



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1281693  
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: \_\_\_\_\_

1281693

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	YORK 31 D 1
Doc ID	1281693

Tops

Name	Top	Datum
ANHYDRITE	2187	+571
BASE ANHYDRITE	2217	+541
STOTLER	3417	-659
HEEBNER	3794	-1036
LANSING	3836	-1078
STARK	4100	-1342
MARMATON	4208	-1450
FORT SCOTT	4353	-1595
CHEROKEE	4378	-1620
MISSISSIPPI	4496	-1738





Customer <i>LD Drilling, Inc.</i>	Lease No.	Date <i>1/8/2016</i>	
Lease <i>York 31-D</i>	Well # <i>1</i>		
Field Order # <i>12591</i>	Station <i>Pratt, KS</i>	Casing Drill <i>4 1/2 Pipe</i>	Depth <i>2205</i>
Type Job <i>CNV/PTA</i>	Formation	County <i>Gove</i>	State <i>KS</i>
Legal Description			

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>4 1/2</i>	<i>Drill Pipe</i>			Pre Pad	Max		5 Min.	
Depth <i>2205</i>	Depth <i>2205</i>	From	To	Pad	Min		10 Min.	
Volume <i>31</i>	Volume <i>31</i>	From	To	Frac	Avg		15 Min.	
Max Press	Max Press	From	To		HHP Used		Annulus Pressure	
Well Connection	Annulus Vol.	From	To	Flush <i>Freshwater/mud</i>	Gas Volume		Total Load	
Plug Depth	Packer Depth	From	To					

Customer Representative <i>Rick</i>	Station Manager <i>Kevin Gordley</i>	Treater <i>Derin Franklin</i>
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Service Units	<i>92911</i>	<i>84981</i>	<i>19843</i>	<i>19959</i>	<i>21010</i>				
Driver Names	<i>Derin</i>	<i>ED</i>	<i>ED</i>	<i>McGrew</i>	<i>McGrew</i>				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>11:30 am</i>					<i>on location / safety meeting</i>
					<i>60/40 P02 4% Gel</i>
					<i>2205' - 50SK</i>
<i>12:15 pm</i>	<i>200</i>		<i>8</i>	<i>4</i>	<i>8 water</i>
<i>1:00 pm</i>	<i>200</i>		<i>12</i>	<i>4</i>	<i>12 cement</i>
	<i>200</i>		<i>3</i>	<i>4</i>	<i>3 water</i>
	<i>200</i>		<i>25</i>	<i>4</i>	<i>25 mud</i>
	<i>200</i>				<i>1185' - 100 SK</i>
	<i>200</i>		<i>15</i>		<i>15 water</i>
	<i>200</i>		<i>25</i>		<i>25 cement</i>
	<i>200</i>		<i>7</i>		<i>7 water</i>
					<i>400' - 50SK</i>
	<i>100</i>		<i>3</i>		<i>3 water</i>
	<i>100</i>		<i>12</i>		<i>12 cement</i>
	<i>100</i>		<i>1</i>		<i>1 water</i>
					<i>40' - 10SK</i>
	<i>50</i>		<i>25</i>		<i>25 cement</i>
					<i>12H - 30SK</i>
<i>4:30 pm</i>	<i>50</i>		<i>7</i>		<i>7 - cement</i>





Customer <i>L.D. Drilling Inc</i>	Lease No.	Date <i>1/10/16</i>
Lease <i>York</i>	Well # <i>25C 1</i>	
Field Order # <i>R2648A</i>	Station <i>Pratt KS</i>	Casing <i>8 5/8</i>
Type Job <i>8 5/8 Surface Pipe cna</i>	Depth <i>547</i>	County <i>Greene</i>
	Formation	State <i>KS</i>
		Legal Description <i>25-15-31</i>

