

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

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

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: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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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	EUGENE 2-4
Doc ID	1406177

Tops

Name	Top	Datum
ANHYDRITE	1002	+984
BASE ANHYDRITE	1030	+956
TOPEKA	2988	-1002
HEEBNER	3223	-1237
LANSING	3303	-1317
BASE KANSAS CITY	3504	-1518
ARBUCKLE	3554	-1568
BROWN LIME	3289	-1303

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	EUGENE 2-4
Doc ID	1406177

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	1018	A-CONN	200	3%CC, 1/4 #Cellflake
Surface	12.25	8.625	23	1018	COMMON	200	2%CC, 1/4 #CF
Production	7.875	5.5	15.5	3667	AA-2	150	10%Salt
Production	7.875	5.5	15.5	3667	60/40 POZMIX	30	@ RATHOLE



BASIC
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

TTMH=29

FIELD SERVICE TICKET

0041094512
1718 16288 A

DATE _____ TICKET NO. _____

DATE OF JOB 3-17-2018 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 LD DRILLING INC				LEASE EUGENE		WELL NO. 2-4			
ADDRESS _____				COUNTY BARTON		STATE Ks.			
CITY _____ STATE _____				SERVICE CREW LESLEY, HANSON, CLYMER					
AUTHORIZED BY _____				JOB TYPE: 242 8 5/8" SURFACE					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
20920	1					3-17-18	7:30		
19918	1					ARRIVED AT JOB		AM	10:00
						START OPERATION		PM	3:00
						FINISH OPERATION		PM	4:00
						RELEASED		PM	4:30
						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
CP 101	A-CON BLEND	SK	200		3,600 00
CP 100	COMMON	SK	200		3,200 00
CC 102	CELL FLAKE	lb	101		373 70
CC 109	CALCIUM CHLORIDE	lb	940		987 00
CC 130	C-51	lb	19		475 00
CF 105	TOP RUBBER CMT. PLUG, 8 5/8"	EA	1		225 00
E 100	PICKUP MILEAGE	MI	65		292 50
E 101	HEAVY EQUIPMENT MILEAGE	MI	130		975 00
E 113	BULK DELIVERY CHARGE	TM	1222		3,055 00
CE 201	DEPTH CHARGE; 501'-1000'	HR	1-4		1,200 00
CE 240	BLENDING SERVICE	SK	400		560 00
CE 504	PLUG CONTAINER UTILIZATION CHARGE	Job	1		250 00
S 003	SERVICE SUPERVISOR	EA	1		175 00

SUB TOTAL **15,368 20**

CHEMICAL / ACID DATA:			

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

TOTAL **18,759 87**

SERVICE REPRESENTATIVE *[Signature]* THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *[Signature]*
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. _____

BASIC

energy services, L.P.

TREATMENT REPORT

Customer LD DRILLING	Lease No.	Date 3-17-2018	
Lease EUGENE	Well # 1-4 TD		
Field Order # 16288	Station PRATT, Ks.	Casing 5 1/8" 1005'	County BARTON
Type Job 8 5/8" S.P.	Formation	Legal Description 4-18s-15W	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size 8 5/8" x 23	Tubing Size	Shots/Ft	CMT -	200SK A-CON @ 3% CC, 1/4" CF	RATE	PRESS	ISIP
Depth 1005'	Depth	From	To	@ 2.47 CU FT	Max		5 Min.
Volume 64.38 BBL	Volume	From	To	200SK COMMON @ 2% CC, 1/4" CF	Mix		10 Min.
Max Press 1000	Max Press	From	To	Frac @ 1.20 CU FT	Avg		15 Min.
Well Connection P.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 985'	Packer Depth	From	To	Flush 638 BBL	Gas Volume		Total Load

Customer Representative: RICK
Station Manager: J.W.
Treater: K. LESLEY

Service Units	86531	94980	20920	19959	19918						
Driver Names	LESLEY	HANSON		CYMER							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:00 AM					ON LOCATION - SAFETY MEETING
1:30 PM					RUN 25 JTS. - 8 5/8" x 23 # CSG.
2:45 PM					CSG. ON BOTTOM
3:00 PM					HOOK UP TO CSG. / BREAK CIRC. W/ RIG
3:10 PM	250		10	6	H2O AHEAD
3:11 PM	250		88	6	MIX 200 SKS A-CON @ 12 PPG
3:22 PM	200		43	6	MIX 200 SKS COMMON @ 15.6 PPG
3:28 PM					SHUTDOWN - DROP T.R. PLUG
3:31 PM	0		0	5	START DISPLACEMENT
3:42 PM	500		55	4	SLOW RATE
3:45 PM	500		63	3	PLUG @ DESIRED DEPTH = 985'
					CIRC. THRU JOB
					CIRC. 15 BBL TO PIT
					JOB COMPLETE,
					THANKS -
					KEVEN LESLEY



