

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1368711
OIL & GAS CONSERVATION DIVISION

Form ACO-1
November 2016

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
 Gas  DH  EOR
 OG  GSW
 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 EOR  Conv. to SWD
 Plug Back  Liner  Conv. to GSW  Conv. to Producer
 Commingled Permit #: \_\_\_\_\_
 Dual Completion Permit #: \_\_\_\_\_
 SWD Permit #: \_\_\_\_\_
 EOR Permit #: \_\_\_\_\_
 GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received
 Geologist Report / Mud Logs Received
 UIC Distribution
ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1368711



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			
Geologist Report / Mud Logs	<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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	REGIER 2-7
Doc ID	1368711

Tops

Name	Top	Datum
HEEBNER	2451	-940
LANSING	2677	-1166
BASE LANSING	3087	-1576
MISSISSIPPIAN	3385	-1874
KINDERHOOK	3601	-2090
VIOLA	3877	-2366
SIMPSON SAND	3883	-2372
ARBUCKLE	3992	-2481









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

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

TTMH 38  
FIELD SERVICE TICKET

1718 13980 A

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

DATE OF JOB: 9/11/17 DISTRICT		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: L.D. Drilling, Inc.		LEASE: Regular		WELL NO: 2-7						
ADDRESS:		COUNTY: Reno		STATE: KS						
CITY:		STATE:		SERVICE CREW: Scott, Mattal, Riley						
AUTHORIZED BY: Rick Wilson		JOB TYPE: Plug to Abandon 242								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
27463 x	1.5									
19867 x	1.75									
						ARRIVED AT JOB	9/10/17	AM	PM	4:15
						START OPERATION	9/10/17	AM	PM	5:57
						FINISH OPERATION	9/11/17	AM	PM	12:30
						RELEASED	9/11/17	AM	PM	1:00
						MILES FROM STATION TO WELL				

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: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT	
CP103	60/40 P02	SK	195		2340.00	
CC 200	Cement Gel	lb	336		84.00	
E100	Unit Mileage Pick up	MI	70		315.00	
E101	Heavy Equipment Mileage	MI	140		1050.00	
E113	Prop & Bulk Delivery Fee Mile	TM	588		1470.00	
CE 204	Depth Charge	4hr	1		2160.00	
CE 240	Blending & Mixing Service Charge	SK	195		273.00	
5003	Service Supervisor	SC	1		175.00	
					SUB TOTAL	7865

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		4,326.85

SERVICE REPRESENTATIVE: <i>[Signature]</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>[Signature]</i>
FIELD SERVICE ORDER NO.	(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

Customer <i>L.D. Drilling, Inc</i>	Lease No.	Date <i>9/1/17</i>	
Lease <i>Reiner</i>	Well # <i>2-7</i>	Field Order # <i>13980A</i>	Station <i>Pratt KS</i>
Type Job <i>Plug to Abandon</i>	Formation	Casing <i>5984'</i>	Depth <i>5984'</i>
		County <i>Rego</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 DP</i>				Pre Pad	Max		5 Min.	
Depth <i>5984'</i>	Depth	From	To	Pad	Min		10 Min.	
Volume <i>56.6575</i>	Volume	From	To	Frac	Avg		15 Min.	
Max Press <i>300</i>	Max Press	From	To		HHP Used		Annulus Pressure	
Well Connection <i>1 1/2</i>	Annulus Vol.	From	To	Flush	Gas Volume		Total Load	
Plug Depth	Packer Depth	From	To					

Customer Representative <i>Rich Wilson</i>	Station Manager <i>Justin Westerman</i>	Treater <i>Scott G</i>
Service Units <i>58450 27463 70499 19862</i>		
Driver Names <i>Scott Mathis R. Icy</i>		

Time	Casing Pressure	Tubing Pressure	Bbbls. Pumped	Rate	Service Log
<i>4:15</i>				<i>3984'</i>	<i>On location Rig up Safety Meeting</i>
<i>5:57</i>	<i>450</i>			<i>3.5</i>	<i>Pump H<sub>2</sub>O Spacer</i>
<i>6:02</i>	<i>350</i>		<i>15</i>	<i>3.5</i>	<i>Mix 35 sks 60/40 POZ 13.78</i>
<i>6:05</i>	<i>200</i>		<i>9</i>	<i>3.5</i>	<i>Pump H<sub>2</sub>O Spacer</i>
<i>6:07</i>	<i>200</i>		<i>5</i>	<i>3.5</i>	<i>Displace with mud</i>
<i>6:20</i>	<i>∅</i>		<i>48</i>		<i>Shut down</i>
					<i>700'</i>
<i>10:17</i>	<i>250</i>			<i>4.5</i>	<i>Pump H<sub>2</sub>O Spacer</i>
<i>10:20</i>	<i>200</i>		<i>10</i>	<i>4.5</i>	<i>Mix 35 sks 60/40 POZ 13.78 #1</i>
<i>10:23</i>	<i>150</i>		<i>9</i>	<i>4.5</i>	<i>Start Displacement</i>
<i>10:25</i>	<i>∅</i>		<i>8</i>	<i>∅</i>	<i>Shut down</i>
					<i>325'</i>
<i>10:55</i>	<i>150</i>			<i>4.5</i>	<i>Pump H<sub>2</sub>O Spacer</i>
<i>10:56</i>	<i>100</i>		<i>5</i>	<i>4.5</i>	<i>Mix 35 sks 60/40 POZ 13.78 #1</i>
<i>10:59</i>	<i>50</i>		<i>9</i>	<i>4.5</i>	<i>Start displacement</i>
<i>11:00</i>	<i>∅</i>		<i>2.5</i>	<i>∅</i>	<i>Shut down</i>
					<i>186'</i>
<i>11:10</i>	<i>150</i>			<i>4.5</i>	<i>Pump H<sub>2</sub>O Spacer</i>
<i>11:17</i>	<i>100</i>		<i>3</i>	<i>4.5</i>	<i>Mix 35 sks 60/40 POZ 13.78 #1</i>
<i>11:14</i>	<i>50</i>		<i>9</i>	<i>4.5</i>	<i>Start displacement</i>
<i>11:15</i>	<i>∅</i>		<i>1</i>	<i>∅</i>	<i>Shut down</i>



Customer E.D. Drilling, Inc		Lease No.		Date 9/11/17	
Lease Rever		Well # 27			
Field Order # 13980A	Station Pratt, KS	Casing 4 1/2 P.P.	Depth 5584	County Pratt	State KS
Type Job Plug to Abandon			Formation		Legal Description

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
4 1/2 P.P.				Pre Pad	Max		5 Min.
56.6525		From	To	Pad	Min		10 Min.
800		From	To	Frac	Avg		15 Min.
	Annulus Vol.	From	To		HHP Used		Annulus Pressure
	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative Rich Wilson				Station Manager Justin Westerman				Treater Scott Graves			
Service Units	38950	27463	70950	19867							
Driver Names	Scott	Malik	Riley								

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:00	Ø			3	Plug Rat hole 30 strokes 60/40
12:03	Ø		7.7	Ø	Shut down 60'
12:10	Ø			3	Mix 25 strokes 60/40 P07 15.78
12:13	Ø		6.4	Ø	Circulated to Pit Shut down
12:20					Wash up Equipment
12:30					Job Complete


