



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1083050
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: _____

1083050

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> _____	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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

June 01, 2012

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

Re: ACO1
API 15-137-20598-00-00
Thiele Unit 1-20
SE/4 Sec.20-02S-24W
Norton 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

Thiele Unit #1-20 2410 FSL 2250 FWL Sec. 20-2S-24W 2547' KB							Wegener #3 Hummon Corp NW NW Sec. 29-2S-24W 2502' KB	
Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref	Log Tops	Datum
Anhydrite	2078	+469	-1	2078	+469	-1	2032	+470
B/Anhydrite	2108	+439	-1	2106	+441	+1	2062	+440
Neva	2895	-348	Flat	2896	-349	-1	2850	-348
Stotler	3167	-620	+4	3168	-621	+3	3126	-624
Topeka	3297	-750	+2	3298	-751	+1	3254	-752
Deer Crk	3349	-802	+2	3351	-804	Flat	3306	-804
Heebner	3466	-919	+3	3467	-920	+2	3424	-922
Toronto	3495	-948	+4	3498	-951	+1	3454	-952
Lansing	3511	-964	+2	3512	-965	+1	3468	-966
Stark	3656	-1109	+3	3658	-1111	+1	3614	-1112
BKC	3705	-1158	Flat	3703	-1156	+2	3660	-1158
Reagan Sn	3794	-1247	+5	3800	-1253	-1	3754	-1252
Granite Wsh	3799	-1252	+7	3802	-1255	+4	3761	-1259
RTD	3826	-1279						
LTD				3828	-1281		3816	-1314

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc**

LEASE **Thiele Unit #1-20**

FIELD **Widacat**

LOCATION **2410 F.S. & 2250 F.W.L.**

SIC **20 TWP 2 S RGE 24 W**

COUNTY **Norton** STATE **Kansas**

CONTRACTOR **Murfin Drilling Rig #21**

SPUD **2/21/2012** COMP **2/27/2012**

RTD **2826' LTD 3828'**

MUD UP **2613' TYPE MUD Chemical**

SAMPLES SAVED FROM **2770 TO RTD**

DRILLING TIME KEPT FROM **2770 TO RTD**

SAMPLES EXAMINED FROM **2770 TO RTD**

GEOLOGICAL SUPERVISION FROM **2890 to RTD**
 GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Anhydrite	2078 (-471)	2077 (+470)
Neva	2896 (-349)	2895 (-348)
Topeka	3298 (-751)	3297 (-750)
Heebner Sh	3467 (-920)	3466 (-919)
Lansing	3512 (-965)	3511 (-964)
Slack	3658 (-1109)	3656 (-1109)
BKC	3703 (-1156)	3705 (-1158)
Granite Wash	3800 (-1253)	3799 (-1252)

ELEVATIONS

KB 2547'

DF

GL 2536'

Measurements Are All From Kelly Bushing

CASING

CONDUCTOR SURFACE 8.5/8" at 298'

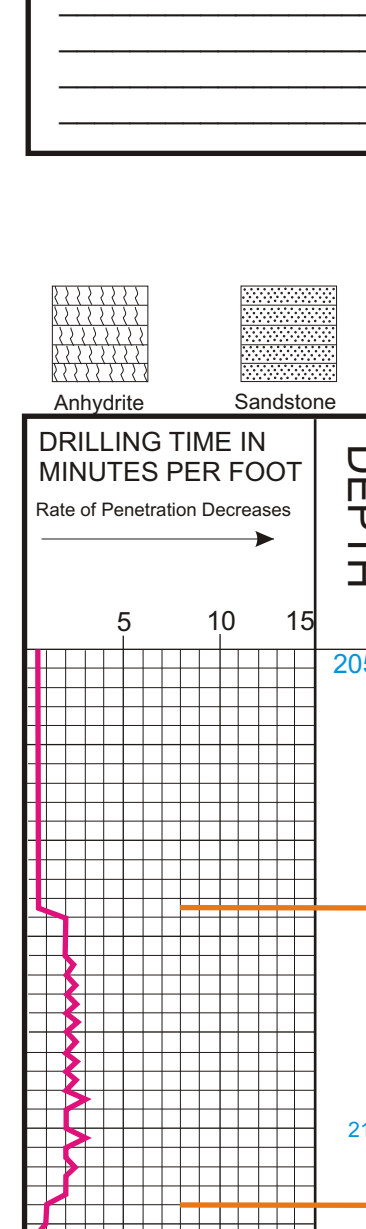
PRODUCTION None

ELECTRICAL SURVEYS

DII / CN-CD

Micro / Sonic Log Tech

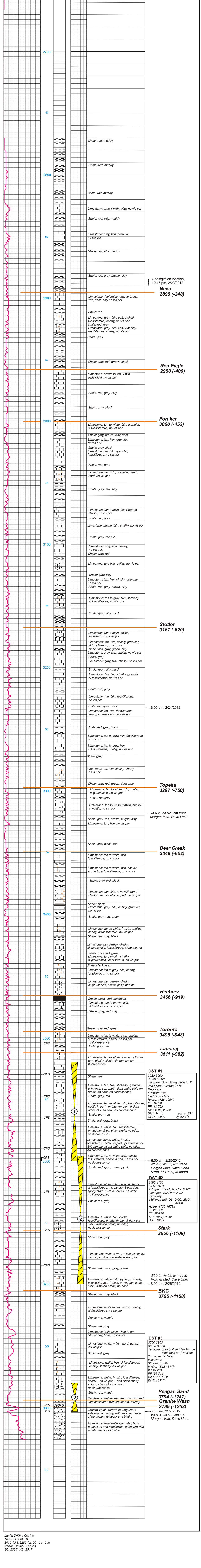
AP# 15-131-20598



REMARKS All shows were tested and due to a lack of positive results on the DST's it is suggested this test be plugged and abandoned.

LEGEND

	Anhydrite
	Sandstone
	Limestone
	Shale
	Carb Sh
	Cherty LS
	Chert
	Dolomite





DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Thiele Unit #1-20

20-2s-24w Norton,KS

Start Date: 2012.02.25 @ 08:40:00

End Date: 2012.02.25 @ 16:09:00

Job Ticket #: 042980 DST #: 1

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

Printed: 2012.03.02 @ 11:14:07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water Suite 300
Wichita, KS 67202
ATTN: Robert Hendrix

20-2s-24w Norton, KS
Thiele Unit #1-20
Job Ticket: 042980 **DST#: 1**
Test Start: 2012.02.25 @ 08:40:00

GENERAL INFORMATION:

Formation: **LKC "A - G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:19:00
Time Test Ended: 16:09:00
Interval: **3520.00 ft (KB) To 3600.00 ft (KB) (TVD)**
Total Depth: 3600.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 57
Reference Elevations: 2547.00 ft (KB)
2536.00 ft (CF)
KB to GR/CF: 11.00 ft

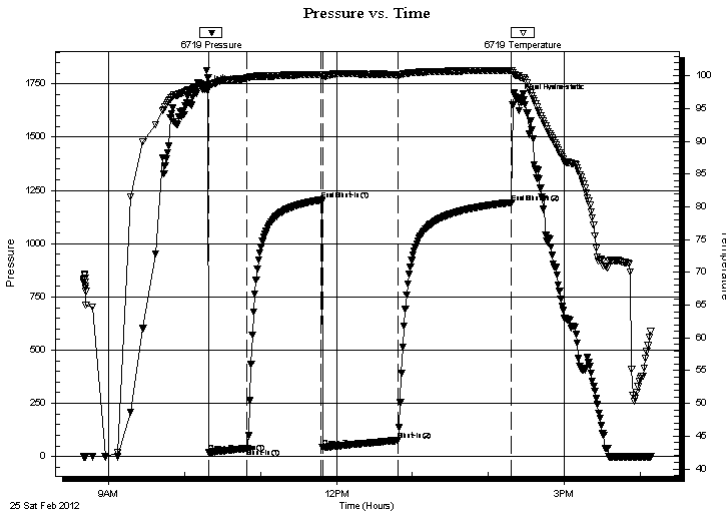
Serial #: 6719

Inside

Press @ Run Depth: 75.66 psig @ 3521.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.02.25 End Date: 2012.02.25 Last Calib.: 2012.02.25
Start Time: 08:40:05 End Time: 16:08:59 Time On Btm: 2012.02.25 @ 10:17:00
Time Off Btm: 2012.02.25 @ 14:23:00

