



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1213987
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: _____

1213987

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method: Flowing Pumping Gas Lift Other *(Explain)* _____

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	Collingwood-Gillam Unit 1-2
Doc ID	1213987

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated

PO Box 93999
Southlake, TX 76092

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

INVOICE

Procl LH

Invoice Number: 142067

Invoice Date: Mar 22, 2014

Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	53103	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Liberal	Mar 22, 2014	4/21/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Collingwood-Gilliam Unit #1-2		
275.00	CEMENT MATERIALS	Class A Common	17.90	4,922.50
10.00	CEMENT MATERIALS	Chloride	64.00	640.00
285.00	CEMENT SERVICE	Cubic Feet Charge	2.48	706.80
999.00	CEMENT SERVICE	Ton Mileage Charge	2.60	2,597.40
1.00	CEMENT SERVICE	Surface	2,419.75	2,419.75
75.00	CEMENT SERVICE	Pump Truck Mileage	7.70	577.50
75.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	330.00
3.00	CEMENT SERVICE	Waiting on Location	440.00	1,320.00
1.00	EQUIPMENT SALES	8-5/8 Centralizer	37.50	37.50
1.00	EQUIPMENT OPERATOR	Ruben Chavez		
1.00	OPERATOR ASSISTANT	Jaime Torres		
1.00	OPERATOR ASSISTANT	Jose Calderon		

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

\$ 4,743.00 *oh 356*

ONLY IF PAID ON OR BEFORE

Apr 16, 2014

Subtotal	13,551.45
Sales Tax	400.40
Total Invoice Amount	13,951.85
Payment/Credit Applied	
TOTAL	13,951.85

- 4743.00
9208.85

oik MSR

ALLIED OIL & GAS SERVICES, LLC 053103

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberal Ks.

DATE <u>03-22-14</u>	SEC <u>9</u>	TWP <u>22</u>	RANGE <u>39 W</u>	CALLED OUT	ON LOCATION	JOB START <u>3:00</u>	JOB FINISH <u>4:00 a.m.</u>
Calling wire & LEASE Yellow Unit WELL# <u>1-2</u>		LOCATION <u>Kendall Ks, 16 MN on</u>		COUNTY <u>Hamilton</u>	STATE <u>KS</u>		
OLD OR <u>NEW</u> (Circle one)		County line to CRT, W 1M, S into					

CONTRACTOR <u>Murfin Drilling</u>	OWNER <u>Murfin</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u> T.D. <u>340+ ft</u>	CEMENT AMOUNT ORDERED <u>275 sk 'A' 3% CC.</u>
CASING SIZE <u>8 5/8 24#</u> DEPTH <u>336.70 ft</u>	
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX <u>200 PSI</u> MINIMUM	COMMON <u>"A" 275 sk @ 17.90 4,922.50</u>
MEAS. LINE SHOE JOINT <u>30 ft</u>	POZMIX @
CEMENT LEFT IN CSG. <u>1.9 BBLS</u>	GEL @
PERFS.	CHLORIDE <u>10 sk @ 64.00 640.00</u>
DISPLACEMENT <u>19.5 BBLS</u>	ASC @
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Ruben Chavez</u>	
# <u>700-541</u> HELPER <u>Jame Torres</u>	
BULK TRUCK	
# <u>456-554</u> DRIVER <u>José Calderon</u>	
BULK TRUCK	
# DRIVER	
REMARKS:	HANDLING <u>285 Cu ft @ 2.48 706.80</u>
	MILEAGE <u>999 Ton M. @ 2.60 2,597.40</u>
	TOTAL <u>8,866.70</u>

CHARGE TO: <u>Murfin Drilling Co.</u> STREET _____ CITY _____ STATE _____ ZIP _____	SERVICE DEPTH OF JOB <u>336.70 ft</u> PUMP TRUCK CHARGE <u>2,419.75</u> EXTRA FOOTAGE @ _____ MILEAGE <u>heavy 75 Mi. @ 7.70 577.50</u> MANIFOLD @ _____ <u>Light Vehicle 75 Mi. @ 4.40 330.00</u> <u>Standby Hours 3 @ 440.00 1,320.00</u> TOTAL <u>4,647.25</u>
---	---

To: Allied Oil & Gas Services, LLC. You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.	PLUG & FLOAT EQUIPMENT Centralizer <u>1 @ 37.50 37.50</u> @ _____ @ _____ @ _____ TOTAL <u>37.50</u>
PRINTED NAME <u>James Hale</u> SIGNATURE <u>James Hale</u>	SALES TAX (If Any) _____ TOTAL CHARGES <u>\$13,551.45</u> DISCOUNT <u>8808.44</u> IF PAID IN 30 DAYS



