



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1248378  
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: \_\_\_\_\_



1248378

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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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> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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: _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	DARREL 3-31
Doc ID	1248378

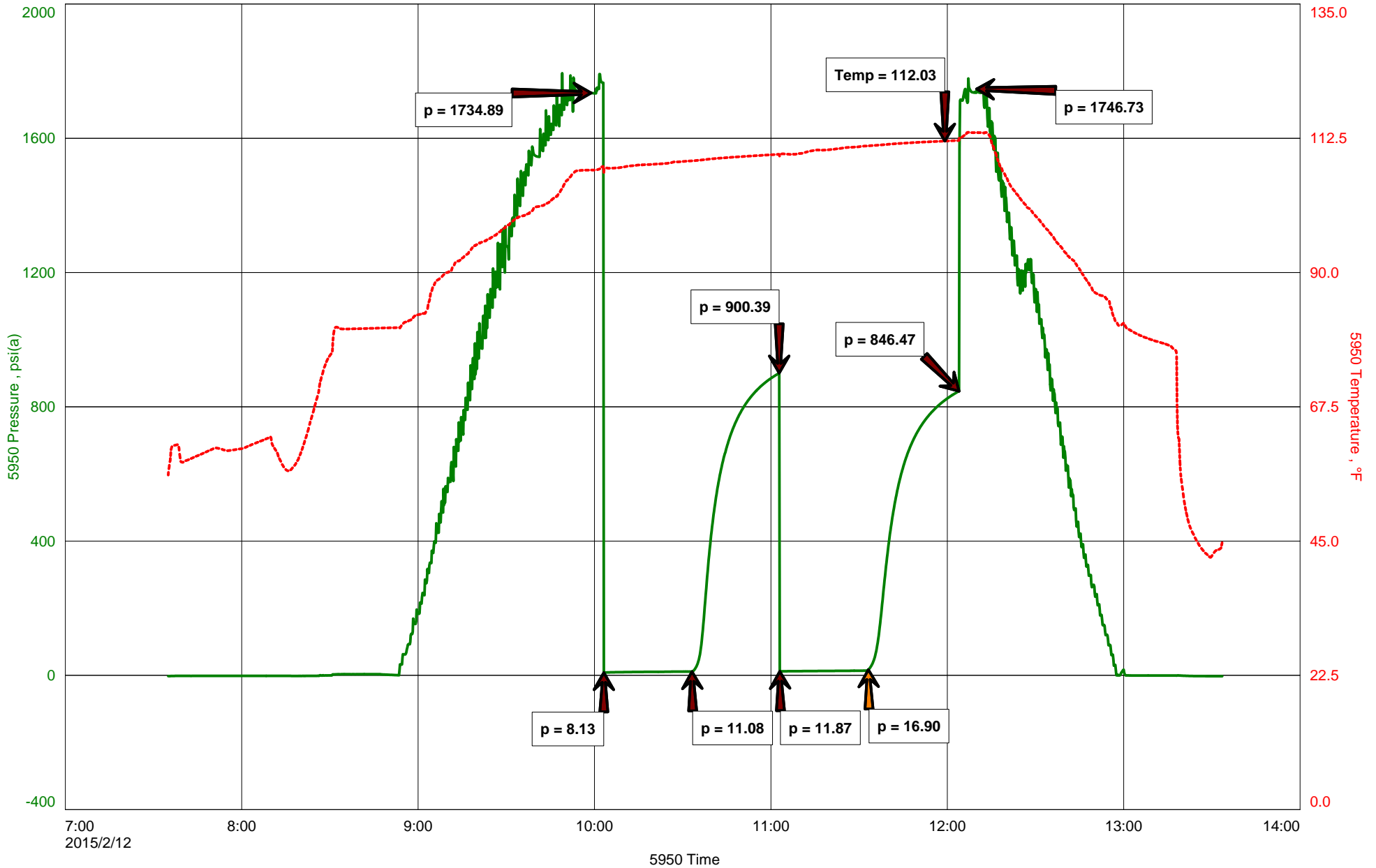
Tops

Name	Top	Datum
ANHYDRITE	2098	601
BASE ANHYDRITE	2128	571
STOTLER	3336	-639
HEEBNER	3708	-1009
LANSING	3744	-1045
STARK	3991	-1292
MARMATON	4090	-1391
FORT SCOTT	4244	-1545
CHEROKEE	4272	-1573
MISSISSIPPI SPERGEN	4562	-1663

L.D. Drilling Inc  
Dst #1 TOR/LANS A 3701-3750'  
Start Test Date: 2015/02/12  
Final Test Date: 2015/01/12

Darrel #3-31  
Formation: Dst #1 TOR/LANS A 3701-3750'  
Pool: Infield  
Job Number: P0048

# Darrel #3-31





**Hoisington, Kansas**

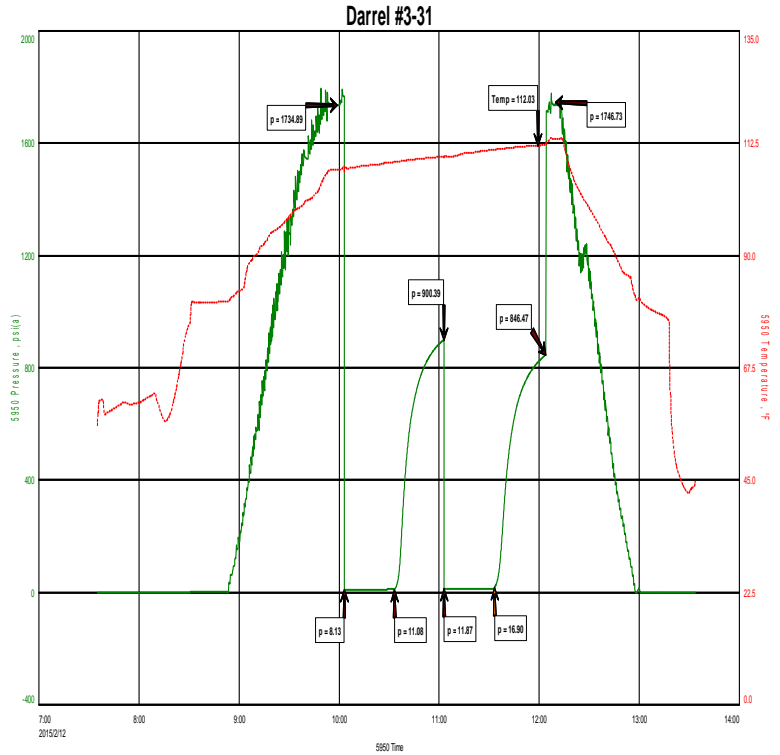
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

<b>Contact</b>	L.D. Davis
<b>Well Name</b>	Darrel #3-31
<b>Unique Well ID</b>	Dst #1 TOR/LANS A 3701-3750'
<b>Surface Location</b>	Sec31-14s-29w Gove County
<b>Field</b>	Lundgren
<b>Well Type</b>	Vertical
<b>Test Type</b>	Drill Stem Test
<b>Well Operator</b>	L.D. Drilling Inc

<b>Formation</b>	Dst #1 TOR/LANS A 3701-3750'
<b>Well Fluid Type</b>	01 Oil
<b>Test Purpose</b>	Initial Test
<b>Start Test Date</b>	2015/02/12
<b>Start Test Time</b>	07:35:00
<b>Final Test Time</b>	13:34:00
<b>Job Number</b>	P0048
<b>Report Date</b>	2015/02/12
<b>Prepared By</b>	Michael Carroll



**TEST RECOVERY**

<b>Remarks</b>	<b>Recovery:</b>	<b>10'</b>	<b>SLOSM 1%O</b>	<b>99%M</b>
	<b>Total Fluid:</b>	<b>10'</b>		
	<b>Tool Sample:</b>	<b>2%O</b>	<b>98%M</b>	



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#1

TIME ON: 0735  
TIME OFF: 1334

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation TOR/LANS A Effective Pay \_\_\_\_\_ Ft. Ticket No. P0048  
Date 2-12-15 Sec. 31 Twp. 14 S Range 29 W County Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 1 Interval Tested from 3701 ft. to 3750 ft. Total Depth 3750 ft.

Packer Depth 3696 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 3701 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3686 ft. Recorder Number 5950 Cap. 5000 P.S.I.

Bottom Recorder Depth (Outside) 3738 ft. Recorder Number 30046 Cap. 6000 P.S.I.

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 63 Drill Collar Length 0 ft. I.D. 2 1/4 in.

Weight 8.65 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in

Chlorides 1600 P.P.M. Drill Pipe Length 3673 ft. I.D. 3 1/2 in

Jars: Make STERLING Serial Number na Test Tool Length 28 ft. Tool Size 3 1/2-IF in

Did Well Flow? NO Reversed Out NO Anchor Length 49(17.5a) 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: WSB-BUILT TO 1" IN 30 MINUTES **NOBB**

2nd Open: NO BLOW-BUILT TO 1/4" IN 30 MINUTES **NOBB**

Recovered 10 ft. of SLOSM 1%O 99%M

Recovered 10 ft. of TOTAL FLUID

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: \_\_\_\_\_

TOOL SAMPLE: 2%O 98%M

Time Set Packer(s) 10:02A.M. A.M. P.M. Time Started Off Bottom 12:02P.M. A.M. P.M. Maximum Temperature 112

Initial Hydrostatic Pressure..... (A) 1735 P.S.I.

Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 11 P.S.I.

Initial Closed In Period..... Minutes 30 (D) 900 P.S.I.

Final Flow Period..... Minutes 30 (E) 12 P.S.I. to (F) 17 P.S.I.

Final Closed In Period..... Minutes 30 (G) 846 P.S.I.

Final Hydrostatic Pressure..... (H) 1747 P.S.I.

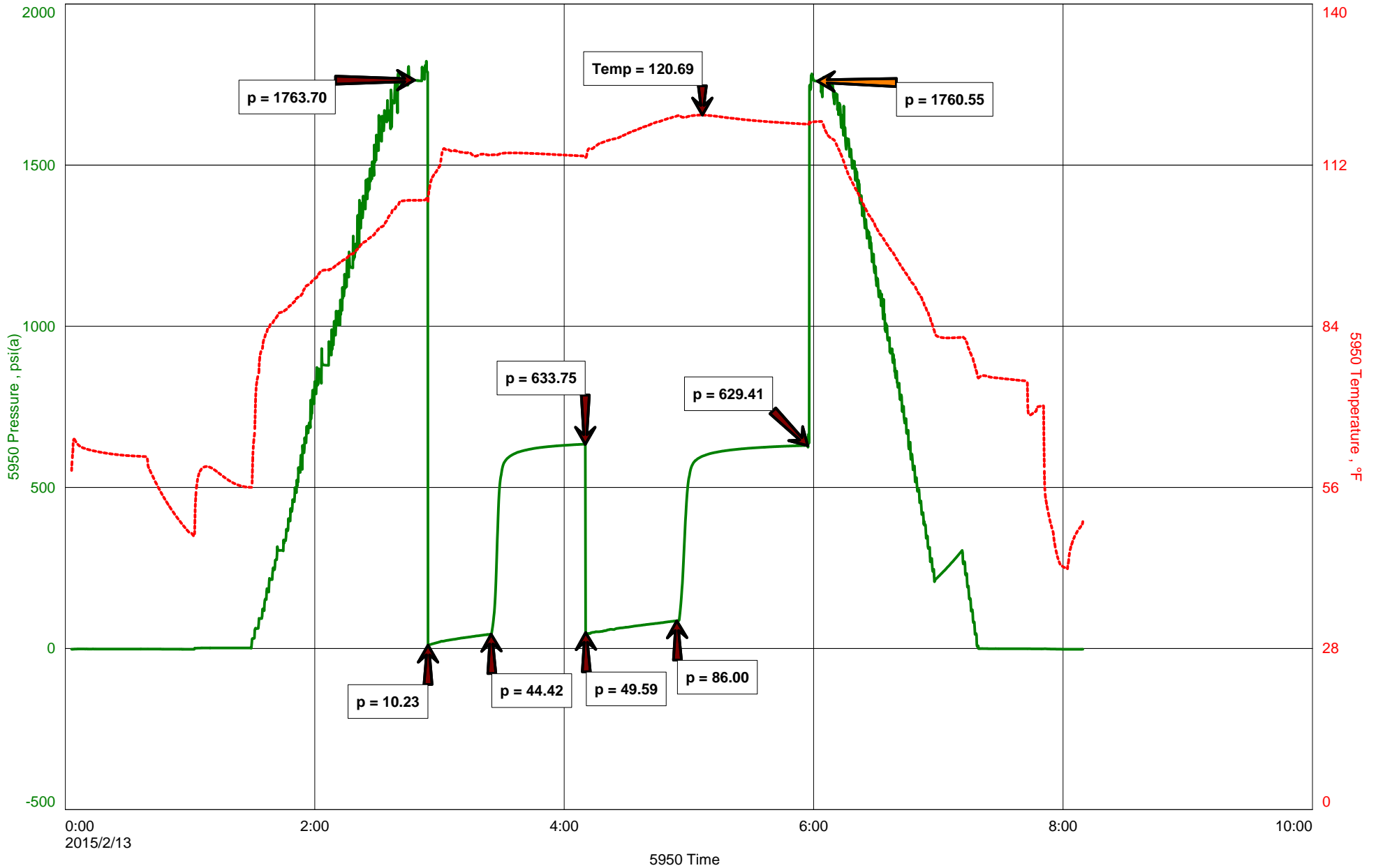
Price Job
Other Charges
Insurance
Total

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.

