

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1
June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

4/6/13

OPERATOR: License # 30606

Name: Murfin Drilling Company, Inc.

Address 1: 250 N. Water, Suite 300

Address 2: _____

City: Wichita State: KS Zip: 67202 + _____

Contact Person: Leon Rodak

Phone: (316) 267-3241

CONTRACTOR: License # 30606

Name: Murfin Drilling Company, Inc.

Wellsite Geologist: Robert Hendrix

Purchaser: MV Purchasing

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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

<u>12/27/10</u>	<u>01/07/11</u>	<u>02/04/11</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 101-22273-0000

Spot Description: _____

SW SE NE NE Sec. 23 Twp. 18 S. R. 30 East West

1000 Feet from North / South Line of Section

335 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

County: Lane

Lease Name: Harris Well #: 1-23

Field Name: Unknown

Producing Formation: LKC

Elevation: Ground: 2848 Kelly Bushing: 2859

Total Depth: 4665 Plug Back Total Depth: 4636

Amount of Surface Pipe Set and Cemented at: 224 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: 2220 Feet

If Alternate II completion, cement circulated from: 2220

feet depth to: surface w/ 165 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 #: _____

KCC Office Use ONLY

Letter of Confidentiality Received

Date: 4/6/11 - 4/6/13

Confidential Release Date: _____

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT I II III Approved by: NO Date: 4/6/11

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JENITHA

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: _____

Title: VP Production Date: 04/06/2011

Operator Name: Murfin Drilling Company, Inc. Lease Name: Harris Well #: 1-23
 Sec. 23 Twp. 18 S. R. 30 East West County: Lane

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Dual Induction, Compensated Porosity, Microresistivity	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum See Attached List <div style="text-align: center;"> KCC APR 06 2011 CONFIDENTIAL </div>
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CASING RECORD <input checked="" 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
Surface		8 5/8	23	224	Common	175	3% cc, 2% gel
Production		5 1/2	15.5	4600	EA2	175	

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				

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	4196 - 4200 "LKC" J	250 gal 15% MCA	
4	4226 - 4229 "LKC" K		
	CIBP @ 4445' (1/2 sk on top)		
4	4450 - 4454 Myrick Station (Under CIBP)		
4	4538 - 4541 Johnson Zone (Under CIBP)	250 gal 15% MCA	

TUBING RECORD:	Size: <u>2 3/8</u>	Set At: <u>4395</u>	Packer At: <u> </u>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	RECEIVED APR 07 2011 KCC WICHITA
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Date of First, Resumed Production, SWD or ENHR. 02/15/11		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls. 40	Gas Mcf	Water Bbls. 30	Gas-Oil Ratio	Gravity 38

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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>4196 - 4229</u>
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MDCI Harris #1-23 1000' FNL 335' FEL Sec. 23-T18S-R30W 2859' KB							Beren Corp. Owen #1 SE SW NE Sec. 24-T18S-R30W 2853' KB	
Formations	Sample Tops	Datum	Ref	Log tops	Datum	Ref	Log Tops	Datum
Anhydrite	2193	+666	-9	2198	+661	-14	2178	+675
B/Anhydrite	2212	+647	+30	2216	+643	+26	2236	+617
Topeka	3659	-800	+35	3665	-806	+29	3688	-835
Heebner	3902	-1043	+36	3900	-1041	+38	3932	-1079
Lansing	3938	-1079	+41	3946	-1087	+33	3973	-1120
Stark	4214	-1355	+40	4217	-1358	+37	4248	-1395
Uppr. Pawnee	4419	-1560	+40	4418	-1559	+41	4453	-1600
Mississippian	4567	-1708	+39	4558	-1699	+48	4600	-1747
Miss Dolomite	4614	-1755		4620	-1761			
RTD	4665						4665	
LTD				4671			4665	

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PO BOX 31 Russell, KS 67665

Voice: (785) 483-3887
 Fax: (785) 483-5566

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

guy credit

INVOICE

Invoice Number: 125772
 Invoice Date: Dec 27, 2010
 Page: 1

PROD COPY

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operator pay
mDC
B n

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	<u>Harris #1-23</u>	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Dec 27, 2010	1/26/11

Quantity	Item	Description	Unit Price	Amount
175.00	MAT	Class A Common	15.45	2,703.75
3.00	MAT	Gel	20.80	62.40
6.00	MAT	Chloride	58.20	349.20
184.00	SER	Handling	2.40	441.60
55.00	SER	Mileage 184 sx @.10 per sk per mi	18.40	1,012.00
1.00	SER	Surface	1,018.00	1,018.00
55.00	SER	Pump truck Mileage	7.00	385.00

Account	Rate	W	No.	Amount	Description
<i>03000</i>	<i>02240</i>	<i>3829</i>	<i>6/68.22</i>	<i>(2090.19)</i>	<i>Concrete S. Csg.</i>

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

\$ 2090.19 *35%*

ONLY IF PAID ON OR BEFORE
Jan 21, 2011

Subtotal	5,971.95
Sales Tax	196.27
Total Invoice Amount	6,168.22
Payment/Credit Applied	
TOTAL	6,168.22

-2090.19
4078.03



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



Invoice

DATE	INVOICE #
1/8/2011	19907

BILL TO
Murfin Drilling Co Inc P. O. Box 130 Hill City, KS 67642-0130
USED FOR
APPROVED