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

TTMH 48
FIELD SERVICE TICKET
1718 16520 A

DATE _____ TICKET NO. _____

DATE OF JOB <u>3/26/18</u> 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 <u>L.D. Drilling Inc</u>		LEASE <u>Eugene</u>		WELL NO. <u>2-4</u>					
ADDRESS _____		COUNTY <u>Barton</u>		STATE <u>Ks</u>					
CITY _____ STATE _____		SERVICE CREW <u>Scotly, Scott, McGraw, Peter</u>							
AUTHORIZED BY <u>Mark Davis</u>		JOB TYPE: <u>5 1/2 Longstring</u> <u>242</u>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM PM	TIME
<u>86775</u>	<u>.8</u>								
<u>19860</u>	<u>.4</u>								
						ARRIVED AT JOB	<u>3/25/18</u>	<u>AM</u>	<u>11:30</u>
						START OPERATION	<u>3/26/18</u>	<u>AM</u>	<u>5:50</u>
						FINISH OPERATION	<u>3/26/18</u>	<u>PM</u>	<u>4:30</u>
						RELEASED	<u>3/26/18</u>	<u>AM</u>	<u>5:15</u>
						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: X Mark Davis By DL Scott
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT	
CP105	AA2 Cement	SK	150		2550 00	
CP103	60/40 Poz	SK	30		360 00	
CC102	Celluloflake	Lb	38		140 00	
CC111	Salt	Lb	816		408 00	
CC113	Gypsum	Lb	705		528 75	
CC148	C-77	Lb	71		1420 00	
CC201	Gilsonite	Lb	901		603 67	
CC105	C-4LP	Lb	71		284 00	
CF1251	Auto Fill Float Shoe 5 1/2	Pa	1		360 00	
CF607	latch down Plug + Bottle 5 1/2	Pa	1		400 00	
CF1901	5 1/2 Basket	Pa	1		290 00	
CF1651	Turbolizers 5 1/2	Pa	8		880 00	
CF151	Mud Flush	Coil	1000		1500 00	
E100-	Unit Mileage Charge Pickup	Mi	65		292 50	
E101	Heavy Equipment Mileage	Mi	130		975 00	
E113	Prop + Bulk Delivery Charge	TM	543		1356 88	
CE240	Blending + Mixing Service Chrg	SK	180		252 00	
CE204	Depth Charge 3001-4000	4hr	1		2160 00	
CE504	Plug Container Utilization	Job	1		250 00	
5003	Service Supervisor	Co	1		175 00	
					SUB-TOTAL	15186 40

CHEMICAL / ACID DATA:

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

Discounted TOTAL 8656 25
JWW

SERVICE REPRESENTATIVE [Signature]

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X Mark Davis By DL Scott
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. _____

BASIC

energy services, L.P.

TREATMENT REPORT

Customer <i>L.D. Drilling Inc</i>		Lease No.		Date	
Lease <i>Eugene</i>		Well # <i>2-4</i>		<i>3/26/18</i>	
Field Order # <i>16520</i>	Station <i>Pratt</i>	Casing <i>5 1/2</i>	Depth	County <i>Barton</i>	State <i>Ks</i>
Type Job <i>5 1/2 Long string</i>		<i>242</i>		Formation	Legal Description

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
<i>5 1/2</i>				Pre Pad		Max		5 Min.
Depth <i>3666</i>	Depth	From	To	Pad		Min		10 Min.
Volume <i>81.75</i>	Volume	From	To	Frac		Avg		15 Min.
Max Press <i>7000</i>	Max Press	From	To			HHP Used		Annulus Pressure
Well Connection <i>5 1/2</i>	Annulus Vol.	From	To	Flush		Gas Volume		Total Load
Plug Depth	Packer Depth	From	To					

Customer Representative <i>Mark Davis</i>	Station Manager <i>Justin Westerman</i>	Treater <i>Scott Graves</i>
--	--	--------------------------------

Service Units	<i>96817</i>	<i>78982</i>	<i>86779</i>	<i>19960</i>	<i>19860</i>				
Driver Names	<i>Scott</i>	<i>McGraw</i>	<i>-</i>	<i>Robert</i>	<i>-</i>	<i>scotty</i>			

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>11:30</i>	<i>3/25</i>				<i>On location Safety Meeting Pig up</i>
<i>12:30</i>	<i>3/26</i>				<i>Run Float Equip. Basket #4</i>
<i>-</i>					<i>Turbos 3,5,7,9,11,13,15,17</i>
<i>3:00</i>					<i>Break Circulation on bottom</i>
<i>3:50</i>	<i>180</i>			<i>6.5</i>	<i>Pump H2O spacer</i>
<i>3:51</i>	<i>200</i>		<i>5</i>	<i>6.5</i>	<i>Pump Mud Flush 1000 gallon</i>
<i>3:55</i>	<i>200</i>		<i>24</i>	<i>6.5</i>	<i>Pump H2O spacer</i>
<i>3:56</i>	<i>270</i>		<i>5</i>	<i>6.5</i>	<i>Start cement 150 SKS AAZ 148.77</i>
<i>4:03</i>	<i>0</i>		<i>41</i>	<i>0</i>	<i>Start down</i>
<i>4:04</i>	<i>-</i>				<i>Wash pump + lines clean</i>
<i>4:06</i>	<i>-</i>				<i>Release Plug</i>
<i>4:06</i>	<i>100</i>			<i>7.5</i>	<i>Start Displacement</i>
<i>4:15</i>	<i>400</i>		<i>58</i>	<i>7.5</i>	<i>1st Pressure</i>
<i>4:17</i>	<i>550</i>		<i>17</i>	<i>3</i>	<i>Reduce Rate</i>
<i>4:20</i>	<i>600</i>		<i>10.5</i>	<i>3</i>	<i>Plug landed</i>
<i>4:20</i>	<i>1500</i>				<i>Increase Pressure</i>
<i>4:20</i>	<i>1500</i>				<i>Shut down Pressure Hold</i>
<i>4:22</i>	<i>0</i>				<i>Release Pressure NO Returns</i>
<i>4:25</i>	<i>0</i>			<i>3</i>	<i>Plug Rat hole 30 SKS 60/40</i>
<i>4:28</i>	<i>0</i>		<i>8</i>		<i>Shut down</i>
					<i>Job Complete</i>



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
21
 2018

DST #1 **Formation: Topeka** **Test Interval: 3140 - 3180'** **Total Depth: 3180'**
 Time On: 07:28 03/21 Time Off: 15:25 03/21
 Time On Bottom: 09:49 03/21 Time Off Bottom: 12:49 03/21