# Arden Ratzlaff

PETROLEUM GEOLOGIST

Phone: 262-6933

107 N. Market 850 Bittling Bldg. Wichita, KS 67202

COMPANY: **L. D. DRILLING, INC.**  
 LEASE: **REGIER 2-7**  
 FIELD: **Buhler North**  
 LOCATION: **1650' FSL & 1420' FWL**  
 SECTION: **7 TOWNSHIP 22S RANGE 4W**  
 COUNTY: **RENO STATE KANSAS**  
 CONTRACTOR: **L. D. DRILLING** REG. NO. \_\_\_\_\_  
 COMMENCED DRILLING: **9-1-2017**  
 COMPLETED DRILLING: **9-9-2017**  
 RTD: **4040 FEET** LTD: **4043 FEET**  
 MUD UP AT **2400 FEET** MUD TYPE: **Chemical**

DRILLING TIME  
AND  
SAMPLE LOG

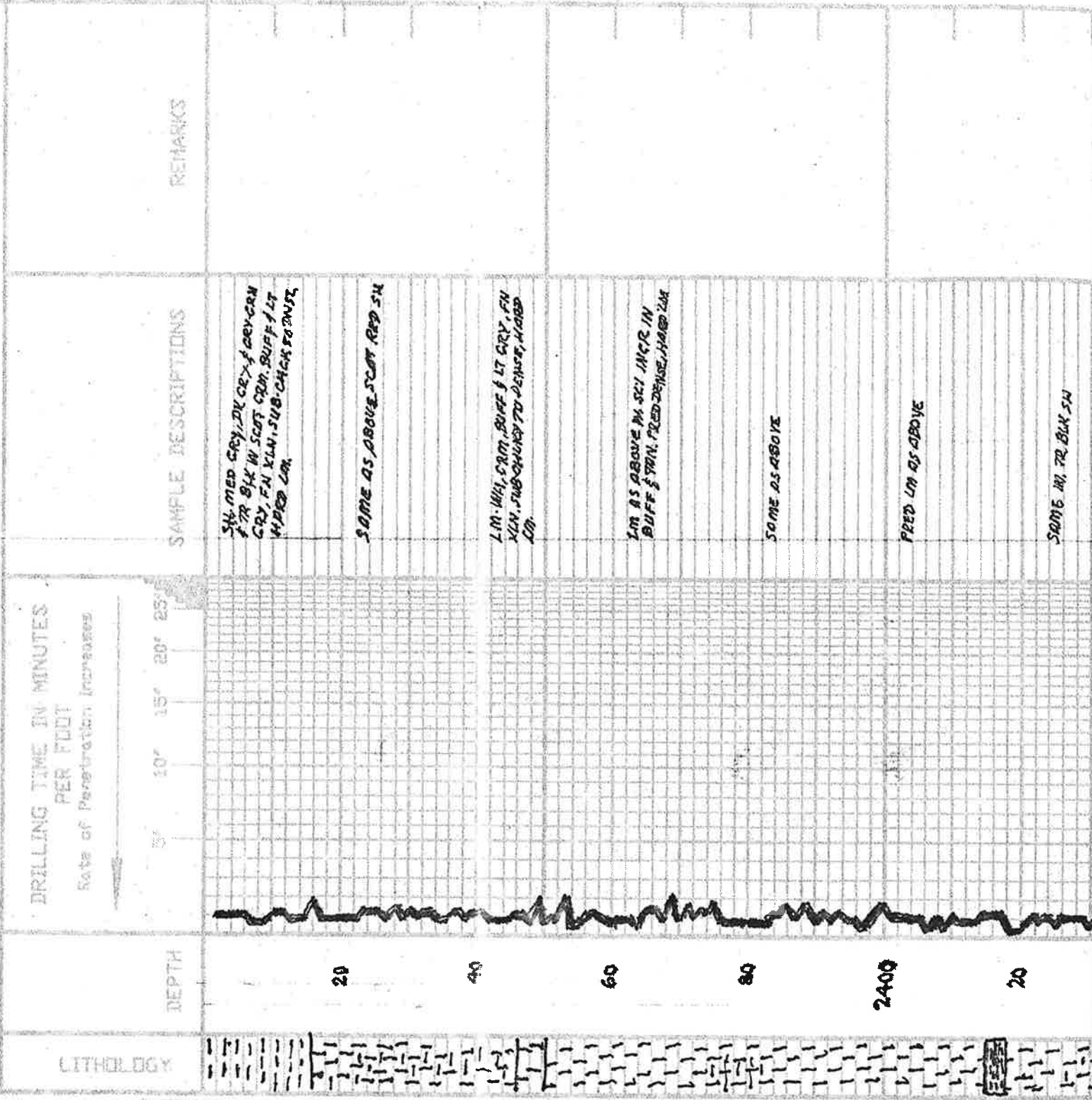
ELEVATIONS  
KB: **1511**  
 IF: \_\_\_\_\_  
 GL: **1506**  
 Measurements Are All  
From **K.B.**  
 CASING  
**13 3/8" @ 136' w. 200 k.**  
 ELECTRICAL SURVEYS  
**DUAL INDUCTION**

REMARKS: *DETERMINING THE SAMPLES, ELECTRIC LOG, DRILL STEM TEST AND ALL OTHER NEGATIVE INFORMATION. IT WAS THE DRILLER'S UNANIMOUS DECISION THAT THE WELL BE PLUGGED & ABANDONED AT A DEEP HOLE. ARDEN RATZLAFF.*