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

Margos
WELL FILE

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 267228

Invoice Date: 04/09/2014 Terms: 10/10/30,n/30

Page 1

MURFIN DRILLING
P.O. BOX 288
RUSSELL KS 67665
() -

COLLINGWOOD GILLAMEN 1-2
47641
2-22S-39W
04-08-2014
KS

Cement Production Casing

Part Number	Description	Qty	Unit Price	Total
1107	FLO-SEAL (25#)	125.00	2.9700	371.25
1110A	KOL SEAL (50# BAG)	1375.00	.5600	770.00
1118B	PREMIUM GEL / BENTONITE	3440.00	.2700	928.80
1126	OIL WELL CEMENT	275.00	23.7000	6517.50
1131	60/40 POZ MIX	500.00	15.8600	7930.00
1144C	FLO-CHECK MUD FLUSH	1000.00	.7400	740.00
4104	CEMENT BASKET 5 1/2"	1.00	290.0000	290.00
4130	CENTRALIZER 5 1/2"	10.00	61.0000	610.00
4159	FLOAT SHOE AFU 5 1/2"	1.00	433.7500	433.75
4283	DV TOOL W/ LATCH DOWN	1.00	4042.5000	4042.50
4314	RECIPROCATING SCRATCHERS	20.00	82.0000	1640.00

Sublet Performed	Description	Total
9996-130	CEMENT MATERIAL DISCOUNT	-2427.38
9995-130	CEMENT EQUIPMENT DISCOUNT	-644.75

Description	Hours	Unit Price	Total
T-118 SINGLE PUMP	1.00	3175.00	3175.00
T-118 EQUIPMENT MILEAGE (ONE WAY)	50.00	5.25	262.50
T-127 TON MILEAGE DELIVERY	1.00	1505.00	1505.00
566 TON MILEAGE DELIVERY	1.00	1505.00	1505.00

USED FOR IC 103 R
APPROVED [Signature]

Amount Due 32456.89 if paid after 05/09/2014

Parts:	24273.80	Freight:	.00	Tax:	1562.03	AR	29211.20
Labor:	.00	Misc:	.00	Total:	29211.20		
Sublt:	-3072.13	Supplies:	.00	Change:	.00		

Signed _____

Date _____



CONSOLIDATED
Oil Well Services, LLC

267228

TICKET NUMBER 47641

LOCATION Oakley KS

FOREMAN Miles Shaw

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
4-8-14	5406	Collins wood Gillham unit #1-2	2	2E5	39W	Hamilton	
CUSTOMER		MAILING ADDRESS		TRUCK #	DRIVER	TRUCK #	DRIVER
Martin Drilling		Kandalla 16N 2W 1S		598718	Surdan		
CITY		STATE	ZIP CODE	560	Severin R		
				597127	Sturm D		

JOB TYPE 2 Stage HOLE SIZE 7 7/8" HOLE DEPTH 549' CASING SIZE & WEIGHT 5 7/8" 15.5#
 CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER Ductal @ 2450'
 SLURRY WEIGHT 12.4/138 SLURRY VOL 1.9/1.42 WATER gal/sk _____ CEMENT LEFT in CASING 21.47'
 DISPLACEMENT 132/ DISPLACEMENT PSI 1500 MIX PSI 1500 RATE _____

REMARKS: Safety machines and rig up on Martin Drilling rig #4 float equipment
Centralizers on 5ths # 1, 3, 5, 7, 9, 11, 13, 15, 17, 71 Basket on # 72 Ductal top out 72 @ 2450'
Run casing to bottom Circulate casing 1hr mix shs OWC with 5# Kolsal
Shut down clear pump lines Release plug displaced 70 bbls water + 42 bbls mud
With 900 psi RT pressure plug landed + held with 1500 psi Dropped opening Dart on
tool with 900 psi Circulate casing 2hrs. Pump 5 bbls water, mix 450 gals
60/40 g gel 1 1/4" Classcal, wash pump and lines. Drop plug and dis place
59 bbl water, 500# high close to tool @ 1400' Cement did circulate 15 bbl
top +. 205 ps mb, 305 ps RH.

Thanks miles crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3175. ⁰⁰	3175. ⁰⁰
5800	50	MILEAGE	5.25	262.50
5407A	34.4 Tons	Ton Mileage delivery	1.75	3010. ⁰⁰
1107	125 #	Flowcal	2.97	371. ²⁵
1110A	1375 #	Kolsal	150	770. ⁰⁰
1118B	3440 #	Bentonite gel	.27	928. ⁸⁰
1120	275 SHS	OWC	23.70	6517. ⁵⁰
1131	500 SHS	60/40 puz	15.86	7930. ⁰⁰
1144C	1000 gal	Fluoshock	740. ⁰⁰	740. ⁰⁰
4104	1	5 1/2 Basket	290. ⁰⁰	290. ⁰⁰
4130	10	5 1/2" Centralizers	60. ⁰⁰	610. ⁰⁰
4159	1	5 1/2" Float Shoe	433.75	433.75
4283	1	5 1/2" Ductal Latched down	4042.50	4042.50
4314	20	5 1/2" Reciprocating Scratchers	82. ⁰⁰	1640. ⁰⁰
		subtotal		30721. ²⁰
		less 1090		30721. ²⁰
		subtotal		27649. ¹⁷
		SALES TAX		1562.03
		ESTIMATED TOTAL		29211. ²⁰

completed

Flavin 3737

AUTHORIZATION James Esquivel TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