- Acidizing
 - Cement
 - Tool Rental
- KCC**
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[Handwritten signature]

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-23	Harris	Lane	Company Tools	Oil	Development	5-1/2" LongString	Wayne
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				40	Miles	5.00	200.00
578D-L	Pump Charge - Long String - 4660 Feet				1	Job	1,400.00	1,400.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
280	Flocheck 21				500	Gallon(s)	2.50	1,250.00T
402-5	5 1/2" Centralizer				10	Each	55.00	550.00T
403-5	5 1/2" Cement Basket				1	Each	200.00	200.00T
404-5	5 1/2" Port Collar - Top Joint #58 - 2220 Feet				1	Each	1,900.00	1,900.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	225.00	225.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	275.00	275.00T
413-5	5 1/2" Roto Wall Scratcher				25	Each	40.00	1,000.00T
419-5	5 1/2" Rotating Head Rental				1	Each	150.00	150.00T
325	Standard Cement				200	Sacks	12.00	2,400.00T
276	Flocele				50	Lb(s)	1.50	75.00T
283	Salt				1,000	Lb(s)	0.15	150.00T
284	Calseal				9	Sack(s)	30.00	270.00T
285	CFR-1				150	Lb(s)	4.00	600.00T
290	D-Air				2	Gallon(s)	35.00	70.00T
581D	Service Charge Cement				200	Sacks	1.50	300.00
583D	Drayage				418	Ton Miles	1.00	418.00
	Subtotal							11,533.00
	Sales Tax Lane County						6.30%	580.55

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Thank You For Your Business In 2010!
We Look Forward To Serving You In 2011!

Total \$12,113.55



CHARGE TO: **MURFEN DRUG, Co. INC KCC**
 ADDRESS: **APR 06 2011**
 CITY, STATE, ZIP CODE: **CONFIDENTIAL**

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TICKET
19907

PAGE 1 OF 2

1. SERVICE LOCATIONS NESS CITY, KS	WELL/PROJECT NO. 1-23	LEASE HARRIS	COUNTY/PARISH LANE	STATE Ks	CITY	DATE 1-8-11	OWNER SAME
2. TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR Co TOOLS		RIG NAME/NO.	SHIPPED VIA CT	DELIVERED TO LOCATED	ORDER NO.	
3. WELL TYPE OIL	WELL CATEGORY DEVELOPMENT	JOB PURPOSE 5 1/2" LONGSTRING		WELL PERMIT NO.	WELL LOCATION DEIGHTON, Ks - 7W		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		UNIT PRICE		AMOUNT
		LOC	ACCT	DF		QTY.	U/M	QTY.	U/M	
575		1			MILEAGE # 110	40	ME		5.00	200.00
578		1			PUMP CHARGE	1	JOB	4660	14.00	1400.00
221		1			LIQUIDS KCL	4	GAL		25.00	100.00
280		1			FLOCHECK-21	500	GAL		2.50	1250.00
402		1			CENTRALIZERS	10	EA	5 1/2"	55.00	550.00
403		1			CEMENT BASKETS	1	EA		200.00	200.00
404		1			PORT COLLAR TOP JT # 58	1	EA	2220	19.00	1900.00
406		1			LATCH DOWN PLUG - BAFFLE	1	EA		225.00	225.00
407		1			INSERT FLOAT SHOE W/AUTO FILL	1	EA		275.00	275.00
413		1			ROTO WALL SCRATCHERS	20	EA		40.00	800.00
419		1			ROTATING HEAD RENTAL	1	JOB		150.00	150.00
413		1			ROTO WALL SCRATCHERS	5	EA		40.00	200.00

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

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

X *Wade King*
 DATE SIGNED **1-8-11** TIME SIGNED **0400** A.M. P.M.

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

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL #1	7250.00
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				#1	7050.00
WE UNDERSTOOD AND MET YOUR NEEDS?				#2	4283.00
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				sub total	11,533.00
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				TAX LANE 6.3%	580.55
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES <input type="checkbox"/> NO			TOTAL	12,113.55
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

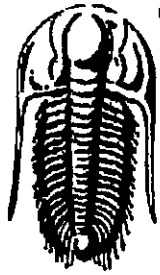
JOB LOG

SWIFT Services, Inc.

DATE 1-8-11 PAGE NO. 1

CUSTOMER **MURFEN DRUG Co. Inc** WELL NO. **1-23** LEASE **HARRIS** JOB TYPE **5 1/2" LONGSTRENG** TICKET NO. **19907**

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/HR)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0400							ON LOCATION KCC
	0600							START 5 1/2" CASING IN WELL APR 06 2011 CONFIDENTIAL
								TD-4665 SET=4660
								TP-4660 5 1/2" #15.5
								ST-21
								CENTRALISERS-1,2,3,4,6,8,10,12,14,23
								CMT BSKTS-57
								PORT COLLAR=2220' TOP JT #58
	0835							DROP BALL - CALCULATE ROTATE
	0937	6 1/2	15		✓		500	PUMP KCL SPACER "
	0940	6 1/2	12		✓		500	PUMP 500 GAL FLOCHECK-21 "
	0942	6 1/2	5		✓		500	PUMP KCL SPACER "
	0945		7-5					PLUG RH-MH
	0950	4	42		✓		300	MDX CEMENT-175 SKS FA-2 = 15.5 PPG RECEIVED
	1002							WASH OUT PUMP - LINES APR 07 2011
	1004							RELEASE LATCH DOWN PLUG KCC WICHITA
	1005	7	0		✓			DISPLACE PLUG (1 ST TR - KCL) "
		7	100				700	SHUT OFF ROTATING
	1020	6 1/2	110.4				1500	PLUG DOWN - PSE UP LATCH IN PLUG
	1022						OK	RELEASE PSE-HELD
	1100							WASH TRUCK - JOB COMPLETE
								THANK YOU WAYNE, JEFF, ROB



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202-1216

ATTN: Robert Hendrix

23 18 30 Logan KS

Harris #1-23

Start Date: 2011.01.02 @ 20:30:00

End Date: 2011.01.03 @ 14:27:48

Job Ticket #: 39405 DST #: 1

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin Drilling Co. Inc.