NOTE: *KIM SUDENMAKER & ARDEN RATZLAFF WERE THE GEOLOGISTS ON THE WELL.*

## LEGEND

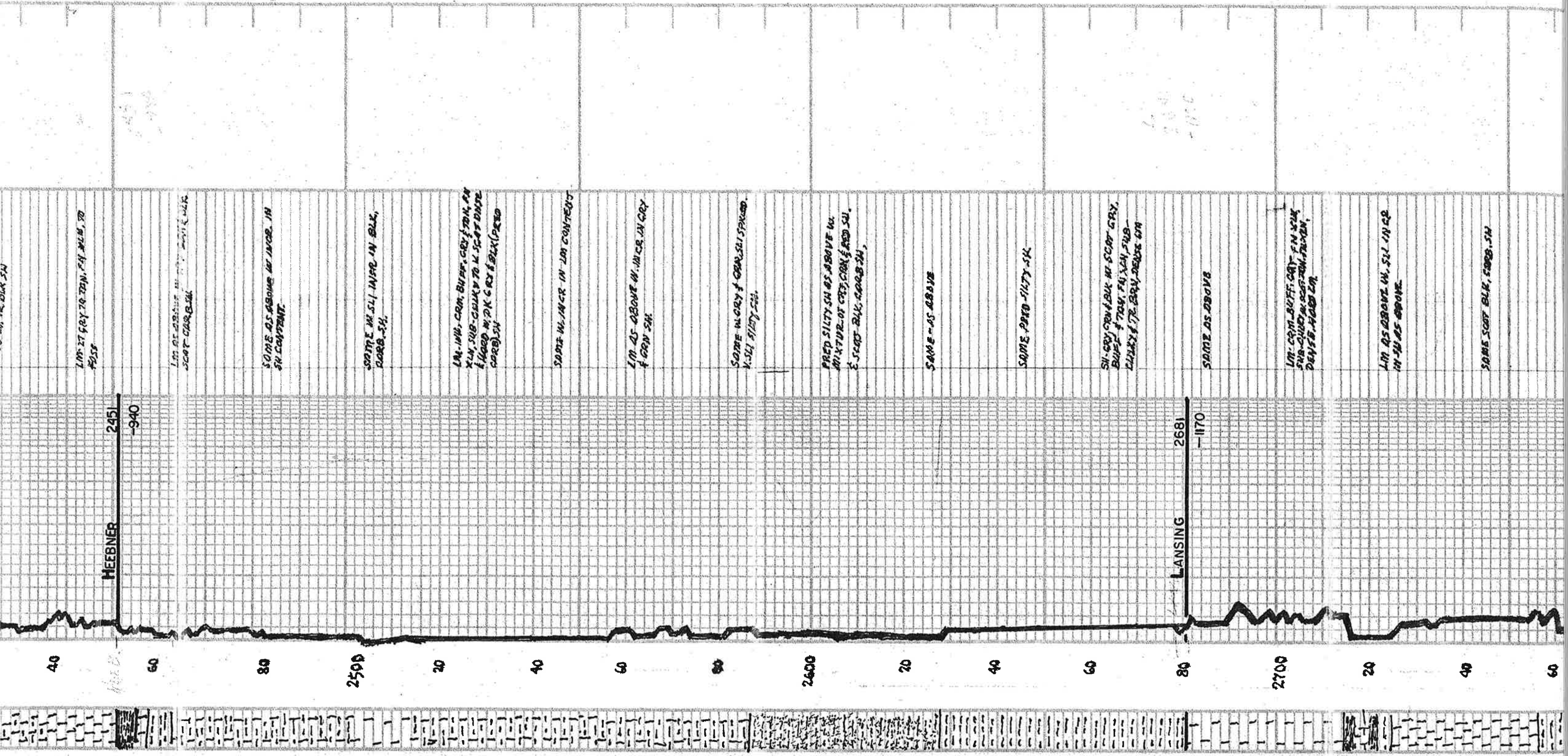
- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh. Limestone
- Dolomite
- Chert
- Bouldering



### FORMATION TOPS SAMPLE ELECTRIC LOG

FORMATION TOPS	SAMPLE	ELECTRIC LOG
HEEBNER	2451(-940)	2451(-940)
LANSING	2681(-1170)	2677(-1166)
BASE LANSING	3088(-1577)	3087(-1576)
MISSISSIPPIAN	3380(-1869)	3385(-1874)
KINDERHOOK	3586(-2075)	3601(-2090)
VIOLA	3870(-2359)	3877(-2366)
SIMPSON SAND	3892(-2381)	3883(-2372)
ARBUCKLE	3982(-2471)	3992(-2481)
TOTAL DEPTH	4040(-2529)	4043(-2532)

9-702168



1.5' TO 2.0' GRAY TO TANN. FINE MUD, SD  
FUSE

1.0' TO 1.5' ABOVE W. IN CR. IN  
SCOT CORRB SH

SOME AS ABOVE W. IN CR. IN  
SH CONTENT

SOME W. SILTY IN CR. IN BLK,  
CORRB. SH.

1.0' IN W. CR. BUFF. GRAY TO K. FINE  
XLS, SUB-CALKY TO W. SCOT DUNE  
CORRB. SH

SOME W. IN CR. IN LOI CONTENT

1.0' AS ABOVE W. IN CR. IN GRAY  
F GRN SH

SOME W. GRAY F GRN SILTY SH.

FINE SILTY SH AS ABOVE W.  
MIXTURE OF CR. CORRB. & RED SU.  
E. SCOT BLK. CORRB. SH.

SAME AS ABOVE

SAME PREC. SILTY SH

SH. GRAY CR. & BLK W. SCOT GRAY,  
BUFF. F. TANN. FINE MUD, FINE  
CLAY F. TO BROWN. DUNE GR.

SAME AS ABOVE

1.0' CR. BUFF. GRAY F. IN W. CR.  
SUB-CALKY. CORRB. SH. FINE MUD,  
DUNE GR.

1.0' AS ABOVE W. SILTY IN CR.  
IN SU AS ABOVE

SOME SCOT BLK. CORRB. SH

HEEBNER

LANSING

2451

-940

2681

-1170

40

60

80

2500

20

40

60

80

2600

20

40

60

80

2700

20

40

60

SH - GRAY, FINE, BUFF AS ABOVE,  
W. SCOT GRAY, BUFF & TAN, FN  
KLN, DENSE & HARD LN

SAME AS ABOVE

LN AS ABOVE W. TAPE W. SH  
AS ABOVE

SAME AS ABOVE

LN AS ABOVE, PRSD DARKER,  
MORE DENSE & HARD W. CONS SH  
AS ABOVE

LN - GRAY, BUFF & TAN, FN KLN,  
SUB - CHALKY TO SMOOTH & HARD - SCOT  
SH AS ABOVE

LN - GRAY, BUFF, GRAY & TAN, FN KLN,  
SUB - CHALKY TO DENSE & HARD

SAME W. PRSD, TAN LN

LN AS ABOVE INCR IN GRAY &  
BLK, POOR CORE SH

SH - GRAY, COH & BLK (CORR IN  
TAPE) - ALSO LN AS ABOVE

SH & LN AS ABOVE.

SH BLK & DK GRAY PLUS GRAY TO  
GRAY & TAN, FN KLN, SUB - CHALKY  
TO DENSE, HARD LN

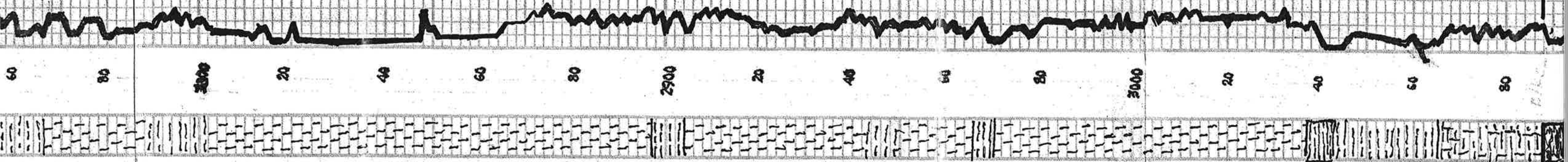
LN & SH AS ABOVE

LN AS ABOVE W. SCOT SH AS  
ABOVE

LN - GRAY, BUFF, GRAY & TAN, FN  
KLN, SUB - CHALKY TO DENSE & HARD

SAME W. GRAY & BLK (CORR) LN

SAME AS ABOVE, PRSD LN



BANSING 3088  
-1577

-1577

LM - PRED DENSE f. HORN IN SCOT  
OR CRY f. BLK (PRED CORN) SH

SH MED-DK GRD, BLK f. TR. CAN. W.  
Y. SCOT LM AS ABOVE

SH - MED

SH - MED TO DRY CRY, GRD. f. V. SCOT  
BLK. W. CRY, BUFF f. TR. IN SCOT  
SUB - CHALKY TR. DENSE f. HORN IN

LM - AS ABOVE. PRED SUB - CHALKY  
W. SCOT SH AS ABOVE

LM - CRAM. BUFF. CRY f. TR. IN. SUB.  
CULP TO PRED DENSE f. HORN

LM AS ABOVE IN BK CRY f. BLK.

