



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1195536
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: _____

1195536

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

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Zimbelman #1-28 330 FSL 330 FWL Sec. 28-T2S-R41W 3667' KB							Raile 'A' #11-32 330 FNL 600 FEL Sec. 32-T2S-R41W 3664' KB	
Formation	Sample Top	Datum	Ref	Log top	Datum	Ref	Log Top	Datum
Anhydrite	3566	+101	-5	3560	+107	+1	3565	+106
B/Anhydrite	3603	+64	-9	3596	+71	-2	3598	+73
Topeka	4341	-674	-1	4344	-677	-4	4344	-673
Oread	4458	-791	-5	4463	-796	-10	4457	-786
Lansing	4538	-871	-6	4540	-873	-8	4536	-865
Stark Sh	4786	-1119	-16	4778	-1111	-8	4774	-1103
BKC	4858	-1191	-21	4851	-1184	-14	4841	-1170
Marmaton	4901	-1234	-25	4894	-1227	-18	4880	-1209
Pawnee	4982	-1315	-24	4972	-1305	-14	4962	-1291
Cherokee	5060	-1393	-24	5057	-1390	-21	5040	-1369
Mississippi	5351	-1684		5349	-1682		DNR	
RTD	5450						5100	
LTD				5444			5104	



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Zimbelman #1-28

28-2s-41w Cheyenne KS

Start Date: 2013.11.30 @ 19:20:00

End Date: 2013.12.01 @ 03:14:00

Job Ticket #: 55876 DST #: 1

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

Printed: 2013.12.05 @ 10:02:30

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

Zimbelman #1-28

DST # 1

LKC "A - D"

2013.11.30



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimelman #1-28

Job Ticket: 55876

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2013.11.30 @ 19:20:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:28:15

Time Test Ended: 03:14:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 4490.00 ft (KB) To 4620.00 ft (KB) (TVD)

Reference Elevations: 3667.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

3657.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8671

Inside

Press@RunDepth: 39.42 psig @ 4491.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.30

End Date:

2013.12.01

Last Calib.:

2013.12.01

Start Time: 19:20:05

End Time:

03:13:59

Time On Btm:

2013.11.30 @ 21:28:00

Time Off Btm:

2013.12.01 @ 00:31:15

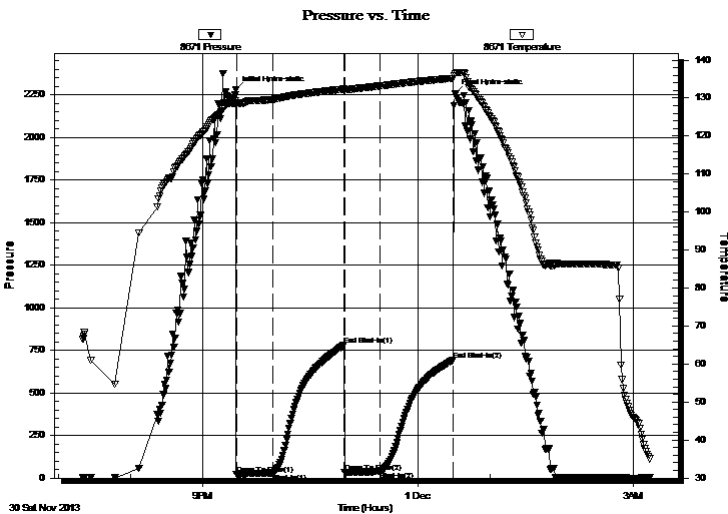
TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1" in 10 min., blow stayed at 1" through open

60 - ISI: No blow back

30 - FF: No blow

60 - FSI: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.80	129.37	Initial Hydro-static
1	22.67	128.31	Open To Flow (1)
31	30.66	129.64	Shut-In(1)
91	782.60	132.37	End Shut-In(1)
91	34.25	132.07	Open To Flow (2)
121	39.42	133.17	Shut-In(2)
182	693.37	135.21	End Shut-In(2)
184	2257.73	136.38	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
45.00	OCM 76% m, 21% o, 3% g	0.22

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimbelman #1-28

Job Ticket: 55876

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2013.11.30 @ 19:20:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:28:15

Time Test Ended: 03:14:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 4490.00 ft (KB) To 4620.00 ft (KB) (TVD)

Total Depth: 4620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3667.00 ft (KB)

3657.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 4491.00 ft (KB)

Start Date: 2013.11.30

End Date:

2013.12.01

Start Time: 19:20:05

End Time:

03:14:44

Capacity: 8000.00 psig

Last Calib.:

2013.12.01

Time On Btm:

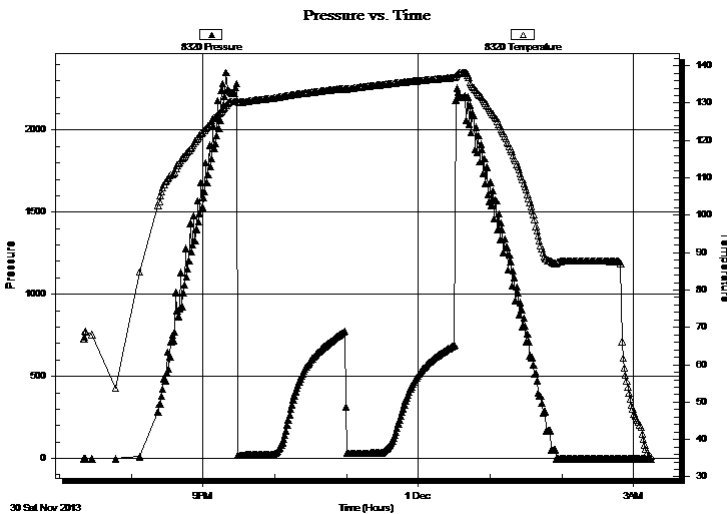
Time Off Btm:

