



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1200520
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
-----------------------------------	-----------------	-----------------------------------------

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: _____

1200520

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
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

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
----------------	-------	---------	------------	---------------------------------------------------------------------

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> _____
-------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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: _____ _____
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Hobbs #1-2
Doc ID	1200520

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 12/19/2013
 Invoice # 7703
 P.O.#:
 Due Date: 1/18/2014
 Division: Russell

acct. Prod - LH

Invoice

Contact:
 Murfin Drilling Company
Address/Job Location:
 Murfin Drilling Company
 P.O. Box 288
 Russell Ks 67665

USED FOR _____
 APPROVED _____

OPERATOR PAY MDC
LEASE: Hebbs
1-2
BM

Reference:
 HOBBS 1-2

Description of Work:
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	150	\$ 2,514.71	Yes				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 568.86	No				
Bulk Truck Matl-Material Service Charge	158	\$ 353.18	No				
Calcium Chloride	5	\$ 311.04	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 332.88	No				
Premium Gel (Bentonite)	3	\$ 54.59	Yes				

Invoice Terms:

Net 30

	SubTotal:	\$	5,155.80
	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(773.37)
<hr/>			
	SubTotal for Taxable Items:	\$	2,448.28
	SubTotal for Non-Taxable Items:	\$	1,934.14
<hr/>			
	Total:	\$	4,382.43
	Tax:	\$	187.29
	Amount Due:	\$	4,569.72
	Applied Payments:		
	Balance Due:	\$	4,569.72

7.65% Trego County Sales Tax

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

Handwritten signature

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7703

Date	12-19-13	Sec.	2	Twp.	11	Range	24	County	Trego	State	KS	On Location		Finish	8:00 p.m.
Lease								Well No.		Owner					
Holds								2		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor										Type Job					
Mun An #16										Surface					
Hole Size				T.D.				Charge To							
12 1/4				218				Mun An Drilling							
Csg.				Depth				Street							
8 5/8				216											
Tbg. Size				Depth				City				State			
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
								Cement Amount Ordered				150 LAM 3/CC 2/CF2			
Cement Left in Csg.				Shoe Joint											
15															
Meas Line				Displace											
				12 3/4 BCL											
EQUIPMENT															
Pumptrk		No.		Cement Helper				Common		150					
16				Craig				Poz. Mix							
Bulktrk		No.		Driver				Gel.		3					
				Brett				Calcium		5					
Bulktrk		No.		Driver				Hulls							
1				Chipten											
JOB SERVICES & REMARKS															
Remarks:								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
8 5/8 on bottom BSA Circulator								Handling 158							
Mix 150 SKT Displace								Mileage							
Cement Circulated's								FLOAT EQUIPMENT							
								Guide Shoe							
								Centralizer 8 5/8 H.M.							
								Baskets							
								AFU inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge Surface							
								Mileage 51							
								Tax							
								Discount							
								Total Charge							
X Signature								Ag [Signature]							



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



Invoice

DATE	INVOICE #
1/9/2014	25077

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

- Acidizing
- Cement
- Tool Rental

IC 103
[Handwritten signature]

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-2	Hobbs	Trego	Company Tools	Oil	Development	Port Collar	Nick
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				50	Miles	6.00	300.00
576D-D	Pump Charge - Port Collar				1	Job	1,500.00	1,500.00
279	Bentonite Gel				4	Sack(s)	25.00	100.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
330	Swift Multi-Density Standard (MIDCON II)				160	Sacks	18.50	2,960.00T
276	Flocele				50	Lb(s)	2.50	125.00T
581D	Service Charge Cement				250	Sacks	2.00	500.00
583D	Drayage				611	Ton Miles	1.00	611.00
	Subtotal							6,180.00
	Sales Tax Trego County						7.65%	250.08

Thank You For Your Business In 2013!
We Look Forward To Serving You In 2014!

Total \$6,430.08



CHARGE TO: Murkin Delg Co Inc
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET No. **25077**

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. <u>Hays, Ks.</u>	<u>#1-2</u>	<u>Hubbs</u>	<u>Trego</u>	<u>Ks</u>		<u>1-9-14</u>	<u>same</u>
2. <u>Ness City, Ks.</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Co Tools</u>	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.	
3.	WELL TYPE <u>011</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>Part Collar</u>	<u>CT</u>	<u>Location</u>		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS			WELL PERMIT NO.	WELL LOCATION		

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575					# 111	50	mi				6.00	300.00
576D					Pump Charge (Part Collar)						1500.00	1500.00
279					Brackite charge	4	skt				25.00	100.00
290					D-Air	2	barl				42.00	84.00
330					SMD Cement	160	skt				18.50	2960.00
276					Floacle	50	#				2.50	125.00
581					Cement Service Charge	250	skt				2.00	500.00
585					Drayage	611	T/M				1.00	611.00

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

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

DATE SIGNED: 1-9-14 TIME SIGNED: 12:55 A.M. P.M.

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

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE?
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: 6180.00
 REG. TAX: 7.65%
 TOTAL: 6430.08

SWIFT OPERATOR: Michael H. Hark APPROVAL: _____

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

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 7-9-14 PAGE NO. 1

CUSTOMER Martin Drilling Co Inc WELL NO. #1-2 LEASE Habbs JOB TYPE Part Celler TICKET NO. 25077

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1100							collec setup Trks 2 3/8" x 5 1/2" PC, 2004
	1120						1100	Test Csg to 1100 ^{psi} Open P.C.
	1125	1.5	2				100	Take rate & check for blow
	1130	3.5	0				400	start gel. 4sks
			12/0				400	start water
	1135		6/0				500	start SMD cement
			78				500	circ cement/raise weight
	1100		83/0				500	End Cement / start Displacement
	1102		7				500	Cement Displaced
								close P.C.
	1105						1000	Test csg to 1000 ^{psi}
								run 5.1's
	1120	3	0				150	Reverse out
	1127		20					Hole Clean
								160sks SMD
								circ 20sks to pit
								Thank you
								Nick, David E. & John J.



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



Acety -
α: W1
α: L2
α: L1

Invoice

DATE	INVOICE #
12/31/2013	25322

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

- Acidizing
- Cement
- Tool Rental

IC 103
gt R

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-2	Hobbs	Trego	Company Tools	Oil	Development	LongString	Nick
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				50	Miles	6.00	300.00
578D-L	Pump Charge - Long String - 4050 Feet				1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
280	Flocheck 21				500	Gallon(s)	3.00	1,500.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
403-5	5 1/2" Cement Basket				1	Each	300.00	300.00T
404-5	5 1/2" Port Collar				1	Each	2,900.00	2,900.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer				10	Each	90.00	900.00T
413-5	5 1/2" Roto Wall Scratcher				15	Each	40.00	600.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
325	Standard Cement				200	Sacks	14.50	2,900.00T
276	Flocele				50	Lb(s)	2.50	125.00T
283	Salt				1,000	Lb(s)	0.20	200.00T
284	Calseal				9	Sack(s)	35.00	315.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
581D	Service Charge Cement				200	Sacks	2.00	400.00
583D	Drayage				522.5	Ton Miles	1.00	522.50
	Subtotal							14,171.50
	Sales Tax Trego County						7.65%	875.85

Thank You For Your Business In 2013!
We Look Forward To Serving You In 2014!

Total \$15,047.35



CHARGE TO: Merlin Drilling Co
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET 25322

PAGE 1 OF 2

1. Hays, KS WELL/PROJECT NO. H1-2 LEASE Hobbs COUNTY/PARISH Ireda STATE Ks CITY Location DATE 12-31-13 OWNER same

2. Ness City, KS TICKET TYPE SERVICE CONTRACTOR Co Tools #16 RIG NAMING #16 SHIPPED VIA PT ORDER NO.

3. WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE longstring WELL PERMIT NO. WELL LOCATION

4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT								
575				MILEAGE #11	50 mi					6.00	300.00
578				Pump Charge (Longstring)	1 ea			4000		1500.00	1500.00
221				RCL	4 ea					25.00	100.00
280				Flasher-21	5 ea					3.00	15.00
290				D-Air	2 ea					42.00	84.00
403				Basket	1 ea			5 1/2	"	300.00	300.00
404				Part Collar	1 ea					2900.00	2900.00
406				LD Plug & Baffle	1 ea					275.00	275.00
407				Insert of Float Shoe w/ P.I.I.	1 ea					375.00	375.00
409				Turbolizers	10 ea					90.00	900.00
413				Rotator Wrenches	15 ea					40.00	600.00
419				Rotating Head	1 ea					200.00	200.00

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

DATE SIGNED 12-31-13 TIME SIGNED Wade King AM PM

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

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UNDECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND			

PAGE TOTAL 1
 PAGE 2
 Sub total 1417.71
 TAX 85.85
 TOTAL 15,047.35

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

SWIFT OPERATOR Wade King APPROVAL Wade King

Thank You!