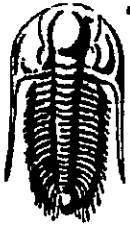
Harris #1-23

23 18 30 Logan KS

DST # 1

I & J

2011.01.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

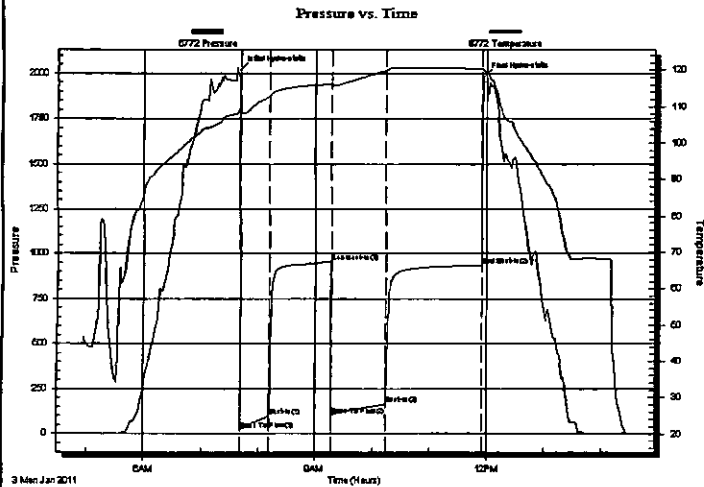
Harris #1-23
23 18 30 Logan KS
Job Ticket: 39405 DST#: 1
Test Start: 2011.01.02 @ 20:30:00

GENERAL INFORMATION:

Formation: I & J
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:40:47
Time Test Ended: 14:27:48
Interval: 4145.00 ft (KB) To 4214.00 ft (KB) (TVD)
Total Depth: 4212.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Harley Davidson
Unit No: 33
Reference Elevations: 2859.00 ft (KB)
2848.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6772 Outside
Press@RunDepth: 163.17 psig @ 4147.00 ft (KB)
Start Date: 2011.01.03 End Date: 2011.01.03
Start Time: 04:57:14 End Time: 14:27:47
Capacity: 8000.00 psig
Last Calib.: 2011.01.03
Time On Btm: 2011.01.03 @ 07:40:32
Time Off Btm: 2011.01.03 @ 11:56:32

TEST COMMENT: IF- Weak building blow 5.5" into bucket.
IS- No blow back.
FF- Weak builing blow 2" into bucket
FS- No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2018.81	109.04	Initial Hydro-static
1	21.45	108.47	Open To Flow (1)
31	97.17	112.83	Shut-In(1)
96	957.07	116.15	End Shut-In(1)
97	102.72	115.79	Open To Flow (2)
154	163.17	119.73	Shut-In(2)
255	934.31	120.38	End Shut-In(2)
256	1980.89	119.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	100%	0.59
236.00	30% mud 70% water	2.25

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39405 **DST#: 1**
Test Start: 2011.01.02 @ 20:30:00

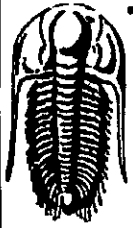
Tool Information

Drill Pipe:	Length: 3892.00 ft	Diameter: 3.80 inches	Volume: 54.59 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 55.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4145.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	96.00 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			4119.00	
Shut In Tool	5.00			4124.00	
Hydraulic tool	5.00			4129.00	
Jars	5.00			4134.00	
Safety Joint	2.00			4136.00	
Packer	5.00			4141.00	27.00 Bottom Of Top Packer
Packer	4.00			4145.00	
Stubb	1.00			4146.00	
Perforations	1.00			4147.00	
Recorder	0.00	8355	Inside	4147.00	
Recorder	0.00	6772	Outside	4147.00	
Change Over Sub	1.00			4148.00	
Drill Pipe	62.00			4210.00	
Change Over Sub	1.00			4211.00	
Bullnose	3.00			4214.00	69.00 Bottom Packers & Anchor

Total Tool Length: 96.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39405 **DST#: 1**
Test Start: 2011.01.02 @ 20:30:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 25000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 3.99 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2900.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