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1" in 10 min., blow stayed at 1" through open

60 - IS: No blow back

30 - FF: No blow

60 - FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
45.00	OCM 76% m, 21% o, 3% g	0.22

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimbelman #1-28

Job Ticket: 55876

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2013.11.30 @ 19:20:00

Tool Information

Drill Pipe:	Length: 3933.00 ft	Diameter: 3.80 inches	Volume: 55.17 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: 559.00 ft	Diameter: 2.25 inches	Volume: 2.75 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 57.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4490.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	130.00 ft			
Tool Length:	158.00 ft			
Number of Packers:	2	Diameter: 7.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4467.00	
Hydraulic tool	5.00			4472.00	
Jars	5.00			4477.00	
Safety Joint	3.00			4480.00	
Packer	5.00			4485.00	28.00 Bottom Of Top Packer
Packer	5.00			4490.00	
Packer - Shale	0.00			4490.00	
Stubb	1.00			4491.00	
Recorder	0.00	8671	Inside	4491.00	
Recorder	0.00	8320	Outside	4491.00	
Perforations	27.00			4518.00	
Blank Spacing	97.00			4615.00	
Perforations	2.00			4617.00	
Bullnose	3.00			4620.00	130.00 Bottom Packers & Anchor

Total Tool Length: 158.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimelman #1-28

Job Ticket: 55876

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2013.11.30 @ 19:20:00

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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	OCM 76% _m , 21% _o , 3% _g	0.221

Total Length: 45.00 ft Total Volume: 0.221 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

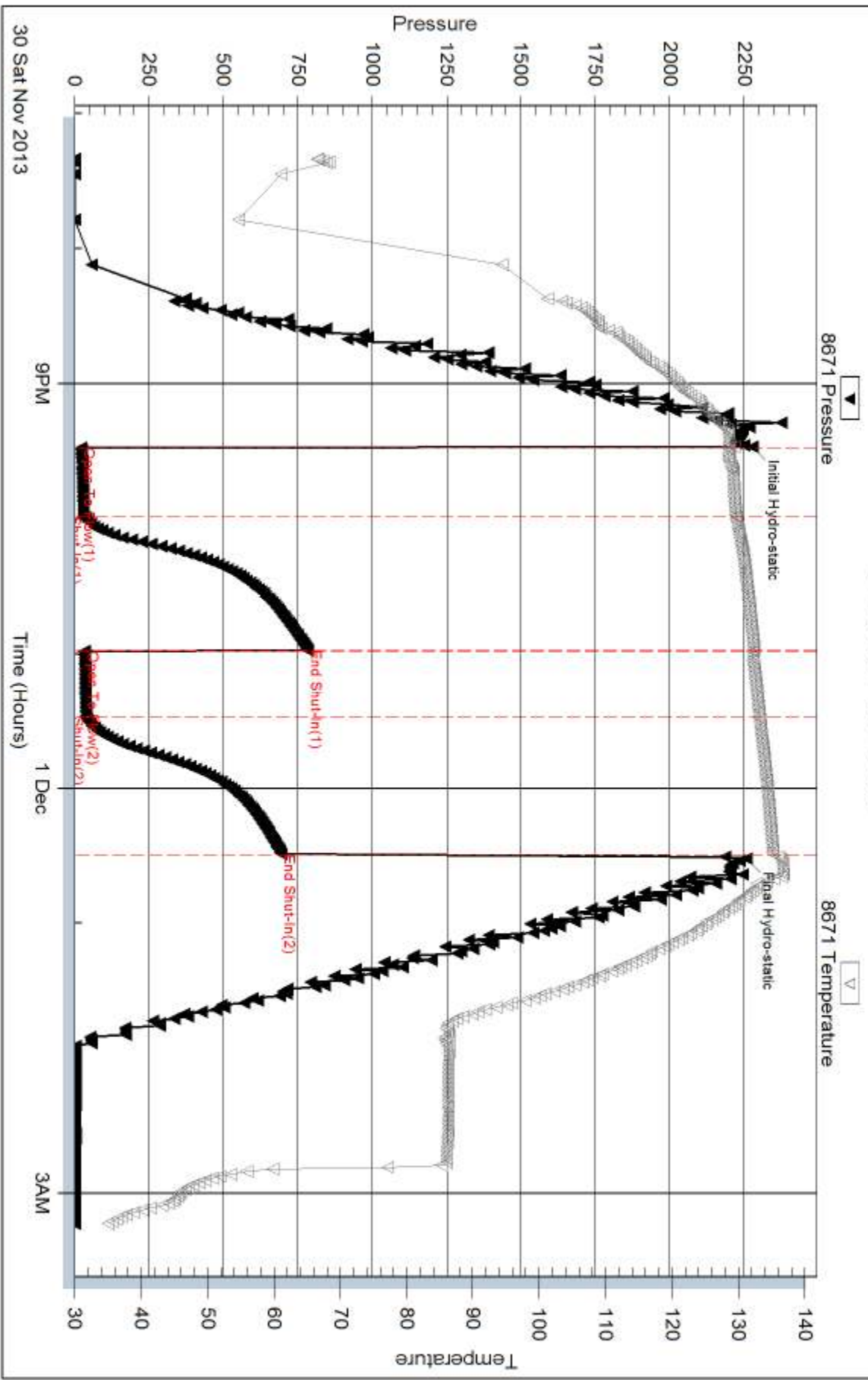
Serial #:

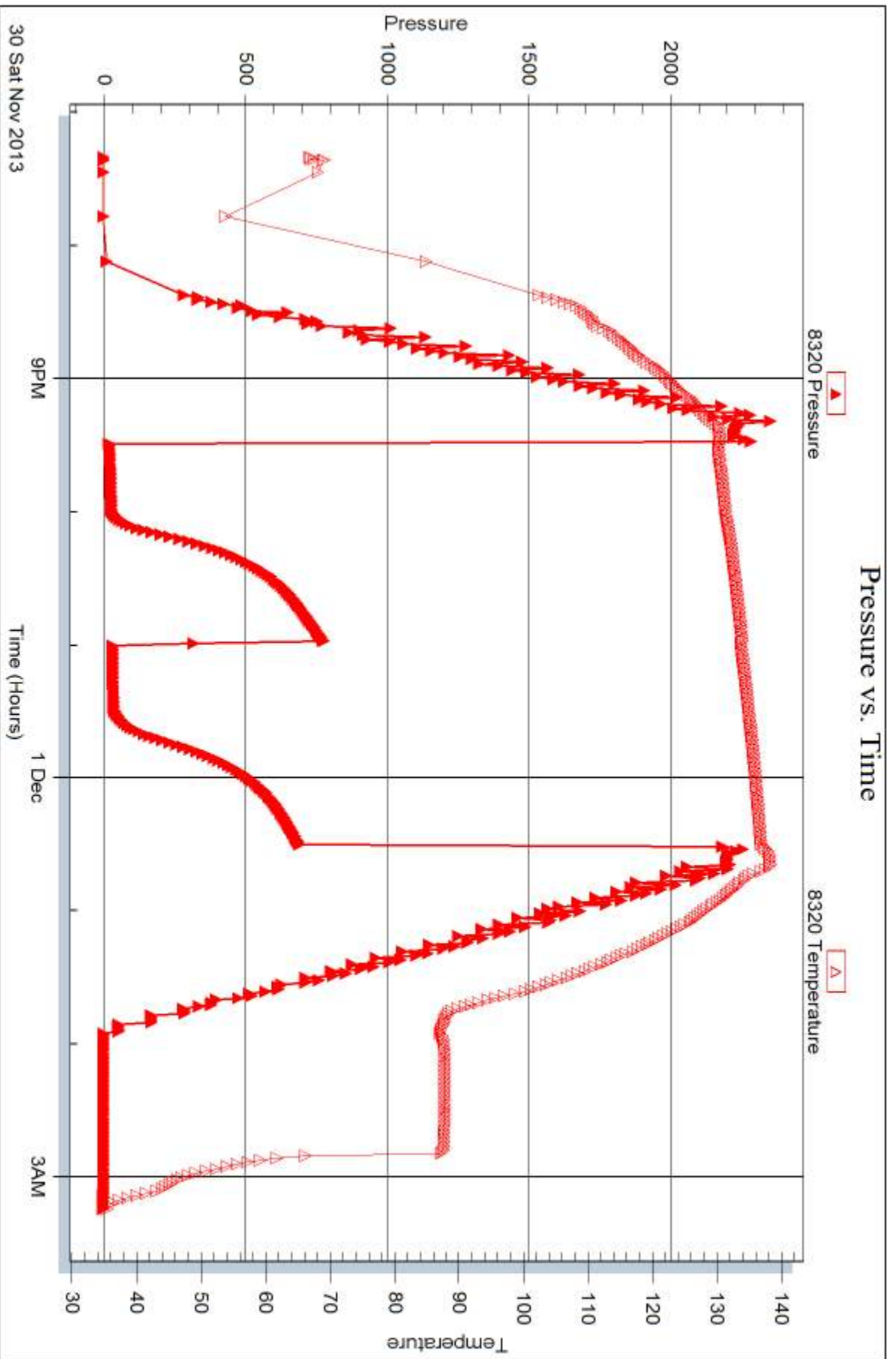
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Zimbelman #1-28

28-2s-41w Cheyenne KS

Start Date: 2013.12.01 @ 22:08:05

End Date: 2013.12.02 @ 07:55:15

Job Ticket #: 55877 DST #: 2

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

Printed: 2013.12.05 @ 10:01:37



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimelman #1-28

Job Ticket: 55877

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2013.12.01 @ 22:08:05

GENERAL INFORMATION:

Formation: **LKC "J - K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:09:45
 Time Test Ended: 07:55:15
 Interval: **4689.00 ft (KB) To 4830.00 ft (KB) (TVD)**
 Total Depth: 4830.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 3667.00 ft (KB)
 3657.00 ft (CF)
 KB to GR/CF: 10.00 ft

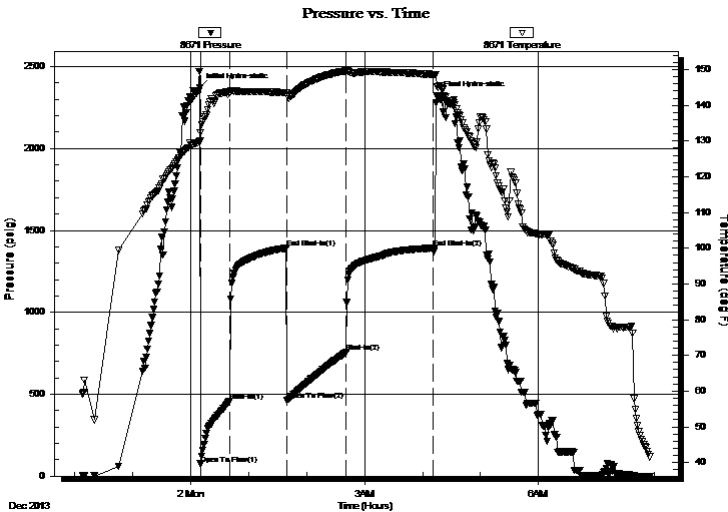
Serial #: 8671

Inside

Press@RunDepth: 755.59 psig @ 4690.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.01 End Date: 2013.12.02 Last Calib.: 2013.12.02
 Start Time: 22:08:05 End Time: 07:55:15 Time On Btm: 2013.12.02 @ 00:09:15
 Time Off Btm: 2013.12.02 @ 04:15:14