L.D. Drilling Inc  
Dst #2 Lans 'B' 3760-3780'  
Start Test Date: 2015/02/13  
Final Test Date: 2015/02/13

Darrel #3-31  
Formation: Dst #2 Lans 'B' 3760-3780'  
Pool: Infield  
Job Number: P0049

# Darrel #3-31





**Hoisington, Kansas**

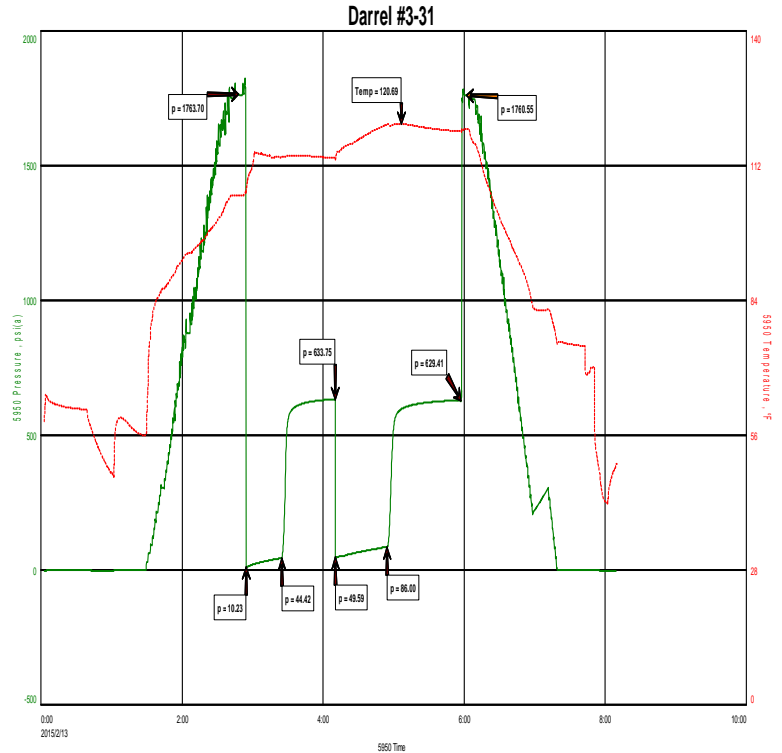
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

**Contact** L.D. Davis  
**Well Name** Darrel #3-31  
**Unique Well ID** Dst #2 Lans 'B' 3760-3780'  
**Surface Location** Sec31-14s-29w Gove County  
**Field** Lundgren  
**Well Type** Vertical  
**Test Type** Drill Stem Test  
**Well Operator** L.D. Drilling Inc

**Formation** Dst #2 Lans 'B' 3760-3780'  
**Well Fluid Type** 01 Oil  
**Test Purpose** Initial Test  
**Start Test Date** 2015/02/13  
**Start Test Time** 00:03:00  
**Final Test Time** 08:09:00  
**Job Number** P0049  
**Report Date** 2015/02/13  
**Prepared By** Michael Carroll



**TEST RECOVERY**

Remarks	Remarks:	389'	GIP			
		45'	CLEAN OIL			
		7'	WCO	95%O	5%M	
		78'	MWGCO	10%G	65%O	10%W 15%M
		48'	OCWM	10%O	50%W	40%M

**Total Fluid:** 178'

**Tool Sample:** 53%O 18%W 29%M

**Gravity:** 36.5 @ 60 Degrees  
**RW** .24 @ 35 Degrees  
**PH** 7  
**Chlorides** 53000 PPM





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#2

TIME ON: 0003  
TIME OFF: 0809

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation Lans 'B' Effective Pay \_\_\_\_\_ Ft. Ticket No. P0049  
Date 2-13-15 Sec. 31 Twp. 14 S Range 29 W County Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 2 Interval Tested from 3760 ft. to 3780 ft. Total Depth 3780 ft.  
Packer Depth 3755 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3760 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3745 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 3764 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 46 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.1 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1900 P.P.M. Drill Pipe Length 3732 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number na Test Tool Length 28 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 20 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: 1/2" BLOW-BUILT TO BOB IN 16 MINUTES 15 SECONDS 1/4" BB  
2nd Open: 3/4" BLOW-BUILT TO BOB IN 14 MINUTES 10 SECONDS 1" BB

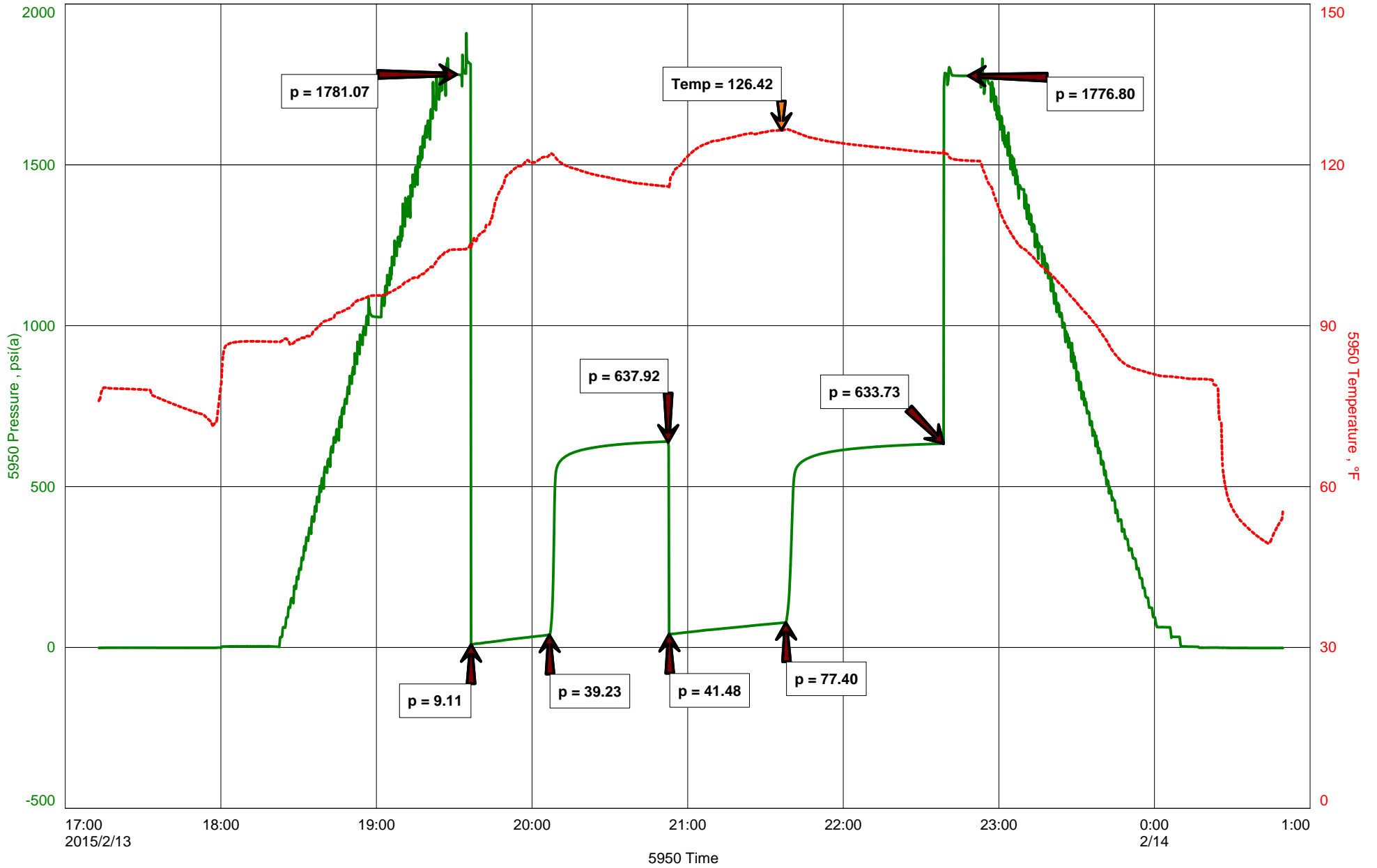
Recovered <u>389</u> ft. of <u>GAS IN PIPE</u>	<u>GRAVITY 36.5 @ 60 DEGREES</u>
Recovered <u>45</u> ft. of <u>CLEAN OIL</u>	<u>RW .24 @ 35 DEGREES</u>
Recovered <u>7</u> ft. of <u>WCO 95%O 5%W</u>	<u>PH 7</u>
Recovered <u>78</u> ft. of <u>MWCGO 10%G 65%O 10%W 15%M</u>	<u>CHLORIDES 53000 PPM</u>
Recovered <u>48</u> ft. of <u>OCWM 10%O 50%W 40%M</u>	Price Job
Recovered <u>178</u> ft. of <u>TOTAL FLUID</u>	Other Charges
Remarks: _____	Insurance
<u>TOOL SAMPLE: 53%O 18%W 29%M</u>	Total

Time Set Packer(s) 2:52 A.M. A.M. Time Started Off Bottom 5:52 A.M. P.M. Maximum Temperature 121

Initial Hydrostatic Pressure..... (A) 1764 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 44 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 634 P.S.I.  
Final Flow Period..... Minutes 45 (E) 50 P.S.I. to (F) 86 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 629 P.S.I.  
Final Hydrostatic Pressure..... (H) 1761 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.