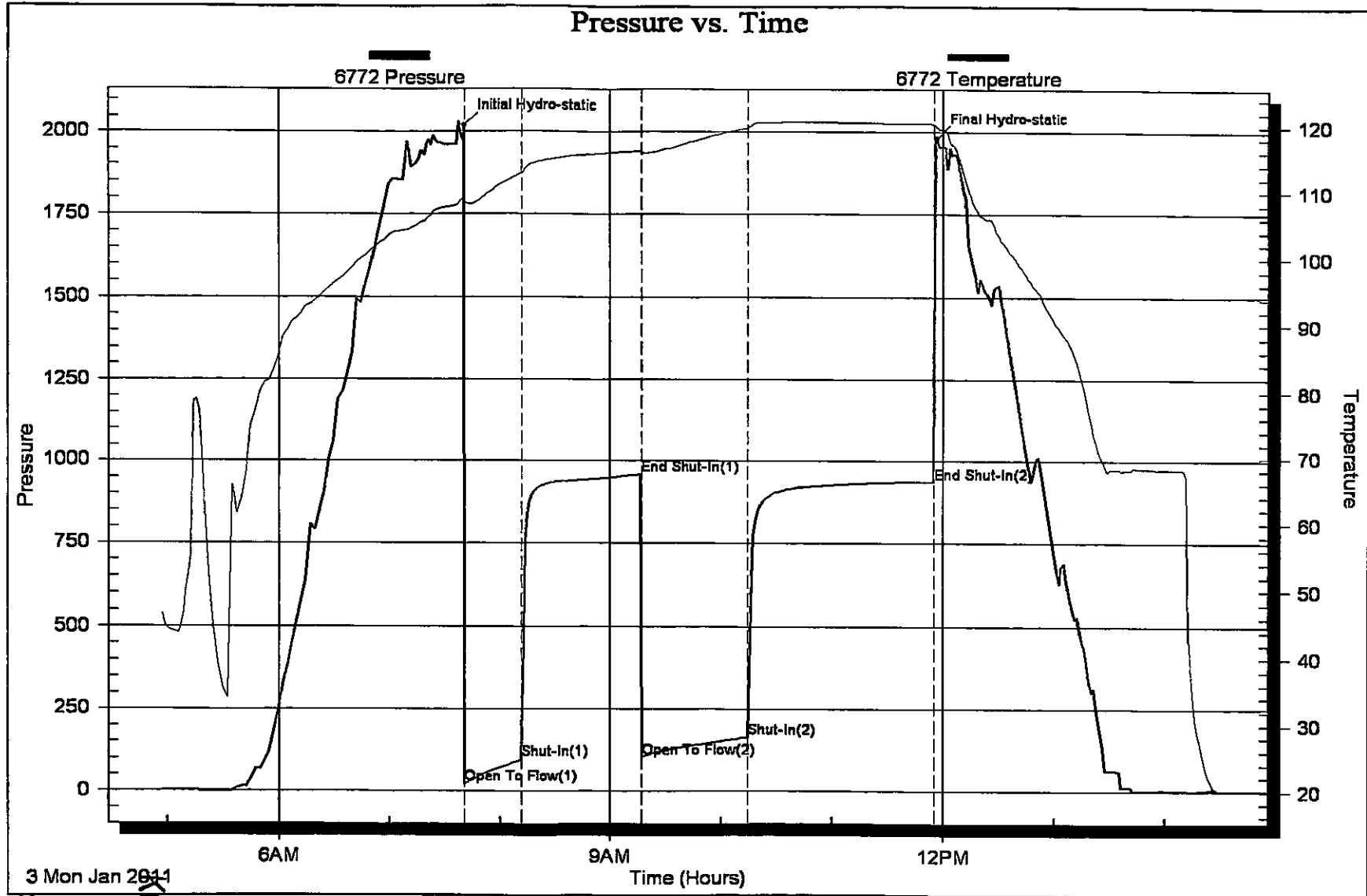
Length ft	Description	Volume bbl
120.00	100%	0.590
236.00	30% mud 70% water	2.254

Total Length: 356.00 ft Total Volume: 2.844 bbl

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

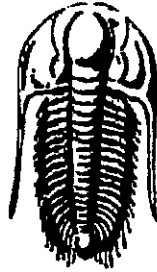
Laboratory Name: Laboratory Location:

Recovery Comments: Gravity oil 37 corr. - RW .06@30=25000



3 Mon Jan 2011

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202-1216

ATTN: Robert Hendrix

23 18 30 Logan KS

Harris #1-23

Start Date: 2011.01.03 @ 17:15:00

End Date: 2011.01.04 @ 01:13:45

Job Ticket #: 39406 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co. Inc.

Harris #1-23

23 18 30 Logan KS

DST # 2

K

2011.01.03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

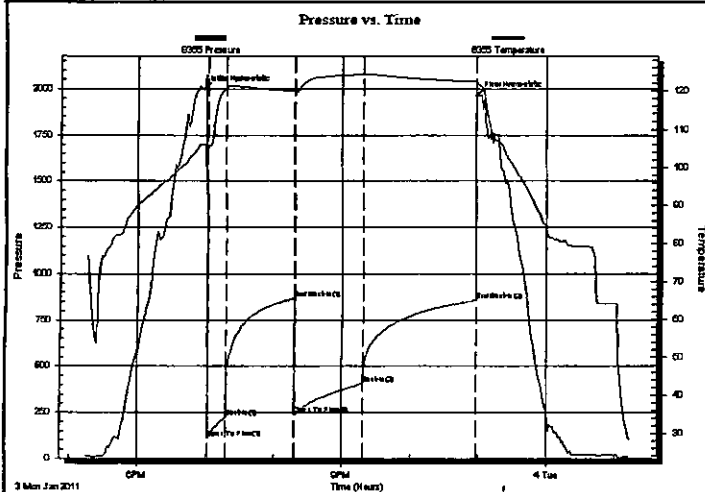
Harris #1-23
23 18 30 Logan KS
Job Ticket: 39406 **DST#: 2**
Test Start: 2011.01.03 @ 17:15:00

