



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1194378  
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
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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: \_\_\_\_\_

1194378

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
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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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	Erb 1-13
Doc ID	1194378

All Electric Logs Run

CDL/CNL/PE
DIL
MEL
Sonic

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	Erb 1-13
Doc ID	1194378

Tops

Name	Top	Datum
Anhydrite	1492	+ 722
B/Anhydrite	1532	+ 682
Heebner	3668	- 1454
Lansing	3714	- 1500
Stark Shale	3998	- 1784
B/KC	4057	- 1843
Pawnee	4115	- 1901
Ft. Scott	4222	- 2008
Mississippian	4328	- 2114





**CONSOLIDATED**  
Oil Well Services, LLC

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

TICKET NUMBER 44509  
LOCATION Oakley KS  
FOREMAN Wiles Shaw

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-18-13		Erb # 1-13	13	19S	23W	Wass
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Mull Drilling			456118	Tim W		
			566	Jeremy D		
MAILING ADDRESS			NASSCO, Ly KS East W Rd 3 South E.S.			
CITY	STATE	ZIP CODE				

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 226 CASING SIZE & WEIGHT 8 7/8" 20#  
 CASING DEPTH 225' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL 1.34 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 13 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Meeting and Rig up on WW Drilling rig #10 Circulate casing mix 165 lbs Class A cement with 3/2 calcium 26 gal displace 13 bbls water shut in cement did circulate 3 bbls mud

*Thanks Wiles & crew*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	1150. <sup>00</sup>	1150. <sup>00</sup>
5106	20	MILEAGE	5.25	105. <sup>00</sup>
5467	7.75 tons	ton mileage delivery	430. <sup>00</sup>	430. <sup>00</sup>
11045	165 lbs	Class A cement	18.55	3060.75
1102	465 #	Calcium chloride	.94	437.10
1119B	370 #	Bentonite gel	.27	93.70
			Subtotal	5216.55
			Less 10% discount	526.65
			Subtotal	4739.90
			SALES TAX	
			ESTIMATED TOTAL	

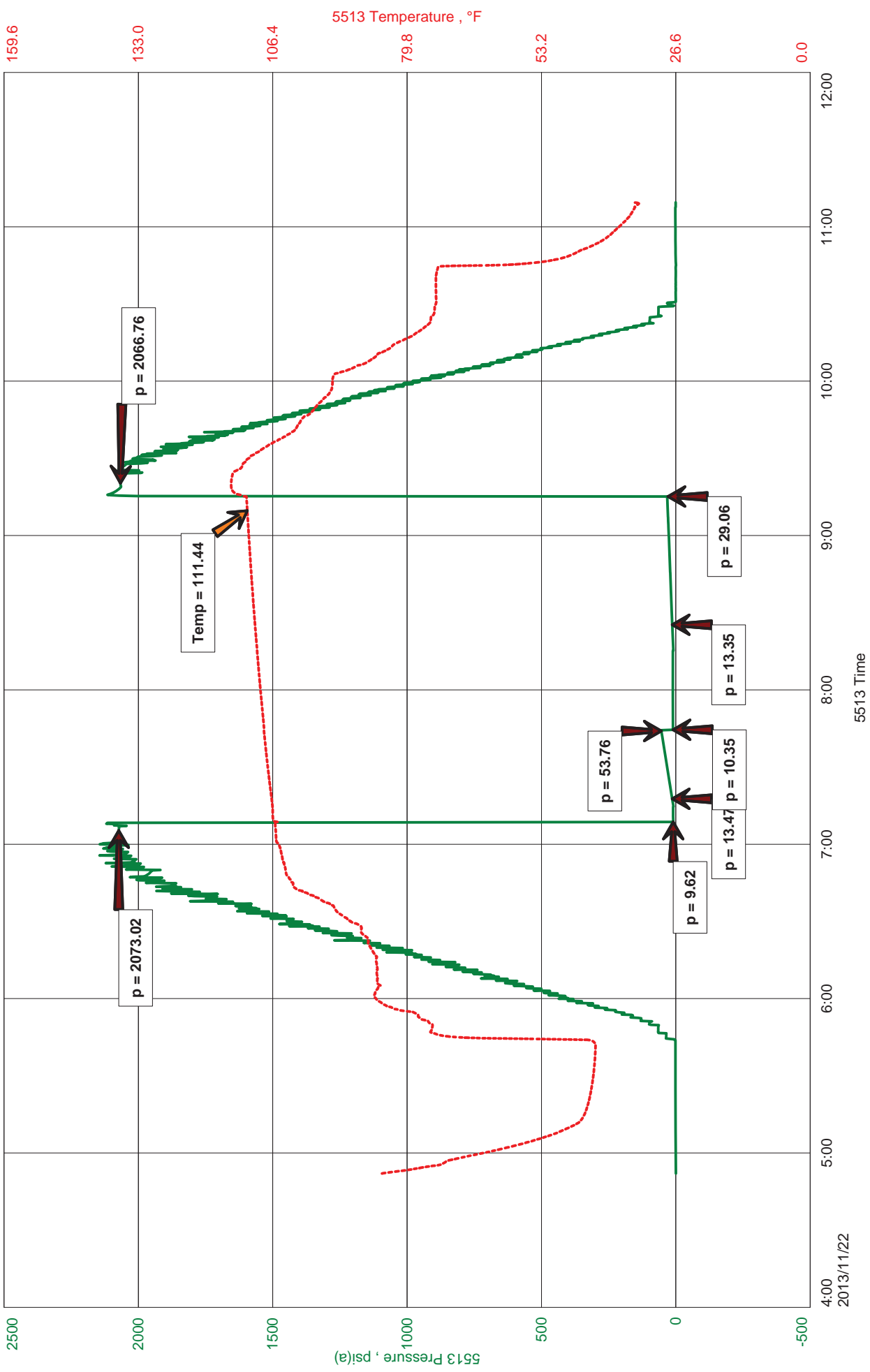
Ravin 3737 AUTHORIZATION [Signature] TITLE T.P. DATE 11-18-13