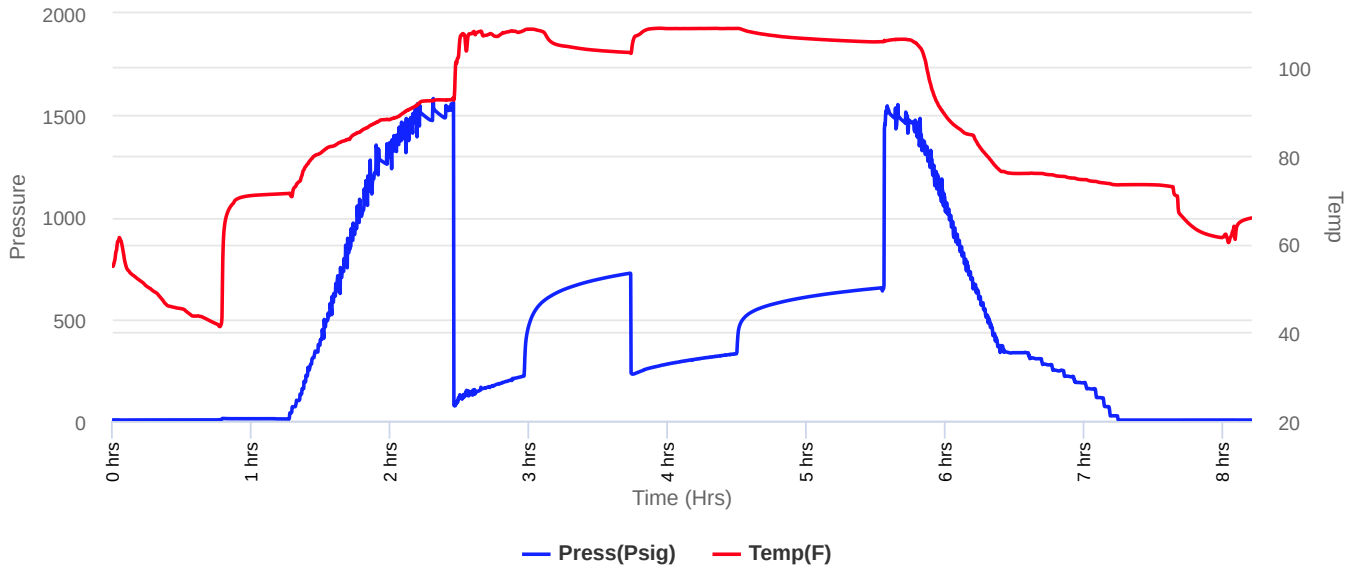
Electronic Volume Estimate:
 1180'

1st Open
 Minutes: 30
 84.1" at 30 min

1st Close
 Minutes: 45
 6.1" at 45 min

2nd Open
 Minutes: 45
 52" at 45 min

2nd Close
 Minutes: 60
 21" at 60 min





Company: L. D. Drilling, Inc
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Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
661	6.78186	G	100	0	0	0
32	0.32832	O	0	100	0	0
315	3.2319	OCHGCW	35	25	40	0
378	3.87828	SLMCSLOCW	0	5	94	1

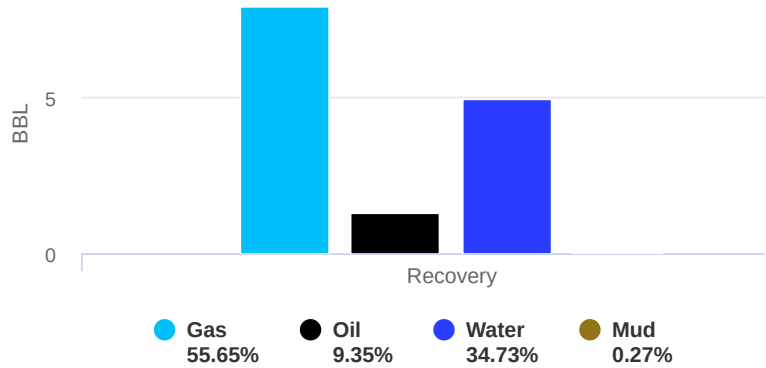
Total Recovered: 1386 ft
 Total Barrels Recovered: 14.22036

Reversed Out
 NO

Initial Hydrostatic Pressure 1552 PSI
 Initial Flow 78 to 220 PSI
Initial Closed in Pressure **724** **PSI**
 Final Flow Pressure 230 to 330 PSI
Final Closed in Pressure **653** **PSI**
 Final Hydrostatic Pressure 1546 PSI
 Temperature 109 °F

 Pressure Change Initial 9.8 %
 Close / Final Close

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 21 2018

DST #1	Formation: Topeka	Test Interval: 3140 - 3180'	Total Depth: 3180'
	Time On: 07:28 03/21	Time Off: 15:25 03/21	
	Time On Bottom: 09:49 03/21	Time Off Bottom: 12:49 03/21	

REMARKS:

Initial Flow: 2 in. blow increasing. BOB in 2 mins.

Initial Shut-in: 6 in. blow back.

Final Flow: 3 in. blow increasing. BOB in 5 mins.

Final Shut-in: BOB blow back.

Gravity: 10 @ 60 degrees F

Ph: 7

RW: .125 @ 60 degrees F

Chlorides: 73,000 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

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 Rig 1
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<p>DATE March 21 2018</p>
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DST #1 **Formation: Topeka** **Test Interval: 3140 - 3180'** **Total Depth: 3180'**

Time On: 07:28 03/21 Time Off: 15:25 03/21
 Time On Bottom: 09:49 03/21 Time Off Bottom: 12:49 03/21

Down Hole Makeup

Heads Up: 25.42 FT	Packer 1: 3135 FT
Drill Pipe: 3132.85 FT <i>ID-3 1/4</i>	Packer 2: 3140 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3124.42 FT
Collars: FT <i>ID-2 1/4</i>	Bottom Recorder: 3142 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 20	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/4</i>	
Change Over: FT	
Perforations: (below): 19 FT <i>4 1/2-FH</i>	



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Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
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Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

<p>DATE March 21 2018</p>

DST #1 **Formation: Topeka** **Test Interval: 3140 - 3180'** **Total Depth: 3180'**

Time On: 07:28 03/21 Time Off: 15:25 03/21
Time On Bottom: 09:49 03/21 Time Off Bottom: 12:49 03/21

Mud Properties

Mud Type: Chemical **Weight:** 8.7 **Viscosity:** 72 **Filtrate:** 8.0 **Chlorides:** 3,300 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
22
 2018