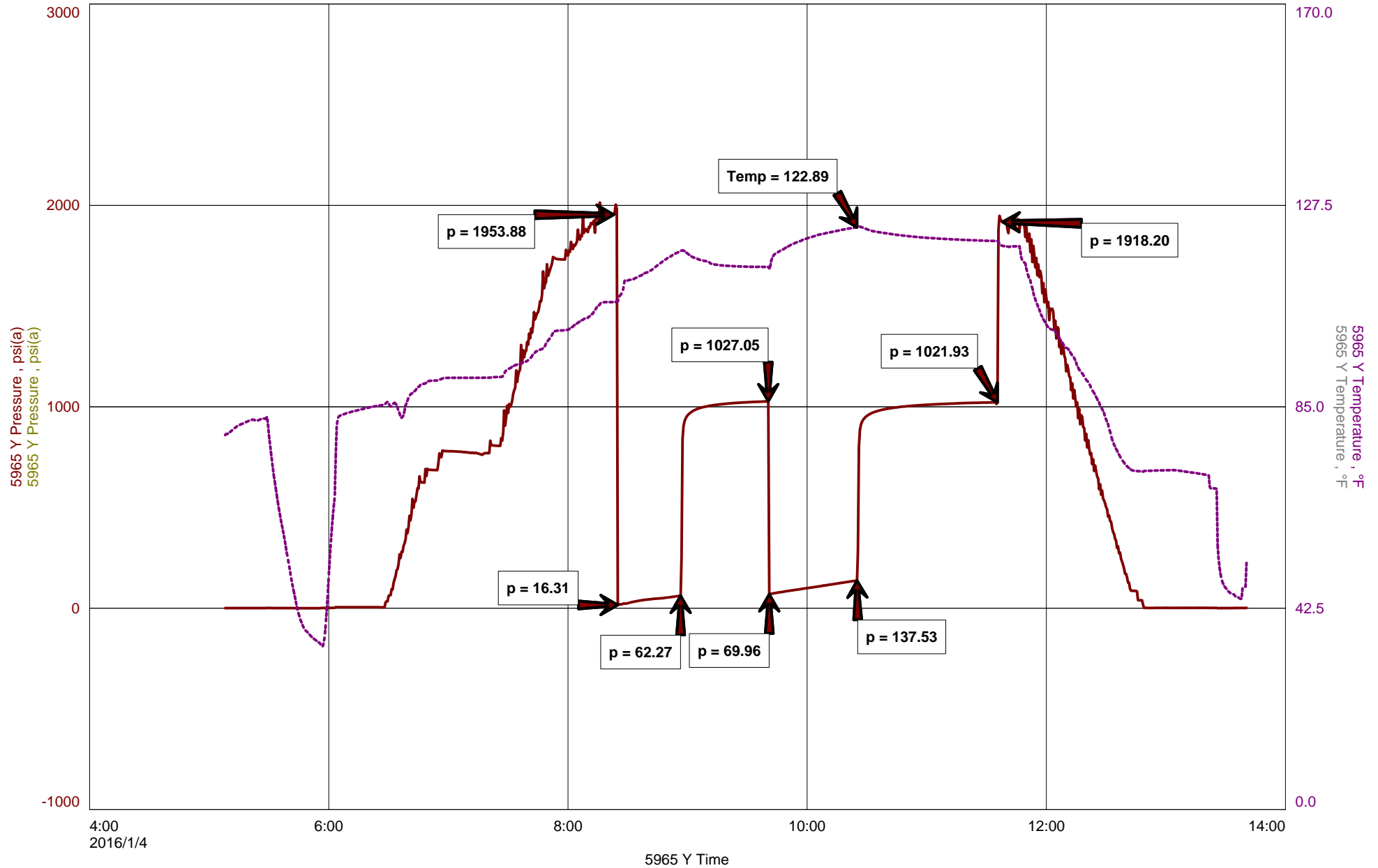
PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size <i>8 5/8</i>	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth <i>547</i>	Depth	From	To	Pre Pad	Max		5 Min.
Volume <i>22.34</i>	Volume	From	To	Pad	Min		10 Min.
Max Press <i>500</i>	Max Press	From	To	Frac	Avg		15 Min.
Well Connection <i>8 5/8</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative <i>Rich</i>	Station Manager <i>Kevin Gowdley</i>	Treater <i>Scott Groves</i>
Service Units <i>20752 27463 19826 19918</i>		
Driver Names <i>Scott Mike — Shawn</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>5:00</i>					<i>On Location Safety Meeting.</i>
<i>9:15</i>					<i>Back Circulation</i>
<i>9:28</i>	<i>150</i>			<i>5</i>	<i>Pump - H<sub>2</sub>O 3pump</i>
<i>9:30</i>	<i>300</i>		<i>5</i>	<i>5.6</i>	<i>Mix 300 sks 60/40 P02/148</i>
<i>9:42</i>	<i>300</i>		<i>61</i>	<i>5.2</i>	<i>Cement circulated to surface</i>
<i>9:44</i>	<i>250</i>		<i>3.7</i>	<i>5.3</i>	<i>Start Displacement</i>
<i>9:50</i>	<i>200</i>		<i>18</i>		<i>Shut down disp complete</i>
					<i>Job Complete</i>
					<i>Circulated 27 bbls cement to surface</i>



# #1 York 31 D DST 1





# Diamond Testing General Report

**Wilbur Steinbeck**  
**TESTER**  
**CELL: 620-282-1573**

## General Information

<b>Company Name</b>	LD Drilling	<b>Kim Shoemaker</b>	<b>Job Number</b>	W224
<b>Contact</b>		<b>#1 York 31 D DST 1</b>	<b>Representative</b>	Wilbur Steinbeck
<b>Well Name</b>		<b>DST 1 L/KC J 4064-4090</b>	<b>Well Operator</b>	LD 1
<b>Unique Well ID</b>		<b>31-15s-30w /Kans</b>	<b>Report Date</b>	2016/01/04
<b>Surface Location</b>		<b>Wildcat</b>	<b>Prepared By</b>	Wilbur Steinbeck
<b>Field</b>			<b>Qualified By</b>	Kim Shoemaker