# Darrel #3-31





**Hoisington, Kansas**

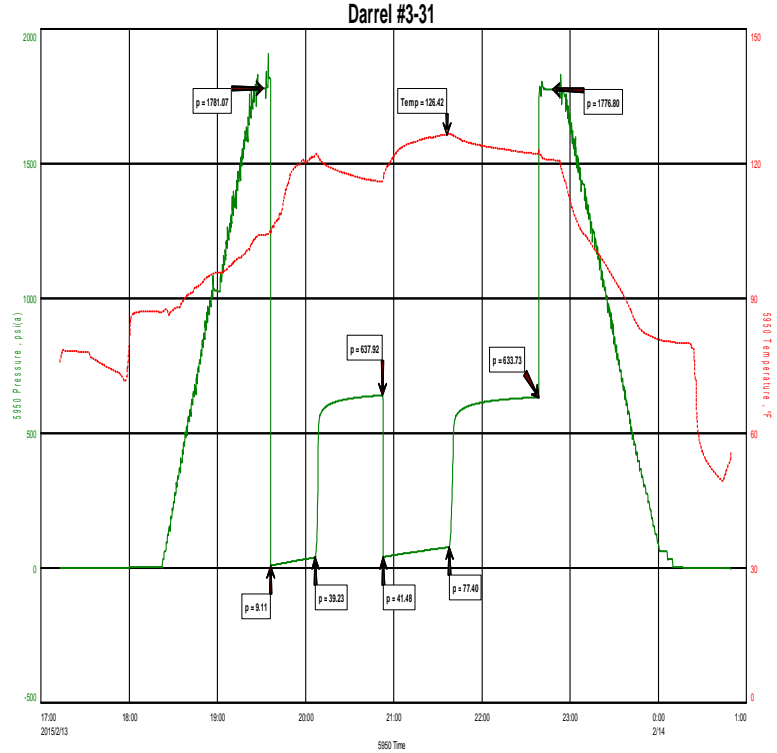
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

<b>Contact</b>	L.D. Davis
<b>Well Name</b>	Darrel #3-31
<b>Unique Well ID</b>	Dst #3 Lans D-E 3781-3830'
<b>Surface Location</b>	Sec31-14s-29w Gove County
<b>Field</b>	Lundgren
<b>Well Type</b>	Vertical
<b>Test Type</b>	Drill Stem Test
<b>Well Operator</b>	L.D. Drilling Inc

<b>Formation</b>	Dst #3 Lans D-E 3781-3830'
<b>Well Fluid Type</b>	01 Oil
<b>Test Purpose</b>	Initial Test
<b>Start Test Date</b>	2015/02/13
<b>Start Test Time</b>	17:13:00
<b>Final Test Time</b>	00:50:00
<b>Job Number</b>	P0050
<b>Report Date</b>	2015/02/13
<b>Prepared By</b>	Michael Carroll



**TEST RECOVERY**

<b>Remarks</b>	<b>Recovery:</b>	<b>20'</b>	<b>W</b>	<b>100%W</b>		
		<b>116'</b>	<b>SLOCMW</b>	<b>1%O</b>	<b>84%W</b>	<b>15%M</b>
		<b>10'</b>	<b>WM</b>	<b>35%W</b>	<b>65%M</b>	
	<b>Total Fluid:</b>	<b>146'</b>				
	<b>Tool Sample:</b>	<b>10%O</b>	<b>62%W</b>	<b>28%M</b>		
	<b>RW</b>	<b>.28 @ 54 Degrees</b>				
	<b>Chlorides</b>	<b>41000 PPM</b>				
	<b>PH</b>	<b>7</b>				



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#3

TIME ON: 1713 2-13  
TIME OFF: 0050 2-14

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation Lans D-E Effective Pay \_\_\_\_\_ Ft. Ticket No. P0050  
Date 2-13-15 Sec. 31 Twp. 14 S Range 29 W County Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 3 Interval Tested from 3781 ft. to 3830 ft. Total Depth 3830 ft.  
Packer Depth 3776 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3781 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3766 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 3818 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 56 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.1 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2000 P.P.M. Drill Pipe Length 3753 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number na Test Tool Length 28 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 49(17.5a) 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: 1/4" BLOW-BUILT TO 5" IN 30 MINUTES **NOBB**  
2nd Open: WSB-BUILT TO 5" IN 45 MINUTES **NOBB**

Recovered 20 ft. of WATER 100%W RW .28 @ 54 DEGREES  
Recovered 116 ft. of SLOCMW 1%O 84%W 15%M CHLORIDES 41000 PPM  
Recovered 10 ft. of WM 35%W 65%M PH 7  
Recovered 146 ft. of TOTAL FLUID

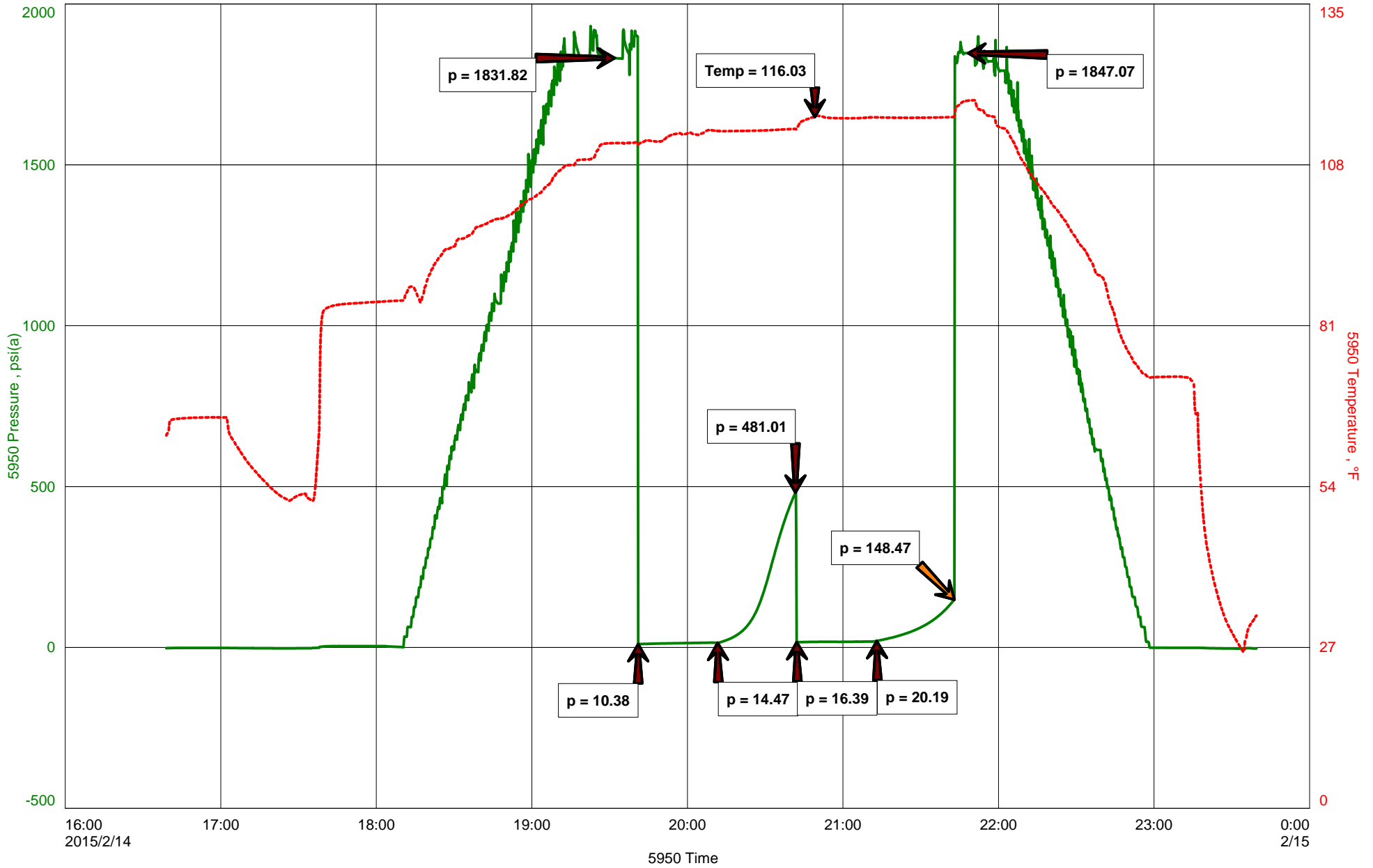
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: _____	Total

Time Set Packer(s) 7:35 P.M. A.M. P.M. Time Started Off Bottom 10:35 P.M. A.M. P.M. Maximum Temperature 126

Initial Hydrostatic Pressure..... (A) 1781 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 9 P.S.I. to (C) 39 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 638 P.S.I.  
Final Flow Period..... Minutes 45 (E) 41 P.S.I. to (F) 77 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 634 P.S.I.  
Final Hydrostatic Pressure..... (H) 1777 P.S.I.

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# Darrel #3-31





**Hoisington, Kansas**

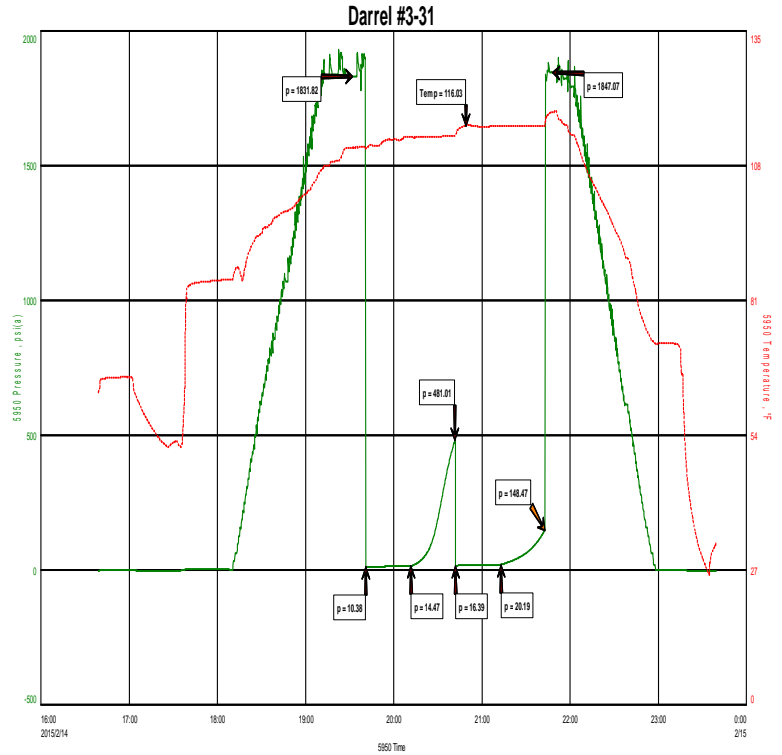
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

**Contact** L.D. Davis  
**Well Name** Darrel #3-31  
**Unique Well ID** Dst #4 Lans/KC H-I-J 3896-3986'  
**Surface Location** Sec31-14s-21w Gove County  
**Field** Lundgren  
**Well Type** Vertical  
**Test Type** Drill Stem Test  
**Well Operator** L.D. Drilling Inc

**Formation** Dst #4 Lans/KC H-I-J 3896-3986'  
**Well Fluid Type** 01 Oil  
**Test Purpose** Initial Test  
**Start Test Date** 2015/02/14  
**Start Test Time** 16:39:00  
**Final Test Time** 23:39:00  
**Job Number** P0051  
**Report Date** 2015/02/14  
**Prepared By** Michael Carroll



**TEST RECOVERY**

<b>Remarks</b>	<b>Recovery:</b>	1'	Clean Oil			
		19'	SLOCWCM	1%O	3%W	96%M
	<b>Total Fluid:</b>	20'				
	<b>Tool Sample:</b>	5%O	3%W	92%M		



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#4

TIME ON: 1639  
TIME OFF: 2339

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation Lans/KC H-I-J Effective Pay \_\_\_\_\_ Ft. Ticket No. P0051  
Date 2-14-15 Sec. 31 Twp. 14 S Range 29 W County Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 4 Interval Tested from 3896 ft. to 3986 ft. Total Depth 3986 ft.  
Packer Depth 3891 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3896 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3881 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 3965 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 50 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.2 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3000 P.P.M. Drill Pipe Length 3868 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number na Test Tool Length 28 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 90(26.5a) 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: WSB-BUILT TO 3/4" IN 30 MINUTES NOBB  
2nd Open: WSB-BUILT TO 1/4" IN 30 MINUTES NOBB