TEST COMMENT: 30 - IF: Blow built to 3"
60 - IS: Bled off, Weak on/off surface blow back dead after 20 min.
60 - FF: Blow built to 3 1/4"
90 - FS: Bled off, No blow back

PRESSURE SUMMARY



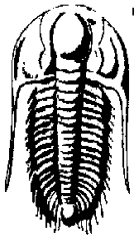
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1725.73	98.58	Initial Hydro-static
2	20.28	98.36	Open To Flow (1)
32	38.82	99.63	Shut-In(1)
91	1205.50	100.23	End Shut-In(1)
92	43.32	99.88	Open To Flow (2)
152	75.66	100.14	Shut-In(2)
242	1193.48	100.84	End Shut-In(2)
246	1683.64	100.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW 79%w, 21%m	0.59
5.00	SWCM 98%m, 2%w	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042980

DST#: 1

ATTN: Robert Hendrix

Test Start: 2012.02.25 @ 08:40:00

GENERAL INFORMATION:

Formation: **LKC "A - G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:19:00

Time Test Ended: 16:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3520.00 ft (KB) To 3600.00 ft (KB) (TVD)

Total Depth: 3600.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2547.00 ft (KB)

2536.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 3521.00 ft (KB)

Start Date: 2012.02.25

End Date: 2012.02.25

Capacity: 8000.00 psig

Last Calib.: 2012.02.25

Start Time: 08:40:05

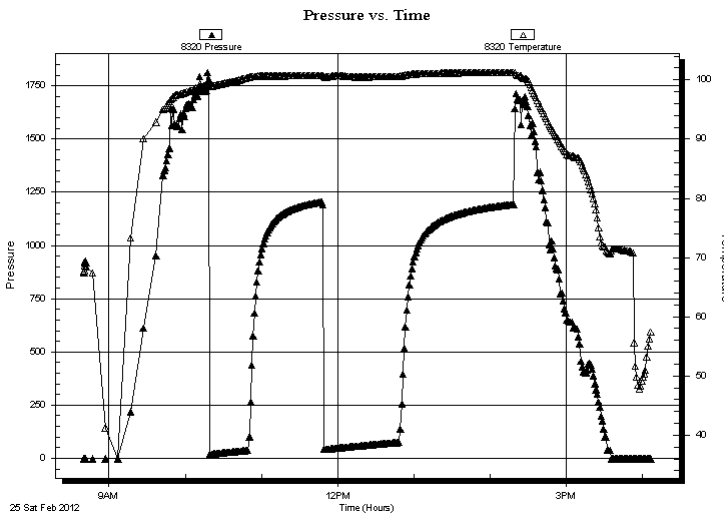
End Time: 16:06:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 3"
60 - IS: Bled off, Weak on/off surface blow back dead after 20 min.
60 - FF: Blow built to 3 1/4"
90 - FS: Bled off, No blow back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW 79%w, 21%m	0.59
5.00	SWCM 98%m, 2%w	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042980

DST#: 1

ATTN: Robert Hendrix

Test Start: 2012.02.25 @ 08:40:00

Tool Information

Drill Pipe:	Length: 3295.00 ft	Diameter: 3.80 inches	Volume: 46.22 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: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 47.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3520.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3497.00	
Hydraulic tool	5.00			3502.00	
Jars	5.00			3507.00	
Safety Joint	3.00			3510.00	
Packer	5.00			3515.00	28.00 Bottom Of Top Packer
Packer	5.00			3520.00	
Stubb	1.00			3521.00	
Recorder	0.00	6719	Inside	3521.00	
Recorder	0.00	8320	Outside	3521.00	
Perforations	12.00			3533.00	
Blank Spacing	64.00			3597.00	
Bullnose	3.00			3600.00	80.00 Bottom Packers & Anchor

Total Tool Length: 108.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042980

DST#: 1

ATTN: Robert Hendrix

Test Start: 2012.02.25 @ 08:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MCW 79%w , 21%m	0.590
5.00	SWCM 98%m, 2%w	0.025

Total Length: 125.00 ft Total Volume: 0.615 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

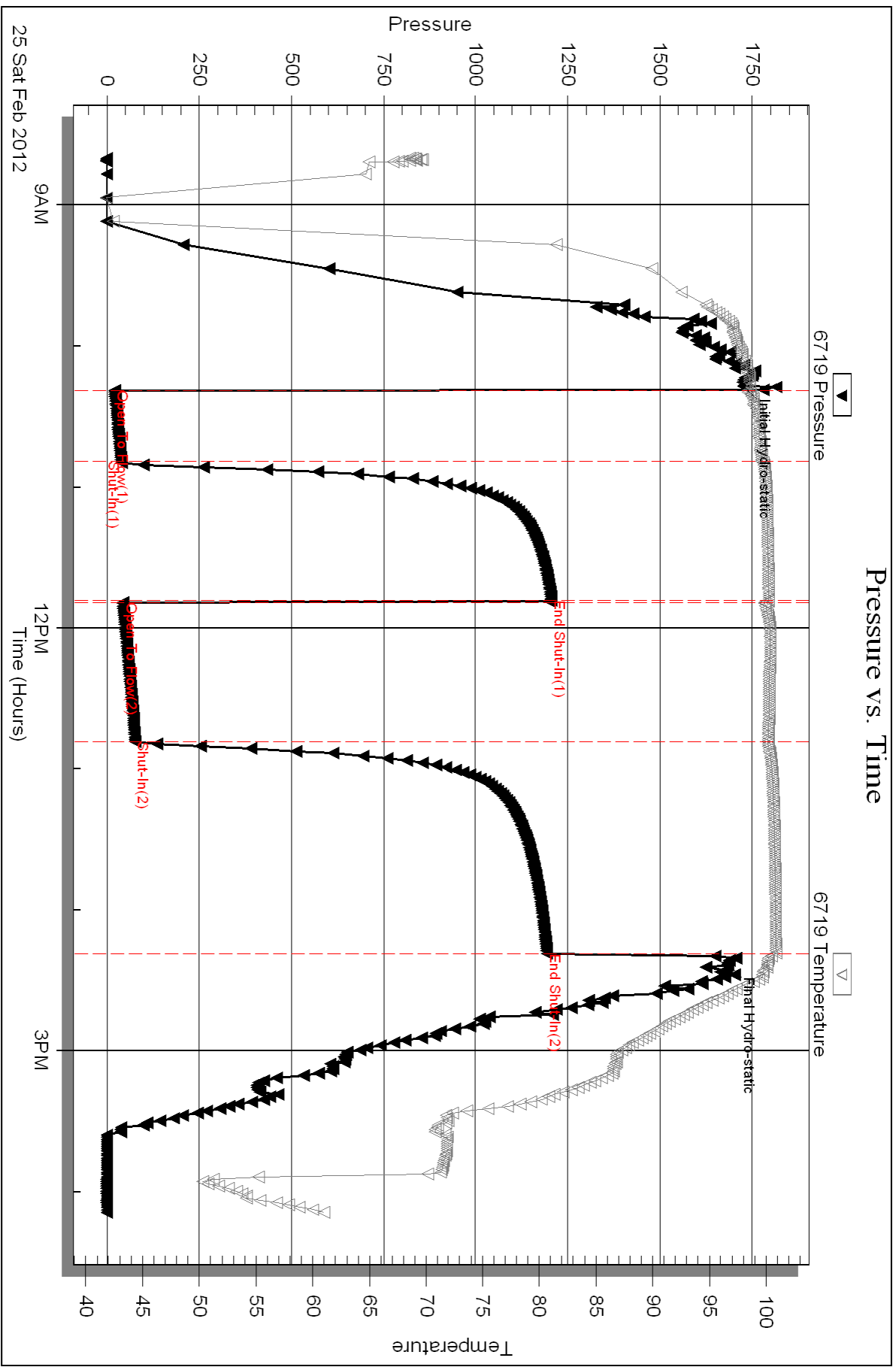
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .211 ohms @ 62.4 deg F