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**
 Time On: 03:29 03/22 Time Off: 09:10 03/22
 Time On Bottom: 05:31 03/22 Time Off Bottom: 07:31 03/22

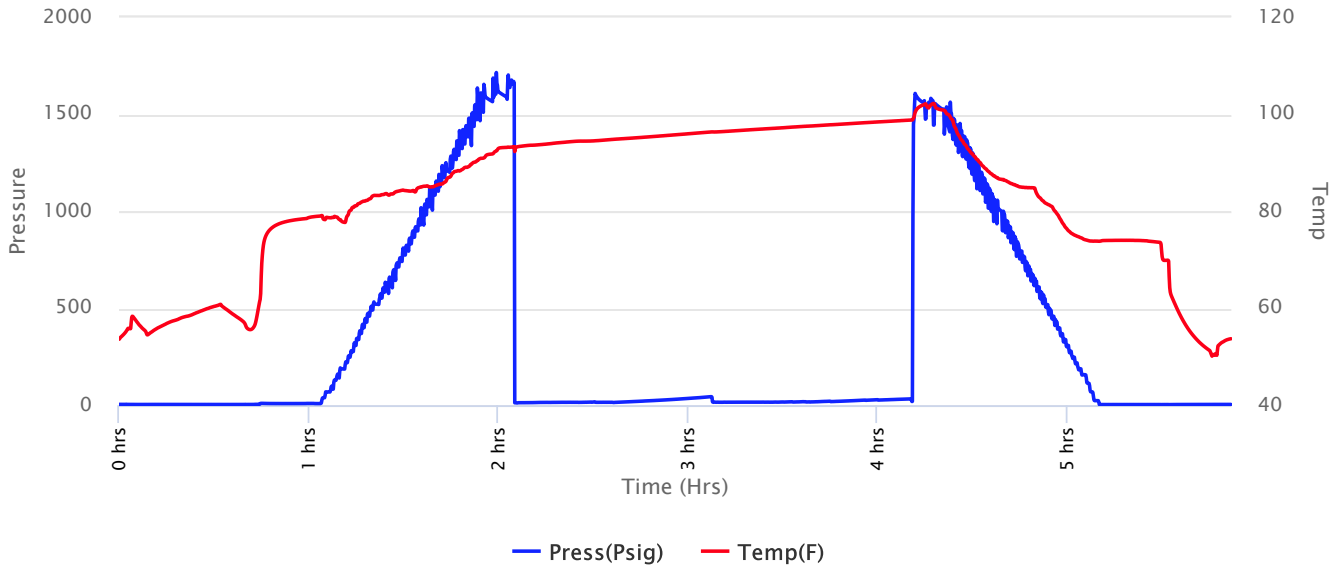
Electronic Volume Estimate:
 10'

1st Open
 Minutes: 30
 1" at 30 min

1st Close
 Minutes: 30
 0" at 30 min

2nd Open
 Minutes: 30
 .1" at 30 min

2nd Close
 Minutes: 30
 0" at 30 min





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
22
 2018

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**
 Time On: 03:29 03/22 Time Off: 09:10 03/22
 Time On Bottom: 05:31 03/22 Time Off Bottom: 07:31 03/22

Recovered

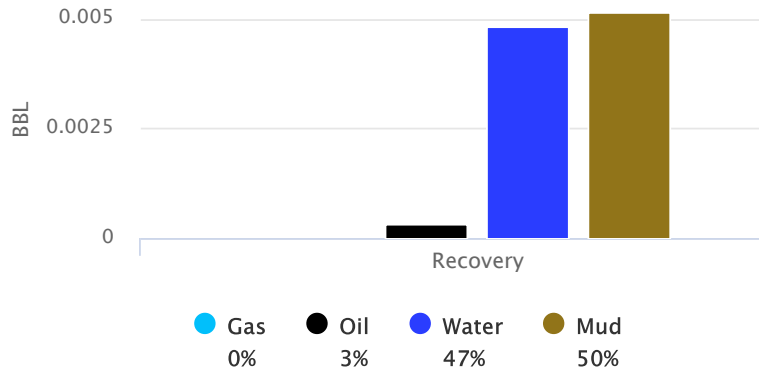
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
1	0.01026	SLOCHWCM	0	3	47	50

Total Recovered: 1 ft
 Total Barrels Recovered: 0.01026

Reversed Out
 NO

Initial Hydrostatic Pressure	1590	PSI
Initial Flow	13 to 17	PSI
Initial Closed in Pressure	45	PSI
Final Flow Pressure	18 to 18	PSI
Final Closed in Pressure	20	PSI
Final Hydrostatic Pressure	1578	PSI
Temperature	99	°F
Pressure Change Initial Close / Final Close	56.3	%

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

<p>DATE March 22 2018</p>

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**

Time On: 03:29 03/22

Time Off: 09:10 03/22

Time On Bottom: 05:31 03/22

Time Off Bottom: 07:31 03/22

REMARKS:

IF: wsb - built to 1"

IS: nobb

FF: wsb - no build

FS: nobb

Ph: 7

RW: .45 @ 48 degrees F

Chlorides: 23000 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE March 22 2018

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**

Time On: 03:29 03/22 Time Off: 09:10 03/22
 Time On Bottom: 05:31 03/22 Time Off Bottom: 07:31 03/22

Down Hole Makeup

Heads Up: 16.68 FT	Packer 1: 3289 FT
Drill Pipe: 3278.11 FT <i>ID-3 1/4</i>	Packer 2: 3294 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3278.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3296 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 16	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/4</i>	
Change Over: FT	
Perforations: (below): 15 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 22 2018

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**
Time On: 03:29 03/22 Time Off: 09:10 03/22
Time On Bottom: 05:31 03/22 Time Off Bottom: 07:31 03/22

Mud Properties

Mud Type: chemical **Weight:** 8.7 **Viscosity:** 72 **Filtrate:** 8.0 **Chlorides:** 3300 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
March
22
2018