## Test Information

<b>Test Type</b>	Conventional		
<b>Formation</b>	L/KC J		
<b>Well Fluid Type</b>	01 Oil		
<b>Test Purpose (AEUB)</b>	Initial Test		
<b>Start Test Date</b>	2016/01/04	<b>Start Test Time</b>	05:08:00
<b>Final Test Date</b>	2016/01/04	<b>Final Test Time</b>	13:41:00

## Test Recovery

**Recovery**  
270' MCW with Slight oil spots 15%M 85%W  
270' Total Fluid

Tool Sample=MCW 20%M 80%W

RW=48



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

TIME ON: 5:08  
TIME OFF: 13:41

Company LD Drilling Lease & Well No. #1 York 31 D  
Contractor LD Charge to LD  
Elevation 2758 KB Formation L/KC J Effective Pay \_\_\_\_\_ Ft. Ticket No. W224  
Date 1-4-16 Sec. 31 Twp. \_\_\_\_\_ 15 S Range \_\_\_\_\_ 30 W County \_\_\_\_\_ State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Wilbur Steinbeck

Formation Test No. 1 Interval Tested from 4064 ft. to 4090 ft. Total Depth 4090 ft.  
Packer Depth 4059 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4064 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 4050 ft. Recorder Number 5965 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4065 ft. Recorder Number 5587 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 59 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 8.8 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2000 P.P.M. Drill Pipe Length 4031 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? Yes Reversed Out No Anchor Length 26 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: BOB in 25 min No Return  
2nd Open: BOB in 37 min No Return

Recovered 270 ft. of MCW with slight oil spot 15%M 85%W  
Recovered 270 ft. of Total Fluid  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of 60 Miles RT Price Job \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_ Other Charges \_\_\_\_\_  
Remarks: Tool Sample=MCW 20%M 80%W Insurance \_\_\_\_\_  
RW=48,000 Total \_\_\_\_\_

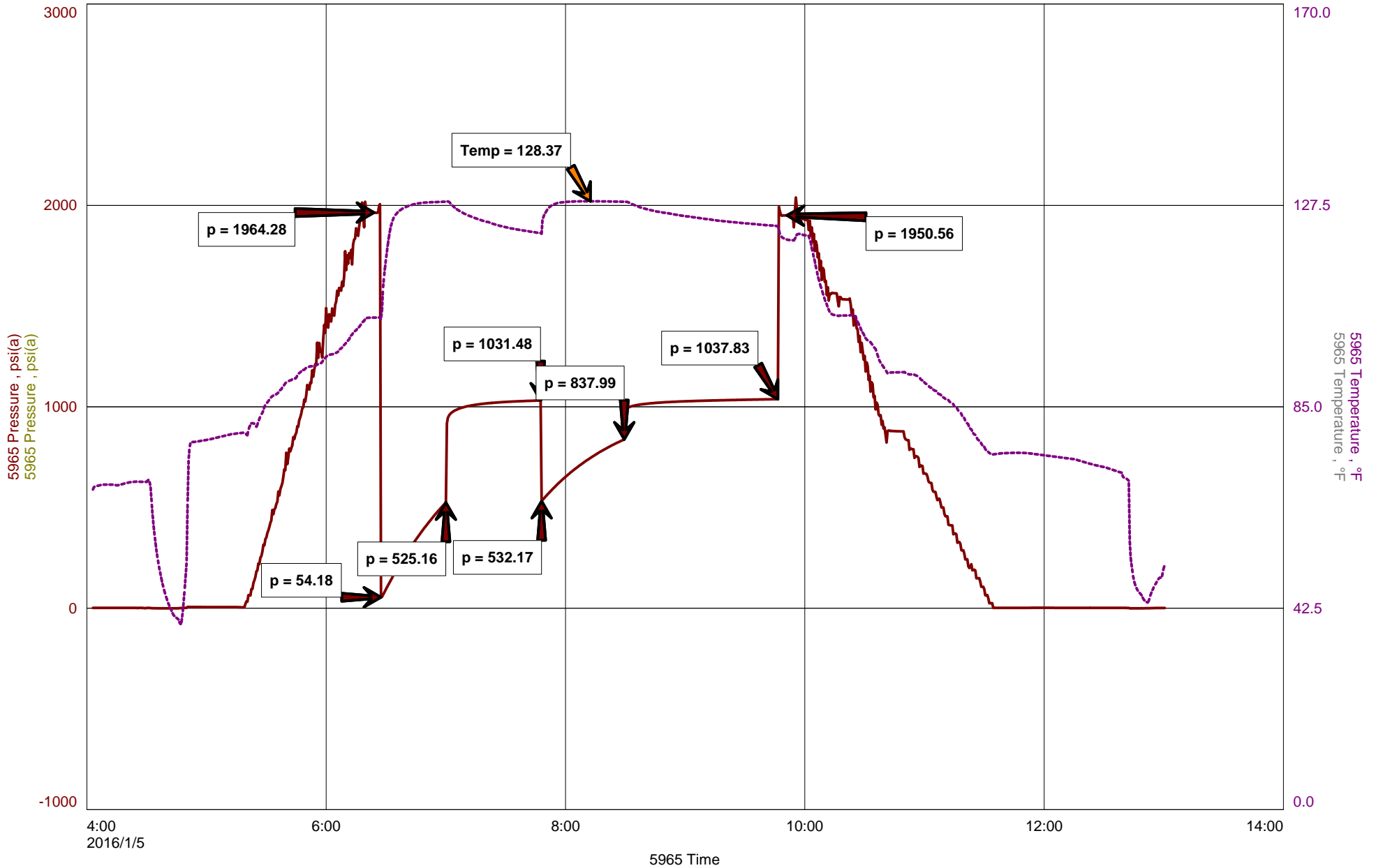
Time Set Packer(s) 8:25 A.M. P.M. Time Started Off Bottom 11:25 A.M. P.M. Maximum Temperature 123  
Initial Hydrostatic Pressure..... (A) 1954 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 16 P.S.I. to (C) 62 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 1027 P.S.I.  
Final Flow Period..... Minutes 45 (E) 70 P.S.I. to (F) 138 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 1022 P.S.I.  
Final Hydrostatic Pressure..... (H) 1918 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.