Services, Inc.

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

TICKET CONTINUATION

TICKET No. 25322

CUSTOMER: *Murphy's Dry Co. Inc*
WELL: *W-2*
DATE: *12-31-13*
PAGE: *2* OF *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WEIGHT		CUBIC FEET		DATE	AMOUNT
		LOG	ACCT	DE			QTY	LIN	QTY	LIN		
325						Standard Cement	200	SKS	522.5			2922.00
276						Flocrete	50	#				125.00
283						Salt	1000	#				200.00
254						Carbocal	9	SK				315.00
285						CFR-1	1500	#				675.00
581												2.00
583												1.00
SERVICE CHARGE							200	SKS	522.5			400.00
MILEAGE CHARGE							20900	TOTAL WEIGHT	50	LOADED MILES		522.50
TOTAL												5127.50

CONTINUATION TOTAL 5127.50

Remarks

5 1/2" production casing set to further test Lansing / Kansas City formation.

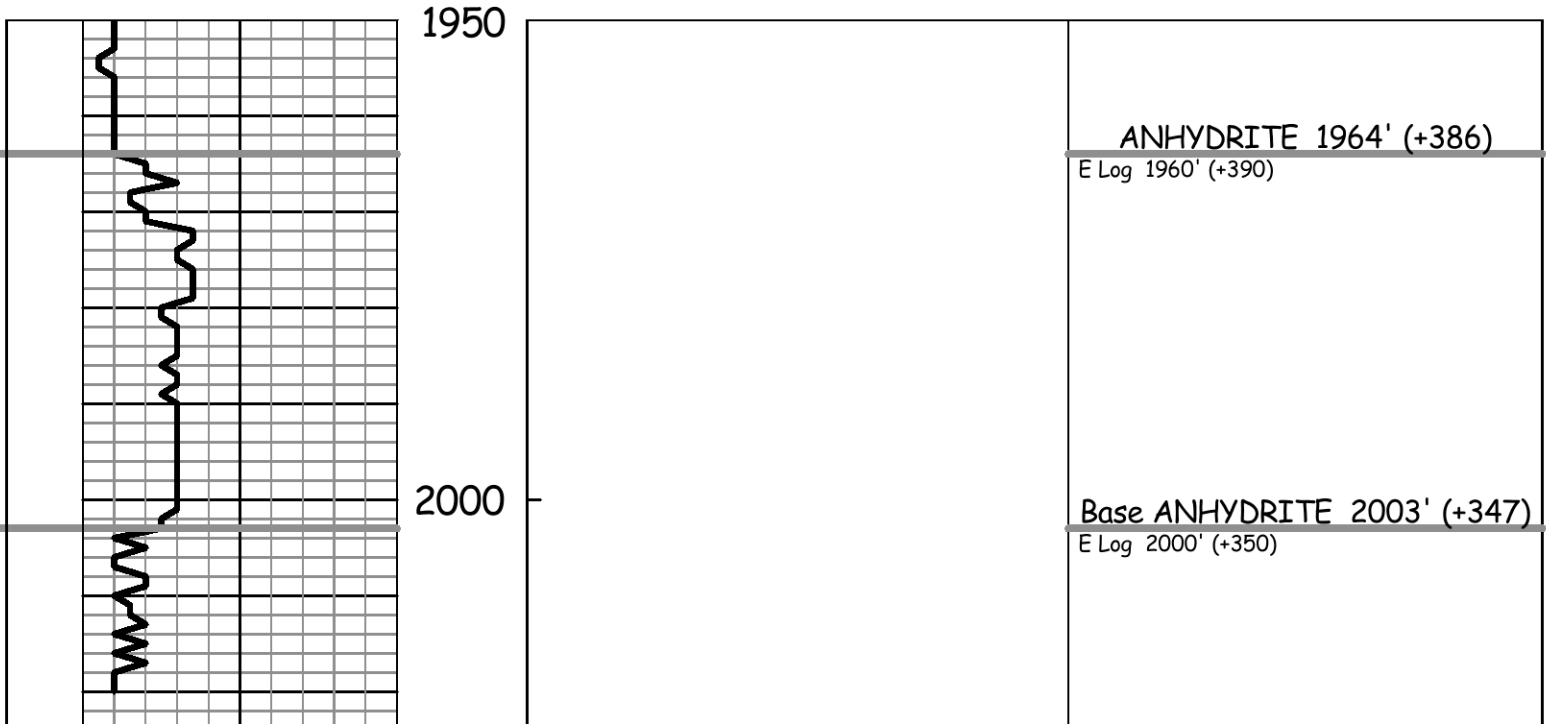
Electric log measurements correlate 3' to 4' high compared to rotary measurements.

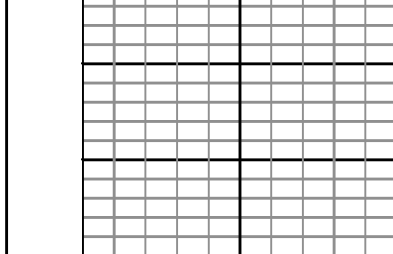
Samples deposited at the Kansas Geological Survey.

Respectfully Submitted,

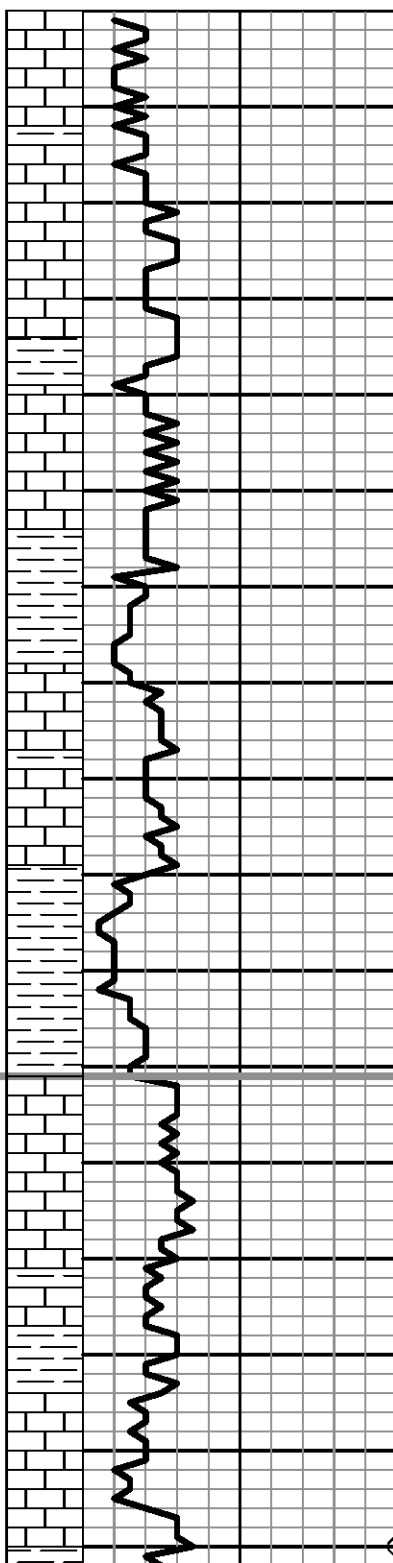
Jeff Christian
Jeff Christian

LITH.	DRILL TIME (MIN/FT)	DEPTH	WHS	SAMPLE DESCRIPTIONS	REMARKS
-------	---------------------	-------	-----	---------------------	---------





