Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1094134

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 # 30606
Name: Murfin Drilling Co., Inc.
Address 1: 250 N WATER STE 300
Address 2:
City: WICHITA State: KS Zip: 67202 + 1216
Contact Person: Leon Rodak
Phone: (316) 267-3241
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Paul Gunzelman
Purchaser: NA

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 #:

05/29/2012	06/07/2012	06/21/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-023-21351-00-00
Spot Description:
S2 - N2 - NW - SW Sec. 25 Twp. 1 S. R. 37 ☐ East ☑ West
2276 Feet from ☐ North / ☑ South Line of Section
660 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)*, Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Cheyenne
Lease Name: Johnsen 'D' Well #: 1-25
Field Name:
Producing Formation: Oread, LKC
Elevation: Ground: 3312 Kelly Bushing: 3317
Total Vertical Depth: 5070 Plug Back Total Depth: 4610
Amount of Surface Pipe Set and Cemented at: 305 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: 700 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated
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: 09/20/2012
☑ **Confidential Release Date:** 09/20/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 09/20/2012

1094134

Operator Name: Murfin Drilling Co., Inc. Lease Name: Johnsen 'D' Well #: 1-25

Sec. 25 Twp. 1 S. R. 37 ☐ East ☑ West County: Cheyenne

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction
Dual Compensated
Microresistivity

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
See Attachment		

CASING RECORD ☑ New ☐ 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
Surface	12.2500	8.6250	23	305	Common	225	3% cc
Production	7.8750	5.5000	15.5	4631	EA2	175	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
____ Perforate ____ Protect Casing ____ Plug Back TD ____ 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 *(Amount and Kind of Material Used)*	Depth
4	4190 - 4194 Oread		
4	4329 - 4331, 4334 - 4339 LKC 'D'	300 gal 15% MCA	
4	4389 - 4393 LKC 'G'	250 gal 15% MCA	
4	4433 - 4436 LKC 'H'	250 gal 15% MCA	

TUBING RECORD: Size: Set At: Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 06/21/2012

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☑ Other *(Explain)* Temporarily Abandoned

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
4190-4436

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

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

September 19, 2012

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

Re: ACO1
API 15-023-21351-00-00
Johnsen 'D' 1-25
SW/4 Sec.25-01S-37W
Cheyenne 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

	MDCI Johnsen ‘D’ #1-25 2276’ FSL 660’ FWL Sec. 25-T1S-R37W 3317’ KB						MDCI Hatch #1-30 S2 N2 NE NE Sec. 30-T1S-R36W 3295’ KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	3228	+89	-5	3242	+75	-19	3201	+94
B/Anhydrite	3266	+51	-9	3276	+41	-19	3235	+60
Neva	3712	-395	-3	3717	-400	-8	3687	-392
Red Eagle	3776	-495	-5	3781	-464	-10	3749	-454
Foraker	3824	-507	-4	3833	-516	-13	3798	-503
Stotler	3978	-661	-6	3978	-661	-6	3950	-655
Topeka	4048	-731	-6	4053	-736	-11	4020	-725
Oread	4180	-863	-8	4184	-867	-12	4150	-855
Lansing	4267	-950	-9	4271	-954	-13	4236	-941
Stark	4482	-1165	-5	4487	-1170	-10	4455	-1160
BKC	4540	-1223	-6	4546	-1229	-12	4512	-1217
Pawnee	4660	-1343	------	4660	-1343	------	NDE	------
Cherokee	4741	-1424	------	4746	-1429	------	NDE	------
Mississippi	4969	-1652	------	4974	-1657	------	NDE	------
RTD	5070						4520	
LTD				5070			4525	

GEOLOGISTS REPORT

MURFIN DRILLING COMPANY, INC.

OPERATOR	MURFIN DRILLING COMPANY, INC.	ELEVATIONS	
LEASE	JOHNSEN 32 # 1-25	KB	3374
25	15	DF	3372
SEC	TWP	GL	3367
2310' FNL & 660' FWL			
FOOTAGE			
WILDCAT		CONTRACTOR	SUPERIOR
FIELD			
CHEYENNE	KANSAS		
COUNTY	STATE		

SPUD DATE	2/22/07	7:00 AM	
COMPLETION DATE	3/2/07	7:00 AM	
TOTAL DEPTH	5070'		
CASING RECORD	8 5/8" @ 1000'		
DRILLING TIME	3/2/07	7:00 AM	
ELECTRICAL SURVEY	Superior Well Services		
DRILLING MUD	Chemical Mud		
DRILL STEM TESTS	None		
CORE DESCRIPTION	None		
DST DESCRIPTION	None		
ELECTRICAL LOGS	Superior Well Services		

REMARKS

API: 15-023-21331-00-00
Drilling Contractor: Superior Drilling Inc. (David Lines, engineer)
Drill Stem Testing: Trilobite Testing, Inc. (Kevin Black, tester)
Gas Tester: No Gas Tester
Reserve Pit Chlorides: 700 PPM

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
	3200			
	3250			STONE CORRAL 3234 (-140) BASE/ANHYDRITE 3266 (-171)
	3300			5:45 pm, 2 June 2002
	3350		Mottled, dark tan & gray, calcareous, sandy, sandy mottled in part, soft.	
	3400		Mottled, gray brown & tan, calcareous, sandy, sandy mottled in part, soft.	
	3450		Mottled, tan & gray, soft, calcareous, sandy, sandy mottled in part, soft.	
	3500		Mottled, tan & dk. brown, soft-firm, sandy, mouldic clay, 10%.	
	3550		Mottled, medium gray & tan, v.dk.gray, sandy, some mottled soft clay, v.c.hard, 10%.	
	3600		Limestone, fine-clay, mouldic-vuggy, mod. cuttings, sandy, some gum, 5-10%.	
	3650		Limestone, mottled, v.lt.gray & tan, mouldic-vuggy, mod. cuttings, 10%.	
	3700		Tr.lt.gray, clay, vitreous, sandy, some dk. & brown, v.hard, 5-10%.	NEVA 3710 (-393)
	3750		Limestone & gray-brown, granular-frag., v.c.hard, sandy, mod. cuttings, 10%.	
	3800		Limestone, fine-gram, mod. v.hard, sandy, v.dk.gray & tan, v.c.hard, 10%.	
	3850		Limestone, tan & gray, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	3900		Limestone, fine-gram, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	3950		Limestone, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	RED EAGLE 3776 (-450)
	4000		Limestone, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	Merger Mud check @ 3830' Vis 52, WT 9.3, WL 8.2 Chlor 1,000 ppm, LCM 1/8#
	4050		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	FORAKER 3827 (-510)
	4100		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4150		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4200		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	STOTLER 3978 (-661)
	4250		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4300		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4350		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	TOPEKA 4048 (-731)
	4400		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4450		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4500		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4550		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4600		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4650		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4700		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4750		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4800		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4850		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4900		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	4950		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	5000		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	5050		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	
	5100		Mottled, v.dk.gray, v.c.hard, sandy, some clay, v.c.hard, 10%.	

Merger Mud check @ 4000' Vis 52, WT 9.3, WL 8.2 Chlor 1,000 ppm, LCM 1/8#

ONEAD 4180 (-863)

1st K.C. 4201 (-884)
Merger Mud check @ 4200' Vis 52, WT 9.3, WL 8.2 Chlor 1,000 ppm, LCM 1/8#

2nd K.C. 4232 (-915)
Merger Mud check @ 4230' Vis 52, WT 9.3, WL 8.2 Chlor 1,000 ppm, LCM 1/8#

LANSING 4252 (-935)

3rd K.C. 4446 (-1129)
Merger Mud check @ 4445' Vis 52, WT 9.3, WL 8.2 Chlor 1,000 ppm, LCM 1/8#

BASE/KANSAS CITY 4580 (-1223)

FAWNEE 4660 (-1343)

CHEROKEE 4741 (-1424)

MISSISSIPPIAN 4969 (-1652)

TOTAL DEPTH 5070 (-1753)

7:54 PM, 2 June 2002

Operator: MURFIN DRILLING COMPANY, INC.
Lease: JOHNSEN 32 # 1-25
Location: 2310 FNL & 660 FWL SEC 25 TWP 15 RGE 37W
County: CHEYENNE State: KANSAS

DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

Johnson 'D' #1-25

25-1s-37w Cheyenne,KS

Start Date: 2012.06.03 @ 04:10:00

End Date: 2012.06.03 @ 12:24:15

Job Ticket #: 48007 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.11 @ 10:55:38

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48007 **DST#: 1**

Test Start: 2012.06.03 @ 04:10:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:09:45
Time Test Ended: 12:24:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4125.00 ft (KB) To 4190.00 ft (KB) (TVD)
Total Depth: 4190.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

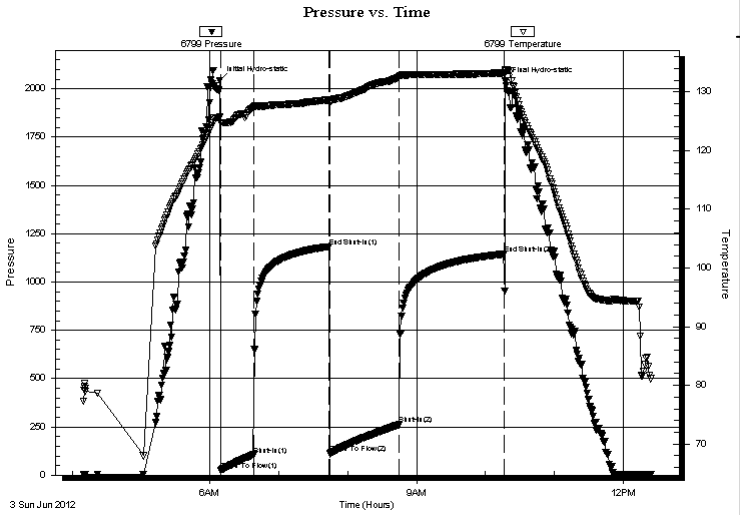
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 261.31 psig @ 4126.00 ft (KB)
Start Date: 2012.06.03 End Date: 2012.06.03
Start Time: 04:10:05 End Time: 12:24:14