GENERAL INFORMATION:

Formation: **K**
Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
Time Tool Opened: **19:01:30** Tester: **Harley Davidson**
Time Test Ended: **01:13:45** Unit No: **33**
Interval: **4210.00 ft (KB) To 4250.00 ft (KB) (TVD)** Reference Elevations: **2859.00 ft (KB)**
Total Depth: **4250.00 ft (KB) (TVD)** **2848.00 ft (CF)**
Hole Diameter: **7.78 inches** Hole Condition: **Fair** KB to GR/CF: **11.00 ft**

Serial #: 8355 **Inside**
Press@RunDepth: **407.01 psig @ 4212.00 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2011.01.03** End Date: **2011.01.04** Last Calib.: **2011.01.04**
Start Time: **17:15:05** End Time: **01:13:44** Time On Btm: **2011.01.03 @ 18:57:30**
Time Off Btm: **2011.01.03 @ 22:58:15**

TEST COMMENT: IF- Good building blow BOB 4min.
IS- Weak surface blow
FF- Good building blow BOB 5.5min
FS- No blow back



PRESSURE SUMMARY

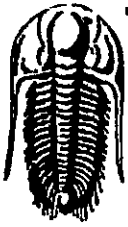
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1997.62	105.79	Initial Hydro-static
4	110.47	105.53	Open To Flow (1)
20	223.63	120.77	Shut-In(1)
80	866.61	120.05	End Shut-In(1)
81	237.92	119.89	Open To Flow (2)
141	407.01	124.33	Shut-In(2)
241	857.02	122.50	End Shut-In(2)
241	1964.02	122.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
372.00	100% oil	3.07
484.00	5%gas 15%oil 80%water	6.79

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

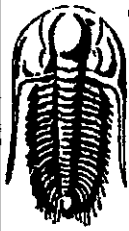
Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39406 **DST#: 2**
Test Start: 2011.01.03 @ 17:15:00

Tool Information

Drill Pipe:	Length: 3965.00 ft	Diameter: 3.80 inches	Volume: 55.62 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 56.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			
Depth to Top Packer:	4210.00 ft			
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	67.00 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			4184.00	
Shut In Tool	5.00			4189.00	
Hydraulic tool	5.00			4194.00	
Jars	5.00			4199.00	
Safety Joint	2.00			4201.00	
Packer	5.00			4206.00	27.00 Bottom Of Top Packer
Packer	4.00			4210.00	
Stubb	1.00			4211.00	
Perforations	1.00			4212.00	
Recorder	0.00	8355	Inside	4212.00	
Recorder	0.00	6772	Outside	4212.00	
Change Over Sub	1.00			4213.00	
Drill Pipe	31.00			4244.00	
Change Over Sub	1.00			4245.00	
Perforations	2.00			4247.00	
Bullnose	3.00			4250.00	40.00 Bottom Packers & Anchor
Total Tool Length:	67.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39406 DST#: 2
Test Start: 2011.01.03 @ 17:15:00

Mud and Cushion Information

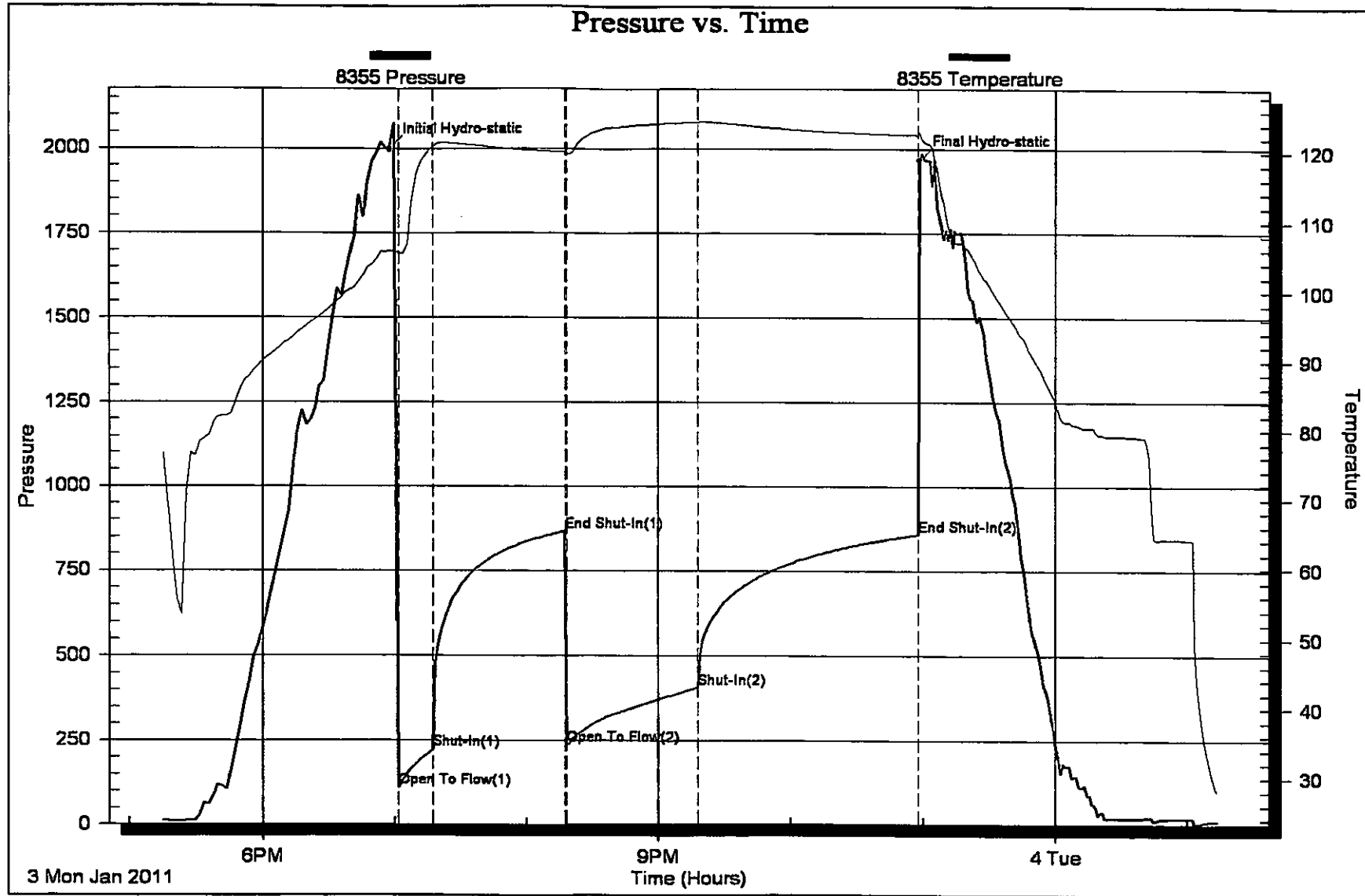
Mud Type: Gel Chem	Cushion Type:	Oil APt	36 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	26000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: inches			