LM - CON. BUFF. CRY f. TR. IN. SUB.  
PRED SUB - CHALKY W. TR. DENSE  
f. HORN - 50% SH AS ABOVE.

LM AS ABOVE IN FLAT RED. CRY.  
CRY f. BLK SH

SAME W. DRY f. BLK. CRY IN PRED.  
W. BUFF. TR. f. TR. BORN. IN LIN.  
PRED DENSE. HORN IN

LM f. V. SCOT IN PRED W. TR. W. f.  
TR. CRY. SUB - CHALKY f. TR. CRY

LM - CRAM. BUFF. f. TR. IN. SUB.  
CHALKY TO DENSE. W. GRD. CAN  
f. BLK (CORN) SH

LM - AS ABOVE W. DRY CRY. TR. f. TR.  
RED f. SCOT BLK. CRY SH

SH - CRY. GRD f. BLK (CORN) IN PRED  
W. CRAM. CRY f. TR. IN. SUB. W. BUFF.  
CHALKY TO DENSE (CORN) W. TR. IN.

SH f. LM AS ABOVE

LM AS ABOVE W. CONS. SH AS ABOVE

SH f. LM AS ABOVE

SH - MED TO DRY CRY, GRD. f. BLK W.  
SCOT LM AS ABOVE

SAME W. CONS. MED SH.

SH - MED TO DRY CRY, GRD. f. CAN. W.  
SCOT CRY f. BUFF. f. TR. IN. PRED  
DENSE. HORN IN

SAME W. LIN. CRAM. BUFF. SHB.  
CHALKY LM - SPLE PRED SH

SAME - PRED SH - TR. PYRITIC

SH f. LM - SH CRY. GRD. f. BLK W. SH  
BUFF. CRY f. TR. IN. SUB. W. BUFF. CRY  
TO DENSE HORN IN. XAN. SUB - CHALKY

SAME AS ABOVE

LM f. SH AS ABOVE IN SCOT. W. TR.  
f. TR. IN. PRED CORN (SH) DRY W.  
PRED

SAME W. GRAT. AS ABOVE PRED  
W. DRY PRED. PRED. PRED. W. HORN  
(W. TR. IN) SCOT

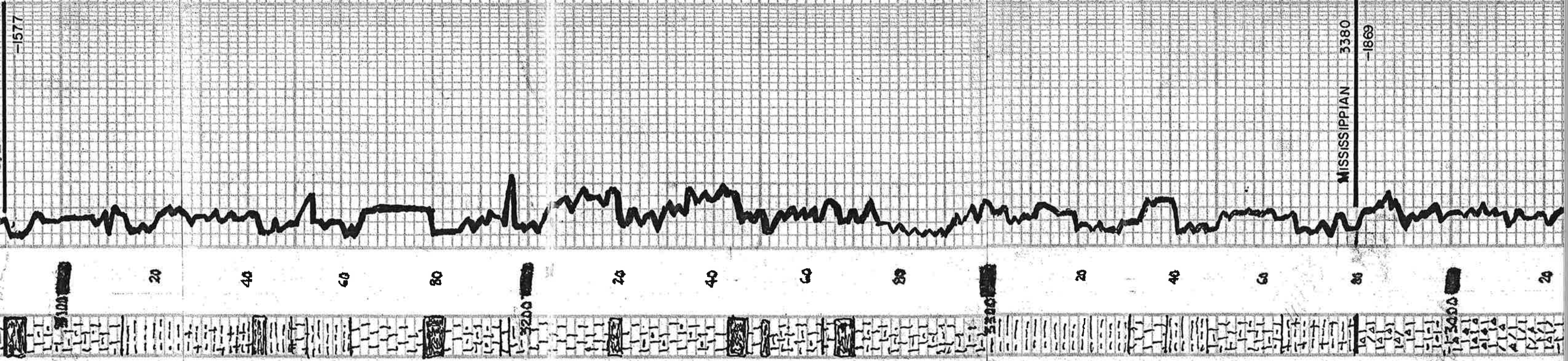
CON. W. SH - 50% PRED f. PRED. W. TR.  
XAN. SUB. W. TR. IN. PRED. W. TR. IN.  
PRED. W. TR. IN. PRED. W. TR. IN.  
PRED. W. TR. IN. PRED. W. TR. IN.  
PRED. W. TR. IN. PRED. W. TR. IN.

SAME. AS ABOVE W. HORN BLK. W. TR.

SAME AS ABOVE W. V. SCOT DRY

MISSISSIPPIAN 3380

-1869



100

20

40

60

80

20

40

60

80

20

40

60

80

20

40

60

80

20

40

60

80

20

40

60

80

SAME AS ABOVE W/ V. SCAT. FINE  
 CHRT

SAME W/ PWR IN DOG BAY

CHRT AS ABOVE W. SUBS. TONG BAY  
 PROD. DENSE. HARD LIM. V. SCAT  
 CR. GRN. & RED SH.

SH. LIM. AND CHRT. AS ABOVE

CHRT. W/ H. CON. S/LT. DENS. & CR.  
 DENSE. TONG. PRED. DENSE  
 HARD LIM.

CHRT. - PROD. W/ H. CON. FRESH W.  
 V. SCAT. DOLA. A TR. LIM. S/LT. AS ABOVE

SAME IN TON. & B. BAY. PAI. W. H.  
 PROD. DENSE, HARD LIM.

CHRT. S/LT. LIMY. & DOLA. IN TR. TONG  
 BAY. S/LT. CHALKY. & CHRT. LIM. & DOLA.

AFTER BIT TRY. PROD. VARIABLE  
 SAMPLES. & HARD SH.

LR. W/ H. V. SCAT. CON. DENSE. F/LT  
 CR. FN. X/LN. CHALKY. TO DENSE,  
 MED. HARD. W/ SCAT. CHRT. AT ABOVE.

SAME W. BLK. DENS. & CR. S/LT

SAME AS ABOVE

LIM. CHRT. & SCAT. BLK. TARP. SH.

BIT TRY. @ 2763 - SH. MED. TO  
 DRY. GRN. & SCAT. BLK. (S/LT. CON.)  
 W. SCAT. LIM. & CHRT. AS ABOVE.

PROD. SAME AS ABOVE

SCAT. CHRT. AT ABOVE. DEN. SH.  
 AS ABOVE. W. V. SCAT. YELLOW  
 SH.

PROD. LIM. & CHRT. AS ABOVE.  
 W. GR. CON. & BLK. SH.

LIM. CHRT. & SH. AS ABOVE.

LIM. CON. S/LT. ST. GR. & GR. W.  
 AT GR. FRESH. PROD. S/LT. CHALKY.  
 S/LT. CHALKY. & BLK. IN TR. TONG

LR. DENSE. TO TR. CHALK. W. SH. AS  
 ABOVE.