Collingwood-Gillam Unit #1-2

Daily Drilling Report

Page Two

- 4/1/14 Depth 4310'. Cut 216'. DT: 8½ hrs TIH. CT: 3½ hrs. Dev.: None. **LKC H:** 1% Ls, tan, gry, wkestrn, pkstrn, foss, pell, PP por, spt inter gran por, spt foss moldic por, VSSFO (dk brn) on break, wh cut, no flor. **DST #1 4240-4310(LKC H & I):**
- 4/2/14 Depth 4400'. Cut 90'. DT: None. CT: 20hrs. Dev.: ¾° @ 4310'. **DST #1 4240-4310(LKC H & I):** 30-30-30-30. IF: wk surf blw died @ 14mins. FF: No blw. Rec.: 5'M. HP: 2068-1953. FP: 26/31, 33/102. SIP: 90-217. BHT: 111°
- 4/3/14 Depth 4660'. Cut 260'. DT: None. CT: 8¾ hrs. Dev.: None.
- 4/4/14 Depth 4990'. Cut 330'. DT: None. CT: 4¼ hrs. Dev.: None. **Morrow Sst:** flood sst, tan, clear, calcareous, vfn ang & sub ang clear qtz gr, gry sh clasts, pyr semi friable. PP BYF. FSFO w/yellow flor. Wh cut. Lrg clusters spt blk tarry oil, SSFO. **DST #2 4904-4993 (Morrow)**
- 4/5/14 Depth 4990'. Cut 0'. DT: 3 hrs DW air. CT 21hrs. Dev.: ½° @ 4990'. **DST #2 4904-4993 (Morrow):** 30-60-60-90. IF: BOB blw @ 5½ mins. ISI: bled off for 6 mins, BOB return @ 12mins. FF: BOB immediately GTS @ 6mins not enough to gauge. FSI: bled off for 6mins. BOB return @ 10mins. Rec.: 1280'GO (20%G, 80%O). HP: 2398-2302. FP: 80/304, 273/482. SIP: 1116-1091. BHT: 131°.
- 4/6/14 Depth 5299'. Cut 309'. DT: 5 ¾ hrs. CT: 5¾ hrs. Dev.: None.
- 4/7/14 RTD: 5450'. Cut 151'. DT: None. CT: 13½ hrs. Dev.: ½° @ 5450'. HC @ 6:30PM 4/6. Pioneer logged 11:30PM 4/6 – 6:00AM 4/7. LTD: 5444'. Will set prod csg.
- 4/8/14 RTD: 5450'. Cut: 0'. DT: None. CT: 24hrs. Dev.: None. Cementing 5 ½" prod csg. Will have setting depth Wed.
- 4/9/14 RTD: 5450'. CT: 9hrs. Ran 130jts of 15.5# 5 ½" prod csg, set @ 5450'. C.O.W.S. cmt w/275sxs OWC, PD @ 8:00AM 4/8. DV @ 2450', cmt w/500sxs 60/40Poz, PD @ 11:00AM 4/8. 30sxs RH, 20sxs MH. Circ to pits. RR @ 4:00PM 4/8/14
FINAL REPORT

MDCI Collingwood-Gillam Unit #1-2 1500' FSL 2520' FWL Sec. 2-T22S-R39W 3424' KB							Amoco Brewster Higler #1-3 SE NE Sec. 3-T22S-R39W 3444' KB	
Formation	Sample Top	Datum	Ref	Log tops	Datum	Ref	Log Top	Datum
Anhydrite	2250	+1174	-42	2208	+1216	Flat	2228	+1216
B/Anhydrite	2305	+1119	-9	2294	+1130	-2	2316	+1128
Topeka	3674	-250	+5	3672	-248	+7	3699	-255
Heebner	3960	-536	+6	3952	-528	+16	3986	-542
Lansing	4014	-590	+5	4005	-581	+14	4039	-595
Stark	4360	-936	-12	4348	-924	Flat	4368	-924
Pawnee	4634	-1210	-17	4624	-1200	-7	4637	-1193
Ft. Scott	4680	-1256	-10	4669	-1245	+1	4690	-1246
Morrow	4969	-1545	-10	4950	-1526	+9	4979	-1535
Mississippian	5240	-1816	-32	5232	-1808	-24	5228	-1784
RTD	5450						5440	
LTD				5444			5438	



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita, KS 67202-1216

ATTN: Mike Maune

Collingwood #1-34

34-21s-39w Hamilton,KS

Start Date: 2014.04.19 @ 10:00:37

End Date: 2014.04.19 @ 18:45:37

Job Ticket #: 56337 DST #: 1

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

Printed: 2014.04.28 @ 13:51:18

Murfin Drilling Co Inc

34-21s-39w Hamilton,KS

Collingwood #1-34

DST # 1

Morrow

2014.04.19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita, KS 67202-1216
 ATTN: Mike Maune

34-21s-39w Hamilton,KS
Collingwood #1-34
 Job Ticket: 56337 **DST#: 1**
 Test Start: 2014.04.19 @ 10:00:37

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:51:37
 Time Test Ended: 18:45:37
 Interval: **4936.00 ft (KB) To 5041.00 ft (KB) (TVD)**
 Total Depth: 5041.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3441.00 ft (KB)
 3430.00 ft (CF)
 KB to GR/CF: 11.00 ft