Capacity: 8000.00 psig
Last Calib.: 2012.06.03
Time On Btm: 2012.06.03 @ 06:08:45
Time Off Btm: 2012.06.03 @ 10:17:15

TEST COMMENT:
30 - IF- 1/2" Blow built to 5 1/2"
60 - IS- No Return
60 - FF- Blow started at 6 min. Built to 9 1/2"
90 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2042.69	125.71	Initial Hydro-static
1	24.48	124.81	Open To Flow (1)
29	105.03	127.27	Shut-In(1)
95	1183.22	128.64	End Shut-In(1)
96	111.12	128.35	Open To Flow (2)
156	261.31	132.52	Shut-In(2)
247	1144.94	133.25	End Shut-In(2)
249	2039.40	133.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	OSWM 70M 30W (oil spots)	1.18
260.00	OSM 100M (oil spots)	1.28

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48007 **DST#: 1**

Test Start: 2012.06.03 @ 04:10:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:09:45
Time Test Ended: 12:24:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

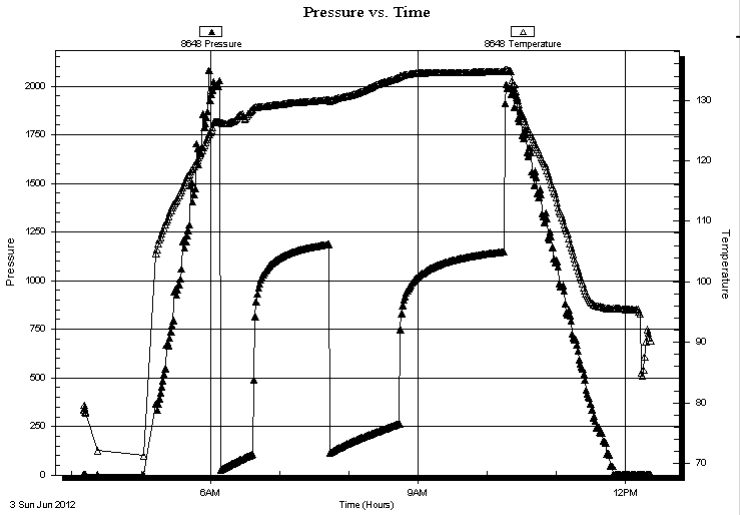
Interval: 4125.00 ft (KB) To 4190.00 ft (KB) (TVD)
Total Depth: 4190.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8648 **Inside**

Press@RunDepth:	psig @	4126.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2012.06.03	End Date:	2012.06.03	Last Calib.:	2012.06.03
Start Time:	04:10:05	End Time:	12:22:29	Time On Btm:	
				Time Off Btm:	

TEST COMMENT:
30 - IF- 1/2" Blow built to 5 1/2"
60 - IS- No Return
60 - FF- Blow started at 6 min. Built to 9 1/2"
90 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
240.00	OSWM 70M 30W (oil spots)	1.18
260.00	OSM 100M (oil spots)	1.28

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48007 **DST#: 1**

Test Start: 2012.06.03 @ 04:10:00

Tool Information

Drill Pipe:	Length:	3638.00 ft	Diameter:	3.80	inches	Volume:	51.03	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:	544.00 ft	Diameter:	2.25	inches	Volume:	2.68	bbl	Weight to Pull Loose:	85000.00 lb
						Total Volume:	53.71	bbl	Tool Chased	ft
Drill Pipe Above KB:		86.00 ft							String Weight: Initial	75000.00 lb
Depth to Top Packer:		4125.00 ft							Final	80000.00 lb
Depth to Bottom Packer:		ft								
Interval between Packers:		65.00 ft								
Tool Length:		94.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4097.00		
Shut In Tool	5.00			4102.00		
Hydraulic tool	5.00			4107.00		
Jars	5.00			4112.00		
Safety Joint	3.00			4115.00		
Packer	5.00			4120.00	29.00	Bottom Of Top Packer
Packer	5.00			4125.00		
Stubb	1.00			4126.00		
Recorder	0.00	8648	Inside	4126.00		
Recorder	0.00	6799	Inside	4126.00		
Perforations	26.00			4152.00		
Change Over Sub	1.00			4153.00		
Drill Pipe	31.00			4184.00		
Change Over Sub	1.00			4185.00		
Bullnose	5.00			4190.00	65.00	Bottom Packers & Anchor
Total Tool Length:	**94.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48007 **DST#: 1**

Test Start: 2012.06.03 @ 04:10:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	87.00 lb/gal	Cushion Length:	ft	Water Salinity:	16000 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	4.78 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	OSWM 70M 30W (oil spots)	1.180
260.00	OSM 100M (oil spots)	1.279

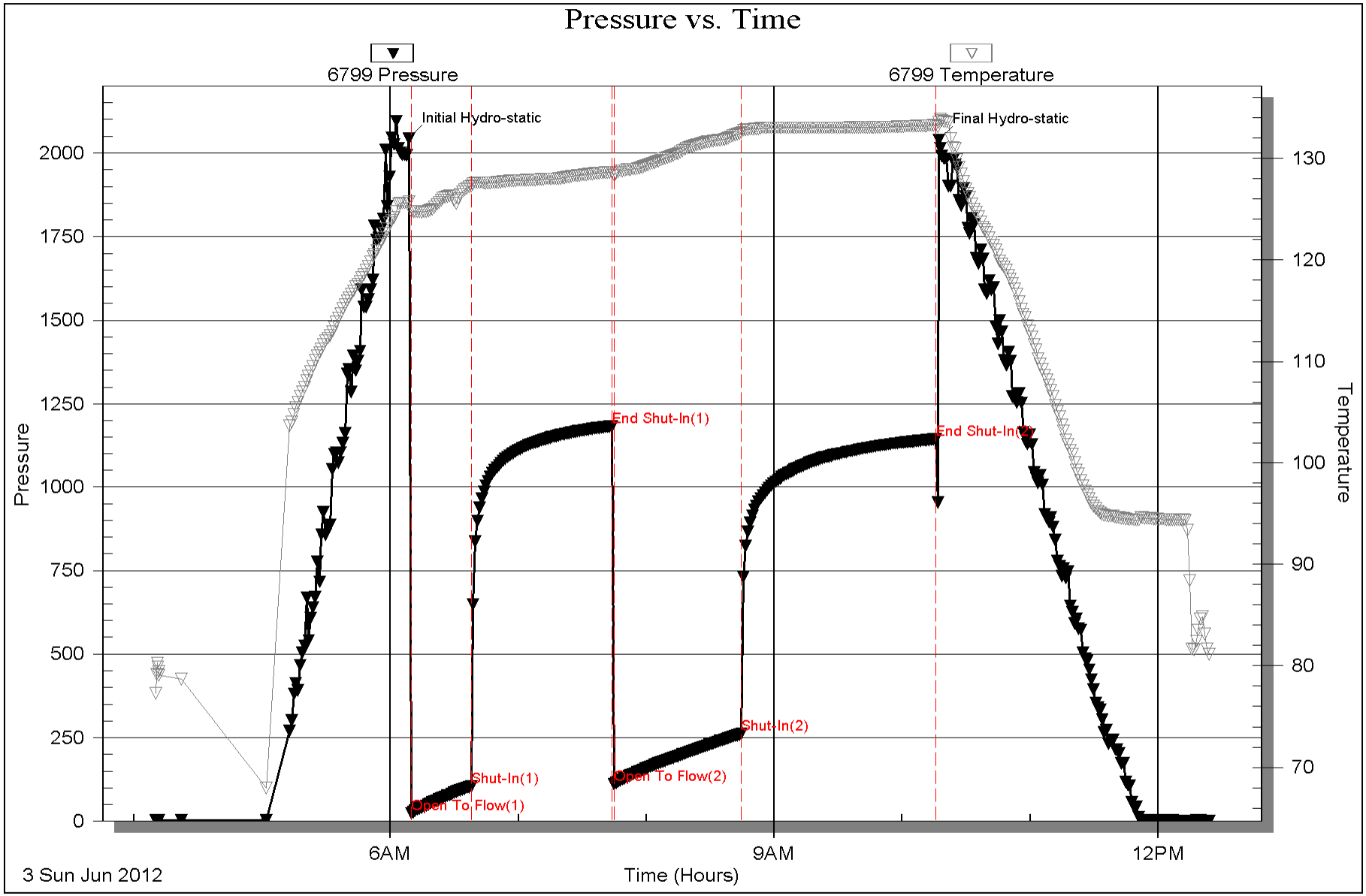
Total Length: 500.00 ft Total Volume: 2.459 bbl

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

Laboratory Name: Laboratory Location:

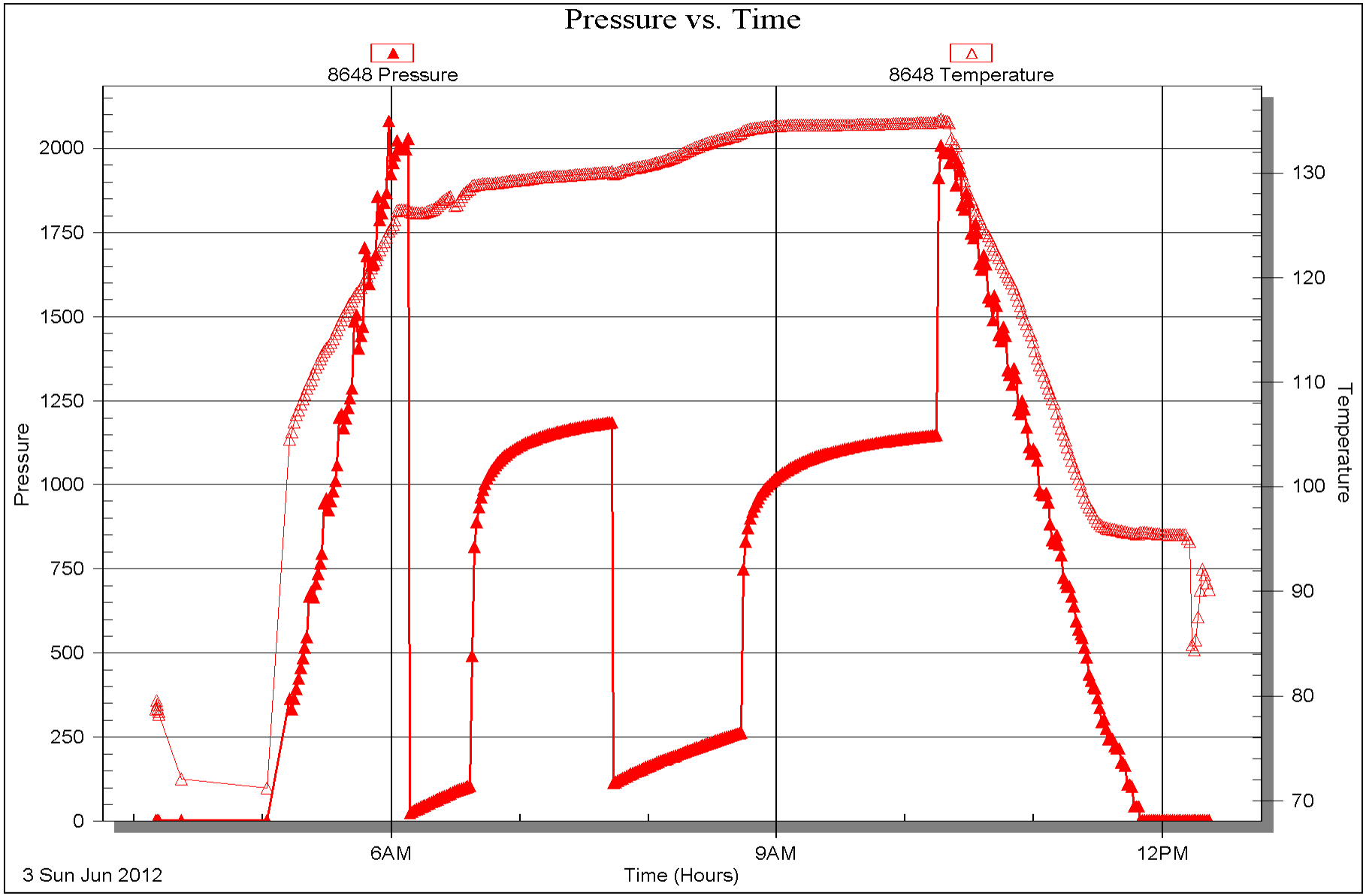
Recovery Comments: RW .36 @ 80 deg. = 16000ppm

Serial #: 6799 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48007 Printed: 2012.06.11 @ 10:55:41

Serial #: 8648 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48007 Printed: 2012.06.11 @ 10:55:41

DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

Johnson 'D' #1-25

25-1s-37w Cheyenne,KS

Start Date: 2012.06.04 @ 03:36:00

End Date: 2012.06.04 @ 11:52:30

Job Ticket #: 48008 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.11 @ 10:52:11

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48008 **DST#: 2**

Test Start: 2012.06.04 @ 03:36:00

GENERAL INFORMATION:

Formation: **LKC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:40:45
Time Test Ended: 11:52:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4284.00 ft (KB) To 4343.00 ft (KB) (TVD)
Total Depth: 4343.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

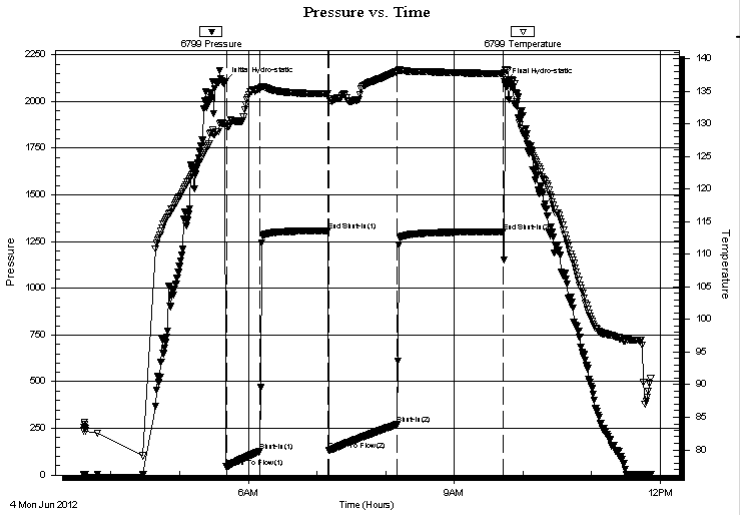
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 270.42 psig @ 4285.00 ft (KB)
Start Date: 2012.06.04 End Date: 2012.06.04
Start Time: 03:36:05 End Time: 11:52:29

Capacity: 8000.00 psig
Last Calib.: 2012.06.04
Time On Btm: 2012.06.04 @ 05:39:45
Time Off Btm: 2012.06.04 @ 09:44:15

TEST COMMENT:
30 - IF- 1" Blow built to 6"
60 - IS- No Return
60 - FF- Blow started at 12 min. Built to 7"
90 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.60	130.07	Initial Hydro-static
1	44.59	129.68	Open To Flow (1)
30	126.47	135.29	Shut-In(1)
90	1308.59	134.60	End Shut-In(1)
91	131.43	133.89	Open To Flow (2)
150	270.42	138.00	Shut-In(2)
243	1303.89	137.71	End Shut-In(2)
245	2103.45	137.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	OSMW 25M 75W (oil spots)	0.89
320.00	OSM 100M (oil spots)	1.57

Gas Rates

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

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48008 **DST#: 2**

Test Start: 2012.06.04 @ 03:36:00

GENERAL INFORMATION:

Formation: **LKC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:40:45
Time Test Ended: 11:52:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4284.00 ft (KB) To 4343.00 ft (KB) (TVD)
Total Depth: 4343.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

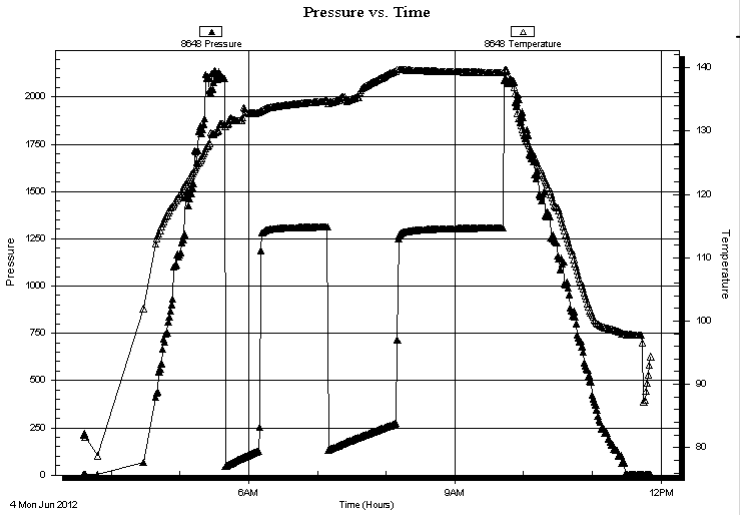
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8648 **Inside**

Press@RunDepth: psig @ 4285.00 ft (KB)
Start Date: 2012.06.04 End Date: 2012.06.04
Start Time: 03:36:05 End Time: 11:50:44

Capacity: 8000.00 psig
Last Calib.: 2012.06.04
Time On Btm:
Time Off Btm:

TEST COMMENT:
30 - IF- 1" Blow built to 6"
60 - IS- No Return
60 - FF- Blow started at 12 min. Built to 7"
90 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	OSMW 25M 75W (oil spots)	0.89
320.00	OSM 100M (oil spots)	1.57

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48008 **DST#: 2**

Test Start: 2012.06.04 @ 03:36:00

Tool Information

Drill Pipe:	Length:	3738.00 ft	Diameter:	3.80	inches	Volume:	52.43	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:	544.00 ft	Diameter:	2.25	inches	Volume:	2.68	bbl	Weight to Pull Loose:	85000.00 lb
						Total Volume:	55.11	bbl	Tool Chased	5.00 ft
Drill Pipe Above KB:		27.00 ft							String Weight: Initial	75000.00 lb
Depth to Top Packer:		4284.00 ft							Final	80000.00 lb
Depth to Bottom Packer:		ft								
Interval between Packers:		59.00 ft								
Tool Length:		88.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments: Tool opened approx 5' early and slid to bottom.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4256.00		
Shut In Tool	5.00			4261.00		
Hydraulic tool	5.00			4266.00		
Jars	5.00			4271.00		
Safety Joint	3.00			4274.00		
Packer	5.00			4279.00	29.00	Bottom Of Top Packer
Packer	5.00			4284.00		
Stubb	1.00			4285.00		
Recorder	0.00	8648	Inside	4285.00		
Recorder	0.00	6799	Inside	4285.00		
Perforations	20.00			4305.00		
Change Over Sub	1.00			4306.00		
Drill Pipe	31.00			4337.00		
Change Over Sub	1.00			4338.00		
Bullnose	5.00			4343.00	59.00	Bottom Packers & Anchor
Total Tool Length:	**88.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48008 **DST#: 2**

