



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1136641
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: _____



1136641

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> _____ <i>(Submit ACO-4)</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

April 25, 2013

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

Re: ACO1
API 15-153-20915-00-00
Brown Farms 1-1
NE/4 Sec.01-05S-31W
Rawlins County, Kansas

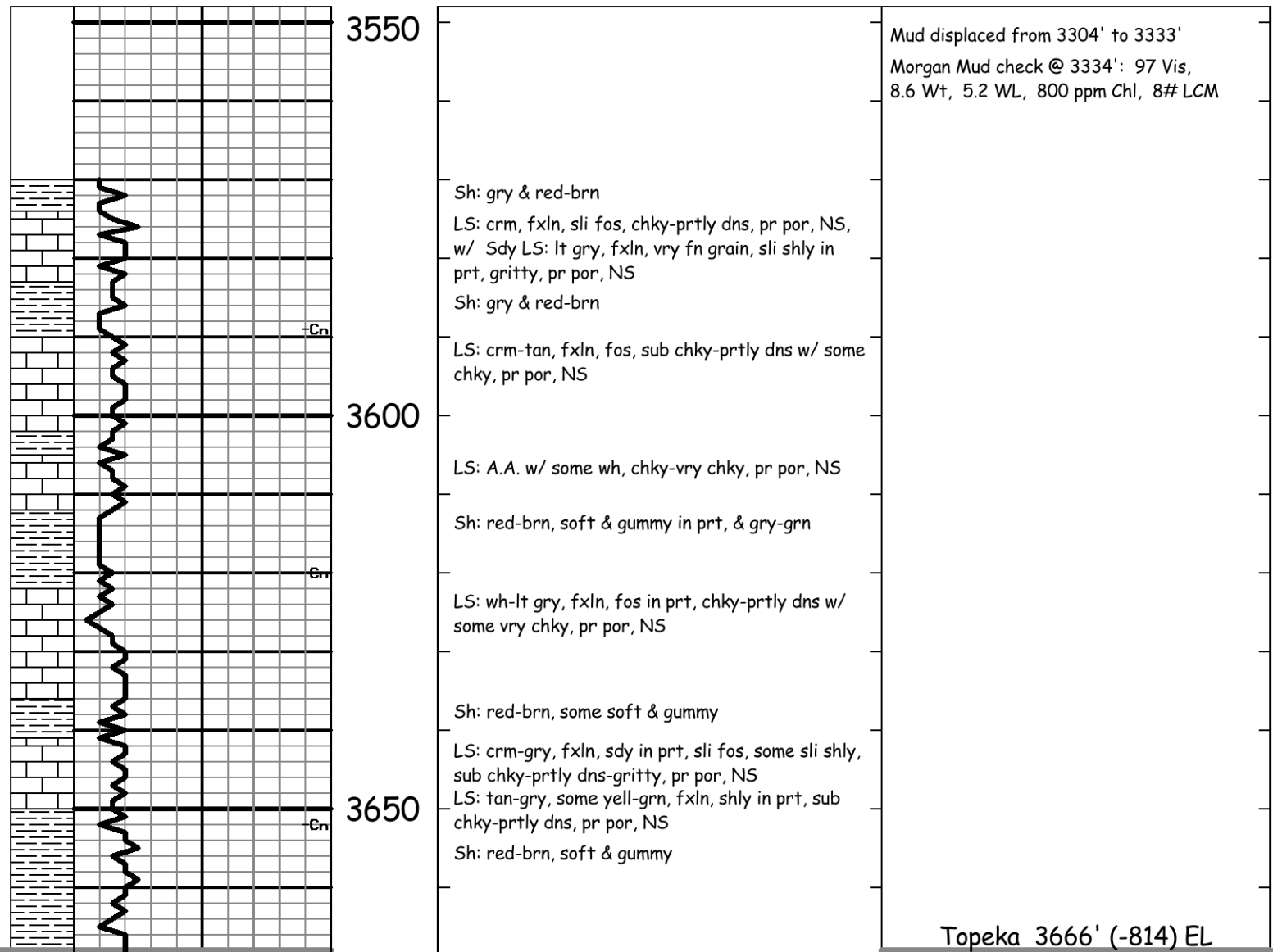
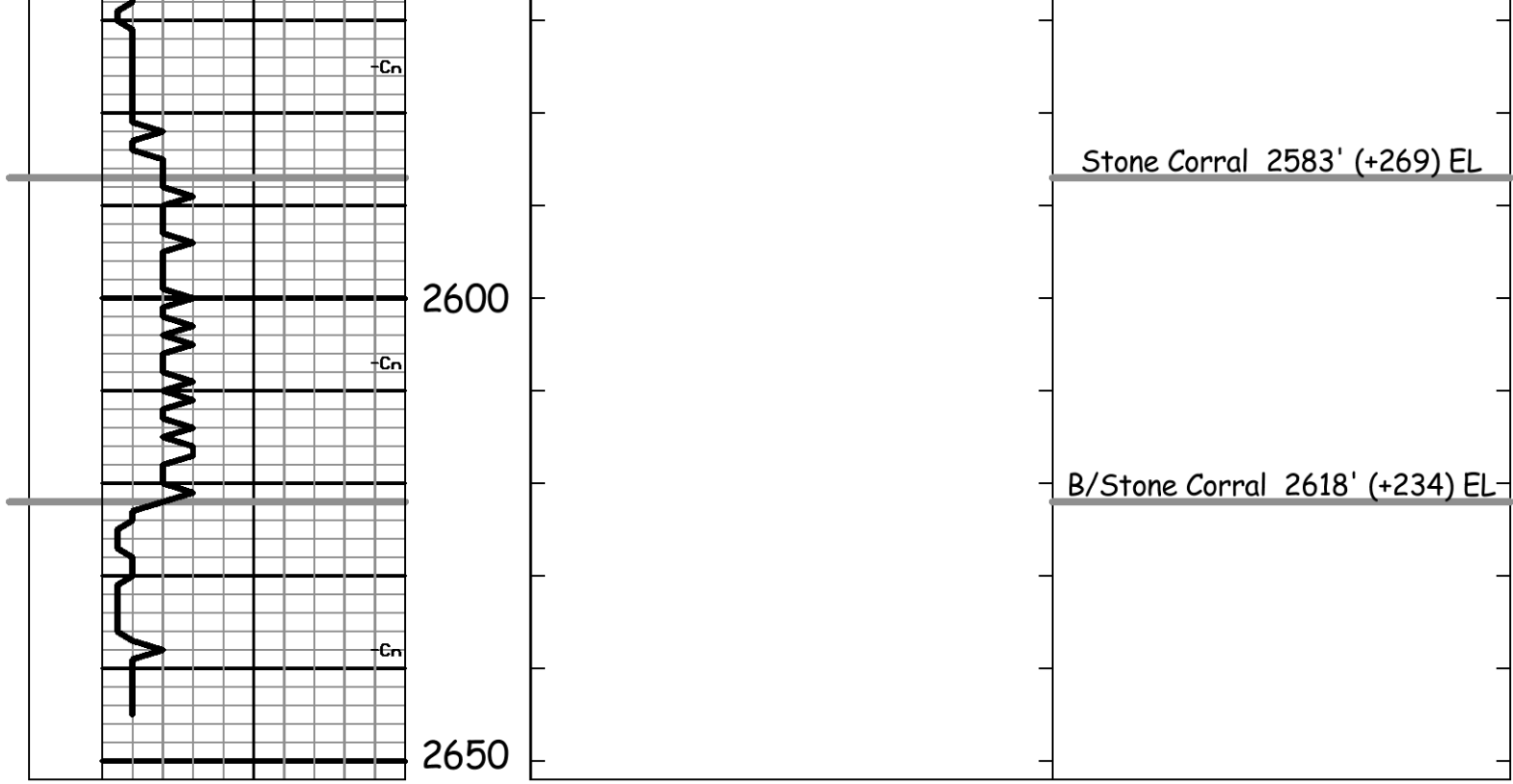
Dear Production Department:

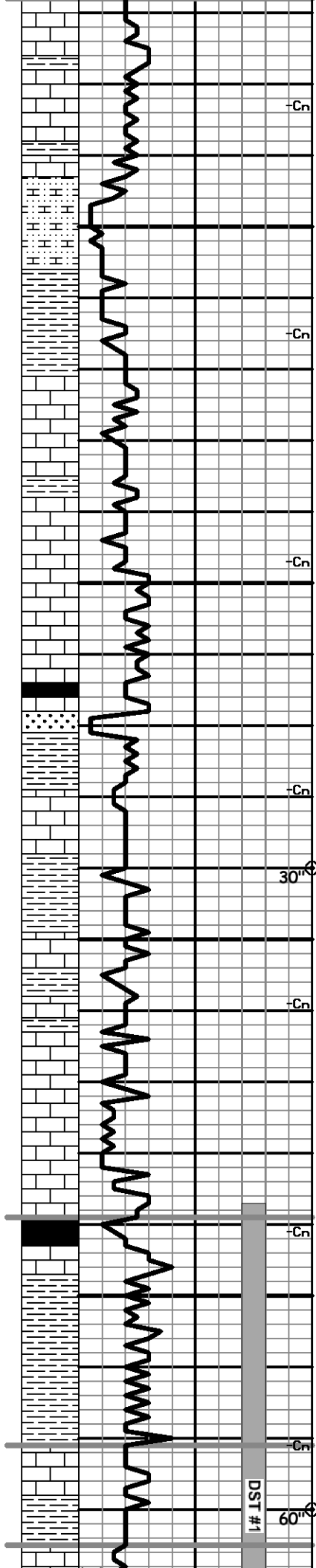
We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

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

Respectfully,
Leon Rodak

Brown Farms #1-1 2150' FNL 500' FEL Sec. 1-5S-31W 2852' KB						Zola Unit #1-1 1400' FNL 1200' FEL Sec. 1-5S-31W 2871' KB		
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2584	+268	+3	2582	+270	+5	2606	+265
B/Anhydrite	2622	+230	Flat	2617	+235	+5	2641	+230
Topeka	3671	-819	-2	3666	-814	+3	3688	-817
Heebner	3839	-987	Flat	3836	-984	+3	3858	-987
Lansing	3887	-1035	Flat	3884	-1032	+3	3906	-1035
Stark	4050	-1198	+1	4049	-1197	+2	4070	-1199
BKC	4103	-1251	Flat	4100	-1248	+3	4122	-1251
Pawnee	4217	-1365	-3	4214	-1362	Flat	4233	-1362
Ft Scott	4285	-1433	+1	4284	-1432	+2	4305	-1434
Cherokee	4297	-1445	+1	4296	-1444	+2	4317	-1446
Mississippi	4410	-1558	+1	4410	-1558	+1	4430	-1559
RTD	4510						4490	
LTD				4508			4492	





LS: wh-gry, fxln, fos-ool in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS

LS: A.A.

LS: crm, fxln, fos in prt, chk-prt dns pr por, NS

Sdy LS-Calc Sd: crm-lt gry, fn-vry fn grain sd, pr fr vis por, NS

Sh: red-brn, sdy in prt, soft & gummy in prt

LS: wh-crm, fxln, fos in prt, vry chky-prtly dns, some fr fos por, NS

LS: wh-lt gry, fxln, fos in prt, sub chky-prtly dns w/ some chky-vry chky, some fr fos por, NS

LS: A.A. w/ incrs lt gry, sub chky-prtly dns, pr por, NS

Sh: Black Carb

LS: brn, fxln, fos, prt dns, pr por, NS

Sd: lt-med gry, fn-vry fn grain, shly in prt, soft-brittle, pr vis por, NS

LS: crm-lt gry, fxln, sli fos, sub chky-prtly dns w/ some chky, pr por, NS

Sh: red-brn, some sdy, some soft & gummy, some gry

LS: crm-lt gry, fxln, sli fos, sub chky-prtly dns w/ some chky, pr por, NS

Sh: lt-med gry, some soft & gummy

LS: A.A.

LS: wh-crm, fxln, fos in prt, vry chky-sub chky w/ some prtly dns, some pr-fr fos por, NS

LS: crm-lt gry, fxln, sub chky-prtly dns, pr por, NS

Sh: Black Carb

LS: tan-brn, fxln, sli fos, prtly dns, pr por, NS

Sd: gry, fn-vry fn grain, calc, sli shly, mstly brittle, pr vis por, NS

Sh: red-brn, soft & gummy, some grn & gry

Sh: red-brn, some soft & gummy, w/ gry & grn, & some Sdy Sh: grn

LS: wh-crm, fxln, ool-fos in prt, sub chky-prtly dns, pr-fr w/ some gd intrprt-vug por, fr amnt drk brn-blk patchy-sat stn, F-GSFO (brn-blk beads, bleeding, some irreg-sluggish), sli odor

Sh: red-brn & grn, mstly soft & gummy

LS: wh-lt gry, fxln, sli fos-ool, sub chky-prtly dns,

DST #1 3837'-3922' Toronto-LKC 'B'

IF: BOB in 15" ISI: no blow back

FF: BOB in 18" FSI: 3" blow back

Rec: 541' TOTAL FLUID:

107' MCO (70% O, 30% M)

124' OCWM (30% O, 20% W, 50% M)

124' OCMW (15% O, 55% W, 30% M)

186' Oil Sptd MW (1% O, 70% W, 19% M)

Chl ppm: 15,000 DST; 900 Mud

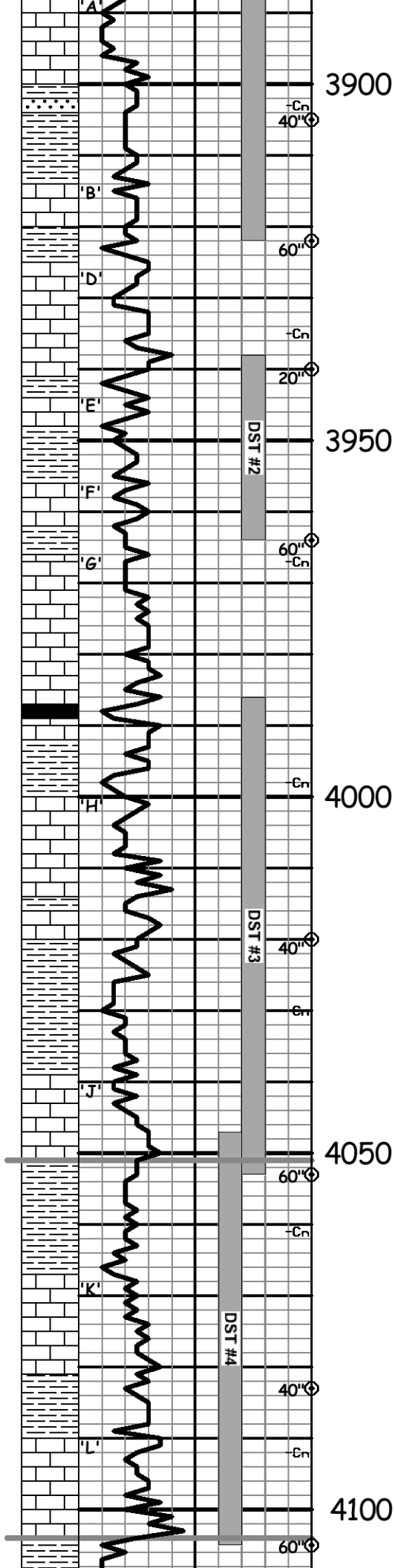
IFP: 28-152#/30" ISIP: 1250#/60"

FFP: 153-265#/60" FSIP: 1233#/90"

Heebner 3837' (-985) EL

Toronto 3869' (-1017) EL

Lansing 3883' (-1031) EL



pr-fr w/ tr intrprt-vug por, scat mstly blk sptd-sat stn, S-FSFO (some thick-hvy oil), no odor.