Chlorides = 39,000 ppm

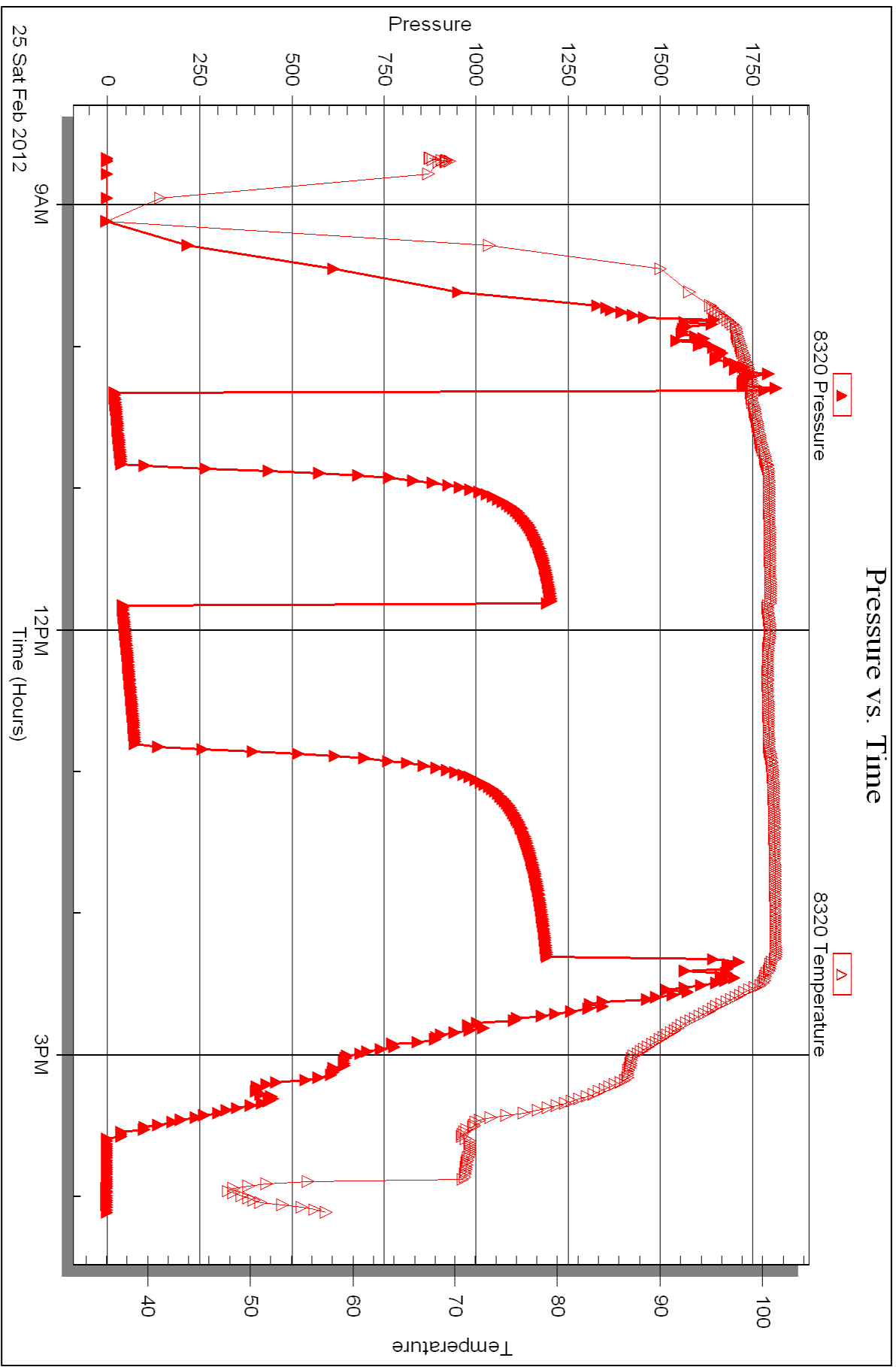


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Thiele Unit #1-20

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 042980

Printed: 2012.03.02 @ 11:14:10



DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Thiele Unit #1-20

20-2s-24w Norton,KS

Start Date: 2012.02.26 @ 06:50:00

End Date: 2012.02.26 @ 14:36:00

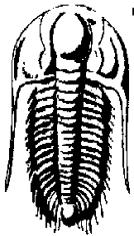
Job Ticket #: 042981 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.02 @ 11:13:21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

ATTN: Robert Hendrix

Job Ticket: 042981

DST#: 2

Test Start: 2012.02.26 @ 06:50:00

GENERAL INFORMATION:

Formation: LKC "H - L"				
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)		
Time Tool Opened: 08:46:00		Tester: James Winder		
Time Test Ended: 14:36:00		Unit No: 57		
Interval: 3596.00 ft (KB) To 3700.00 ft (KB) (TVD)		Reference Elevations: 2547.00 ft (KB)		
Total Depth: 3700.00 ft (KB) (TVD)		2536.00 ft (CF)		
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 11.00 ft		

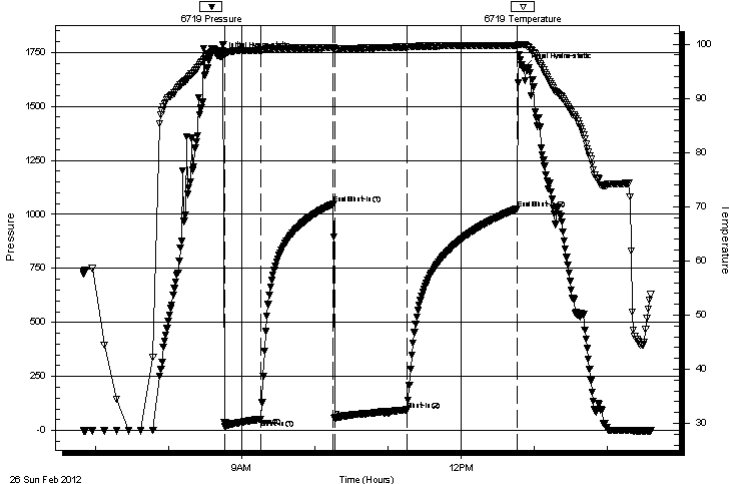
Serial #: 6719

Inside

Press @ Run Depth: 95.12 psig @ 3597.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2012.02.26	End Date: 2012.02.26
Start Time: 06:50:05	End Time: 14:35:59
	Last Calib.: 2012.02.26
	Time On Btm: 2012.02.26 @ 08:43:30
	Time Off Btm: 2012.02.26 @ 12:51:30