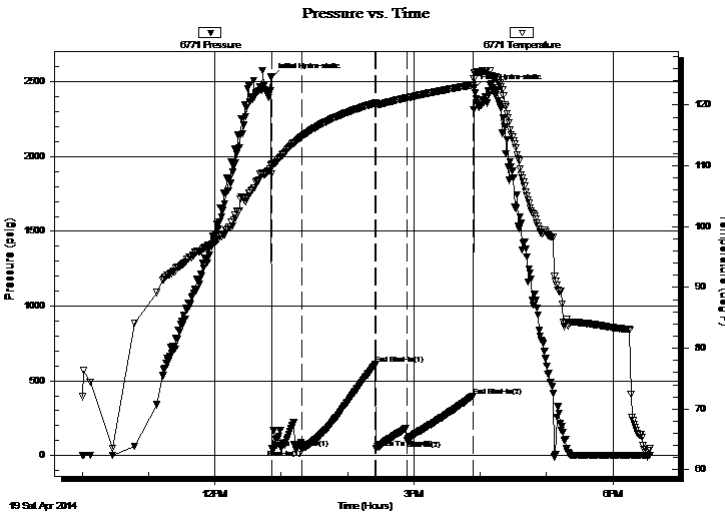
Serial #: 6771

Inside

Press@RunDepth: 101.90 psig @ 4937.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.19 End Date: 2014.04.19 Last Calib.: 2014.04.19
 Start Time: 10:00:37 End Time: 18:33:37 Time On Btm: 2014.04.19 @ 12:51:22
 Time Off Btm: 2014.04.19 @ 15:54:37

TEST COMMENT: 1/4" blow died in 12 min.
 No return
 No blow
 No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2529.95	110.16	Initial Hydro-static
1	46.59	108.73	Open To Flow (1)
28	41.51	114.85	Shut-In(1)
94	608.99	120.32	End Shut-In(1)
95	48.71	120.13	Open To Flow (2)
123	101.90	121.19	Shut-In(2)
183	399.17	123.32	End Shut-In(2)
184	2457.10	125.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	heavy thick mud 100% mud	0.02
0.00	50% of recovery w as lcm	0.00

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: Mike Maune

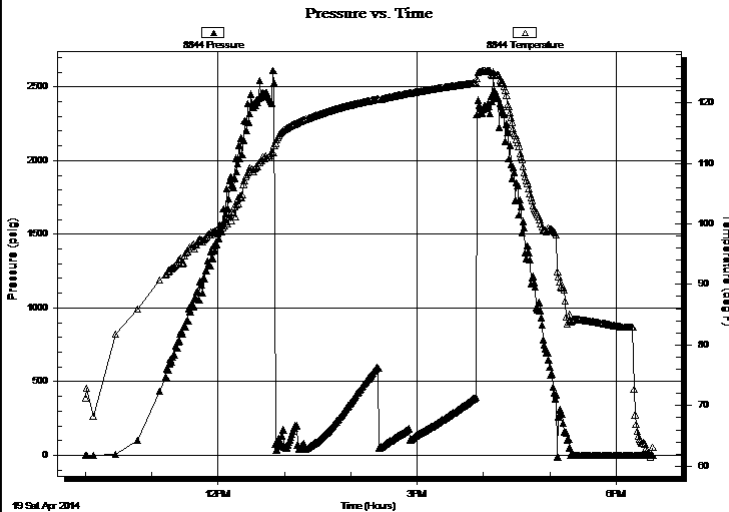
34-21s-39w Hamilton,KS
Collingwood #1-34
Job Ticket: 56337 **DST#: 1**
Test Start: 2014.04.19 @ 10:00:37

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 12:51:37 Tester: Shane McBride
Time Test Ended: 18:45:37 Unit No: 55
Interval: 4936.00 ft (KB) To 5041.00 ft (KB) (TVD) Reference Elevations: 3441.00 ft (KB)
Total Depth: 5041.00 ft (KB) (TVD) 3430.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 8844 **Outside**
Press@RunDepth: psig @ 4937.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.19 End Date: 2014.04.19 Last Calib.: 2014.04.19
Start Time: 10:00:19 End Time: 18:33:19 Time On Btm:
Time Off Btm:

TEST COMMENT: 1/4" blow died in 12 min.
No return
No blow
No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	heavy thick mud 100% mud	0.02
0.00	50% of recovery w as lcm	0.00

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: Mike Maune

34-21s-39w Hamilton,KS
Collingwood #1-34
Job Ticket: 56337 **DST#: 1**
Test Start: 2014.04.19 @ 10:00:37

Tool Information

Drill Pipe:	Length: 4661.00 ft	Diameter: 3.80 inches	Volume: 65.38 bbl	Tool Weight: 1500.00 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: 268.00 ft	Diameter: 2.25 inches	Volume: 1.32 bbl	Weight to Pull Loose: 115000.0 lb
			<u>Total Volume: 66.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 97000.00 lb
Depth to Top Packer:	4936.00 ft			Final 97000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	105.00 ft			
Tool Length:	133.00 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			4909.00	
Shut In Tool	5.00			4914.00	
Hydraulic tool	5.00			4919.00	
Jars	5.00			4924.00	
Safety Joint	3.00			4927.00	
Packer	5.00			4932.00	28.00 Bottom Of Top Packer
Packer	4.00			4936.00	
Stubb	1.00			4937.00	
Recorder	0.00	6771	Inside	4937.00	
Recorder	0.00	8844	Outside	4937.00	
Perforations	33.00			4970.00	
Change Over Sub	1.00			4971.00	
Drill Pipe	64.00			5035.00	
Change Over Sub	1.00			5036.00	
Bullnose	5.00			5041.00	105.00 Bottom Packers & Anchor