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

Mull Drilling Company Inc  
DST #1 Ft Scott 4200-4250  
Start Test Date: 2013/11/22  
Final Test Date: 2013/11/22

Erb #1-13  
Formation: Ft Scott  
Job Number: K058

# Erb #1-13





**JASON MCLEMORE**

**CELL # 620-6170527**

**General Information**

<b>Company Name</b>	Mull Drilling Company Inc	<b>Job Number</b>	K058
<b>Contact</b>	Mark Shreve	<b>Representative</b>	Jason McLemore
<b>Well Name</b>	Erb #1-13	<b>Well Operator</b>	Mull Drilling Company Inc
<b>Unique Well ID</b>	DST #1 Ft Scott 4200-4250	<b>Prepared By</b>	Jason McLemore
<b>Surface Location</b>	13-19s-23w-Ness	<b>Qualified By</b>	Kevin Kessler
<b>Field</b>	Wildcat	<b>Test Unit</b>	
<b>Well Type</b>	Vertical		

**Test Information**

<b>Test Type</b>	Drill Stem Test	<b>Representative</b>	Jason McLemore
<b>Formation</b>	Ft Scott	<b>Well Operator</b>	Mull Drilling Company Inc
<b>Well Fluid Type</b>	01 Oil	<b>Report Date</b>	2013/11/22
<b>Test Purpose (AEUB)</b>	Initial Test	<b>Prepared By</b>	Jason McLemore
<b>Start Test Date</b>	2013/11/22	<b>Start Test Time</b>	16:52:00
<b>Final Test Date</b>	2013/11/22	<b>Final Test Time</b>	23:10:00

**Test Results**

**RECOVERED:**

1	Drilling Mud
1	Total Fluid

**Tool Sample: Drilling Mud**





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: erb1dst1

TIME ON: 4:52 PM  
TIME OFF: 11:10 PM

Company Mull Drilling Company, Inc Lease & Well No. Erb #1-13  
Contractor WW #10 Charge to Mull Drilling Company Inc  
Elevation KB 2209 Formation Ft Scott Effective Pay \_\_\_\_\_ Ft. Ticket No. K058  
Date 11-22-13 Sec. 13 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 23 W County \_\_\_\_\_ Ness \_\_\_\_\_ State KANSAS  
Test Approved By Kevin Kessler Diamond Representative Jason McLemore

Formation Test No. 1 Interval Tested from 4200 ft. to 4250 ft. Total Depth 4250 ft.  
Packer Depth 4195 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4200 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4181 ft. Recorder Number 5513 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4182 ft. Recorder Number 5588 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chemical Viscosity 53 Drill Collar Length 124 ft. I.D. 2 1/4 in.  
Weight 9.5 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 4200 P.P.M. Drill Pipe Length 4043 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out No Anchor Length 50 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 31' DP in Anchor Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Weak Blow, Built to 1/4", No Blowback  
2nd Open: Dead

Recovered <u>1</u> ft. of <u>Drilling Mud</u>	
Recovered <u>1</u> ft. of <u>Total Fluid</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>Tool Sample:Drilling Mud</u>	Insurance
	Total

Time Set Packer(s) 7:09 PM A.M. P.M. Time Started Off Bottom 9:12 PM A.M. P.M. Maximum Temperature 111