TEST COMMENT: 30 - IF: 1/2" Blow at open, Built to 3 1/2"
 60 - IS: Bled off, No blow back
 60 - FF: Blow started at 6 min., built to 2 1/2"
 90 - FS: Bled off, no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.50	98.82	Initial Hydro-static
3	20.48	98.48	Open To Flow (1)
32	52.27	98.91	Shut-In(1)
92	1049.49	99.35	End Shut-In(1)
93	56.91	99.15	Open To Flow (2)
152	95.12	99.48	Shut-In(2)
243	1025.98	99.78	End Shut-In(2)
248	1677.59	99.95	Final Hydro-static

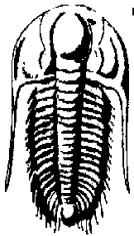
Recovery

Length (ft)	Description	Volume (bbl)
165.00	Mud w /Oil spots 96%m, 2%o, 2%g	0.81

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042981

DST#: 2

ATTN: Robert Hendrix

Test Start: 2012.02.26 @ 06:50:00

GENERAL INFORMATION:

Formation: **LKC "H - L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:46:00

Time Test Ended: 14:36:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3596.00 ft (KB) To 3700.00 ft (KB) (TVD)

Reference Elevations: 2547.00 ft (KB)

Total Depth: 3700.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8320 **Outside**

Press @ Run Depth: psig @ 3597.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.26

End Date:

2012.02.26

Last Calib.:

2012.02.26

Start Time: 06:50:05

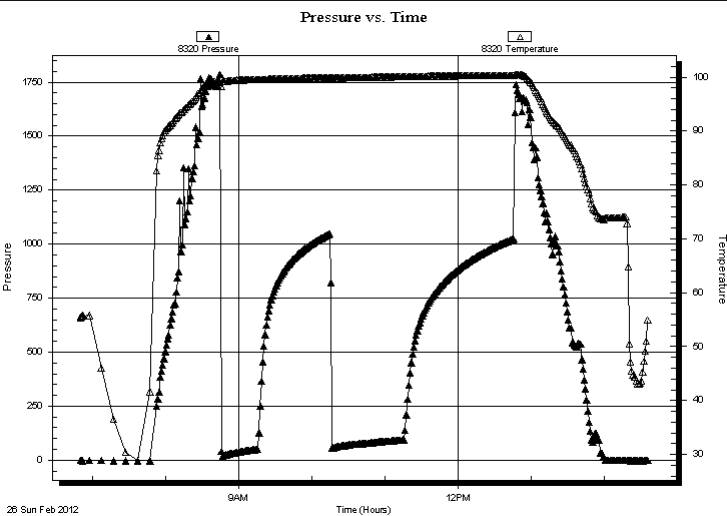
End Time:

14:35:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: 1/2" Blow at open, Built to 3 1/2"
60 - IS: Bled off, No blow back
60 - FF: Blow started at 6 min., built to 2 1/2"
90 - FS: Bled off, no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
165.00	Mud w /Oil spots 96%m, 2%o, 2%g	0.81

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042981

DST#: 2

ATTN: Robert Hendrix

Test Start: 2012.02.26 @ 06:50:00

Tool Information

Drill Pipe:	Length: 3388.00 ft	Diameter: 3.80 inches	Volume: 47.52 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: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3596.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	104.00 ft			
Tool Length:	132.00 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			3573.00	
Hydraulic tool	5.00			3578.00	
Jars	5.00			3583.00	
Safety Joint	3.00			3586.00	
Packer	5.00			3591.00	28.00 Bottom Of Top Packer
Packer	5.00			3596.00	
Stubb	1.00			3597.00	
Recorder	0.00	6719	Inside	3597.00	
Recorder	0.00	8320	Outside	3597.00	
Perforations	5.00			3602.00	
Blank Spacing	95.00			3697.00	
Bullnose	3.00			3700.00	104.00 Bottom Packers & Anchor

Total Tool Length: 132.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042981

DST#: 2

ATTN: Robert Hendrix

Test Start: 2012.02.26 @ 06:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
165.00	Mud w /Oil spots 96%m, 2%o, 2%g	0.811

Total Length: 165.00 ft Total Volume: 0.811 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

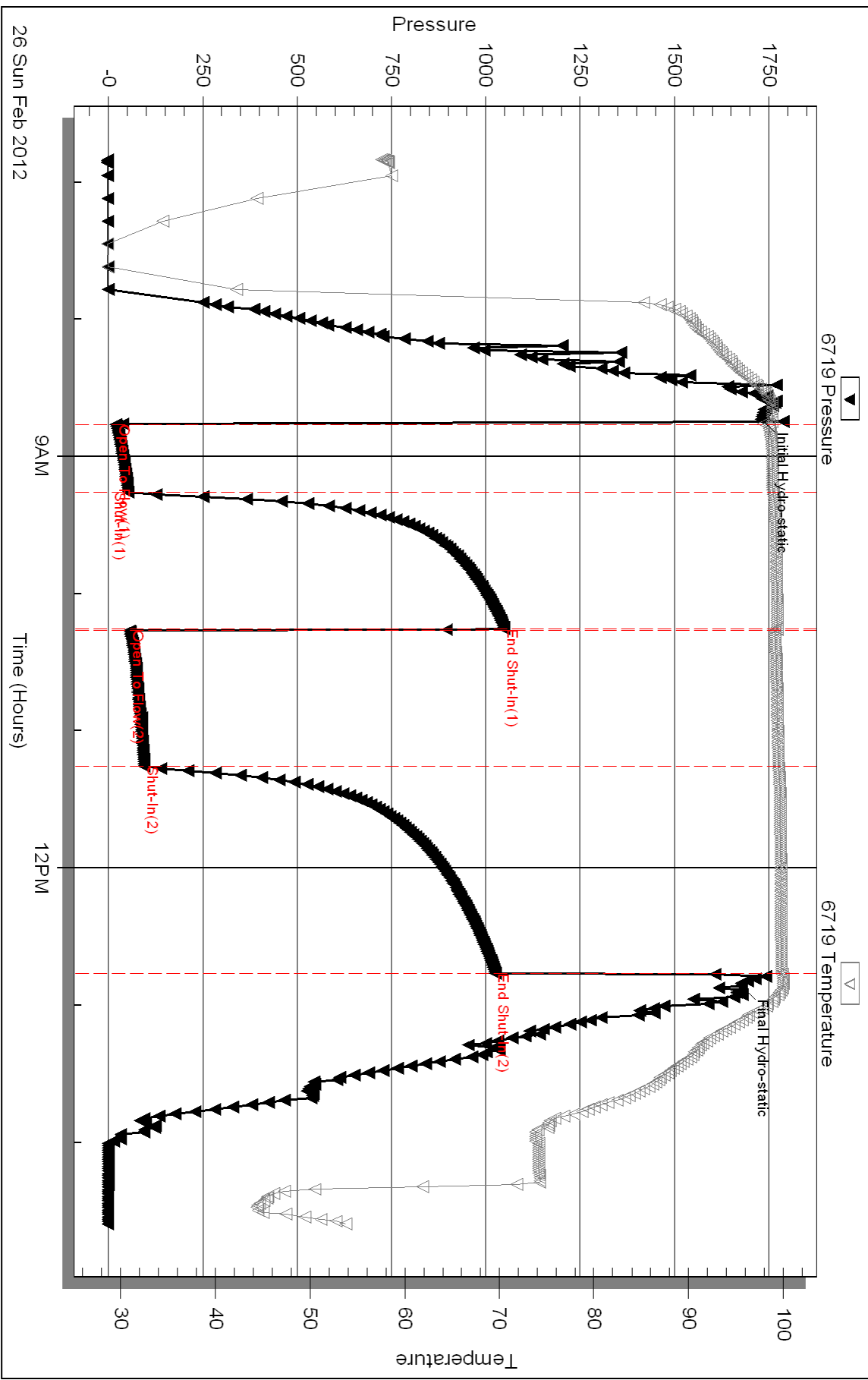
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



