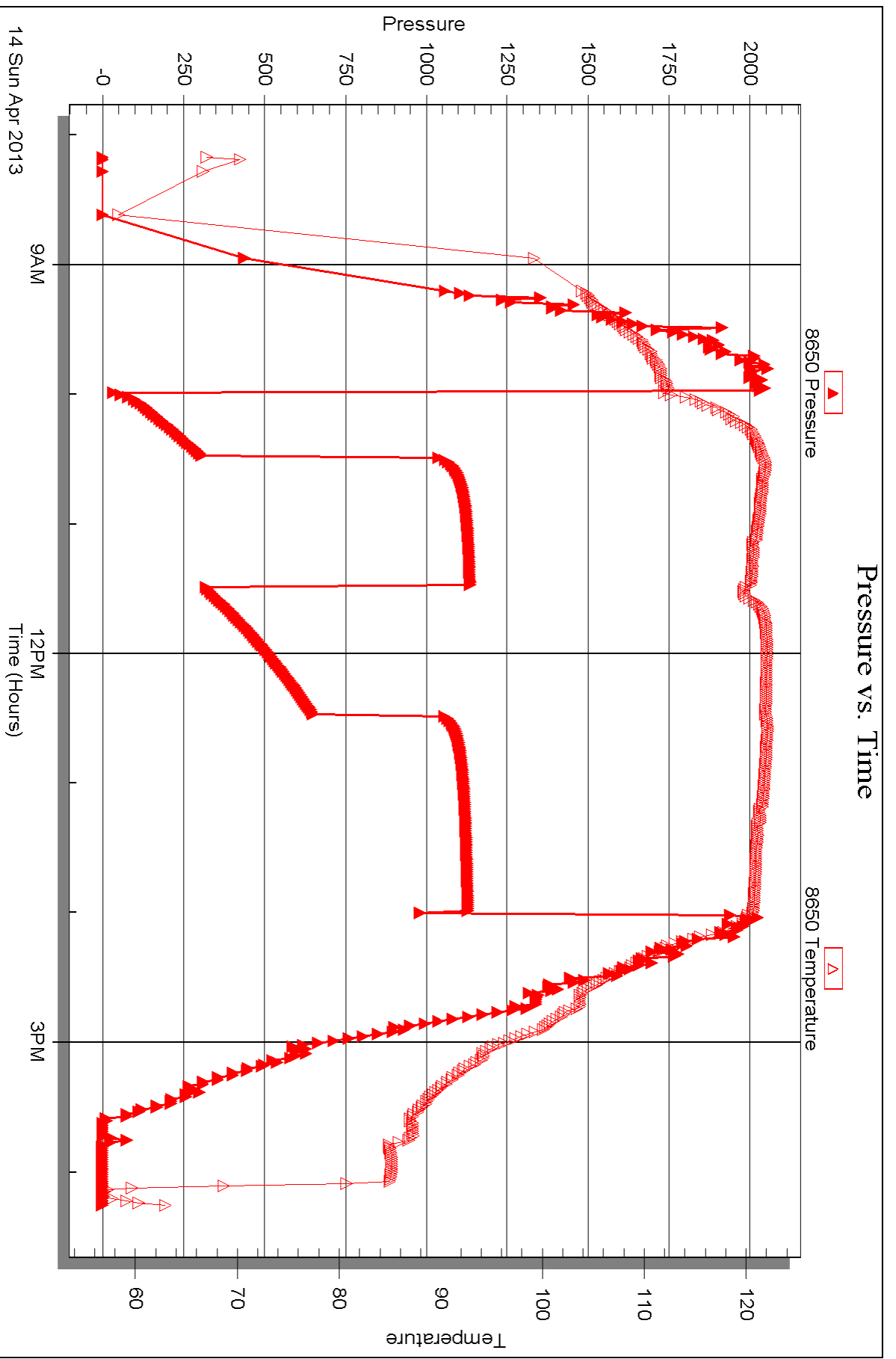
Printed: 2013.04.24 @ 09:48:49

Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49974

Printed: 2013.04.24 @ 09:48:49



## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.15 @ 05:50:00

End Date: 2013.04.15 @ 14:15:30

Job Ticket #: 49975                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.24 @ 09:47:44



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49975

**DST#: 2**

ATTN: Tom Funk

Test Start: 2013.04.15 @ 05:50:00

## GENERAL INFORMATION:

Formation: **Kansas City "H & I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:06:00

Time Test Ended: 14:15:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4197.00 ft (KB) To 4230.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4230.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 408.71 psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.15

End Date:

2013.04.15

Last Calib.:

2013.04.15

Start Time: 05:50:15

End Time:

14:15:30

Time On Btm:

2013.04.15 @ 08:05:45

Time Off Btm:

2013.04.15 @ 12:05:45

## TEST COMMENT:

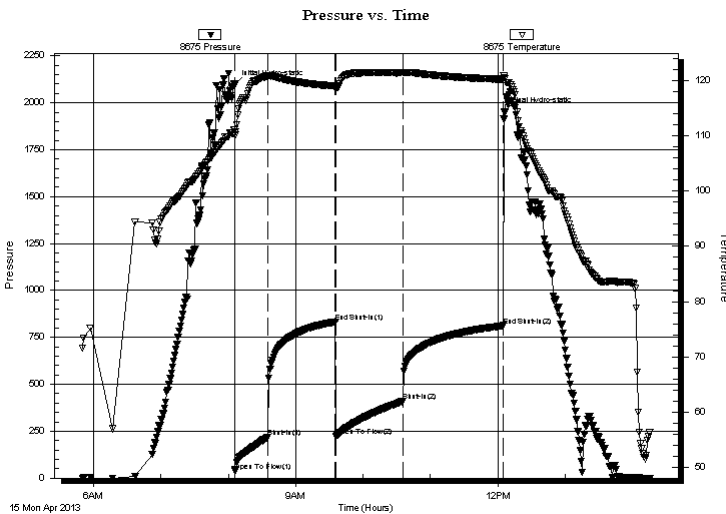
B.O.B. in 8 min.

Bled off for 5 min. No return blow

B.O.B. in 12 min.

Bled off for 5 min. No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2094.86	111.18	Initial Hydro-static
1	38.14	110.15	Open To Flow (1)
30	218.92	120.85	Shut-In(1)
90	833.01	119.05	End Shut-In(1)
90	222.59	118.79	Open To Flow (2)
150	408.71	121.47	Shut-In(2)
239	812.02	120.27	End Shut-In(2)
240	1953.59	120.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
432.00	100% Water	4.71
189.00	mcw 20%M 80%W	2.65
239.00	w cm 40%W 60%M	3.35

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan, KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49975

**DST#: 2**

ATTN: Tom Funk

Test Start: 2013.04.15 @ 05:50:00

## GENERAL INFORMATION:

Formation: **Kansas City "H & I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:06:00

Time Test Ended: 14:15:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: **4197.00 ft (KB) To 4230.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4230.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8650** **Outside**

Press @ Run Depth: psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.15 End Date: 2013.04.15

Last Calib.: 2013.04.15

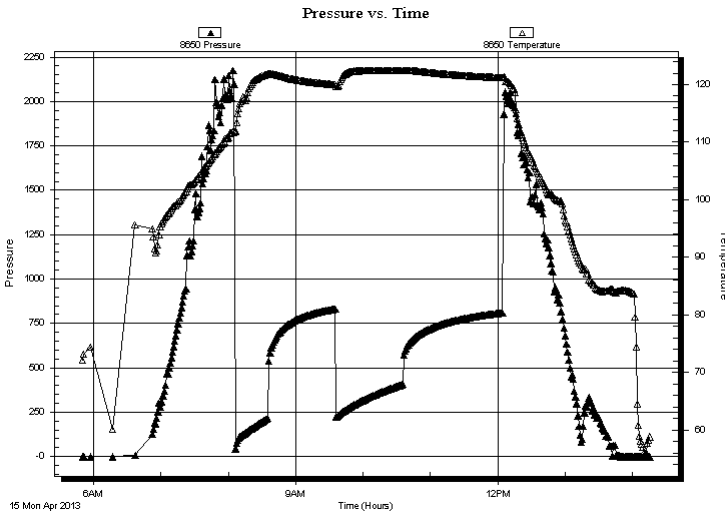
Start Time: 05:50:15 End Time: 14:15:15

Time On Btm:

Time Off Btm:

**TEST COMMENT:** B.O.B. in 8 min.  
Bled off for 5 min. No return blow  
B.O.B. in 12 min.  
Bled off for 5 min. No return blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
432.00	100% Water	4.71
189.00	mcw 20%M 80%W	2.65
239.00	w cm 40%W 60%M	3.35

## 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 Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49975

**DST#: 2**

ATTN: Tom Funk

Test Start: 2013.04.15 @ 05:50:00

## Tool Information

Drill Pipe:	Length: 4041.16 ft	Diameter: 3.80 inches	Volume: 56.69 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: 25000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 57.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.20 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	4197.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	53.00 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			4178.00	
Shut In Tool	5.00			4183.00	
Hydraulic tool	5.00			4188.00	
Packer	5.00			4193.00	20.00 Bottom Of Top Packer
Packer	4.00			4197.00	
Stubb	1.00			4198.00	
Recorder	0.00	8675	Inside	4198.00	
Recorder	0.00	8650	Outside	4198.00	
Perforations	29.00			4227.00	
Change Over Sub	0.00			4227.00	
Drill Pipe	0.00			4227.00	
Change Over Sub	0.00			4227.00	
Bullnose	3.00			4230.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 49975

**DST#: 2**

ATTN: Tom Funk

Test Start: 2013.04.15 @ 05:50:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
432.00	100% Water	4.711
189.00	mcw 20%M 80%W	2.651
239.00	w cm 40%W 60%M	3.353

Total Length: 860.00 ft      Total Volume: 10.715 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .09 @ 65 F = 90,000