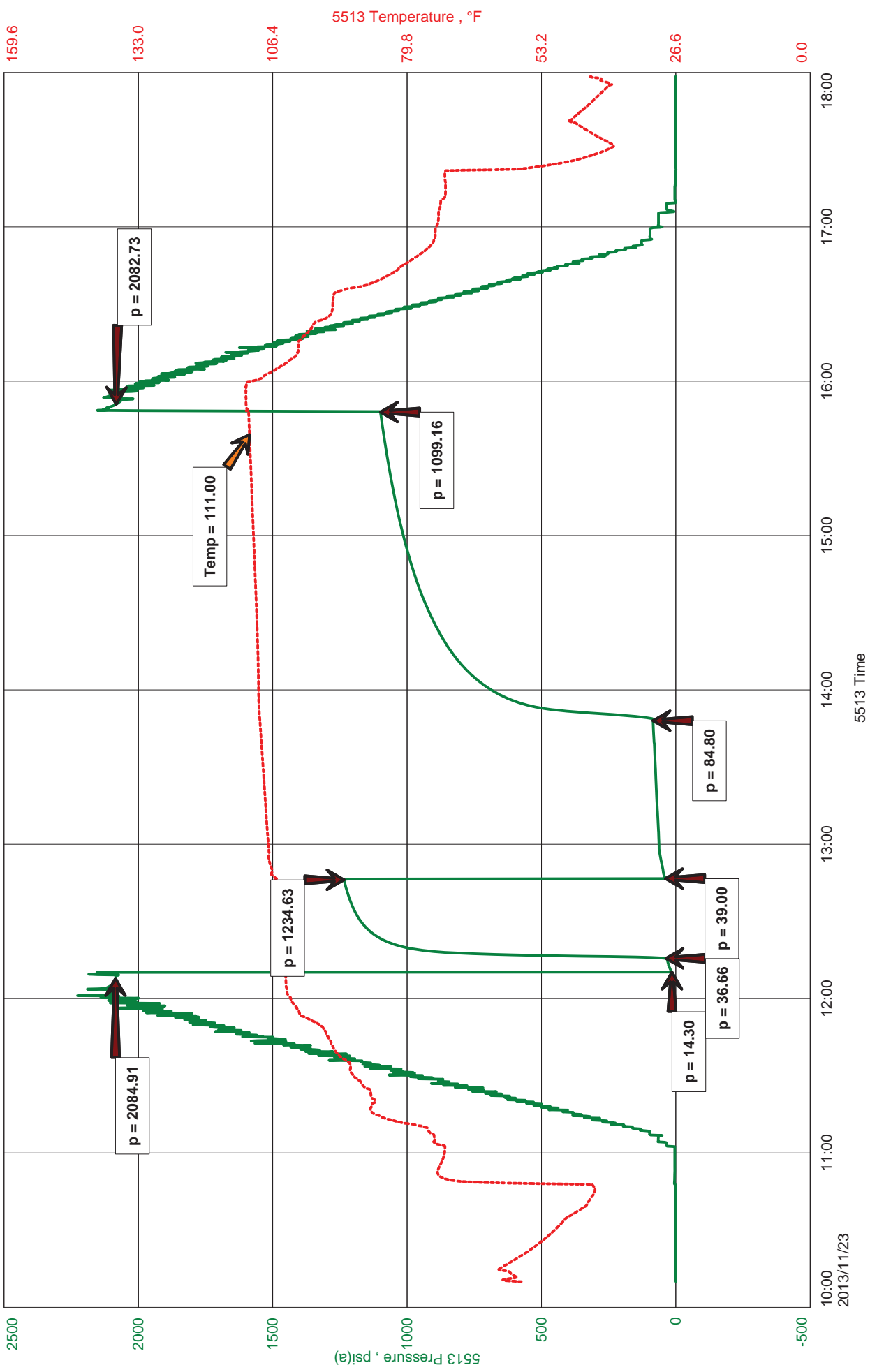
Initial Hydrostatic Pressure..... (A) 2073 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 10 P.S.I. to (C) 13 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 54 P.S.I.  
Final Flow Period..... Minutes 30 (E) 10 P.S.I. to (F) 13 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 29 P.S.I.  
Final Hydrostatic Pressure..... (H) 2067 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Mull Drilling Company Inc  
DST #2 Miss 4240-4330  
Start Test Date: 2013/11/23  
Final Test Date: 2013/11/23