DST #2 **Formation: lans a** **Test Interval: 3294 - 3310'** **Total Depth: 3310'**

Time On: 03:29 03/22 Time Off: 09:10 03/22
 Time On Bottom: 05:31 03/22 Time Off Bottom: 07:31 03/22

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
22
 2018

DST #3 **Formation: Lans b** **Test Interval: 3312 - 3330'** **Total Depth: 3330'**
 Time On: 14:49 03/22 Time Off: 22:18 03/22
 Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

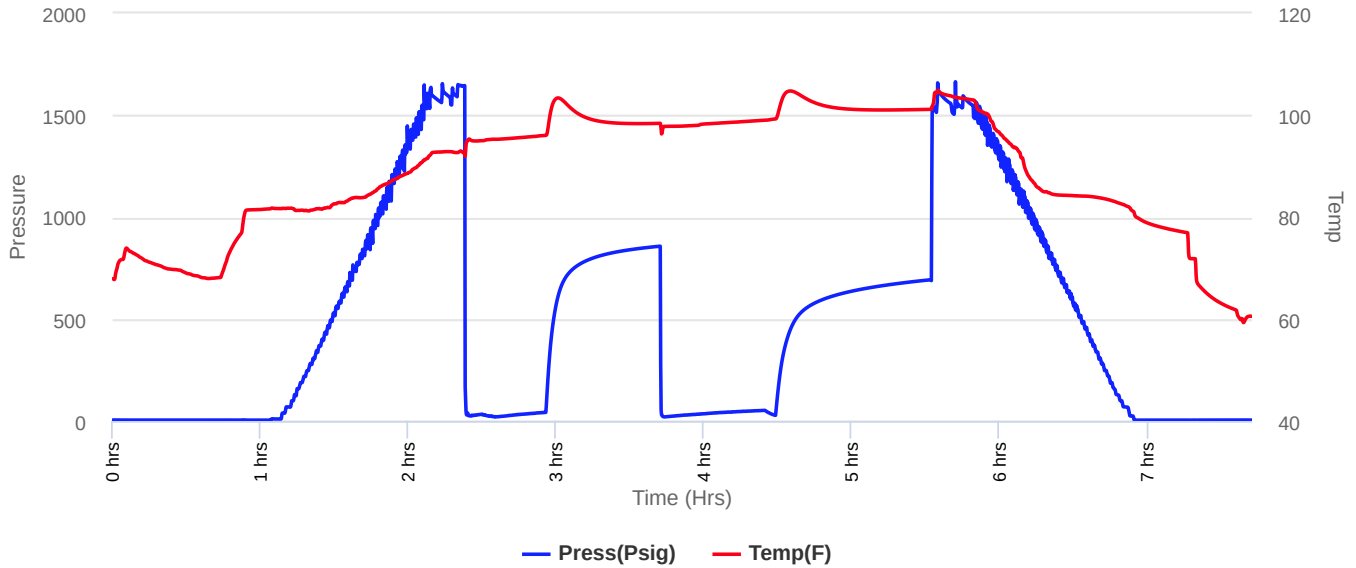
Electronic Volume Estimate:
 N/A

1st Open
 Minutes: 30
 Gaging gas" at 30 min

1st Close
 Minutes: 45
 .1" at 45 min

2nd Open
 Minutes: 45
 Gaging gas" at 45 min

2nd Close
 Minutes: 60
 0" at 60 min





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
22
 2018

DST #3 **Formation: Lans b** **Test Interval: 3312 - 3330'** **Total Depth: 3330'**
 Time On: 14:49 03/22 Time Off: 22:18 03/22
 Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

Recovered

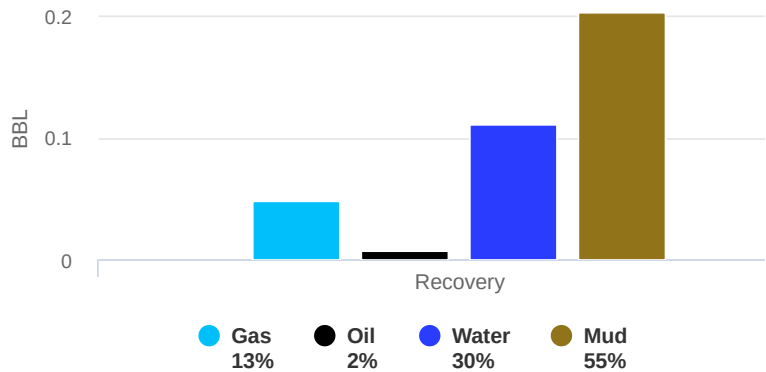
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
36	0.36936	SLOCSLGCHWCM	13	2	30	55

Total Recovered: 36 ft
 Total Barrels Recovered: 0.36936

Reversed Out
 NO

Initial Hydrostatic Pressure	1645	PSI
Initial Flow	30 to 42	PSI
Initial Closed in Pressure	857	PSI
Final Flow Pressure	20 to 52	PSI
Final Closed in Pressure	692	PSI
Final Hydrostatic Pressure	1616	PSI
Temperature	105	°F
Pressure Change Initial Close / Final Close	19.3	%

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 22 2018

DST #3 Formation: Lans b Test Interval: 3312 - Total Depth: 3330'
3330'

Time On: 14:49 03/22 Time Off: 22:18 03/22
Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

REMARKS:

IF: bb instant
IS: wsbb
FF: bb instant
FS: NOBB

Ph: 7

RW: .31 @ 61 degrees F

Chlorides: 26000 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE March 22 2018

DST #3 **Formation: Lans b** **Test Interval: 3312 - 3330'** **Total Depth: 3330'**

Time On: 14:49 03/22 Time Off: 22:18 03/22
 Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

Down Hole Makeup

Heads Up: 28.7 FT	Packer 1: 3307 FT
Drill Pipe: 3308.13 FT <i>ID-3 1/4</i>	Packer 2: 3312 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3296.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3314 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 18	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/4</i>	
Change Over: FT	
Perforations: (below): 17 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 22 2018

