

**CONFIDENTIAL**

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

RECEIVED 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

KCC WICHITA  
8/13/12

OPERATOR: License # 5144  
Name: Mull Drilling Company, Inc.  
Address 1: 1700 N. Waterfront Parkway, Building #1200  
Address 2: \_\_\_\_\_  
City: Wichita State: KS Zip: 67206 + 6637  
Contact Person: Mark Shreve  
Phone: ( 316 ) 264-6366  
CONTRACTOR: License # 33575 **KCC**  
Name: WW Drilling, LLC **AUG 13 2010**  
Wellsite Geologist: Kevin Kessler  
Purchaser: N/A **CONFIDENTIAL**

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 #: \_\_\_\_\_

4/29/10      5/7/2010      5/7/2010  
Spud Date or      Date Reached TD      Completion Date or  
Recompletion Date           Recompletion Date

API No. 15 - 135-25048-00-00

Spot Description: \_\_\_\_\_

NE SE SE SW Sec. 17 Twp. 17 S. R. 23  East  West

359 Feet from  North /  South Line of Section

2,634 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE     NW     SE     SW

County: Ness

Lease Name: Snodgrass Well #: 3-17

Field Name: Oppliger

Producing Formation: N/A

Elevation: Ground: 2436' Kelly Bushing: 2441'

Total Depth: 4686' Plug Back Total Depth: N/A

Amount of Surface Pipe Set and Cemented at: 222' 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: 32,000 ppm Fluid volume: 1000 bbls

Dewatering method used: Allowed to evaporate

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**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: President/COO Date: 8/13/10

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: 8/13/10 - 8/13/12
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: MS Date: 8-20-10

PA

KCC

AUG 13 2010

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Operator Name: Mull Drilling Company, Inc.

Lease Name: Snodgrass

Well #: 3-17

Sec. 17 Twp. 17 S. R. 23  East  West

County: Ness

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  Yes  No

(Attach Additional Sheets)

Samples Sent to Geological Survey  Yes  No

Cores Taken  Yes  No

Electric Log Run  Yes  No

Electric Log Submitted Electronically  Yes  No

(If no, Submit Copy)

List All E. Logs Run:

Log Formation (Top), Depth and Datum  Sample

Name	Top	Datum
Anhydrite	1742	+ 699
B/Anhydrite	1776	+ 665
Heebner Shale	3806	- 1365
Lansing	3842	- 1401
B/KC	4129	- 1688
Cherokee Shale	4350	- 1909
Mississippian	4440	- 1999

CASING RECORD  New  Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4"	8 5/8"	20#	222'	Commom	150	3% cc, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Perforate				
Protect Casing				
Plug Back TD				
Plug Off Zone				

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

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KCC WICHITA

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:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
<input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	<input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. (Submit ACO-5) <input type="checkbox"/> Commingled (Submit ACO-4) <input type="checkbox"/> Other (Specify)	