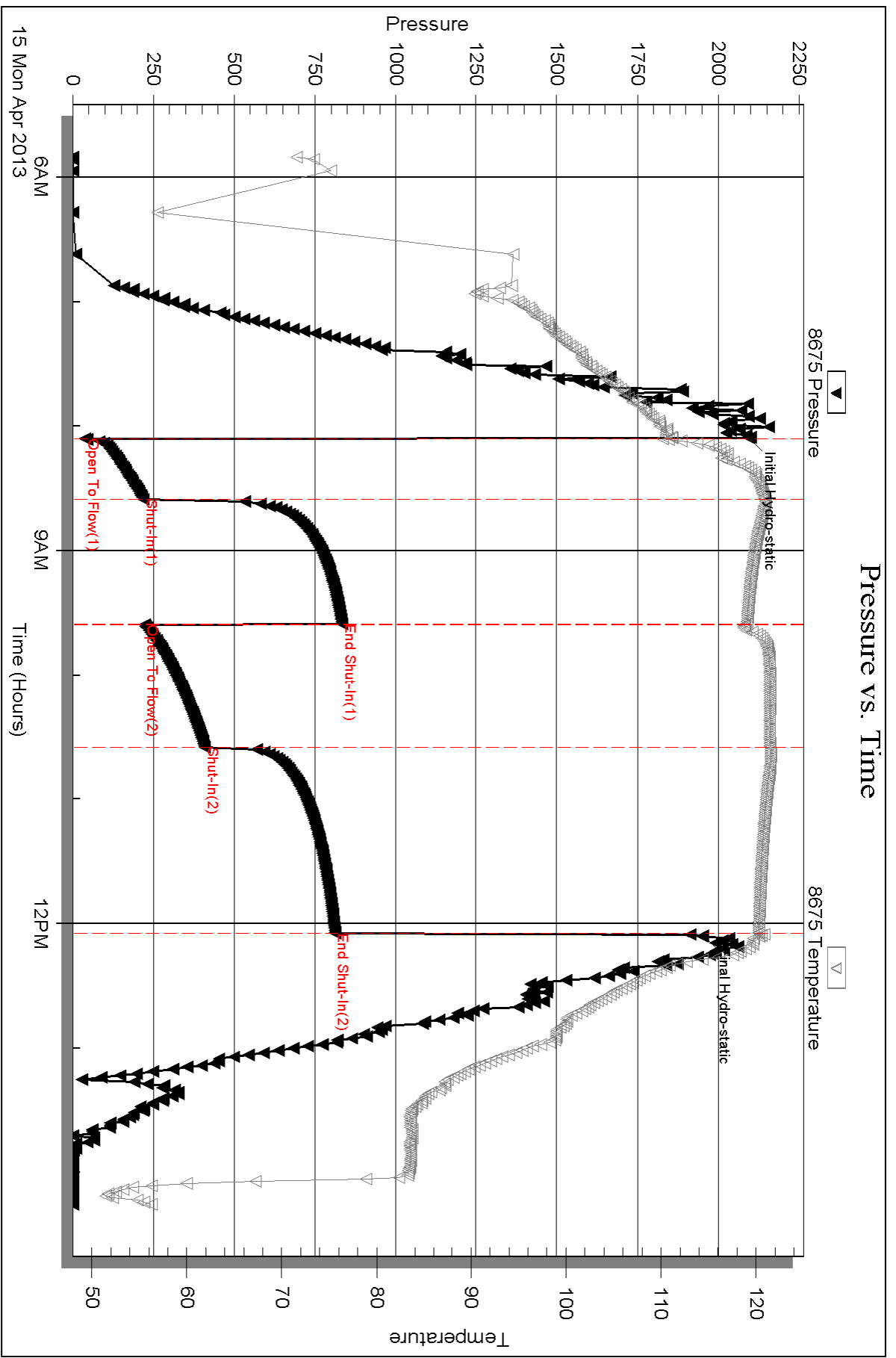
Serial #: 8675

Inside

Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 49975

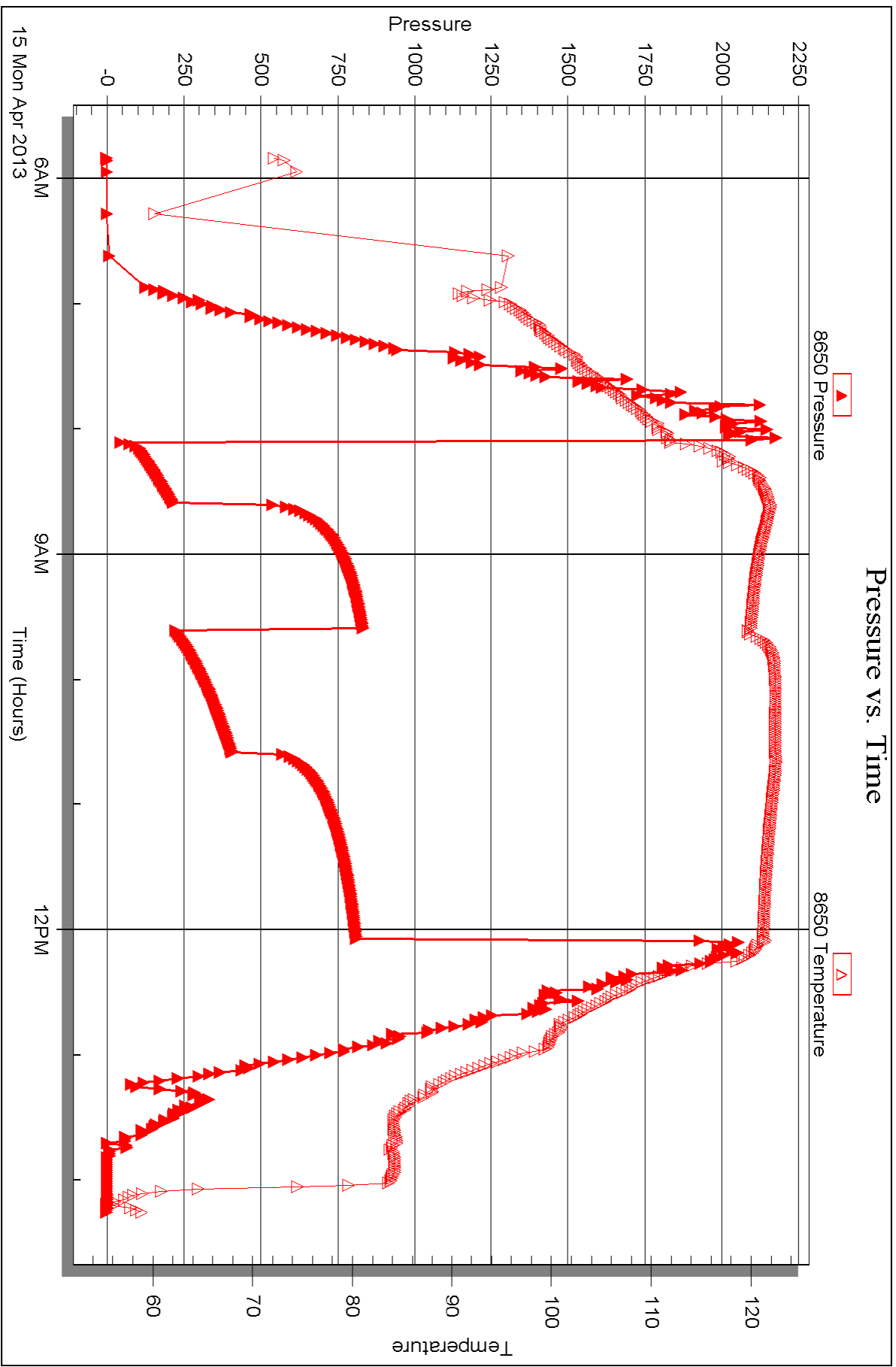
Printed: 2013.04.24 @ 09:47:47

Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 2





## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.16 @ 00:05:00

End Date: 2013.04.16 @ 09:21:15

Job Ticket #: 53051                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.24 @ 09:47:02



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53051

**DST#: 3**

ATTN: Tom Funk

Test Start: 2013.04.16 @ 00:05:00

## GENERAL INFORMATION:

Formation: **Kansas City "J&K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:53:30

Time Test Ended: 09:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4230.00 ft (KB) To 4285.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4285.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 392.86 psig @ 4231.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.16

End Date:

2013.04.16

Last Calib.:

2013.04.16

Start Time: 00:05:15

End Time:

09:21:15

Time On Btm:

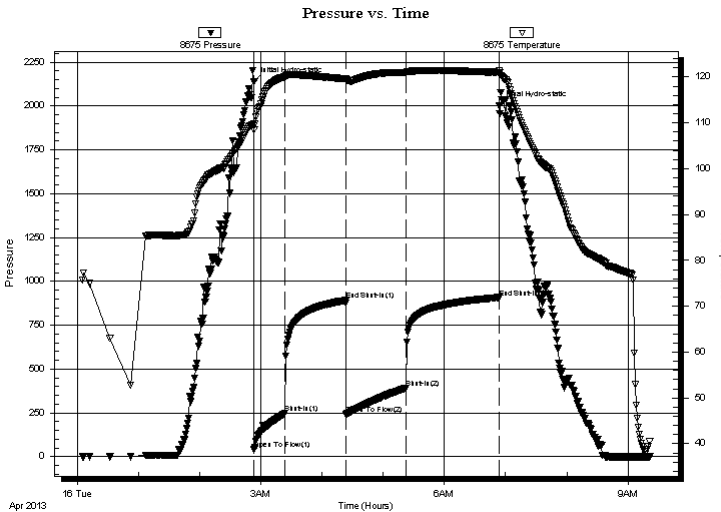
2013.04.16 @ 02:53:15

Time Off Btm:

2013.04.16 @ 06:54:00

**TEST COMMENT:** B.O.B. in 7 min.  
Bled off for 5 min. No re-run blow  
B.O.B. in 23 min.  
Bled off for 5 min. No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2138.77	109.76	Initial Hydro-static
1	41.30	108.49	Open To Flow (1)
31	249.30	120.08	Shut-In(1)
90	891.80	119.61	End Shut-In(1)
91	243.24	119.34	Open To Flow (2)
150	392.86	121.01	Shut-In(2)
240	907.90	121.02	End Shut-In(2)
241	2001.62	121.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
367.00	100% Water	3.80
189.00	mcw 40%M 60%W	2.65
189.00	w cm 40%W 60%M w ith oil scum	2.65
15.00	w cm 10%W 90%M w ith oil scum	0.21

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

12-13s-33w Logan, KS

250 N Water STE 300  
Wichita, KS 67202-1216

Racette #1-12

Job Ticket: 53051

DST#: 3

ATTN: Tom Funk

Test Start: 2013.04.16 @ 00:05:00

### GENERAL INFORMATION:

Formation: **Kansas City "J&K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:53:30

Time Test Ended: 09:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: **4230.00 ft (KB) To 4285.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4285.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: **8650** Outside

Press @ RunDepth: psig @ 4231.00 ft (KB)

Start Date: 2013.04.16

End Date:

2013.04.16

Capacity: 8000.00 psig

Last Calib.:

2013.04.16

Start Time: 00:05:15

End Time:

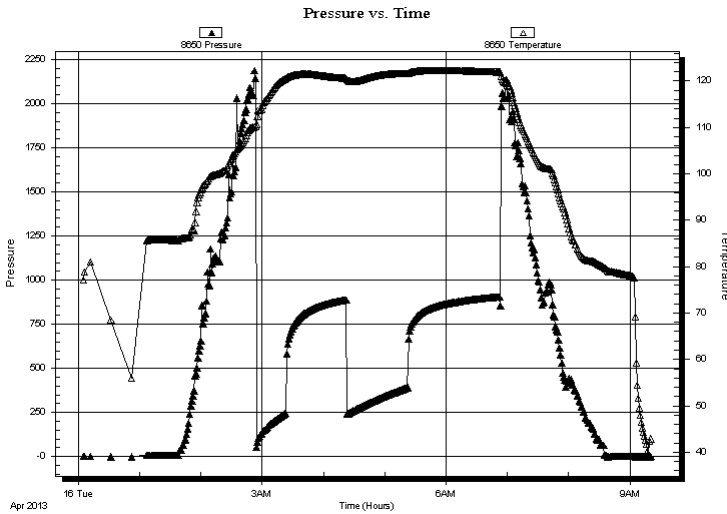
09:21:00

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 7 min.  
Bled off for 5 min. No re-run blow  
B.O.B. in 23 min.  
Bled off for 5 min. No return blow

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
367.00	100% Water	3.80
189.00	mcw 40%M 60%W	2.65
189.00	w cm 40%W 60%M w ith oil scum	2.65
15.00	w cm 10%W 90%M w ith oil scum	0.21

### 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 Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53051

**DST#: 3**

ATTN: Tom Funk

Test Start: 2013.04.16 @ 00:05:00

## Tool Information

Drill Pipe:	Length: 4073.23 ft	Diameter: 3.80 inches	Volume: 57.14 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: 25000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 57.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.27 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4230.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	75.00 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			4211.00	
Shut In Tool	5.00			4216.00	
Hydraulic tool	5.00			4221.00	
Packer	5.00			4226.00	20.00 Bottom Of Top Packer
Packer	4.00			4230.00	
Stubb	1.00			4231.00	
Recorder	0.00	8675	Inside	4231.00	
Recorder	0.00	8650	Outside	4231.00	
Perforations	18.00			4249.00	
Change Over Sub	1.00			4250.00	
Drill Pipe	31.00			4281.00	
Change Over Sub	1.00			4282.00	
Bullnose	3.00			4285.00	55.00 Bottom Packers & Anchor

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53051

**DST#: 3**

ATTN: Tom Funk

Test Start: 2013.04.16 @ 00:05:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 70.00 sec/qt  
Water Loss: 6.38 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 2.00 inches

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

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
367.00	100% Water	3.799
189.00	mcw 40%M 60%W	2.651
189.00	w cm 40%W 60%M w ith oil scum	2.651
15.00	w cm 10%W 90%M w ith oil scum	0.210