3900
 Sd: lt grn, fn-vry fn grain, sli shly, calc, mstly brittle, pr vis por, NS
 Sh: red-brn, soft & gummy, some gry & grn

• LS: crm, fxln, ool-fos in prt, sub chky-prtly dns, pr-fr intrprt por, scat med brn-blk sub sat-sat stn, FSFO, no odor

• LS: wh-lt gry, fxln, fos-ool in prt, chty (clr-gry, fresh, mstly semi transl), chky-prtly dns, fr-gd intrprt-vug por, scat med-drk brn sub sat-sat stn, S-FSFO (some thick-hvy oil), sli odor (sour?)
 LS: crm-lt gry, fxln, sub chk-prt dns, pr por, NS

3950
 • LS: mstly crm-lt gry, fxln, sub chk-prt dns, pr por, NS & pcs look like cavings w/ stn & SFO A.A.
 Sh: red-brn, gry, grn

• LS: crm-tan, fxln, fos-ool in prt, sub chky-prtly dns, fr-gd intrprt-small vug por, scat lt-drk brn sub sat-sat stn, FSFO, fnt odor

• LS: wh-lt gry, fxln, sli fos, sli chty (wh-lt gry), chky-prtly dns, pr-fr fos-vug por, vry scat lt-drk brn sptd-sat stn & tr blk tarry sptd stn, SSFO w/ few pcs FS, no odor

• LS: crm-lt gry, fxln, sli fos, sli chty, sub chky-prtly dns, pr w/ tr fr fos-vug por, vry scat lt brn sub sat-sat stn, SSFO w/ cpl pcs FS, no odor
 Sh: Blk Carb (trace) & drk gry
 LS: gry-tan, fxln, prtly dns, pr por, NS
 Sh: red-brn, gry, grn

4000
 • LS: wh-tan, fxln, sli fos, sli chty (crm), sub chky-prtly dns, pr-fr w/ some gd fos-vug por, scat lt-med brn sptd-sub sat stn, SSFO w/ cpl pcs FS, no odor

LS: crm-tan, fxln, sli fos (fusl), sub chk-prt dns, pr por, NS
 Sh: red-brn, soft & gummy in prt, some gry & grn

Sh: A.A.

• LS: wh-lt gry, fxln, fos in prt, sub chky-prtly dns w/ some chky, pr-fr w/ some gd fos-vug por, scat lt brn sptd-sat stn, S-FSFO, fnt odor

4050
 Sh: med gry, red-brn
 Sh: red-brn w/ gry & grn

• LS: crm-lt gry, fxln, sli fos-ool, sub chky-prtly dns w/ some chky, pr w/ tr fr fos por, scat lt-med brn sptd-sat stn, SSFO w/ some pcs FS, no odor

Sh: red-brn & gry, some grn

LS: crm-tan, fxln, sli fos, shly in prt (red-brn, mottled), sub chky-prtly dns, pr por, NS
 LS: gry, fxln, shly, gritty-prtly dns, pr por, NS

4100
 Sh: gry-grn & red-brn
 Sh: red-brn soft & gummy in prt some lt gry soft

Ran 28 stand short trip prior to DST #1

Pipe Strap @ 3922': Strap long 1.38'
 Straight Hole Survey @ 3922': 0.5° Dev.

Morgan Mud check @ 3922': 67 Vis,
 9.0 Wt, 5.2 WL, 900 ppm Chl, 5# LCM

DST #2 3938'-3964' LKC 'F' zn
 IF: BOB in 1" ISI: BOB in 30"
 FF: BOB in 1" FSI: BOB in 10"
 Rec: 1,364' GIP & 1,302' TOTAL FLUID:
 496' GO (40% G, 60% O)
 620' GO (30% G, 70% O)
 186' MCO (60% O, 40% M)
 Oil Gravity 33° API
 IFP: 114-382#/30" ISIP: 942#/60"
 FFP: 398-550#/30" FSIP: 880#/60"
 (dumped 248' GO, reversed out 868' GO into frac tank, dumped 186' MO below circ sub)

Morgan Mud check @ 3964': 61 Vis,
 9.1 Wt, 6.0 WL, 2,000 ppm Chl, 5# LCM

After DST #2, samples carried an increase of vcol shales

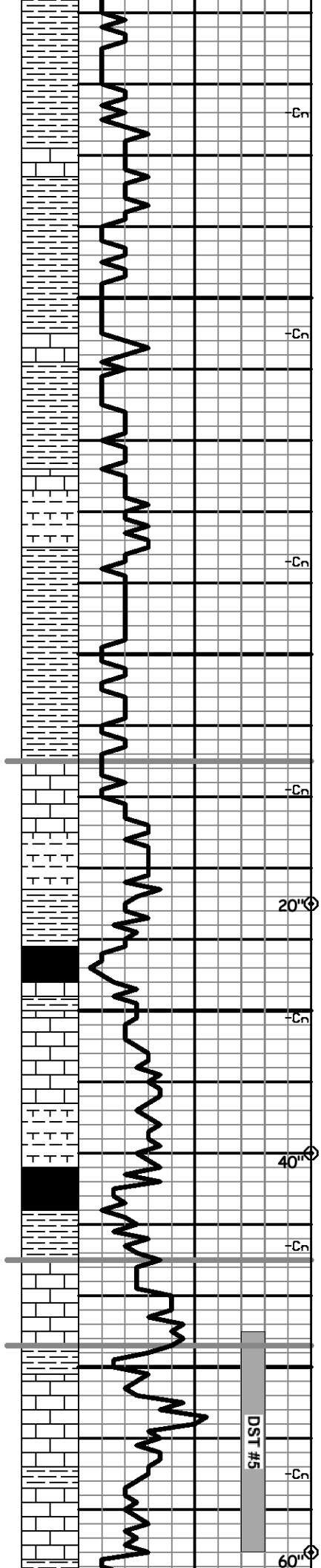
DST #3 3986'-4053' LKC 'H'-'J' zns
 IF: BOB in 12" ISI: 3" blow back
 FF: BOB in 4" FSI: 7" blow back
 Rec: 465' GIP & 341' TOTAL FLUID:
 93' GO (20% G, 80% O)
 248' GWCOM (20%G, 20%O, 10%W, 50%M)
 Oil Gravity 42° API
 IFP: 22-99#/30" ISIP: 1088#/60"
 FFP: 104-145#/60" FSIP: 1080#/90"

Stark 4050' (-1198) EL

Morgan Mud check @ 4053': 47 Vis,
 8.9 Wt, 5.2 WL, 2,000 ppm Chl, 5# LCM

DST #4 4047'-4105' LKC 'K'-'L' zns
 IF: blow built to 1"
 FF: blow built to 0.5" & remained thruout
 Rec: 5' OCM (35% O, 65% M)
 IFP: 17-21#/30" ISIP: 471#/60"
 FFP: 20-25#/60" FSIP: 180#/90"

B/KC 4103' (-1251) EL



Sh: red-brn, some soft & gummy, w/ gry & grn

Sh: red-brn, some soft & gummy, w/ gry & grn

LS: crm-tan, fxln, fos-ool in prt, sub chky-prtly dns, pr por, NS

Sh: red-brn, gry, grn, brn

Sh: lt gry, soft & gummy, red-brn, gry

4150

LS: crm-tan, fxln, shly in prt (red-brn, mottled), sub chky-prtly dns, pr por, NS

Sh: red-brn, gry, some grn

Sh: red-brn, w/ gry, grn, brn

LS: crm-lt gry, fxln, sub chk-prt dns, pr por, NS

Calc Sh: purple-brn, w/ Sh: A.A.

Sh: red-brn, some soft & gummy, some gry, gry, brn

4200

Sh: med gry, some soft & gummy, some drk gry

Sh: red-brn, mstly soft & gummy, some gry

● LS: wh-crm, fxln, ool (small)-fos in prt, vry chky-prtly dns, pr por, 1 pc w/ brn sptd stn & cpl pin point beads FO (caving?), no odor

Calc Sh: lt gry, soft & gummy in prt

20" Ⓢ

Sh: Black Carb & drk gry

4250

LS: lt brn, fxln, sli fos, prtly dns, pr por, NS

LS: wh-tan, fxln, ool (small) in prt, sli chty (org), vry chky-prtly dns, some pr-fr fos-pin point por, NS

Shly LS: med gry, fxln, hrd, gritty, pr por, NS, w/ Calc Sh: med gry

40" Ⓢ

Sh: Black Carb-drk gry, w/ some med gry

Sh: med gry, some grn, some Calc Sh: lt gry

4300

LS: crm-tan, fxln, fos in prt, sub chky-prtly dns w/ some chky, pr por, NS

● LS: wh-tan, fxln, fos in prt, sub chky-prtly dns, pr por, rare brn sptd-edge stn, NSFO, no odor

Sh: Black Carb-drk gry

● LS: wh-tan, fxln, fos in prt, some sdy, sub chk-prt dns w/ some chk, some pr-fr intrprt-vug por, scat brn-blk sptd-sub sat stn, SSFO, no odor

● Sd: wh-crm, fn grain, calc, sli glauc & pyr, mstly brittle, pr vis por, scat brn-blk sub sat-sat stn, VSSFO, no odor, & LS: A.A. w/ stn & SFO

LS: crm-tan, fxln, sub chky-prtly dns w/ some chky, pr por, NS

Sh: red-brn soft & gummy in prt, gry, some grn

Morgan Mud check @ 4110': 51 Vis, 9.1 Wt, 5.6 WL, 2,300 ppm Chl, 6# LCM

Pawnee 4214' (-1362) EL

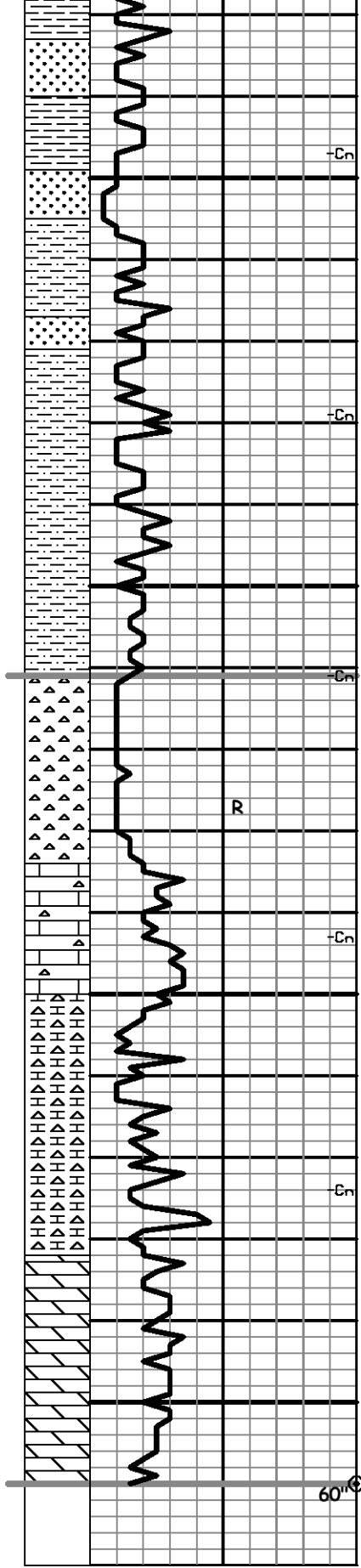
Ft. Scott 4284 (-1432) EL

Cherokee 4296' (-1444) EL

DST #5 4295'-4326' Verdigris
 IF: blow built to 0.5", then died @ 20 min.
 FF: no blow
 Rec: 5' Mud w/ oil spots
 IFP: 15-17#/30" ISIP: 27#/60"
 FFP: 15-17#/30" FSIP: 22#/60"

Ran 9 stand short trip prior to DST #5

Morgan Mud check @ 4326': 76 Vis,



Sh: red-brn, gry, some grn, w/ small amnt Sd: clr, fn-med w/& some crs grains, some calc, sli glauc, fri-semi brittle, pr vis por, NS & tr loose crs grains, sub rnd-sub ang, NS

4350

Sd: clr-crm, med-crs grain, calc in prt, sli glauc, semi fri, pr-fr por, NS
 Sh: red-brn w/ gry, grn & some vry scat pcs of
 • LS: pr-fr fos-vug por, brn-blk sptd-sub sat stn, some live stn, NSFO, no odor (appear to be cavings)
 Sd: A.A., NS

Sh: red-brn, some soft & gummy, gry, grn, brn, w/ Sd: clr-reddish, fn-med w/ some crs grain, some sli calc, some shly (red-brn), semi fri-brittle, pr-fr por, NS, & some loose crs grains, sub rnd-sub ang, NS

4400

Sh A.A. w/ some yell, & dcrs amnt of Sd: A.A., incrs shly (red-brn), NS

Sh & Sd: A.A.