LD Drilling  
DST 2 L/KC K 4098-4120  
Start Test Date: 2016/01/05  
Final Test Date: 2016/01/05

#1 York 31 D DST 2  
Formation: L/KC K  
Job Number: W225

# #1 York 31 D DST 2







# Diamond Testing General Report

**Wilbur Steinbeck**  
**TESTER**  
**CELL: 620-282-1573**

## General Information

<b>Company Name</b>	LD Drilling	<b>Job Number</b>	W225
<b>Contact</b>	Kim Shoemaker	<b>Representative</b>	Wilbur Steinbeck
<b>Well Name</b>	#1 York 31 D DST 2	<b>Well Operator</b>	LD 1
<b>Unique Well ID</b>	DST 2 L/KC K 4098-4120	<b>Report Date</b>	2016/01/05
<b>Surface Location</b>	31-15s-30w /Kans	<b>Prepared By</b>	Wilbur Steinbeck
<b>Field</b>	Wildcat	<b>Qualified By</b>	Kim Shoemaker

## Test Information

<b>Test Type</b>	Conventional		
<b>Formation</b>	L/KC K		
<b>Well Fluid Type</b>	01 Oil		
<b>Test Purpose (AEUB)</b>	Initial Test		
<b>Start Test Date</b>	2016/01/05	<b>Start Test Time</b>	04:03:00
<b>Final Test Date</b>	2016/01/05	<b>Final Test Time</b>	13:02:00

## Test Recovery

**Recovery**  
1760' MCW 10%M 90%W  
1760' Total Fluid

Tool Sample=MCW 10%M 90%W

RW=52



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

TIME ON: 4:03  
TIME OFF: 13:02

Company LD Drilling Lease & Well No. #1 York 31 D  
Contractor LD Charge to LD  
Elevation 2758 KB Formation L/KC K Effective Pay \_\_\_\_\_ Ft. Ticket No. W225  
Date 1-5-16 Sec. 31 Twp. \_\_\_\_\_ 15 S Range \_\_\_\_\_ 30 W County \_\_\_\_\_ State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Wilbur Steinbeck

Formation Test No. 2 Interval Tested from 4098 ft. to 4120 ft. Total Depth 4120 ft.

Packer Depth 4098 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 4093 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 4084 ft. Recorder Number 5965 Cap. 5000 P.S.I.

Bottom Recorder Depth (Outside) 4099 ft. Recorder Number 5587 Cap. 5,000 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 4065 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? Yes Reversed Out No Anchor Length 22 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: BOB in 3 min No Return

2nd Open: BOB in 4 min No Return

Recovered 1760 ft. of MCW 10%M 90%W

Recovered 1760 ft. of Total Fluid

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

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

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_ 60 Miles RT

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

Remarks: Tool Sample=MCW 10%M 90%W

RW=52,000

Time Set Packer(s) 6:25 A.M. P.M. Time Started Off Bottom 9:25 A.M. P.M. Maximum Temperature 128

Initial Hydrostatic Pressure..... (A) 1964 P.S.I.

Initial Flow Period..... Minutes 30 (B) 54 P.S.I. to (C) 525 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1031 P.S.I.