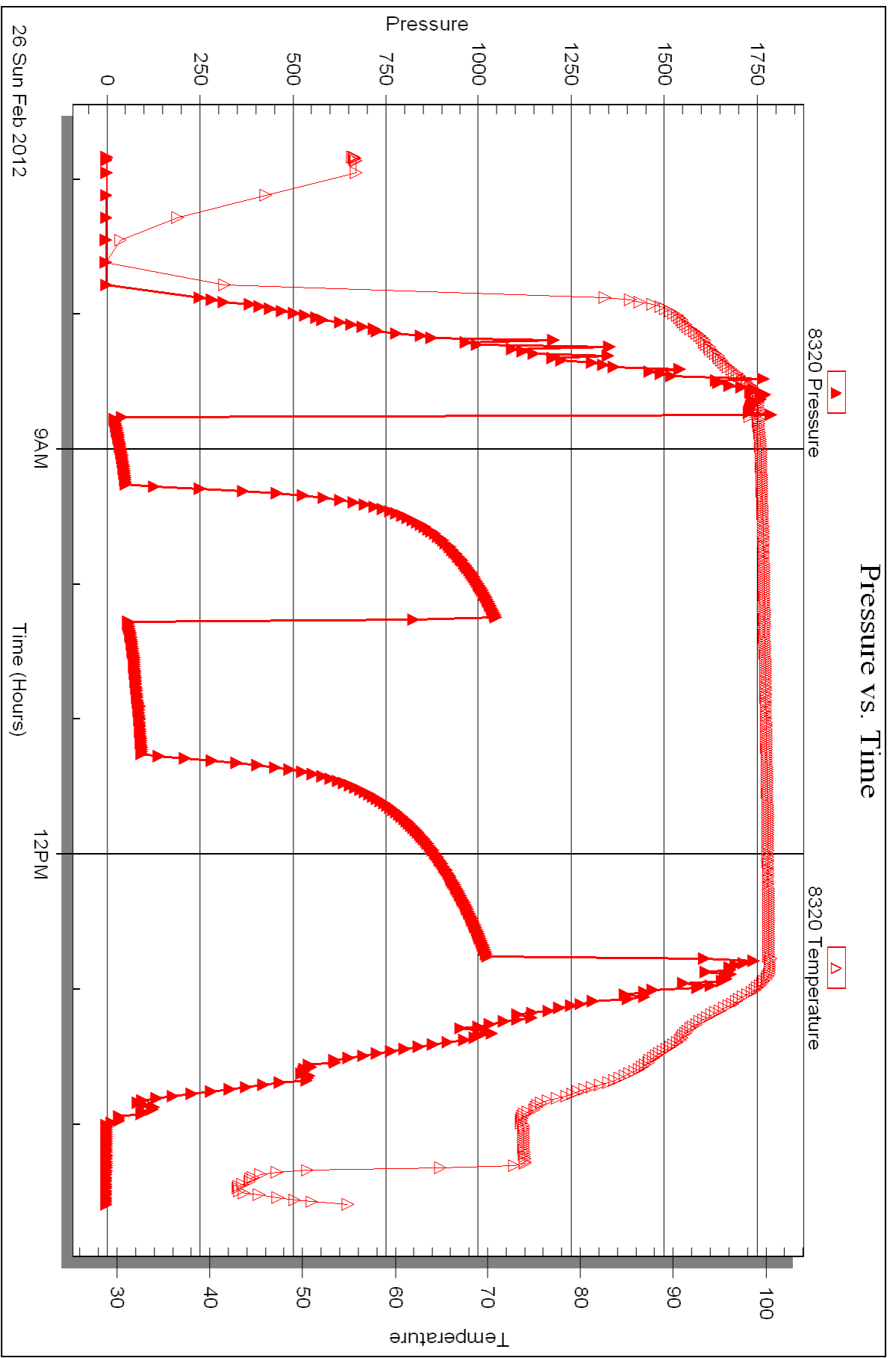
26 Sun Feb 2012

Serial #: 8320

Outside Murfin Drilling Co., Inc.

Thiele Unit #1-20

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 042981

Printed: 2012.03.02 @ 11:13:23



DRILL STEM TEST REPORT

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

250 N. Water Suite 300
Wichita, KS 67202

ATTN: Robert Hendrix

Thiele Unit #1-20

20-2s-24w Norton,KS

Start Date: 2012.02.27 @ 01:52:00

End Date: 2012.02.27 @ 08:28:30

Job Ticket #: 042982 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.03.02 @ 11:12:40

Murfin Drilling Co., Inc.

20-2s-24w Norton,KS

Thiele Unit #1-20

DST # 3

Reagan Sand/ Granite

2012.02.27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
 250 N. Water Suite 300
 Wichita, KS 67202
 ATTN: Robert Hendrix

20-2s-24w Norton, KS
Thiele Unit #1-20
 Job Ticket: 042982 **DST#: 3**
 Test Start: 2012.02.27 @ 01:52:00

GENERAL INFORMATION:

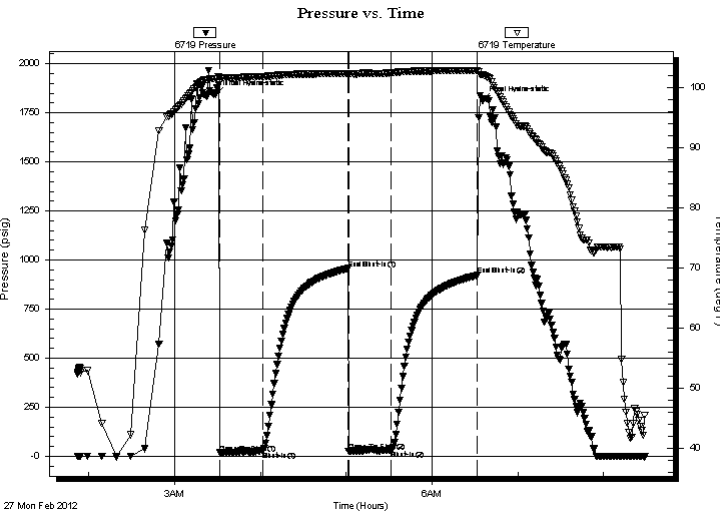
Formation: **Reagan Sand/ Granite**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:31:30
 Time Test Ended: 08:28:30
 Interval: **3780.00 ft (KB) To 3803.00 ft (KB) (TVD)**
 Total Depth: 3803.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2547.00 ft (KB)
 2536.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6719

Inside

Press @ Run Depth: 31.05 psig @ 3781.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.27 End Date: 2012.02.27 Last Calib.: 2012.02.27
 Start Time: 01:52:05 End Time: 08:28:29 Time On Btm: 2012.02.27 @ 03:28:30
 Time Off Btm: 2012.02.27 @ 06:35:00

TEST COMMENT: 30 - IF: Blow built to 1" in 10 min., slow ly died back to 1/2" at close
 60 - IS: Bled off, No blow back
 30 - FF: No blow
 60 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1842.12	101.45	Initial Hydro-static
3	17.96	101.65	Open To Flow (1)
33	25.74	101.82	Shut-In(1)
93	956.80	102.34	End Shut-In(1)
93	25.65	102.22	Open To Flow (2)
123	31.05	102.41	Shut-In(2)
183	922.00	102.82	End Shut-In(2)
187	1814.10	102.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SWCM 97% m, 3% w	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042982