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 4 3/4 min.
 60 - IS: Blow back built to 3"
 60 - FF: Blow built to BOB in 6 3/4 min.
 90 - FS: Blow back built to BOB in 35 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2368.80	129.61	Initial Hydro-static
1	74.39	130.10	Open To Flow (1)
32	459.31	143.72	Shut-In(1)
90	1391.21	143.58	End Shut-In(1)
91	463.51	142.83	Open To Flow (2)
152	755.59	149.64	Shut-In(2)
242	1391.94	148.67	End Shut-In(2)
246	2323.37	145.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
465.00	MCW w/trace oil 75%w, 25%m	2.29
380.00	WCM w/Oil spots 61%m, 29%w, 7%g	34.47
475.00	GOCM 72%m, 16%g, 12%o	6.66
410.00	CGO 77%o, 23%g	5.75
0.00	GIP = 150'	0.00

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

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

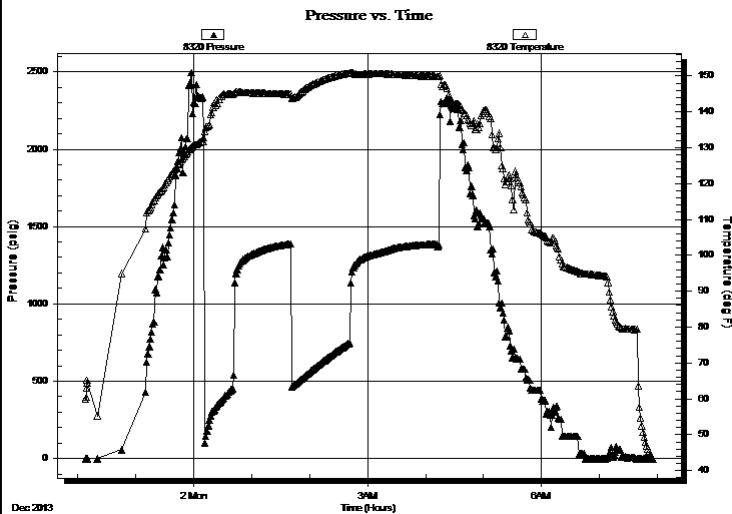
28-2s-41w Cheyenne KS
Zimelman #1-28
 Job Ticket: 55877 **DST#: 2**
 Test Start: 2013.12.01 @ 22:08:05

GENERAL INFORMATION:

Formation: LKC "J - K"	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: James Winder
Time Tool Opened: 00:09:45	Unit No: 57
Time Test Ended: 07:55:15	Reference Elevations: 3667.00 ft (KB)
Interval: 4689.00 ft (KB) To 4830.00 ft (KB) (TVD)	3657.00 ft (CF)
Total Depth: 4830.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair

Serial #: 8320	Outside	Capacity: 8000.00 psig
Press@RunDepth: psig @ 4690.00 ft (KB)	Start Date: 2013.12.01	Last Calib.: 2013.12.02
Start Time: 22:08:05	End Date: 2013.12.02	Time On Btm:
End Time: 07:56:00	Time Off Btm:	

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 4 3/4 min.
 60 - IS: Blow back built to 3"
 60 - FF: Blow built to BOB in 6 3/4 min.
 90 - FS: Blow back built to BOB in 35 min.



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

Recovery		
Length (ft)	Description	Volume (bbl)
465.00	MCW w/trace oil 75%w, 25%m	2.29
380.00	WCM w/Oil spots 61%m, 29%w, 7%g	34.47
475.00	GOCM 72%m, 16%g, 12%o	6.66
410.00	CGO 77%o, 23%g	5.75
0.00	GIP = 150'	0.00

* Recovery from multiple tests

Gas Rates			
Time (Min.)	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimelman #1-28

Job Ticket: 55877

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2013.12.01 @ 22:08:05

Tool Information

Drill Pipe:	Length: 4123.00 ft	Diameter: 3.80 inches	Volume: 57.83 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: 559.00 ft	Diameter: 2.25 inches	Volume: 2.75 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 60.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4689.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	141.00 ft			
Tool Length:	169.00 ft			
Number of Packers:	2	Diameter: 7.88 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4666.00	
Hydraulic tool	5.00			4671.00	
Jars	5.00			4676.00	
Safety Joint	3.00			4679.00	
Packer	5.00			4684.00	28.00 Bottom Of Top Packer
Packer	5.00			4689.00	
Packer - Shale	0.00			4689.00	
Stubb	1.00			4690.00	
Recorder	0.00	8671	Inside	4690.00	
Recorder	0.00	8320	Outside	4690.00	
Perforations	8.00			4698.00	
Blank Spacing	128.00			4826.00	
Perforations	1.00			4827.00	
Bullnose	3.00			4830.00	141.00 Bottom Packers & Anchor

Total Tool Length: 169.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

28-2s-41w Cheyenne KS

250 N. Water STE 300
Wichita, KS 67202

Zimelman #1-28

Job Ticket: 55877

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2013.12.01 @ 22:08:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

27 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

26000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
465.00	MCW w /trace oil 75%w , 25%m	2.287
380.00	WCM w /Oil spots 61%m, 29%w , 7%g, 3%o	4.474
475.00	GOCM 72%m, 16%g, 12%o	6.663
410.00	CGO 77%o, 23%g	5.751
0.00	GIP = 150'	0.000

Total Length: 1730.00 ft Total Volume: 19.175 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