DST #3 **Formation: Lans b** **Test Interval: 3312 - 3330'** **Total Depth: 3330'**
Time On: 14:49 03/22 Time Off: 22:18 03/22
Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

Mud Properties

Mud Type: Chemical **Weight:** 9.0 **Viscosity:** 62 **Filtrate:** 9.2 **Chlorides:** 7200 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
22
 2018

DST #3 **Formation: Lans b** **Test Interval: 3312 - 3330'** **Total Depth: 3330'**
 Time On: 14:49 03/22 Time Off: 22:18 03/22
 Time On Bottom: 17:10 03/22 Time Off Bottom: 20:10 03/22

Gas Volume Report

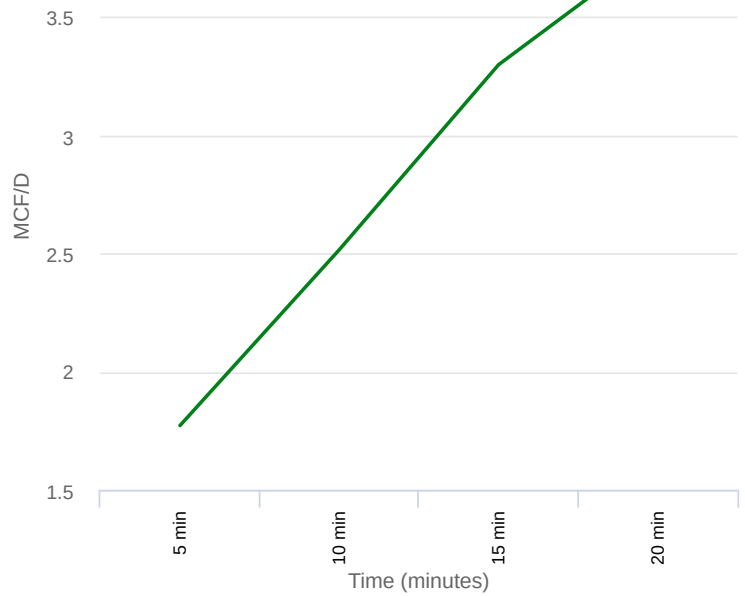
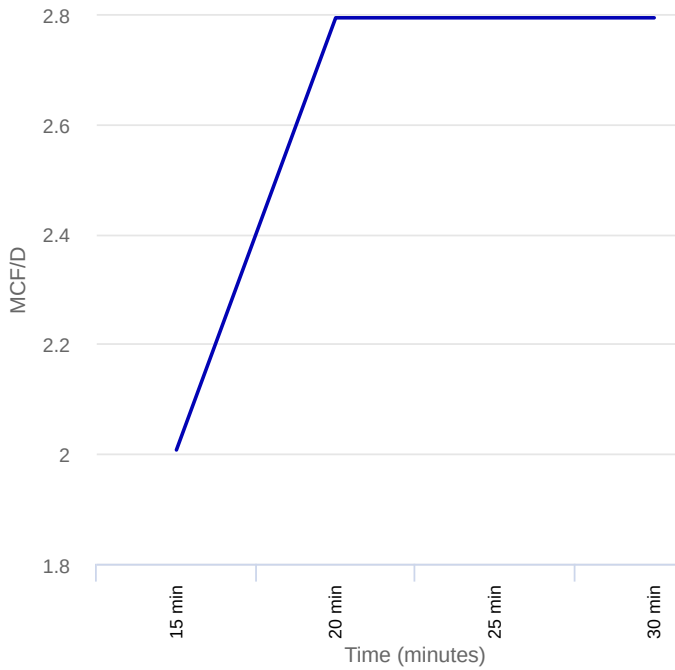
Remarks: Gts in 10 min. Gas sample taken at 22 min.

1st Open

Time	Orifice	PSI	MCF/D
15	0.0625	5.0	2.007
20	0.0625	9.0	2.793
25	0.0625	9.0	2.793
30	0.0625	9.0	2.793

2nd Open

Time	Orifice	PSI	MCF/D
5	0.0625	4.0	1.772
10	0.0625	7.5	2.516
15	0.0625	12	3.299
20	0.0625	15	3.801
25	0.0625	18	
30	0.0625	20	
35	0.0625	24	
45	0.0625	25	





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
23
 2018

DST #4 Formation: Lans e-f Test Interval: 3347 - 3377' Total Depth: 3377.04'

Time On: 06:33 03/23 Time Off: 13:15 03/23
 Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

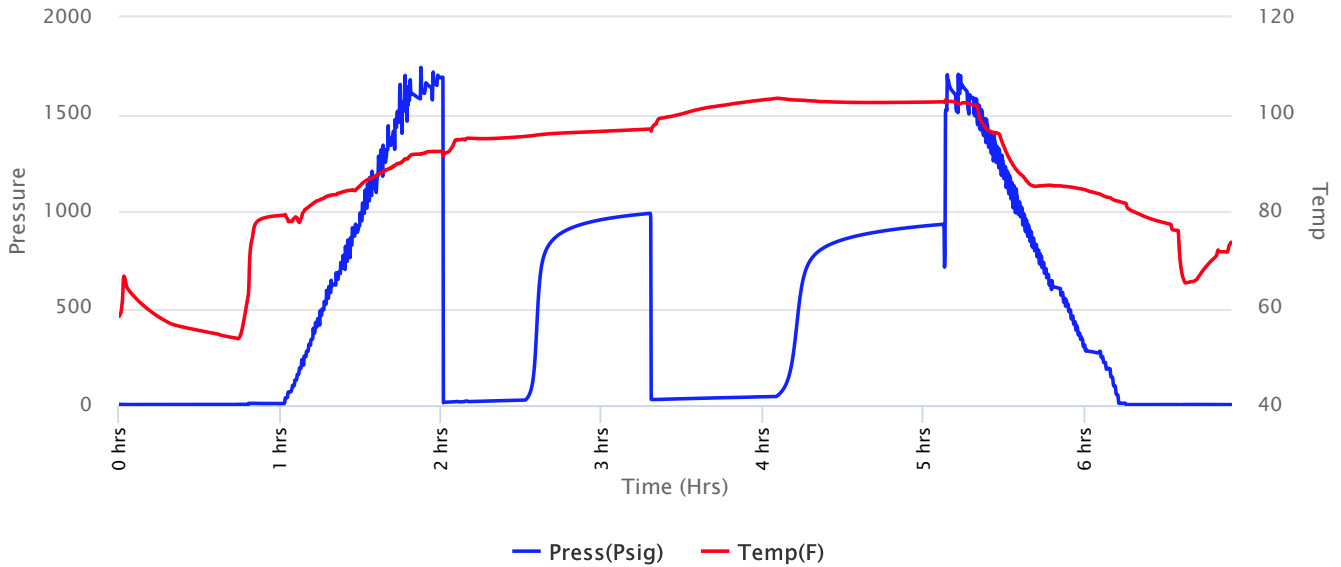
Electronic Volume Estimate:
 64'