4450

Cht: wh-crm w/ some yell, fresh & weathered, some semi transl, fr pin point por in weathered cht, NS

R

Cht: A.A., some fos, 50% fresh/50% weathered, NS

LS: crm-tan, fxln, sub chky-prtly dns w/ some chky, pr por, NS w/ Cht: A.A.

4500

Chty LS: wh-crm, fxln vry chky-prtly dns, some vug por, NS w/ Cht: wh-crm, fresh & weathered, some transl, fr-gd pin point por in weathered cht, NS

A.A.

Dol: crm-tan, fxln, some suc, chty (crm, fresh), sub chky-prtly dns, some pr-fr intrxln-pin point por, NS

Dol: A.A. w/ incrs suc, some vug por, NS

Dol: A.A., w/ some wh, chky-vry chky, NS

9.2 Wt, 5.2 WL, 2,300 ppm Chl, 6# LCM

Miss. 4410' (-1558) EL

Ran 8 stand short trip @ TD, prior to running electric logs

L.T.D. 4509' (-1657)
 R.T.D. 4510' (-1658)

Straight Hole Survey @ 4510': 0.5° Dev.



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Rocky Milford

Brown Farms #1-1

1-5s-31w Rawlins,KS

Start Date: 2013.01.01 @ 12:30:00

End Date: 2013.01.01 @ 21:05:00

Job Ticket #: 043025 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.07 @ 13:13:29



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N. Water Ste. 300
 Wichita KS 67202
 ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
 Job Ticket: 043025 **DST#: 1**
 Test Start: 2013.01.01 @ 12:30:00

GENERAL INFORMATION:

Formation: **Toronto-LKC-B**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:32:30
 Time Test Ended: 21:05:00
 Interval: **3837.00 ft (KB) To 3922.00 ft (KB) (TVD)**
 Total Depth: 3922.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Charles Kreutzer Jr.
 Unit No: 61
 Reference Elevations: 2852.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 5.00 ft

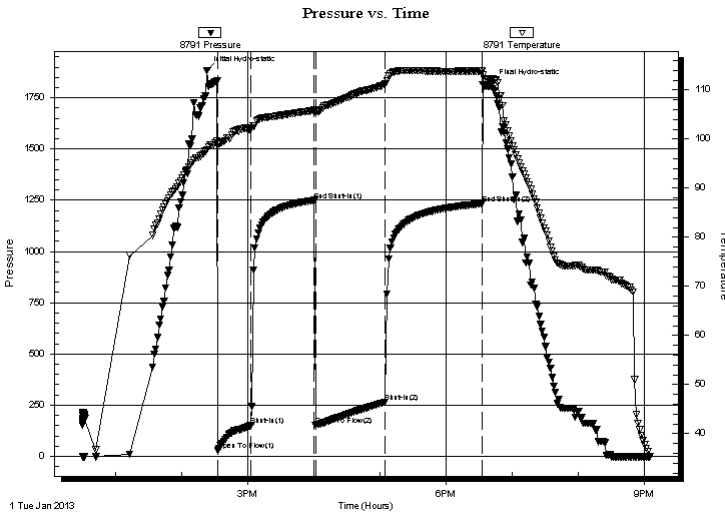
Serial #: 8791

Inside

Press @ Run Depth: 264.87 psig @ 3838.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.01 End Date: 2013.01.01 Last Calib.: 2013.01.01
 Start Time: 12:30:01 End Time: 21:05:00 Time On Btm: 2013.01.01 @ 14:23:00
 Time Off Btm: 2013.01.01 @ 18:41:30

TEST COMMENT: IF: Fair blow , Built to B.O.B in 15 mins.(30)
 IS: No blow back over 60 mins.
 FF: Fair blow , Built to B.O.B in 18 mins.(60)
 FS: Blow back after 5 mins. Built to 3 in. over 90 mins.

PRESSURE SUMMARY



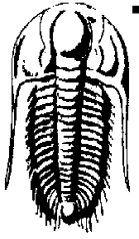
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.94	97.87	Initial Hydro-static
10	28.01	99.08	Open To Flow (1)
40	151.85	102.22	Shut-In(1)
98	1249.70	105.96	End Shut-In(1)
99	152.57	105.52	Open To Flow (2)
162	264.87	111.22	Shut-In(2)
250	1232.90	113.89	End Shut-In(2)
259	1819.13	112.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	osmw -1%o19%m70%w	0.91
124.00	ocmw -15%o30%m55%w	1.74
124.00	ocw m-20%w 30%o50%m	1.74
107.00	ocm-30%m70%o	1.50

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
Job Ticket: 043025 **DST#: 1**
Test Start: 2013.01.01 @ 12:30:00

GENERAL INFORMATION:

Formation:	Toronto-LKC-B		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened:	14:32:30		Tester: Charles Kreutzer Jr.
Time Test Ended:	21:05:00		Unit No: 61
Interval:	3837.00 ft (KB) To 3922.00 ft (KB) (TVD)		Reference Elevations: 2852.00 ft (KB)
Total Depth:	3922.00 ft (KB) (TVD)		2847.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft

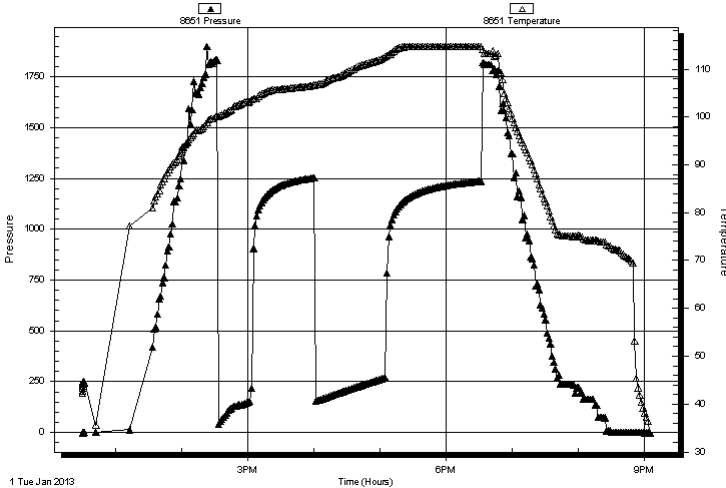
Serial #: 8651

Outside

Press @ RunDepth:	psig @	3838.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2013.01.01	End Date:	2013.01.01	Last Calib.:	2013.01.01
Start Time:	12:30:01	End Time:	21:05:00	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF: Fair blow , Built to B.O.B in 15 mins.(30)
 IS! No blow back over 60 mins.
 FF: Fair blow , Built to B.O.B in 18 mins.(60)
 FS! Blow back after 5 mins. Built to 3 in. over 90 mins.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	osmw -1%o19%m70%w	0.91
124.00	ocmw -15%o30%m55%w	1.74
124.00	ocw m-20%w 30%o50%m	1.74
107.00	ocm-30%m70%o	1.50

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 043025

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.01.01 @ 12:30:00

Tool Information

Drill Pipe:	Length: 3631.00 ft	Diameter: 3.80 inches	Volume: 50.93 bbl	Tool Weight: 2400.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 51.84 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3837.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3814.00	
Hydraulic tool	5.00			3819.00	
Jars	5.00			3824.00	
Safety Joint	3.00			3827.00	
Packer	5.00			3832.00	28.00 Bottom Of Top Packer
Packer	5.00			3837.00	
Stubb	1.00			3838.00	
Recorder	0.00	8791	Inside	3838.00	
Recorder	0.00	8651	Outside	3838.00	
Perforations	2.00			3840.00	
change Over Sub	1.00			3841.00	
Drill Pipe	62.00			3903.00	
Change Over Sub	1.00			3904.00	
Perforations	15.00			3919.00	
Bullnose	3.00			3922.00	85.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 043025

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.01.01 @ 12:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
186.00	osmw -1%o19%m70%w	0.915
124.00	ocmw -15%o30%m55%w	1.739
124.00	ocw m-20%w 30%o50%m	1.739
107.00	ocm-30%m70%o	1.501