Recovered 1 ft. of CLEAN OIL  
Recovered 19 ft. of SLOCWCM 1%O 3%W 96%M  
Recovered 20 ft. of TOTAL FLUID

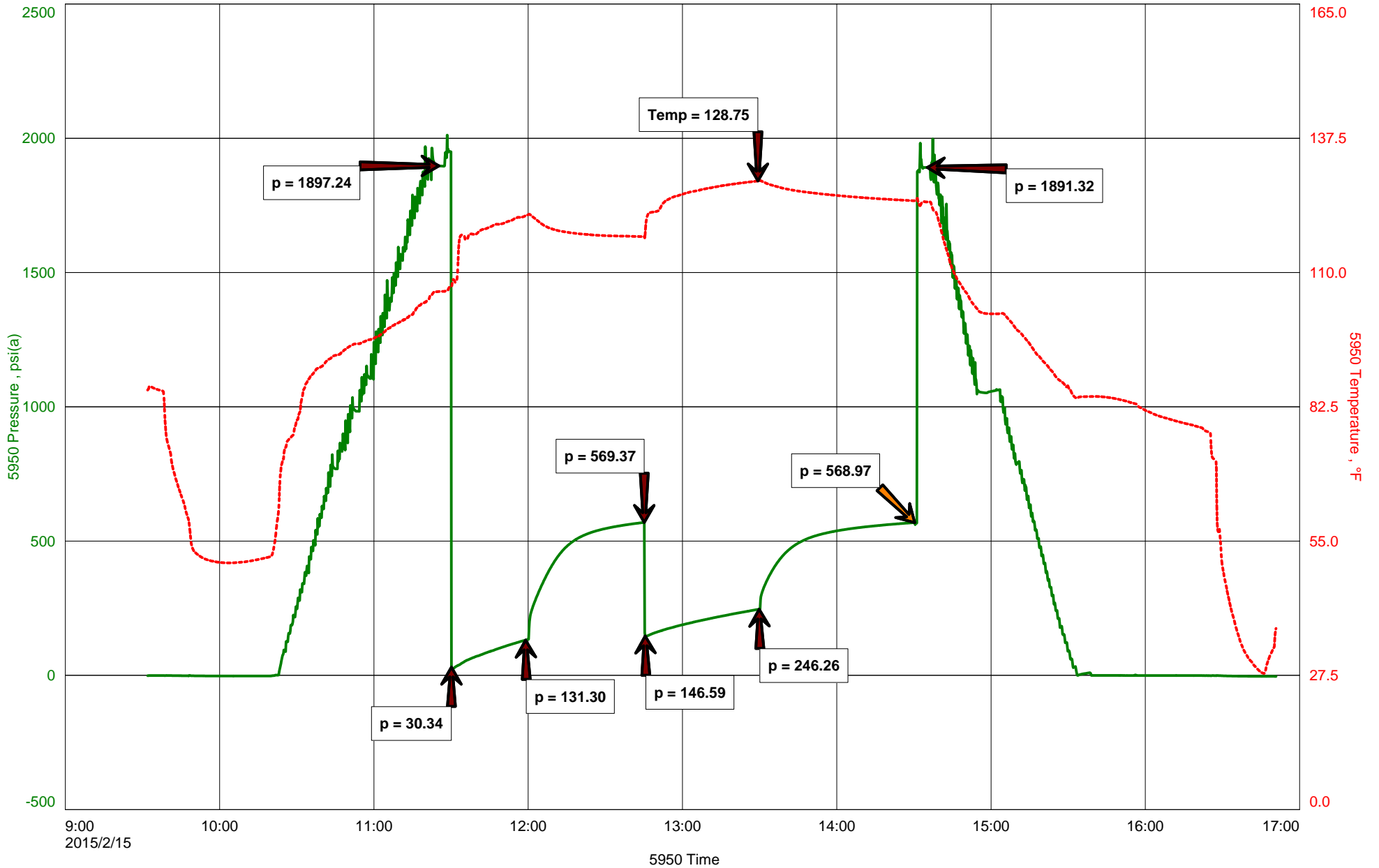
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Recovered _____ ft. of _____	Insurance
Remarks: _____	
TOOL SAMPLE: <u>5%O 3%W 92%M</u>	Total

Time Set Packer(s) 7:40P.M. A.M. P.M. Time Started Off Bottom 9:40P.M. A.M. P.M. Maximum Temperature 116

Initial Hydrostatic Pressure..... (A) 1832 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 14 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 481 P.S.I.  
Final Flow Period..... Minutes 30 (E) 16 P.S.I. to (F) 20 P.S.I.  
Final Closed In Period..... Minutes 30 (G) 148 P.S.I.  
Final Hydrostatic Pressure..... (H) 1847 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.

# Darrel #3-31







**Hoisington, Kansas**

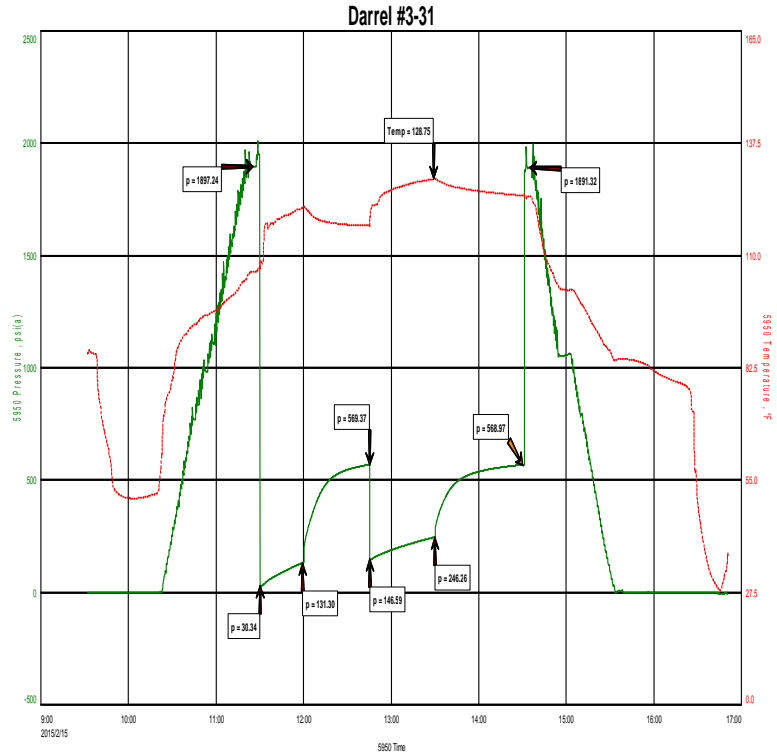
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

**Contact** L.D. Davis  
**Well Name** Darrel #3-31  
**Unique Well ID** Dst #5 Lans/KC K-L 3984-4035'  
**Surface Location** Sec31-14s-29w Gove County  
**Field** Lundrgen  
**Well Type** Vertical  
**Test Type** Drill Stem Test  
**Well Operator** L.D. Drilling Inc

**Formation** Dst #5 Lans/KC K-L 3984-4035'  
**Well Fluid Type** 01 Oil  
**Test Purpose** Initial Test  
**Start Test Date** 2015/02/15  
**Start Test Time** 09:32:00  
**Final Test Time** 16:50:00  
**Job Number** P0052  
**Report Date** 2015/02/15  
**Prepared By** Michael Carroll



**TEST RECOVERY**

**Remarks** Recovery: 118' Gas In Pipe  
 16' Clean Oil Gravity 36 @ 60 Degrees  
 212' OCWM 3%O 42%W 55%M  
 95' SLOCMW 2%O 63%W 35%M  
 126' VSLOCMW 1%O 77%W 22%M

**Total Fluid:** 449'

**Tool Sample:** 1%O 97%W 2%M

**Chlorides** 57000PPM  
**RW** .24 @ 30 Degrees  
**PH** 7



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#5

TIME ON: 0932  
TIME OFF: 1650

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation \_\_\_\_\_ Lans/KC K-L Effective Pay \_\_\_\_\_ Ft. Ticket No. P0052  
Date 2-15-15 Sec. 31 Twp. \_\_\_\_\_ 14 S Range \_\_\_\_\_ 29 W County \_\_\_\_\_ Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative \_\_\_\_\_ Michael Carroll

Formation Test No. 5 Interval Tested from 3984 ft. to 4035 ft. Total Depth 4035 ft.  
Packer Depth 3979 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3984 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3969 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4021 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 50 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.2 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3000 P.P.M. Drill Pipe Length 3956 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number na Test Tool Length 28 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 51(19.5a) 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: 1"BLOW-BUILT TO BOB IN 8 MINUTES 50 SECONDS 1/2"BB  
2nd Open: 1"BLOW-BUILT TO BOB IN 12 MINUTES 15 SECONDS 3/4"BB

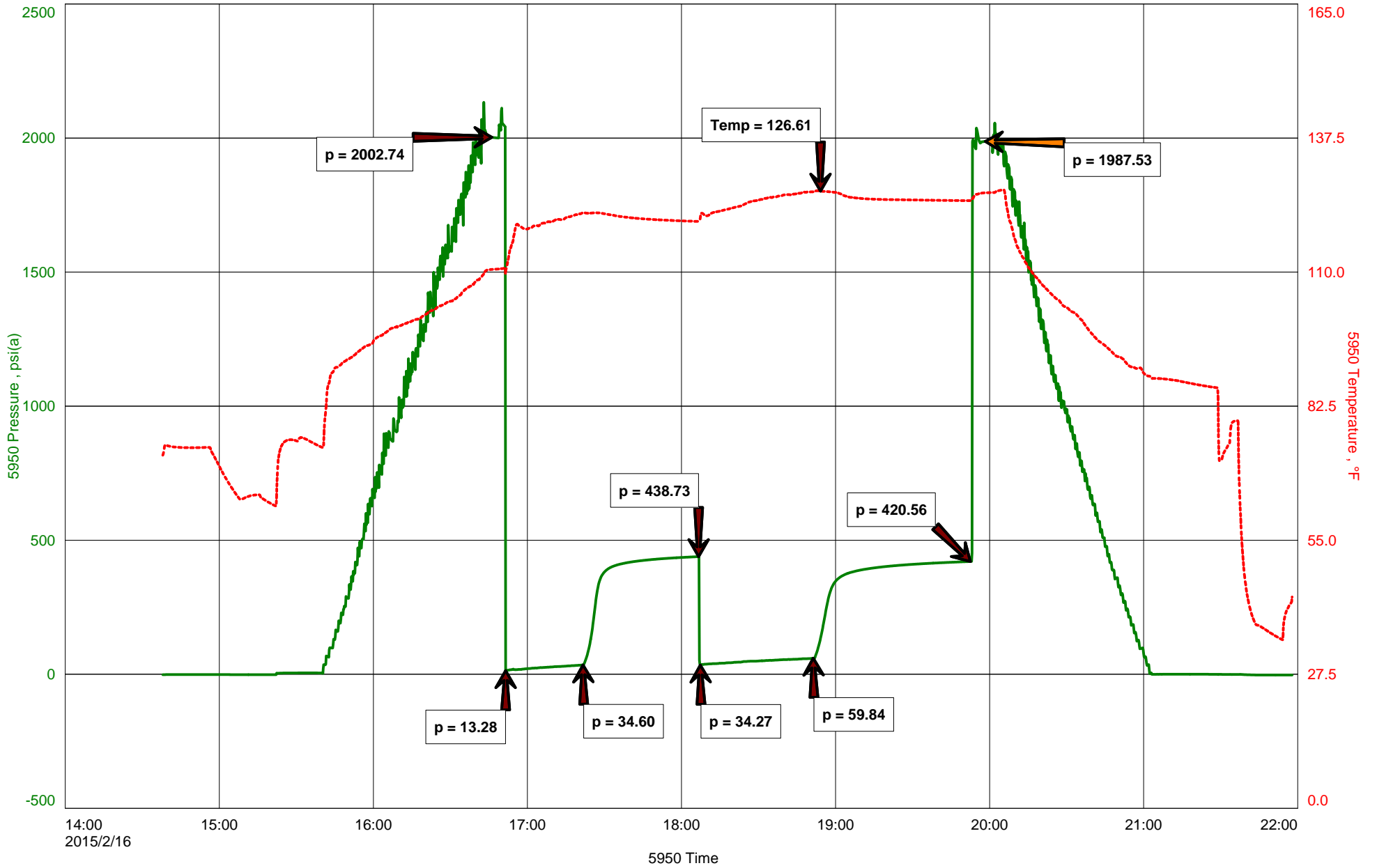
Recovered <u>118</u> ft. of <u>GAS IN PIPE</u>	<u>CHLORIDES 57000 PPM</u>
Recovered <u>16</u> ft. of <u>CLEAN OIL GRAVITY 36 @ 60 DEGREES</u>	<u>RW .24 @ 30 DEGREES</u>
Recovered <u>212</u> ft. of <u>OCWM 3%O 42%W 55%M</u>	<u>PH 7</u>
Recovered <u>95</u> ft. of <u>SLOCMW 2%O 63%W 35%M</u>	
Recovered <u>126</u> ft. of <u>VSLOCMW 1%O 77%W 22%M</u>	Price Job
Recovered <u>449</u> ft. of <u>TOTAL FLUID</u>	Other Charges
Remarks: _____	Insurance
<u>TOOL SAMPLE: 1%O 97%W 2%M</u>	Total