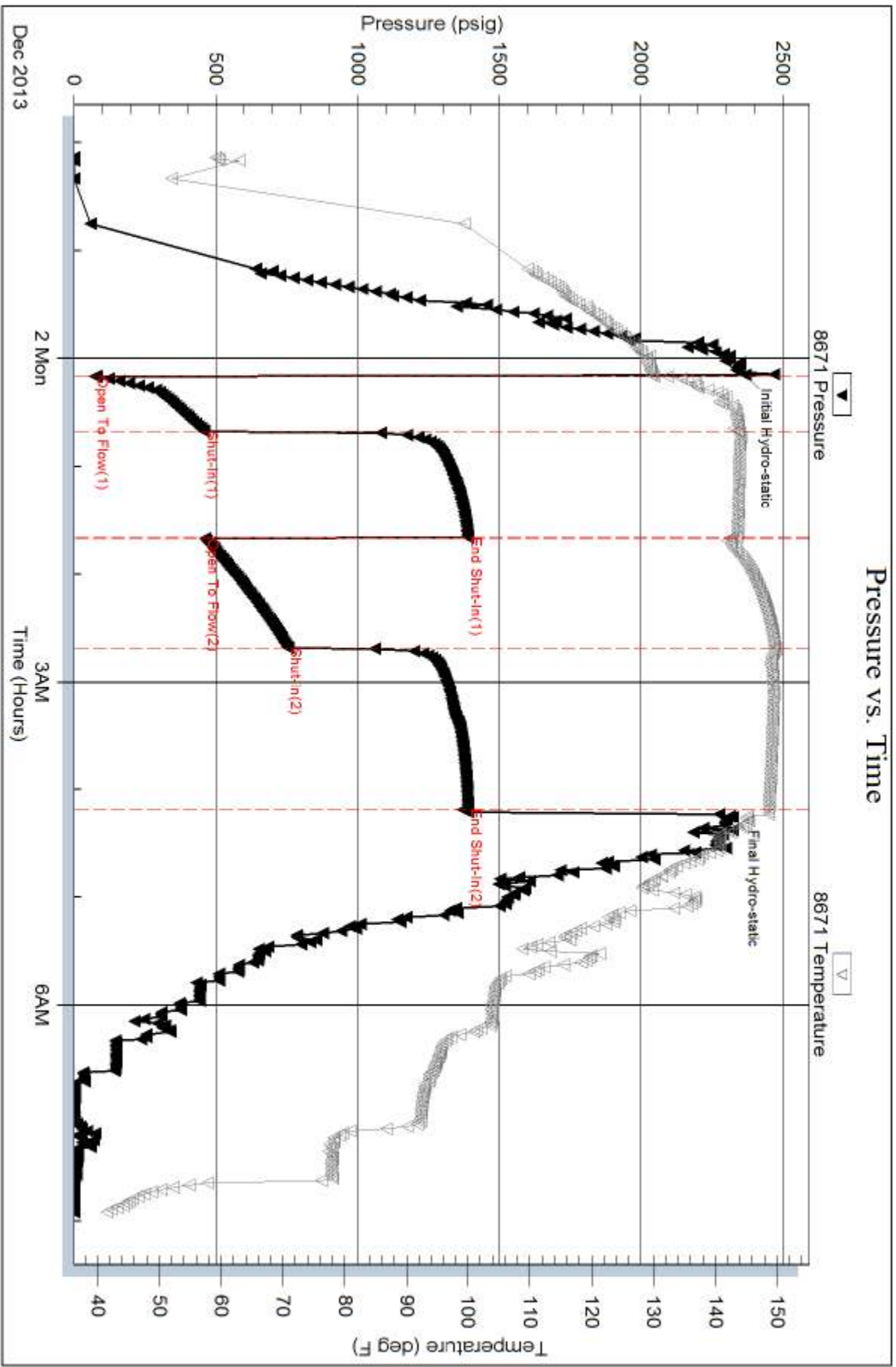
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 25 api @ 40 deg F Corrected Gravity = 27 api