Total Tool Length: 133.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita, KS 67202-1216
ATTN: Mike Maune

34-21s-39w Hamilton,KS
Collingwood #1-34
Job Ticket: 56337 **DST#: 1**
Test Start: 2014.04.19 @ 10:00:37

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.76 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	heavy thick mud 100%mud	0.025
0.00	50% of recovery w as lcm	0.000

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:

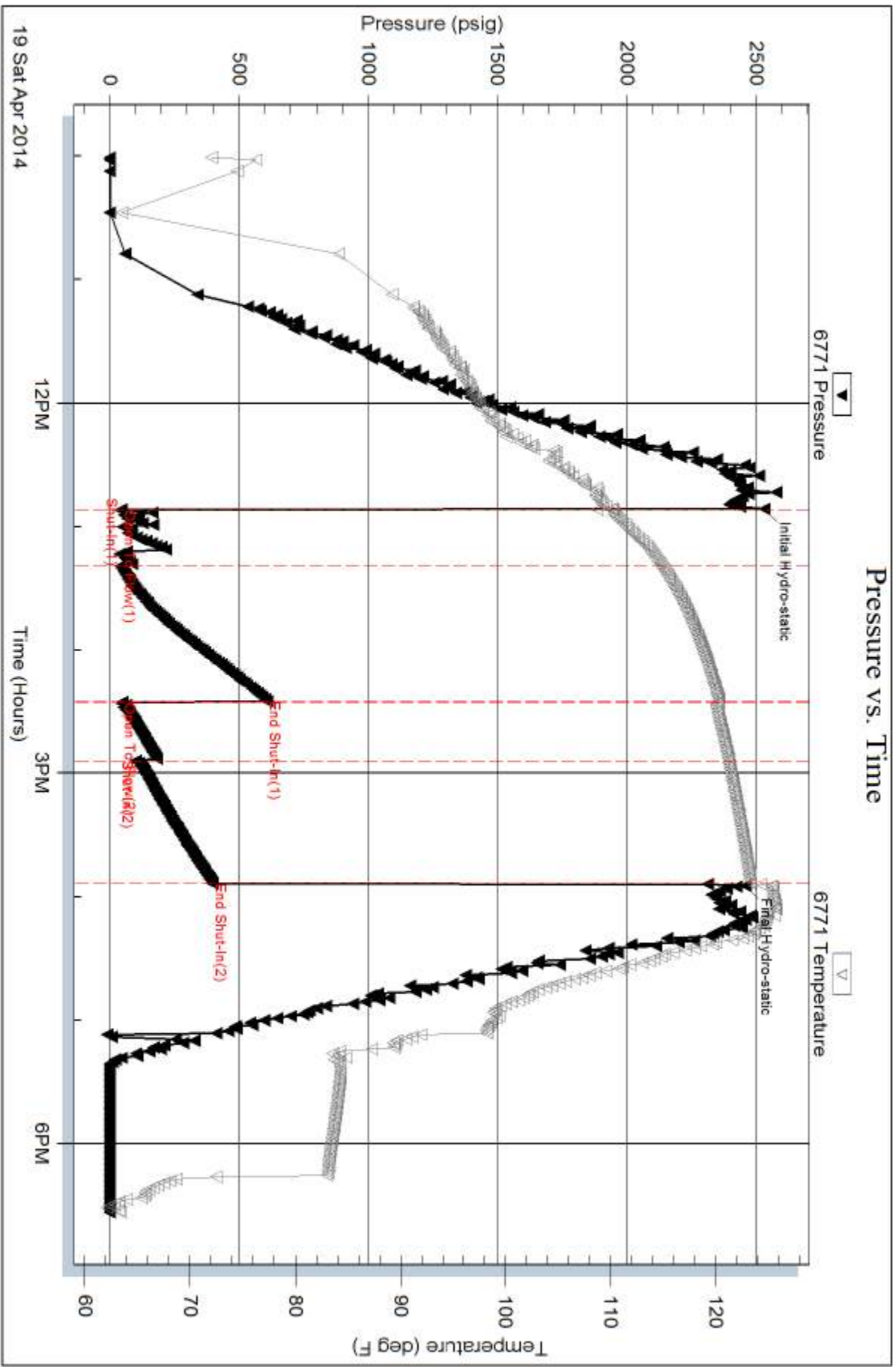
Serial #: 6771

Inside

Murfin Drilling Co Inc

Collingwood #1-34

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56337

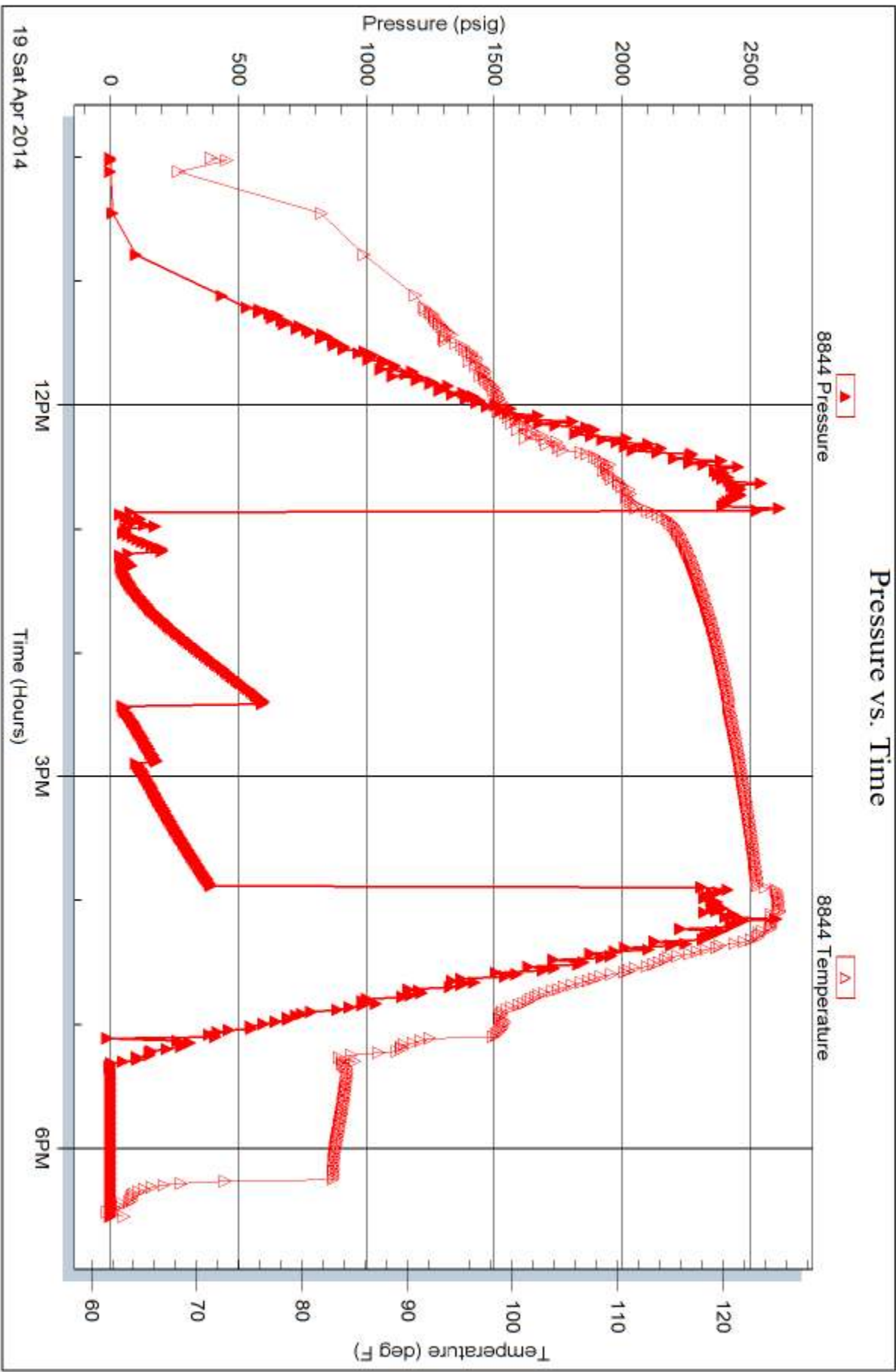
Printed: 2014.04.28 @ 13:51:19

Serial #: 8844

Outside Murfin Drilling Co Inc

Collingwood #1-34

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 56337

Printed: 2014.04.28 @ 13:51:20



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56337

Well Name & No. Collinswood #1-34 Test No. #1 Date 4/19/14
 Company Mudwin Drilling Co Inc. Elevation 3441 KB 3430 GL
 Address 250 N. Water St. 300 Wichita, KS 67202-1204
 Co. Rep / Geo. Mike Maune Rig Mudwin #1
 Location: Sec. 34 Twp. 21S Rge. 39W Co. Hamilton State Ks

Interval Tested 4936 5041 Zone Tested Marrow
 Anchor Length 105' Drill Pipe Run 464' Mud Wt. 9.2
 Top Packer Depth 4931 Drill Collars Run 268' Vis 57
 Bottom Packer Depth 4934 Wt. Pipe Run — WL 8.8
 Total Depth 5041 Chlorides 5800 ppm System LCM #7

Blow Description 1/4" in blow died in 12 min.
No return
No blow
No return

Rec	Feet of	%gas	%oil	%water	%mud
5'	Mud (Heavy Thick)			100	
	50% of Recovery was LCM				
	cotton seed hulls				