1st Open
 Minutes: 30
 3.5" at 30 min

1st Close
 Minutes: 45
 0" at 45 min

2nd Open
 Minutes: 45
 3.75" at 45 min

2nd Close
 Minutes: 60
 0" at 60 min





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
23
 2018

DST #4 Formation: Lans e-f Test Interval: 3347 - Total Depth: 3377.04'
3377'

Time On: 06:33 03/23 Time Off: 13:15 03/23
 Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

Recovered

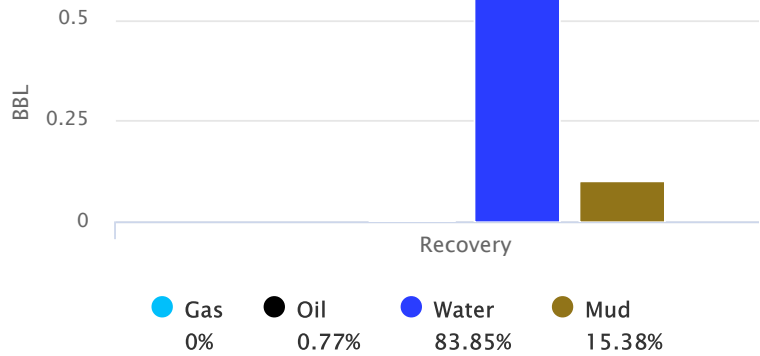
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.1539	W	0	0	100	0
50	0.513	SLOCMCW	0	1	79	20

Total Recovered: 65 ft
 Total Barrels Recovered: 0.6669

Reversed Out
 NO

Initial Hydrostatic Pressure	1634	PSI
Initial Flow	15 to 27	PSI
Initial Closed in Pressure	989	PSI
Final Flow Pressure	31 to 46	PSI
Final Closed in Pressure	934	PSI
Final Hydrostatic Pressure	1634	PSI
Temperature	104	°F
Pressure Change Initial Close / Final Close	5.6	%

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 23 2018

DST #4 Formation: Lans e-f Test Interval: 3347 - Total Depth: 3377.04'
3377'

Time On: 06:33 03/23 Time Off: 13:15 03/23
Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

REMARKS:

If: wsb built to 3.5 in 30min
Is: nobb
Ff: wsb built to 3.75 in 45min
Fs: nobb

TOOLSAMPLE :97W - 3M -WITH OIL SPECKS

TRACE OF OIL IN UPPER 15 FT OF RECOVERY

Ph: 7.0

RW: .28 @ 70 degrees F

Chlorides: 28000 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 23 2018

DST #4 Formation: Lans e-f Test Interval: 3347 - Total Depth: 3377.04'
3377'

Time On: 06:33 03/23 Time Off: 13:15 03/23
Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

Down Hole Makeup

Heads Up: 24.661 FT	Packer 1: 3342.04 FT
Drill Pipe: 3339.131 FT <i>ID-3 1/4</i>	Packer 2: 3347.04 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3331.46 FT
Collars: FT <i>ID-2 1/4</i>	Bottom Recorder: 3349.04 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 30	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): FT <i>4 1/2-FH</i>	
Change Over: FT	
Drill Pipe: (in anchor): FT <i>ID-3 1/4</i>	
Change Over: FT	
Perforations: (below): 29 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

<p>DATE March 23 2018</p>

DST #4 Formation: Lans e-f Test Interval: 3347 - Total Depth: 3377.04'
3377'

Time On: 06:33 03/23 Time Off: 13:15 03/23
Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

Mud Properties

Mud Type: Chemical **Weight:** 9 **Viscosity:** 62 **Filtrate:** 9.2 **Chlorides:** 7200 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
March
23
2018

DST #4 Formation: Lans e-f Test Interval: 3347 - Total Depth: 3377.04'
3377'

Time On: 06:33 03/23 Time Off: 13:15 03/23
 Time On Bottom: 08:30 03/23 Time Off Bottom: 11:30 03/23

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
24
 2018

DST #5 Formation: L/KC H-K Test Interval: 3424 - 3510' Total Depth: 3510'

Time On: 04:04 03/24 Time Off: 10:59 03/24
 Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