Total Length: 541.00 ft

Total Volume: 5.894 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

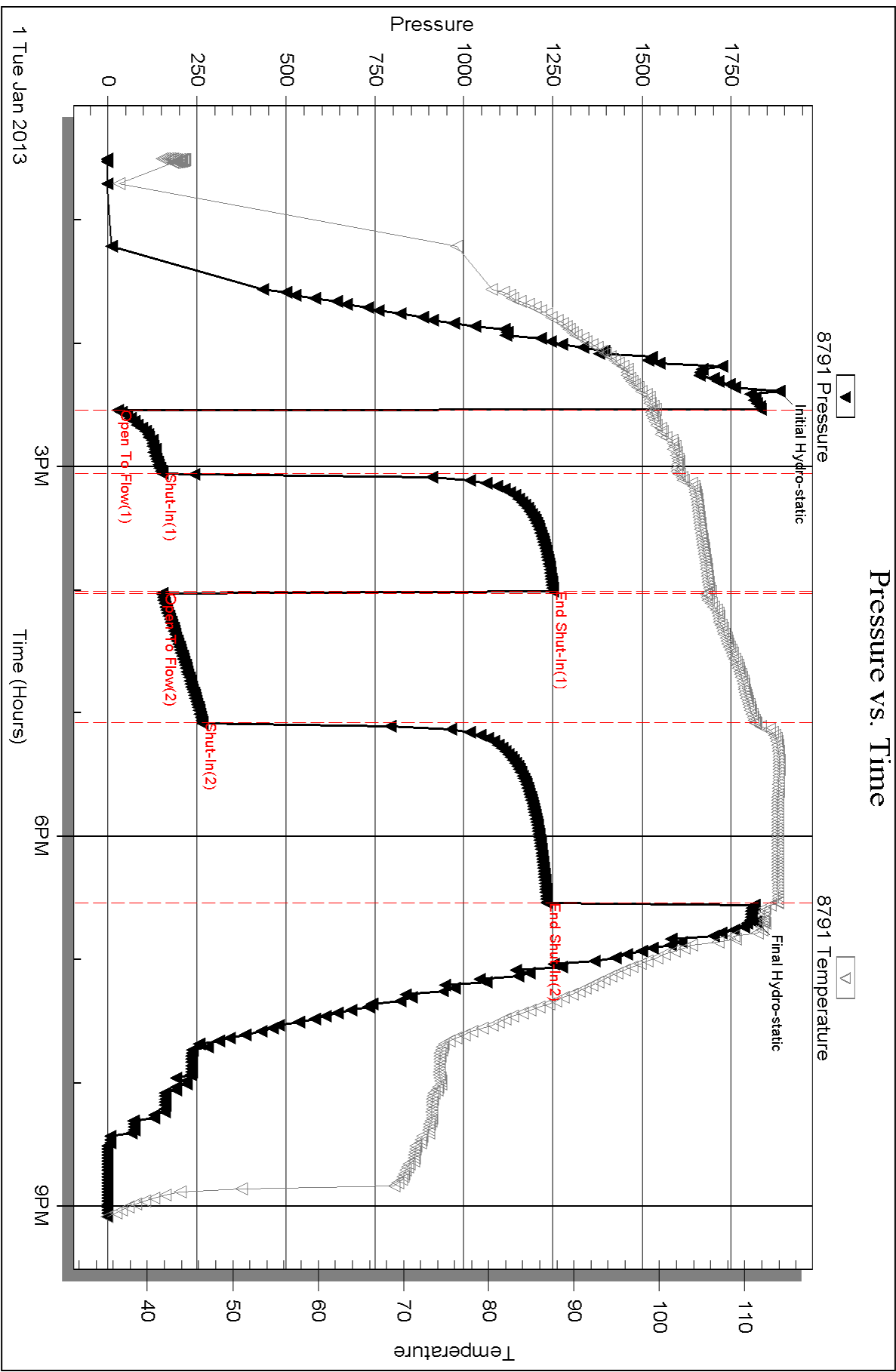
Serial #: 8791

Inside

Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 1

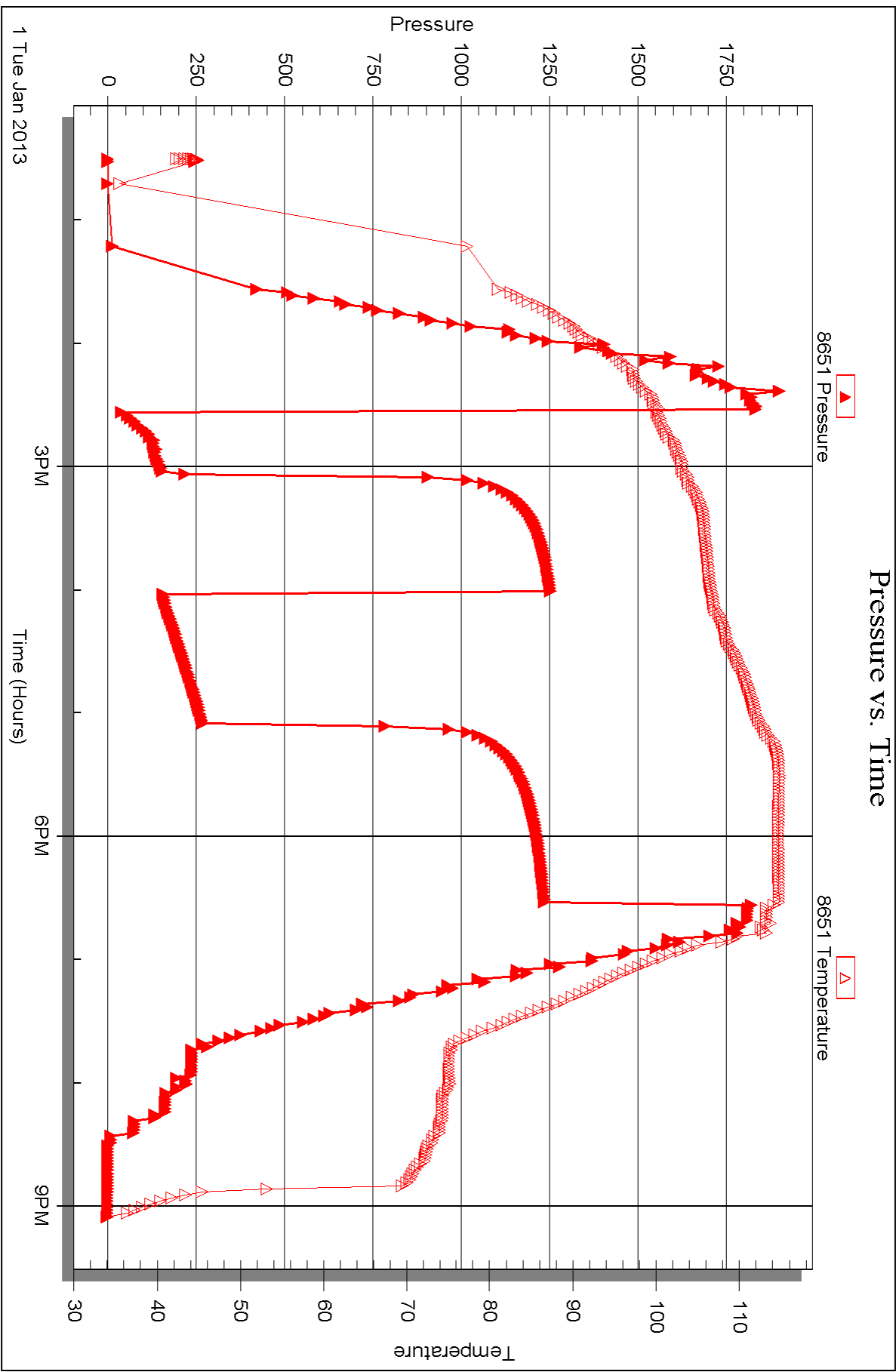


Serial #: 8651

Outside Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Rocky Milford

Brown Farms #1-1

1-5s-31w Rawlins,KS

Start Date: 2013.01.02 @ 06:15:00

End Date: 2013.01.02 @ 15:30:00

Job Ticket #: 48027 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.07 @ 13:12:15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
Job Ticket: 48027 **DST#: 2**
Test Start: 2013.01.02 @ 06:15:00

GENERAL INFORMATION:

Formation: **LKC-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:54:30
Time Test Ended: 15:30:00
Interval: 3938.00 ft (KB) To 3964.00 ft (KB) (TVD)
Total Depth: 3964.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2852.00 ft (KB)
2847.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Charles Kreuzer Jr.
Unit No: 61

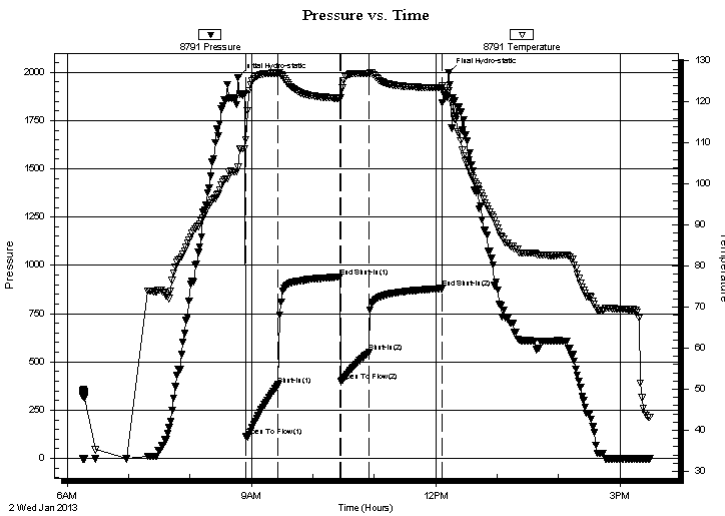
Serial #: 8791

Inside

Press @ Run Depth: 550.36 psig @ 3939.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.01.02 End Date: 2013.01.02 Last Calib.: 2013.01.02
Start Time: 06:15:01 End Time: 15:30:00 Time On Btm: 2013.01.02 @ 08:47:00
Time Off Btm: 2013.01.02 @ 12:12:30

TEST COMMENT: IF: Strong blow , Built to B.O.B in 1 min.(30)
IS: Blow back after 1 min. Built to B.O.B in 30 mins.(60)
FF: Strong blow , Built to B.O.B in 1 min.(30)
FSI: Blow back after 1 sec. Built to B.O.B in 10 mins.(60)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1971.70	104.04	Initial Hydro-static
8	113.65	110.80	Open To Flow (1)
39	381.61	127.01	Shut-In(1)
100	941.55	120.84	End Shut-In(1)
101	397.70	120.99	Open To Flow (2)
128	550.36	126.91	Shut-In(2)
199	880.32	123.43	End Shut-In(2)
206	1999.37	122.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	mco-40% m60%	0.91
620.00	go-30% g70%	8.70
496.00	go-40% g60%	6.96
0.00	1364ft 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 Co.
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
Job Ticket: 48027 **DST#: 2**
Test Start: 2013.01.02 @ 06:15:00

Tool Information

Drill Pipe:	Length: 3754.00 ft	Diameter: 3.80 inches	Volume: 52.66 bbl	Tool Weight: 2400.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 53.57 bbl</u>	Tool Chased 45.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3938.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3915.00	
Hydraulic tool	5.00			3920.00	
Jars	5.00			3925.00	
Safety Joint	3.00			3928.00	
Packer	5.00			3933.00	28.00 Bottom Of Top Packer
Packer	5.00			3938.00	
Stubb	1.00			3939.00	
Recorder	0.00	8791	Inside	3939.00	
Recorder	0.00	8651	Outside	3939.00	
Perforations	2.00			3941.00	
Perforations	20.00			3961.00	
Bullnose	3.00			3964.00	26.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Witchita KS 67202

Brown Farms #1-1

Job Ticket: 48027

DST#: 2

ATTN: Rocky Milford

Test Start: 2013.01.02 @ 06:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	mco-40%m60%o	0.915
620.00	go-30%g70%o	8.697
496.00	go-40%g60%o	6.958
0.00	1364ft gas in pipe	0.000

Total Length: 1302.00 ft

Total Volume: 16.570 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

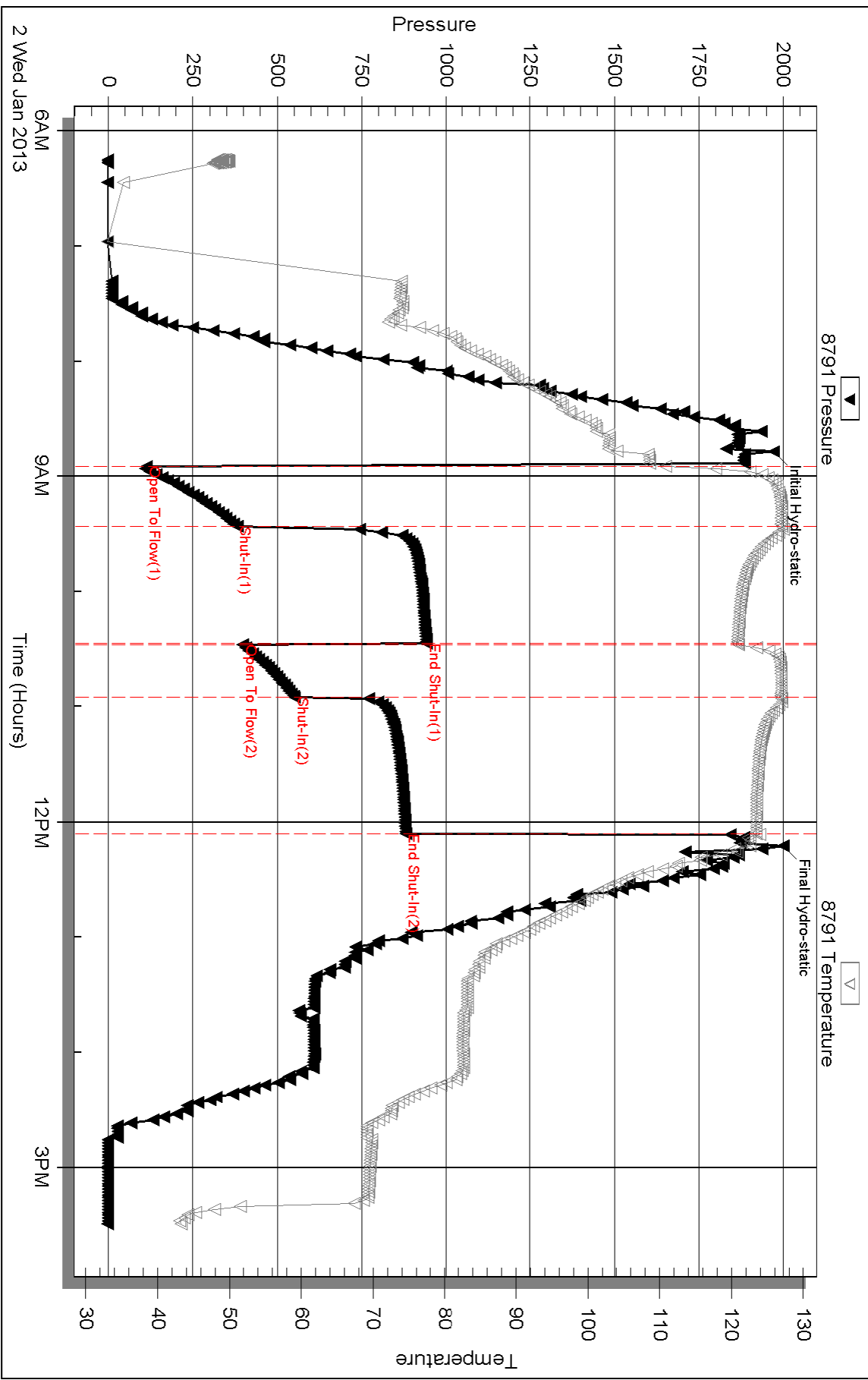
Inside

Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48027

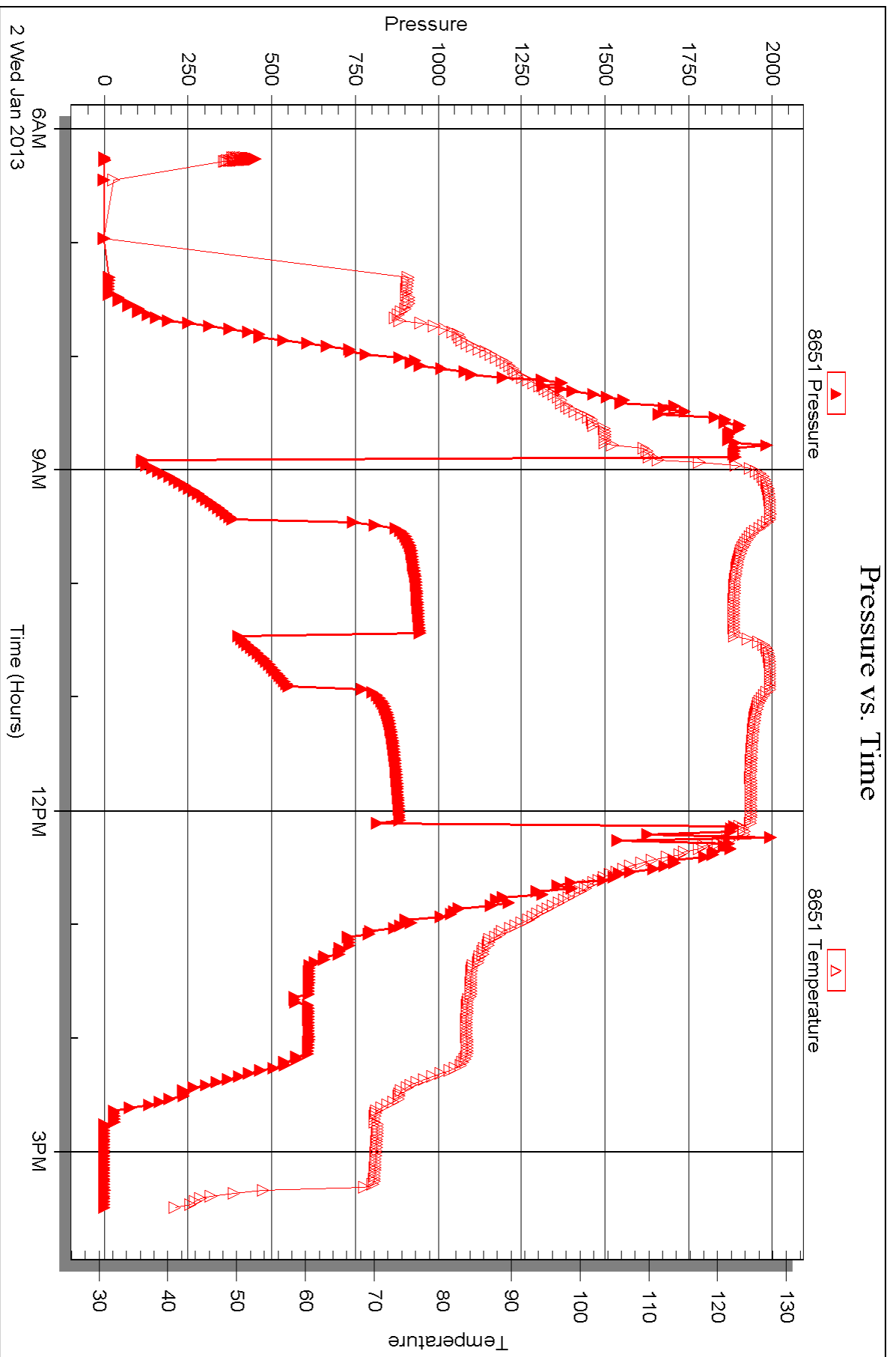
Printed: 2013.01.07 @ 13:12:19

Serial #: 8651

Outside Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Rocky Milford

Brown Farms #1-1

1-5s-31w Rawlins,KS

Start Date: 2013.01.03 @ 02:35:00

End Date: 2013.01.03 @ 12:04:00

Job Ticket #: 48028 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.07 @ 13:10:10