Final Flow Period..... Minutes 45 (E) 532 P.S.I. to (F) 838 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1038 P.S.I.

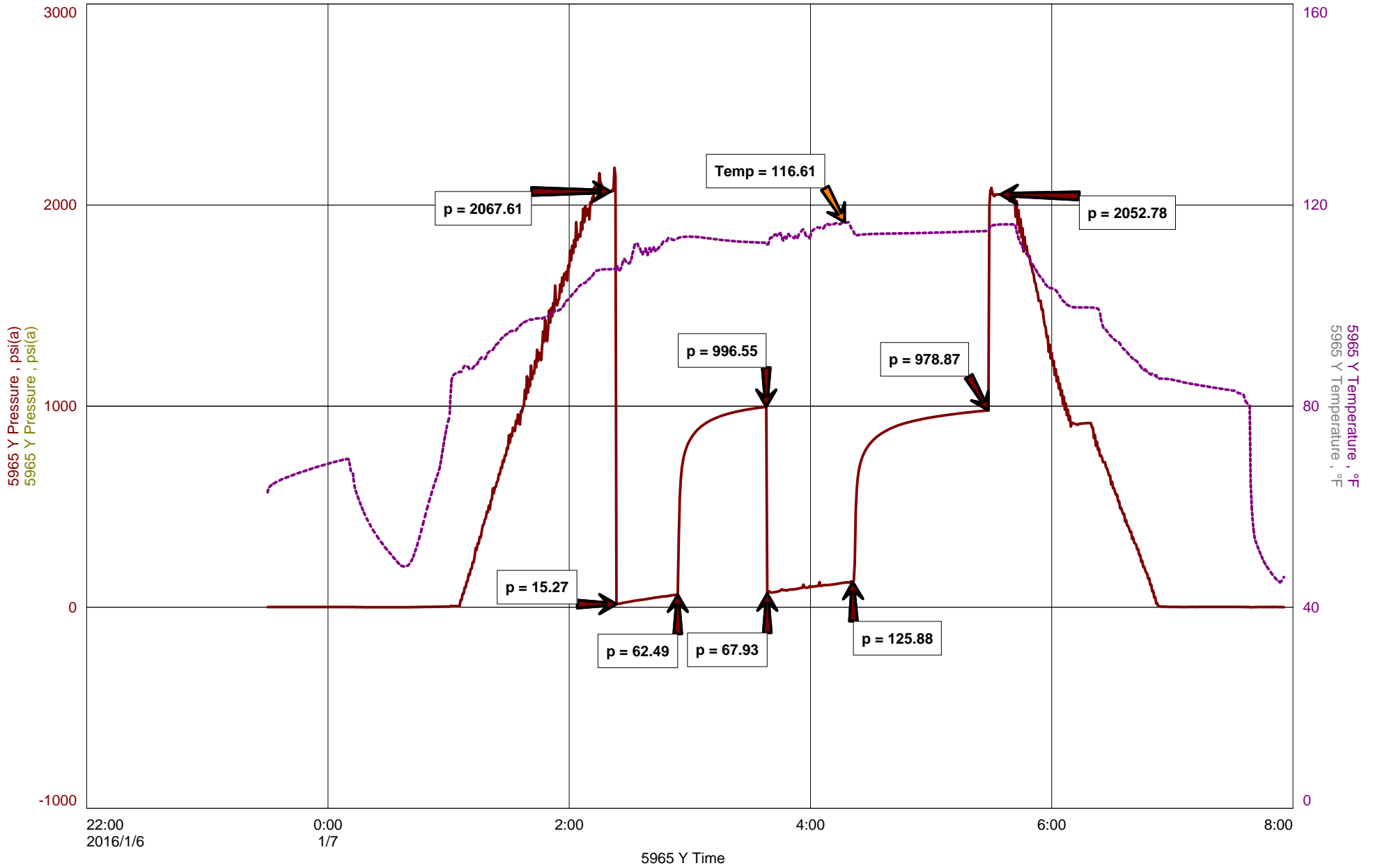
Final Hydrostatic Pressure..... (H) 1951 P.S.I.

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LD Drilling  
DST 3 Paw/Johnson 44294-4450  
Start Test Date: 2016/01/06  
Final Test Date: 2016/01/07

#1 York 31 D DST 3  
Formation: Paw/Johnson  
Job Number: W226

# #1 York 31 D DST 3





# Diamond Testing General Report

**Wilbur Steinbeck**  
**TESTER**  
**CELL: 620-282-1573**

## General Information

<b>Company Name</b>	LD Drilling	<b>Kim Shoemaker</b>	<b>Job Number</b>	W226
<b>Contact</b>		<b>#1 York 31 D DST 3</b>	<b>Representative</b>	Wilbur Steinbeck
<b>Well Name</b>		<b>DST 3 Paw/Johnson 44294-4450</b>	<b>Well Operator</b>	LD 1
<b>Unique Well ID</b>		<b>31-15s-30w /Kans</b>	<b>Report Date</b>	2016/01/06
<b>Surface Location</b>		<b>Wildcat</b>	<b>Prepared By</b>	Wilbur Steinbeck
<b>Field</b>			<b>Qualified By</b>	Kim Shoemaker