Total Length: 760.00 ft      Total Volume: 9.311 bbl

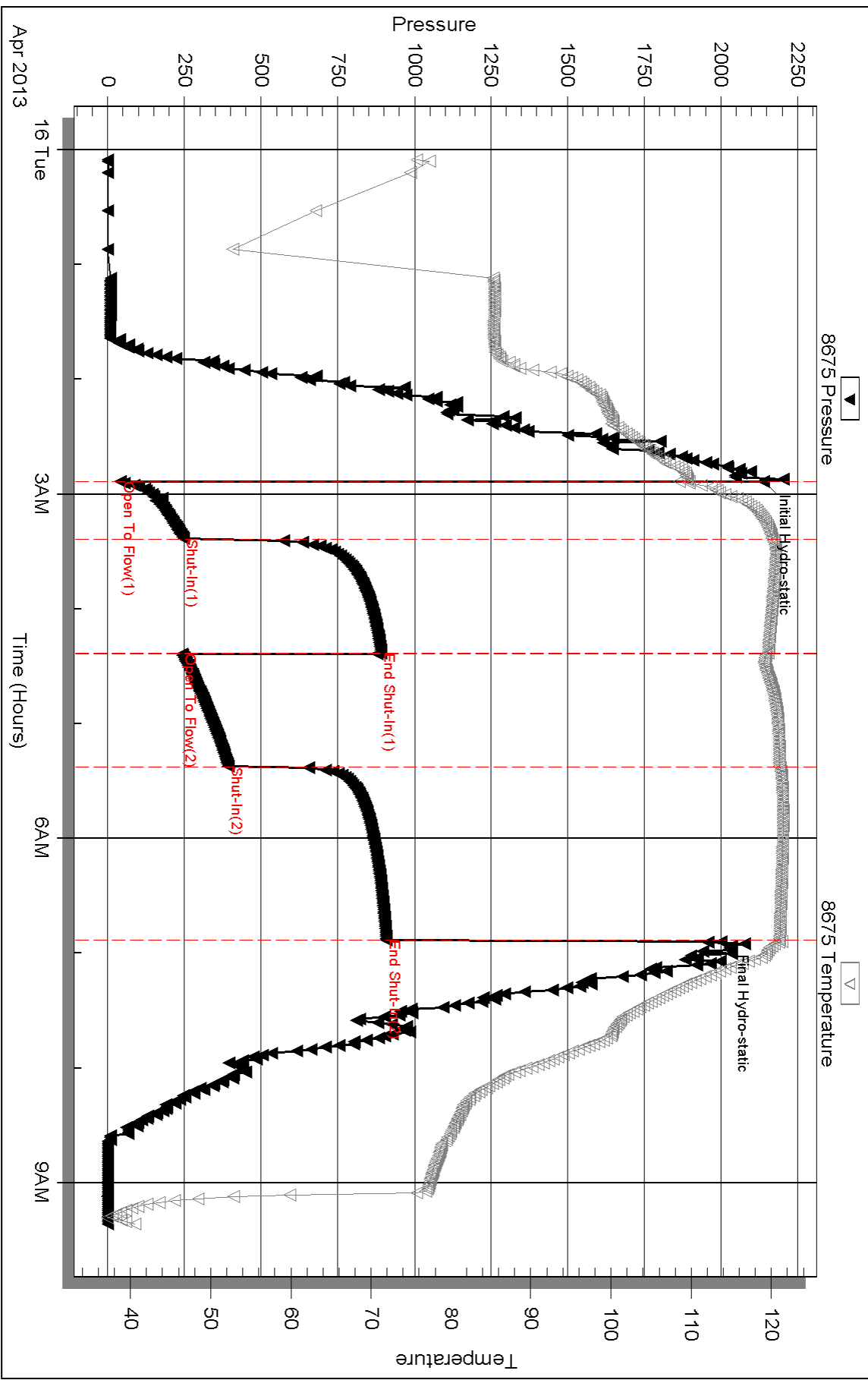
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: rw : .15 @ 35 F = 90,000



### Pressure vs. Time

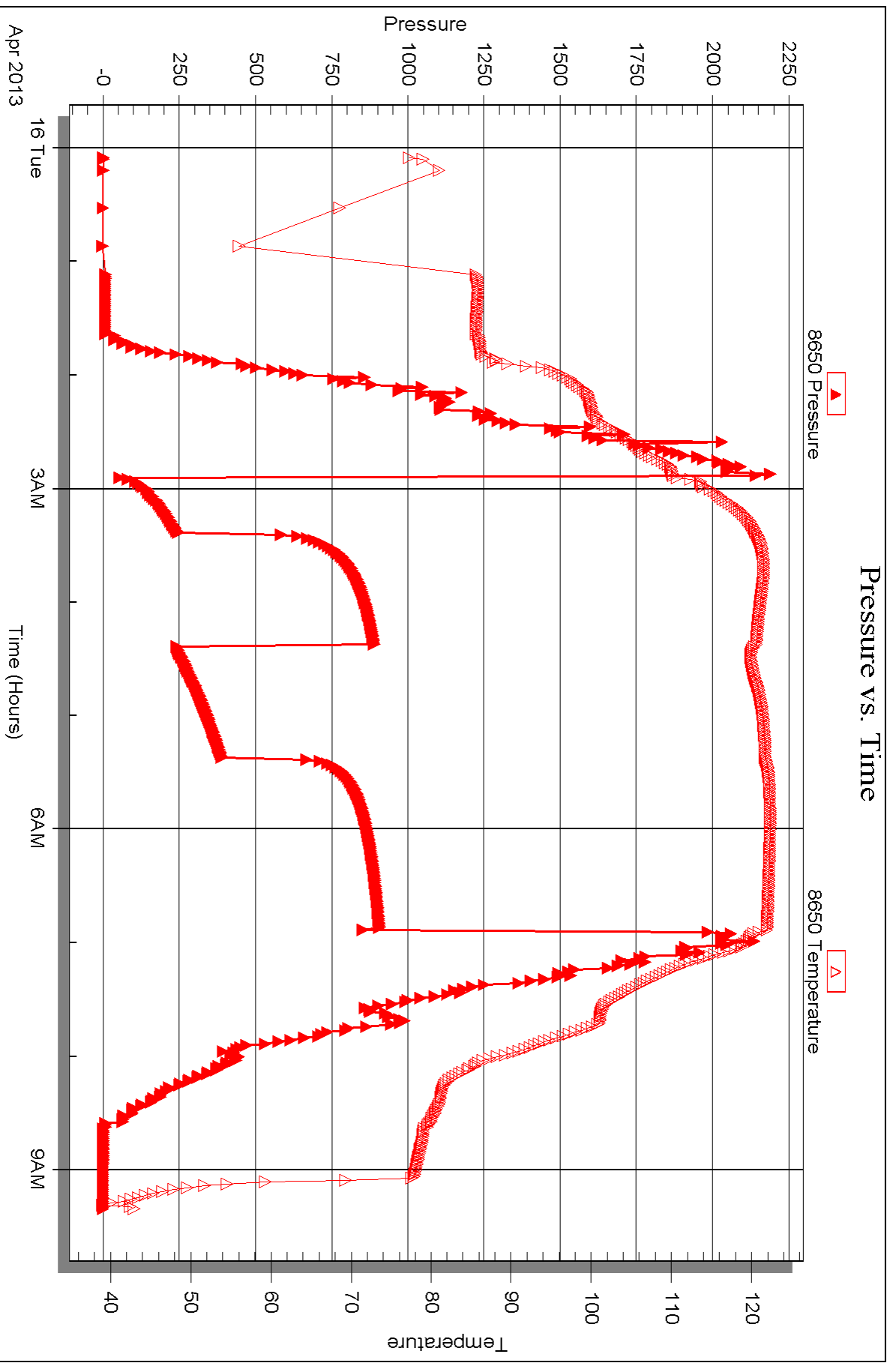


Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 3





## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.17 @ 04:20:00

End Date: 2013.04.17 @ 12:55:45

Job Ticket #: 53052                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.24 @ 09:45:49



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan, KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53052

**DST#: 4**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 04:20:00

## GENERAL INFORMATION:

Formation: **Altamont - Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:23:30

Time Test Ended: 12:55:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4377.00 ft (KB) To 4480.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4480.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 75.34 psig @ 4378.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.17

End Date:

2013.04.17

Last Calib.: 2013.04.17

Start Time: 04:20:15

End Time:

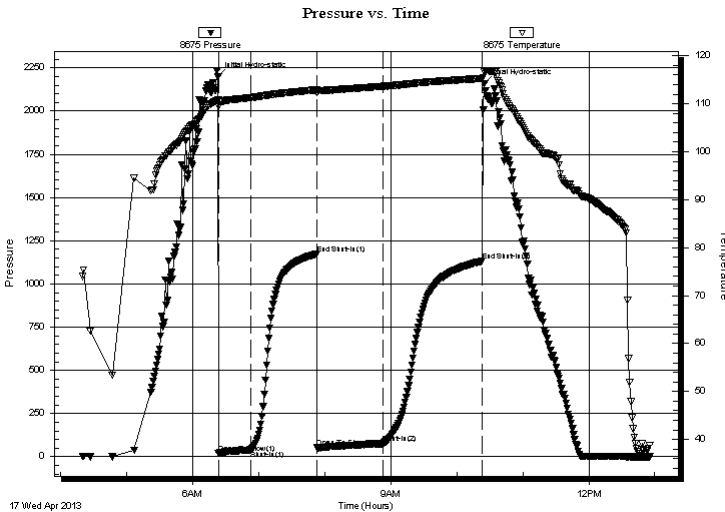
12:55:45

Time On Btm: 2013.04.17 @ 06:23:15

Time Off Btm: 2013.04.17 @ 10:25:15

**TEST COMMENT:** Built to 5 1/2" blow  
No return blow  
Built to 5" blow  
No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.75	110.75	Initial Hydro-static
1	20.37	109.53	Open To Flow (1)
30	40.03	111.27	Shut-In(1)
90	1173.64	112.90	End Shut-In(1)
90	53.77	112.39	Open To Flow (2)
150	75.34	113.62	Shut-In(2)
240	1131.71	115.28	End Shut-In(2)
242	2158.01	116.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	gcmo 10%G 40%M 50%O	0.44
60.00	gco 10%G 90%O	0.31

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan, KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53052

**DST#: 4**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 04:20:00

### GENERAL INFORMATION:

Formation: **Altamont - Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:23:30

Time Test Ended: 12:55:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4377.00 ft (KB) To 4480.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4480.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8650 Outside**

Press @ Run Depth: psig @ 4378.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.17

End Date:

2013.04.17

Last Calib.:

2013.04.17

Start Time: 04:20:15

End Time:

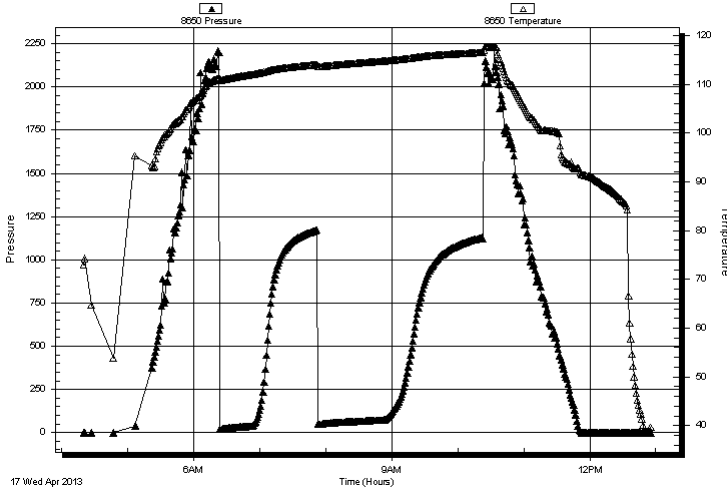
12:55:45

Time On Btm:

Time Off Btm:

**TEST COMMENT:** Built to 5 1/2" blow  
No return blow  
Built to 5" blow  
No return blow

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
90.00	gcmo 10%G 40%M 50%O	0.44
60.00	gco 10%G 90%O	0.31

### 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 Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53052

**DST#: 4**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 04:20:00

## Tool Information

Drill Pipe:	Length: 4229.49 ft	Diameter: 3.80 inches	Volume: 59.33 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: 25000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 71000.00 lb
			<u>Total Volume: 60.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.53 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4377.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	103.00 ft			
Tool Length:	123.00 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			4358.00	
Shut In Tool	5.00			4363.00	
Hydraulic tool	5.00			4368.00	
Packer	5.00			4373.00	20.00 Bottom Of Top Packer
Packer	4.00			4377.00	
Stubb	1.00			4378.00	
Recorder	0.00	8675	Inside	4378.00	
Recorder	0.00	8650	Outside	4378.00	
Perforations	3.00			4381.00	
Change Over Sub	1.00			4382.00	
Drill Pipe	94.00			4476.00	
Change Over Sub	1.00			4477.00	
Bullnose	3.00			4480.00	103.00 Bottom Packers & Anchor

**Total Tool Length: 123.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53052

**DST#: 4**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 04:20:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	gcmo 10%G 40%M 50%O	0.443
60.00	gco 10%G 90%O	0.313

Total Length: 150.00 ft      Total Volume: 0.756 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 29 @ 40 F = 31