DST#: 3

ATTN: Robert Hendrix

Test Start: 2012.02.27 @ 01:52:00

Tool Information

Drill Pipe:	Length: 3547.00 ft	Diameter: 3.80 inches	Volume: 49.76 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: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 50.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3780.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 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			3757.00	
Hydraulic tool	5.00			3762.00	
Jars	5.00			3767.00	
Safety Joint	3.00			3770.00	
Packer	5.00			3775.00	28.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Stubb	1.00			3781.00	
Recorder	0.00	6719	Inside	3781.00	
Recorder	0.00	8320	Outside	3781.00	
Perforations	19.00			3800.00	
Bullnose	3.00			3803.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

20-2s-24w Norton, KS

250 N. Water Suite 300
Wichita, KS 67202

Thiele Unit #1-20

Job Ticket: 042982

DST#: 3

ATTN: Robert Hendrix

Test Start: 2012.02.27 @ 01:52:00

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: 1800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	SWCM 97% _m , 3% _w	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

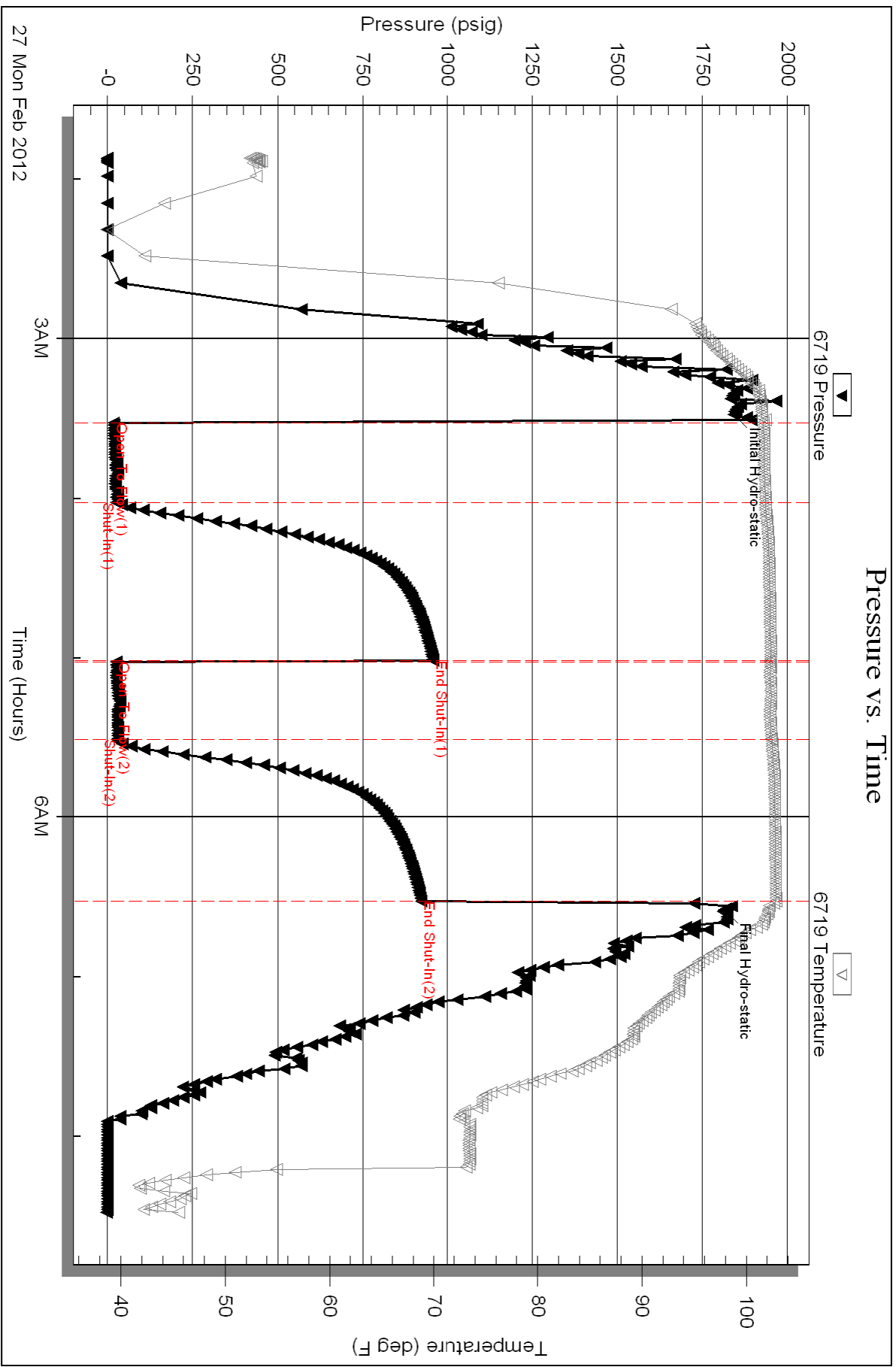
Serial #: 6719

Inside

Murfin Drilling Co., Inc.