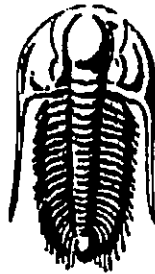
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
372.00	100% oil	3.068
484.00	5%gas 15%oil 80%w ater	6.789

Total Length: 856.00 ft Total Volume: 9.857 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: Gravity 36 - RW .06 @29F = 26000 ppm chloides





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202-1216

ATTN: Robert Hendrix

23 18 30 Logan KS

Harris #1-23

Start Date: 2011.01.05 @ 04:15:00

End Date: 2011.01.05 @ 12:45:45

Job Ticket #: 30407 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co. Inc.

Harris #1-23

23 18 30 Logan KS

DST # 3

Pleas Altamont

2011.01.05



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

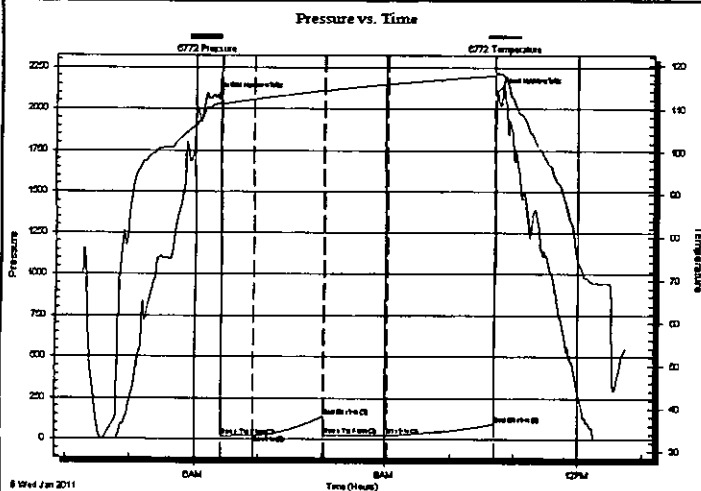
Harris #1-23
23 18 30 Logan KS
Job Ticket: 30407 **DST#: 3**
Test Start: 2011.01.05 @ 04:15:00

GENERAL INFORMATION:

Formation: **Pleas Altamont**
 Deviated: **No Whipstock** **ft (KB)**
 Time Tool Opened: **06:25:30**
 Time Test Ended: **12:45:45**
 Interval: **4317.00 ft (KB) To 4403.00 ft (KB) (TVD)**
 Total Depth: **4403.00 ft (KB) (TVD)**
 Hole Diameter: **7.78 inches** Hole Condition: **Fair**
 Test Type: **Conventional Bottom Hole**
 Tester: **Harley Davidson**
 Unit No: **33**
 Reference Elevations: **2859.00 ft (KB)**
2848.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6772 **Outside**
 Press@RunDepth: **24.18 psig @ 4319.00 ft (KB)**
 Start Date: **2011.01.05** **End Date: 2011.01.05**
 Start Time: **04:15:05** **End Time: 12:45:44**
 Capacity: **8000.00 psig**
 Last Calib.: **2011.01.05**
 Time On Btm: **2011.01.05 @ 06:20:15**
 Time Off Btm: **2011.01.05 @ 10:43:15**

TEST COMMENT: IF- Weak surface blow
 IS- No blow back.
 FF- No blow
 FS- No blow back.



PRESSURE SUMMARY

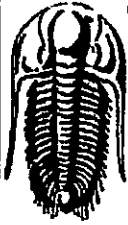
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2073.98	111.13	Initial Hydro-static
6	20.65	111.18	Open To Flow (1)
36	22.33	112.21	Shut-In(1)
102	141.36	114.41	End Shut-In(1)
102	22.97	114.38	Open To Flow (2)
162	24.18	115.80	Shut-In(2)
261	94.91	117.71	End Shut-In(2)
263	2102.90	118.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% mud with spotty oil	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.