LIM. & SH. AS ABOVE. HARD TAN.  
 CN. W/ H. DENSE. HARD. W. W. SH.  
 AS ABOVE. PLUS YELLOW SH.

SAME W. DOLA. DK. GR. & GR. - GR.  
 SH.

SH. GR. BLK. (PART. GR. & GR.) GR. -  
 GR. & GR. - GR. - GR. W/ H. AS  
 ABOVE.

SH. AS ABOVE

SH. GR. GR. GR. - GR. GR. - GR. PLUS  
 SH. YELLOW & BLK. SH.

SH. GR. - GR. GR. GR. W/ SCAT. BLK. &  
 BRN. SH.

SH. GR. - SCAT. BLK. CON. F/TAN

SH. AS ABOVE

(M. MED. TO DK. GR. & GR. - GR.)  
 (WASIES. DIRTY)

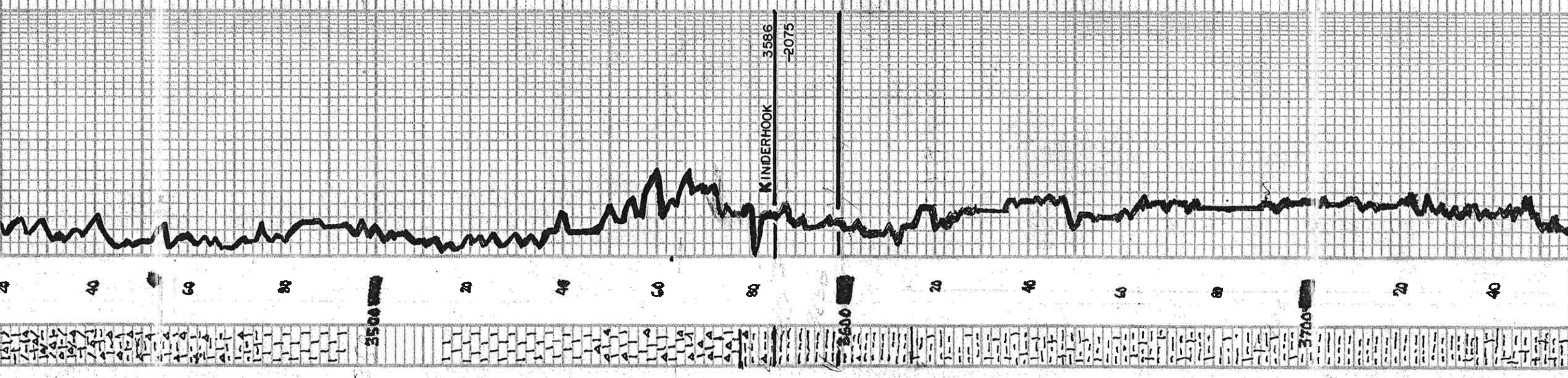
SAME AS ABOVE

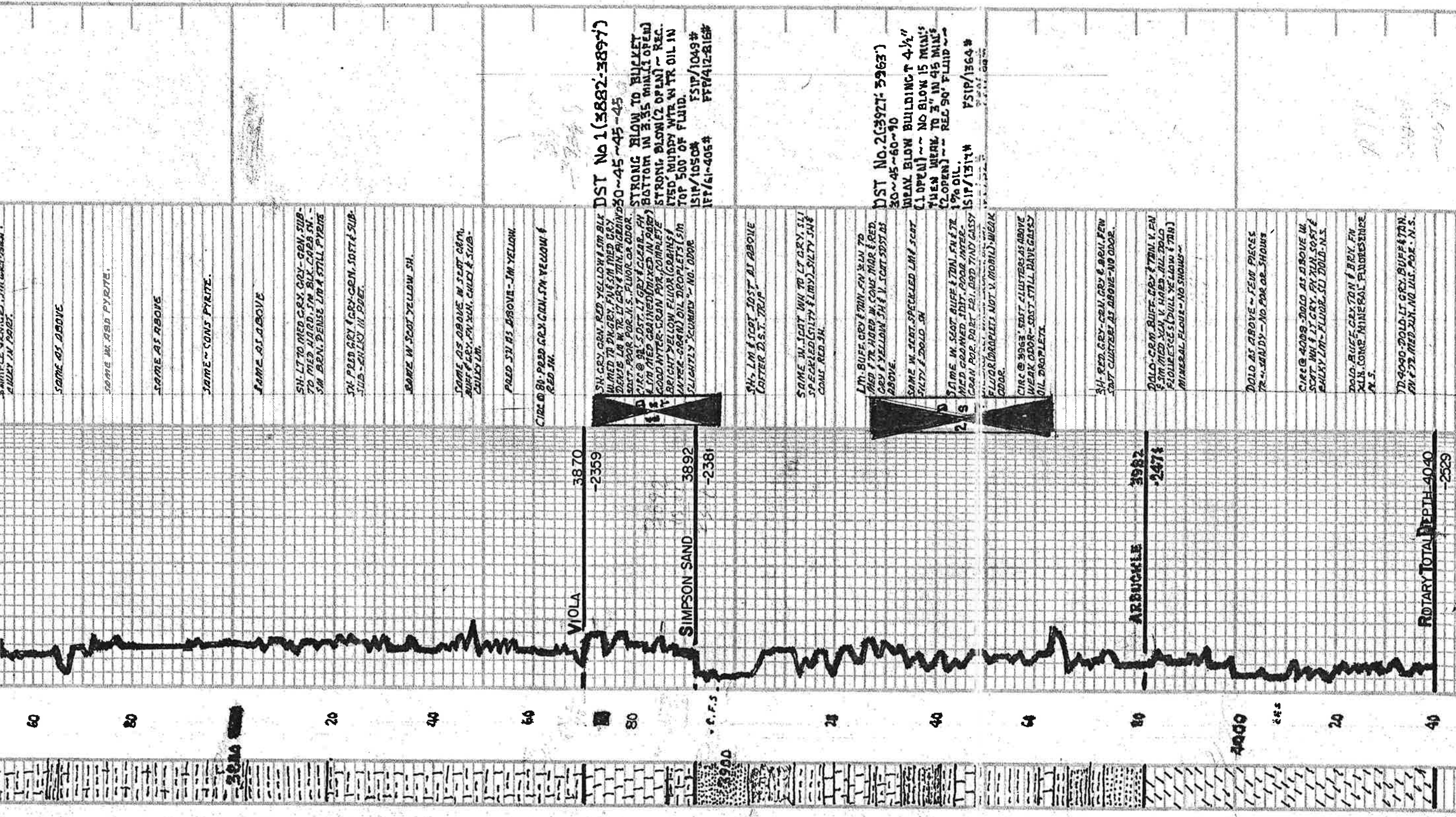
SH. AS ABOVE - PROD. GR. & GR.

SAMPLE DIRTY (GRN. WATER)  
 TAN GRN. CHALKY. S/LT. LIM.

SAMPLE. SAME AS ABOVE

SAMPLE GRN. CON. LIM. GR. - GR. - GR.  
 CHALKY. IN PROD.





SOME OF ABOVE

SOME MED PYRITE.