# QUALITY OILWELL CEMENTING, INC.

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

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

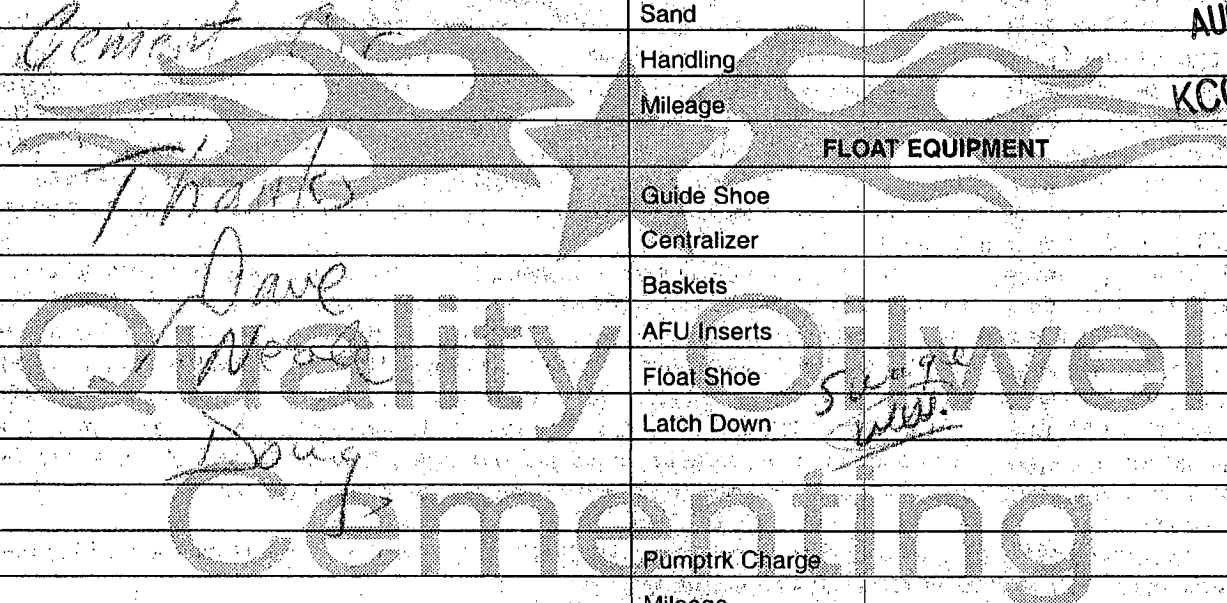
KCC

No. 3801

AUG 13 2010

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-29-10	17	11	23	Wass	KS	CONFIDENTIAL	9:45 PM
Lease	Well No.	Location					
5112910	3-17	RANSON 283 JO 525 W N 10th					
Contractor	Owner			To Quality Oilwell Cementing, Inc.			
Wald Dry Ry 10	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Type Job	Hole Size			T.D.			
Surface	12 1/4			222			
Csg.	Depth			Charge To			
2 3/8				Wald Dry Co Inc			
Tbg. Size	Depth			Street			
Tool	Depth			City			
				State			
Cement Left in Csg.	Shoe Joint			The above was done to satisfaction and supervision of owner agent or contractor.			
10-15							
Meas Line	Displace.			Cement Amount Ordered			
	13 1/4 BBW						
<b>EQUIPMENT</b>							
Pumptrk	No.	Cementer	Helper		Common		
9			Noabe				
Bulktrk	No.	Driver	Driver		Poz. Mix		
10			Doug				
Bulktrk	No.	Driver	Driver		Gel.		
10			Dave				
<b>JOB SERVICES &amp; REMARKS</b>							
Remarks:	Calcium						
	Hulls						
Rat Hole	Salt						
	Flowseal						
Mouse Hole	Kol-Seal						
	Mud CLR 48						
Centralizers	CFL-117 or CD110 CAF 38						
Baskets	Sand						
D/V or Port Collar	Handling						
	Cement						
	Mileage						
	Guide Shoe						
	Centralizer						
	Baskets						
	AFU Inserts						
	Float Shoe						
	Latch Down						
	Pumptrk Charge						
	Mileage						
	Russell						
	Tax						
	Discount						
	Total Charge						

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KCC WICHITA



X Signature

Thanks  
Dave  
Noabe  
Doug

# ALLIED CEMENTING CO., LLC. 039242

KCC

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

AUG 13 2010

SERVICE POINT: OAKLEY

CONFIDENTIAL

DATE <u>5-7-10</u>	SEC <u>17</u>	TWP. <u>17</u>	RANGE <u>23W</u>	CALLED OUT	ON LOCATION <u>6:00 AM</u>	JOB START <u>4:30 PM</u>	JOB FINISH <u>5:30 PM</u>
LEASE <u>Snodgrass</u>		WELL # <u>3-17</u>	LOCATION <u>Ness City, Kan - 12E-W</u>		COUNTY <u>Ness</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR W-W #10  
 TYPE OF JOB PTA  
 HOLE SIZE 7 7/8 T.D. 4680  
 CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE 4 1/2 DEPTH 4350  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. \_\_\_\_\_  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_