Erb 31-13  
Formation: Mississippi  
Pool: Wildcat  
Job Number: K059

# Erb 31-13





**JASON MCLEMORE**

**CELL # 620-6170527**

**General Information**

<b>Company Name</b>	Mull Drilling Company Inc	<b>Job Number</b>	K059
<b>Contact</b>	Mark Shreve	<b>Representative</b>	Jason McLemore
<b>Well Name</b>	Erb 31-13	<b>Well Operator</b>	Mull Drilling Company Inc
<b>Unique Well ID</b>	DST #2 Miss 4240-4330	<b>Prepared By</b>	Jason McLemore
<b>Surface Location</b>	13-19-23-Ness	<b>Qualified By</b>	Kevin Kessler
<b>Field</b>	Wildcat	<b>Test Unit</b>	6
<b>Well Type</b>	Vertical		

**Test Information**

<b>Test Type</b>	Drill Stem Test	<b>Representative</b>	Jason McLemore
<b>Formation</b>	Mississippi	<b>Well Operator</b>	Mull Drilling Company Inc
<b>Well Fluid Type</b>	01 Oil	<b>Report Date</b>	2013/11/23
<b>Test Purpose (AEUB)</b>	Initial Test	<b>Prepared By</b>	Jason McLemore
<b>Start Test Date</b>	2013/11/23	<b>Start Test Time</b>	10:10:00
<b>Final Test Date</b>	2013/11/23	<b>Final Test Time</b>	17:59:00

**Test Results**

**RECOVERED:**

120	Free Oil
75	OCM, 6% Oil, 94%Mud
195	Total Fluid

**Tool Sample: OCM, 10%O, 90%M**

**Gravity: 35**



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: erb1dst2

TIME ON: 10:10 AM  
TIME OFF: 5:59 PM

Company Mull Drilling Company, Inc Lease & Well No. Erb #1-13  
Contractor WW #10 Charge to Mull Drilling Company Inc  
Elevation KB 2209 Formation Mississippi Effective Pay \_\_\_\_\_ Ft. Ticket No. K059  
Date 11-23-13 Sec. 13 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 23 W County \_\_\_\_\_ Ness \_\_\_\_\_ State KANSAS  
Test Approved By Kevin Kessler Diamond Representative Jason McLemore

Formation Test No. 2 Interval Tested from 4240 ft. to 4330 ft. Total Depth 4330 ft.  
Packer Depth 4235 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4240 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4221 ft. Recorder Number 5513 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4222 ft. Recorder Number 5588 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chemical Viscosity 50 Drill Collar Length 124 ft. I.D. 2 1/4 in.  
Weight 9.6 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 5500 P.P.M. Drill Pipe Length 4083 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out No Anchor Length 90 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 62' DP in Anchor Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Fair Blow, Built to 2", No Blowback  
2nd Open: Fair Blow, BOB in 30 Min., No Blowback

Recovered 120 ft. of Free Oil  
Recovered 75 ft. of OCM 6% Oil, 94% Mud  
Recovered 195 ft. of Total Fluid  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of Gravity: 35	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>Tool Sample: OCM, 10% Oil, 90% Mud</u>	Insurance
	Total

Time Set Packer(s) 12:11 PM A.M. P.M. Time Started Off Bottom 3:46 PM A.M. P.M. Maximum Temperature 111