Harris #1-23

250 N Water Ste. 300
Wichita KS 67202-1216

23 18 30 Logan KS

Job Ticket: 30407

DST#: 3

ATTN: Robert Hendrix

Test Start: 2011.01.05 @ 04:15:00

Tool Information

Drill Pipe:	Length: 4064.00 ft	Diameter: 3.80 inches	Volume: 57.01 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 58.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4317.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	86.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4291.00	
Shut In Tool	5.00			4296.00	
Hydraulic tool	5.00			4301.00	
Jars	5.00			4306.00	
Safety Joint	2.00			4308.00	
Packer	5.00			4313.00	27.00 Bottom Of Top Packer
Packer	4.00			4317.00	
Stubb	1.00			4318.00	
Perforations	1.00			4319.00	
Recorder	0.00	8355	Inside	4319.00	
Recorder	0.00	6772	Outside	4319.00	
Change Over Sub	1.00			4320.00	
Drill Pipe	62.00			4382.00	
Change Over Sub	1.00			4383.00	
Perforations	17.00			4400.00	
Bullnose	3.00			4403.00	86.00 Bottom Packers & Anchor
Total Tool Length:	113.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

Harris #1-23

250 N Water Ste. 300
Wichita KS 67202-1216

23 18 30 Logan KS

Job Ticket: 30407

DST#: 3

ATTN: Robert Hendrix

Test Start: 2011.01.05 @ 04:15:00

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: 54.00 sec/qt

Cushion Volume: bbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

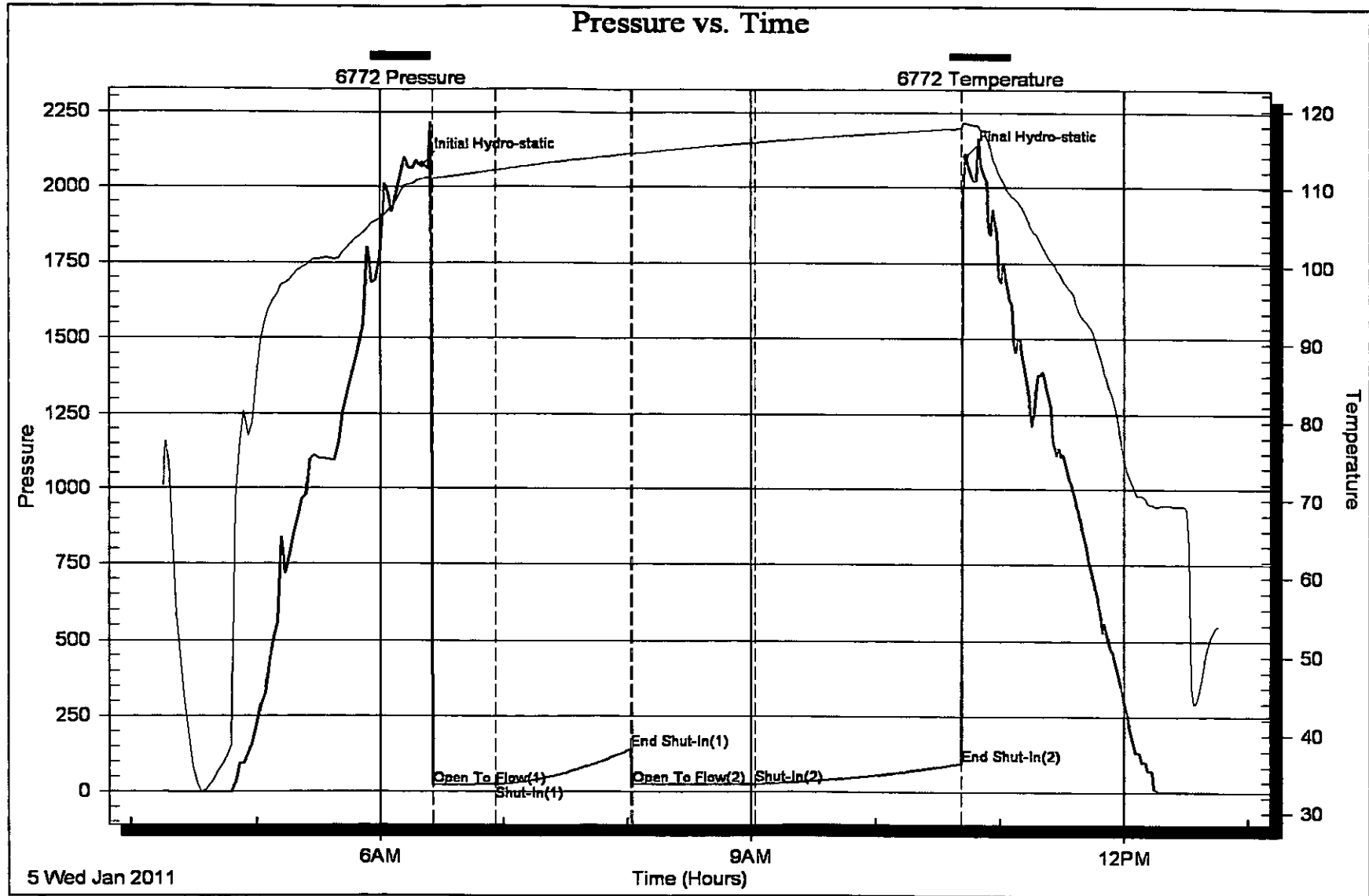
Length ft	Description	Volume bbl
5.00	100% mud with spotty oil	0.025