RW = .292 ohms @ 64.6 deg F Chlorides = 26,000 ppm

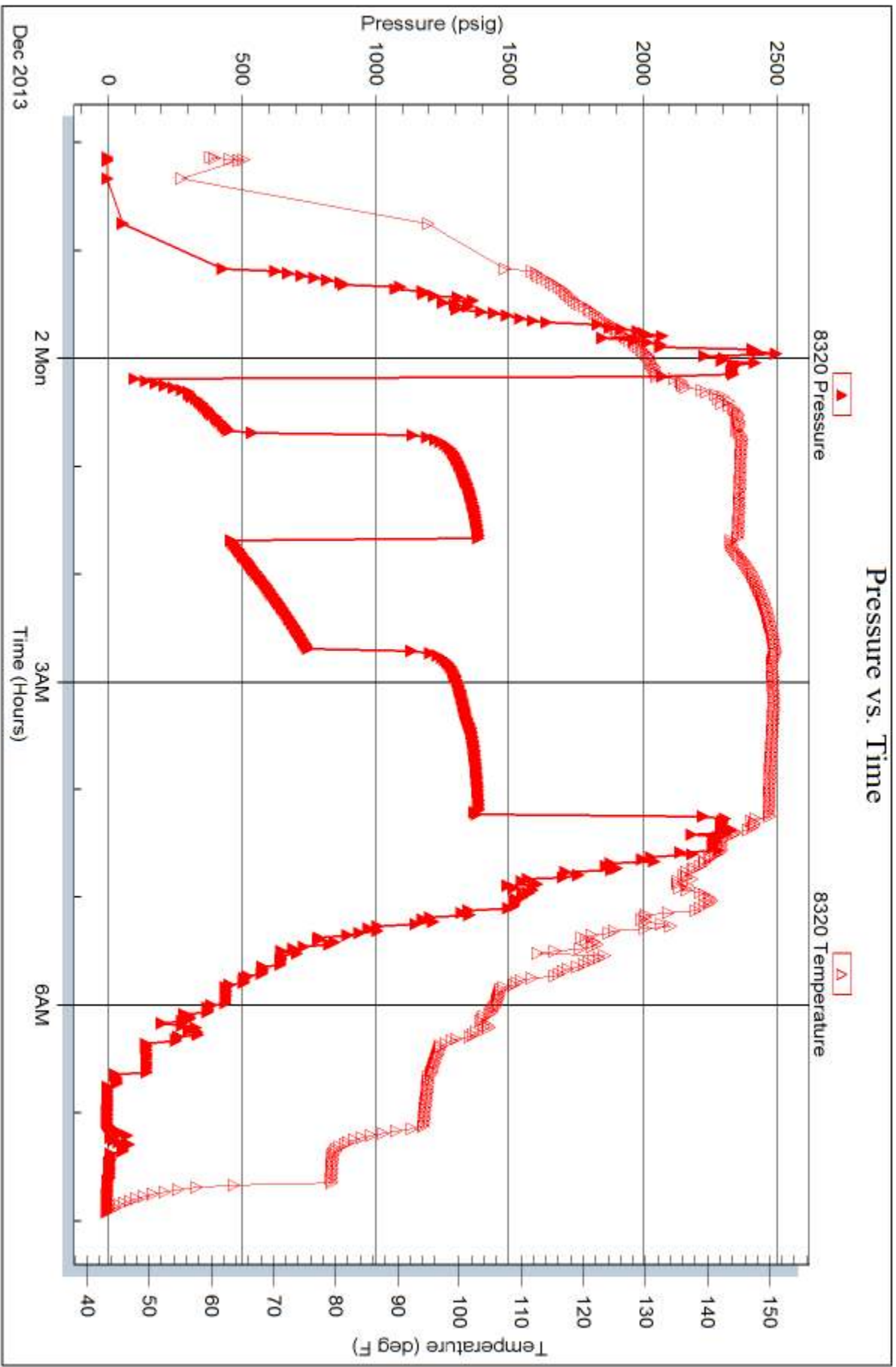


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Zimbelman #1-28

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 55877

Printed: 2013.12.05 @ 10:01:40



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55876

Well Name & No. Zimbelman #1-28 Test No. 1 Date 11-30-13
 Company Murfin Drilling Co. Inc. Elevation 3667 KB 3657 GL
 Address 250 N. Water Suite 300 Wichita KS ~~67202~~ 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #14
 Location: Sec. 28 Twp. 25 Rge. 41w Co. Cheyenne State KS

Interval Tested 4490 - 4620 Zone Tested LKC "A-D"
 Anchor Length 130 Drill Pipe Run 3933 Mud Wt. 9.1
 Top Packer Depth 4485 Drill Collars Run 559 Vis 64
 Bottom Packer Depth 4490 (shale) Wt. Pipe Run - WL 6.0
 Total Depth 4620 Chlorides 600 ppm System LCM 4

Blow Description IF 4" Blow ^{at open} built to 1" in 10 min., stayed at 1" through open
ISI: No blowback
FF: No blow
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>OCM</u>	<u>3</u>	<u>21</u>	<u>-</u>	<u>76</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

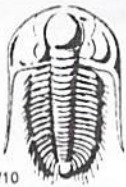
Rec Total 45 BHT 135 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2277 Test X 1250 T-On Location 18:00
 (B) First Initial Flow 23 Jars X 250 T-Started 19:20
 (C) First Final Flow 31 Safety Joint X 75 T-Open 21:28
 (D) Initial Shut-In 783 Circ Sub XNA T-Pulled 00:29
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 3:10
 (F) Second Final Flow 39 Mileage 162RT 251.10 Comments _____
 (G) Final Shut-In 693 Sampler _____
 (H) Final Hydrostatic 2258 Straddle _____ Ruined Shale Packer _____
 Shale Packer X 250 Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 2076.10
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 2076.10

Approved By _____ Our Representative James Winder

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. **55877**

4/10

Well Name & No. Zimbelman #1-28 Test No. 2 Date 12-1-13
 Company Murfin Drilling Co. Inc Elevation 3667 KB 3657 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #14
 Location: Sec. 28 Twp. 2S Rge. 41W Co. Cheyenne State KS

Interval Tested 4689 - 4830 Zone Tested LKC "J-K"
 Anchor Length 141 Drill Pipe Run 4123 Mud Wt. 9.1
 Top Packer Depth 4684 Drill Collars Run 559 Vis 56
 Bottom Packer Depth 4689 Wt. Pipe Run - WL 5.6
 Total Depth 4830 Chlorides 600 ppm System LCM 4

Blow Description IF: Blow built to BOB in 4 3/4 min. (BOB is 11")
ISI: Blowback built to 3"
FF: Blow built to BOB in 6 3/4 min
FSI: Blowback built to BOB at 35 min.

Rec	Feet of	%gas	%oil	%water	%mud
410	C60	23	77	-	-
475	GOCM	16	12	-	72
380	wcm w/oil spots	7	3	29	61
465	MCW w/trace of oil	-	trace	75	25
	GIP=150'				

Rec Total _____ BHT 149 Gravity 27 API RW .292 @ 64.6 °F Chlorides 26,000 ppm

(A) Initial Hydrostatic 2369 Test * 1250 T-On Location 21:45 12/1
 (B) First Initial Flow 74 Jars * 250 T-Started 22:08
 (C) First Final Flow 459 Safety Joint * 75 T-Open 00:09
 (D) Initial Shut-In 1391 Circ Sub * T-Pulled 4:10
 (E) Second Initial Flow 464 Hourly Standby _____ T-Out 7:50 12/2
 (F) Second Final Flow 756 Mileage 162 RTX 2 502.20 Comments _____
 (G) Final Shut-In 1392 Sampler _____
 (H) Final Hydrostatic 2323 Straddle _____ Ruined Shale Packer _____
 Shale Packer * 250 Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 1600
 Final Flow 60 Day Standby * Tools loaded 17:15 Total 3927.20
 Final Shut-In 90 Accessibility 1d 33.5h 12/4 MP/DST Disc't _____
 Sub Total 2327.20

Approved By _____ Our Representative James Winder

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.