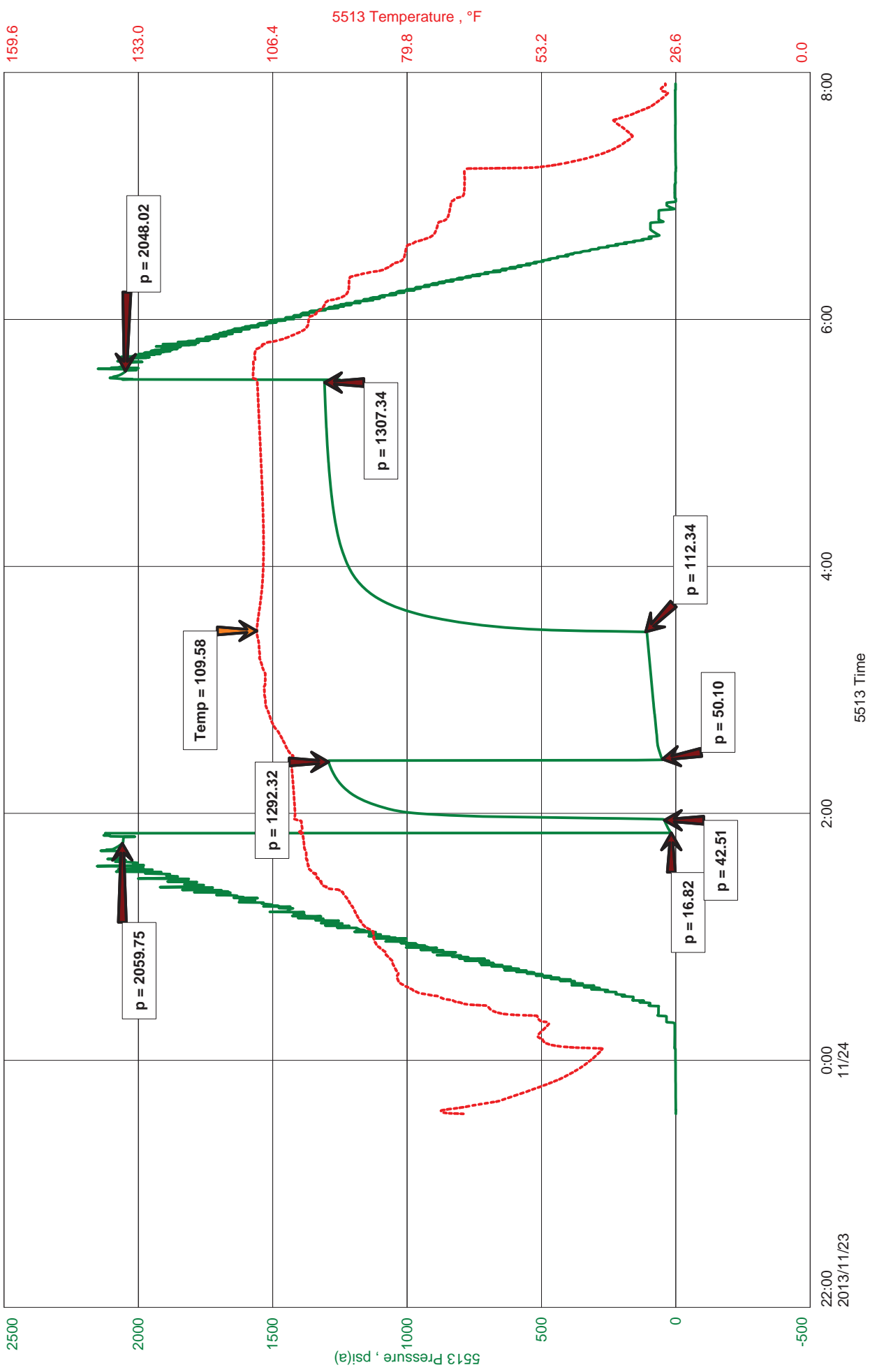
Initial Hydrostatic Pressure..... (A) 2085 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 14 P.S.I. to (C) 37 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 1235 P.S.I.  
Final Flow Period..... Minutes 60 (E) 39 P.S.I. to (F) 85 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 1099 P.S.I.  
Final Hydrostatic Pressure..... (H) 2083 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Mull Drilling Company, Inc  
DST #3 Mississippi 4242-4337  
Start Test Date: 2013/11/23  
Final Test Date: 2013/11/24

Erb #1-13  
Formation: Mississippi  
Job Number: K060

# Erb #1-13







**JASON MCLEMORE**

**CELL # 620-6170527**

**General Information**

<b>Company Name</b>	Mull Drilling Company, Inc	<b>Job Number</b>	K060
<b>Contact</b>	Mark Shreve	<b>Representative</b>	Jason McLemore
<b>Well Name</b>	Erb #1-13	<b>Well Operator</b>	Mull Drilling Company, Inc
<b>Unique Well ID</b>	DST #3 Mississippi 4242-4337	<b>Prepared By</b>	Jason McLemore
<b>Surface Location</b>	13-19-23-Ness	<b>Qualified By</b>	Kevin Kessler
<b>Field</b>	Wildcat	<b>Test Unit</b>	
<b>Well Type</b>	Vertical		

**Test Information**

<b>Test Type</b>	Drill Stem Test	<b>Representative</b>	Jason McLemore
<b>Formation</b>	Mississippi	<b>Well Operator</b>	Mull Drilling Company, Inc
<b>Well Fluid Type</b>	01 Oil	<b>Report Date</b>	2013/11/24
<b>Test Purpose (AEUB)</b>	Initial Test	<b>Prepared By</b>	Jason McLemore
<b>Start Test Date</b>	2013/11/23	<b>Start Test Time</b>	23:34:00
<b>Final Test Date</b>	2013/11/24	<b>Final Test Time</b>	08:05:00

**Test Results**

**RECOVERED:**

25	Free Oil
130	HOCM, 50% Oil, 50%Mud
60	OCM, 20%Oil, 80% Mud
215	Total Fluid

**Tool Sample: OCM, 20%Oil, 80% Mud**  
**Gravity: 35**



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: \_\_\_\_\_

TIME ON: 11:34 PM  
TIME OFF: 8:05 AM

Company Mull Drilling Company, Inc Lease & Well No. Erb #1-13  
Contractor WW #10 Charge to Mull Drilling Company Inc  
Elevation KB 2209 Formation Mississippi Effective Pay \_\_\_\_\_ Ft. Ticket No. K060  
Date 11-23-13 Sec. 13 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 23 W County \_\_\_\_\_ Ness \_\_\_\_\_ State KANSAS  
Test Approved By Kevin Kessler Diamond Representative Jason McLemore