Rec Total 5' BHT 125° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2529</u>	<input checked="" type="checkbox"/> Test <u>1350</u>	T-On Location <u>06:45</u>
(B) First Initial Flow <u>46</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:00</u>
(C) First Final Flow <u>41</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:50</u>
(D) Initial Shut-In <u>608</u>	<input checked="" type="checkbox"/> Circ Sub <u>n/c</u>	T-Pulled <u>15:50</u>
(E) Second Initial Flow <u>48</u>	<input checked="" type="checkbox"/> Hourly Standby <u>2 1/4 hrs @ 100</u>	T-Out <u>18:45</u>
(F) Second Final Flow <u>101</u>	<input checked="" type="checkbox"/> Mileage <u>114 RT</u> <u>353.40</u>	Comments <u>Rig doc ready @ 7:30</u>
(G) Final Shut-In <u>399</u>	<input type="checkbox"/> Sampler	<u>wasted 2 1/4 hrs for Rig</u>
(H) Final Hydrostatic <u>2457</u>	<input type="checkbox"/> Straddle	<u>to pull Bit. on loc 3 1/4</u>
	<input type="checkbox"/> Shale Packer	<u>Before rig was ready.</u>
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Day Standby <u>1d 13.25h</u>	<input type="checkbox"/> Extra Copies
	<input checked="" type="checkbox"/> Accessibility <u>150.00</u>	Sub Total <u>800</u>
	Sub Total <u>2278.40</u>	Total <u>3078.40</u>

Approved By Mike Maune 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.

Picked up Tools 2, Released @ 08:00 AM 4/21/14

LITHOLOGY STRIP LOG

WellSight Systems

Scale: 2:1 (45' = 100') Imperial
Measured Depth Log

Well Name: Murfin Drilling Company Collingwood-Gilman Unit #1-2
Well ID:
Location: SE SE NW Section 2-22S-R39W
License Number: API-15-075-20876
Spud Date: March 22, 2014
Surface Coordinates: 1500 FSL & 2520 FWL Section 2-22S-R39W
Region: Hamilton Co., KS
Drilling Completed: April 6, 2014

Bottom Hole Coordinates:
Ground Elevation (ft): 3413
K.B. Elevation (ft): 3424
4130
Total Depth (ft): 5450
Mississippi Formation: RTD 5450 (-2026), LTD 5444 (-2020)
Type of Drilling Fluid: Chemical
Printed by: WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Murfin Drilling Co., Inc.
Address: 250 N. Water Street
Wichita, Kansas 67202

GEOLOGIST

Name: Mikeal K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas

COMMENTS

Surface Casing: Spud @ 3:00 pm on 3/22/2014. Set B 5 1/2" surf casing @ 334'. Allied cmt w/275x6x of comm 3%cc. PD @ 4:00AM 3/23/2014.
Production Casing: 5 1/2" Csg to be set for further evaluation.
Deviation Surveys: 1/2 @ 338', 3/4 @ 1000', 3/4 @ 2500', 1/4 @ 3500', 3/4 @ 4310.
Gas Detector: Blue Stem Bloodhound Unit #0258.
Mud System: Mud-CO
DSTs: Tribolite Testing, Inc.
OH Logs: Pioneer Wireline Services, LLC
DIL, CNL/CDL, MEL/BHCS.

Note: The Rotary drilling time was correlated with the OH Logs. Drilling time depths appear to be 8 to 10 feet low to the OH Log depths. The Gamma Ray curve on this report has been adjusted downhole 9 feet to correlate with the drilling time plot.

OH Log Formation Tops: Base Anhydrite: Topeka 3672 (-248), Heebner 3953 (-529), Lansing 4005 (-581), Stark Sh 4348 (-924), BKC 4433 (-1009), Lenapka 4505 (-1081), Pawnee 4624 (-1200), Ft. Scott 4668 (-1244), Cherokee 4704 (1280), Morrow 4955 (-1531), Sst 4970 (-1546), Mississippian 5232 (-1808), LTD 5444 (-2020).

DSTs

DST #1 (LKC H & I) 4240-4310/30-30-30-30: 30.1st Op: Weak Surface Blow died in 14 minutes. 2nd Op: NB. Recover: 5' Mud. IH 2068# IFP 26-31#, ISIP 90#, FFP 33-102#, FSP 217#, FH 1953#. BHT 111 F.

DST #2 (Morrow Sst) 4904-4993/30-60-60-90, 1st Op: BOB 5 1/2 min. 1st SI: Blow Back BOB in 12 minutes. 2nd Op: BOB immediately, GTS in 6 minutes, TSTM. 2nd SI: Blow Back BOB 10 minutes. Recover: 1280' GO (20% Gas, 80% Oil). Reversed out into vacuum transport truck. IH 2396#, IFP 80-304#, ISIP 116#, FFP 273-482#, FSP 1091#, FH 2302#. BHT 131 F.