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **Martin Drilling Co., Inc.**
LEASE: **Zimbabwe #1-28**

FIELD: **Wildcat**
LOCATION: **330' FSJ & 330' FWJ**
SEC: **28** TWP: **2S** RGE: **41W**
COUNTY: **Cheyenne** STATE: **Kansas**
CONTRACTOR: **Martin Drilling #14**
RPTD: **11/25/13** COMP: **12/06/13**
MUD UP: **5450'** LTD: **5444'**
MUD TYPE: **3505'** TYPE MUD: **Chemical**

SAMPLES SAVED FROM: **4240'** TO RTD
DRILLING TIME KEPT FROM: **4240'** TO RTD
SAMPLES EXAMINED FROM: **4240'** TO RTD
GEOLOGICAL SUPERVISION FROM: **3940'**

REFERENCE WELL: **Rate "A" #1-1-32**
CND: **D.L. MEL, Samir**
Pioneer Wellfire

ELEVATIONS
KB: **3667'**
DF: _____
GL: **3657'**
Measurements Are All From Kelly Bushing

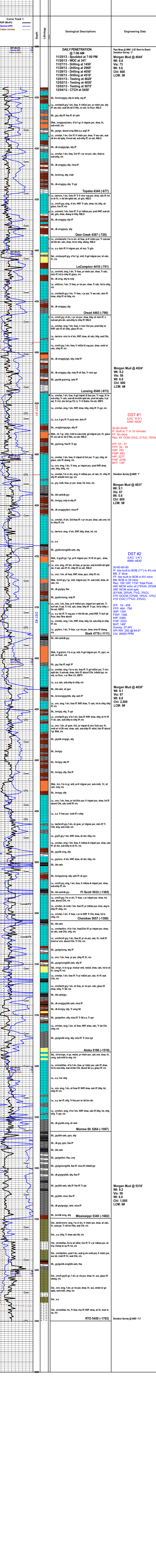
CASING
CONDUCTOR: _____
SURFACE: **8-5/8"** at **377'**
PRODUCTION: **5-1/2"** at **543'**

Formation	Sample Tops	E-log Tops	Stand Pos.
Amber Admudite	3563 (+64)	3596 (+107)	+1
Timberlake	4341 (+74)	4344 (+77)	-4
Orestad	4458 (-70)	4463 (-73)	-10
Leeward	4538 (-87)	4540 (-87)	-8
Stark	4786 (-119)	4788 (-111)	-8
Marathon	4901 (-234)	4894 (-227)	-18
Cherokee	5060 (-393)	5057 (-390)	-23
Mississippi	5351 (-684)	5349 (-682)	DNR

REMARKS: Due to fair to good shows of oil in multiple pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,
API #15-023-21374
Saman Sharifaie
Petroleum Geologist

*Tops have been adjusted to electric logs



RTD 5450' (-1783)
Deviation Survey @ 5450': 1/2"



*new.
Prod-LA*

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 1400 15

Invoice Date: Nov 26, 2013

Page: 1

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

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	61196	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Nov 26, 2013	12/26/13

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Zimbelman #1-28		
330.00	CEMENT MATERIALS	Class A Common	17.90	5,907.00
12.00	CEMENT MATERIALS	Chloride	64.00	768.00
346.50	CEMENT SERVICE	Cubic Feet Charge	2.48	859.32
1,677.37	CEMENT SERVICE	Ton Mileage Charge	2.60	4,361.16
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
105.00	CEMENT SERVICE	Pump Truck Mileage	7.70	808.50
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
105.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	462.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	OPERATOR ASSISTANT	Kevin Ryan		
1.00	OPERATOR ASSISTANT	Chris Helpingstine		

Subtotal	14,953.23
Sales Tax	544.01
Total Invoice Amount	15,497.24
Payment/Credit Applied	
TOTAL	15,497.24

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

\$ 5,233.63 *ok 306*

ONLY IF PAID ON OR BEFORE
Dec 21, 2013

ok 2

5233.63

ALLIED OIL & GAS SERVICES, LLC 061196

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Chickley, KS

DATE	26/10	SEC.	28	TWP.	2	RANGE	41	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE	Zimbel mor	WELL #	1-28	LOCATION	ST Francis W to 27 N to 70			COUNTY	Cherokee	STATE	KS
OLD OR NEW (Circle one)	NEW			Second Curve, W of S 4 E into							

CONTRACTOR Murfin 14

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 341 1/2

CASING SIZE 8 5/8 DEPTH 341

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 65'

PERFS.

DISPLACEMENT 20.7 lb

OWNER

CEMENT AMOUNT ORDERED 330 SKs Com

390 cc

COMMON 330 @ 17.92 5907.60

POZMIX @

GEL @

CHLORIDE 12 @ 64.00 768.00

ASC @

HANDLING 346.80 @ 2.462 859.32

MILEAGE 262.70 @ 700/mile 183,690

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan

423-281 HELPER Kevin Ryan

BULK TRUCK

396 DRIVER Chris Helplingline

BULK TRUCK

DRIVER

REMARKS:

Run Log, Circulate, mix Cement, Displace Cement

Shut in

Cement Displ Circulate

6 bbl to P:7

T pump Alan Kevin Chris

SERVICE

DEPTH OF JOB 341

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @ 8.97

MILEAGE 105 miles @ 7.20 802.20

MANIFOLD @ 2.75 275.00

LiTelahico 105 miles @ 4.40 462.00

CHARGE TO: Murfin Drilling

STREET

CITY STATE ZIP

TOTAL 11,895.50

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.