Test Start: 2012.06.04 @ 03:36:00

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:	16500 ppm
Viscosity:	65.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	OSMW 25M 75W (oil spots)	0.885
320.00	OSM 100M (oil spots)	1.574

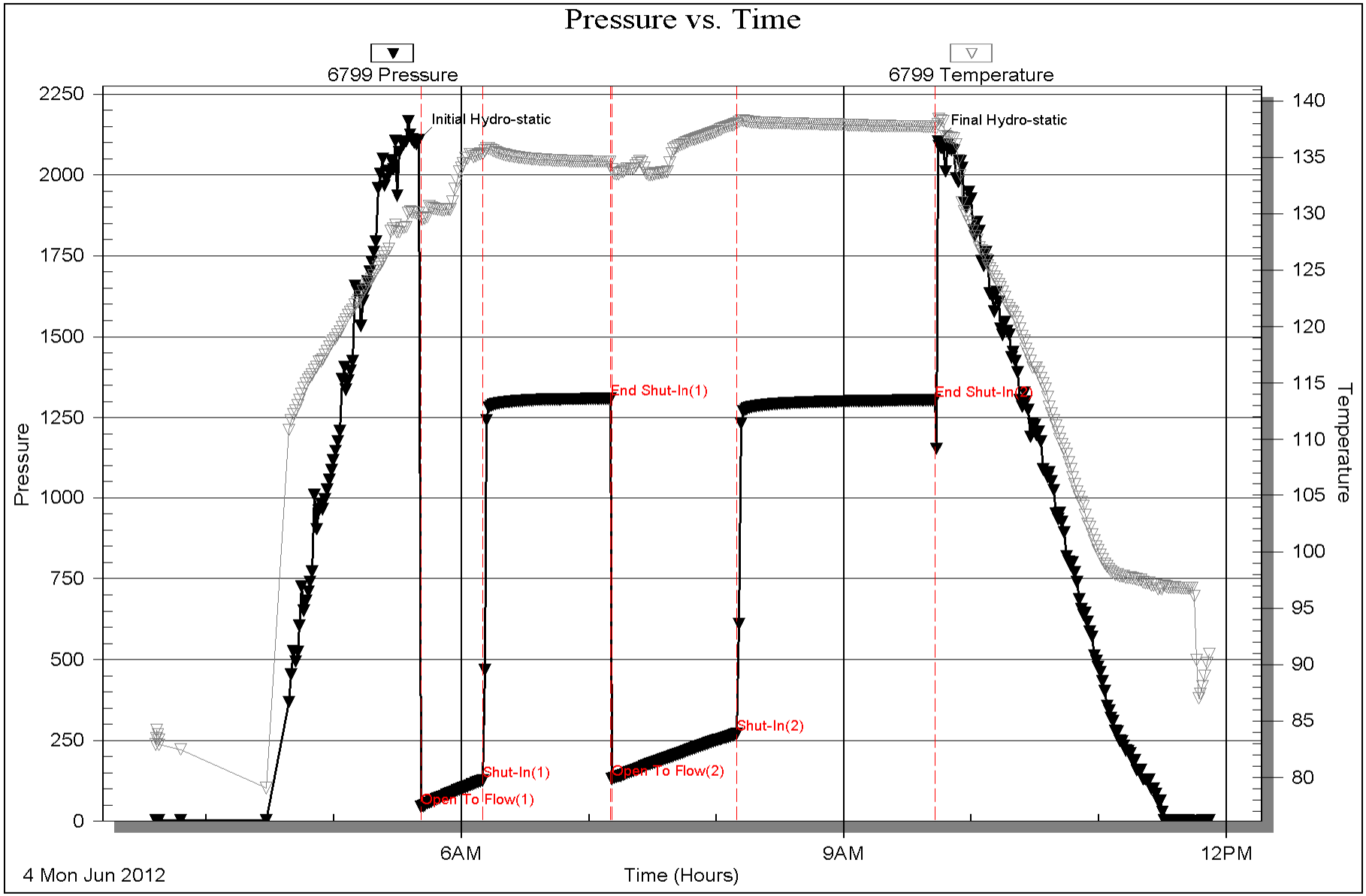
Total Length: 500.00 ft Total Volume: 2.459 bbl

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

Laboratory Name: Laboratory Location:

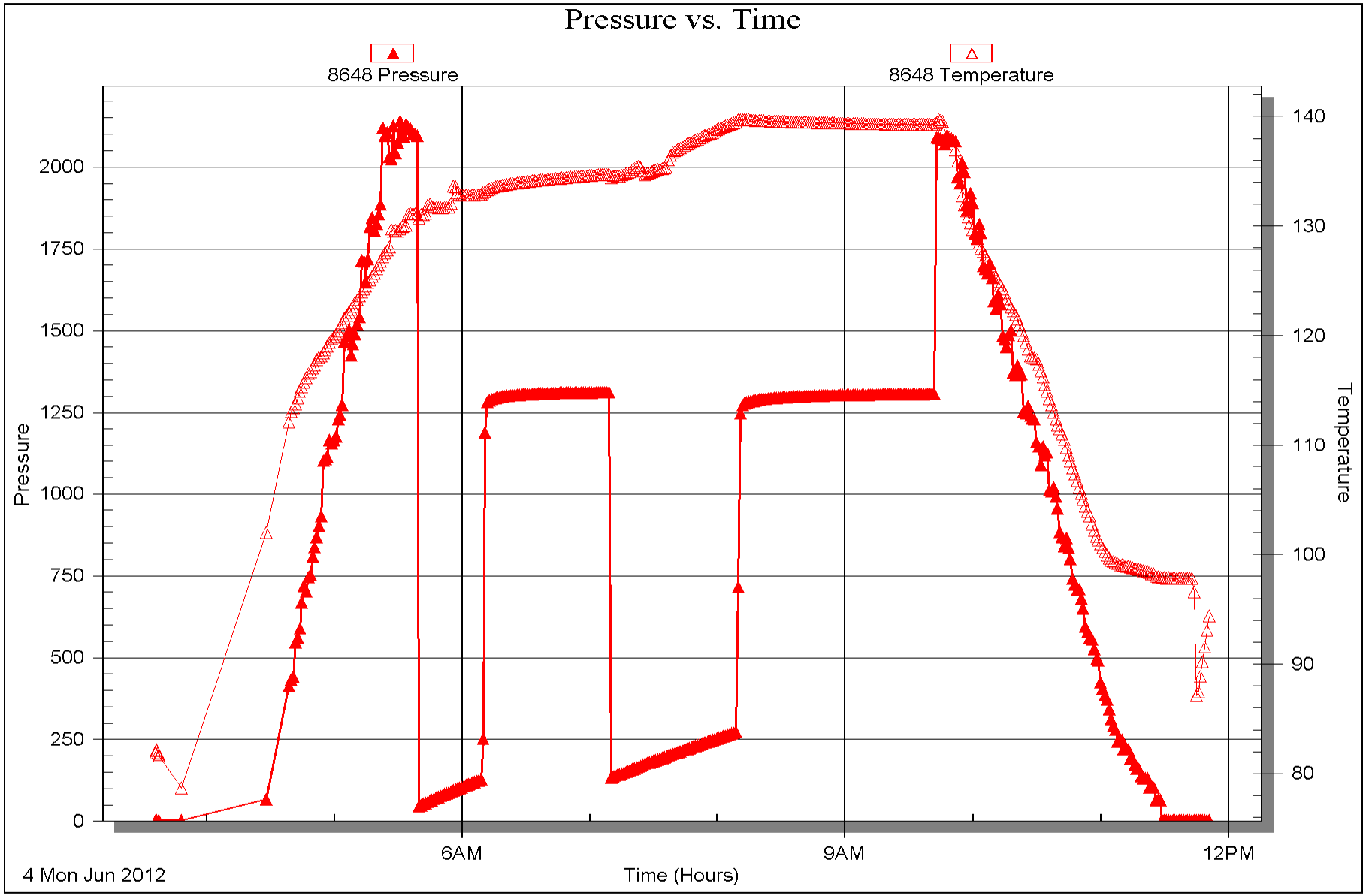
Recovery Comments: RW .31 @ 88 deg = 165000ppm

Serial #: 6799 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 48008 Printed: 2012.06.11 @ 10:52:14

Serial #: 8648 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 48008 Printed: 2012.06.11 @ 10:52:14

DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

Johnson 'D' #1-25

25-1s-37w Cheyenne,KS

Start Date: 2012.06.04 @ 20:28:00

End Date: 2012.06.05 @ 03:35:00

Job Ticket #: 48009 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.11 @ 10:50:55

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48009 **DST#: 3**

Test Start: 2012.06.04 @ 20:28:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:19:45
Time Test Ended: 03:35:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4339.00 ft (KB) To 4400.00 ft (KB) (TVD)
Total Depth: 4400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

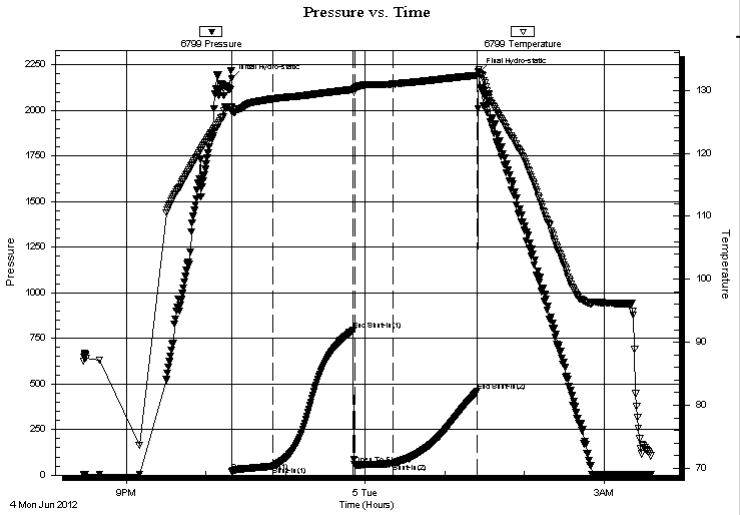
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 63.72 psig @ 4340.00 ft (KB)
Start Date: 2012.06.04 End Date: 2012.06.05
Start Time: 20:28:05 End Time: 03:34:59