Time Set Packer(s) 11:28A.M. A.M. P.M. Time Started Off Bottom 2:28P.M. A.M. P.M. Maximum Temperature 129

Initial Hydrostatic Pressure..... (A) 1897 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 30 P.S.I. to (C) 131 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 569 P.S.I.  
Final Flow Period..... Minutes 45 (E) 147 P.S.I. to (F) 246 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 569 P.S.I.  
Final Hydrostatic Pressure..... (H) 1891 P.S.I.

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# Darrel #3-31





**Hoisington, Kansas**

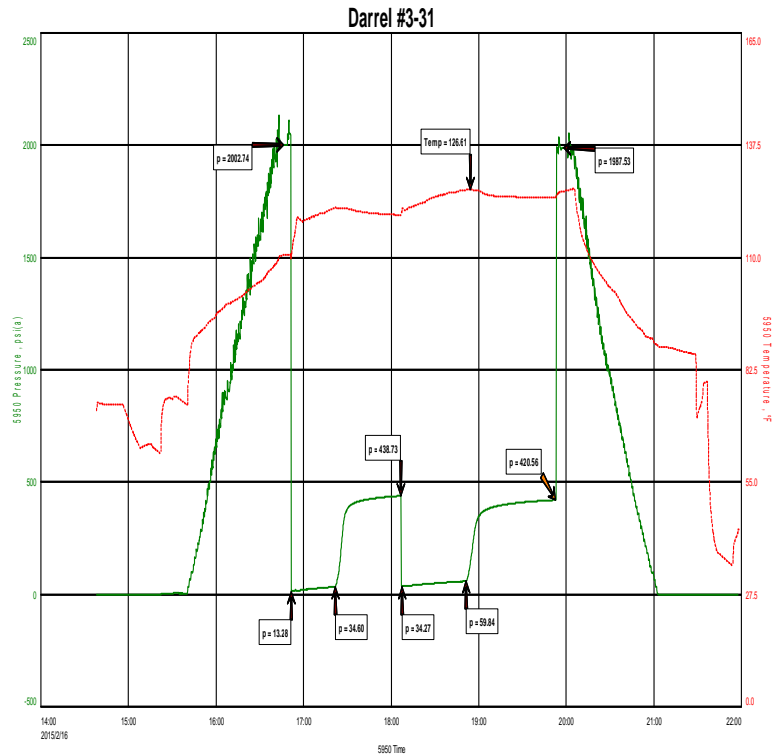
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

**Contact** L.D. Davis  
**Well Name** Darrel #3-31  
**Unique Well ID** Dst #6 Paw/My.St. 4170-4228'  
**Surface Location** Sec31-14s-21w Gove County  
**Field** Lundgren  
**Well Type** Vertical  
**Test Type** Drill Stem Test  
**Well Operator** L.D. Drilling Inc

**Formation** Dst #6 Paw/My.St. 4170-4228'  
**Well Fluid Type** 01 Oil  
**Test Purpose** Initial Test  
**Start Test Date** 2015/02/16  
**Start Test Time** 14:38:00  
**Final Test Time** 21:59:00  
**Job Number** P0053  
**Report Date** 2015/02/16  
**Prepared By** Michael Carroll



**TEST RECOVERY**

**Remarks** Recovery: 630' Gas In Pipe  
 64' Clean Oil Gravity 36 @ 60 Degrees  
 61' GOCWM 5%G 15%O 30%W 50%M  
 Total Fluid: 125'  
 Tool Sample: 59%O 17%W 24%M  
 Chlorides 47000 PPM  
 RW .3 @ 27 Degrees  
 PH 7



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#6

TIME ON: 1438  
TIME OFF: 2159

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation \_\_\_\_\_ Paw/My.St. Effective Pay \_\_\_\_\_ Ft. Ticket No. P0053  
Date 2-16-15 Sec. 31 Twp. \_\_\_\_\_ 14 S Range \_\_\_\_\_ 29 W County \_\_\_\_\_ Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative \_\_\_\_\_ Michael Carroll

Formation Test No. 6 Interval Tested from 4170 ft. to 4228 ft. Total Depth 4228 ft.  
Packer Depth 4165 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4170 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 4155 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4207 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 47 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.4 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3600 P.P.M. Drill Pipe Length 4137 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 01 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 58(26.5a) 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: 1/4" BLOW-BUILT TO BOB IN 13 MINUTES 40 SECONDS WSBB  
2nd Open: 1/2" BLOW-BUILT TO BOB IN 11 MINUTES 15 SECONDS 1/4" BB

Recovered 630 ft. of GAS IN PIPE CHLORIDES 47000 PPM  
Recovered 64 ft. of CLEAN OIL GRAVITY 36 @ 60 DEGREES RW .3 @ 27 DEGREES  
Recovered 61 ft. of GOCWM 5%G 15%O 30%W 50%M PH 7  
Recovered 125 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>59%O 17%W 24%M</u>	Total

Time Set Packer(s) 4:50 P.M. A.M. P.M. Time Started Off Bottom 7:50 P.M. A.M. P.M. Maximum Temperature 127

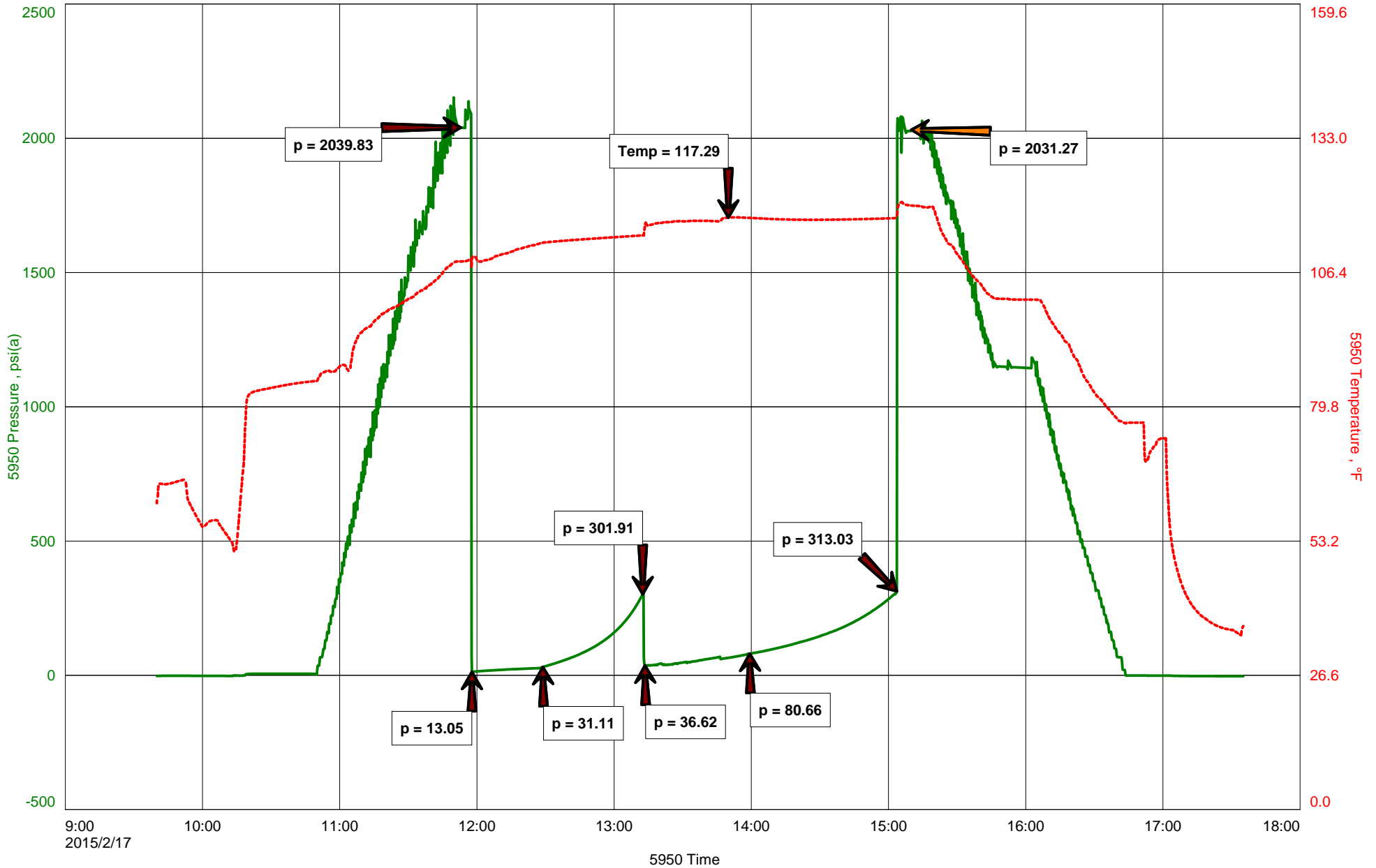
Initial Hydrostatic Pressure..... (A) 2003 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 13 P.S.I. to (C) 35 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 439 P.S.I.  
Final Flow Period..... Minutes 45 (E) 34 P.S.I. to (F) 60 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 421 P.S.I.  
Final Hydrostatic Pressure..... (H) 1988 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.