Thiele Unit #1-20

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 042982

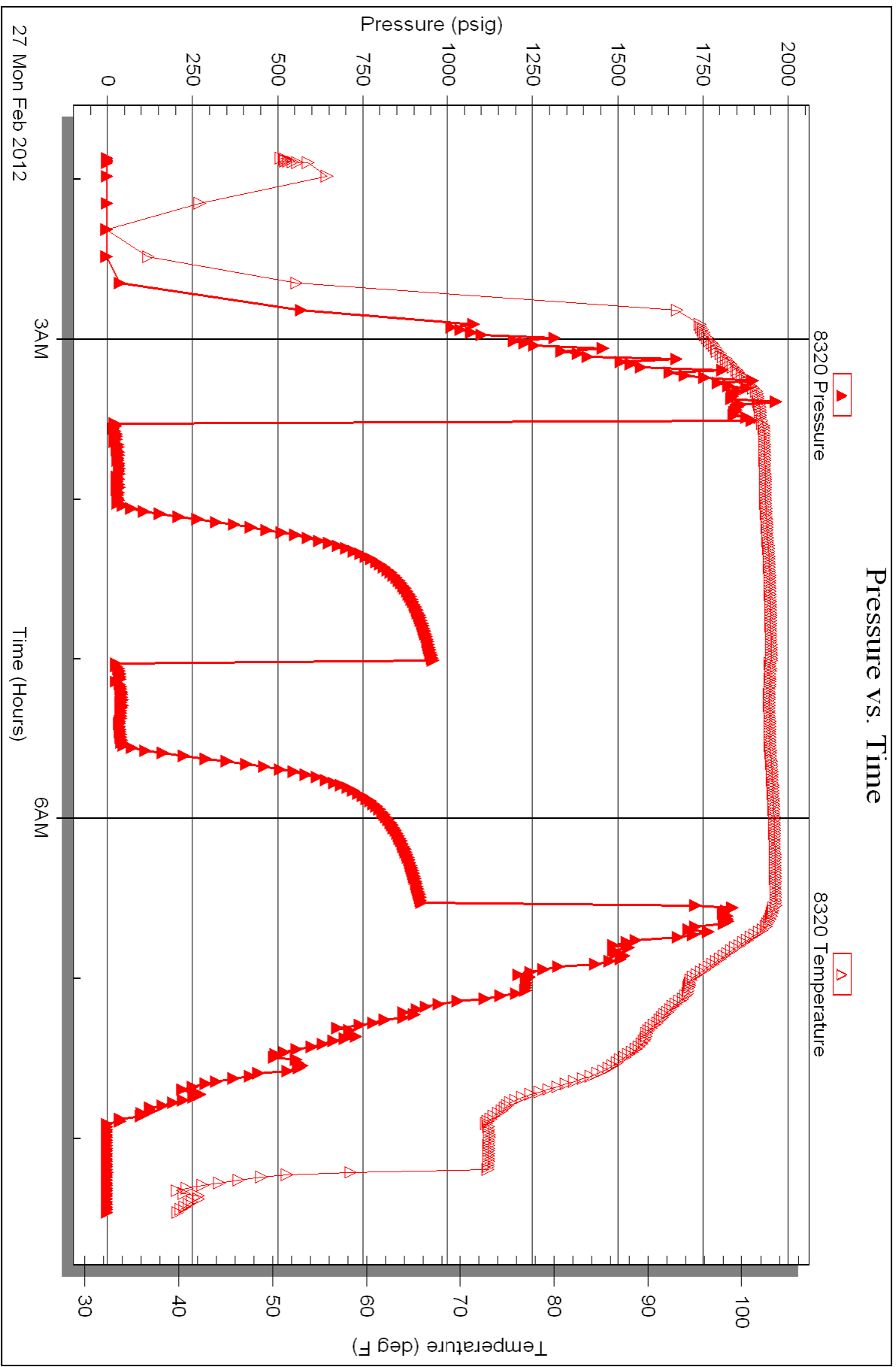
Printed: 2012.03.02 @ 11:12:42

Serial #: 8320

Outside Murfin Drilling Co., Inc.

Thiele Unit #1-20

DST Test Number: 3



27 Mon Feb 2012

3 AM

Time (Hours)

6 AM



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAR 01 2012

Test Ticket

NO. 042980

4/10

Well Name & No. Thiele Unit #1-20 Test No. 1 Date 2-25-12
 Company Murfin Drilling Co. Inc. Elevation 2547 KB 2536 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #21
 Location: Sec. 20 Twp. 2s Rge. 24w Co. Norton State KS

Interval Tested 3520 - 3600 Zone Tested LKC "A-6"
 Anchor Length 80 Drill Pipe Run 32.95 Mud Wt. 9.3
 Top Packer Depth 3515 Drill Collars Run 210 Vis 65
 Bottom Packer Depth 3520 Wt. Pipe Run - WL 5.6
 Total Depth 3600 Chlorides 1600 ppm System LCM trace

Blow Description IF: Blow built to 3"
ISI: Bled off, weak on/off surface blowback, dead after 20 min.
FF: Blow built to 3 1/4"
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Swcm</u>		<u>2</u>	<u>98</u>	
<u>120</u>	<u>MCW</u>		<u>79</u>	<u>21</u>	

Rec Total 125 BHT 101 Gravity - API RW .211 @ 62.4 °F Chlorides 39000 ppm

(A) Initial Hydrostatic <u>1726</u>	<input type="checkbox"/> Test <u>* 1125</u>	T-On Location <u>6:45 7:00</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars <u>* 250</u>	T-Started <u>8:40</u>
(C) First Final Flow <u>39</u>	<input type="checkbox"/> Safety Joint <u>* 75</u>	T-Open <u>10:19</u>
(D) Initial Shut-In <u>1206</u>	<input checked="" type="checkbox"/> Circ Sub <u>XNA</u>	T-Pulled <u>14:18</u>
(E) Second Initial Flow <u>43</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>16:00</u>
(F) Second Final Flow <u>76</u>	<input type="checkbox"/> Mileage <u>58RT 81²⁰</u>	Comments
(G) Final Shut-In <u>1193</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1684</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>1531</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1531²⁰</u>	

Approved By [Signature] 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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAR 01 2012
BY: _____

Test Ticket

NO. 042981

Well Name & No. Thiele Unit #1-20 Test No. 2 Date 2-26-12
 Company Murfin Drilling Co., Inc. Elevation 2547 KB 2536 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #21
 Location: Sec. 20 Twp. 2s Rge. 24w Co. Norton State KS

Interval Tested 3596 - 3700 Zone Tested LKC "H-L"
 Anchor Length 104 Drill Pipe Run 3388 Mud Wt. 9.1
 Top Packer Depth 3591 Drill Collars Run 210 Vis 62
 Bottom Packer Depth 3596 Wt. Pipe Run - WL 5.6
 Total Depth 3700 Chlorides 1800 ppm System LCM Trace

Blow Description IF: 1/2 Blow at open, built to 3 1/2"
ISI: Bled off, No Blowback
FF: Blow started at 6min., built to 2 1/2"
FSI: Bled off, No Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>165</u>	<u>Mud w/oil spots</u>	<u>2</u>	<u>2</u>	<u>-</u>	<u>96</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 165 BHT 100 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1730</u>	<input type="checkbox"/> Test <u>* 1125"</u>	T-On Location <u>6:30</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars <u>* 250"</u>	T-Started <u>6:50</u>
(C) First Final Flow <u>52</u>	<input type="checkbox"/> Safety Joint <u>* 75"</u>	T-Open <u>8:46</u>
(D) Initial Shut-In <u>1049</u>	<input checked="" type="checkbox"/> Circ Sub <u>* NA</u>	T-Pulled <u>12:46</u>
(E) Second Initial Flow <u>57</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>14:30</u>
(F) Second Final Flow <u>95</u>	<input type="checkbox"/> Mileage <u>58 RT 81²⁰</u>	Comments
(G) Final Shut-In <u>1026</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1678</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>95</u>
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>1531²⁰</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1531²⁰</u>	

Approved By [Signature] Our Representative [Signature]

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
MAR 01 2012

Test Ticket

NO. 042982

4/10

Well Name & No. Thiele Unit #1-20 Test No. 3 Date 2-27-12
 Company Murfin Drilling Co., Inc. Elevation 2547 KB 2536 GL
 Address 250 N. Water Suite 300 Wichita, KS. 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #21
 Location: Sec. 20 Twp. 2s Rge. 24w Co. Norton State KS

Interval Tested 3780 - 3803 Zone Tested Reagan Sand / Granite Wash
 Anchor Length 23 Drill Pipe Run 3547 Mud Wt. 9.3
 Top Packer Depth 3775 Drill Collars Run 210 Vis 61
 Bottom Packer Depth 3780 Wt. Pipe Run - WL 6.0
 Total Depth 3803 Chlorides 1800 ppm System LCM 1 1/2

Blow Description IF: Blow built to 1" in 10min, slowly died back to 1/2" at close
ISI: Bled off, No blowback

FF: No Blow

FSI: No Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>SWCM</u>	<u>-</u>	<u>-</u>	<u>3</u>	<u>97</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 30 BHT 103 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1842 Test * 1125" T-On Location 1:25
 (B) First Initial Flow 18 Jars * 250" T-Started 1:52
 (C) First Final Flow 26 Safety Joint * 75" T-Open 3:31
 (D) Initial Shut-In 957 Circ Sub ANA T-Pulled 6:31
 (E) Second Initial Flow 26 Hourly Standby T-Out 8:20
 (F) Second Final Flow 31 Mileage 58RTX2 162⁴⁰ Comments _____
 (G) Final Shut-In 922 Sampler _____
 (H) Final Hydrostatic 1814 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1612⁴⁰
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1612⁴⁰

Approved By [Signature] Our Representative [Signature]

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



PO Box 93999
Southlake, TX 76092

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

INVOICE

acct. Sig H.