2050



3350

3400

3450

3500

Ls: crm-lt brn, fn xln, grnlr, chlky in part, vy foss, fr por, ns

Ls: wt-crm, fn xln, grnlr, chlky, foss, pr-fr por, ns

Ls: lt brn-lt gry, fn xln, part dns, foss, pr vis por, ns

Ls: as above w/ Sh: gry

Ls: lt brn, fn xln, grnlr, part dns, foss in part, pr - some fr intrxln por, ns

Ls: as above w/ Ls: gry, fn xln, dns

Sh: gry-some grn

Ls: lt brn-lt gry, fn xln, dns, foss-sli mott, pr vis por, ns

Same

Sh: gry

Same w/ Ls: gry, argil

Ls: crm-lt brn-lt gry, fn xln, sli grnlr, part dns, foss-sli ool, pr vis por, ns

Ls: crm, fn xln, chlky in part, ool-sli foss in part, pr vis por, ns

Ls: crm-lt brn-lt gry, fn xln, part dns, foss-ool in part, shly, pr vis por, ns

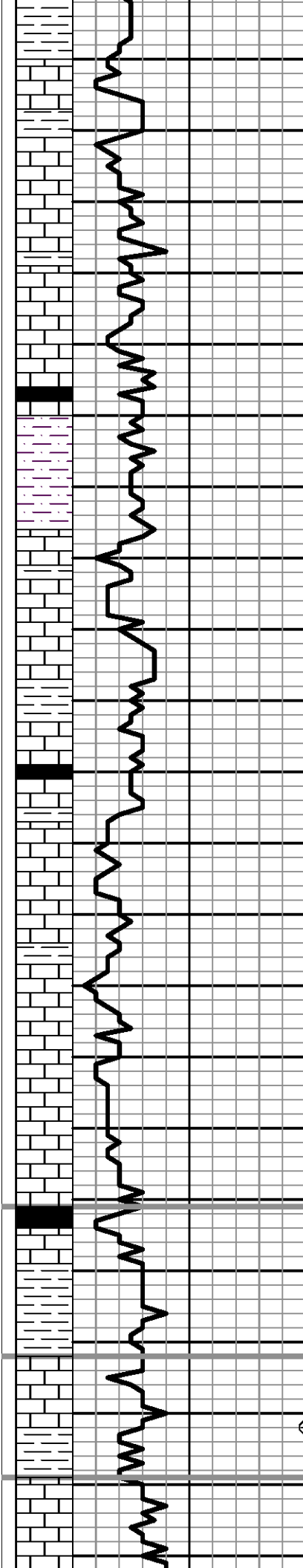
Sh: gry-some red/brn

Ls: crm-lt brn, fn xln, sli grnlr, part chlky, ool in part, pr-fr intrxln por, ns

Morgan Mud @ 3203'; 12/27/13
 Wt. 8.7, Vis. 78, WL. 6.0, Chl. 1,900, LCM 0

TOPEKA 3451' (-1101)

E Log 3448' (-1098)



Sh: gry

Ls: crm-lt brn-lt gry, fn xln, sli grnlr, part dns, sli foss, sct intrxln por, ns

Same

Ls: lt brn-lt gry, fn xln, sli chlky, part dns, sli foss, pr vis por, ns

Ls: lt brn-lt gry, fn xln, part dns, foss-mott, sct wt chlk, some intrxln-foss por, ns

3550

Sh: blk, carb

Sh: gry-grn w/ Sst: lt gry-gry, vy fn-fn grn, calc, subfri, ns

Ls: crm-lt brn, fn xln, foss-trc mott, rare vug por, ns

Ls: as above, part dns

3600

Ls: crm-lt brn, fn xln, subchlky, foss, rare vug por, ns w/ sct gry, dns, ls

Ls: crm-lt brn, fn xln, foss-sli ool, vy sct intrpart-vug por, ns

Ls: crm-lt brn, fn xln, sli grnlr, sli foss, pr-fr intrxln por, ns

Ls: as above, sli chrty

Ls: crm-lt brn, fn xln, sli grnlr, sli dolo, chrty, sli foss, pr-fr intrxln por, ns

3650

Ls: crm-lt brn, fn xln, sli grnlr, chlky in part, chrty, foss, sct fr foss-vug por, ns

Ls: crm-lt brn, fn xln, chrty, foss w/ much wt chlk, pr vis por, ns

Sh: blk, carb

Ls: lt brn, fn xln, dns, pr vis por, ns

Sh: gry-grn

3700

Ls: crm-lt brn, fn xln, part chlky, chrty, foss-sli ool, trc intrpart-vug por, few pcs blk sptd stn, nsfo, no odor

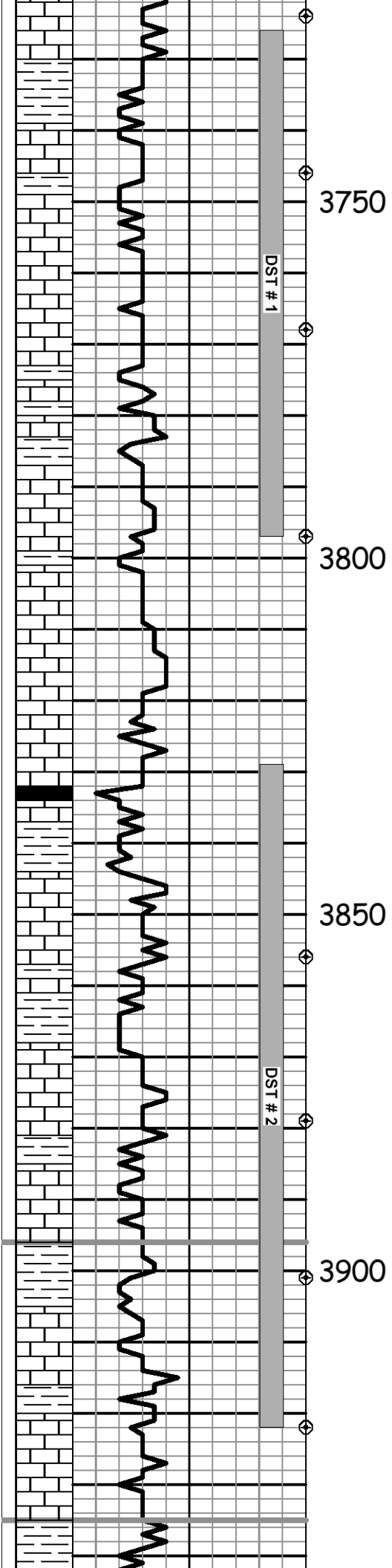
Ls: crm-lt brn, fn xln, part dns, chrty, sli foss, pr vis por, few pcs blk sptd stn, nsfo, no odor

Ls: crm-lt brn, fn xln, dns, few pcs sli dolo, chrty

HEEBNER 3671' (-1321)
E Log 3668' (-1318)

TORONTO 3692' (-1342)
E Log 3689' (-1339)

LANSING 3709' (-1359)
E Log 3706' (-1356)



Ls: crm-lt gry, fn xln, dns, few pcs sh ool, chrty, sli foss, pr vis por, ns

Sh: gry-grn, some red/brn

Ls: crm-lt gry, fn xln, subchlky, part dns, sli chrty, pr vis por, trc brn sptd stn, cpl pcs blk sptd stn, nsfo, 1 pc w/ sli odor on brk

3750

Ls: crm-lt gry, fn xln, subchlky, part dns, chrty, sli foss in part, trc pr vug por, cpl pcs vssfo, vy sct brn sptd stn, no odor

Ls: crm-lt gry, fn xln, dns, 1 pc ool w/ fr introol por, vssfo, no odor

Sh: gry-grn w/ Ls: crm-brn-lt gry, fn xln, dns, foss in part, pr vis por, ns

Ls: crm-lt gry, fn xln, part dns, sli foss, vy sct pr-trc fr vug por, vssfo, fnt odor, drk brn sptd stn

Ls: wt-crm, fn xln, subchlky, part dns, foss-ool in part, pr-trc fr intrpart por, vssfo, no odor, lt brn sptd stn

3800

Ls: crm-lt gry, fn xln, dns, ool in part w/ sct wt chlk, pr vis por, ns

Ls: crm-lt gry, fn xln, dns, fr amnt wt chlk, pr vis por, ns

Ls: as above, less chlk

Sh: blk, carb

Sh: gry, some gry & red/brn

Ls: crm-lt gry, fn xln, subchlky, part dns, rare foss, trc pr vug por, vssfo, no odor, trc sptd stn

3850

Ls: as above, sli chrty

Sh: gry, some grn & mar w/ Ls: lt brn, fn xln, dns, foss

Ls: crm, fn xln, chlky in part, dns in part, ool, pr-trc fr introol por, vssfo, ? fnt odor, lt brn dull sptd stn

DST # 2

Sh: gry-grn-red, gummy in part

Ls: crm-lt gry, fn xln, dns, ool, pr-trc fr vug por, trc fo, no odor, lt-drk brn sptd-sat stn