Serial #: 8675

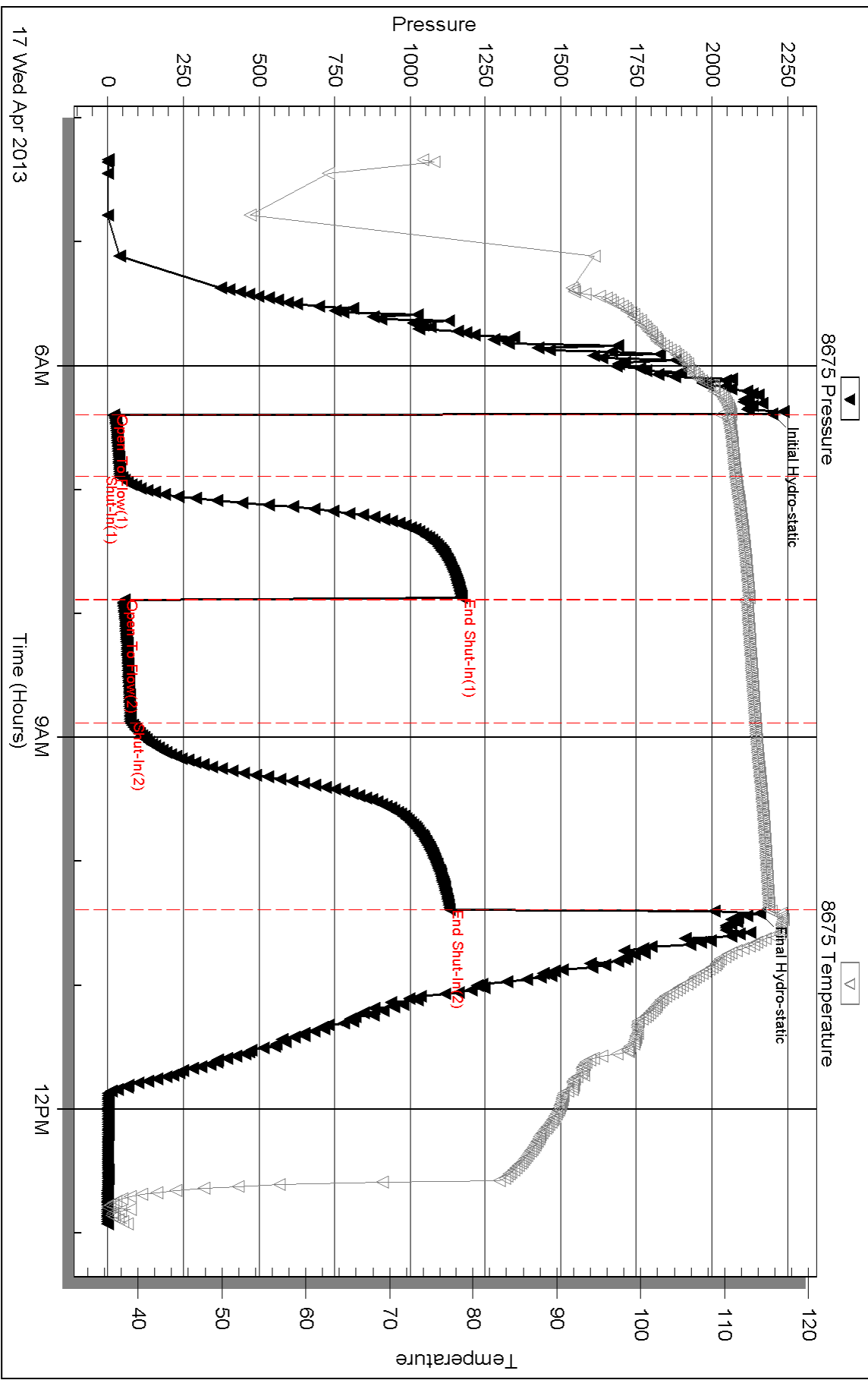
Inside

Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 4

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 53052

Printed: 2013.04.24 @ 09:45:51

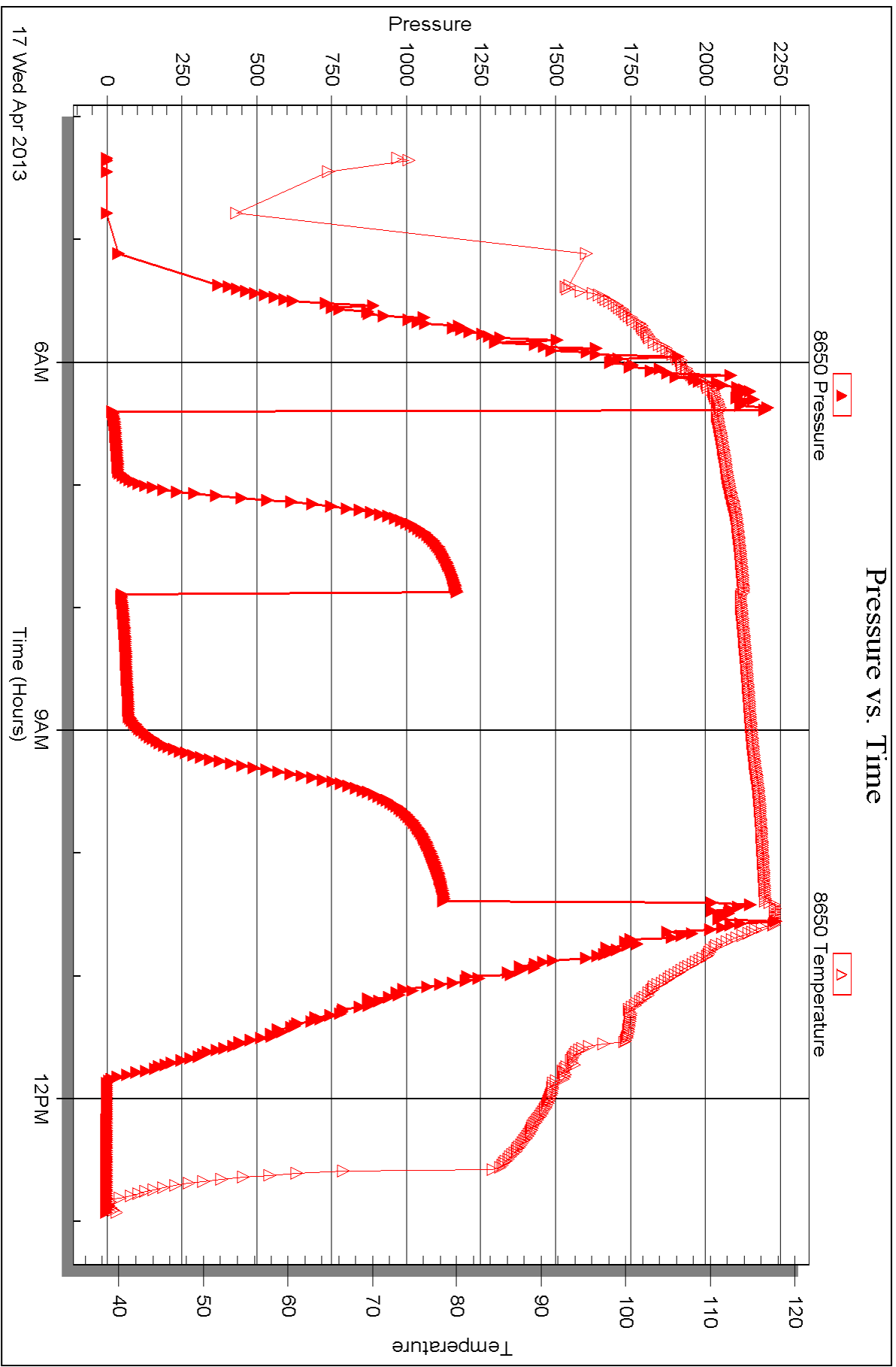


Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 4





## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.17 @ 23:40:00

End Date: 2013.04.18 @ 09:09:30

Job Ticket #: 53053                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.24 @ 09:44:56



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53053

**DST#: 5**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 23:40:00

## GENERAL INFORMATION:

Formation: **Myric Station - Fort**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:06:00

Time Test Ended: 09:09:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4480.00 ft (KB) To 4540.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4540.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 146.83 psig @ 4481.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.17

End Date:

2013.04.18

Last Calib.:

2013.04.18

Start Time: 22:40:15

End Time:

08:09:30

Time On Btm:

2013.04.18 @ 01:05:45

Time Off Btm:

2013.04.18 @ 05:07:15

## TEST COMMENT:

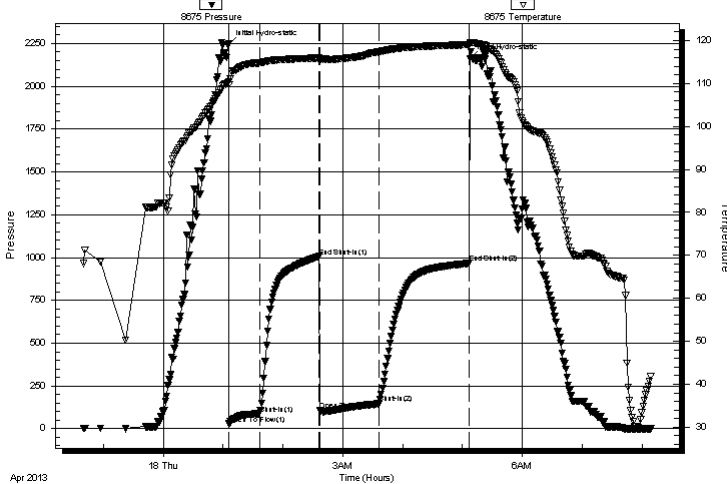
B.O.B. in 9 1/2 min.

Bled off for 5 min. Built to 1 1/2" return blow

B.O.B. in 8 min.

Bled off for 5 min. Built to 1 1/2" return blow

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2246.21	110.45	Initial Hydro-static
1	28.28	109.76	Open To Flow (1)
31	87.17	114.75	Shut-In(1)
91	1006.05	115.95	End Shut-In(1)
91	107.48	115.68	Open To Flow (2)
151	146.83	117.33	Shut-In(2)
241	967.91	119.01	End Shut-In(2)
242	2161.72	119.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cmog 5%W 30%M 30%O 35%G	0.30
118.00	mcgo 30%M 30%G 40%O	0.87
220.00	100% Clean Oil	3.09
0.00	820 Feet Gas In Pipe	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53053

**DST#: 5**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 23:40:00

### GENERAL INFORMATION:

Formation: **Myric Station - Fort**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:06:00  
 Time Test Ended: 09:09:30  
 Interval: **4480.00 ft (KB) To 4540.00 ft (KB) (TVD)**  
 Total Depth: 4540.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jace McKinney  
 Unit No: 46  
 Reference Elevations: 3052.00 ft (KB)  
 3041.00 ft (CF)  
 KB to GR/CF: 11.00 ft

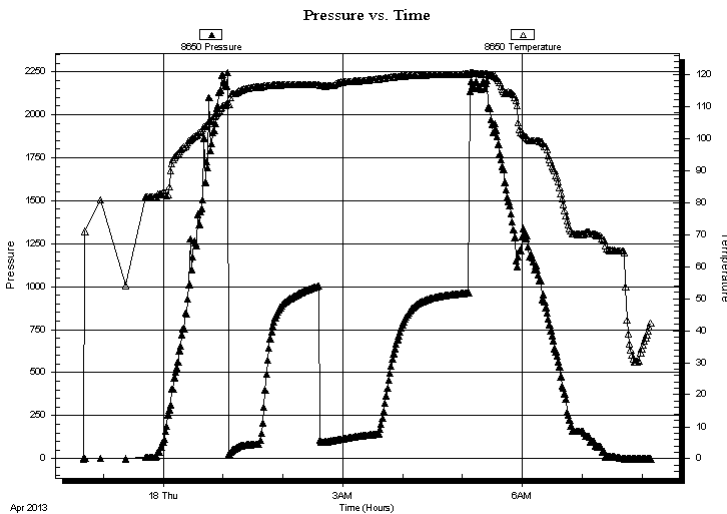
### Serial #: 8650

**Outside**

Press@RunDepth: psig @ 4481.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.17 End Date: 2013.04.18 Last Calib.: 2013.04.18  
 Start Time: 22:40:15 End Time: 08:09:30 Time On Btm:  
 Time Off Btm:

TEST COMMENT: B.O.B. in 9 1/2 min.  
 Bled off for 5 min. Built to 1 1/2" return blow  
 B.O.B. in 8 min.  
 Bled off for 5 min. Built to 1 1/2" return blow

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cmog 5%W 30%M 30%O 35%G	0.30
118.00	mcgo 30%M 30%G 40%O	0.87
220.00	100% Clean Oil	3.09
0.00	820 Feet Gas In Pipe	0.00

\* 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 Company, Inc.