Capacity: 8000.00 psig
Last Calib.: 2012.06.05
Time On Btm: 2012.06.04 @ 22:19:30
Time Off Btm: 2012.06.05 @ 01:25:45

TEST COMMENT:
30 - IF- Surface blow built to 2 1/4"
60 - IS- No Return
30 - FF- Surface blow started at 16 min. Built to 1/2"
60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2174.56	127.22	Initial Hydro-static
1	21.70	126.61	Open To Flow (1)
31	49.49	128.65	Shut-In(1)
91	793.33	130.13	End Shut-In(1)
93	57.28	130.30	Open To Flow (2)
122	63.72	130.98	Shut-In(2)
185	458.60	132.39	End Shut-In(2)
187	2206.46	133.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OCM 70M 30o	0.34

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48009 **DST#: 3**

Test Start: 2012.06.04 @ 20:28:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:19:45
Time Test Ended: 03:35:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4339.00 ft (KB) To 4400.00 ft (KB) (TVD)
Total Depth: 4400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

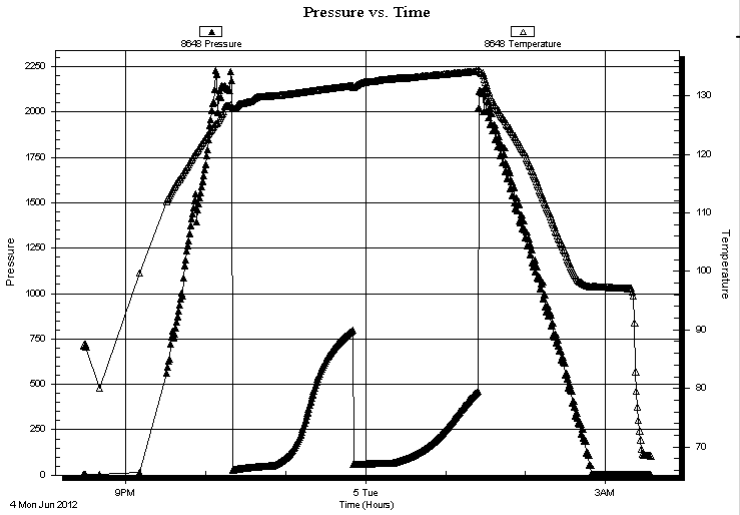
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8648 **Inside**

Press@RunDepth: psig @ 4340.00 ft (KB)
Start Date: 2012.06.04 End Date: 2012.06.05
Start Time: 20:28:35 End Time: 03:33:59

Capacity: 8000.00 psig
Last Calib.: 2012.06.05
Time On Btm:
Time Off Btm:

TEST COMMENT:
30 - IF- Surface blow built to 2 1/4"
60 - IS- No Return
30 - FF- Surface blow started at 16 min. Built to 1/2"
60 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OCM 70M 30o	0.34

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48009 **DST#: 3**

Test Start: 2012.06.04 @ 20:28:00

Tool Information

Drill Pipe:	Length:	3781.00 ft	Diameter:	3.80	inches	Volume:	53.04	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:	544.00 ft	Diameter:	2.25	inches	Volume:	2.68	bbl	Weight to Pull Loose:	82000.00 lb
						Total Volume:	55.72	bbl	Tool Chased	ft
Drill Pipe Above KB:		15.00 ft							String Weight: Initial	78000.00 lb
Depth to Top Packer:		4339.00 ft							Final	78000.00 lb
Depth to Bottom Packer:		ft								
Interval between Packers:		61.00 ft								
Tool Length:		90.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4311.00		
Shut In Tool	5.00			4316.00		
Hydraulic tool	5.00			4321.00		
Jars	5.00			4326.00		
Safety Joint	3.00			4329.00		
Packer	5.00			4334.00	29.00	Bottom Of Top Packer
Packer	5.00			4339.00		
Stubb	1.00			4340.00		
Recorder	0.00	8648	Inside	4340.00		
Recorder	0.00	6799	Inside	4340.00		
Perforations	22.00			4362.00		
Change Over Sub	1.00			4363.00		
Drill Pipe	31.00			4394.00		
Change Over Sub	1.00			4395.00		
Bullnose	5.00			4400.00	61.00	Bottom Packers & Anchor
Total Tool Length:	**90.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48009 **DST#: 3**

Test Start: 2012.06.04 @ 20:28:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	OCM 70M 30o	0.344

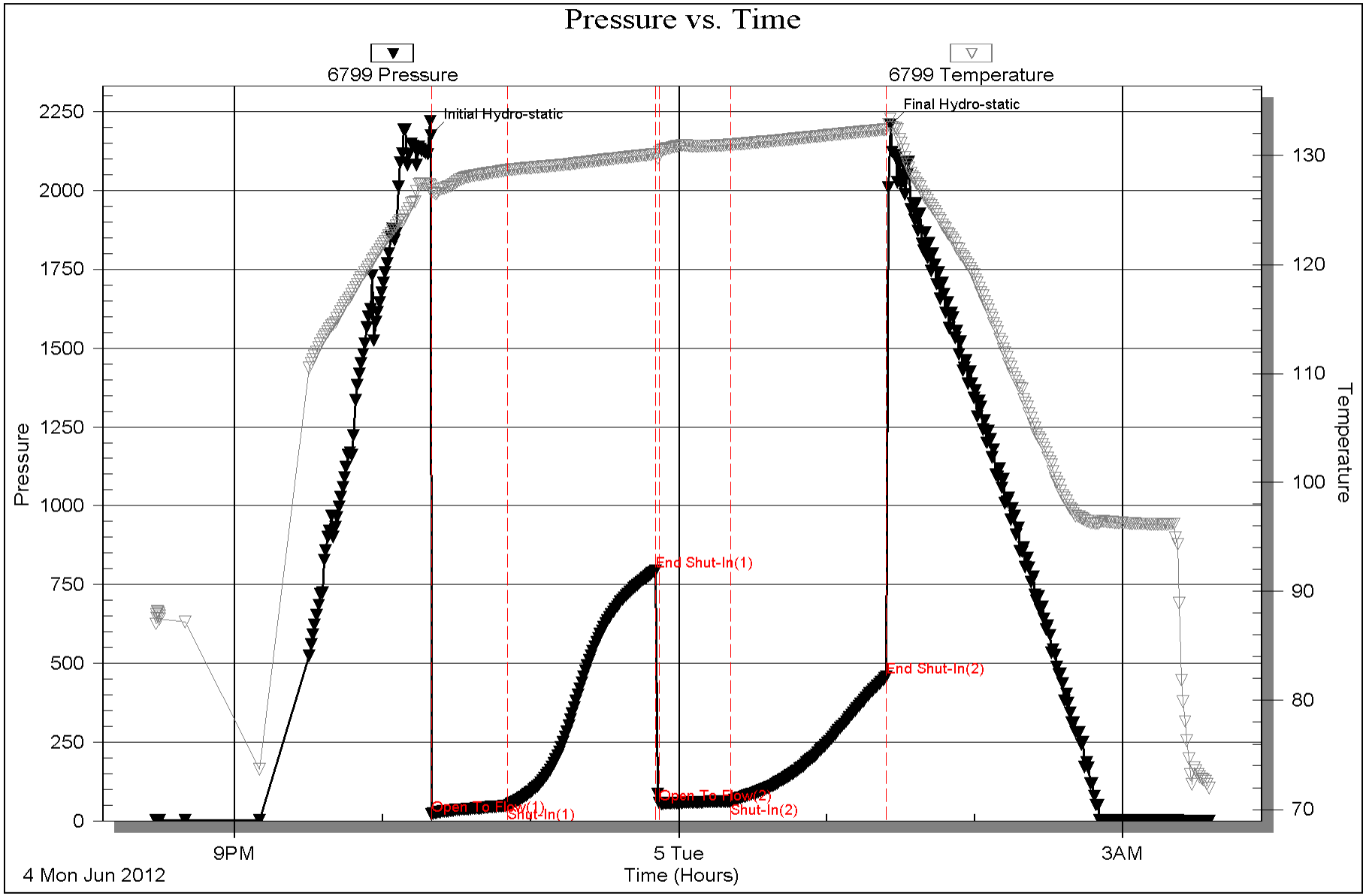
Total Length: 70.00 ft Total Volume: 0.344 bbl

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

Laboratory Name: Laboratory Location:

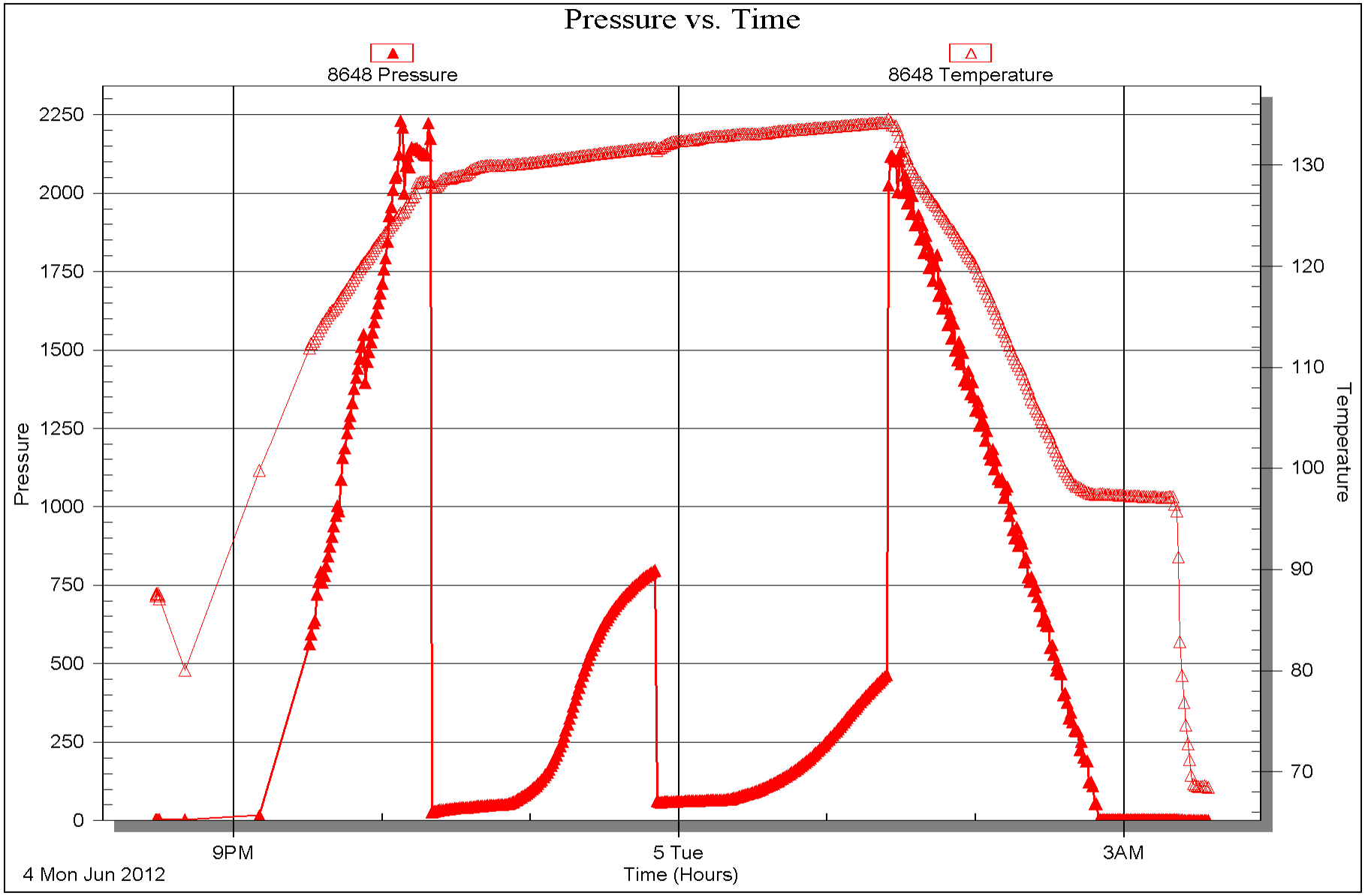
Recovery Comments:

Serial #: 6799 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 48009 Printed: 2012.06.11 @ 10:50:57

Serial #: 8648 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 48009 Printed: 2012.06.11 @ 10:50:58

DRILL STEM TEST REPORT

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

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

Johnson 'D' #1-25

25-1s-37w Cheyenne,KS

Start Date: 2012.06.05 @ 15:12:00

End Date: 2012.06.05 @ 22:10:00

Job Ticket #: 48010 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.11 @ 10:49:57

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48010 **DST#: 4**

Test Start: 2012.06.05 @ 15:12:00

GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:02:15
Time Test Ended: 22:10:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4434.00 ft (KB) To 4482.00 ft (KB) (TVD)
Total Depth: 4482.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

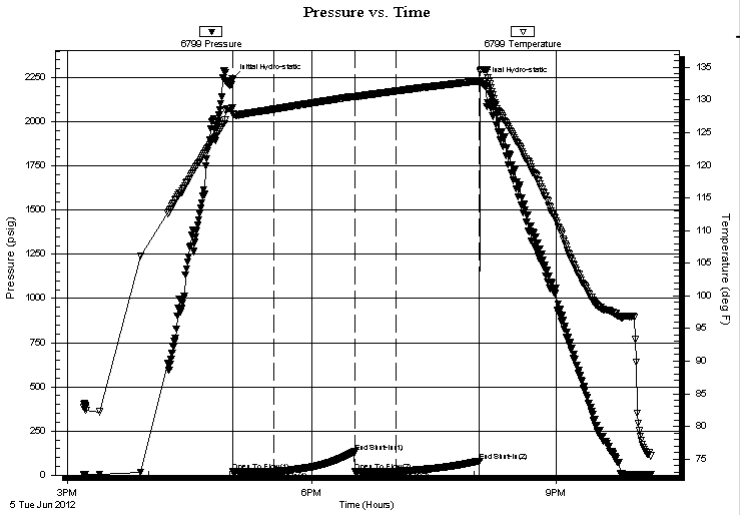
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6799 **Inside**

Press@RunDepth: 21.35 psig @ 4435.00 ft (KB)
Start Date: 2012.06.05 End Date: 2012.06.05
Start Time: 15:12:05 End Time: 22:09:59

Capacity: 8000.00 psig
Last Calib.: 2012.06.05
Time On Btm: 2012.06.05 @ 17:01:30
Time Off Btm: 2012.06.05 @ 20:04:15

TEST COMMENT:
30 - IF- Surface blow built to 1/4" Then died back to 1/8"
60 - IS- No Return
30 - FF- No Blow
60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.15	128.83	Initial Hydro-static
1	20.04	127.94	Open To Flow (1)
31	20.64	128.59	Shut-In(1)
90	131.63	130.56	End Shut-In(1)
91	20.56	130.52	Open To Flow (2)
121	21.35	131.37	Shut-In(2)
183	76.60	132.93	End Shut-In(2)
183	2229.04	134.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48010 **DST#: 4**

Test Start: 2012.06.05 @ 15:12:00

GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:02:15
Time Test Ended: 22:10:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Kevin Mack
Unit No: 43

Interval: 4434.00 ft (KB) To 4482.00 ft (KB) (TVD)
Total Depth: 4482.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

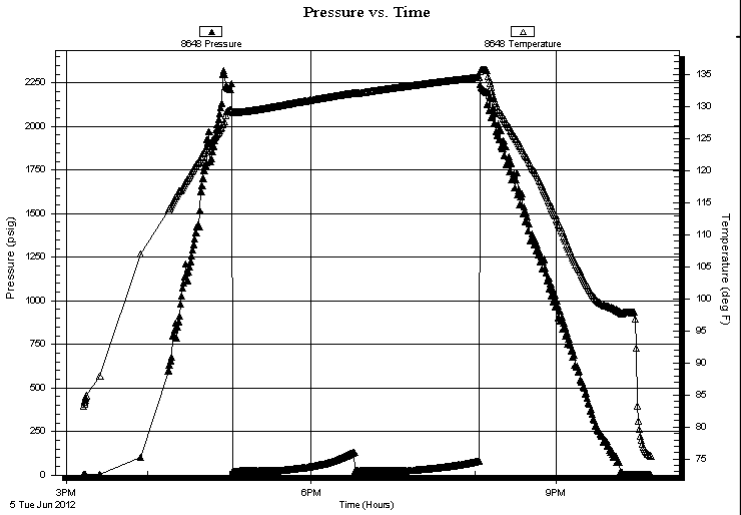
Reference Elevations: 3317.00 ft (KB)
3312.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8648 **Inside**

Press@RunDepth: psig @ 4435.00 ft (KB)
Start Date: 2012.06.05 End Date: 2012.06.05
Start Time: 15:12:50 End Time: 22:09:14

Capacity: 8000.00 psig
Last Calib.: 2012.06.05
Time On Btm:
Time Off Btm:

TEST COMMENT:
30 - IF- Surface blow built to 1/4" Then died back to 1/8"
60 - IS- No Return
30 - FF- No Blow
60 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

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

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48010 **DST#: 4**

Test Start: 2012.06.05 @ 15:12:00

Tool Information

Drill Pipe:	Length:	3894.00 ft	Diameter:	3.80 inches	Volume:	54.62 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:	544.00 ft	Diameter:	2.25 inches	Volume:	2.68 bbl	Weight to Pull Loose:		90000.00 lb
					Total Volume:	57.30 bbl	Tool Chased		ft
Drill Pipe Above KB:		33.00 ft					String Weight:	Initial	80000.00 lb
Depth to Top Packer:		4434.00 ft						Final	80000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		48.00 ft							
Tool Length:		77.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4406.00		
Shut In Tool	5.00			4411.00		
Hydraulic tool	5.00			4416.00		
Jars	5.00			4421.00		
Safety Joint	3.00			4424.00		
Packer	5.00			4429.00	29.00	Bottom Of Top Packer
Packer	5.00			4434.00		
Stubb	1.00			4435.00		
Recorder	0.00	8648	Inside	4435.00		
Recorder	0.00	6799	Inside	4435.00		
Perforations	9.00			4444.00		
Change Over Sub	1.00			4445.00		
Drill Pipe	31.00			4476.00		
Change Over Sub	1.00			4477.00		
Bullnose	5.00			4482.00	48.00	Bottom Packers & Anchor

Total Tool Length: 77.00

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

250 N Water STE #300
Wichita, KS 67202

ATTN: Paul Gunzelman

25-1s-37w Cheyenne,KS

Johnson 'D' #1-25

Job Ticket: 48010 **DST#: 4**

Test Start: 2012.06.05 @ 15:12:00

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:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049