SOME AS ABOVE

SOME CONG PYRITE.

SAME AS ABOVE

SH. LT TO MED GRAY GRAY-GRN. SUB-TO MED HORD. SM BLK. CARB. SH. - SM BRN. DENSE LIM & STILL PYRITE

SH. FINE GRAY GRAY-GRN. SOFT & SUB-TEND. - CRISPY IN PART.

SAME IN SCOT. YELLOW SH.

SOME OF ABOVE IN SCOT. GRN. BUFF GRAY. FN. XEN. CHALK & SUB-COULM. LIM.

PROD. SUB. AS ABOVE - SM. YELLOW.

CIRC @ 80. PROD. GRAY GRN. SM. YELLOW & RED SH.

DST No 1 (3882-3897)

30-45-45

STRONG BLOW TO BUCKET BOTTOM IN 3.35 MIN. (1 OPEN) - REC. STRONG BLOW (2 OPEN) - REC. TEST. MUDDY WTR. IN TR. OIL IN TOP 500' OF FLUID.

FSIP/1049#

FFW/1050#

FFW/61-405#

FFW/412-816#

SH. GRAY GRN. RED. YELLOW & SM. BLK. W/ MED. TR. GRAY. FINE SM. MED. GRAY. DENSE LIM. IN TR. GRAY & TAN. FINE GRAY. SOFT. POOR POR. N.S. - FLUOR. OR ODOOR. CIRC @ 80. SOFT. LT GRAY & CLEAR. - FN. & LIM. MED. CARBONATED. MIXED IN PART. GOOD WATER. GRAN. POR. COMPLETE. BRIGHT YELLOW. FLOOR (GIBBING). WATER. GRAY OIL. DRIPLETS. SM. SLIGHTLY. SCUMBY. - NO. ODOOR.

SH. LIM & SCOT. SOFT. AS ABOVE (AFTER D.S.T. TRIP)

SAME IN SCOT. WTR. TO LT. GRAY. SILTY. SPECKLED (SILTY & LIMY). SILTY. SH. & CONS. RED. SH.

LIM. BUFF. GRAY & TAN. FN. XEN. TO MED. & TR. HORD. IN CONS. MUD & RED. GRAY & YELLOW. SH. & V. SCOT. SD. ST. AS ABOVE.

SAME IN SCOT. SPECKLED. LIM. SCOT. SILTY & DOLD. SH.

SAME IN SCOT. BUFF. & TAN. FN. & TR. MED. GRAN. MED. SOFT. POOR. WATER. GRAN. POR. PART. 22. DOLD. TIND. GASSY. FLUOR. DRIPLETS. NOT. V. HORD. - WEAK. ODOOR.

CIRC @ 9963. SOFT. CLUSTERS AS ABOVE. WEAK. ODOOR. - SOFT. STILL. HAVE. GASSY. OIL. DRIPLETS.

SH. RED. GRAY. GRN. GRAY & BRN. FINE. SCOT. CLUSTERS AS ABOVE - NO. ODOOR.

DOLD. GRN. BUFF. GRAY & TAN. V. FN. & SM. MED. XEN. V. HORD. ALL. DOLD. FLUOR. ESSES. (DULL. YELLOW & TAN). MINERAL. FLOOR. - NO. SHOWS.

DOLD. AS ABOVE - FEW. PIECES. TR. - SANDY. - NO. POR. OR. SHOWS.

CIRC @ 4009. DOLD. AS ABOVE. IN. SCOT. WTR. & LT. GRAY. FN. XEN. SOFT. & SANDY. LIM. - FLUOR. SO. DOLD. N.S.

DOLD. BUFF. GRAY & BRN. FN. XEN. CONS. MINERAL. FLOOR. ESSENCE. N.S.

TR. 4090. DOLD. LT. GRAY. BUFF. & TAN. FN. & TR. MED. XEN. NO. ILS. POR. - N.S.

DST No. 2 (3927-3963)

30-45-60-70

WEAK BLOW BUILDING T 4 1/2" (1 OPEN) - NO BLOW 15 MIN. WHEN HEAVY TO 3" IN 45 MIN. (2 OPEN) - REC. 90' FLUID - 1% OIL.

FSIP/1364#

FFW/1311#

ARBUCKLE 3982-2474

ROTARY TOTAL DEPTH 4040

-2529



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc - Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

**DATE**  
 September  
**08**  
 2017

**DST #1**      **Formation: SIMPSON**      **Test Interval: 3882 - 3897'**      **Total Depth: 3897'**  
 Time On: 22:40 09/08      Time Off: 06:25 09/09  
 Time On Bottom: 00:56 09/09      Time Off Bottom: 03:56 09/09

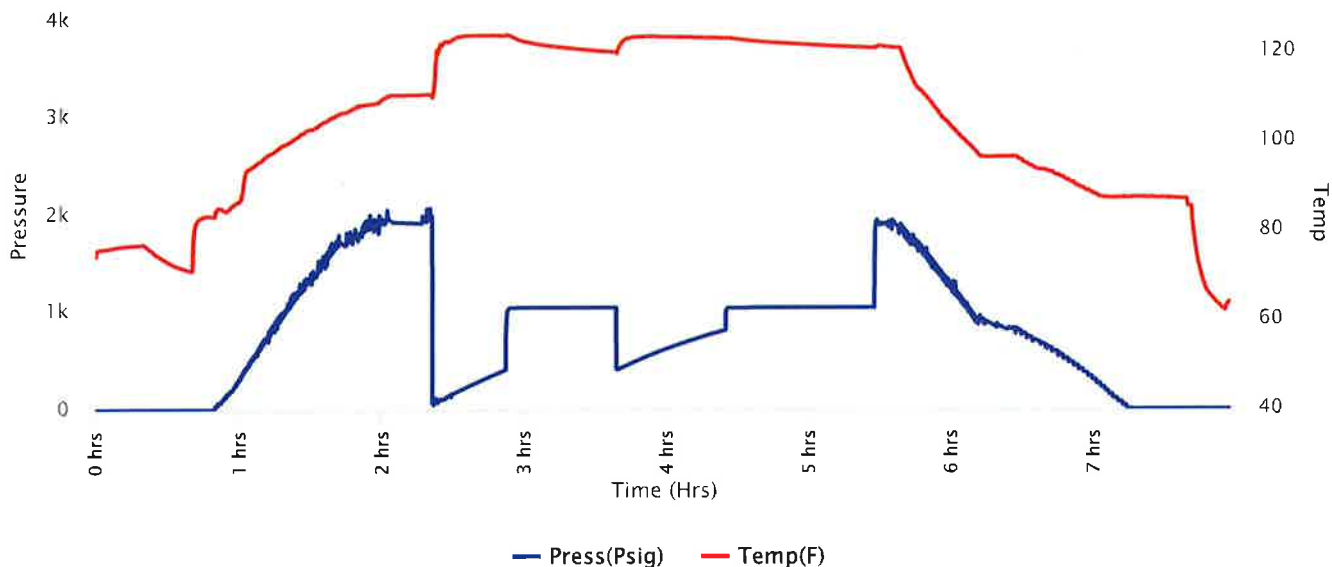
Electronic Volume Estimate:  
 2142'