L.D. Drilling Inc  
Dst #7 Ft. Scott/Johnson 4226-4330'  
Start Test Date: 2015/02/17  
Final Test Date: 2015/02/17

Darrel #3-31  
Formation: Dst #7 Ft. Scott/Johnson 4226-4330'  
Pool: Infield  
Job Number: P0054

# Darrel #3-31





**Hoisington, Kansas**

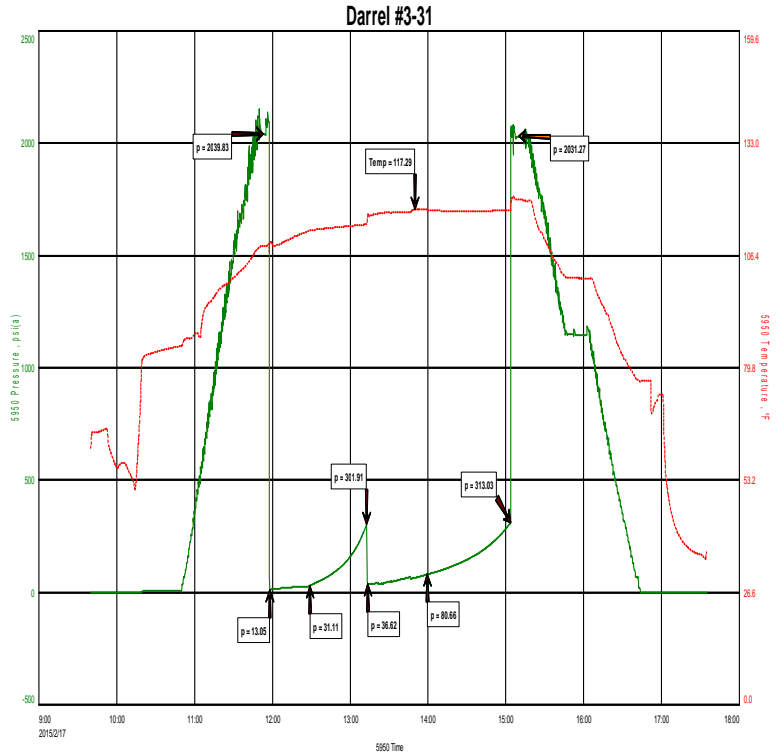
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

<b>Contact</b>	L.D. Davis
<b>Well Name</b>	Darrel #3-31
<b>Unique Well ID</b>	Dst #7 Ft. Scott/Johnson 4226-4330'
<b>Surface Location</b>	Sec31-14s-29w Gove County
<b>Field</b>	Lundgren
<b>Well Type</b>	Vertical
<b>Test Type</b>	Drill Stem Test
<b>Well Operator</b>	L.D. Drilling Inc

<b>Formation</b>	Dst #7 Ft. Scott/Johnson 4226-4330'
<b>Well Fluid Type</b>	01 Oil
<b>Test Purpose</b>	Initial Test
<b>Start Test Date</b>	2015/02/17
<b>Start Test Time</b>	09:40:00
<b>Final Test Time</b>	17:36:00
<b>Job Number</b>	P0054
<b>Report Date</b>	2015/02/17
<b>Prepared By</b>	Michael Carroll



**TEST RECOVERY**

<b>Remarks</b>	<b>Recovery:</b>	<b>61'</b>	<b>Mud</b>	<b>100%M</b>	<b>With A Few Oil Specks</b>
	<b>Total Fluid:</b>	<b>61'</b>			
	<b>Tool Sample:</b>	<b>2%O</b>	<b>98%M</b>		



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#7

TIME ON: 0940  
TIME OFF: 1736

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation Ft. Scott/Johnson Effective Pay \_\_\_\_\_ Ft. Ticket No. P0054  
Date 2-17-15 Sec. 31 Twp. 14 S Range 29 W County Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 7 Interval Tested from 4226 ft. to 4330 ft. Total Depth 4330 ft.  
Packer Depth 4221 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4226 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 4211 ft. Recorder Number 5950 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4292 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 49 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.2 Water Loss 9.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3000 P.P.M. Drill Pipe Length 4193 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 01 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 104(40.5a) 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: 1/4" BLOW-BUILT TO 2 3/4" IN 30 MINUTES NOBB  
2nd Open: 1/2" BLOW-BUILT TO 1" IN 45 MINUTES NOBB

Recovered 61 ft. of MUD 100%M WITH A FEW OIL SPECKS  
Recovered 61 ft. of TOTAL FLUID  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>2%O 98%M</u>	Total

Time Set Packer(s) 11:56A.M. A.M. P.M. Time Started Off Bottom 2:56P.M. A.M. P.M. Maximum Temperature 117

Initial Hydrostatic Pressure..... (A) 2040 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 13 P.S.I. to (C) 31 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 302 P.S.I.  
Final Flow Period..... Minutes 45 (E) 37 P.S.I. to (F) 81 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 313 P.S.I.  
Final Hydrostatic Pressure..... (H) 2031 P.S.I.

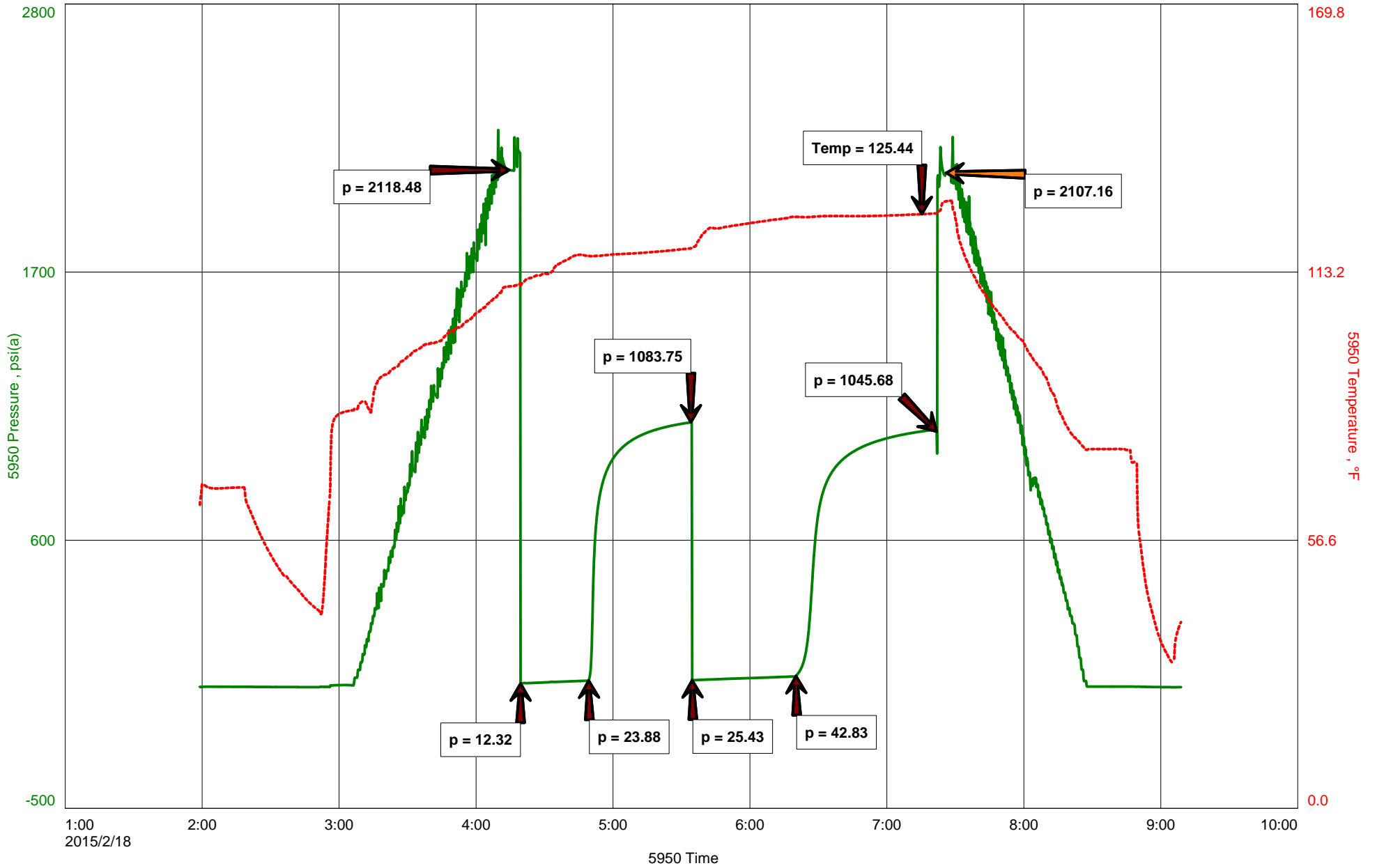
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L.D. Drilling Inc  
Dst #8 Miss 4356-4376'  
Start Test Date: 2015/02/18  
Final Test Date: 2015/02/18

Darrel #3-31  
Formation: Dst #8 Miss 4356-4376'  
Pool: Infield  
Job Number: P0055

# Darrel #3-31





**Hoisington, Kansas**

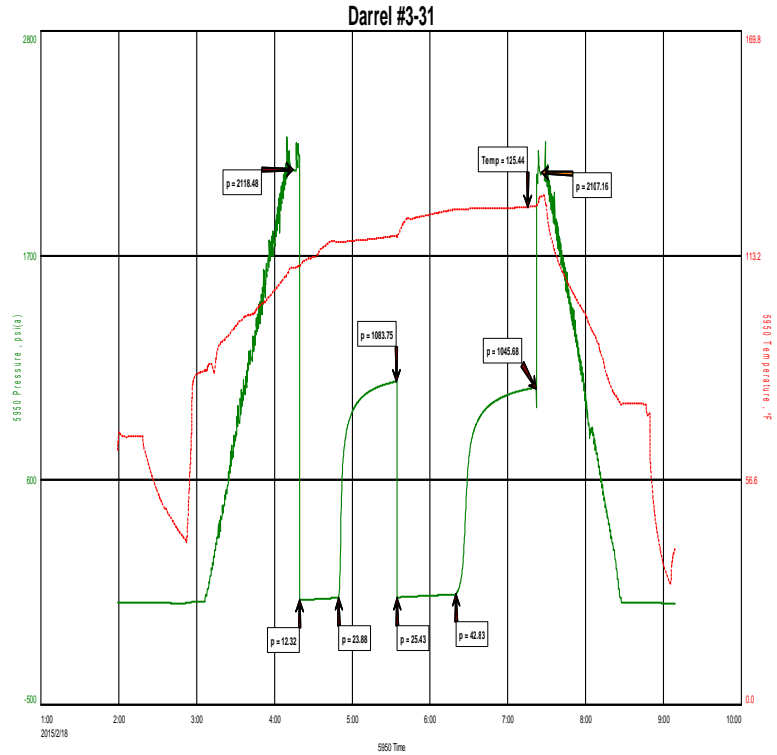
**Michael Carroll**  
**620-617-0368**  
**carroll.dtlc@gmail.com**

**General Information**

**Company Name** L.D. Drilling Inc

**Contact** L.D. Davis  
**Well Name** Darrel #3-31  
**Unique Well ID** Dst #8 Miss 4356-4376'  
**Surface Location** Sec31-14s-29w Gove County  
**Field** Lundgren  
**Well Type** Vertical  
**Test Type** Drill Stem Test  
**Well Operator** L.D. Drilling Inc

**Formation** Dst #8 Miss 4356-4376'  
**Well Fluid Type** 01 Oil  
**Test Purpose** Initial Test  
**Start Test Date** 2015/02/18  
**Start Test Time** 01:59:00  
**Final Test Time** 09:08:00  
**Job Number** P0055  
**Report Date** 2015/02/18  
**Prepared By** Michael Carroll



**TEST RECOVERY**

**Remarks** Recovery: 10' Clean Oil Gravity 37 @ 60 Degrees  
 58' VSLOCWCM 1%O 3%W 96%M  
 Total Fluid: 68'  
 Tool Sample: 28%O 12%W 60%M



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: Darrel#3-31Dst#8

TIME ON: 0159  
TIME OFF: 0908

Company L.D. Drilling Inc Lease & Well No. Darrel #3-31  
Contractor L.D. Drilling Charge to L.D. Drilling Inc  
Elevation 2699KB Formation \_\_\_\_\_ Miss Effective Pay \_\_\_\_\_ Ft. Ticket No. P0055  
Date 2-18-15 Sec. 31 Twp. \_\_\_\_\_ 14 S Range \_\_\_\_\_ 29 W County \_\_\_\_\_ Gove State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Michael Carroll

Formation Test No. 8 Interval Tested from 4356 ft. to 4376 ft. Total Depth 4376 ft.  
Packer Depth 4351 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4356 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4341 ft. Recorder Number \_\_\_\_\_ Cap. 5950 P.S.I.  
Bottom Recorder Depth (Outside) 4357 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 49 Drill Collar Length \_\_\_\_\_ ft. I.D. 2 1/4 in.  
Weight 9.2 Water Loss 9.6 cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides 3000 P.P.M. Drill Pipe Length 4323 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 01 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 20 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: 1/4" BLOW-BUILT TO 3" IN 30 MINUTES **NOBB**  
2nd Open: WSB-BUILT TO 2 1/2" IN 45 MINUTES **NOBB**

Recovered 10 ft. of CLEAN OIL 37 GRAVITY @ 60 DEGREES  
Recovered 58 ft. of VSLOCWCM 1%O 3%W 96%M  
Recovered 68 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Recovered _____ ft. of _____	Insurance
Remarks: _____	
TOOL SAMPLE: 28%O 12%W 60%M	Total

Time Set Packer(s) 4:17A.M. A.M. Time Started Off Bottom 7:17A.M. P.M. Maximum Temperature 125

Initial Hydrostatic Pressure..... (A) 2118 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 12 P.S.I. to (C) 24 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 1084 P.S.I.  
Final Flow Period..... Minutes 45 (E) 25 P.S.I. to (F) 43 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 1046 P.S.I.  
Final Hydrostatic Pressure..... (H) 2107 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.

# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE \* 3-31 DARREL

FIELD LUNDGREN

LOCATION 600' FSL & 1200' FWL

SEC 31 TWP 19s RGE 29w

COUNTY GOVE STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 2-7-15 COMP 2-19-15

RTD 4462 LTD 4468

MUD UP 3414 TYPE MUD CHEMICAL

ELEVATIONS

KB 2699

DF \_\_\_\_\_

CL 2694

Measurements Are All From 2699 KB

CASING

SURFACE 8 5/8 @ 288'

PRODUCTION 5 1/2" @

ELECTRICAL SURVEYS

DUAL IND., DENS., N., MICRO

SAMPLES SAVED FROM 3500 TO 4462

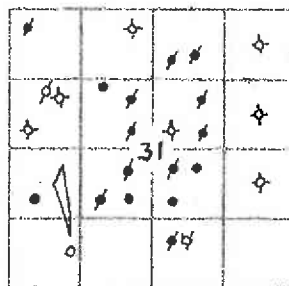
DRILLING TIME KEPT FROM 3200 TO 4462

SAMPLES EXAMINED FROM 3500 TO 4462

GEOLOGICAL SUPERVISION FROM 3600 TO 4462

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2098+601	2097+602
B/ANH.	2128+571	2128+571
STOTLER	3336-639	3332-633
HEEBNER	3708-1009	3702-1003
LANSING	3744-1045	3738-1039
STARK	3991-1292	3986-1287
MARMATON	4090-1391	4083-1384
FORT SCOTT	4244-1545	4236-1537
CHEROKEE	4272-1573	4264-1565
MISS. SPERGEN	4562-1663	4357-1668



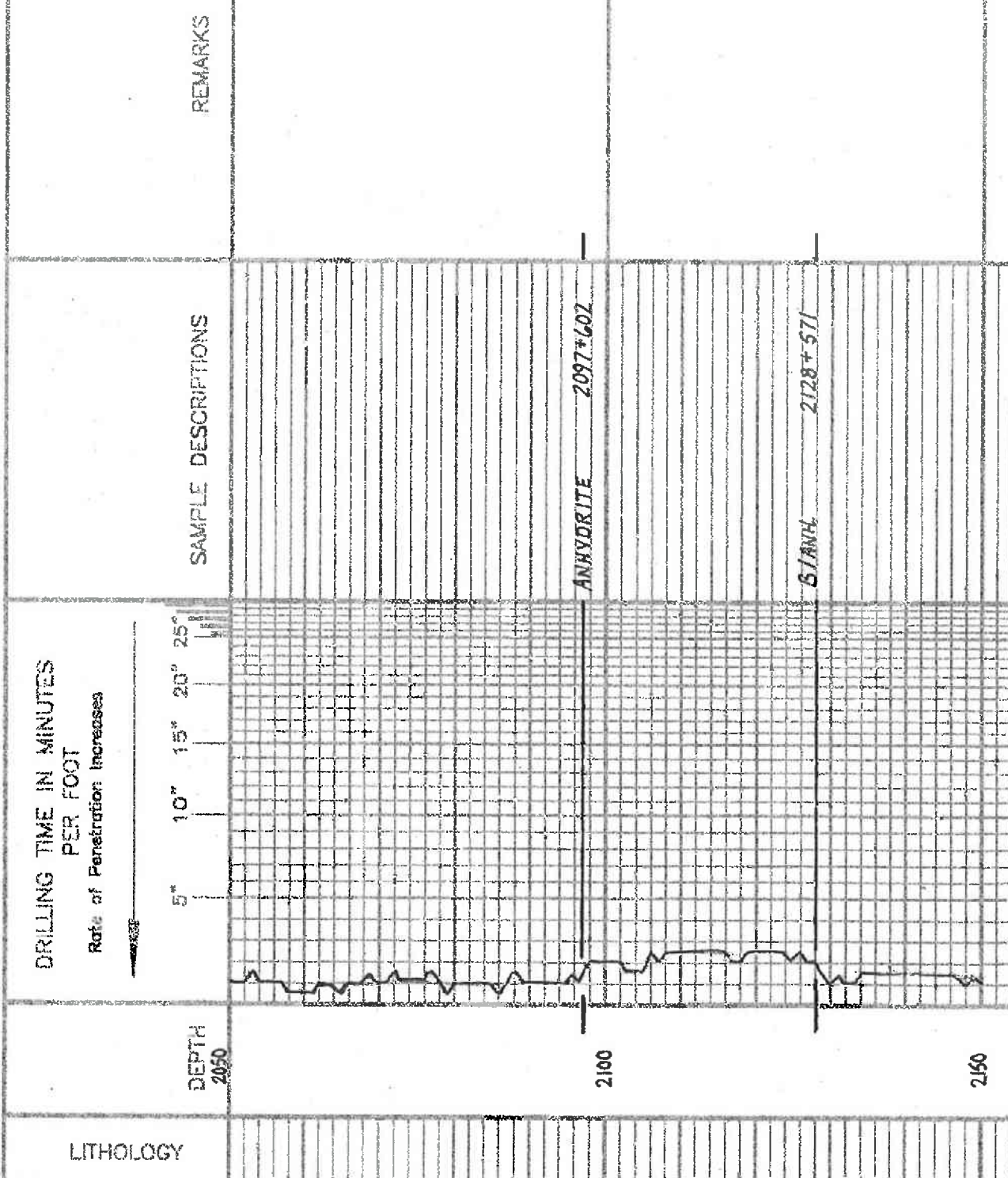
REMARKS  
 2-7-15 5800  
 2-8 @ 291'  
 2-9 @ 1630'  
 2-10 @ 2700'  
 2-11 @ 3350'  
 2-12 @ 3750'  
 2-13 @ 3780'  
 2-14 @ 3886'  
 2-15 @ 4035'  
 2-16 @ 4200'  
 2-17 @ 4330'  
 2-18 @ 4376'  
 2-19 @ 4462'

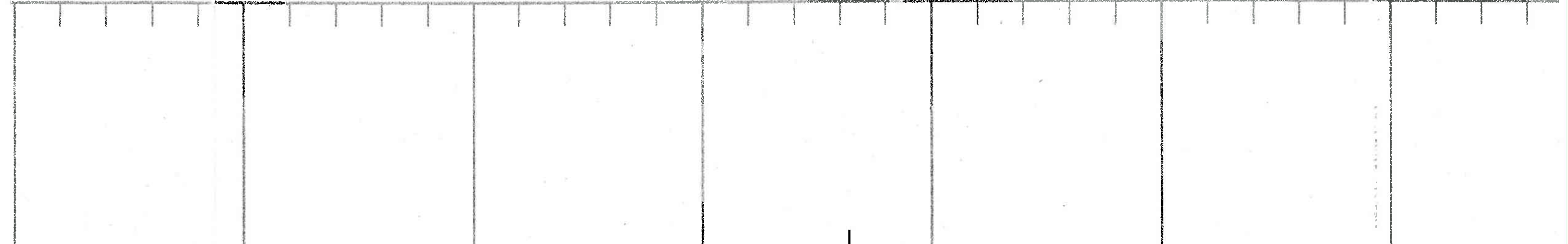
API: 15-063-22247

### LEGEND

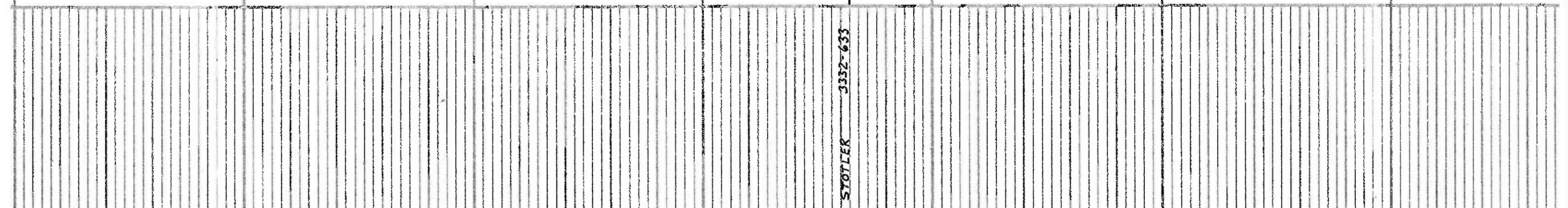
- Anhydrite
- Salt
- Sandstone
- Shale
- Carb. sh.
- Limestone
- Ool. Lime
- Chert
- Dolomite

SHOEF01-11

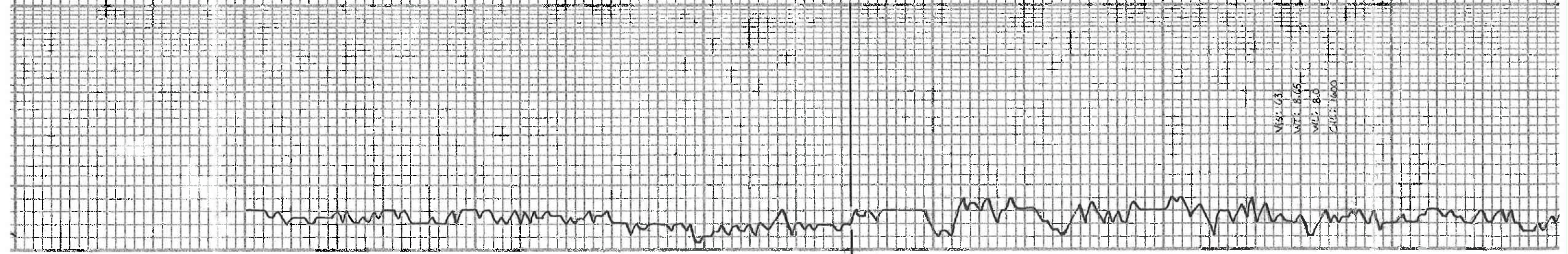




STOTLER 3352-633



NR: 103  
WT: 8.05  
ML: 18.0  
CL: 1600



2150

3200

3300

3400



3500

3600

3700

3800

Samples are logged

LS. Tan. calc. lime.

Sh. gy silty

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

Sh. gy

LS. Tan. calc. lime.

Sh. gy

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

LS. Tan. calc. lime.

HEERLEN 3702-1003

DST (1) 3701-3750

1st OPEN: Blow built to 11"

2nd OPEN: " " 1/4"

30-30-30-30

Rec. 10' Visocam (11.01.99/M)

FP: 8-11-17#

SP: 900-846#

Temp. 112°F

Tool Sample: 27-01-1987/Mud

LS. Tan. calc. lime. No. 1003  
A. Wil.  
Sh. gy  
LS. Tan. calc. lime. No. 1039

TORONTO

VIS: 46

WT: 91

WLL: 72

CHL: 900

VIS: 56

WT: 91

WLL: 72

CHL: 2000

DST (2) 3760-3780

1st OPEN: Blow built to 16 M/L

2nd OPEN: " " 14"

30-45-45-60

Rec. 389 G.I.B.