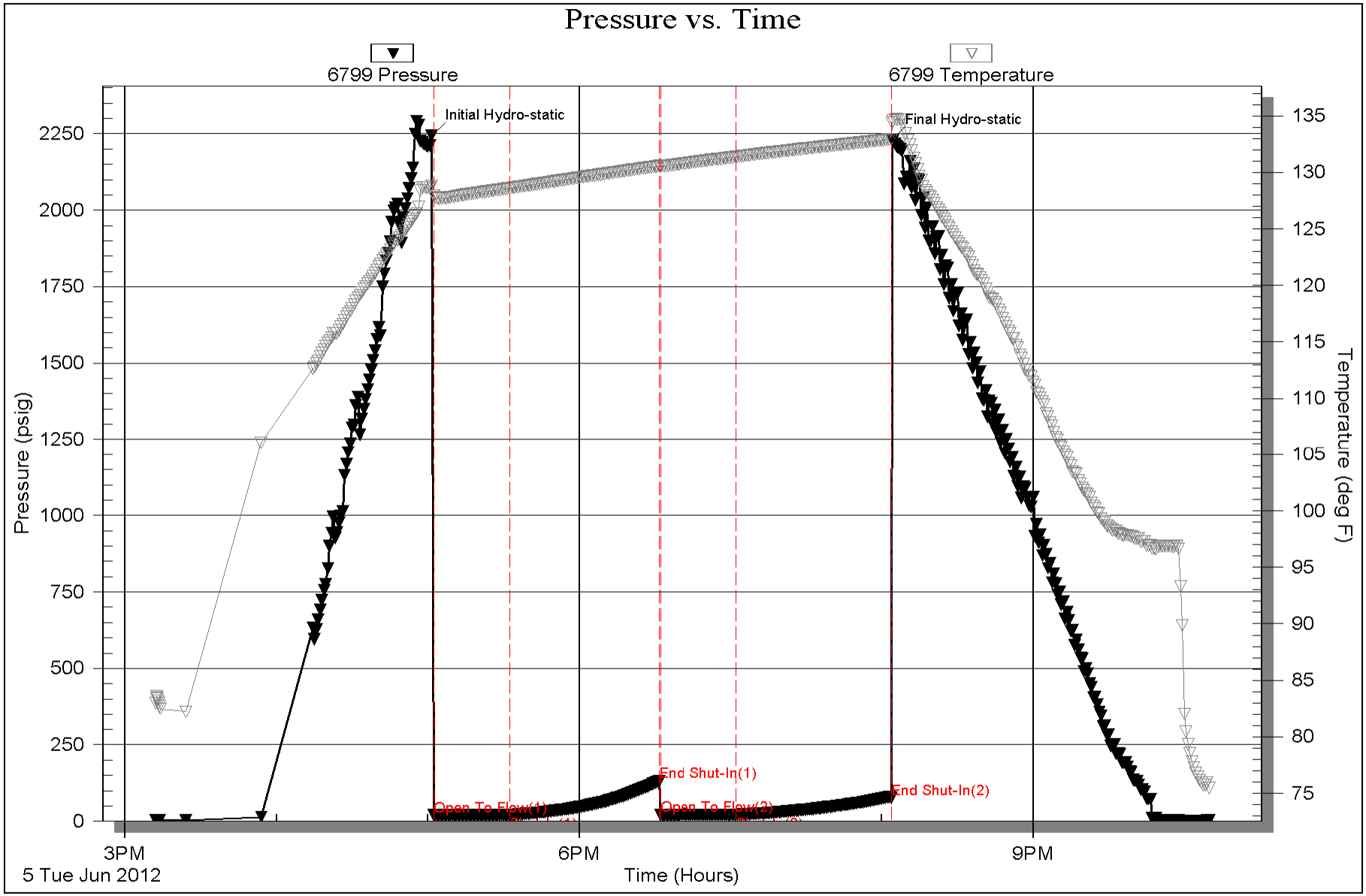
Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Laboratory Name: Laboratory Location:

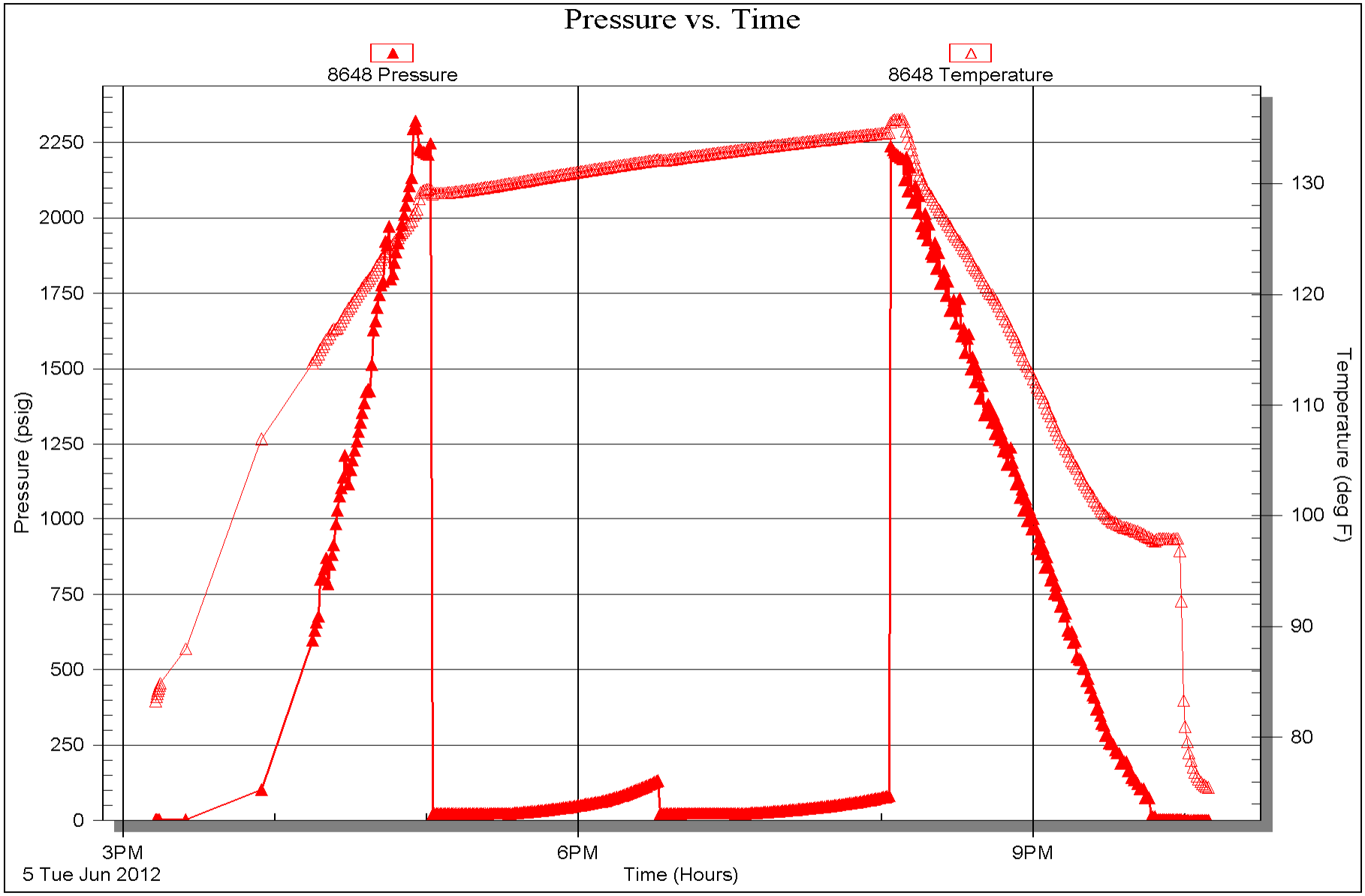
Recovery Comments:

Serial #: 6799 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 48010 Printed: 2012.06.11 @ 10:49:59

Serial #: 8648 **Inside** Murfin Drilling Co., Inc. Johnson 'D' #1-25 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 48010 Printed: 2012.06.11 @ 10:50:00

TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601
4/10

Test Ticket

NO. 48007

Well Name & No. Johnson 'D' # 1-25 Test No. 1 Date 6-3-12
Company Murfin Drilling Co., Inc. Elevation 3317 KB 3312 GL
Address 250 N Water STE # 300 Wichita, KS 67202
Co. Rep / Geo. Paul Gunzelman Rig Murfin #3
Location: Sec. 25 Twp. 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4125 - 4190 Zone Tested Oread
Anchor Length 65' Drill Pipe Run 3638 Mud Wt. 8.7
Top Packer Depth 4121 Drill Collars Run 544' Vis 60
Bottom Packer Depth 4125 Wt. Pipe Run Ø WL 4.8
Total Depth 4190 Chlorides 600 ppm System LCM 1.5#

Blow Description IF- ½" Blow built to 5 ½"
IS- No Return
FF- Blow started at 6 min. Built to 9 ½"
FS- No Return

Rec	260	Feet of	OSM	%gas	SPOTS	%oil		%water	160 %mud
Rec	240	Feet of	OSWM	%gas	SPOTS	%oil	30	%water	70 %mud
Rec		Feet of		%gas		%oil		%water	%mud
Rec		Feet of		%gas		%oil		%water	%mud
Rec		Feet of		%gas		%oil		%water	%mud

Rec Total 500 BHT 133 Gravity — API RW .36 @ 80 °F Chlorides 6,000 ppm

(A) Initial Hydrostatic 2042
(B) First Initial Flow 24
(C) First Final Flow 105
(D) Initial Shut-In 1183
(E) Second Initial Flow 111
(F) Second Final Flow 261
(G) Final Shut-In 1144
(H) Final Hydrostatic 2039

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

- [x] Test 1250
- [x] Jars 250
- [x] Safety Joint 75
- [x] Circ Sub N/C
- [ ] Hourly Standby
- [x] Mileage 124 RT 192.20
- [ ] Sampler
- [ ] Straddle
- [ ] Shale Packer
- [ ] Extra Packer
- [ ] Extra Recorder
- [ ] Day Standby
- [ ] Accessibility