1st Open  
 Minutes: 30  
 77" at 30 min

1st Close  
 Minutes: 45  
 0" at 45 min

2nd Open  
 Minutes: 45  
 170" at 45 min

2nd Close  
 Minutes: 60  
 0" at 60 min







**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc - Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

**DATE**  
 September  
**08**  
 2017

**DST #1**      **Formation: SIMPSON**      **Test Interval: 3882 - 3897'**      **Total Depth: 3897'**  
 Time On: 22:40 09/08      Time Off: 06:25 09/09  
 Time On Bottom: 00:56 09/09      Time Off Bottom: 03:56 09/09

Recovered

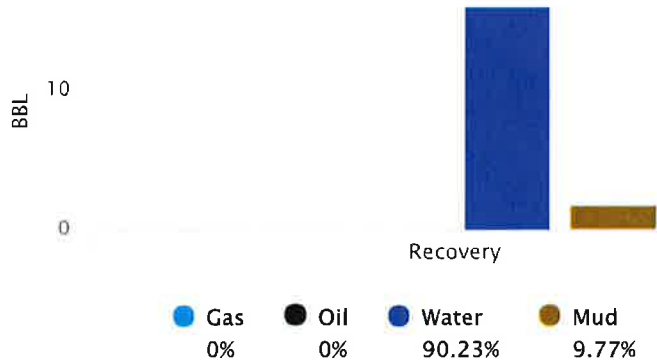
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
439	4.50414	MCW	0	0	73	27
1311	13.45086	SLMCW	0	0	96	4

Total Recovered: 1750 ft  
 Total Barrels Recovered: 17.955

Reversed Out  
 NO

**Recovery at a glance**

Initial Hydrostatic Pressure	1925	PSI
Initial Flow	61 to 405	PSI
<b>Initial Closed in Pressure</b>	<b>1050</b>	<b>PSI</b>
Final Flow Pressure	412 to 816	PSI
<b>Final Closed in Pressure</b>	<b>1049</b>	<b>PSI</b>
Final Hydrostatic Pressure	1902	PSI
Temperature	124	°F
Pressure Change Initial Close / Final Close	0.1	%





**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
County: RENO  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 1504 egl  
Field Name: Buhler North  
Pool: Infield  
Job Number: 54

<p><b>DATE</b> September <b>08</b> 2017</p>
---

<b>DST #1</b>	<b>Formation:</b> <b>SIMPSON</b>	<b>Test Interval: 3882 -</b> <b>3897'</b>	<b>Total Depth: 3897'</b>
	Time On: 22:40 09/08	Time Off: 06:25 09/09	
	Time On Bottom: 00:56 09/09	Time Off Bottom: 03:56 09/09	

**REMARKS:**

TOOL SAMPLE:100% WATER

IFP:1"BLOW-BOB IN 3:35  
ISIP:NOBB  
FFP:1"BLOW-BOB IN 3:15  
FSIP:NOBB

Ph: 7

RW: .51 @ 65 degrees F

Chlorides: 17000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

<b>DATE</b> September <b>08</b> 2017
---

**DST #1**      **Formation: SIMPSON**      **Test Interval: 3882 - 3897'**      **Total Depth: 3897'**  
 Time On: 22:40 09/08      Time Off: 06:25 09/09  
 Time On Bottom: 00:56 09/09      Time Off Bottom: 03:56 09/09

**Down Hole Makeup**

<b>Heads Up:</b>	21.94 FT	<b>Packer 1:</b>	3877 FT
<b>Drill Pipe:</b>	3871.37 FT	<b>Packer 2:</b>	3882 FT
	<i>ID-3 1/4</i>	<b>Top Recorder:</b>	3866.42 FT
<b>Weight Pipe:</b>	FT	<b>Bottom Recorder:</b>	3883 FT
	<i>ID-2 7/8</i>	<b>Well Bore Size:</b>	7.875
<b>Collars:</b>	FT	<b>Surface Choke:</b>	1"
	<i>ID-2 1/4</i>	<b>Bottom Choke:</b>	5/8"
<b>Test Tool:</b>	33.57 FT		
	<i>ID-3 1/2-FH</i>		
	<i>Jars</i>		
	<i>Safety Joint</i>		
<b>Total Anchor:</b>	15		
	<b><u>Anchor Makeup</u></b>		
<b>Packer Sub:</b>	1 FT		
<b>Perforations: (top):</b>	FT		
	<i>4 1/2-FH</i>		
<b>Change Over:</b>	FT		
<b>Drill Pipe: (in anchor):</b>	FT		
	<i>ID-3 1/4</i>		
<b>Change Over:</b>	FT		
<b>Perforations: (below):</b>	14 FT		
	<i>4 1/2-FH</i>		



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
County: RENO  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 1504 egl  
Field Name: Buhler North  
Pool: Infield  
Job Number: 54

<b>DATE</b> September <b>08</b> 2017
---

**DST #1**      **Formation:**  
**SIMPSON**      **Test Interval: 3882 -**      **Total Depth: 3897'**  
**3897'**  
Time On: 22:40 09/08      Time Off: 06:25 09/09  
Time On Bottom: 00:56 09/09      Time Off Bottom: 03:56 09/09

### **Mud Properties**

**Mud Type:** CHEMICAL    **Weight:** 9.5      **Viscosity:** 61      **Filtrate:** 11.2      **Chlorides:** 6700 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc - Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

**DATE**  
 September  
**09**  
 2017

**DST #2**      **Formation: SIMPSON**      **Test Interval: 3927 - 3963'**      **Total Depth: 3963'**  
 Time On: 16:42 09/09      Time Off: 00:46 09/10  
 Time On Bottom: 19:15 09/09      Time Off Bottom: 23:00 09/09

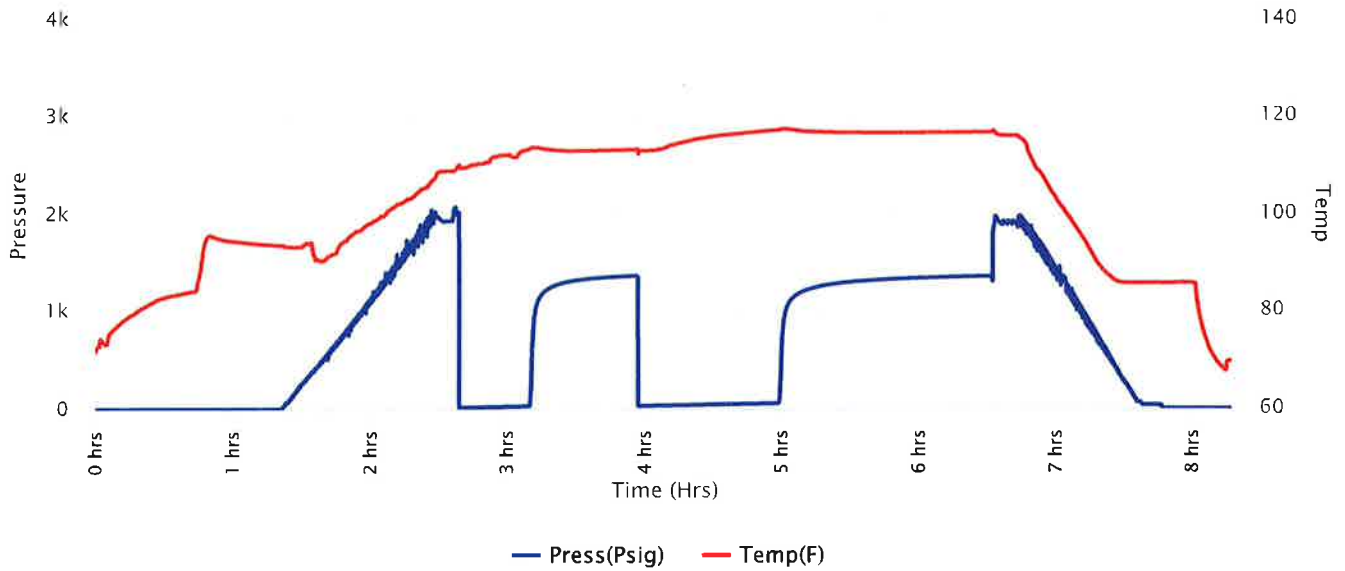
Electronic Volume Estimate:  
 73'