OWNER \_\_\_\_\_  
 CEMENT AMOUNT ORDERED 320 60140 49000  
14 1/2 60 seal  
 COMMON 192 @ 13.65 2620.20  
 POZMIX 128 @ 7.50 972.00  
 GEL 11 @ 20.45 224.95  
 CHLORIDE @ \_\_\_\_\_  
 ASC @ \_\_\_\_\_  
Plaster 80 @ 2.45 196.00

**EQUIPMENT**

PUMP TRUCK CEMENTER Fuzzy  
 # 431 HELPER Rally  
 BULK TRUCK \_\_\_\_\_  
 # 394 DRIVER Darrin  
 BULK TRUCK \_\_\_\_\_  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

HANDLING 334 @ 2.10 701.40  
 MILEAGE 1043 km @ 1.00 1043.00  
 TOTAL 4949.20

**REMARKS:**

50 SK @ 4350  
50 SK @ 1790  
20 SK @ 1050 Sebramp lake  
40 SK @ 500' @ 5:30 PM  
50 SK @ 240'  
20 SK @ 60'  
30 SK @ AM

DEPTH OF JOB 4350  
 PUMP TRUCK CHARGE 1170.00  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE 9 @ 7.00 63.00  
 MANIFOLD @ \_\_\_\_\_  
 TOTAL 1233.00

CHARGE TO: Mull Dalg  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

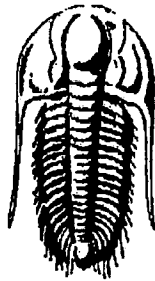
**PLUG & FLOAT EQUIPMENT**

\_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_  
 \_\_\_\_\_ @ \_\_\_\_\_

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

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

PRINTED NAME Mark H. ...  
 SIGNATURE [Signature]



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co**

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

ATTN: Kevin Kessler

**17-17s-23w Ness KS**

**Snodgrass #3-17**

Start Date: 2010.05.03 @ 07:38:20

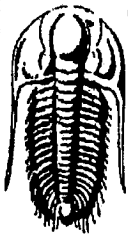
End Date: 2010.05.03 @ 15:30:29

Job Ticket #: 38831 DST #: 1

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KCC  
AUG 13 2010  
CONFIDENTIAL

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Mull Drilling Co  
 1700 N Waterfront Pkwy Bldg 1200  
 Wichita, Ks  
 ATTN: Kevin Kessler

**Snodgrass #3-17**  
**17-17s-23w Ness KS**  
 Job Ticket: 38831 DST#: 1  
 Test Start: 2010.05.03 @ 07:38:20

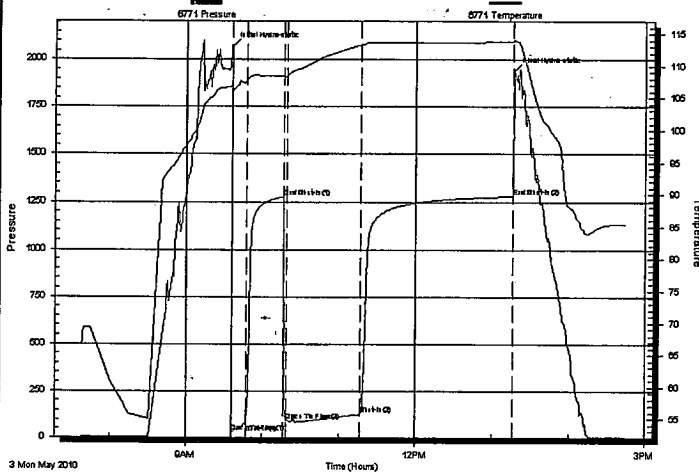
## GENERAL INFORMATION:

Formation: I-J  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:36:00  
 Time Test Ended: 15:30:29  
 Interval: 4010.00 ft (KB) To 4070.00 ft (KB) (TVD)  
 Total Depth: 4070.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole  
 Tester: Shane McBride  
 Unit No: 40  
 Reference Elevations: 2441.00 ft (KB)  
 2436.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6771 Outside**  
 Press@RunDepth: 127.66 psig @ 4011.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2010.05.03 End Date: 2010.05.03 Last Calib.: 2010.05.03  
 Start Time: 07:38:20 End Time: 14:45:29 Time On Btm: 2010.05.03 @ 09:35:45  
 Time Off Btm: 2010.05.03 @ 13:17:00

**TEST COMMENT:** 3" in. blow  
 No return  
 B.O.B. in 37 min.  
 1/2" in return

Pressure vs. Time



## PRESSURE SUMMARY

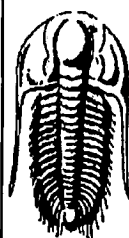
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2067.01	106.99	Initial Hydro-static
1	28.26	106.38	Open To Flow (1)
12	73.87	107.69	Shut-In(1)
41	1275.94	108.52	End Shut-In(1)
43	91.16	108.39	Open To Flow (2)
102	127.66	113.31	Shut-In(2)
221	1278.49	113.83	End Shut-In(2)
222	1940.41	114.00	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	s m c w' 10% m 90% w	0.61
62.00	m c w 50% m 50% w oilscum tr of gas	0.87
40.00	g o & w c m 5% g 5% o 10% w 80% m	0.56
0.00	260' gas in pipe	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mull Drilling Co

**Snodgrass #3-17**

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

**17-17s-23w Ness KS**

Job Ticket: 38831

**DST#: 1**

ATTN: Kevin Kessler

Test Start: 2010.05.03 @ 07:38:20

### Tool Information

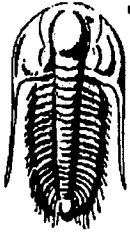
Drill Pipe:	Length: 3890.00 ft	Diameter: 3.80 inches	Volume: 54.57 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 55.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4010.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	87.00 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			3984.00	
Shut In Tool	5.00			3989.00	
Hydraulic tool	5.00			3994.00	
Jars	5.00			3999.00	
Safety Joint	2.00			4001.00	
Packer	5.00			4006.00	27.00 Bottom Of Top Packer
Packer	4.00			4010.00	
Stubb	1.00			4011.00	
Recorder	0.00	6771	Outside	4011.00	
Recorder	0.00	8368	Inside	4011.00	
Perforations	20.00			4031.00	
Change Over Sub	1.00			4032.00	
Drill Pipe	32.00			4064.00	
Change Over Sub	1.00			4065.00	
Bullnose	5.00			4070.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 87.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co

Snodgrass #3-17

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

17-17s-23w Ness KS

Job Ticket: 38831

DST#: 1

ATTN: Kevin Kessler

Test Start: 2010.05.03 @ 07:38:20

## 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:

51000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in<sup>3</sup>

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
124.00	s m c w 10%m 90%w	0.610
62.00	m c w 50%m 50%w oilscum tr of gas	0.870
40.00	g o & w c m 5%g 5%o 10%w 80%m	0.561
0.00	260' gas in pipe	0.000

Total Length: 226.00 ft      Total Volume: 2.041 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