Ls: as above, trc fr vug por, vssfo, no odor

3900

Sh: gry-grn-red/brn

Ls: off wt-lt gry, fn xln, part dns, ool-sli foss, pr trc fr intrpart por, vssfo, no odor, lt-med brn sptd-subsat stn

Sh: gry-grn-red/brn

Ls: crm-lt gry, fn xln, part dns, sli chlky, sli foss in part, pr vis por, cpl pcs drk brn-blk sptd stn, nsfo, no odor

Ls: as above, incrs wt chlk, ns

Morgan Mud @ 3734'; 12/28/13
Wt. 9.1, Vis. 55, WL. 7.2, Chl. 4,000, LCM 0

DST # 1 3726' to 3797' (LKC 'B-F' zns)
30"-60"-60"-90"
IF: BOB/20" ISI: No Return
FF: BOB/22" FSI: Surface Blow/Died/14"
RECOVERY: 186' total fluid
30' CO (gravity: 37 deg.)
156' MCW w/ oil spts (80%W,20%M)
IFP: 17-51# ISIP: 1041#
FFP: 54-99# FSIP: 1014#
IHP: 1846# FHP: 1803#
BHT: 113 deg. F
CHL: 140,000 ppm

DST # 2 3829' to 3922' (LKC 'H-K' zns)
30"-60"-60"-90"
IF: BOB/2" ISI: BOB/22"
FF: BOB/.75" FSI: BOB/11"
RECOVERY: 1408' total fluid
1260' GIP
1283' CO (gravity: 30 deg.)
125' HOCM (40%O,60%M)
IFP: 72-287# ISIP: 1197#
FFP: 313-555# FSIP: 1159#
IHP: 1915# FHP: 1942#
BHT: 116 deg. F

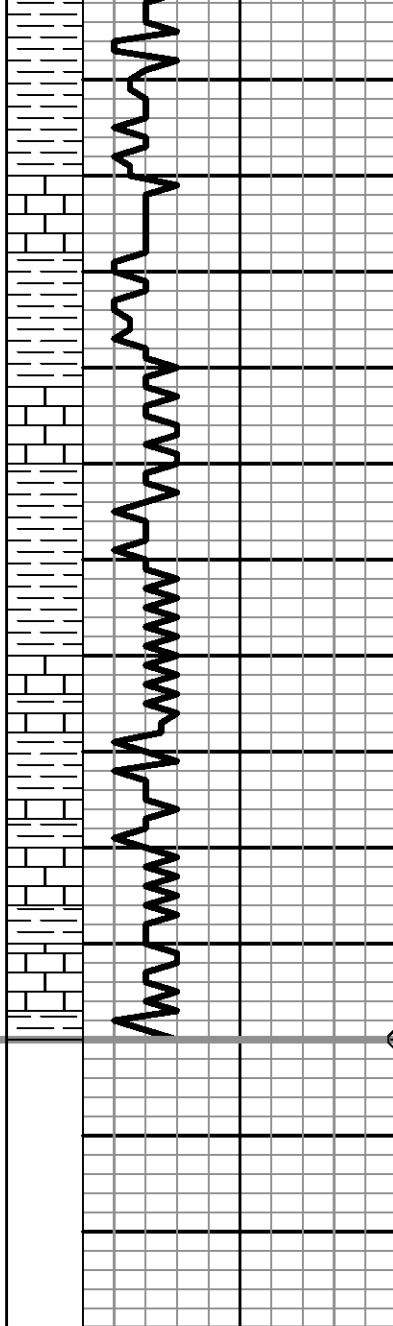
STARK 3896' (-1546)

E Log 3892' (-1542)

Morgan Mud @ 3901'; 12/29/13
Wt. 9.1, Vis. 53, WL. 8.0, Chl. 5,000, LCM 0

BKC 3935' (-1585)

E Log 3931' (-1581)



3950

Sh: gry, lt gry gummy, some grn & red/brn

Ls: crm-lt gry, fn xln, dns, chlky in part, sli foss, pr vis por, ns

Sh: gry-red/brn, some grn

Ls: crm-lt gry, fn xln, dns, chlky in part, ool in part, pr vis por, ns

Sh: gry-red/brn, some grn

Ls: crm-lt gry-lt brn, fn xln, dns, sli foss, pr vis por, ns

Sh: gry-red/brn, some grn

Ls: crm-lt gry, fn xln, dns, sli chlky, sndy in part, pr vis por, ns

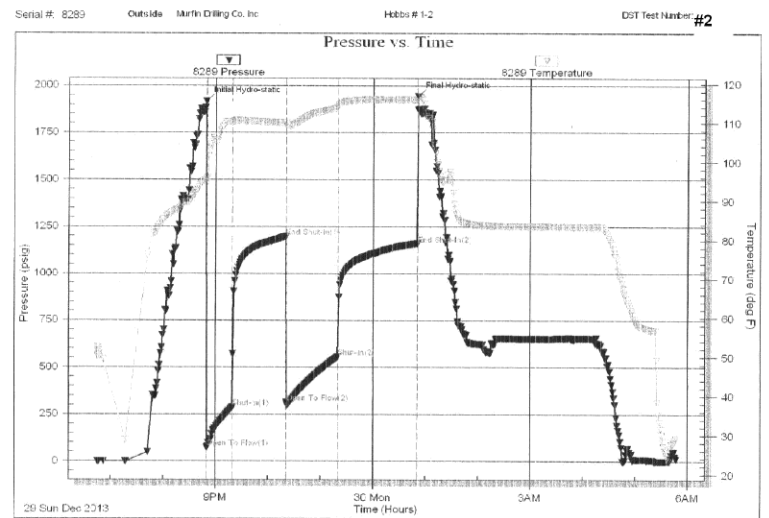
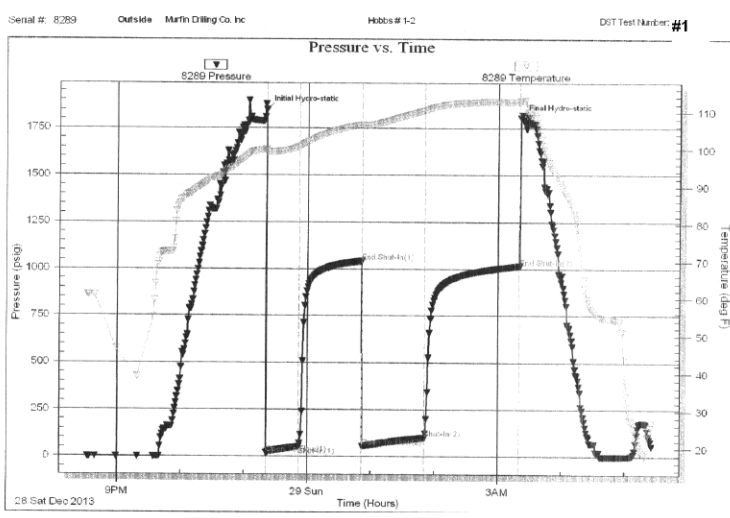
Ls: lt gry, fn xln, dns, sli chlky, argil in part, pr vis por, ns

Morgan Mud @ 4050'; 12/30/13
 Wt. 9.1, Vis. 55, WL. 7.6, Chl. 5,000, LCM 2

RTD 4050' (-1700)

E Log 4048' (-1698)

Drill Stem Test Charts







DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Jeff Christian

Hobbs #1-2

2-11s-24w Trego,KS

Start Date: 2013.12.28 @ 20:32:00

End Date: 2013.12.29 @ 05:26:00

Job Ticket #: 50409 DST #: 1

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

Printed: 2013.12.31 @ 09:13:43



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

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

2-11s-24w Trego,KS

Hobbs #1-2

Job Ticket: 50409

DST#: 1

Test Start: 2013.12.28 @ 20:32:00

GENERAL INFORMATION:

Formation: **LKC " B - F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:21:00

Time Test Ended: 05:26:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 54

Interval: 3726.00 ft (KB) To 3797.00 ft (KB) (TVD)

Reference Elevations: 2350.00 ft (KB)

Total Depth: 3797.00 ft (KB) (TVD)

2345.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 99.49 psig @ 3731.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.28

End Date:

2013.12.29

Last Calib.:

2013.12.29

Start Time: 20:32:02

End Time:

05:26:00

Time On Btm:

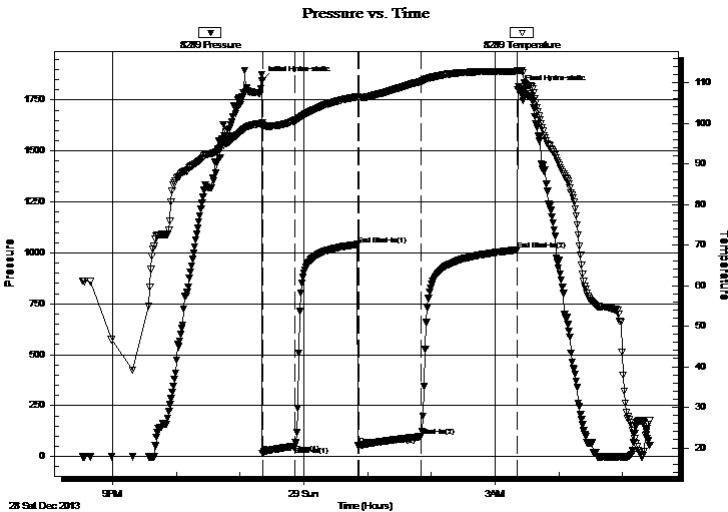
2013.12.28 @ 23:20:45

Time Off Btm:

2013.12.29 @ 03:21:15

TEST COMMENT: 30-IFP- BOB in 20 min.
60-ISIP- No Blow
60-FFP- BOB in 22 min.
90-FSIP- Surface Blow Died in 14 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1846.79	100.07	Initial Hydro-static
1	17.42	99.30	Open To Flow (1)
31	51.85	100.67	Shut-In(1)
90	1041.79	106.52	End Shut-In(1)
91	54.48	106.26	Open To Flow (2)
150	99.49	110.37	Shut-In(2)
240	1014.58	112.75	End Shut-In(2)
241	1803.16	112.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
156.00	OSMCW 20% m 80% w	1.92
30.00	CO 100%	0.42

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

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

2-11s-24w Trego,KS

Hobbs #1-2

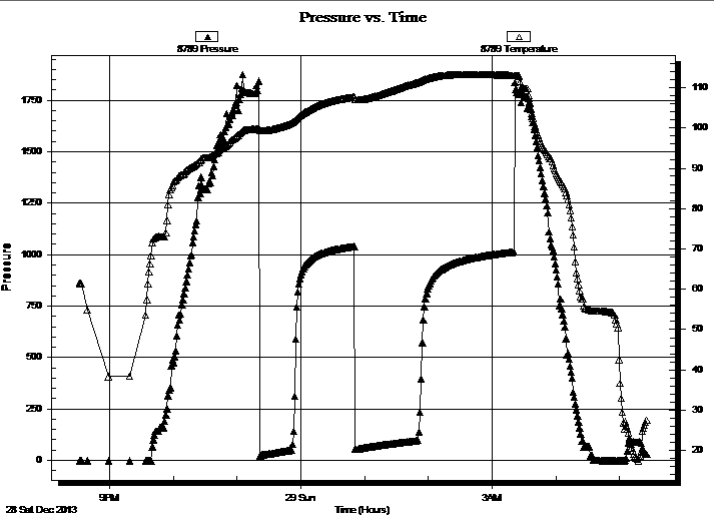
Job Ticket: 50409 **DST#: 1**
Test Start: 2013.12.28 @ 20:32:00

GENERAL INFORMATION:

Formation: LKC " B - F "		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 23:21:00		Tester: Jim Svaty
Time Test Ended: 05:26:00		Unit No: 54
Interval: 3726.00 ft (KB) To 3797.00 ft (KB) (TVD)		Reference Elevations: 2350.00 ft (KB)
Total Depth: 3797.00 ft (KB) (TVD)		2345.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft

Serial #: 8789 Inside			
Press@RunDepth:	psig @	3731.00 ft (KB)	Capacity: 8000.00 psig
Start Date:	2013.12.28	End Date: 2013.12.29	Last Calib.: 2013.12.29
Start Time:	20:32:02	End Time: 05:25:45	Time On Btm:
			Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 20 min.
 60-ISIP- No Blow
 60-FFP- BOB in 22 min.
 90-FSIP- Surface Blow Died in 14 min.



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

Recovery		
Length (ft)	Description	Volume (bbl)
156.00	OSMCW 20% m 80% w	1.92
30.00	CO 100%	0.42

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: Jeff Christian

2-11s-24w Trego,KS
Hobbs #1-2
Job Ticket: 50409 **DST#: 1**
Test Start: 2013.12.28 @ 20:32:00

Tool Information

Drill Pipe:	Length: 3706.00 ft	Diameter: 3.80 inches	Volume: 51.99 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 52.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3726.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	92.00 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			3706.00	
Shut In Tool	5.00			3711.00	
Hydraulic tool	5.00			3716.00	
Packer	5.00			3721.00	21.00 Bottom Of Top Packer
Packer	5.00			3726.00	
Stubb	1.00			3727.00	
Perforations	3.00			3730.00	
Change Over Sub	1.00			3731.00	
Recorder	0.00	8789	Inside	3731.00	
Recorder	0.00	8289	Outside	3731.00	
Blank Spacing	32.00			3763.00	
Change Over Sub	1.00			3764.00	
Perforations	30.00			3794.00	
Bullnose	3.00			3797.00	71.00 Bottom Packers & Anchor

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

2-11s-24w Trego,KS
Hobbs #1-2
Job Ticket: 50409 **DST#: 1**
Test Start: 2013.12.28 @ 20:32:00

Mud and Cushion Information

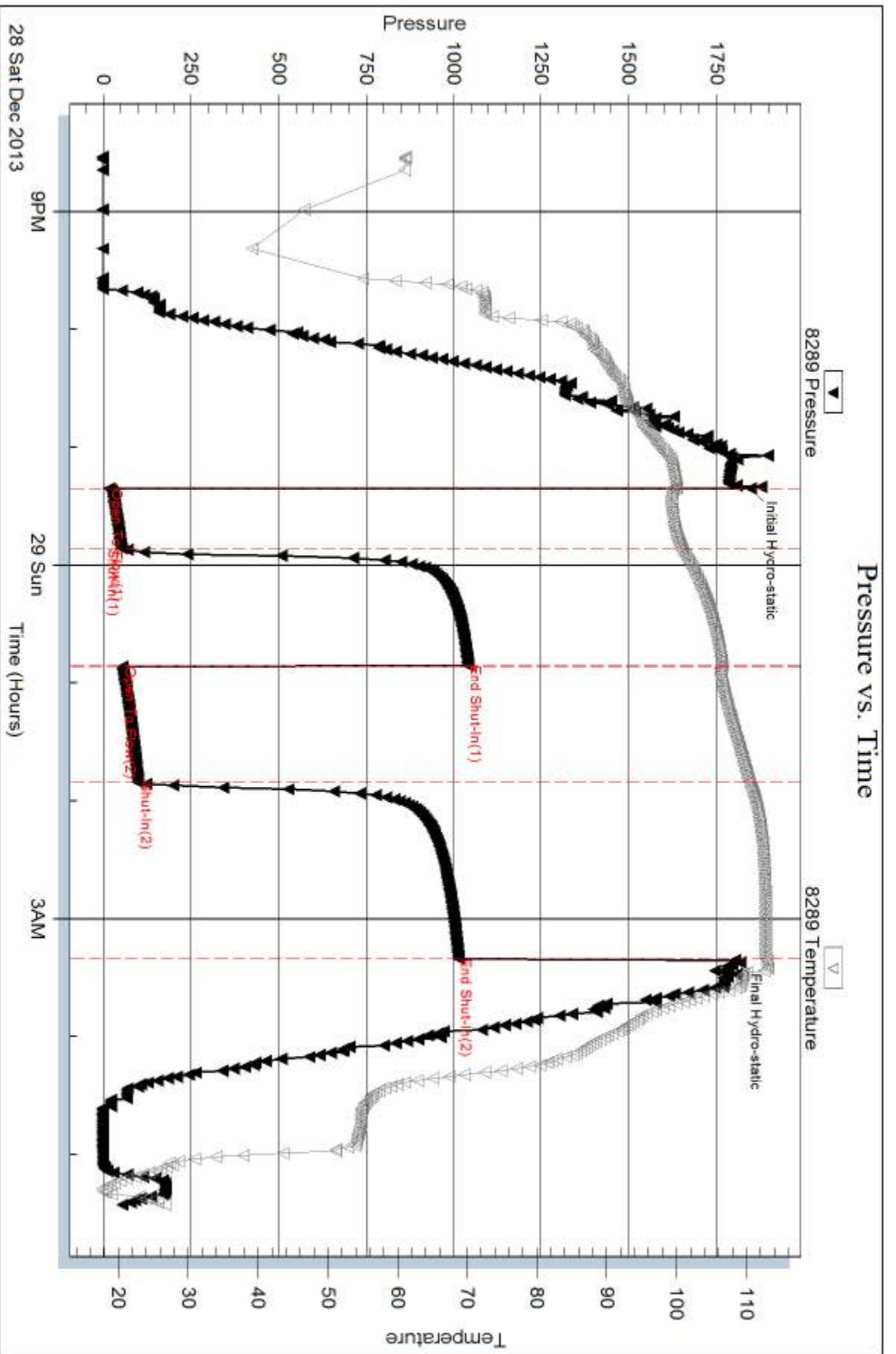
Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 140000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.18 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
156.00	OSMCW 20%m 80%w	1.924
30.00	CO 100%	0.421