1st Open  
 Minutes: 30  
 3" at 30 min

1st Close  
 Minutes: 45  
 0" at 45 min

2nd Open  
 Minutes: 60  
 4.25" at 60 min

2nd Close  
 Minutes: 90  
 0" at 90 min





**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc - Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

**DATE**  
 September  
**09**  
 2017

**DST #2**      **Formation: SIMPSON**      **Test Interval: 3927 - 3963'**      **Total Depth: 3963'**  
 Time On: 16:42 09/09      Time Off: 00:46 09/10  
 Time On Bottom: 19:15 09/09      Time Off Bottom: 23:00 09/09

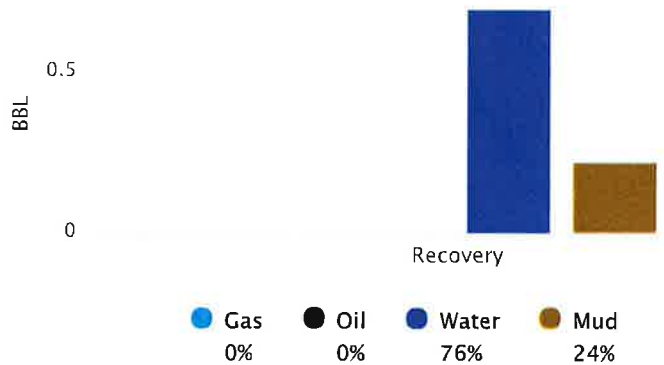
Recovered

<u>Foot</u>	<u>BBLs</u>	<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
90	0.9234	MCW	0	0	76	24

Total Recovered: 90 ft  
 Total Barrels Recovered: 0.9234

**Reversed Out**  
 NO

**Recovery at a glance**



Initial Hydrostatic Pressure	1939	PSI
Initial Flow	16 to 32	PSI
<b>Initial Closed in Pressure</b>	<b>1371</b>	<b>PSI</b>
Final Flow Pressure	32 to 68	PSI
<b>Final Closed in Pressure</b>	<b>1364</b>	<b>PSI</b>
Final Hydrostatic Pressure	1908	PSI
Temperature	118	°F
Pressure Change Initial Close / Final Close	0.4	%



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
County: RENO  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 1504 egl  
Field Name: Buhler North  
Pool: Infield  
Job Number: 54

<b>DATE</b> September <b>09</b> 2017
---

<b>DST #2</b>	<b>Formation:</b> <b>SIMPSON</b>	<b>Test Interval: 3927 -</b> <b>3963'</b>	<b>Total Depth: 3963'</b>
	Time On: 16:42 09/09	Time Off: 00:46 09/10	
	Time On Bottom: 19:15 09/09	Time Off Bottom: 23:00 09/09	

**REMARKS:**

TOOL SAMPLE: 1% OIL, 52% WATER, 47% MUD

IFP: WSB-BUILT TO 3"

ISIP: NOBB

FFP: NO BLOW-BUILT TO 4.25"

FSIP: NOBB

TRACE OF OIL IN 90' RECOVERY SAMPLES, > 1% OIL

Ph: 8

RW: .5 @ 70 degrees F

Chlorides: 15000 ppm



**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
 County: RENO  
 State: Kansas  
 Drilling Contractor: L. D. Drilling, Inc -  
 Rig 1  
 Elevation: 1504 egl  
 Field Name: Buhler North  
 Pool: Infield  
 Job Number: 54

<p><b>DATE</b>          September  <b>09</b>          2017</p>
--

<b>DST #2</b>	<b>Formation:</b> SIMPSON	<b>Test Interval:</b> 3927 - 3963'	<b>Total Depth:</b> 3963'
	Time On: 16:42 09/09	Time Off: 00:46 09/10	
	Time On Bottom: 19:15 09/09	Time Off Bottom: 23:00 09/09	

**Down Hole Makeup**

<b>Heads Up:</b> 8.08 FT	<b>Packer 1:</b> 3922 FT
<b>Drill Pipe:</b> 3902.51 FT	<b>Packer 2:</b> 3927 FT
<i>ID-3 1/4</i>	<b>Top Recorder:</b> 3911.42 FT
<b>Weight Pipe:</b> FT	<b>Bottom Recorder:</b> 3929 FT
<i>ID-2 7/8</i>	<b>Well Bore Size:</b> 7.875
<b>Collars:</b> FT	<b>Surface Choke:</b> 1"
<i>ID-2 1/4</i>	<b>Bottom Choke:</b> 5/8"
<b>Test Tool:</b> 33.57 FT	
<i>ID-3 1/2-FH</i>	
<i>Jars</i>	
<i>Safety Joint</i>	
<b>Total Anchor:</b> 36	
<b><u>Anchor Makeup</u></b>	
<b>Packer Sub:</b> 1 FT	
<b>Perforations: (top):</b> FT	
<i>4 1/2-FH</i>	
<b>Change Over:</b> FT	
<b>Drill Pipe: (in anchor):</b> FT	
<i>ID-3 1/4</i>	
<b>Change Over:</b> FT	
<b>Perforations: (below):</b> 35 FT	
<i>4 1/2-FH</i>	





**Company: L. D. Drilling, Inc**  
**Lease: Regier #2-7**

SEC: 7 TWN: 22S RNG: 4W  
County: RENO  
State: Kansas  
Drilling Contractor: L. D. Drilling, Inc -  
Rig 1  
Elevation: 1504 egl  
Field Name: Buhler North  
Pool: Infield  
Job Number: 54

<b>DATE</b> September <b>09</b> 2017
---

**DST #2**      **Formation:**  
**SIMPSON**      **Test Interval: 3927 -**      **Total Depth: 3963'**  
Time On: 16:42 09/09      Time Off: 00:46 09/10  
Time On Bottom: 19:15 09/09      Time Off Bottom: 23:00 09/09

### **Mud Properties**

**Mud Type:** CHEMICAL    **Weight:** 9.5      **Viscosity:** 66      **Filtrate:** 9.4      **Chlorides:** 6600 ppm