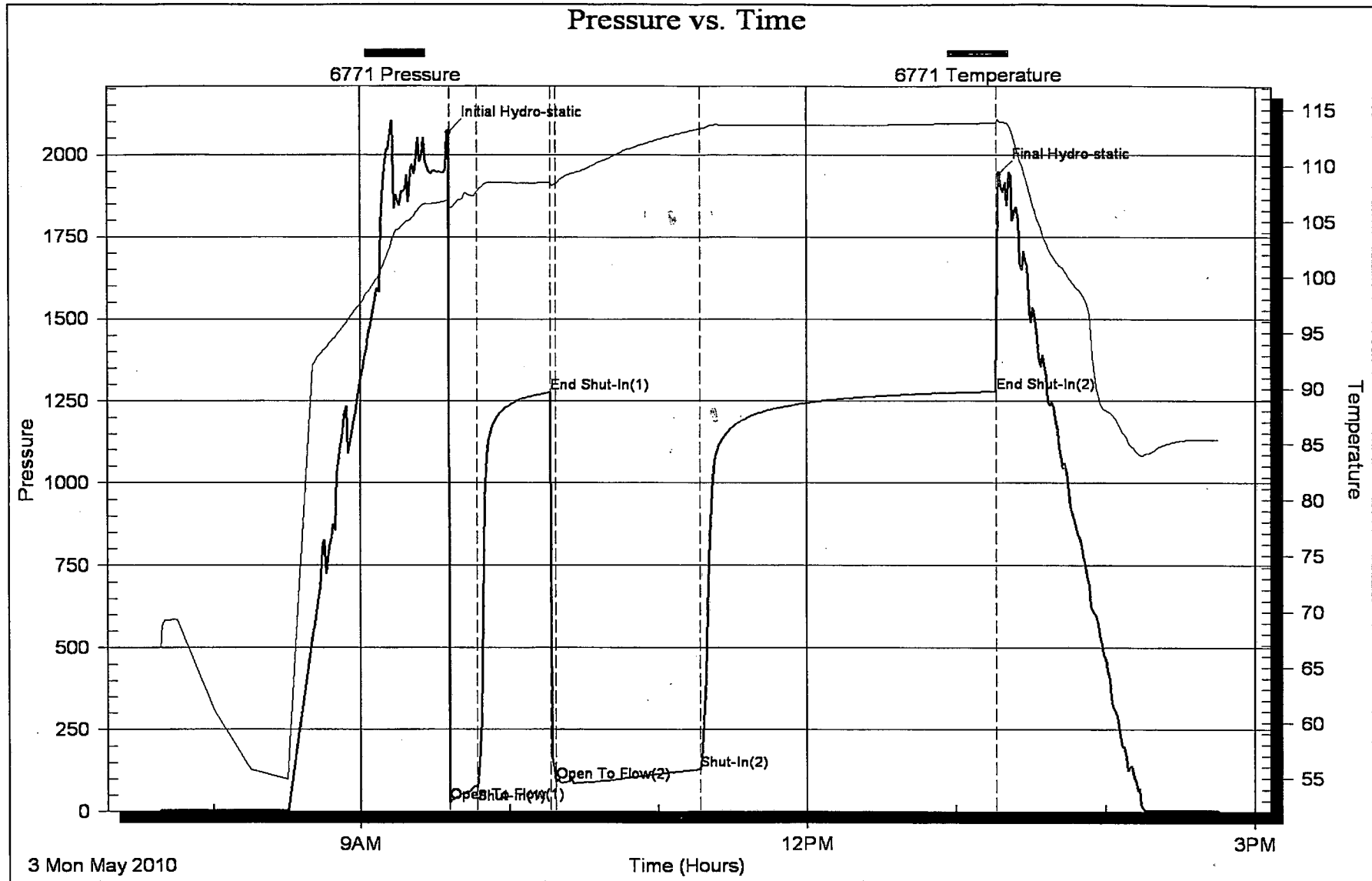
Serial #:

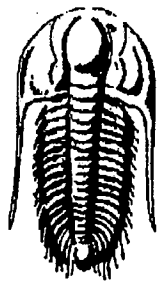
Laboratory Name:

Laboratory Location:

Recovery Comments: rw .116 @ 90\*f = 51000 chlorides







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co**

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

ATTN: Kevin Kessler

**17-17s-23w Ness KS**

**Snodgrass #3-17**

Start Date: 2010.05.04 @ 21:30:47

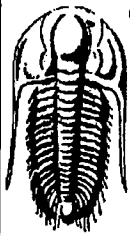
End Date: 2010.05.05 @ 04:30:11

Job Ticket #: 38832                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Mull Drilling Co  
1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks  
ATTN: Kevin Kessler