Formation Test No. 3 Interval Tested from 4242 ft. to 4337 ft. Total Depth 4337 ft.  
Packer Depth 4237 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4242 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4223 ft. Recorder Number 5513 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4224 ft. Recorder Number 5588 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chemical Viscosity 50 Drill Collar Length 124 ft. I.D. 2 1/4 in.  
Weight 9.6 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 5500 P.P.M. Drill Pipe Length 4085 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out No Anchor Length 95 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 62' DP in Anchor Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Fair Blow, Built to 3", No Blowback  
2nd Open: Fair Blow, BOB in 335 Min., Surface Blowback For 20 Min.

Recovered 25 ft. of Free Oil  
Recovered 130 ft. of HOCM, 50% Oil, 50%M  
Recovered 60 ft. of OCM, 20%Oil, 80% Mud  
Recovered 215 ft. of Total Fluid

Recovered _____ ft. of <u>Gravity: 35</u>	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>Tool Sample: OCM, 20% Oil, 80% Mud</u>	Insurance
	Total

Time Set Packer(s) 2:01 AM A.M. P.M. Time Started Off Bottom 5:36 AM A.M. P.M. Maximum Temperature 110

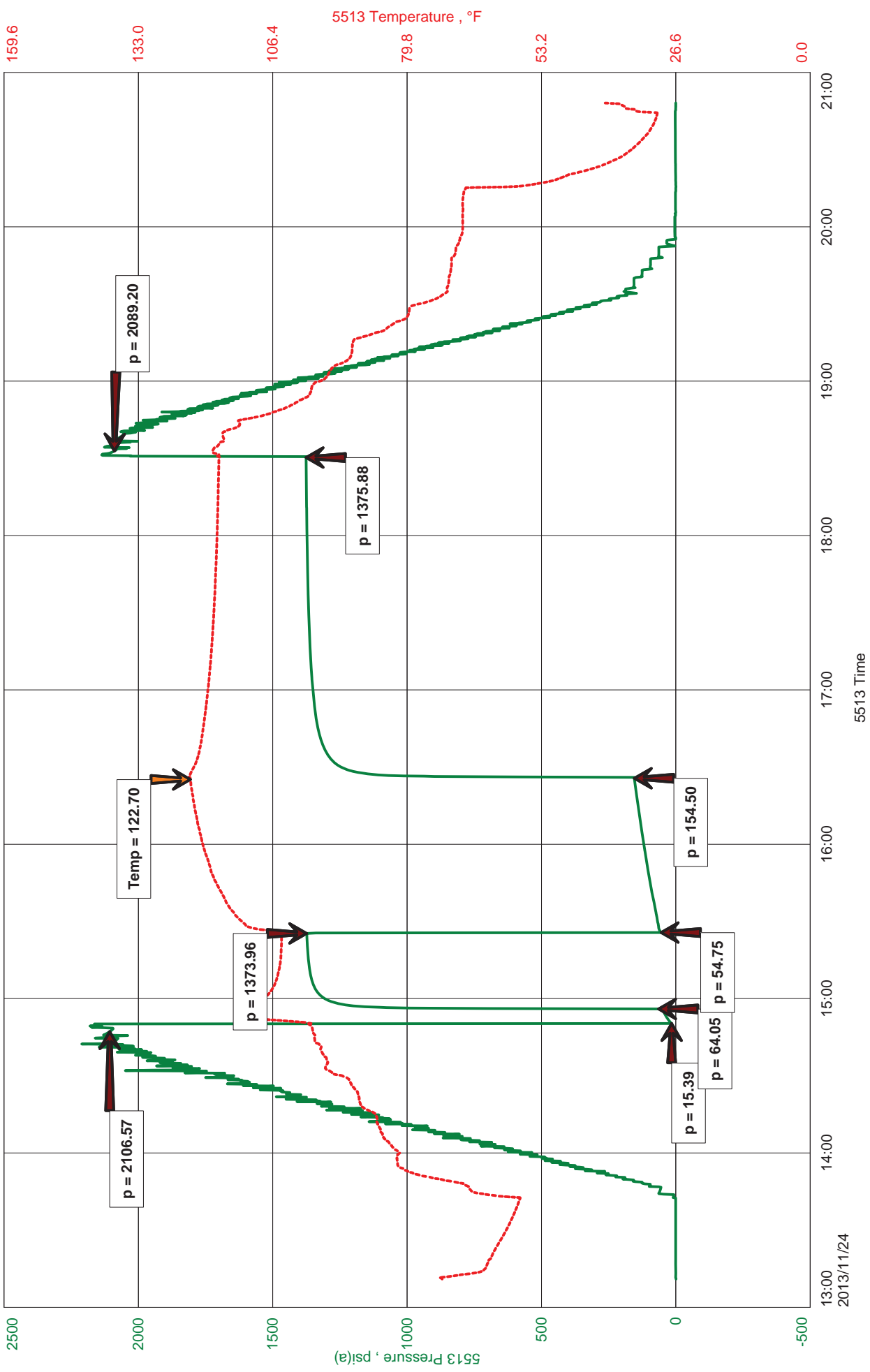
Initial Hydrostatic Pressure..... (A) 2060 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 17 P.S.I. to (C) 43 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 1292 P.S.I.  
Final Flow Period..... Minutes 60 (E) 50 P.S.I. to (F) 112 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 1307 P.S.I.  
Final Hydrostatic Pressure..... (H) 2048 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