## Test Information

<b>Test Type</b>	Conventional		
<b>Formation</b>	Paw/Johnson		
<b>Well Fluid Type</b>	01 Oil		
<b>Test Purpose (AEUB)</b>	Initial Test		
<b>Start Test Date</b>	2016/01/06	<b>Start Test Time</b>	23:30:00
<b>Final Test Date</b>	2016/01/07	<b>Final Test Time</b>	07:55:00

## Test Recovery

**Recovery**

210' Mud  
210' Total Fluid

Tool Sample=Mud





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

TIME ON: 23:30  
TIME OFF: 7:55

Company LD Drilling Lease & Well No. #1 York 31 D  
Contractor LD Charge to LD  
Elevation 2758 KB Formation Paw/Johnson Effective Pay \_\_\_\_\_ Ft. Ticket No. W226  
Date 1-6-16 Sec. 31 Twp. \_\_\_\_\_ 15 S Range \_\_\_\_\_ 30 W County \_\_\_\_\_ State KANSAS  
Test Approved By Kim Shoemaker Diamond Representative Wilbur Steinbeck

Formation Test No. 3 Interval Tested from 4294 ft. to 4450 ft. Total Depth 4450 ft.  
Packer Depth 4289 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4294 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 4280 ft. Recorder Number 5965 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4295 ft. Recorder Number 5587 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Mud Type Chem Viscosity 55 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.1 Water Loss 7.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 3000 P.P.M. Drill Pipe Length 4261 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? Yes Reversed Out No Anchor Length 156 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: BOB in 27 min No Return  
2nd Open: BOB in 40 min No Return

Recovered 210 ft. of Mud  
Recovered 210 ft. of Total Fluid  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of _____	60 Miles RT	Price Job
Recovered _____ ft. of _____		Other Charges
Remarks: <u>Tool Sample=Mud</u>		Insurance
		Total

Time Set Packer(s) 2:25 A.M. P.M. Time Started Off Bottom 5:25 A.M. P.M. Maximum Temperature 117  
Initial Hydrostatic Pressure..... (A) 2068 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 15 P.S.I. to (C) 62 P.S.I.  
Initial Closed In Period..... Minutes 45 (D) 997 P.S.I.  
Final Flow Period..... Minutes 45 (E) 68 P.S.I. to (F) 126 P.S.I.  
Final Closed In Period..... Minutes 60 (G) 979 P.S.I.  
Final Hydrostatic Pressure..... (H) 2053 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

316-884-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE \* 1 YORK 31 D

FIELD WILDCAT

LOCATION 1760' FSL 1/2 1610' FEL

SEC 31 TWP 15s RGE 30w

COUNTY Gove STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 12-29-15 COMP 1-8-16

RTD 4555 LTD 4557

MUD UP 3404 TYPE MUD CHEMICAL

ELEVATIONS

KB 2758

DF

GL 2753

Measurements Are All From 2758 KB

CASING

SURFACE 8 5/8" @ 348'

PRODUCTION

ELECTRICAL SURVEYS

Dual IND., DEN-S., Micro

SAMPLES SAVED FROM 3400 TO 4555

DRILLING TIME KEPT FROM 3300 TO 4555

SAMPLES EXAMINED FROM 3400 TO 4555

GEOLOGICAL SUPERVISION FROM 3500 TO 4555

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2187+ 571	2189+ 569
B/ANH.	2217+ 541	2220+ 538
STOTLER	3417- 659	3418- 660
HEEBNER	3794- 1036	3795- 1037
LANSING	3836- 1078	3833- 1075
STARK	4100- 1342	4100- 1342
MARMATON	4208- 1450	4205- 1447
FORT SCOTT	4353- 1595	4351- 1593
CHESSOKEE	4378- 1620	4377- 1619
MISSISSIPPI	4496- 1738	4495- 1737



REMARKS

12-29-15, SPUD  
12-30 @ 351'  
12-31 @ 1592'  
1-1 @ 2645'  
1-2 @ 3308'  
1-3 @ 3850'  
1-4 @ 4090'  
1-5 @ 4120'  
1-6 @ 4307'  
1-7 @ 4450'  
1-8 @ 4555'

API: 15-063-22280

### LEGEND

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

SHOED1-11

DRILLING TIME IN MINUTES  
PER FOOT

Rate of Penetration increases

DEPTH  
2150

5" 10" 15" 20" 25"