**12-13s-33w Logan, KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53053

**DST#: 5**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 23:40:00

## Tool Information

Drill Pipe:	Length: 4324.16 ft	Diameter: 3.80 inches	Volume: 60.66 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: 25000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 61.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.20 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4480.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	80.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4461.00	
Shut In Tool	5.00			4466.00	
Hydraulic tool	5.00			4471.00	
Packer	5.00			4476.00	20.00 Bottom Of Top Packer
Packer	4.00			4480.00	
Stubb	1.00			4481.00	
Recorder	0.00	8675	Inside	4481.00	
Recorder	0.00	8650	Outside	4481.00	
Perforations	23.00			4504.00	
Change Over Sub	1.00			4505.00	
Drill Pipe	31.00			4536.00	
Change Over Sub	1.00			4537.00	
Bullnose	3.00			4540.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53053

**DST#: 5**

ATTN: Tom Funk

Test Start: 2013.04.17 @ 23:40:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 60.00 sec/qt  
Water Loss: 7.58 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 2.00 inches

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

Oil API: 35 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	w cmog 5%W 30%M 30%O 35%G	0.305
118.00	mcgo 30%M 30%G 40%O	0.871
220.00	100% Clean Oil	3.086
0.00	820 Feet Gas In Pipe	0.000

Total Length: 400.00 ft      Total Volume: 4.262 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

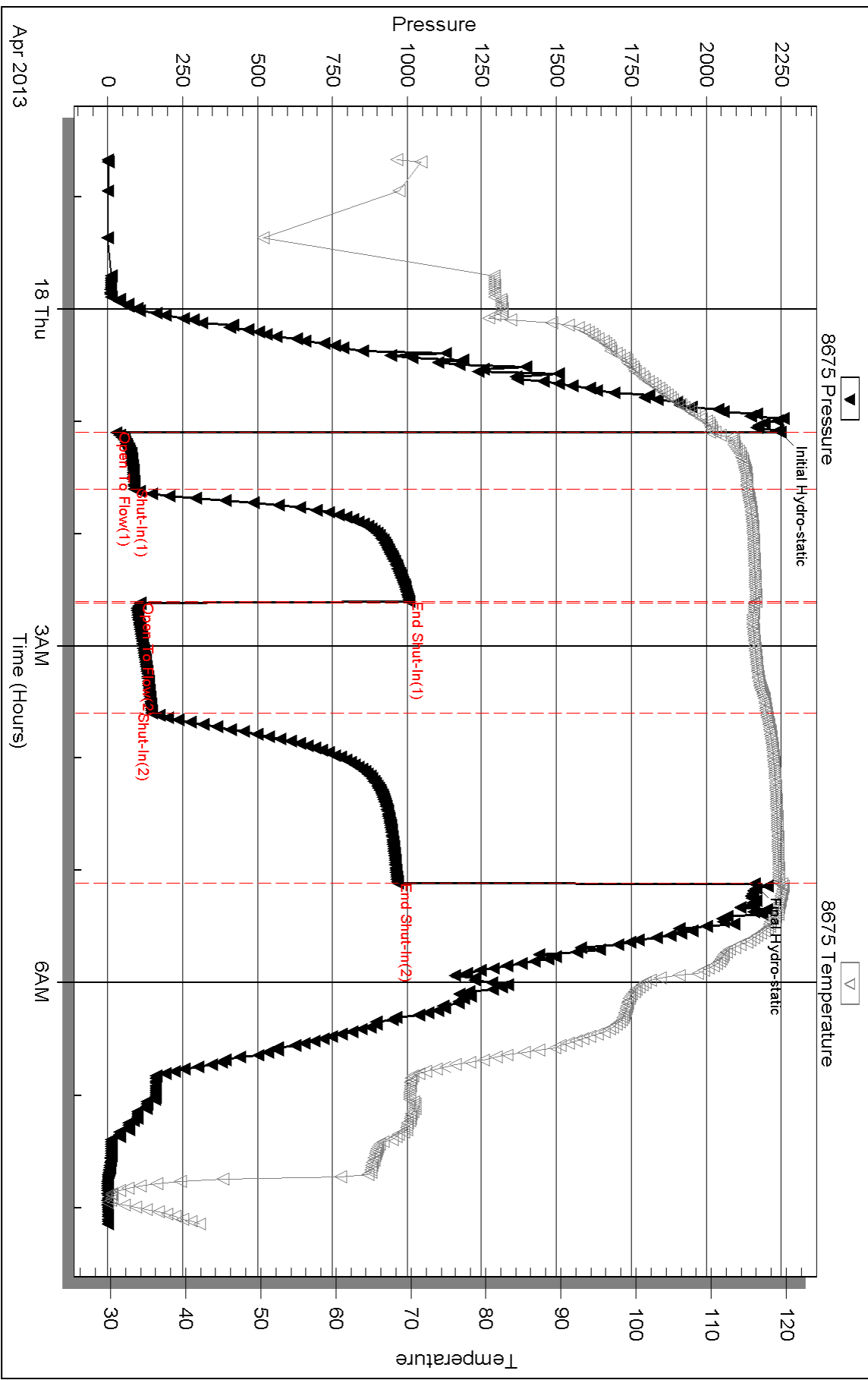
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 33 @ 40 F = 35

### Pressure vs. Time

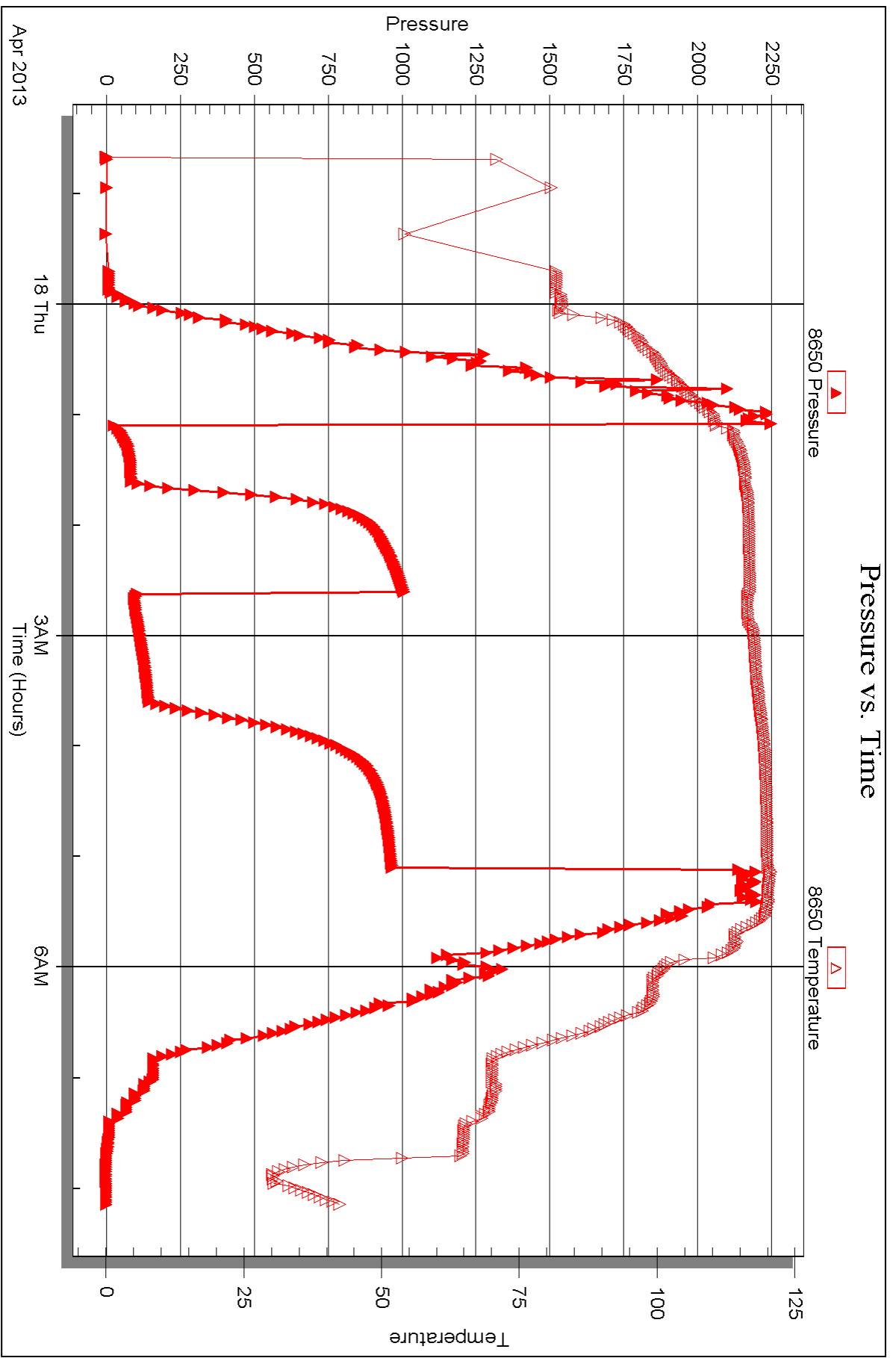


Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 53053

Printed: 2013.04.24 @ 09:45:00





## DRILL STEM TEST REPORT

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

250 N Water STE 300  
Wichita, KS 67202-1216

ATTN: Tom Funk

### **Racette #1-12**

#### **12-13s-33w Logan,KS**

Start Date: 2013.04.18 @ 18:20:00

End Date: 2013.04.19 @ 03:20:30

Job Ticket #: 53054                      DST #: 6

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

Printed: 2013.04.24 @ 09:44:16



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53054

**DST#: 6**

ATTN: Tom Funk

Test Start: 2013.04.18 @ 18:20:00

## GENERAL INFORMATION:

Formation: **Johnson Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:15

Time Test Ended: 03:20:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4548.00 ft (KB) To 4610.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4610.00 ft (KB) (TVD)

3041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 195.58 psig @ 4549.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.18

End Date:

2013.04.19

Last Calib.:

2013.04.19

Start Time: 18:20:15

End Time:

03:20:30

Time On Btm:

2013.04.18 @ 20:17:45

Time Off Btm:

2013.04.19 @ 00:17:45

## TEST COMMENT:

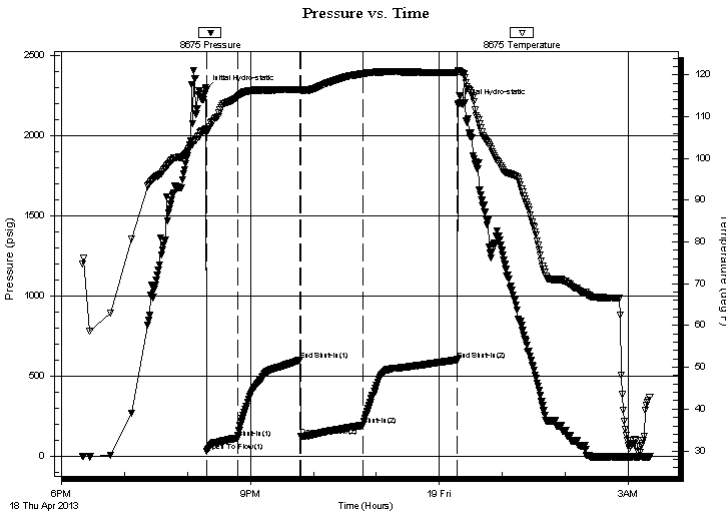
B.O.B. in 11 min.

Bled off for 5 min. Built to 3" return blow

B.O.B. in 6 min.

Bled off for 5 min. B.O.B. in 44 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2285.62	107.07	Initial Hydro-static
1	32.48	106.44	Open To Flow (1)
30	116.89	114.62	Shut-In(1)
90	603.33	116.51	End Shut-In(1)
91	126.18	116.33	Open To Flow (2)
150	195.58	120.32	Shut-In(2)
240	603.97	120.52	End Shut-In(2)
240	2195.54	121.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cgom 2%W 20%G 28%O 50%M	0.30
124.00	mcgo 30%M 30%G 40%O	0.96
282.00	100% Clean Oil	3.96
0.00	1100 Feet Gas In Pipe	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company, Inc.