Mull Drilling Company, Inc  
DST #4 Mississippi 4337-4347  
Start Test Date: 2013/11/24  
Final Test Date: 2013/11/24

Erb #1-13  
Formation: Mississippi  
Pool: Wildcat  
Job Number: K061

# Erb #1-13







**JASON MCLEMORE**

**CELL # 620-6170527**

**General Information**

<b>Company Name</b>	Mull Drilling Company, Inc	<b>Job Number</b>	K061
<b>Contact</b>	Mark Shreve	<b>Representative</b>	Jason McLemore
<b>Well Name</b>	Erb #1-13	<b>Well Operator</b>	Mull Drilling Company, Inc
<b>Unique Well ID</b>	DST #4 Mississippi 4337-4347	<b>Prepared By</b>	Jason McLemore
<b>Surface Location</b>	13-19-23-Ness	<b>Qualified By</b>	Kevin Kessler
<b>Field</b>	Wildcat	<b>Test Unit</b>	#7
<b>Well Type</b>	Vertical		

**Test Information**

<b>Test Type</b>	Drill Stem Test	<b>Representative</b>	Jason McLemore
<b>Formation</b>	Mississippi	<b>Well Operator</b>	Mull Drilling Company, Inc
<b>Well Fluid Type</b>	01 Oil	<b>Report Date</b>	2013/11/24
<b>Test Purpose (AEUB)</b>	Initial Test	<b>Prepared By</b>	Jason McLemore
<b>Start Test Date</b>	2013/11/24	<b>Start Test Time</b>	13:11:00
<b>Final Test Date</b>	2013/11/24	<b>Final Test Time</b>	20:49:00

**Test Results**

**RECOVERED:**

55	Free Oil
270	SOCMW, 2% Oil, 90% Water, 8% Mud
325	Total Fluid

**CHLORIDES: 32000**

**PH: 7**

**RW: .400 @ 68**

**Tool Sample: 4% Oil, 96% Water**



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: erb1dst4

TIME ON: 1:11 PM  
TIME OFF: 8:49 PM

Company Mull Drilling Company, Inc Lease & Well No. Erb #1-13  
Contractor WW #10 Charge to Mull Drilling Company Inc  
Elevation KB 2209 Formation Mississippi Effective Pay \_\_\_\_\_ Ft. Ticket No. K061  
Date 11-24-13 Sec. 13 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 23 W County \_\_\_\_\_ Ness \_\_\_\_\_ State KANSAS  
Test Approved By Kevin Kessler Diamond Representative Jason McLemore

Formation Test No. 4 Interval Tested from 4337 ft. to 4347 ft. Total Depth 4347 ft.  
Packer Depth 4332 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4337 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 4318 ft. Recorder Number 5513 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4319 ft. Recorder Number 5588 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chemical Viscosity 55 Drill Collar Length 124 ft. I.D. 2 1/4 in.  
Weight 9.4 Water Loss 9.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 7000 P.P.M. Drill Pipe Length 4180 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out No Anchor Length 10 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Fair Blow, Built to 4", No Blowback  
2nd Open: Fair Blow, BOB in 16 Min., Blowback Built to 1/2"

Recovered 55 ft. of Free Oil  
Recovered 270 ft. of SOCMW: 2% Oil, 90% Water, 8% Mud  
Recovered 325 ft. of Total Fluid

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of <u>CHLORIDES: 32000</u>	Other Charges
Recovered _____ ft. of <u>PH: 7</u>	Insurance
Remarks: <u>RW: .400 @ 68</u>	Total
<u>Tool Sample: SOCW: 4% Oil, 96% Water</u>	

Time Set Packer(s) 2:50 PM A.M. P.M. Time Started Off Bottom 5:25 PM A.M. P.M. Maximum Temperature 123

Initial Hydrostatic Pressure..... (A) 2107 P.S.I.  
Initial Flow Period..... Minutes 5 (B) 15 P.S.I. to (C) 64 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 1374 P.S.I.  
Final Flow Period..... Minutes 60 (E) 55 P.S.I. to (F) 155 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 1376 P.S.I.  
Final Hydrostatic Pressure..... (H) 2089 P.S.I.