Sub Total 1767.20

T-On Location 2:50 AM
T-Started 4:10 AM
T-Open 6:08 AM
T-Pulled 10:08 AM
T-Out 12:24 PM

Comments

- [ ] Ruined Shale Packer
- [ ] Ruined Packer
- [ ] Extra Copies

Sub Total 0
Total 1767.20
MP/DST Disc't

Approved By Our Representative

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TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601
4/10

Test Ticket

NO. 48008

Well Name & No. Johnson 'D' #1-25 Test No. 2 Date 6-4-12
Company Murfin Drilling Co., Inc. Elevation 3317 KB 3312 GL
Address 250 N Water STE #300 Wichita, KS 67202
Co. Rep / Geo. Paul Gunzelman Rig Murfin #3
Location: Sec. 25 Twp. 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4284-4343 Zone Tested LKC "D"
Anchor Length 59' Drill Pipe Run 3738 Mud Wt. 9.0
Top Packer Depth 4280 Drill Collars Run 544' Vis 65
Bottom Packer Depth 4284 Wt. Pipe Run Ø WL 5.2
Total Depth 4343 Chlorides 600 ppm System LCM 1.5#

Blow Description IF- 1" Blow built to 6"
IS- No Return
FF- Blow started at 12 min. Built to 7"
FS- No Return

Rec	320	Feet of OSM	%gas	spots	%oil		%water	100	%mud
Rec	180	Feet of OSMW	%gas	Spots	%oil	75	%water	25	%mud
Rec		Feet of	%gas		%oil		%water		%mud
Rec		Feet of	%gas		%oil		%water		%mud
Rec		Feet of	%gas		%oil		%water		%mud

Rec Total 500 BHT 138 Gravity — API RW .31 @ 88 °F Chlorides 16,500 ppm

(A) Initial Hydrostatic	2106	☒ Test	1250	T-On Location	3:00 AM
(B) First Initial Flow	44	☒ Jars	250	T-Started	3:36 AM
(C) First Final Flow	126	☒ Safety Joint	75	T-Open	6:40 AM
(D) Initial Shut-In	1308	☒ Circ Sub	N/C	T-Pulled	9:40 AM
(E) Second Initial Flow	131	☐ Hourly Standby		T-Out	11:53 AM
(F) Second Final Flow	270	☒ Mileage	124 RT 192.20	Comments	Tool opened approx 5' early and slid to bottom.
(G) Final Shut-In	1303	☐ Sampler			
(H) Final Hydrostatic	2103	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	60	☐ Extra Recorder	1	Sub Total	0
Final Flow	60	☐ Day Standby		Total	1767.20
Final Shut-In	90	☐ Accessibility		MP/DST Disc't	
		Sub Total	1767.20		

Approved By _____ Our Representative _____

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TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601
4/10

Test Ticket

NO. 48009

Well Name & No. Johnson 'D' # 1-25 Test No. 3 Date 6-4-12
Company Murfin Drilling Co., Inc Elevation 3317 KB 3312 GL
Address 250 N Water STE #300 Wichita, KS 67202
Co. Rep / Geo. Paul Gunzelman Rig Murfin #3
Location: Sec. 25 Twp. 1S Rge. 32W Co. Cheyenne State KS

Interval Tested 4339-4400 Zone Tested LKC "G"
Anchor Length 61' Drill Pipe Run 3781' Mud Wt. 9.2
Top Packer Depth 4335 Drill Collars Run 544' Vis 55
Bottom Packer Depth 4339 Wt. Pipe Run Ø WL 5.2
Total Depth 4400 Chlorides 1,000 ppm System LCM 1#

Blow Description IF- Surface blow built to 2¼"
IS- No Return
FF- Surface blow started at 16 min. Built to ½"
FS- No Return

Rec 70	Feet of OCM	%gas 30	%oil	%water 70	%mud
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 70' BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2174	☒ Test	1250	T-On Location	7:50 PM
(B) First Initial Flow	21	☒ Jars	250	T-Started	8:28 PM
(C) First Final Flow	49	☒ Safety Joint	75 N/C	T-Open	10:20 PM
(D) Initial Shut-In	793	☒ Circ Sub	n/c	T-Pulled	1:20 AM
(E) Second Initial Flow	57	☐ Hourly Standby		T-Out	3:35 AM
(F) Second Final Flow	63	☒ Mileage	124 RT 192.20	Comments	
(G) Final Shut-In	458	☐ Sampler			
(H) Final Hydrostatic	2206	☐ 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	1767.20
Final Shut-In	60	☐ Accessibility		MP/DST Disc't	
		Sub Total	1767.20		

Approved By _____ Our Representative _____

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TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601
4/10

Test Ticket

NO. 48010

Well Name & No. Johnson 'D' #1-25 Test No. 4 Date 6-5-12
Company Murfin Drilling Co., Inc. Elevation 3317 KB 3312 GL
Address 250 N Water STE #300 Wichita, KS 67202
Co. Rep / Geo. Paul Gunzelman Rig Murfin #3
Location: Sec. 25 Twp. 1s Rge. 37w Co. Cheyenne State KS

Interval Tested 4434-4482 Zone Tested LKC "J"
Anchor Length 48' Drill Pipe Run 3894 Mud Wt. 9.1
Top Packer Depth 4430 Drill Collars Run 544' Vis 57
Bottom Packer Depth 4434 Wt. Pipe Run Ø WL 5.2
Total Depth 4482 Chlorides 4,000 ppm System LCM 1#

Blow Description IF- Surface blow built to 1/4" then died back to 1/8"
IS- No Return
FF- No Blow
FS- No Return

Rec 10	Feet of OSM	%gas Spots	%oil	%water 100	%mud
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 10 BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2243	☒ Test 1250		T-On Location	2:30 PM
(B) First Initial Flow	20	☒ Jars 250		T-Started	3:12 PM
(C) First Final Flow	20	☒ Safety Joint 75		T-Open	5:02 PM
(D) Initial Shut-In	131	☒ Circ Sub N/C		T-Pulled	8:02 PM
(E) Second Initial Flow	20	☐ Hourly Standby		T-Out	10:10 PM
(F) Second Final Flow	21	☒ Mileage 124 RT	192.20	Comments Loaded tools	
(G) Final Shut-In	76	☐ Sampler		7:30 AM 6-8-12	
(H) Final Hydrostatic	2229	☐ Straddle		192.20	
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	30	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	60	☐ Extra Recorder		☐ Extra Copies	
Final Flow	30	☒ Day Standby ~~X2~~	2d	Sub Total	1600
Final Shut-In	66	☐ Accessibility		Total	3559.40
		Sub Total	1959.40	MP/DST Disc't	

Approved By _____ Our Representative _____

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acct.
Sy H.

ALLIED
OIL & GAS SERVICES, LLC

PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 131357
Invoice Date: May 29, 2012
Page: 1

1967 2012 45 YEARS

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	Johnson D #1-25	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-01	Oakley	May 29, 2012	6/28/12

Quantity	Item	Description	Unit Price	Amount
220.00	MAT	Class A Common	16.25	3,575.00
8.00	MAT	Chloride	58.20	465.60
231.00	SER	Cubic Feet	2.10	485.10
905.25	SER	Ton Miles	2.35	2,127.34
1.00	SER	Surface	1,125.00	1,125.00
5.00	SER	Extra Footage	0.95	4.75
85.00	SER	Heavy Vehicle Mileage	7.00	595.00
1.00	SER	Manifold Head Rental	200.00	200.00
85.00	SER	Light Vehicle Mileage	4.00	340.00
1.00	EQP	8 5/8 Wooden Plug	92.00	92.00
1.00	CEMENTER	LaRene Wentz		
1.00	EQUIP OPER	Dane Retzloff		
1.00	OPER ASSIST	Ethan Glassman		

OKD

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

$ 3153.43

ONLY IF PAID ON OR BEFORE
Jun 23, 2012

Subtotal	9,009.79
Sales Tax	343.01
Total Invoice Amount	9,352.80
Payment/Credit Applied	
TOTAL	**9,352.80**

ALLIED CEMENTING CO., LLC. 034490

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Oakley, Ks

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
5-29-12	25	1	37		6:30pm	7:30pm	8:00pm

LEASE	WELL #	LOCATION	COUNTY	STATE
Johnson D	1-25	McDonald, Ks 2W, 10N, Y2W, Y2N, Winto	Cheyenne	KS

OLD OR NEW (Circle one)

CONTRACTOR Murfin #3

OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4" T.D. 305'

CASING SIZE 8 5/8" DEPTH 305.21

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 18.5 bbl

EQUIPMENT

PUMP TRUCK # 431 CEMENTER Lakane

HELPER Dane

BULK TRUCK # 386/310 DRIVER Ethan

BULK TRUCK # DRIVER

REMARKS:

Mix 220 sks cement
Displace with water
Cement did circulate

Thank you

CHARGE TO: Murfin Drilling Co

STREET

CITY STATE ZIP

CEMENT

AMOUNT ORDERED 220 sks com 3% CC

COMMON	220 sks	@ 16.25	3575.00
POZMIX		@	
GEL		@	
CHLORIDE	8 sks	@ 58.20	465.60
ASC		@	
HANDLING	231 sf³	@ 2.10	485.10
MILEAGE	10.65 ton x 85 x	2.35	2122.34

TOTAL 6653.04

SERVICE

DEPTH OF JOB	305.21		
PUMP TRUCK CHARGE			1123.00
EXTRA FOOTAGE	5'	@ .95	4.75
MILEAGE	85	@ 7.00	595.00
MANIFOLD	head	@	200.00
L.D. Mileage	85	@ 4.00	340.00

TOTAL 2264.75

PLUG & FLOAT EQUIPMENT

wooden plug	@	92.00

TOTAL 92.00

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

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

PRINTED NAME

SIGNATURE Keith Van Pelt