**12-13s-33w Logan, KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53054

**DST#: 6**

ATTN: Tom Funk

Test Start: 2013.04.18 @ 18:20:00

## GENERAL INFORMATION:

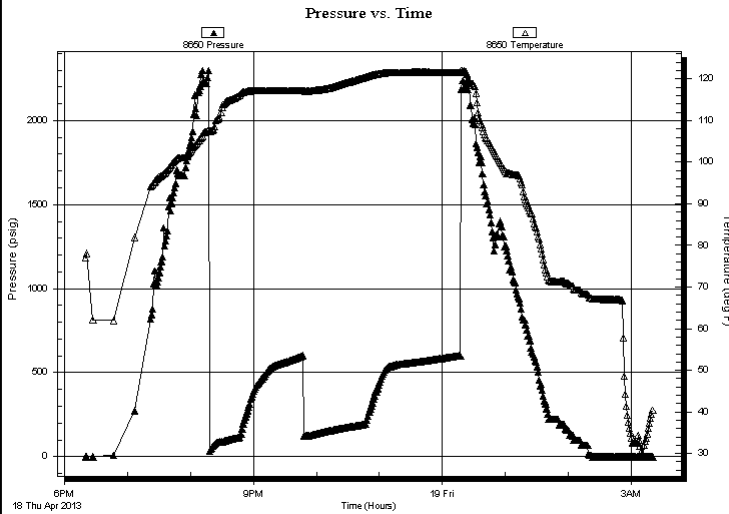
Formation: **Johnson Zone**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:18:15  
 Time Test Ended: 03:20:30  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jace McKinney  
 Unit No: 46  
 Interval: **4548.00 ft (KB) To 4610.00 ft (KB) (TVD)**  
 Total Depth: 4610.00 ft (KB) (TVD)  
 Reference Elevations: 3052.00 ft (KB)  
 3041.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

## Serial #: 8650

**Outside**

Press @ Run Depth: psig @ 4549.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.18 End Date: 2013.04.19 Last Calib.: 2013.04.19  
 Start Time: 18:20:15 End Time: 03:20:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** B.O.B. in 11 min.  
 Bled off for 5 min. Built to 3" return blow  
 B.O.B. in 6 min.  
 Bled off for 5 min. B.O.B. in 44 min.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cgom 2%W 20%G 28%O 50%M	0.30
124.00	mcgo 30%M 30%G 40%O	0.96
282.00	100% Clean Oil	3.96
0.00	1100 Feet Gas In Pipe	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53054

**DST#: 6**

ATTN: Tom Funk

Test Start: 2013.04.18 @ 18:20:00

## Tool Information

Drill Pipe:	Length: 4387.07 ft	Diameter: 3.80 inches	Volume: 61.54 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: 25000.00 lb
Drill Collar:	Length: 148.04 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 62.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.11 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4548.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4529.00	
Shut In Tool	5.00			4534.00	
Hydraulic tool	5.00			4539.00	
Packer	5.00			4544.00	20.00 Bottom Of Top Packer
Packer	4.00			4548.00	
Stubb	1.00			4549.00	
Recorder	0.00	8675	Inside	4549.00	
Recorder	0.00	8650	Outside	4549.00	
Perforations	25.00			4574.00	
Change Over Sub	1.00			4575.00	
Drill Pipe	31.00			4606.00	
Change Over Sub	1.00			4607.00	
Bullnose	3.00			4610.00	62.00 Bottom Packers & Anchor

**Total Tool Length: 82.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company, Inc.

**12-13s-33w Logan,KS**

250 N Water STE 300  
Wichita, KS 67202-1216

**Racette #1-12**

Job Ticket: 53054

**DST#: 6**

ATTN: Tom Funk

Test Start: 2013.04.18 @ 18:20:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	w cgom 2%W 20%G 28%O 50%M	0.305
124.00	mcgo 30%M 30%G 40%O	0.956
282.00	100% Clean Oil	3.956
0.00	1100 Feet Gas In Pipe	0.000

Total Length: 468.00 ft      Total Volume: 5.217 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 29 @ 30 F = 32

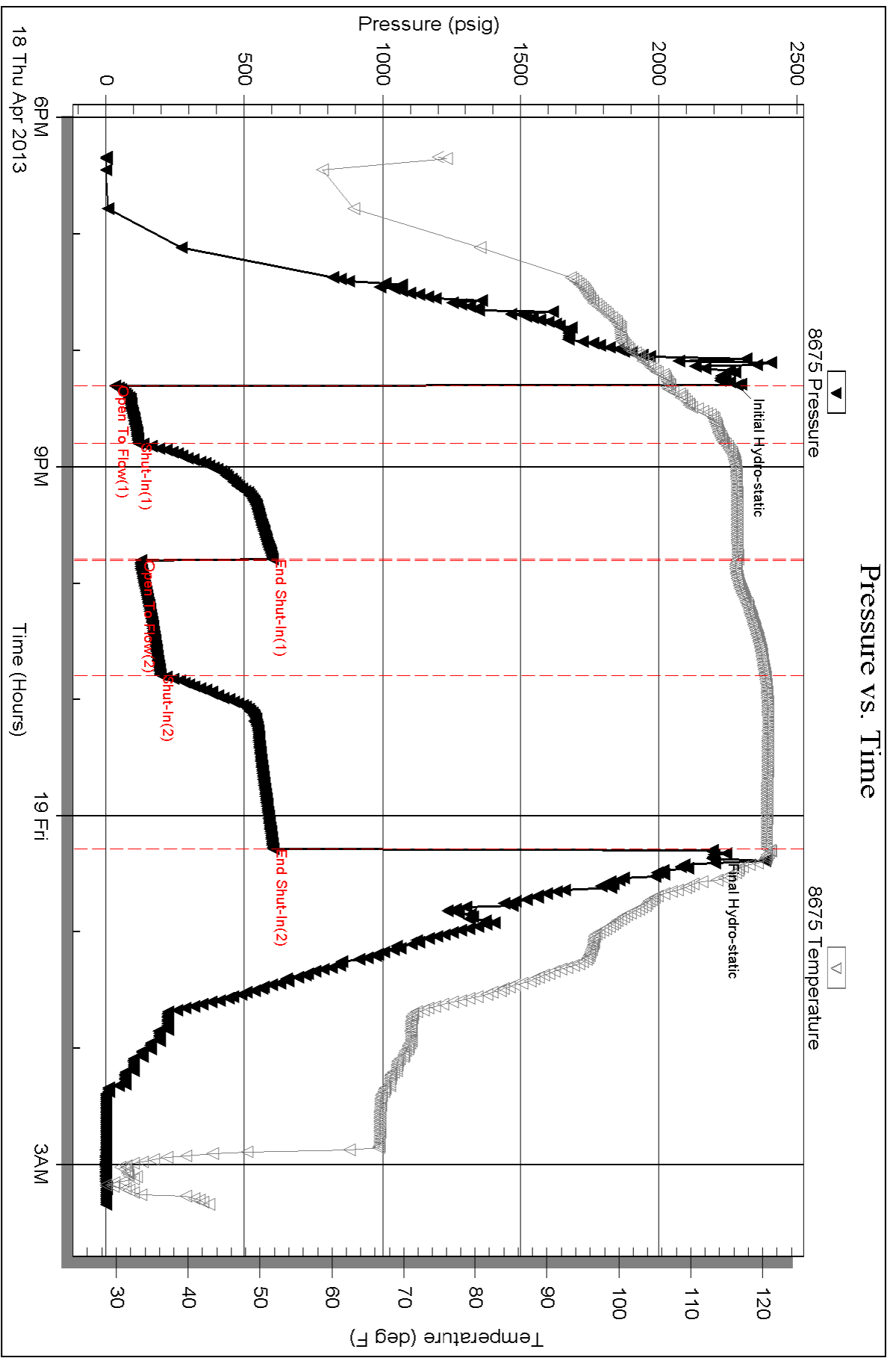
Serial #: 8675

Inside

Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 6

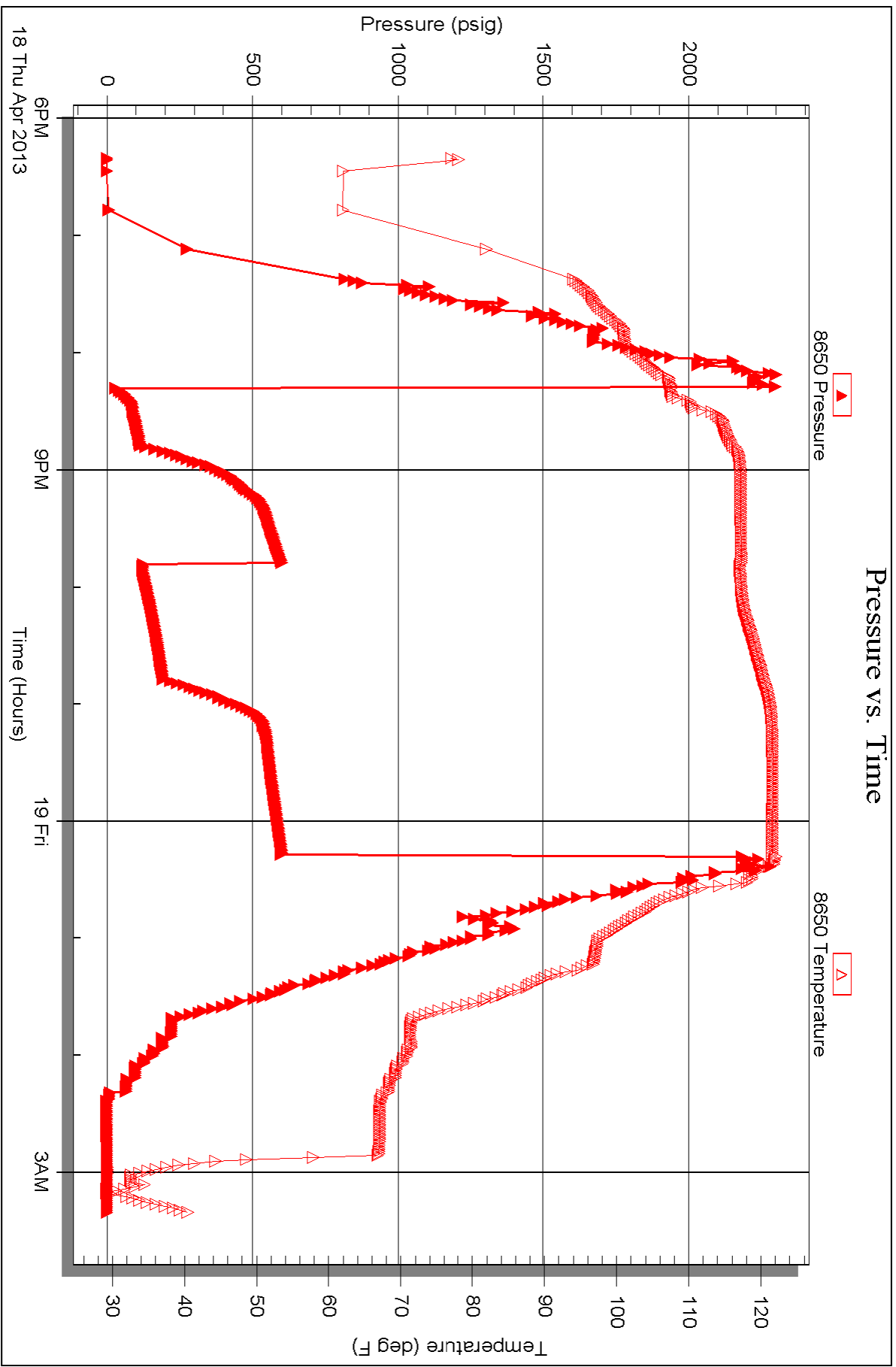


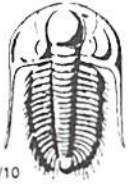
Serial #: 8650

Outside Murfin Drilling Company, Inc.