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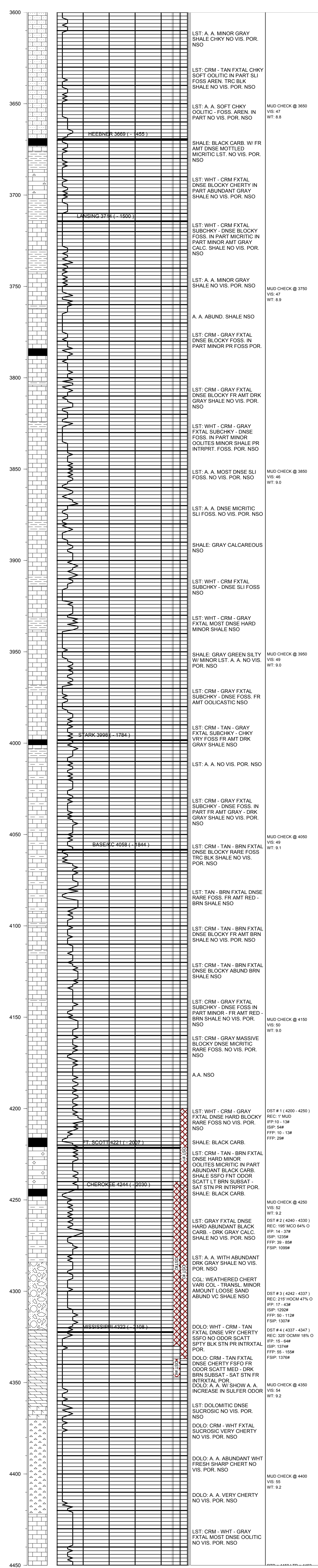
**KEVIN L. KESSLER**  
**CONSULTING PETROLEUM GEOLOGIST**  
**( 316 ) 522-7338**

<b>OPERATOR : MULL DRILLING COMPANY INC.</b>		<b>ELEVATION</b>
<b>LEASE : ERB</b>	<b>WELL # : 1 - 13</b>	<b>KB : 2214</b>
<b>LOCATION : 890' FSL &amp; 368' FWL</b>		<b>GL : 2209</b>
<b>SEC: 13</b>	<b>TWP : 19 S</b>	<b>RGE : 23 W</b>
<b>COUNTY : NESS</b>		<b>STATE : KANSAS</b>
CONTRACTOR : W. W. DRILLING COMPANY RIG # 10 COMM : 11 / 18 / 2013 RTD : 4450 SAMPLES SAVED FROM : 3600 GEOLOGICAL SUPERVISION FROM : 3600 MUD UP : 3500		<b>CASING RECORD</b> SURFACE : 8 5/8" @ 205' PRODUCTION : .
COMP : 11 / 25 / 2013 LOG TD : 4452 TO : RTD TO : RTD TYPE MUD : CHEMICAL		<b>ELECTRICAL SURVEYS:</b> CDL/CNL DIL MICRO SONIC

FORMATION	TOP	SAMPLE	DATUM	TOP	LOG	DATUM	STRUCT. COMP.
HEEBNER	3669	- 1455	3669	- 1455	- 1455	- 01	
LANSING	3714	- 1500	3714	- 1500	- 1500	+ 01	
STARK	3998	- 1784	3998	- 1784	- 1784	+ 06	
BASE / KC	4058	- 1844	4058	- 1844	- 1844	+ 10	
FORT SCOTT	4221	- 2007	4221	- 2007	- 2007	+ 17	
CHEROKEE	4244	- 2030	4244	- 2030	- 2030	+ 18	
MISSISSIPPI	4322	- 2108	4322	- 2108	- 2108	+ 08	

REFERENCE WELL FOR STRUCTURAL COMPARISON :

R. V. LEHNER # 1 KRUG                      SEC 13 - T 19 S - R 23 W                      NESS COUNTY KANSAS



**COMMENTS:**

**DUE TO MARGINAL DST RESULTS & POOR LOG CALCULATIONS**

**THIS WELL WAS PLUGGED AS**

**D & A**

**KEVIN L. KESSLER**