Total Length: 186.00 ft Total Volume: 2.345 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .214 @ 20



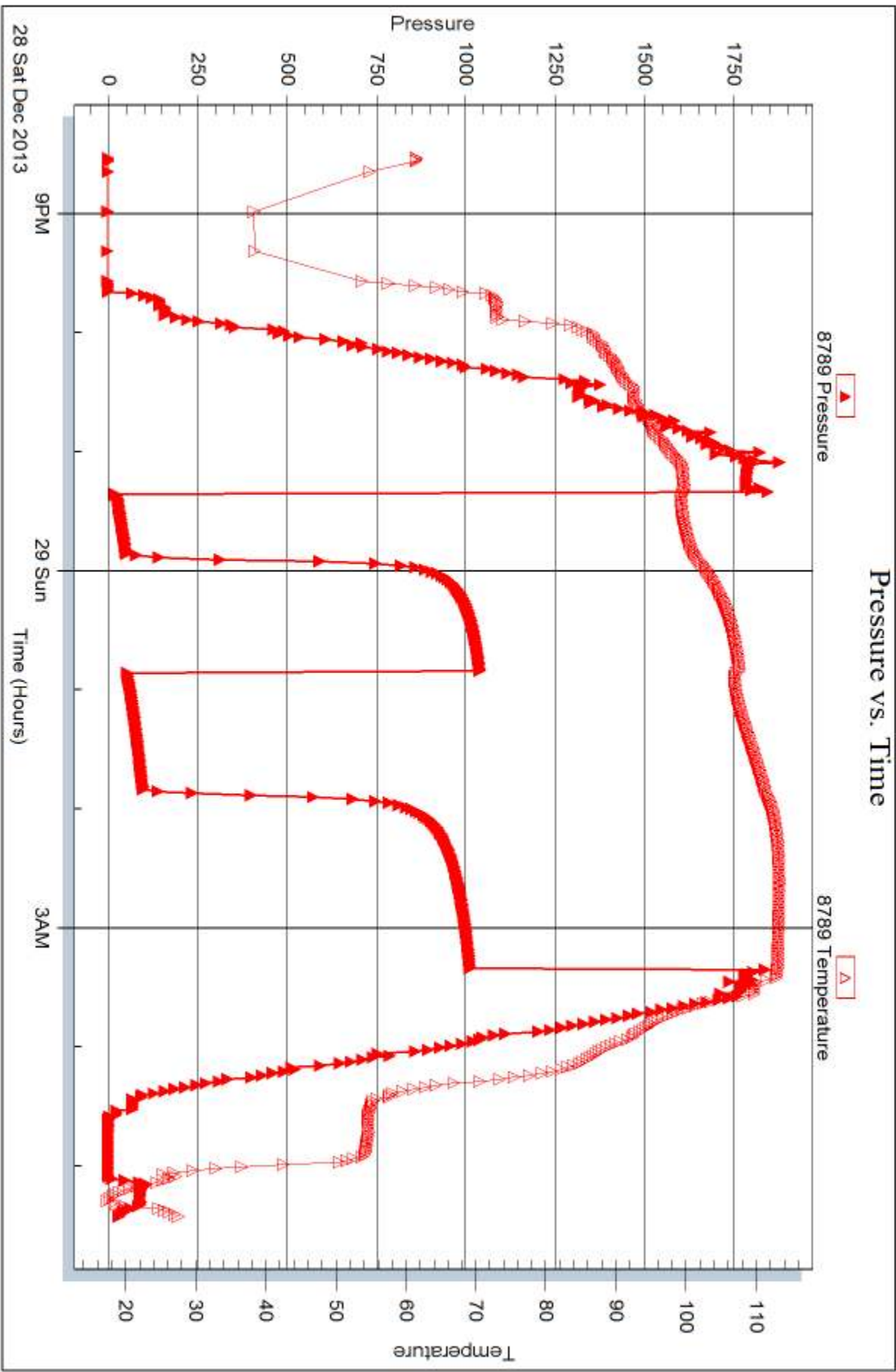
Serial #: 8789

Inside

Murfin Drilling Co. Inc

Hobbs #1-2

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Jeff Christian

Hobbs #1-2

2-11s-24w Trego,KS

Start Date: 2013.12.29 @ 18:45:00

End Date: 2013.12.30 @ 05:47:00

Job Ticket #: 50410 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.12.31 @ 09:13:05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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

2-11s-24w Trego,KS
Hobbs #1-2
 Job Ticket: 50410 **DST#: 2**
 Test Start: 2013.12.29 @ 18:45:00

GENERAL INFORMATION:

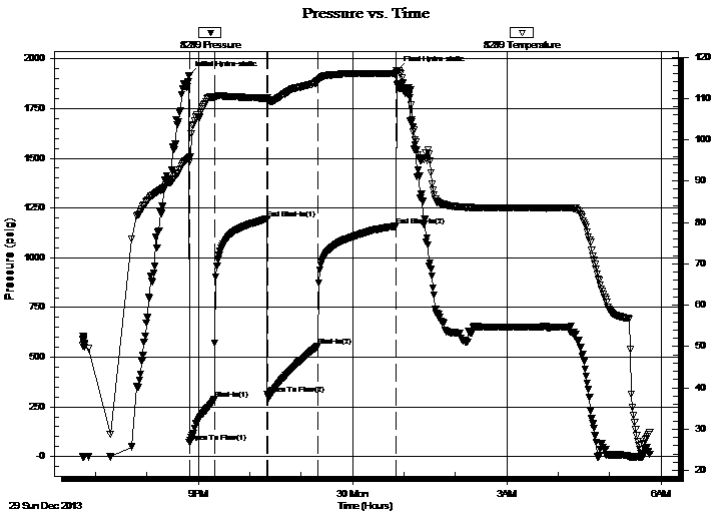
Formation: **LKC " H - K "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:49:30
 Time Test Ended: 05:47:00
 Interval: **3829.00 ft (KB) To 3922.00 ft (KB) (TVD)**
 Total Depth: 3922.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 54
 Reference Elevations: 2350.00 ft (KB)
 2345.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 555.61 psig @ 3834.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.29 End Date: 2013.12.30 Last Calib.: 2013.12.30
 Start Time: 18:45:02 End Time: 05:47:00 Time On Btm: 2013.12.29 @ 20:49:15
 Time Off Btm: 2013.12.30 @ 00:51:30

TEST COMMENT: 30-IFP- BOB in 2 min 30 sec.
 60-ISIP- BOB in 22 min.
 60-FFP- BOB in 45 sec.
 90-FSIP- BOB in 11 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1915.91	95.60	Initial Hydro-static
1	72.90	94.62	Open To Flow (1)
30	287.30	110.23	Shut-In(1)
91	1197.10	110.05	End Shut-In(1)
92	313.04	109.55	Open To Flow (2)
151	555.61	114.30	Shut-In(2)
242	1159.27	115.93	End Shut-In(2)
243	1942.44	116.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	OCM 40% o 60% m	1.49
1283.00	CO 100%	18.00
0.00	GIP 1260	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