Racette #1-12

DST Test Number: 6





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 49974

Well Name & No. Racette # 1-12 Test No. 1 Date 4/14/13  
 Company Martin Drilling Company, Inc. Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS, 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Martin Rig 22  
 Location: Sec. 12 Twp. 13s Rge. 33w Co. Logan Co. State KS

Interval Tested 4094 - 4130 Zone Tested Kansas Ldy "E+F"  
 Anchor Length\* 36 Drill Pipe Run 3948.62 Mud Wt. 9.1  
 Top Packer Depth 4090 Drill Collars Run 148.04 Vis 52  
 Bottom Packer Depth 4094 Wt. Pipe Run \_\_\_\_\_ WL 6.4  
 Total Depth 4130 Chlorides 4,400 ppm System LCM 4#

Blow Description B.O.B. in 6 1/2 min.  
Bled off for 5 min. No return below  
B.O.B. in 7 1/2 min.  
Bled off for 5 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>204</u>	<u>Feet of MCW</u>		<u>50</u>	<u>50</u>	
<u>252</u>	<u>Feet of MCW</u>		<u>70</u>	<u>30</u>	
<u>874</u>	<u>Feet of water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1330 BHT mont 122 Gravity \_\_\_\_\_ API RW .10 @ 70 ° F Chlorides 75,000 ppm

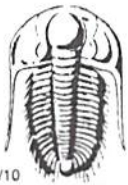
(A) Initial Hydrostatic 2,058  Test 1250 T-On Location 6:05  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 8:10  
 (C) First Final Flow 309  Safety Joint \_\_\_\_\_ T-Open 10:00  
 (D) Initial Shut-In 1,138  Circ Sub n/c T-Pulled 14:00  
 (E) Second Initial Flow 316  Hourly Standby 1/4 hr over 25 T-Out 16:16  
 (F) Second Final Flow 651  Mileage 90 RT 80rt 124 Comments \_\_\_\_\_  
 (G) Final Shut-In 1,131  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,968  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 600  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 600  Day Standby \_\_\_\_\_ Total 1399  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1399

Approved By [Signature] Our Representative [Signature]

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





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 49975

Well Name & No. Racette #1-12 Test No. 2 Date 4/15/13  
 Company Murkin Drilling Company, Inc Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS, 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Murkin Rig 22  
 Location: Sec. 12 Twp. 13S Rge. 33W Co. Logan Co. State KS

Interval Tested 4197 - 4230 Zone Tested Kansas City "H+I"  
 Anchor Length 33 Drill Pipe Run 4041.16 Mud Wt. 9.4  
 Top Packer Depth 4193 Drill Collars Run 148.04 Vis 53  
 Bottom Packer Depth 4197 Wt. Pipe Run \_\_\_\_\_ WL 8.4  
 Total Depth 4230 Chlorides 4,400 ppm System LCM 3.5#

Blow Description B.O.B. in 8 min.  
Bled off for 5 min. No return below  
B.O.B. in 12 min.  
Bled off for 5 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>239</u>	<u>wcm</u>		<u>40</u>	<u>60</u>	
<u>189</u>	<u>mcw</u>		<u>80</u>	<u>20</u>	
<u>432</u>	<u>water</u>		<u>100</u>		
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

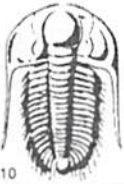
Rec Total 860 BHT 122 Gravity \_\_\_\_\_ API RW .09 @ 65 °F Chlorides 90,000 ppm

(A) Initial Hydrostatic 2,095  Test 1250 T-On Location 5:30  
 (B) First Initial Flow 38  Jars \_\_\_\_\_ T-Started 5:50  
 (C) First Final Flow 219  Safety Joint \_\_\_\_\_ T-Open 8:06  
 (D) Initial Shut-In 833  Circ Sub N/C T-Pulled 12:06  
 (E) Second Initial Flow 223  Hourly Standby \_\_\_\_\_ T-Out 14:15  
 (F) Second Final Flow 409  Mileage 90 MI 124 Comments \_\_\_\_\_  
 (G) Final Shut-In 812  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,954  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_  
 Final Flow 60  Day Standby \_\_\_\_\_  
 Final Shut-In 90  Accessibility \_\_\_\_\_  
 Sub Total 1374

Approved By [Signature] Our Representative [Signature]

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# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53051

Well Name & No. Racette # 1-12 Test No. 3 Date 4/15/13 4/16/13  
 Company Murfin Drilling Company, Inc Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS, 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Murfin Rig 22  
 Location: Sec. 12 Twp. 13s Rge. 33w Co. Logan Co. State KS

Interval Tested 4230-4285 Zone Tested Kansas City "J+K"  
 Anchor Length 55 Drill Pipe Run 4073.23 Mud Wt. 9.2  
 Top Packer Depth 4226 Drill Collars Run 148.04 Vis 70  
 Bottom Packer Depth 4230 Wt. Pipe Run \_\_\_\_\_ WL 6.4  
 Total Depth 4285 Chlorides 5,000 ppm System LCM 7#

Blow Description B.O.B. in 7 min.  
Bled off for 5 min. No return below  
B.O.B. in 23 min.  
Bled off for 5 min. No return below

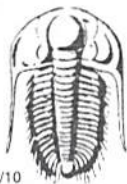
Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Feet of wcm with oilscum</u>		<u>10</u>	<u>90</u>	
<u>189</u>	<u>Feet of wcm oilscum</u>		<u>40</u>	<u>20</u>	
<u>189</u>	<u>Feet of mcw</u>		<u>60</u>	<u>40</u>	
<u>367</u>	<u>Feet of water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 760 BHT 121 Gravity \_\_\_\_\_ API RW .15 @ 35 ° F Chlorides 90,000 ppm  
 (A) Initial Hydrostatic 2,139  Test 1250 T-On Location 23:30  
 (B) First Initial Flow 41  Jars \_\_\_\_\_ T-Started 00:05  
 (C) First Final Flow 249  Safety Joint \_\_\_\_\_ T-Open 2:53  
 (D) Initial Shut-In 892  Circ Sub N/C T-Pulled 6:53  
 (E) Second Initial Flow 243  Hourly Standby \_\_\_\_\_ T-Out 9:21  
 (F) Second Final Flow 393  Mileage 90 RT 124 Comments \_\_\_\_\_  
 (G) Final Shut-In 908  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2,002  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1374  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1374

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

Approved By Tom Funk Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53052

Well Name & No. Bacette # 1-12 Test No. 4 Date 4/17/13  
 Company Martin Drilling Company, Inc. Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Martin Rig 22  
 Location: Sec. 12 Twp. 13s Rge. 33w Co. Logan Co. State K5

Interval Tested 4377-4480 Zone Tested Altament - Pawnee  
 Anchor Length 103 Drill Pipe Run 4229.49 Mud Wt. 9.1  
 Top Packer Depth 4373 Drill Collars Run 148.04 Vis 60  
 Bottom Packer Depth 4377 Wt. Pipe Run \_\_\_\_\_ WL 7.6  
 Total Depth 4480 Chlorides 6,800 ppm System LCM 5#

Blow Description Drill to 5'2" below  
No return below  
Drill to 5" below  
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>600</u>	<u>10</u>	<u>90</u>		
<u>90</u>	<u>6000</u>	<u>10</u>	<u>60</u>		<u>40</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 150 BHT 114 Gravity 31 API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2,199  Test 1250 T-On Location 3:20  
 (B) First Initial Flow 20  Jars T-Started 4:20  
 (C) First Final Flow 40  Safety Joint T-Open 6:23  
 (D) Initial Shut-In 1,174  Circ Sub N/C T-Pulled 10:23  
 (E) Second Initial Flow 54  Hourly Standby T-Out 12:56  
 (F) Second Final Flow 75  Mileage 90 RT 124 Comments \_\_\_\_\_  
 (G) Final Shut-In 1,132  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2,158  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

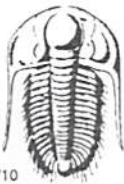
Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Sub Total 1374

MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53053

Well Name & No. Racette # 1-12 Test No. 5 Date 4/17/13 4/18/13  
 Company Murfin Drilling Company, Inc. Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Murfin Rig 22  
 Location: Sec. 12 Twp. 13s Rge. 33w Co. Logan Co State KS

Interval Tested 4480 - 4540 Zone Tested Myric Station - Fort Scott  
 Anchor Length 60 Drill Pipe Run 4324.16 Mud Wt. 9.2  
 Top Packer Depth 4476 Drill Collars Run 148.04 Vis 60  
 Bottom Packer Depth 4480 Wt. Pipe Run \_\_\_\_\_ WL 7.6  
 Total Depth 4540 Chlorides 5,000 ppm System LCM 5#

Blow Description B.O.B. in 9 1/2 min.  
Bled off for 5 min Built to 1 1/2" return below  
B.O.B. in 8 min.  
Bled off for 5 min Built to 1 1/2" return below

Rec	Feet of	%gas	%oil	%water	%mud
	<u>820 Feet GAS in Pipe</u>				
<u>220</u>	<u>Feet of Clean Oil</u>		<u>100</u>		
<u>118</u>	<u>Feet of MCCO</u>	<u>30</u>	<u>40</u>		<u>30</u>
<u>62</u>	<u>Feet of WCMBC</u>	<u>35</u>	<u>30</u>	<u>5</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud

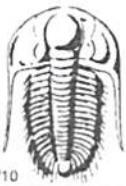
Rec Total 400 BHT 119 Gravity 35 API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2,246  Test 1250 T-On Location 21:30  
 (B) First Initial Flow 28  Jars \_\_\_\_\_ T-Started 22:40  
 (C) First Final Flow 87  Safety Joint \_\_\_\_\_ T-Open 1:05  
 (D) Initial Shut-In 1,006  Circ Sub N/C 1.75h 175 T-Pulled 5:05  
 (E) Second Initial Flow 107  Hourly Standby 1hr over 10 hrs T-Out 9:10  
 (F) Second Final Flow 147  Mileage 90 RT 124  
 (G) Final Shut-In 968  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2,162  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 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 0  
 Total 1549  
 MP/DST Disc't \_\_\_\_\_

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53054

Well Name & No. Acette # 1-12 Test No. 6 Date 4/18/13 4/19/13  
 Company Martin Drilling Company, Inc. Elevation 3052 KB 3041 GL  
 Address 250 N Water STE 300 Wichita KS 67202-1216  
 Co. Rep / Geo. Tom Funk Rig Martin Rig 22  
 Location: Sec. 12 Twp. 13s Rge. 33w Co. Logan Co. State KS

Interval Tested 4548-4610 Zone Tested Johnson Zone  
 Anchor Length 62 Drill Pipe Run 4387.07 Mud Wt. 9.2  
 Top Packer Depth 4544 Drill Collars Run 148.04 Vis 54  
 Bottom Packer Depth 4548 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 4610 Chlorides 6,400 ppm System LCM 4#

Blow Description B.O.B. in 11 min.  
Bled off for 5 min. Built to 3" return below  
B.O.B. in 6 min.

Bled off for 5 min. B.O.B. in 44 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>1100 Feet GAS IN PIPE</u>				
<u>222</u>	<u>Oil</u>		<u>100</u>		
<u>124</u>	<u>MC 60</u>	<u>30</u>	<u>40</u>		<u>30</u>
<u>62</u>	<u>WCCOM</u>	<u>20</u>	<u>28</u>	<u>2</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 468 BHT 121 Gravity 32 API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2,286  Test 1250 T-On Location 17:30  
 (B) First Initial Flow 32  Jars \_\_\_\_\_ T-Started 18:20  
 (C) First Final Flow 117  Safety Joint \_\_\_\_\_ T-Open 20:18  
 (D) Initial Shut-In 603  Circ Sub N/C T-Pulled 00:18  
 (E) Second Initial Flow 126  Hourly Standby \_\_\_\_\_ T-Out 3:20  
 (F) Second Final Flow 196  Mileage 90 MI X 2 248 Comments Loaded @ 12:00  
 (G) Final Shut-In 604  Sampler \_\_\_\_\_ pipe on 8/19/13  
 (H) Final Hydrostatic 2,196  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1498  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1498

Approved By [Signature] Our Representative [Signature]

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PO Box 93999  
Southlake, TX 76092

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

# INVOICE

Invoice Number: 135682  
Invoice Date: Apr 10, 2013  
Page: 1

acct.  
prod-LH

**PROD COPY**

OPERATOR PAY MDC  
LEASE: Bm

Now Includes:



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

Customer ID	Field Ticket #	Payment Terms	
Murfin	60233	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Apr 10, 2013	5/10/13

Quantity	Item	Description	Unit Price	Amount
185.00	MAT	Racette #1-12 Class A Common	17.90	3,311.50
7.00	MAT	Chloride	64.00	448.00
194.29	SER	Cubic Feet	2.48	481.74
134.40	SER	Ton Mileage	2.60	349.44
1.00	SER	Surface	1,512.25	1,512.25
15.00	SER	Pump Truck Mileage	7.70	115.50
1.00	SER	Manifold Swedge Rental	275.00	275.00
15.00	SER	Light Vehicle Mileage	4.40	66.00
1.00	CEMENTER	LaRene Wentz		
1.00	OPER ASSIST	Paul Beaver		
1.00	EQUIP OPER	Tyler Flipse		
1.00	OPER ASSIST	Darrin Hoeb		
1.00	CEMENTER	John Robinson		

Account	Unit	W	No.	Amount	Description
10203	3.	6472.0001		4556.87	Cement S. G. #1-12

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF <sup>5%</sup>  
\$ 2,295.80  
ONLY IF PAID ON OR BEFORE  
May 5, 2013

Subtotal	6,559.43
Sales Tax	293.24
Total Invoice Amount	6,852.67
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,852.67</b>

Deduct

- 2295.80

4556.87

# ALLIED OIL & GAS SERVICES, LLC 060233

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Oakley, KS

DATE <u>4-10-13</u>	SEC. <u>12</u>	TWP. <u>13</u>	RANGE <u>33</u>	CALLED OUT	ON LOCATION <u>2:23pm</u>	JOB START <u>5:13pm</u>	JOB FINISH <u>2:10pm</u>
LEASE <u>Racette</u>	WELL # <u>1-12</u>	LOCATION <u>Oakley 115, W, 125</u>	COUNTY <u>Logan</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one) <u>NEW</u>				<u>Winfo</u>			

CONTRACTOR Martin 22 OWNER Same.