Murfin Drilling Co. 1-5s-31w Rawlins,KS Brown Farms #1-1 DST # 3 LKC-H,I 2013.01.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N. Water Ste. 300
 Wichita KS 67202
 ATTN: Rocky Milford

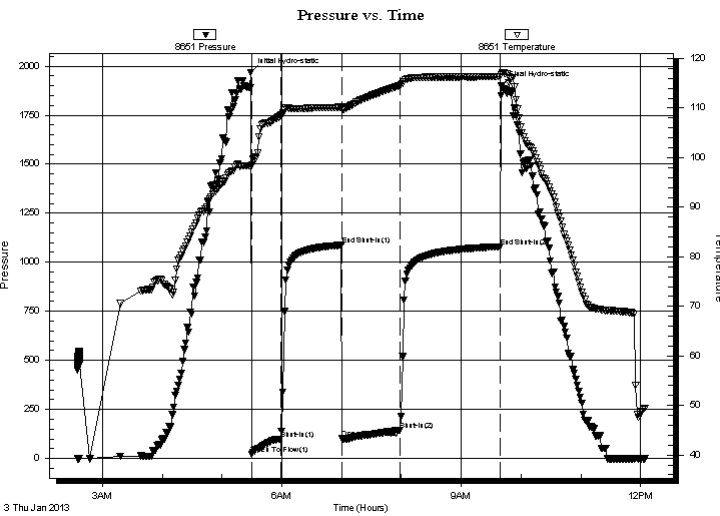
1-5s-31w Rawlins,KS
Brown Farms #1-1
 Job Ticket: 48028 **DST#: 3**
 Test Start: 2013.01.03 @ 02:35:00

GENERAL INFORMATION:

Formation: **LKC-H,I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:29:30
 Time Test Ended: 12:04:00
 Interval: **3986.00 ft (KB) To 4053.00 ft (KB) (TVD)**
 Total Depth: 4053.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Charles Kreutzer Jr.
 Unit No: 61
 Reference Elevations: 2852.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8651 Outside
 Press @ RunDepth: 144.82 psig @ 3987.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.03 End Date: 2013.01.03 Last Calib.: 2013.01.03
 Start Time: 02:35:01 End Time: 12:04:00 Time On Btm: 2013.01.03 @ 05:28:30
 Time Off Btm: 2013.01.03 @ 09:40:30

TEST COMMENT: IF: Fair blow , Built to B.O.B in 12 mins.(30)
 IS: Blow back after 3 mins. Built to 3 in. over 60 mins.
 FF: Strong blow , Built to B.O.B in 4 mins.(60)
 FS: Blow back after 3mins. Built to 7 in. over 90 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.72	98.46	Initial Hydro-static
1	21.61	98.44	Open To Flow (1)
30	98.65	108.39	Shut-In(1)
92	1087.83	110.21	End Shut-In(1)
92	104.16	109.92	Open To Flow (2)
150	144.82	114.60	Shut-In(2)
250	1080.19	116.37	End Shut-In(2)
252	1899.01	116.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	gw com-20%g10%w 20%o50%m	1.78
93.00	go-20%g80%o	1.30
0.00	465ft. 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 Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48028

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.01.03 @ 02:35:00

Tool Information

Drill Pipe:	Length: 3790.00 ft	Diameter: 3.80 inches	Volume: 53.16 bbl	Tool Weight:	2400.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 54.07 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3986.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	67.00 ft				
Tool Length:	95.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Shut In Tool	5.00			3963.00	
Hydraulic tool	5.00			3968.00	
Jars	5.00			3973.00	
Safety Joint	3.00			3976.00	
Packer	5.00			3981.00	28.00 Bottom Of Top Packer
Packer	5.00			3986.00	
Stubb	1.00			3987.00	
Recorder	0.00	8791	Inside	3987.00	
Recorder	0.00	8651	Outside	3987.00	
Perforations	2.00			3989.00	
change Over Sub	1.00			3990.00	
Drill Pipe	31.00			4021.00	
Change Over Sub	1.00			4022.00	
Perforations	28.00			4050.00	
Bullnose	3.00			4053.00	67.00 Bottom Packers & Anchor

Total Tool Length: 95.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48028

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.01.03 @ 02:35:00

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	gw com-20%g10%w 20%o50%m	1.784
93.00	go-20%g80%o	1.305
0.00	465ft. gas in pipe	0.000

Total Length: 341.00 ft

Total Volume: 3.089 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

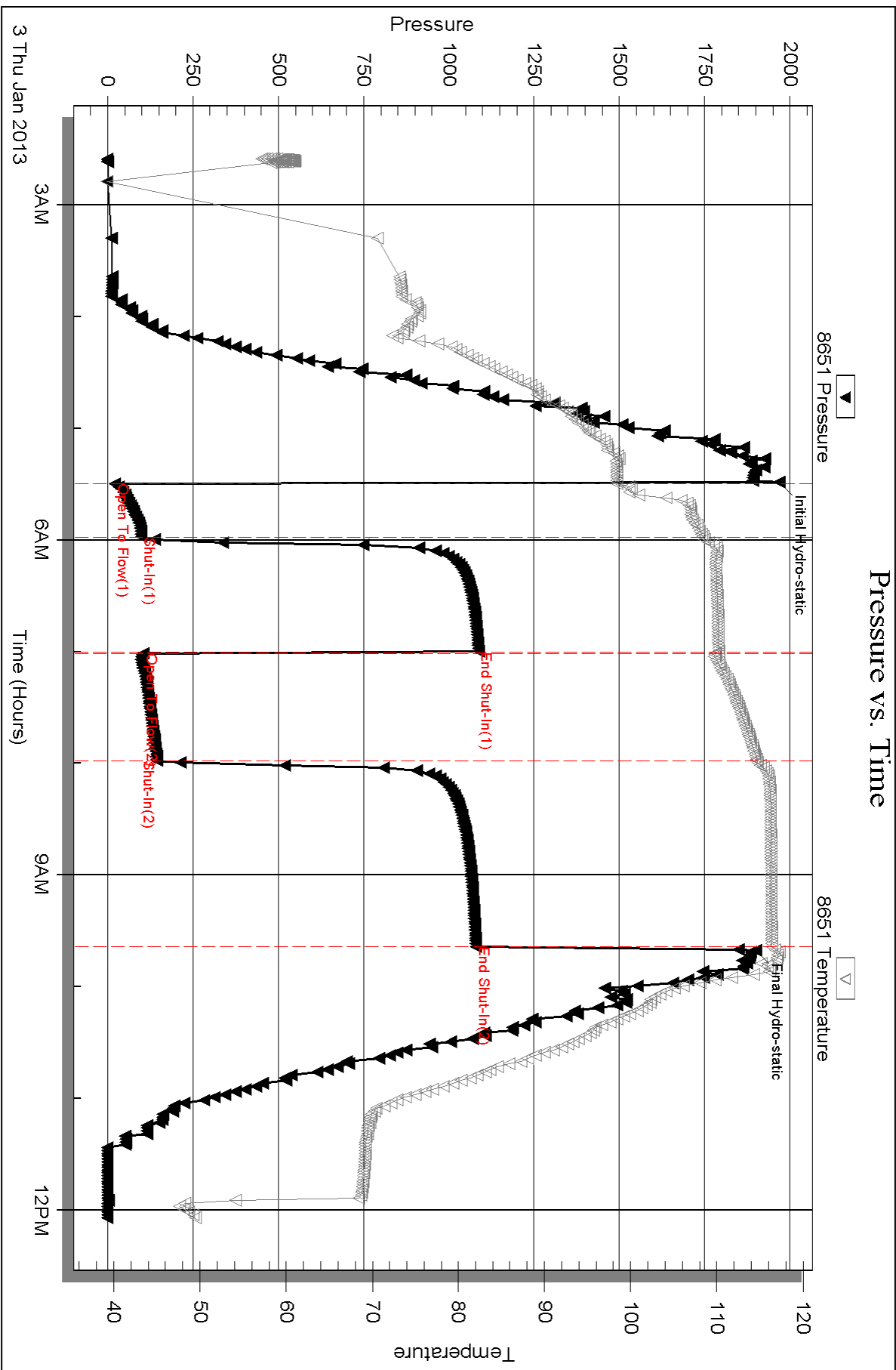
Recovery Comments:

Serial #: 8651

Outside Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Rocky Milford

Brown Farms #1-1

1-5s-31w Rawlins,KS

Start Date: 2013.01.03 @ 22:05:00

End Date: 2013.01.04 @ 06:49:00

Job Ticket #: 48029 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.07 @ 13:09:05

Murfin Drilling Co.
1-5s-31w Rawlins,KS
Brown Farms #1-1
DST # 4
IKC-58
2013.01.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N. Water Ste. 300
 Wichita KS 67202
 ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
 Job Ticket: 48029 **DST#: 4**
 Test Start: 2013.01.03 @ 22:05:00

GENERAL INFORMATION:

Formation: **lkc-58**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:32:00
 Time Test Ended: 06:49:00
 Interval: **4047.00 ft (KB) To 4105.00 ft (KB) (TVD)**
 Total Depth: 4105.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Charles Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2852.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 5.00 ft

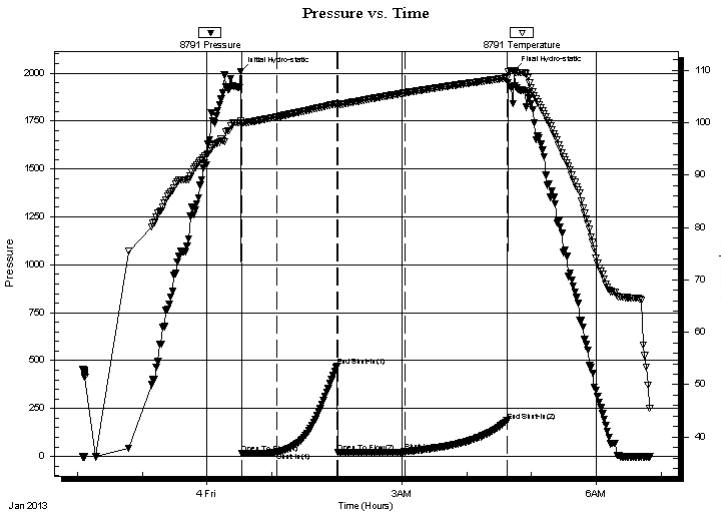
Serial #: 8791

Inside

Press @ RunDepth: 24.85 psig @ 4048.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.03 End Date: 2013.01.04 Last Calib.: 2013.01.04
 Start Time: 22:05:01 End Time: 06:49:00 Time On Btm: 2013.01.04 @ 00:31:00
 Time Off Btm: 2013.01.04 @ 04:44:00

TEST COMMENT: IF: Weak blow , Built to 1 in. over 30 mins.
 IS: No blow back
 FF: Weak blow , Built to 1/2 in. over 60 mins.
 FS: No blow back over 90 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2007.87	100.29	Initial Hydro-static
1	16.53	100.00	Open To Flow (1)
33	21.20	101.11	Shut-In(1)
89	470.80	103.66	End Shut-In(1)
90	20.25	103.48	Open To Flow (2)
152	24.85	105.72	Shut-In(2)
246	186.08	108.56	End Shut-In(2)
253	2014.26	109.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm-35%o65%m	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Rocky Milford

1-5s-31w Rawlins,KS
Brown Farms #1-1
Job Ticket: 48029 **DST#: 4**
Test Start: 2013.01.03 @ 22:05:00

GENERAL INFORMATION:

Formation: **lkc-58**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:32:00
Time Test Ended: 06:49:00
Interval: **4047.00 ft (KB) To 4105.00 ft (KB) (TVD)**
Total Depth: 4105.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Charles Kreuzer Jr.
Unit No: 61
Reference Elevations: 2852.00 ft (KB)
2847.00 ft (CF)
KB to GR/CF: 5.00 ft

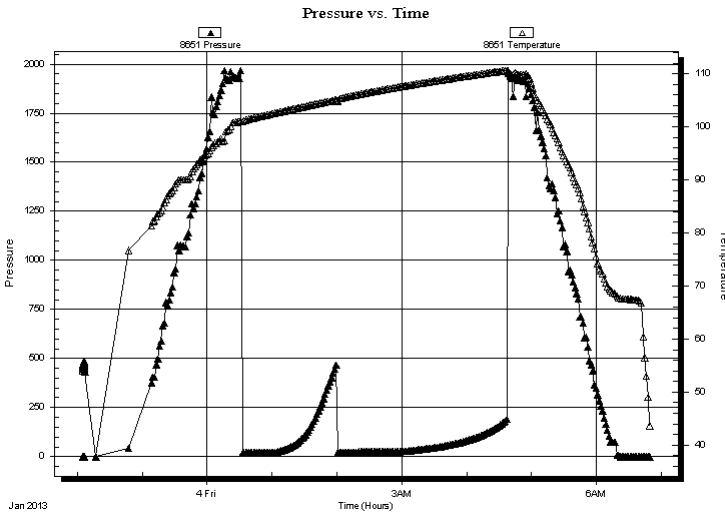
Serial #: 8651

Outside

Press @ Run Depth: psig @ 4048.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.01.03 End Date: 2013.01.04 Last Calib.: 2013.01.04
Start Time: 22:05:01 End Time: 06:49:00 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak blow , Built to 1 in. over 30 mins.
IS: No blow back
FF: Weak blow , Built to 1/2 in. over 60 mins.
FS: No blow back over 90 mins.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm-35%o65%m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48029