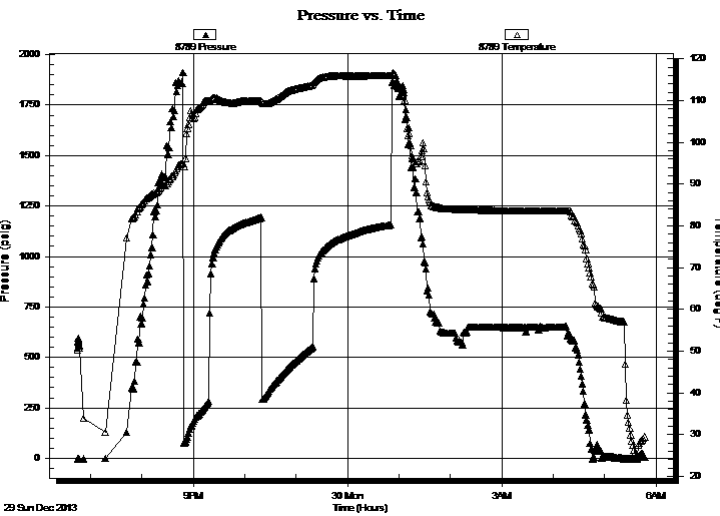
2-11s-24w Trego, KS
Hobbs #1-2
 Job Ticket: 50410 **DST#: 2**
 Test Start: 2013.12.29 @ 18:45:00

GENERAL INFORMATION:

Formation: **LKC " H - K "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:49:30
 Time Test Ended: 05:47:00
 Interval: **3829.00 ft (KB) To 3922.00 ft (KB) (TVD)**
 Total Depth: 3922.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 54
 Reference Elevations: 2350.00 ft (KB)
 2345.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8789 Inside
 Press@RunDepth: psig @ 3834.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.29 End Date: 2013.12.30 Last Calib.: 2013.12.30
 Start Time: 18:45:02 End Time: 05:47:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 2 min 30 sec.
 60-ISIP- BOB in 22 min.
 60-FFP- BOB in 45 sec.
 90-FSIP- BOB in 11 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
125.00	OCM 40% o 60% m	1.49
1283.00	CO 100%	18.00
0.00	GIP 1260	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

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

2-11s-24w Trego,KS
Hobbs #1-2
Job Ticket: 50410 **DST#: 2**
Test Start: 2013.12.29 @ 18:45:00

Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 53.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3829.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	114.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3809.00	
Shut In Tool	5.00			3814.00	
Hydraulic tool	5.00			3819.00	
Packer	5.00			3824.00	21.00 Bottom Of Top Packer
Packer	5.00			3829.00	
Stubb	1.00			3830.00	
Perforations	3.00			3833.00	
Change Over Sub	1.00			3834.00	
Recorder	0.00	8789	Inside	3834.00	
Recorder	0.00	8289	Outside	3834.00	
Blank Spacing	63.00			3897.00	
Change Over Sub	1.00			3898.00	
Perforations	21.00			3919.00	
Bullnose	3.00			3922.00	93.00 Bottom Packers & Anchor

Total Tool Length: 114.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

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

2-11s-24w Trego,KS
Hobbs #1-2
Job Ticket: 50410 **DST#: 2**
Test Start: 2013.12.29 @ 18:45:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 30 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.95 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

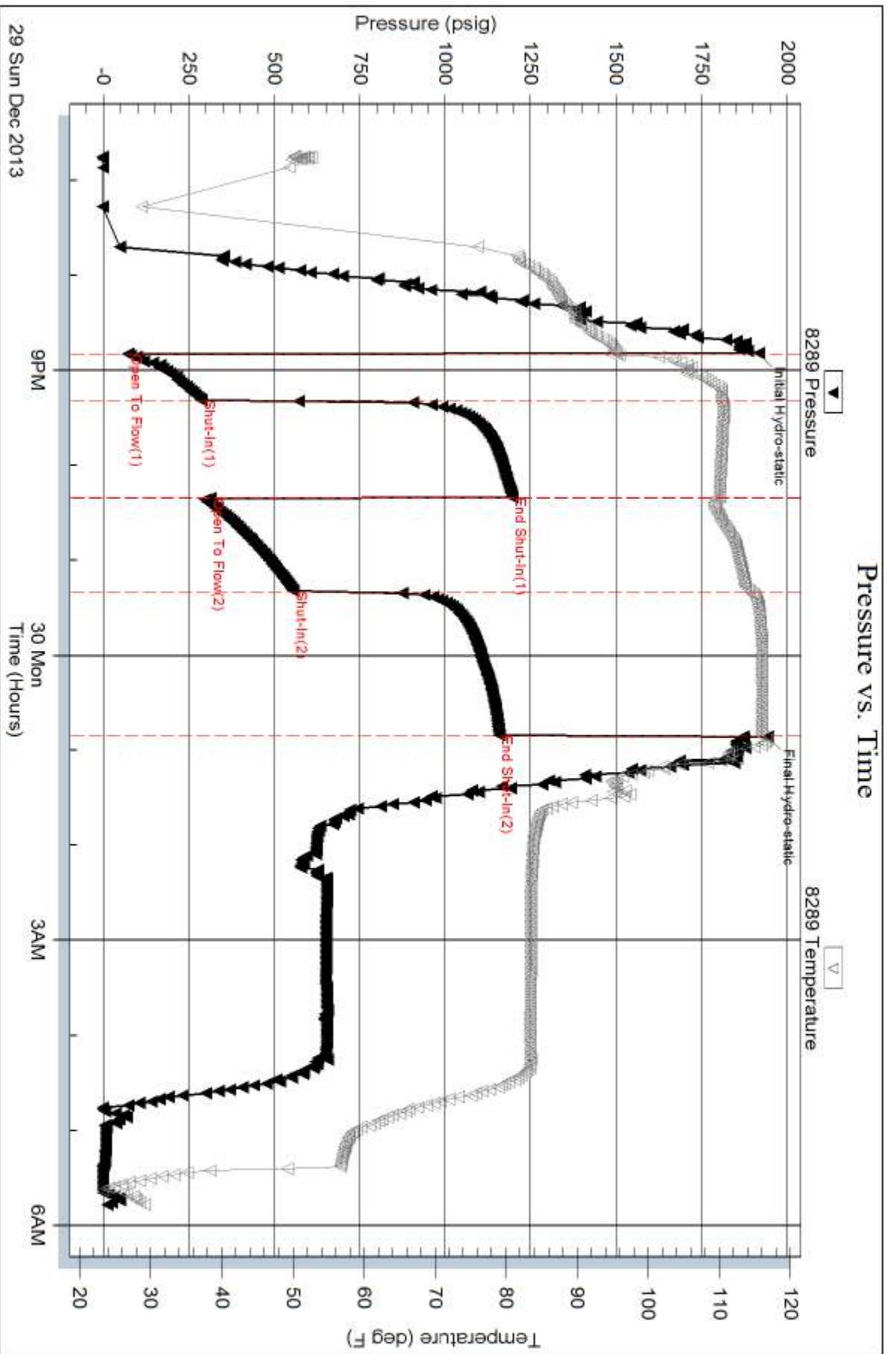
Length ft	Description	Volume bbl
125.00	OCM 40%o 60%m	1.489
1283.00	CO 100%	17.997
0.00	GIP 1260	0.000

Total Length: 1408.00 ft Total Volume: 19.486 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