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD. 2271 CEMENT AMOUNT ORDERED 185 sks com 398.00

CASING SIZE 8 7/8 DEPTH 226.65'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 157+

PERFS.

DISPLACEMENT 13.58 661

EQUIPMENT

PUMP TRUCK CEMENTER LaRene E. Wentz

# 120 HELPER Paul Beaver / Tyler Flippo

BULK TRUCK DRIVER Darin Hoeb

BULK TRUCK DRIVER John Robinson

HANDLING 197.29 973 @ 2.48 487.77

MILEAGE 8.96 hrs X 15 X 260 349.44

TOTAL 459.68

REMARKS:  
185 sks cement  
Displace with water.  
Cement disp. circulate.

Thank you

CHARGE TO Martin Drilling

STREET

CITY STATE ZIP

### SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE 1972.23

EXTRA FOOTAGE @

MILEAGE MFLU 15 @ 7.90 118.50

MANIFOLD Sewedge @ 225.00

MFLU 15 @ 4.40 66.00

TOTAL 1968.75

### PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

To: Allied Oil & Gas Services, 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 KELLY WILSON

SIGNATURE Kelly Wilson

SALES TAX (If Any)

TOTAL CHARGES 6,559.43

DISCOUNT 2,295.80 IF PAID IN 30 DAYS

4,263.62 Net.



P. O. Box 466  
Ness City, KS 67560  
Off: 785-798-2300



Acety —

cc: WF  
cc: Lin  
cc: L.L

# Invoice

DATE	INVOICE #
4/30/2013	24326

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-12	Racette	Logan		Oil	Development	Cement Port Collar	Don
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				80	Miles	6.00	480.00
576D-D	Pump Charge - Port Collar - 2530 Feet				1	Job	1,250.00	1,250.00
290	D-Air				2	Gallon(s)	35.00	70.00T
330	Swift Multi-Density Standard (MIDCON II)				185	Sacks	16.50	3,052.50T
276	Flocele				47	Lb(s)	2.00	94.00T
581D	Service Charge Cement				400	Sacks	2.00	800.00
583D	Drayage				1,592.16	Ton Miles	1.00	1,592.16
	Subtotal							7,338.66
	Sales Tax Logan County						7.80%	250.89
USED FOR <u>1003</u> APPROVED <u>JR</u>								
<b>We Appreciate Your Business!</b>							<b>Total</b>	\$7,589.55





**Services, Inc.**

CHARGE TO: Mountain Drilling Co.  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET No. **24326**

WELL/PROJECT NO. \_\_\_\_\_  
 LEASE \_\_\_\_\_  
 COUNTY/PARISH \_\_\_\_\_  
 RIG NAME NO. \_\_\_\_\_  
 STATE \_\_\_\_\_ CITY \_\_\_\_\_

PAGE 1 OF 1

1. Elroy, KS 1-12 Racette Logan KS DATE 4-30-13 OWNER  
 2. Ness City, KS CONTRACTOR Co SHIPPED VIA CT DELIVERED TO Sw/Dalley, KS ORDER NO.  
 3. WELL TYPE Co WELL CATEGORY in Field JOB PURPOSE Cement BNT collar WELL PERMIT NO.  
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS WELL LOCATION

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575		1			MILEAGE #113	80	mi				1.00	480.00
576 D		1			Drayage Charge - conf BNT collar	1	ea	2530	ft		180.00	1850.00
290		1			D - Air						35.00	70.00
330		2			SND - cement	185	SKS				16.50	3052.50
276		2			Fluocole	49	lbs				2.00	99.00
581		2			Service Charge - Cement						2.00	820.00
583		2			Drayage	80	mi	1592.14	TM	33804	1.00	1592.14
<p>LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, <b>PAYMENT, RELEASE, INDEMNITY</b>, and <b>LIMITED WARRANTY</b> provisions.</p> <p>MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS</p> <p>X <u>Walter Lbs</u></p> <p>DATE SIGNED <u>4-30-13</u> TIME SIGNED <u>0500</u> <input checked="" type="checkbox"/> P.M. <input type="checkbox"/> A.M.</p>												
<p>REMIT PAYMENT TO:          SWIFT SERVICES, INC.          P.O. BOX 466          NESS CITY, KS 67560          785-798-2300</p>												
<p>SURVEY</p> <p>OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? <input type="checkbox"/></p> <p>WE UNDERSTOOD AND MET YOUR NEEDS? <input type="checkbox"/></p> <p>OUR SERVICE WAS PERFORMED WITHOUT DELAY? <input type="checkbox"/></p> <p>WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? <input type="checkbox"/></p> <p>ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND</p>												
<p>PAGE TOTAL</p> <p>Logan TX 7.18%</p> <p>TOTAL</p>											<p>7589.55</p>	

SWIFT OPERATOR John Sommer APPROVAL \_\_\_\_\_

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

Thank You!

**JOB LOG**

**SWIFT Services, Inc.**

DATE 7-30-13 PAGE NO. 1

CUSTOMER Martin Dyle Co WELL NO. 1-12 LEASE Rece the JOB TYPE Cement Port Collar TICKET NO. 24326

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0800					2 3/8	5 1/2	On location - 400 SKS SMD
								Setup Trics
								Port Collar @ 2530'
						C	1200	Tot P.C. Closed - OK
		3	3				650	Open P.C. - inj rate
							C	Hook to Tbg
		3	3			600		Pump H2O ahead -
		3	3			650		Circulation - start SMD out
						500		@ 11.2 #/gal
			85			600		cut cir @ 160 SKS - tail in
						650		25 SKS @ 14 #/gal
			93			550		Fin unit - Displ 8 1/2 BBL
			8 1/2	Drop		C	1200	Close P.C. to tot - OK
	2 1/2						950	Run 6 sta - Res-out
	2 1/2						750	CIR out 2 plays clean
	0945		25					Fin Res-out
								Job Complete
								Washup & Pick up Tbg.
								<i>[Signature]</i>
	1025							Don, Jon & Doug
								160 SKS @ 11.2 #/gal to cir cut
								25 SKS @ 14 #/gal tail in cut
								185 SKS SMD - Total used
								<i>[Signature]</i>



**CONSOLIDATED**  
Oil Well Services, LLC

**REMIT TO**  
Consolidated Oil Well Services, LLC  
Dept. 970  
P.O. Box 4346  
Houston, TX 77210-4346

MAIN OFFICE  
P.O. Box 884  
Chanute, KS 66720  
620/431-9210 • 1-800/467-8676  
Fax 620/431-0012

INVOICE

Invoice # 258173

Invoice Date: 04/23/2013 Terms: 10/10/30,n/30

Page 1

MURFIN DRILLING  
P.O. BOX 288  
RUSSELL KS 67665  
( ) -

RACETTE 1-12  
39472  
12-13-33  
04-20-2013  
KS  
USED FOR 1C/193  
APPROVED JLR

Part Number	Description	Qty	Unit Price	Total
4310	ROTATING HEAD	1.00	150.0000	150.00
1126	OIL WELL CEMENT	225.00	22.5500	5073.75
1110A	KOL SEAL (50# BAG)	1125.00	.5600	630.00
1102	CALCIUM CHLORIDE (50#)	240.00	.8900	213.60
1111A	SODIUM METASILICATE	200.00	2.4000	480.00
1142A	KCL SUB MB6875 CC3107 (1	2.00	39.1000	78.20
4159	FLOAT SHOE AFU 5 1/2"	1.00	413.0000	413.00
4454	5 1/2" LATCH DOWN PLUG	1.00	303.0000	303.00
4285	5 1/2" PORT COLLAR	1.00	2075.0000	2075.00
4130	CENTRALIZER 5 1/2"	15.00	58.0000	870.00
4104	CEMENT BASKET 5 1/2"	2.00	276.0000	552.00
4315	ROTATING SCRATCHERS	15.00	90.0000	1350.00
Sublet Performed				
9996-130	CEMENT MATERIAL DISCOUNT			-1218.86
9995-130	CEMENT EQUIPMENT DISCOUNT			-350.50
Description				
405	SINGLE PUMP	1.00	3020.00	3020.00
405	EQUIPMENT MILEAGE (ONE WAY)	15.00	5.00	75.00
566	MIN. BULK DELIVERY	1.00	410.00	410.00

Amount Due 16644.25 if paid after 05/23/2013

Parts:	12188.55	Freight:	.00	Tax:	855.63	AR	14979.82
Labor:	.00	Misc:	.00	Total:	14979.82		
Sublt:	-1569.36	Supplies:	.00	Change:	.00		

Signed \_\_\_\_\_

Date \_\_\_\_\_



**CONSOLIDATED**  
Oil Well Services, LLC

258173

TICKET NUMBER 39472  
LOCATION Oakley KS  
FOREMAN milos S

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

Fuzzy

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
4-20-13	5406	Racette 1-12	12	13	33	logan
CUSTOMER Murphy Dnls			OAKLEY S-Gove Red 4W 1S win			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			405	Termy P		
STATE			566	Jordan L		
ZIP CODE				Jack J		

JOB TYPE Production HOLE SIZE 7 7/8 HOLE DEPTH 4760' CASING SIZE & WEIGHT 5 1/2 15.5  
CASING DEPTH 4749 9/2 DRILL PIPE \_\_\_\_\_ TUBING Pont Collar OTHER \*53 @ 2535'  
SLURRY WEIGHT 14.2 SLURRY VOL 1.42 WATER gal/sk 6.9 CEMENT LEFT in CASING 17 1/2  
DISPLACEMENT 112.6 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting on Mon 4/22 Float equip Cont #1-14, 52  
Baskets bottom of #52-53 Pont Collar top of #53 Recup and circulate  
1/2 way in for 15 min, Circ 45 min on bottom, mix flo-check Clutch  
pump 20 sacks MH, 30 SKS RH. Mix 175 SKS OWC w/5\* Kol-seal. Wash  
pump and lines. Drop plug and displace 112 BBS (1st 20 gal KCL) hit  
press 1000\* land plug @ 1700\*. float held

Thanks Fuzzy & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3020 <sup>00</sup>	3020 <sup>00</sup>
5406	15	MILEAGE	5 <sup>00</sup>	75 <sup>00</sup>
5407	10.6 ton	Tow mileage Delivery (min)	410 <sup>00</sup>	410 <sup>00</sup>
4310	1	Rotating head	150 <sup>00</sup>	150 <sup>00</sup>
1126	225 SKS	OWC	22 <sup>55</sup>	5073 <sup>75</sup>
1110A	1125*	Kol coal	.56	630 <sup>00</sup>
1102	240*	Calcium chloride	.89	213 <sup>60</sup>
1111A	200*	Sodium metasilicate	2 <sup>40</sup>	480 <sup>00</sup>
1142A	2 gal	KCL	39 <sup>10</sup>	78 <sup>20</sup>
4159	1	5 1/2 - AFU float shoe	413 <sup>00</sup>	413 <sup>00</sup>
4454	1	5 1/2 - hatchdown Assy	303 <sup>00</sup>	303 <sup>00</sup>
4285	1	5 1/2 - Pont Collar	2075 <sup>00</sup>	2075 <sup>00</sup>
4130	15	5 1/2 - Centralizers	58 <sup>00</sup>	870 <sup>00</sup>
4104	2	5 1/2 - Baskets	276 <sup>00</sup>	552 <sup>00</sup>
4315	15	5' scratchers	90 <sup>00</sup>	1350 <sup>00</sup>
		sub total		15693 <sup>55</sup>
		less 10%		15693 <sup>60</sup>
		sub total		14124 <sup>19</sup>
		SALES TAX		855 <sup>63</sup>
		ESTIMATED TOTAL		14979 <sup>82</sup>

Ravin 3737

completed

AUTHORIZATION

*Buck Selas*

TITLE

DATE

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.