ROCK TYPES

Anhy	Congl	Lnst	Black sh
Brec	Sly ool	Lnst	Gry sh
Chnt	Sly oolr	Salt	Shale
Bit	Dol	Shale	Shylst
Cylst	Sdv	Silst	Slysh
Coal	Gry lms	Silst	

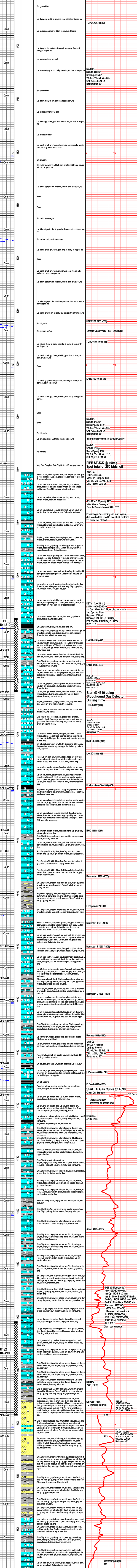
MINERAL					
<input type="checkbox"/>	Chlorite	<input type="checkbox"/>	Pelec	<input type="checkbox"/>	Grysh
<input type="checkbox"/>	Anhy	<input type="checkbox"/>	Peloid	<input type="checkbox"/>	Gryslt
<input type="checkbox"/>	Arg	<input type="checkbox"/>	Pisolite	<input type="checkbox"/>	Lms
<input type="checkbox"/>	Bent	<input type="checkbox"/>	Plant	<input type="checkbox"/>	Sandylms
<input type="checkbox"/>	Calc	<input type="checkbox"/>	Strom	<input type="checkbox"/>	Sh
<input type="checkbox"/>	Carb	<input type="checkbox"/>	Fossil	<input type="checkbox"/>	Stlstn
<input type="checkbox"/>	Chitk	<input type="checkbox"/>	Oomoldic	<input type="checkbox"/>	
<input type="checkbox"/>	Chitd	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Dol	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Ferrpel	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Ferr	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Glau	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Gyp	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Marl	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Nodule	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Phos	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Pyr	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Salt	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Sandy	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Silt	<input type="checkbox"/>		<input type="checkbox"/>	

ACCESSORIES					
<input type="checkbox"/>	Algae	<input type="checkbox"/>	STRINGER	<input type="checkbox"/>	Boundst
<input type="checkbox"/>	Amph	<input type="checkbox"/>	Anhy	<input type="checkbox"/>	Chaflk
<input type="checkbox"/>	Beim	<input type="checkbox"/>	Arg	<input type="checkbox"/>	Cryxl
<input type="checkbox"/>	Blotc	<input type="checkbox"/>	Bent	<input type="checkbox"/>	Earyl
<input type="checkbox"/>	Brach	<input type="checkbox"/>	Coal	<input type="checkbox"/>	Finaxn
<input type="checkbox"/>	Brchoz	<input type="checkbox"/>	Dol	<input type="checkbox"/>	Grainst
<input type="checkbox"/>	Cephal	<input type="checkbox"/>	Gyp	<input type="checkbox"/>	Lithogr
<input type="checkbox"/>	Coral	<input type="checkbox"/>	Ls	<input type="checkbox"/>	Microxln
<input type="checkbox"/>	Crin	<input type="checkbox"/>	Mrst	<input type="checkbox"/>	Mudst
<input type="checkbox"/>	Echin	<input type="checkbox"/>	Silst	<input type="checkbox"/>	Packet
<input type="checkbox"/>	Fish	<input type="checkbox"/>	Silstrg	<input type="checkbox"/>	Wackest
<input type="checkbox"/>	Foram	<input type="checkbox"/>	Carstrg	<input type="checkbox"/>	
<input type="checkbox"/>	Fossil	<input type="checkbox"/>	Clystrn	<input type="checkbox"/>	
<input type="checkbox"/>	Gastol	<input type="checkbox"/>	Dol	<input type="checkbox"/>	
<input type="checkbox"/>	Oolite	<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Ostra	<input type="checkbox"/>		<input type="checkbox"/>	

TEXTURE		
<input type="checkbox"/>	Boundst	<input type="checkbox"/>
<input type="checkbox"/>	Chaflk	<input type="checkbox"/>
<input type="checkbox"/>	Cryxl	<input type="checkbox"/>
<input type="checkbox"/>	Earyl	<input type="checkbox"/>
<input type="checkbox"/>	Finaxn	<input type="checkbox"/>
<input type="checkbox"/>	Grainst	<input type="checkbox"/>
<input type="checkbox"/>	Lithogr	<input type="checkbox"/>
<input type="checkbox"/>	Microxln	<input type="checkbox"/>
<input type="checkbox"/>	Mudst	<input type="checkbox"/>
<input type="checkbox"/>	Packet	<input type="checkbox"/>
<input type="checkbox"/>	Wackest	<input type="checkbox"/>

Curve Track 1
ROP (min) Gamma (API)
Depth (ft)

Lithology Geological Descriptions TG, C1-C5



DST #1 (LKC H & I) 4240-4310/30-30-30-30: 30.1st Op: Weak Surface Blow, died in 14 minutes. 2nd Op: NB. Recover: 5' Mud. IH 2068# IFP 26-31#, ISIP 90#, FFP 33-102#, FSP 217#, FH 1953#. BHT 111 F.

DST #2 (Morrow Sst) 4904-4993/30-60-60-90, 1st Op: BOB 5 1/2 min. 1st SI: Blow Back BOB 12 min. 2nd Op: BOB, GT5 in 6 min, TSTM. Reversed out into truck. IH 2396#, IFP 80-304#, ISIP 116#, FFP 273-482#, FSP 1091#, FH 2302#. BHT 131 F. Clean out extractor.