15' CO 36-34m

7' AWG (95/01 51/M)

78' 5MGWO (65/01 15/16 18/16 18/16 18/16)

48' 0GMW (107/01 50/16 40/16)

TF: 178

FP: 10-44

SP: 634-629#

Temp. 121°F

Tool Sample: 337-011-181/M. 207/Mud

DST (3) 3781-3830

1st OPEN: Blow built to 5"

2nd OPEN: " " 5"

30-45-45-60

Rec. 20' Mtr.

116' Visocam (11.01.99/M)

10' Mtr (35/16 55/16)

TF: 146'

AV: 28 @ 570'

DST

(1)

(2)

(3)

DST

(2)

(3)









**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 11502 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>02-19-15</b> DISTRICT <b>PRATT, KS</b>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER <b>L.D. DeHoff</b>		LEASE <b>DARREL</b>		WELL NO. <b>3-31</b>					
ADDRESS		COUNTY <b>GOVE</b>		STATE <b>KS</b>					
CITY STATE		SERVICE CREW <b>Sullivan, Egging, Phye, G. Secor</b>							
AUTHORIZED BY		JOB TYPE: <b>cow 5 1/2 long string</b>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	ARR PM	TIME
							<b>02-19-15</b>		<b>4:00</b>
<b>20920</b>	<b>90 m</b>					ARRIVED AT JOB		<b>9:00</b>	
<b>19860</b>	<b>20 m</b>					START OPERATION		<b>11:35</b>	
<b>19918</b>	<b>35 m</b>					FINISH OPERATION		<b>1:30</b>	
						RELEASED		<b>2:00</b>	
						MILES FROM STATION TO WELL			<b>100</b>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *Paul W. Wink*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 105	AA-2 cmt	SK	175		2,975 00
CP 101	A-600 cmt	SK	300		5,400 00
CP 103	60/40 Puz-cmt	SK	30		360 00
CC 102	Cell/FAKE	lb	119		440 30
CC 109	CALCUM chloride	lb	846		888 30
CC 111	SALT	lb	954		477 00
CC 113	Gypsum	lb	825		618 75
CC 129	FKA-322	lb	132		990 00
CC 201	Gilsant	lb	1050		703 50
CF 401	Two stage cmt collar 5 1/2	SA	1		6,100 00
CF 601	Lock Down Plug & Baffle	SA	1		850 00
CF 1251	Auto Fill Valve Shoe	SA	1		360 00
CF 1651	Turbidometer	SA	7		770 00
CF 1901	BASKET	SA	1		290 00
CC 151	mud Wash	gal	11000		15000 00
SUB TOTAL					

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

TOTAL  
*Wink*

SERVICE REPRESENTATIVE <i>Robert Sullivan</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>Paul W. Wink</i> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
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FIELD SERVICE ORDER NO.



# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer <b>L.O. Drilling</b>	Lease No.	Date <b>02-19-15</b>
Lease <b>DARREL</b>	Well # <b>3-31</b>	
Field Order # <b>11502</b>	Station <b>Pratt KS</b>	Casing <b>5 1/2</b>
	Depth <b>4460'</b>	County <b>GOVE</b>
Type Job <b>CNW Two Stage Long String</b>	Formation	Legal Description <b>31-14-29</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<b>5 1/2</b>	<b>DV Tool</b>							
Depth <b>4460</b>	Depth <b>2125</b>	From	To	Pre Pad	Max		5 Min.	
Volume <b>105.8</b>	Volume <b>50.5</b>	From	To	Pad	Min		10 Min.	
Max Press <b>2,000</b>	Max Press <b>1,300</b>	From	To	Frac	Avg		15 Min.	
Well Connection <b>P.C</b>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <b>4460'</b>	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative	Station Manager <b>DAVE SCOTT</b>	Treater <b>Robert Sullivan</b>
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Service Units	<b>37900</b>	<b>33708</b>	<b>20920</b>	<b>19903</b>	<b>19860</b>	<b>19959</b>	<b>19918</b>				
Driver Names	<b>Sullivan</b>	<b>Egan</b>		<b>D. Began</b>	<b>Phye</b>						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<b>9:00</b>					<b>BOTTOM STAGE ON LOC</b>
					<b>Run 108 str 5 1/2 15.5 esp, 4455' 79</b>
					<b>with L.S. 4460'</b>
					<b>Float shoe AND Latch down in shoe st.</b>
					<b>cont 1, 3, 5, 7, 9, 11, 55 15Agl'd Bottom SG</b>
					<b>@ 2125' DV. Tool</b>
<b>10:10</b>					<b>CASING ON BOTTOM</b>
<b>10:20</b>					<b>Hook by circ.</b>
<b>11:35</b>			<b>12</b>	<b>3.5</b>	<b>st mud flask</b>
			<b>5</b>		<b>st SPACER</b>
				<b>4.5</b>	<b>mix cont: 175 sk AA-2</b>
			<b>48</b>		<b>cont mixed shut down, wash pump, LWS</b>
					<b>DROP Plug</b>
			<b>60</b>	<b>6</b>	<b>st Disp w/ #20</b>
					<b>st mud Disp</b>
	<b>200</b>				<b>Lift Ps'</b>
				<b>4</b>	<b>Slow Rate</b>
<b>12:20</b>	<b>1,800</b>		<b>105. 1/2</b>		<b>Plug down</b>
					<b>Release Ps' AND DROP DV OPEN Tool</b>
<b>12:38</b>	<b>750</b>				<b>OPEN DV TOOL</b>
					<b>Ri Circ.</b>

# BASIC

energy services, L.P.

## TREATMENT REPORT

TOP STAGE

Customer <i>L.D. Drilling</i>	Lease No.	Date <i>02-19-15</i>	
Lease <i>DARREL</i>	Well # <i>3-31</i>		
Field Order # <i>11502</i>	Station <i>PRATT KS</i>	Casing <i>5 1/2</i>	Depth <i>2125'</i>
Type Job <i>CNW 5 1/2 long string</i>	Formation	County <i>DOUG</i>	State <i>KS</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <i>5 1/2</i>	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth <i>2125</i>	Depth	From	To	Pre Pad		Max		5 Min.
Volume <i>50.5</i>	Volume	From	To	Pad		Min		10 Min.
Max Press <i>1300</i>	Max Press	From	To	Frac		Avg		15 Min.
Well Connection <i>P.C.</i>	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth <i>2125</i>	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative	Station Manager <i>DAVE SOUTT</i>	Treater <i>Robert Sullivan</i>
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Service Units									
Driver Names									

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					<i>D.V. TOOL 2125'</i>
<i>12:50</i>			<i>12</i>	<i>3.5</i>	<i>St mud flush</i>
			<i>5</i>		<i>St SPACER</i>
			<i>4.5</i>		<i>mix cement 300sk A-COM cement</i>
			<i>148</i>		<i>cmf mixed shut down wash, pump, lift</i>
					<i>Release Plug</i>
				<i>5</i>	<i>St Deep</i>
	<i>350</i>				<i>Lift</i>
				<i>3.5</i>	<i>Slow Rate</i>
<i>1:30</i>	<i>1850</i>		<i>50.5</i>		<i>plug down</i>
					<i>Psi up close DV Tool</i>
					<i>Release and check close circle 300Bbl P.D. cement</i>
			<i>2</i>		<i>Plug RT w/ 300sk 60/40/100</i>
					<i>300 complete</i>
					<i>Thank you</i>

**L. D. DRILLING, INC.**

7 SW 26th Avenue  
GREAT BEND, KS 67530

TD-4462  
LTD-4468

Customer L.D. Drilling Order \_\_\_\_\_

Lease Darrel Date 2-15-15

Description of Pipe Used 5 1/2

Amount 4580.81

Jts.	Ft.	Ins.	Ft.	Ins.	Ft.	Ins.	Ft.	Ins.	Ft.	Ins.
1	40	95	40	97	43	12	41	15		
2	41	01	41	07	36	84	41	54		
3	41	11	41	16	43	02	41	13		
4	40	96	41	14	43	20	41	06		
5	41	50	41	06	43	11	41	12		
6	41	06	41	34	43	21	40	35		
7	41	55	41	14	43	18	41	50		
8	41	05	41	08	43	21	41	10		
9	41	11	41	09	43	12	40	36		
10	41	18	41	00	43	12	43	16		
11	40	85	40	09	43	10	43	16		
12	40	80	40	89	43	08	40	68		
13	41	16	41	10	43	02	41	06		
14	40	95	41	02	43	14	43	18		
15	41	54	41	10	43	20	43	18		
16	40	92	40	97	43	11	40	69	OUT	
17	41	07	40	95	43	10	43	15		
18	43	32	41	47	43	10	43	15	OUT	
19	41	06	41	09	43	19	43	18	OUT	
20	41	09	41	11	43	26	14	57	-LAST	
21	41	21	41	08	43	11	14	54	-SHEET	
22	43	22	41	62	43	12				
23	40	96	43	05	43	19				
24	40	89	43	26	43	09				
25	41	05	43	05	41	08				
26	43	12	41	55	43	10				
27	41	11	43	21	37	62				
28	41	10	43	05	40	86				
29	41	21	43	13	43	25				
30	41	00	43	12	40	86				
Total	1239	11	1246	94	1271	71	823	05		

TOTAL PIECES \_\_\_\_\_ LENGTH \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_

RECEIVED BY \_\_\_\_\_ TALLIED BY \_\_\_\_\_



# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer <i>LD Drilling</i>	Lease No.	Date <i>2/8/15</i>
Lease <i>Darrel</i>	Well # <i>3-310</i>	
Field Order # <i>12116A</i>	Station <i>Pratt KS</i>	Casing <i>8 5/8</i>
Type Job <i>8 5/8 Surface Pipe</i>	Depth <i>288'</i>	County <i>Grove</i>
	Formation <i>UNW</i>	State <i>KS</i>
		Legal Description <i>31-14-29</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>8 5/8</i>				Pre Pad	Max		5 Min.	
Depth <i>288</i>	Depth	From	To	Pad	Min		10 Min.	
Volume <i>18.475</i>	Volume	From	To	Frac	Avg		15 Min.	
Max Press <i>300</i>	Max Press	From	To		iHP Used		Annulus Pressure	
Well Connection <i>8 5/8</i>	Annulus Vol.	From	To	Flush	Gas Volume		Total Load	
Plug Depth	Packer Depth	From	To					

Customer Representative \_\_\_\_\_ Station Manager *Kevin Goodley* Treater *Scott Graves*

Service Units	<i>38970</i>	<i>14626</i>	<i>77486</i>					
Driver Names	<i>Scott</i>	<i>Riley</i>	<i>Mike</i>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>10:30</i>					<i>On Location Safety Meeting Rig up</i>
<i>12:55</i>					<i>Circulate on bottom</i>
<i>1:11</i>	<i>100</i>			<i>4.7</i>	<i>Pump H2O Spacer</i>
<i>1:13</i>	<i>100</i>		<i>5</i>	<i>4.9</i>	<i>Start Mixing 60/40 POC at 14.8ppg</i>
<i>1:24</i>	<i>200</i>		<i>53</i>	<i>5.8</i>	<i>Circulated Cement to Surface</i>
<i>1:25</i>	<i>150</i>		<i>6.25</i>	<i>3.5</i>	<i>Start Displacement</i>
<i>1:28</i>	<i>200</i>		<i>8</i>	<i>5.3</i>	<i>Increase Rate</i>
<i>1:30</i>	<i>175</i>		<i>4</i>		<i>Displacement Complete</i>
					<i>Shut Down</i>
					<i>Job Complete</i>
					<i>Calc 10661 Cement to PSD</i>