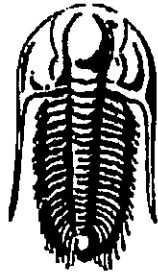
Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

250 N Water Ste. 300
Wichita KS 67202-1216

ATTN: Robert Hendrix

23 18 30 Logan KS

Harris #1-23

Start Date: 2011.01.06 @ 07:15:00

End Date: 2011.01.06 @ 14:44:30

Job Ticket #: 39408 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co. Inc.

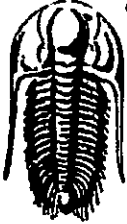
Harris #1-23

23 18 30 Logan KS

DST # 4

Pawnee/Charokee

2011.01.06



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water Ste. 300
 Wichita KS 67202-1216
 ATTN: Robert Hendrix

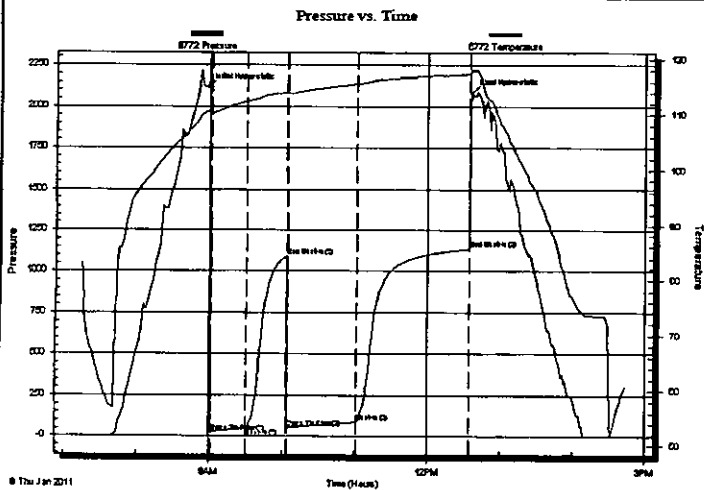
Harris #1-23
23 18 30 Logan KS
 Job Ticket: 39408 DST#: 4
 Test Start: 2011.01.06 @ 07:15:00

GENERAL INFORMATION:

Formation: **Pawnee/Charokee**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: 09:01:30
 Time Test Ended: 14:44:30
 Interval: **4400.00 ft (KB) To 4510.00 ft (KB) (TVD)**
 Total Depth: **4510.00 ft (KB) (TVD)**
 Hole Diameter: **7.78 inches** Hole Condition: **Fair**
 Test Type: **Conventional Bottom Hole**
 Tester: **Harley Davidson**
 Unit No: **33**
 Reference Elevations: **2859.00 ft (KB)**
 2848.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6772 **Outside**
 Press@RunDepth: **87.38 psig @ 4403.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2011.01.06** End Date: **2011.01.06** Last Calib.: **2011.01.06**
 Start Time: **07:15:05** End Time: **14:44:29** Time On Btm: **2011.01.06 @ 08:57:30**
 2011.01.06 @ 12:36:15

TEST COMMENT: IF- Weak building blow 3/4in. into bucket.
 IS- No blow back.
 FF- Good building blow blow 6in. into bucket.
 FS- No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.70	110.51	Initial Hydro-static
4	25.96	110.32	Open To Flow (1)
33	48.47	112.38	Shut-In (1)
66	1094.80	114.10	End Shut-In(1)
67	52.81	113.83	Open To Flow (2)
125	87.38	115.55	Shut-In(2)
218	1138.52	117.41	End Shut-In(2)
219	2081.59	117.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	5%gas 10%oil 85%mud	0.89

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39408 **DST#: 4**
Test Start: 2011.01.06 @ 07:15:00

Tool Information

Drill Pipe:	Length: 4157.00 ft	Diameter: 3.80 inches	Volume: 58.31 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 59.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4400.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	110.00 ft			
Tool Length:	137.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4374.00	
Shut In Tool	5.00			4379.00	
Hydraulic tool	5.00			4384.00	
Jars	5.00			4389.00	
Safety Joint	2.00			4391.00	
Packer	5.00			4396.00	27.00 Bottom Of Top Packer
Packer	4.00			4400.00	
Stubb	1.00			4401.00	
Perforations	2.00			4403.00	
Recorder	0.00	8355	Inside	4403.00	
Recorder	0.00	6772	Outside	4403.00	
Change Over Sub	1.00			4404.00	
Drill Pipe	93.00			4497.00	
Change Over Sub	1.00			4498.00	
Perforations	9.00			4507.00	
Bullnose	3.00			4510.00	110.00 Bottom Packers & Anchor
Total Tool Length:	137.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N Water Ste. 300
Wichita KS 67202-1216
ATTN: Robert Hendrix

Harris #1-23
23 18 30 Logan KS
Job Ticket: 39408 DST#: 4
Test Start: 2011.01.06 @ 07:15:00

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: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3700.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	5%gas 10%oil 85%mud	0.885

Total Length: 180.00 ft Total Volume: 0.885 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