PLUG & FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

PRINTED NAME Cory Churuk

SIGNATURE Cory Churuk

SALES TAX (If Any) _____

TOTAL CHARGES 14,953.25

DISCOUNT 5,233.63 IF PAID IN 30 DAYS

9,719.61 Net.



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well S
Dept. 970
P.O. Box 434
Houston, TX 77210

Accts
cc: WT
cc: Liz
cc: L-1

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

INVOICE

Invoice # 264568

Invoice Date: 12/11/2013 Terms: 10/10/30,n/30

Page 1

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

ZIMBELMAN 1-28
44577
28-2S-41W
12-04-2013
KS

USED FOR 16 03
APPROVED JR
FH

Part Number	Description	Qty	Unit Price	Total
1126	OIL WELL CEMENT	350.00	23.7000	8295.00
1110A	KOL SEAL (50# BAG)	1750.00	.5600	980.00
4159	FLOAT SHOE AFU 5 1/2"	1.00	433.7500	433.75
4136	TURBOLIZER 5 1/2"	16.00	75.7500	1212.00
4104	CEMENT BASKET 5 1/2"	1.00	290.0000	290.00
4454	5 1/2" LATCH DOWN PLUG	1.00	318.2500	318.25
1102	CALCIUM CHLORIDE (50#)	200.00	.9400	188.00
1111A	SODIUM METASILICATE	200.00	2.5200	504.00
1142A	KCL SUB MB6875 CC3107 (1	2.00	41.1000	82.20
4315	ROTATING SCRATCHERS	10.00	94.5000	945.00
4310	ROTATING HEAD	1.00	150.0000	150.00

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-1339.82
9995-130	CEMENT EQUIPMENT DISCOUNT	-647.17
5117-130	LESS 4 HOURS RIG TIME	-2000.00

Description	Hours	Unit Price	Total
399 CEMENT PSI CHARGES	1.00	3400.00	3400.00
399 EQUIPMENT MILEAGE (ONE WAY)	90.00	5.25	472.50
T-129 TON MILEAGE DELIVERY	1.00	2599.20	2599.20

Amount Due 20961.87 if paid after 01/10/2014

Parts:	13398.20	Freight:	.00	Tax:	982.77	AR	16865.68
Labor:	.00	Misc:	.00	Total:	16865.68		
Sublt:	-3986.99	Supplies:	.00	Change:	.00		

Signed _____

Date _____

BARTLESVILLE, OK 918/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-8822 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914 CUSHING, OK 918/225-2650



CONSOLIDATED
Oil Well Services, LLC

264568

TICKET NUMBER 44577
LOCATION Oakley KS
FOREMAN Jerry Fuzzy

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

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-4-13	5406	Zimelman 1-28	28	25	41W	Cherokee
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			399	Jeremy S		
CITY			529-7129	Steven O		
STATE			assist	bke H		
ZIP CODE						

JOB TYPE long string HOLE SIZE 7 1/8 HOLE DEPTH 5450 CASING SIZE & WEIGHT 5 1/2 15.5
CASING DEPTH 5439 DRILL PIPE _____ TUBING _____ OTHER 130 tols (j)
SLURRY WEIGHT 14.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 2 1/2'
DISPLACEMENT 129661 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on Mursin 14 run float equip, turbolizers on 1, 3, 5, 7, 9, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23 basket on bottom of 23 run casing to jet 65, circulate 20 minutes running to bottom pump ball thru & circulate thr. pump & to check flush w/ 5661 spacer ahead, between, & after mix 300 sks OWC shutdown release plug & wash pump & lines and displace with 20 bbl KCL and 108 bbl fresh water plug landed @ 2100' w/ 1750' lift psi, released & float held cement equipment difficulties less 4 hrs rig time @ 500 phr.

Thank you Jerry, Fuzzy & crew

20 sks MH + 30 sks RH

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401P	1	PUMP CHARGE	3400 ⁰⁰	3400 ⁰⁰
5406	90	MILEAGE	5 ²⁵	472 ⁵⁰
5407A	16.5	ton mileage delivery	1 ⁷⁵	2599 ²⁰
1126	350 sks	OWC	23 ⁷⁰	8295 ⁰⁰
1110A	1750 [#]	Kal seal	5 ⁶	980 ⁰⁰
4159	1	5 1/2 AFU Float shoe (I)	433 ⁷⁵	433 ⁷⁵
4136	16	5 1/2 turbolizers (I & W)	75 ⁷⁵	1212 ⁰⁰
4104	1	5 1/2 basket (W)	290 ⁰⁰	290 ⁰⁰
4454	1	5 1/2 latch down assy (I)	318 ²⁵	318 ²⁵
1102	200 [#]	calcium chloride	94	188 ⁰⁰
1111A	200 [#]	metasilicate	2 ⁵²	504 ⁰⁰
1142A	2 gal	KCL	41 ¹⁰	82 ²⁰
4315	1.0	rotating scratcher	94 ⁵⁰	945 ⁰⁰
4310	1	rotating head	150 ⁰⁰	150 ⁰⁰
		sub total		19869 ⁹⁰
		less		1986 ⁹⁹
		sub total		17882 ⁹¹
		less 4 hrs Rig Time	-2000 ⁰⁰	15882 ⁹¹
		SALES TAX		982 ⁷⁷
		ESTIMATED TOTAL		16865 ⁶⁸

Ravin 3737

AUTHORIZATION Burd Sales 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.