**Snodgrass #3-17**  
**17-17s-23w Ness KS**  
Job Ticket: 38832      **DST#: 2**  
Test Start: 2010.05.04 @ 21:30:47

## GENERAL INFORMATION:

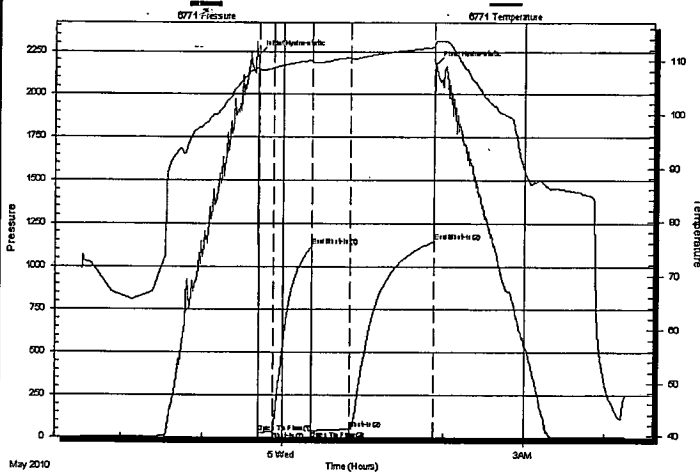
Formation: **Miss**  
Deviated: **No** Whipstock:                      ft (KB)  
Time Tool Opened: 23:41:57  
Time Test Ended: 04:30:11  
Interval: **4346.00 ft (KB) To 4446.00 ft (KB) (TVD)**  
Total Depth: **4446.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Test Type: **Conventional Bottom Hole**  
Tester: **Shane McBride**  
Unit No: **40**  
Reference Elevations: **2441.00 ft (KB)**  
**2436.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

**Serial #: 6771**      **Outside**  
Press@RunDepth: **49.13 psig @ 4347.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2010.05.04**      End Date: **2010.05.05**      Last Calib.: **2010.05.05**  
Start Time: **21:30:47**      End Time: **04:16:11**      Time On Btm: **2010.05.04 @ 23:41:27**  
Time Off Btm: **2010.05.05 @ 01:53:27**

TEST COMMENT: 1/2" in.+ blow  
No return  
Weak 1/8" in blow  
No return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2228.35	108.67	Initial Hydro-static
1	26.44	108.38	Open To Flow (1)
12	34.13	108.56	Shut-In(1)
41	1117.98	110.05	End Shut-In(1)
41	37.97	109.70	Open To Flow (2)
69	49.13	110.40	Shut-In(2)
131	1144.01	112.53	End Shut-In(2)
132	2175.44	113.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100% m	0.20

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Mull Drilling Co

**Snodgrass #3-17**

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

**17-17s-23w Ness KS**

Job Ticket: 38832

**DST#: 2**

ATTN: Kevin Kessler

Test Start: 2010.05.04 @ 21:30:47

### Tool Information

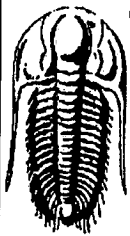
Drill Pipe:	Length: 4217.00 ft	Diameter: 3.80 inches	Volume: 59.15 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4346.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	120.00 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			4327.00	
Shut In Tool	5.00			4332.00	
Hydraulic tool	5.00			4337.00	
Packer	5.00			4342.00	20.00 Bottom Of Top Packer
Packer	4.00			4346.00	
Stubb	1.00			4347.00	
Recorder	0.00	6771	Outside	4347.00	
Recorder	0.00	8368	Inside	4347.00	
Perforations	29.00			4376.00	
Change Over Sub	1.00			4377.00	
Drill Pipe	63.00			4440.00	
Change Over Sub	1.00			4441.00	
Bullnose	5.00			4446.00	100.00 Bottom Packers & Anchor

**Total Tool Length: 120.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Mull Drilling Co

**Snodgrass #3-17**

1700 N Waterfront Pkwy Bldg 1200  
Wichita, Ks

**17-17s-23w Ness KS**

Job Ticket: 38832

**DST#: 2**

ATTN: Kevin Kessler

Test Start: 2010.05.04 @ 21:30:47

## 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: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6600.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	mud 100%m	0.197

Total Length: 40.00 ft      Total Volume: 0.197 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