PROD COPY

Invoice Number: 130282

Invoice Date: Feb 21, 2012

Page: 1

Bill To:

Murfin Drilg. Co., Inc.
250 N. Water
STE #300
Wichita, KS 67202

Federal Tax I.D.#: 20-8651475

OPERATOR PAY MDC

LEASE: BM

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	Thiele Unit #1-20	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Oakley	Feb 21, 2012	3/22/12

Quantity	Item	Description	Unit Price	Amount
200.00	MAT	Class A Common	16.25	3,250.00
7.00	MAT	Chloride	58.20	407.40
207.00	SER	Handling	2.25	465.75
84.00	SER	Mileage	22.77	1,912.68
1.00	SER	Surface	1,125.00	1,125.00
12.00	SER	Extra Footage	0.95	11.40
84.00	SER	Heavy Vehicle Mileage	7.00	588.00
1.00	SER	Manifold Head Rental	200.00	200.00
84.00	SER	Light Vehicle Mileage	4.00	336.00
1.00	EQP	8 5/8 Top Wooden Plug	92.00	92.00
1.00	EQUIP OPER	Darren Racette		
1.00	CEMENTER	Larene Wentz		
1.00	OPER ASSIST	Dane Retzloff		
1.00	OPER ASSIST	Billy Turner		

Account # ID203 5716.68 Cement S. Csg.
3.8086.0001 * 1-20

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

\$ 2935.88

ONLY IF PAID ON OR BEFORE

Mar 17, 2012

Subtotal	8,388.23
Sales Tax	264.33
Total Invoice Amount	8,652.56
Payment/Credit Applied	
TOTAL	8,652.56

PIED

mw 2935.88
5716.68

ALLIED CEMENTING CO., LLC. 040927

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Oakley

DATE <u>2-21-12</u>	SEC. <u>20</u>	TWP. <u>2</u>	RANGE <u>24</u>	CALLED OUT	ON LOCATION <u>8:00 PM</u>	JOB START <u>9:00</u>	JOB FINISH <u>9:30</u>
Thiele Unit LEASE		WELL # <u>1-20</u>	LOCATION <u>Norton 8W 2 1/2 N-W into</u>		COUNTY <u>Norton</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Murfin #21

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 312

CASING SIZE 8 5/8 DEPTH 312

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15 FT

PERFS.

DISPLACEMENT 19.01 BBL

OWNER Same

CEMENT

AMOUNT ORDERED 200 SKs Com 3% CC

EQUIPMENT

PUMP TRUCK CEMENTER Darren R. LaRene

431 HELPER Dane

BULK TRUCK

347 DRIVER Billy

BULK TRUCK

DRIVER

COMMON 200 SKs @ \$16.25 \$ 3250.00

POZMIX @

GEL @

CHLORIDE 7 SKs @ \$58.20 \$ 407.40

ASC @

HANDLING 207 SKs @ 225 \$ 465.75

MILEAGE 114 Per mile 719.12

TOTAL \$ 6035.80

REMARKS:

Mix SKs Cement

Displace with water

Cement Did Circulate

Thank You

SERVICE

DEPTH OF JOB 312 \$ 1125.00

PUMP TRUCK CHARGE 12 FT @ .95 \$ 11.40

EXTRA FOOTAGE @

MILEAGE 84 @ \$ 7.00 \$ 588.00

MANIFOLD Head @ \$ 200.00

LV mileage @ \$ 4.00 \$ 336.00

TOTAL \$ 2260.40

CHARGE TO: Murfin Drilling Co.

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

1 Top wooden Plug \$ 92.00

@

@

@

@

@

TOTAL \$ 92.00

To Allied Cementing Co., LLC.

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

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME JUAN TINOCO

SIGNATURE JUAN TINOCO

unc. sign.

INVOICE

PO Box 93999
Southlake, TX 76092

PROD COPY

Invoice Number: 130347
Invoice Date: Feb 28, 2012
Page: 1

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

Bill To:
Murfin Drig. Co., Inc.
*PO Box 6661
Colby, KS 67701*

Federal Tax I.D.#: 20-8651475
OPERATOR PAY MDC
LEASE: BM

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	Thiele Unit #1-20	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Oakley	Feb 28, 2012	3/29/12

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Class A Common	16.25	2,145.00
88.00	MAT	Pozmix	8.50	748.00
8.00	MAT	Gel	21.25	170.00
55.00	MAT	Flo Seal	2.70	148.50
231.00	SER	Handling	2.25	519.75
84.00	SER	Mileage 231 sx @ .11 per sk per mi	25.41	2,134.44
1.00	SER	Plug to Abandon	1,250.00	1,250.00
84.00	SER	Pump Truck Mileage	7.00	588.00
84.00	SER	Light Vehicle Mileage	4.00	336.00
1.00	EQP	8.5/8 Wooden Plug	92.00	92.00
1.00	CEMENTER	Alan Ryan		
1.00	CEMENTER	Terry Heinrich		
1.00	OPER ASSIST	Dane Retzliff		

ID203

3.1

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

\$ 2846.09

ONLY IF PAID ON OR BEFORE
Mar 24, 2012

ID203

Subtotal	8,131.69
Sales Tax	573.28
Total Invoice Amount	8,704.97
Payment/Credit Applied	
TOTAL	8,704.97

PTA

5858.88

3.8086.0001

PTA #1-20

- 2846.09

5858.88

ALLIED CEMENTING CO., LLC. 035350

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:

Oakley, KS

DATE <i>2/28/12</i>	SEC. <i>20</i>	TWP. <i>2</i>	RANGE <i>24</i>	CALLED OUT	ON LOCATION <i>3:30 AM</i>	JOB START <i>5:00 AM</i>	JOB FINISH <i>6:00 PM</i>
LEASE <i>Thiele well</i>	WELL # <i>1-20</i>	LOCATION <i>36-383 Jct 2W 2 1/2 N W into</i>			COUNTY <i>Polk</i>	STATE <i>Ks</i>	
OLD OR NEW (Circle one)							

CONTRACTOR *Murfin 21*
 TYPE OF JOB *PTD*
 HOLE SIZE *7 1/8* T.D.
 CASINO SIZE *8 1/8* DEPTH *310'*
 TUBING SIZE DEPTH
 DRILL PIPE *4 1/2* DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

OWNER *Same*
 CEMENT AMOUNT ORDERED *220 60/40 90 gel*
14 Flo Seal

EQUIPMENT
 PUMP TRUCK CEMENTER *Ala*
 # *422* HELPER *Terry*
 BULK TRUCK
 # *904* DRIVER *Same*
 BULK TRUCK
 # DRIVER

COMMON *132* @ *16.25* *2145.00*
 POZMIX *88* @ *8.50* *748.00*
 GEL *8* @ *21.25* *170.00*
 CHLORIDE @
 ASC @
 Flo Seal *55 lb* @ *2.70* *148.50*
 HANDLING *231 SKs* @ *2.25* *519.75*
 MILEAGE *119 SK/mile* @ *2.134* *254.00*
 TOTAL *5695.69*

REMARKS:

2097 - 25 SKs
1337 - 100 SKs
349 - 40 SKs
40 - 10 SKs
Put 66.4 - 30
Manure hole - 15

Thank You
Ala, Terry, Same

CHARGE TO: *Murfin Drilling*
 STREET
 CITY STATE ZIP

SERVICE

DEPTH OF JOB *20*
 PUMP TRUCK CHARGE *1250.00*
 EXTRA FOOTAGE @
 MILEAGE *84 miles* @ *7.00* *588.00*
 MANIFOLD @
 Cite Vehicle *89 miles* @ *4.00* *356.00*
 TOTAL *2204.00*

PLUG & FLOAT EQUIPMENT

8 1/8 Wooden Plug @ *92.00*
 @
 @
 @
 @
 TOTAL *92.00*

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

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME *Ivan Tinoco*

SIGNATURE *Ivan Tinoco*