DST#: 4

ATTN: Rocky Milford

Test Start: 2013.01.03 @ 22:05:00

Tool Information

Drill Pipe:	Length: 3851.00 ft	Diameter: 3.80 inches	Volume: 54.02 bbl	Tool Weight: 2400.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 54.93 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4047.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	86.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4024.00	
Hydraulic tool	5.00			4029.00	
Jars	5.00			4034.00	
Safety Joint	3.00			4037.00	
Packer	5.00			4042.00	28.00 Bottom Of Top Packer
Packer	5.00			4047.00	
Stubb	1.00			4048.00	
Recorder	0.00	8791	Inside	4048.00	
Recorder	0.00	8651	Outside	4048.00	
Perforations	2.00			4050.00	
change Over Sub	1.00			4051.00	
Drill Pipe	32.00			4083.00	
Change Over Sub	1.00			4084.00	
Perforations	18.00			4102.00	
Bullnose	3.00			4105.00	58.00 Bottom Packers & Anchor

Total Tool Length: 86.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48029

DST#: 4

ATTN: Rocky Milford

Test Start: 2013.01.03 @ 22:05:00

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	ocm-35%o65%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

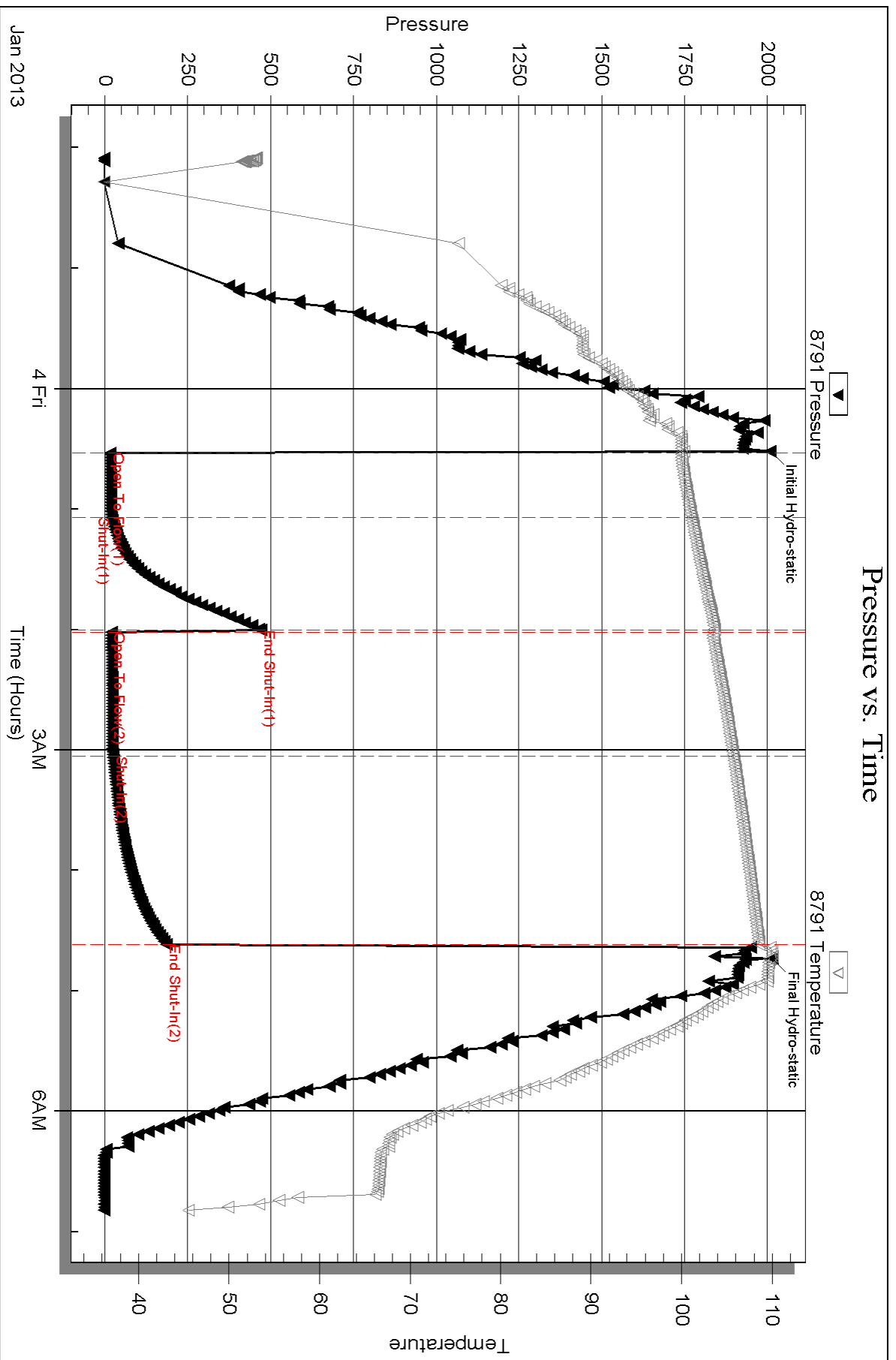
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

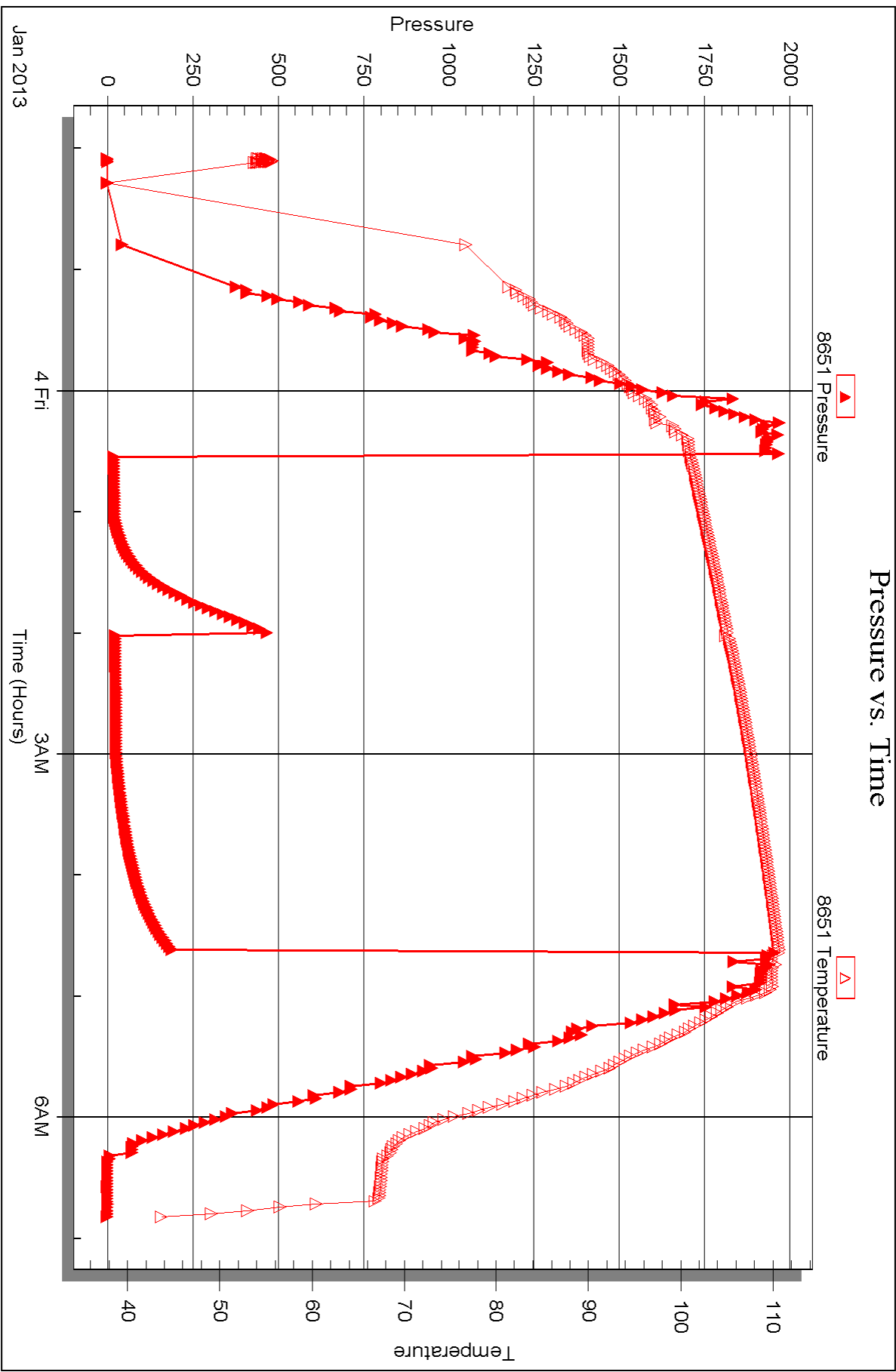


Serial #: 8651

Outside Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water Ste. 300
Wichita KS 67202

ATTN: Rocky Milford

Brown Farms #1-1

1-5s-31w Rawlins,KS

Start Date: 2013.01.04 @ 01:30:00

End Date: 2013.01.04 @ 09:06:30

Job Ticket #: 48030 DST #: 5

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

Printed: 2013.01.07 @ 13:08:06



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water Ste. 300
Wichita KS 67202
ATTN: Rocky Milford

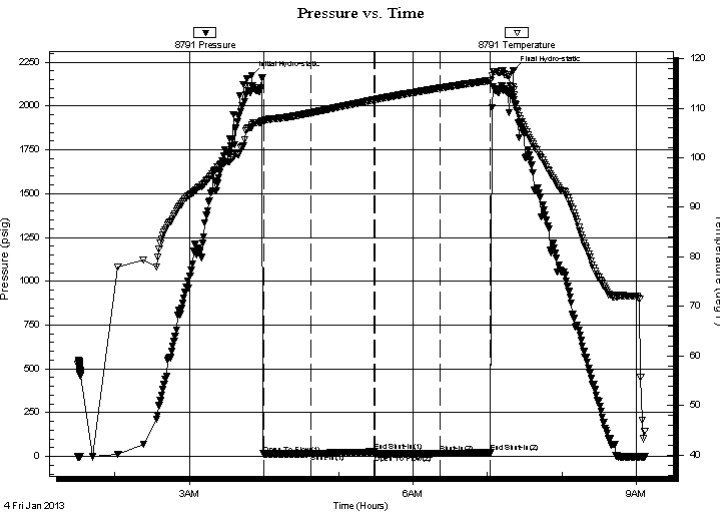
1-5s-31w Rawlins,KS
Brown Farms #1-1
Job Ticket: 48030 **DST#: 5**
Test Start: 2013.01.04 @ 01:30:00

GENERAL INFORMATION:

Formation: **Verdigris**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:59:30
Time Test Ended: 09:06:30
Interval: **4295.00 ft (KB) To 4326.00 ft (KB) (TVD)**
Total Depth: 4326.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Charles Kreutzer Jr.
Unit No: 61
Reference Elevations: 2852.00 ft (KB)
2847.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8791 Inside
Press @ RunDepth: 16.98 psig @ 4296.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.01.04 End Date: 2013.01.04 Last Calib.: 2013.01.05
Start Time: 01:30:01 End Time: 09:06:30 Time On Btm: 2013.01.04 @ 03:50:00
Time Off Btm: 2013.01.04 @ 07:21:00

TEST COMMENT: IF: Weak blow, Built to 1/2 in. overv 10 mins. Died in 20 mins.
IS: No blow back
FF: No blow
FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2173.52	106.15	Initial Hydro-static
10	14.58	107.46	Open To Flow (1)
48	16.88	109.05	Shut-In(1)
99	26.67	111.67	End Shut-In(1)
100	14.54	111.72	Open To Flow (2)
152	16.98	114.03	Shut-In(2)
193	21.56	115.57	End Shut-In(2)
211	2204.03	113.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w ith oil specs	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N. Water Ste. 300
 Wichita KS 67202
 ATTN: Rocky Milford

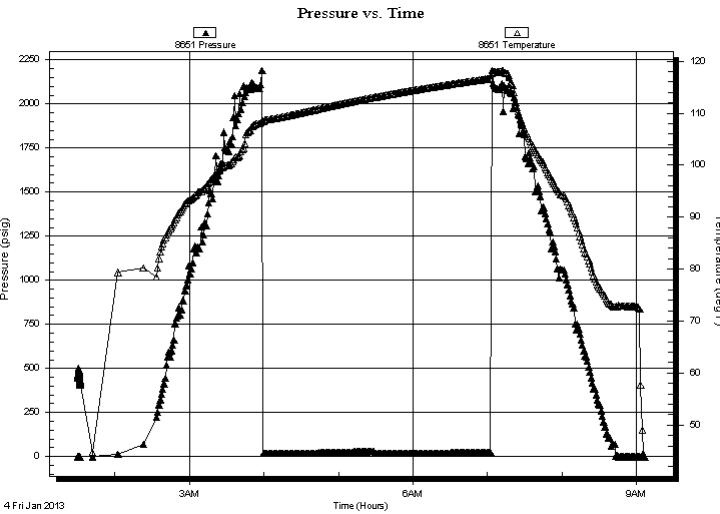
1-5s-31w Rawlins,KS
Brown Farms #1-1
 Job Ticket: 48030 **DST#: 5**
 Test Start: 2013.01.04 @ 01:30:00

GENERAL INFORMATION:

Formation: **Verdigris**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:59:30
 Time Test Ended: 09:06:30
 Interval: **4295.00 ft (KB) To 4326.00 ft (KB) (TVD)**
 Total Depth: 4326.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Charles Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2852.00 ft (KB)
 2847.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8651 Outside
 Press @ Run Depth: psig @ 4296.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.04 End Date: 2013.01.04 Last Calib.: 2013.01.05
 Start Time: 01:30:01 End Time: 09:06:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow, Built to 1/2 in. overv 10 mins. Died in 20 mins.
 IS: No blow back
 FF: No blow
 FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w ith oil specs	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48030

DST#: 5

ATTN: Rocky Milford

Test Start: 2013.01.04 @ 01:30:00

Tool Information

Drill Pipe:	Length: 4099.00 ft	Diameter: 3.80 inches	Volume: 57.50 bbl	Tool Weight: 2400.00 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 58.41 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4295.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4272.00	
Hydraulic tool	5.00			4277.00	
Jars	5.00			4282.00	
Safety Joint	3.00			4285.00	
Packer	5.00			4290.00	28.00 Bottom Of Top Packer
Packer	5.00			4295.00	
Stubb	1.00			4296.00	
Recorder	0.00	8791	Inside	4296.00	
Recorder	0.00	8651	Outside	4296.00	
Perforations	2.00			4298.00	
Perforations	25.00			4323.00	
Bullnose	3.00			4326.00	31.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

1-5s-31w Rawlins,KS

250 N. Water Ste. 300
Wichita KS 67202

Brown Farms #1-1

Job Ticket: 48030

DST#: 5

ATTN: Rocky Milford

Test Start: 2013.01.04 @ 01:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	mud w ith oil specs	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

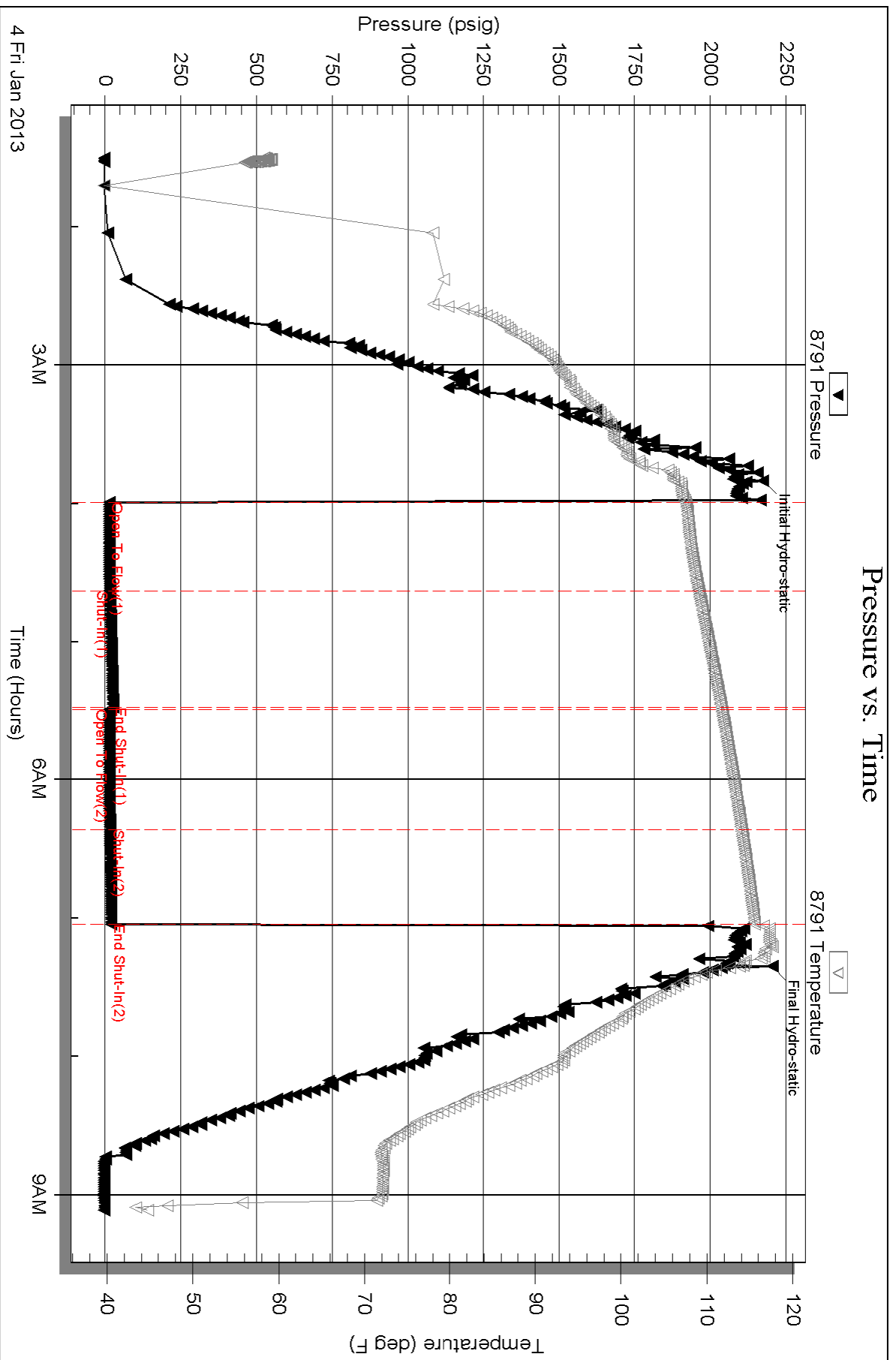
Inside

Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 5

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48030

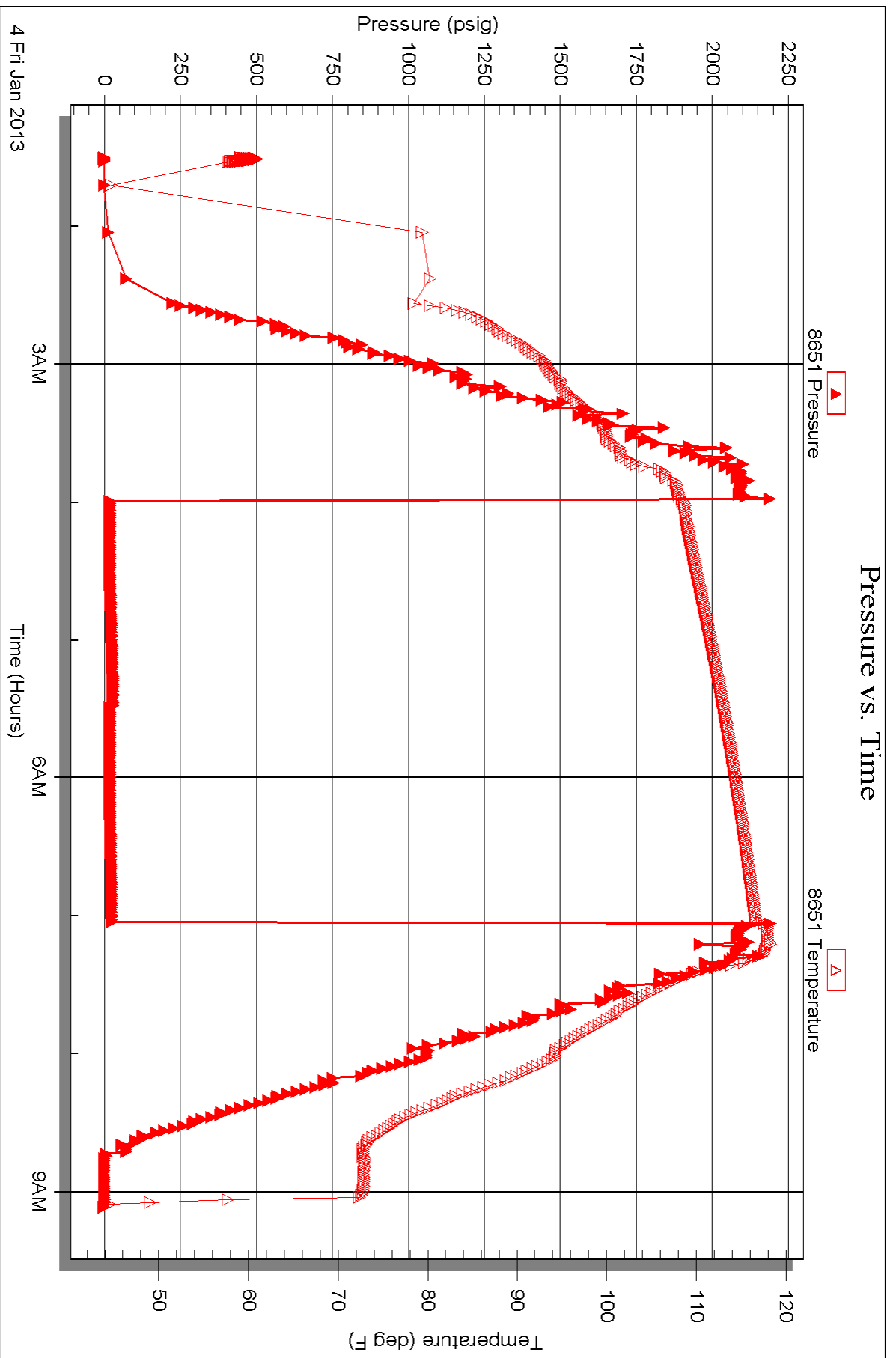
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Serial #: 8651

Outside Murfin Drilling Co.

Brown Farms #1-1

DST Test Number: 5





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 043025

4/10

Well Name & No. Brown Farms #1-1 Test No. 1 Date 01-01-2013
 Company Mur Fin Drilling Co. Elevation 2852 KB 2847 GL
 Address 250 N. water ste. 300 wichita ks. 67202
 Co. Rep / Geo. Rocky milford Rig MurFin #8
 Location: Sec. 1 Twp. 5S Rge. 31W Co. _____ State Ks.

Interval Tested 3837 3922 Zone Tested Toronto - LKC B
 Anchor Length _____ 85 Drill Pipe Run 3631 Mud Wt. 9.0
 Top Packer Depth _____ 3832 Drill Collars Run 186 Vis 67
 Bottom Packer Depth _____ 3837 Wt. Pipe Run -0- WL 5.2
 Total Depth _____ 3922 Chlorides 900 ppm System LCM 5#
 Blow Description IF: Flow blow, Built to B.O.B in 15 mins.
ISJ: No blow back over 60 mins.
FF: Fair blow, Built to B. O.B in 18 mins.
FST: Blow back after 5 mins. Built to 3in over 90 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>107</u>	<u>MCO</u>		<u>70%</u>		<u>30%</u>
<u>124</u>	<u>OCWM</u>		<u>30%</u>	<u>20%</u>	<u>50%</u>
<u>124</u>	<u>OCMW</u>		<u>15%</u>	<u>35%</u>	<u>30%</u>
<u>186</u>	<u>OSMW</u>		<u>1%</u>	<u>70%</u>	<u>19%</u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 541 BHT 222/111 Gravity _____ API RW 1. @ 32 °F Chlorides 15,000 ppm

(A) Initial Hydrostatic <u>1884</u> 2498	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>10:30</u>
(B) First Initial Flow <u>28</u> 10	<input checked="" type="checkbox"/> Jars 250	T-Started <u>12:30</u> 12:30
(C) First Final Flow <u>152</u> 200	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1432</u> 1432
(D) Initial Shut-In <u>1250</u> 2200	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>18:35</u>
(E) Second Initial Flow <u>153</u> 201	<input type="checkbox"/> Hourly Standby _____	T-Out <u>2105</u>
(F) Second Final Flow <u>265</u> 206	<input checked="" type="checkbox"/> Mileage <u>25x2=50x1.55</u> 77.50	Comments _____
(G) Final Shut-In <u>1233</u> 2250	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1819</u> 2120	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open _____ <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In _____ <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow _____ <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In _____ <u>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1552.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1552.50</u>	

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48027

Well Name & No. Brown Farms #1-1 Test No. 2 Date 1-2-2013
 Company MurFin Drilling Co. Elevation 2852 KB 2847 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Rocky Milford Rig MurFin #8
 Location: Sec. 1 Twp. 5S Rge. 31W Co. Rawlins State Ks.

Interval Tested 3938 3964 Zone Tested LKC-F
 Anchor Length 26 Drill Pipe Run 3754 Mud Wt. 9.0
 Top Packer Depth 3933 Drill Collars Run 186 Vis 67
 Bottom Packer Depth 3938 Wt. Pipe Run 0 WL 5.2
 Total Depth 3964 Chlorides 900 ppm System LCM S#
 Blow Description IF: Strong blow, Built to B.O.B in 1min. (30)
ISI: Blow back after 1min. Built to B.O.B in 30mins (60)
FF: Strong blow, Built to B.O.B in 1min. (30)
FST: Blow back after 15min. Built to Built to B.O.B in 10 mins.

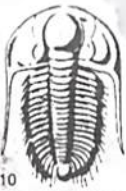
Rec	Feet of	%gas	%oil	%water	%mud
496	go	40	60		
620	go	30	70		
186	mco		60		40
0	1300 ft + gas in pipe				

Rec Total 1302 BHT 124 Gravity 33 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1972</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>5:50</u>
(B) First Initial Flow <u>114</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>6:15</u>
(C) First Final Flow <u>382</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>8:45</u>
(D) Initial Shut-In <u>942</u>	<input checked="" type="checkbox"/> Circ Sub 50 <u>75</u>	T-Pulled <u>11:55</u>
(E) Second Initial Flow <u>398</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:30</u>
(F) Second Final Flow <u>550</u>	<input checked="" type="checkbox"/> Mileage <u>25 x 2 = 50 x 1.55 = 77.50</u>	Comments _____
(G) Final Shut-In <u>880</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1999</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1602.50</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1602.50</u>	

Approved By _____ Our Representative Chuck Nye

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.



TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48028

Well Name & No. Brown Farms #1-1 Test No. 3 Date 1-3-2012
 Company Murfin Drilling Co. Elevation 2852 KB 2847 GL
 Address 250 N. Water St. 300 Wichita Ks. 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 1 Twp. S5 Rge. 3W Co. Rawlins State Ks.

Interval Tested 3986 4053 Zone Tested LKC - H, J
 Anchor Length 67 Drill Pipe Run 3790 Mud Wt. 9.6
 Top Packer Depth 3981 Drill Collars Run 186 Vis 6.1
 Bottom Packer Depth 3986 Wt. Pipe Run - 0 - WL 6.0
 Total Depth 4053 Chlorides 2000 ppm System LCM 5#

Blow Description IF: Fair blow, Built to B.O.B in 12 mins
IST: Blow back after 3 mins. Built to 3in. over 60 mins.
FF: Strong blow, Built to B.O.B in 4 mins.
FSI: Blow back built to 7in. over 90 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>93</u>	<u>90</u>	<u>20</u>	<u>80</u>		
<u>248</u>	<u>gwcum</u>	<u>20</u>	<u>20</u>	<u>10</u>	<u>60</u>
<u>0</u>	<u>465 ft. gas in pipe</u>				

Rec Total 341 BHT 124 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1968</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1:50</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2:35</u>
(C) First Final Flow <u>99</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>5:29</u>
(D) Initial Shut-In <u>1088</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>9:30</u>
(E) Second Initial Flow <u>104</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>12:04</u>
(F) Second Final Flow <u>145</u>	<input checked="" type="checkbox"/> Mileage <u>25x2=50x1.55=</u> 77.50	Comments _____
(G) Final Shut-In <u>1080</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1899</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1652.50</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1652.50</u>	

Approved By _____ Our Representative Chad Kary

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48029

Well Name & No. Brown Farms Test No. 4 Date 1-4-2012
 Company Murfin Drilling Elevation 2852 KB 2847 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 1 Twp. 5S Rge. 31W Co. Rawlins State Ks.

Interval Tested 4047 4105 Zone Tested LKC - K&L
 Anchor Length 58 Drill Pipe Run 3851 Mud Wt. 8.9
 Top Packer Depth 4042 Drill Collars Run 186 Vis 47
 Bottom Packer Depth 4047 Wt. Pipe Run -0- WL 5.2
 Total Depth 4105 Chlorides 2000 ppm System LCM 5#

Blow Description IF: Weak blow, Built to 1 in over 30 mins
ISI: No blow back
FF: Weak blow, Built to 1/2 in over 60 mins
FST: No blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>ocm</u>		<u>35</u>		<u>65</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 108' Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2008</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>21:50</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>22:08</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>00:32</u>
(D) Initial Shut-In <u>471</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>4:30</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>6:44</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>25 x 2 = 50 x 1.55 = 77.50</u>	Comments _____
(G) Final Shut-In <u>186</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2014</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1652.50</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1652.50</u>	

Approved By _____ Our Representative Chad Nyson

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48030

Well Name & No. Brown Farms Test No. 5 Date 1-5-2013
 Company Murphy Drilling Co. Elevation 2852 KB 2847 GL
 Address 250. N. water ste 300 mitelita Ks. 67208
 Co. Rep / Geo. Rocky Milford Rig Murphy #8
 Location: Sec. 1 Twp. SS Rge. 31W Co. Rawlins State Ks

Interval Tested 4295 4326 Zone Tested Verdigris
 Anchor Length 31 Drill Pipe Run 4099 Mud Wt. 8.9
 Top Packer Depth 4290 Drill Collars Run 186 Vis 47
 Bottom Packer Depth 4295 Wt. Pipe Run 0 WL 5.2
 Total Depth 4326 Chlorides 2000 ppm System LCM 5#

Blow Description IF: weak blow, built to vain over 10 mins. dead in 20 mins.
IS: no blow back

FF: No blow

FS: No blow back

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

Rec Total 5 BHT 115 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2174</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>00:21</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1:30</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>3:59</u>
(D) Initial Shut-In <u>27</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>7:00</u>
(E) Second Initial Flow <u>15</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:06</u>
(F) Second Final Flow <u>17</u>	<input checked="" type="checkbox"/> Mileage <u>25 x 2 = 50 x 1.55</u> 77.50	Comments _____
(G) Final Shut-In <u>22</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2204</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1652.50</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1652.50</u>	

Approved By _____ Our Representative Chuck [Signature]

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PO Box 93999
Southlake, TX 76092

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

INVOICE

acct. Prod.-LizH

Invoice Number: 134239
Invoice Date: Dec 28, 2012
Page: 1



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

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Brown Farms #1-1	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Dec 28, 2012	1/27/13

Quantity	Item	Description	Unit Price	Amount
190.00	MAT	Class A Common	17.90	3,401.00
7.00	MAT	Chloride	64.00	448.00
199.50	SER	Cubic Feet	2.48	494.76
413.91	SER	Ton Mileage	2.60	1,076.17
1.00	SER	Surface	1,512.25	1,512.25
45.00	SER	Pump Truck Mileage	7.70	346.50
45.00	SER	Light Vehicle Mileage	4.40	198.00
1.00	SER	Manifold Rental	275.00	275.00
1.00	CEMENTER	Alan Ryan		
1.00	CEMENTER	LaRene Wentz		
1.00	OPER ASSIST	Kevin Ryan		



Subtotal	7,751.68
Sales Tax	309.84
Total Invoice Amount	8,061.52
Payment/Credit Applied	
TOTAL	8,061.52

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

\$ 2,945.63

ONLY IF PAID ON OR BEFORE

Jan 22, 2013

ALLIED OIL & GAS SERVICES, LLC 058826

Federal Tax I.D.# 20-5976804

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

SERVICE POINT: Dallas, TX

DATE <u>12/28/12</u>	SEC. <u>1</u>	TWP. <u>5</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>10:22</u>	JOB FINISH <u>11:00 PM</u>
LEASE <u>Prison Farms</u>	WELL # <u>1-1</u>	LOCATION <u>Lexford NWY 1E 6' h-v</u>			COUNTY <u>Quinn</u>	STATE <u>TX</u>	
OLD OR NEW (Circle one)				R.A. <u>101</u>		8.05	

CONTRACTOR Murphy 8

TYPE OF JOB Surf Foot

HOLE SIZE 12 1/4" T.D.

CASING SIZE 8 5/8" DEPTH 217'

TUBING SIZE _____ DEPTH _____

DRILL PIPE 9 1/2" DEPTH 217'

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 12,085 BBL 46'

EQUIPMENT _____

PUMP TRUCK CEMENTER Alan R. 1

HELPER Lalene Dentz - 1

BULK TRUCK _____

BULK TRUCK DRIVER Mike Thomas (3)

BULK TRUCK DRIVER Ryan

OWNER Same

CEMENT AMOUNT ORDERED 190 SKS COM - 370 CL

COMMON <u>190 SKS</u>	@ <u>17.90</u>	<u>3401.00</u>
POZMIX	@	
GBL	@	
CHLORIDE <u>7 SKS</u>	@ <u>64.00</u>	<u>448.00</u>
ASC	@	
HANDLING <u>199.565</u>	@ <u>2.50</u>	<u>498.76</u>
MILEAGE <u>2</u>	@ <u>9.198</u>	<u>18.396</u>
TOTAL		<u>5419.92</u>

REMARKS:

Run Cgs, Circulate, Mix Cement

Replace Cement

Cement did Circulate

Franklin

Plugs, 10, 11, 12, 13, 14, 15

CHARGE TO: Murphy

STREET _____

CITY _____ STATE _____ ZIP _____

413.91 SERVICE

DEPTH OF JOB <u>217'</u>		
PUMP TRUCK CHARGE <u>1512.25</u>		
EXTRA FOOTAGE @		
MILEAGE <u>45</u>	@ <u>7.25</u>	<u>326.25</u>
MANIFOLD <u>45</u>	@ <u>4.10</u>	<u>184.50</u>
TOTAL		<u>2331.25</u>

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 Rodney Farr

SIGNATURE Rodney Farr

PLUG & FLOAT EQUIPMENT

_____	@	
_____	@	
_____	@	
_____	@	
_____	@	
TOTAL		_____

SALES TAX (If Any) 309.84

TOTAL CHARGES 7,751.68

DISCOUNT 2,945.63 IF PAID IN 30 DAYS

net 4,806.05

3870



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



Invoice

DATE	INVOICE #
1/6/2013	23879

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

USED FOR 10103

APPROVED JLR

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-1	Brown Farms	Rawlins		Oil	Development	5-1/2" LongString	Josh

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	100	Miles	6.00	600.00
578D-L	Pump Charge - Long String	1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)	4	Gallon(s)	25.00	100.00T
280	Flocheck 21	500	Gallon(s)	2.50	1,250.00T
290	D-Air	2	Gallon(s)	35.00	70.00T
409-5	5 1/2" Turbolizer	15	Each	90.00	1,350.00T
403-5	5 1/2" Cement Basket	2	Each	250.00	500.00T
404-5	5 1/2" Port Collar - 2615 Feet	1	Each	2,400.00	2,400.00T
406-5	5 1/2" Latch Down Plug & Baffle	1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	350.00	350.00T
413-5	5 1/2" Roto Wall Scratcher	10	Each	40.00	400.00T
419-5	5 1/2" Rotating Head Rental	1	Each	200.00	200.00T
325	Standard Cement	225	Sacks	13.50	3,037.50T
276	Flocele	50	Lb(s)	2.00	100.00T
283	Salt	1,150	Lb(s)	0.20	230.00T
285	CFR-1	160	Lb(s)	4.00	640.00T
284	Calseal	11	Sack(s)	35.00	385.00T
581D	Service Charge Cement	225	Sacks	2.00	450.00
583D	Drayage	1,180.5	Ton Miles	1.00	1,180.50
	Subtotal				14,993.00
	Sales Tax Rawlins County			8.05%	906.63

Thank You For Your Business In 2012!

We Look Forward To Serving You In 2013!

Total

\$15,899.63



Services, Inc.

CHARGE TO: Murfen
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET
 No 23879

SERVICE LOCATIONS

1. <u>Hays ks</u>	WELL/PROJECT NO. <u>1-1</u>	LEASE <u>Brown Farms</u>	COUNTY/PARISH <u>Rawlins</u>	STATE <u>KS</u>	CITY	DATE <u>1-6-13</u>	OWNER
2. <u>Ness City</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA <u>CT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <u>D-1</u>	WELL CATEGORY <u>Develop</u>	JOB PURPOSE <u>5 1/2 Longstring</u>	WELL PERMIT NO.	WELL LOCATION <u>Sec 1 Twp 5S R 31W</u>		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.		UNIT		AMOUNT
		LOC	ACCT		UM	UM	PRICE		
575		1		MILEAGE ⁴ 112	100	m.	6	00	600 00
578		1		Pump Charge 5 1/2 Longstring	1	ea	1500	00	1500 00
221		1		Liquids KCL	4	gal	25	00	100 00
280		1		Flocheck 21	500	gal	250	00	1250 00
290		1		O-Air	2	gal	35	00	70 00
400		1		Centrifuges Turbopliers	15	ea	90	00	1350 00
403		1		Cement Basket	2	ea	250	00	500 00
404		1		Port Collar @ 2615	1	ea	2400	00	2400 00
406		1		Let'd Down Plug + Seale	1	ea	250	00	250 00
407		1		Insert Plat Shoe w/Air Cell	1	ea	350	00	350 00
413		1		Roto Wall Scratchers	10	ea	40	00	400 00
414		1		Notarfyng Head Rentals	1	ea	200	00	200 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 1-6-13 TIME SIGNED 1130 A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	

CUSTOMER DID NOT WISH TO RESPOND
 TOTAL 15,899.63

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

SWIFT OPERATOR Paul Paul APPROVAL

Thank You!



PO Box 466,
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 23879

CUSTOMER *Murphy*

WELL *Green Ferns 1-1*

DATE *1-6-13*

PAGE *2* OF *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	UM		
325		2				Standard Cement EA-2	225	Sks	13.50	3037.50
276		2				Flocele	50	Lbs	2.00	100.00
283		2				Salt	1180	Lbs	.20	236.00
285		2				CFR-1	180	Lbs	4.00	720.00
284		2				Cal Seal	11	Sks	35.00	385.00
581		2				SERVICE CHARGE			2.00	4.00
583		2				MILEAGE CHARGE			1.00	1180.50
						TOTAL WEIGHT	23610			
						LOADED MILES	100			
						CUBIC FEET	225			
						TON MILES	1180.50			
CONTINUATION TOTAL										6023.00

JOB LOG

SWIFT Services, Inc.

DATE 1-6-73 PAGE NO. 1

CUSTOMER Murfin WELL NO. 1-1 LEASE Brown Farms JOB TYPE 5 1/2 Long String TICKET NO. 23879

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1130							On location
								TD 4510 SJ 20.99
								TP 4491 Insert 4470
								PC 2615" TD 45 5 1/2 15.5"
								Turbolizers 1,2,3,4,5,6,7,8,9,10,11,12,13, 43, 44
								Baskets 44, 45
	1200							Start Pipe
	1300							Stop Halfway Circulate
	1410							Drop Ball Circulate Rotate
	1510		7/8		✓			Plug Bit hole 30 SKS Mouse hole 20 SKS
	1515	5	15		✓		300	Start KCL Flush
		5	12		✓		300	Start Flo check 21
		5	5		✓		300	Start KCL Flush
		5	42		✓		200	Start Cement 175 SKS EA=2
	1541							Drop Plug
								Wash out Pump + Lines
	1542	6	20		✓		200	Start KCL in Displacement
		6	80		✓		700	Stop Rotating
	1600		106.3		✓		1520	Land Plug
	1602							Release Dry Held
								wash up Back up
	1645							Job Complete
								Thank You
								Josh, Brian, Jeremy