SAMPLE DESCRIPTIONS

REMARKS

ANHYDRITE 2187+ 569

B/ANH. 2220+ 538

2200

2250

LITHOLOGY



3300

3400

3500

Wt 9.6  
CAL 11500

Displaced @ 3400

Samples are logged

SCOTLER 3418-660

65-40-100

65-40-100

65-40-100

65-40-100

65-40-100

65-40-100

65-40-100

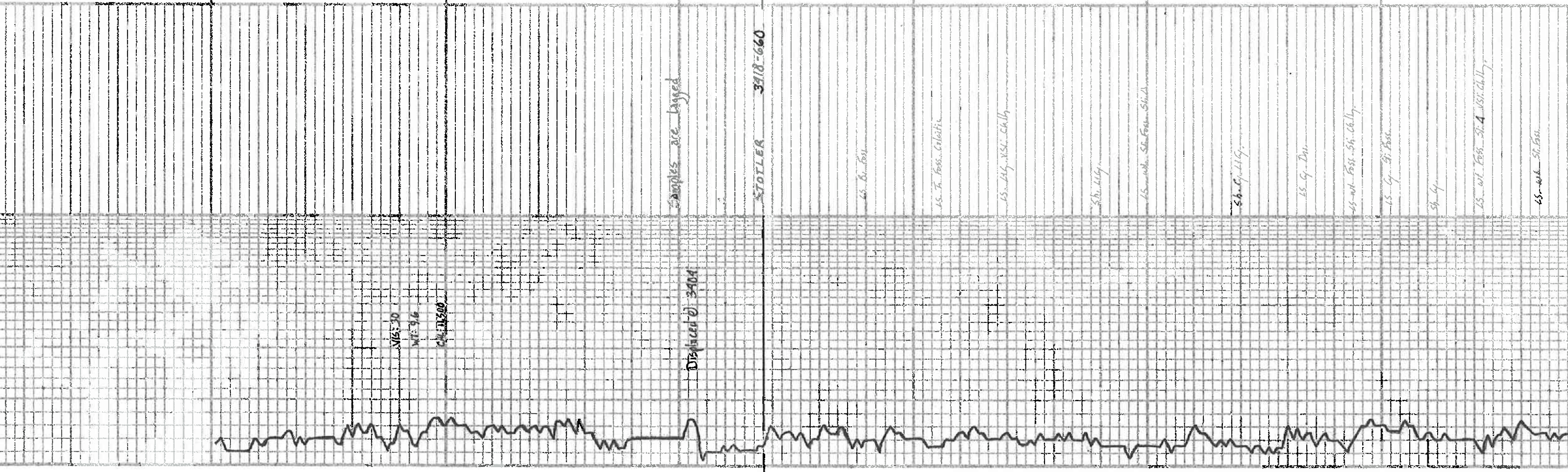
65-40-100

65-40-100

65-40-100

65-40-100

65-40-100



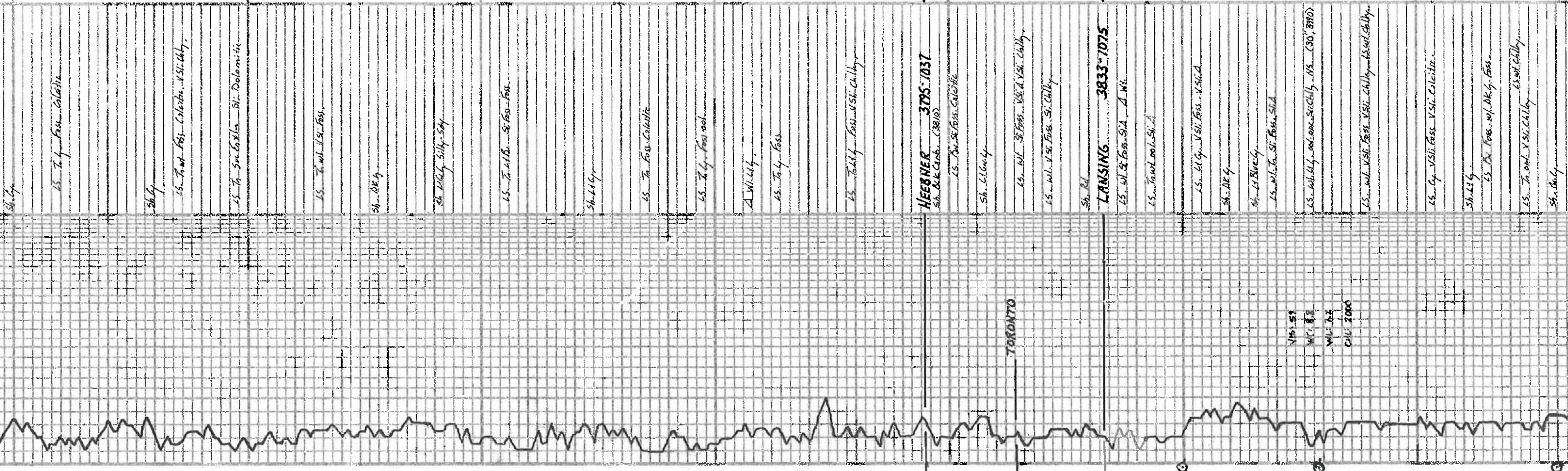


3600

3700

3800

3900



Sh. Chy

LS. T. y. Foss. Calatite

Sh. Chy

LS. T. w. Foss. Calatite. V. S. Chy.