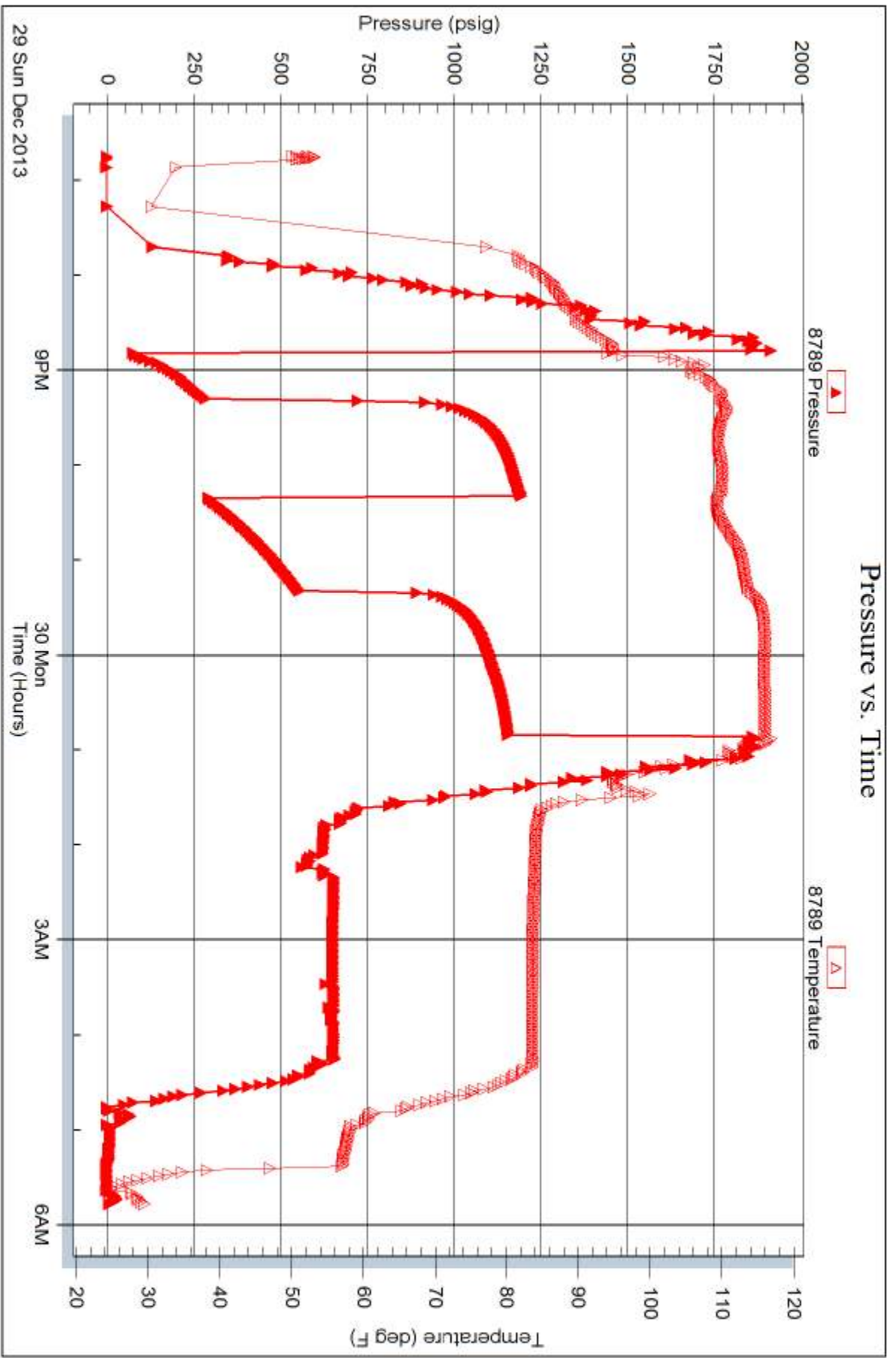
Serial #: 8789

Inside

Murfin Drilling Co. Inc

Hobbs #1-2

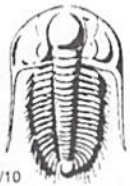
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 50410

Printed: 2013.12.31 @ 09:13:06



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50409

Well Name & No. Hobbs # 1-2 Test No. 1 Date 12-28-13
 Company Murfin Drilling Co. Inc. Elevation 2350 KB 2345 GL
 Address 250 N. Water Ste 300 Wichita Ks. 67202-1216
 Co. Rep / Geo. JEFF CHRISTIAN Rig Murfin 16
 Location: Sec. 2 Twp. 11^s Rge. 24^w Co. Trego State KS

Interval Tested 3726 - 3797 Zone Tested LKC "B-F"
 Anchor Length 71 Drill Pipe Run 3706 Mud Wt. 9.1
 Top Packer Depth 3721 Drill Collars Run 29 Vis 55
 Bottom Packer Depth 3726 Wt. Pipe Run 0 WL 7.2
 Total Depth 3797 Chlorides 4000 ppm System LCM 0

Blow Description IFP - BOB in 20min.
ISFP - NO Blow
FFP - BOB in 22min
FSIP - SURFACE Blow Died in 14min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>156</u>	<u>05MCW</u>			<u>80</u>	<u>20</u>
<u>30</u>	<u>CO</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 186 BHT 113 Gravity 37 API RW 1214 @ 20 ° F Chlorides 140,000 ppm

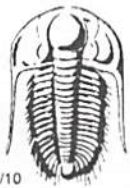
(A) Initial Hydrostatic 1846 Test 1150 T-On Location 19:31
 (B) First Initial Flow 17 Jars _____ T-Started 20:32
 (C) First Final Flow 51 Safety Joint _____ T-Open 23:21
 (D) Initial Shut-In 1041 Circ Sub _____ T-Pulled 03:21
 (E) Second Initial Flow 54 Hourly Standby _____ T-Out 05:26
 (F) Second Final Flow 99 Mileage 94RT 145.70 Comments _____
 (G) Final Shut-In 1014 Sampler _____
 (H) Final Hydrostatic 1803 Straddle _____ Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 60 Extra Packer _____ Extra Copies _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 90 Day Standby _____ Total 1295.70
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1295.70

Approved By _____ 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.

785 639 5864



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50410

4/10

Well Name & No. Hebbs #1-2 Test No. 2 Date 12-29-13
 Company Murfin Drilling Co. Inc. Elevation 2350 KB 2345 GL
 Address 250 N. Water St 300 Wichita KS 67202-1216
 Co. Rep / Geo. JEFF CHRISTIAN Rig MURFIN 16
 Location: Sec. 2 Twp. 11^S Rge. 24^W Co. Trego State KS

Interval Tested 3829-3922 Zone Tested LKC "H-K"
 Anchor Length 93 Drill Pipe Run 3803 Mud Wt. 9.1
 Top Packer Depth 3824 Drill Collars Run 29 Vis 53
 Bottom Packer Depth 3829 Wt. Pipe Run 0 WL 8.0
 Total Depth 3922 Chlorides 5000 ppm System LCM 0

Blow Description IFF- BOB in 2 min 30 sec.
ISIP- BOB in 22 min.
FFP- BOB in 45 sec.
FSIP- BOB in 11 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>OCM</u>	<u>40</u>		<u>60</u>	
<u>1283</u>	<u>CO</u>	<u>100</u>			

Rec Total 1408 BHT 116 Gravity 30 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1915</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>18:29</u>
(B) First Initial Flow <u>72</u>	<input type="checkbox"/> Jars	T-Started <u>18:45</u>
(C) First Final Flow <u>287</u>	<input type="checkbox"/> Safety Joint	T-Open <u>20:50</u>
(D) Initial Shut-In <u>1197</u>	<input type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>00:50</u>
(E) Second Initial Flow <u>313</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:47</u>
(F) Second Final Flow <u>555</u>	<input checked="" type="checkbox"/> Mileage <u>291.40</u>	Comments <u>loaded 12/30 12:30</u>
(G) Final Shut-In <u>1159</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1942</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1491.40</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1491.40</u>	

Approved By _____ 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.

Hobbs #1-2
 Daily Drilling Report
 Page Two

12/31/13 RTD: 4050'. Cut 128'. DT: None. CT: 19¾ hrs. Dev.: ½° @ 4050'. HC @ 1:30PM 12/30/13. Pioneer logged 5:15PM to 8:30PM 12/30. LTD: 4048'. 2nd run tool stopped @ 1200' TIH w/TO 1850' circ ¾hr. TOOH. 11:30PM 12/30 – 1:30AM 12/31/13. LD Pipe.

1/01/14 RTD: 4050'. CT: 9¼ hrs. Ran 97jts of 15.5# 5 ½" surf csg, set @ 4046'. Swift cmt w/150sxs of EA-2. PD @ 12:15PM 12/31. PC @ 2005'. 30sxs RH, 20sxs MH. RR @ 4:15PM 12/31/13. FINAL REPORT.

Hobbs #1-2 1111' FNL 1648' FWL Sec. 2-T11S-R24W 2350' KB							Ruder Unit #1-36 1430' FSL 2600' FEL Sec. 36-T10S-R24W 2360' KB	
Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref	Log Tops	Datum
Anhydrite	1964	+386	-19	1960	+390	-15	1955	+405
B/Anhydrite	2003	+347	-15	2000	+350	-12	1998	+362
Topeka	3451	-1101	-7	3448	-1098	-4	3454	-1094
Heebner	3671	-1321	-9	3668	-1318	-6	3672	-1312
Toronto	3694	-1344	-11	3689	-1339	-6	3693	-1333
Lansing	3706	-1356	-6	3706	-1356	-6	3710	-1350
BKC	3945	-1595	-13	3930	-1580	-2	3942	-1582
RTD	4050	-1700					4325	
LTD				4048	-1698		4327	-1967

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/>

Shari Feist Albrecht, Chair
Jay Scott Emler, Commissioner
Pat Apple, Commissioner

Sam Brownback, Governor

April 30, 2014

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

Re: ACO-1
API 15-195-22905-00-00
Hobbs #1-2
NW/4 Sec.02-11S-24W
Trego County, Kansas

Dear Leon Rodak:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 12/19/2013 and the ACO-1 was received on April 21, 2014 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department