LS. T. S. Calatite. S. Dolomite

LS. T. w. V. S. Foss.

Sh. DE. y

Sh. Chy. S. y. S. y.

LS. T. w. Foss. S. Foss.

Sh. Chy

LS. T. Foss. Calatite

LS. T. y. Foss. w. l.

A. W. Chy.

LS. T. y. Foss.

LS. T. Chy. Foss. V. S. Chy.

HEEBNER 3795-7037

Sh. DE. Chy. (3810)

LS. T. w. S. Foss. Calatite

TORONTO

LS. w. Foss. V. S. V. S. Chy.

LS. w. V. S. Foss. S. Chy.

Sh. Chy

LAUSING 3833-7075

LS. w. S. Foss. S. A. A. W.

LS. Foss. w. l. S. A.

LS. Chy. V. S. Foss. V. S. A.

Sh. DE. y

Sh. Chy.

LS. w. T. S. Foss. S. A.

LS. w. Chy. w. l. S. Chy. S. A. (30, 380)

LS. w. V. S. Foss. V. S. Chy. S. w. Chy.

LS. Chy. V. S. Foss. V. S. Calatite

Sh. Chy

LS. T. Foss. w. l. S. Foss.

LS. T. w. V. S. Chy. S. w. Chy.

Sh. Chy

VIB. 57  
MIC. 83  
MIL. 22  
CM. 2000



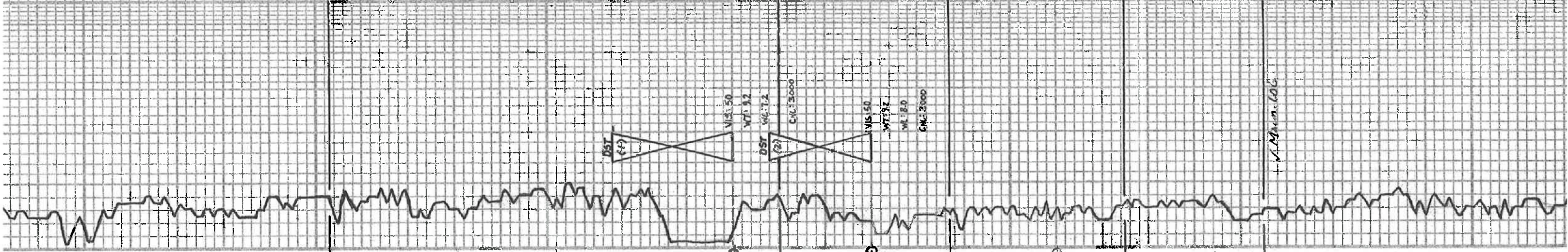
65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
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 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.

**MUNCIE CREEK 4003-1245**  
 Sh. Blk. Carb.  
 65. Bl. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.

**STARK 4100-1342**  
 Sh. Blk. Carb.  
 65. Bl. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.

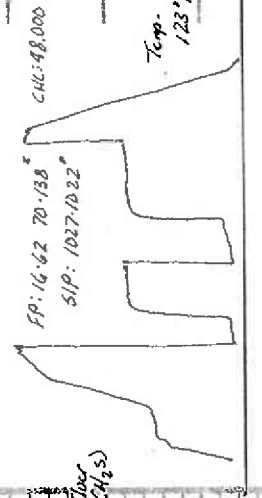
**HURDICKNEY 4137-1379**  
 Sh. Blk. Carb.  
 65. Bl. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.

**MARMATON 4205-1447**  
 Sh. Blk. Carb.  
 65. Bl. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.  
 65. wt. Sil. Foss. Sil. Chalk  
 65. To 114. 800. 3rd. 100 ft. Dull thin. Elms.



4000  
 4100  
 4200

**DST (1) 4064-4090**  
 1<sup>st</sup> OPEN: Bottom bucket 25 min. 88: None  
 2<sup>nd</sup> OPEN: " " 37 " 88: "  
 30-45-45-60  
 Rec. 270' MCW w/ spots di:  
 (157 M. 85% W)



**DST (2) 4098-4120**  
 1<sup>st</sup> OPEN: Bottom bucket 3 min. 88: None  
 2<sup>nd</sup> OPEN: " " 4 " 88: "  
 30-45-45-60  
 Rec. 1760' 3 MW (101 M. 90% W)