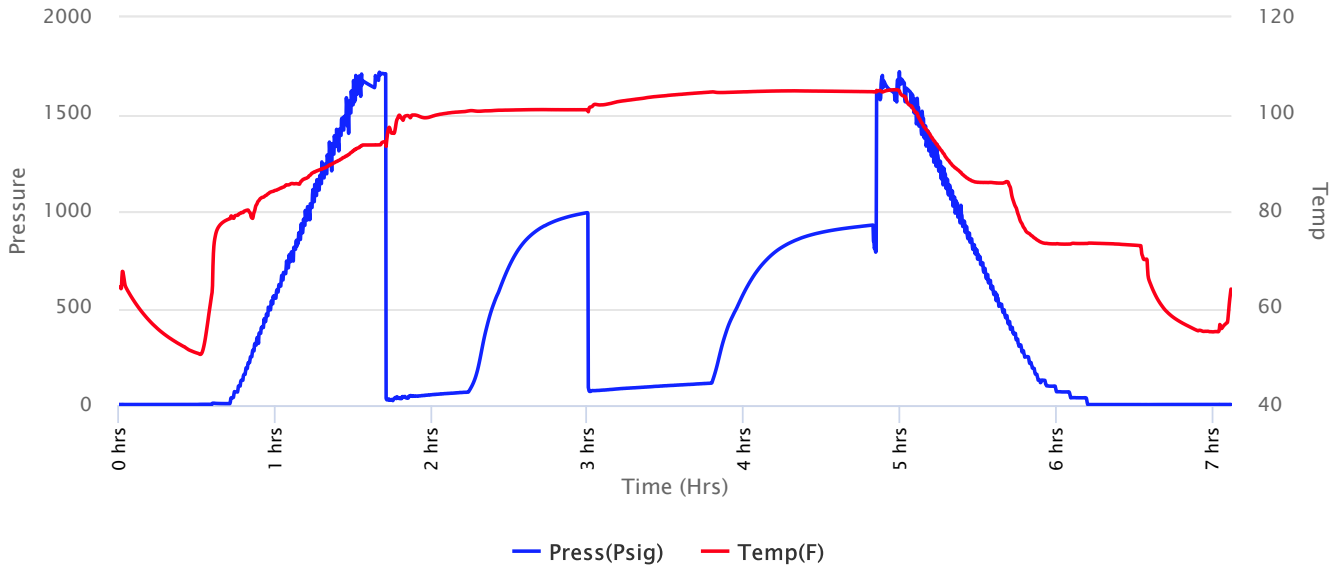
Electronic Volume Estimate:
 1110'

1st Open
 Minutes: 30
 59" at 30 min

1st Close
 Minutes: 45
 .5" at 45 min

2nd Open
 Minutes: 45
 66.6" at 45 min

2nd Close
 Minutes: 60
 11.3" at 60 min





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
24
 2018

DST #5 Formation: L/KC H-K Test Interval: 3424 - 3510' Total Depth: 3510'

Time On: 04:04 03/24 Time Off: 10:59 03/24
 Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

Recovered

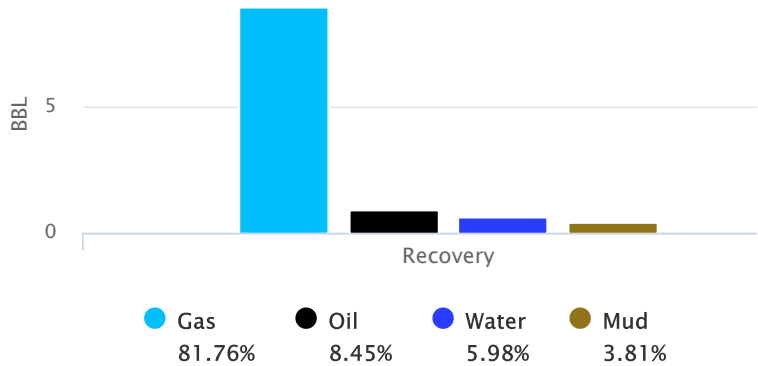
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
848	8.70048	G	100	0	0	0
172	1.76472	SLMCSLGCSLWCO	15	52	18	15
50	0.513	SLGCSLOCHMCW	2	2	66	30

Total Recovered: 1070 ft
 Total Barrels Recovered: 10.9782

Reversed Out
 NO

Initial Hydrostatic Pressure	1676	PSI
Initial Flow	29 to 71	PSI
Initial Closed in Pressure	994	PSI
Final Flow Pressure	73 to 114	PSI
Final Closed in Pressure	929	PSI
Final Hydrostatic Pressure	1681	PSI
Temperature	105	°F
Pressure Change Initial Close / Final Close	6.5	%

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

<p>DATE March 24 2018</p>

DST #5 Formation: L/KC H-K Test Interval: 3424 - Total Depth: 3510'
3510'

Time On: 04:04 03/24 Time Off: 10:59 03/24
Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

REMARKS:

if: 1" - b0b in 6 min

is: wsbb

ff: 4" - bob in 4 min

fs: 11.3 in 45min

tool sample: 3g-87o-6w-4m

Ph: 9

RW: .14 @ 55 degrees F

Chlorides: 70000 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE March 24 2018

DST #5 **Formation: L/KC H-K** **Test Interval: 3424 - 3510'** **Total Depth: 3510'**

Time On: 04:04 03/24 Time Off: 10:59 03/24
 Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

Down Hole Makeup

Heads Up: 11.74 FT	Packer 1: 3419.13 FT
Drill Pipe: 3403.3 FT <i>ID-3 1/4</i>	Packer 2: 3424.13 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3408.55 FT
Collars: FT <i>ID-2 1/4</i>	Bottom Recorder: 3492 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 85.87	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 61.87 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 19 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
Pool: Infield
Job Number: 109

DATE March 24 2018

DST #5 **Formation: L/KC H-K** **Test Interval: 3424 - 3510'** **Total Depth: 3510'**

Time On: 04:04 03/24 Time Off: 10:59 03/24
Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

Mud Properties

Mud Type: Chemical **Weight:** 9.2 **Viscosity:** 56 **Filtrate:** 12 **Chlorides:** 8300 ppm



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
March
24
2018

DST #5 **Formation: L/KC H-K** **Test Interval: 3424 - 3510'** **Total Depth: 3510'**

Time On: 04:04 03/24 Time Off: 10:59 03/24
 Time On Bottom: 05:45 03/24 Time Off Bottom: 08:45 03/24

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
------	---------	-----	-------

Time	Orifice	PSI	MCF/D
------	---------	-----	-------



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
24
 2018

DST #6 Formation: Arbuckle Test Interval: 3500 - 3570' Total Depth: 3570'

Time On: 20:43 03/24 Time Off: 04:28 03/25
 Time On Bottom: 23:22 03/24 Time Off Bottom: 02:22 03/25

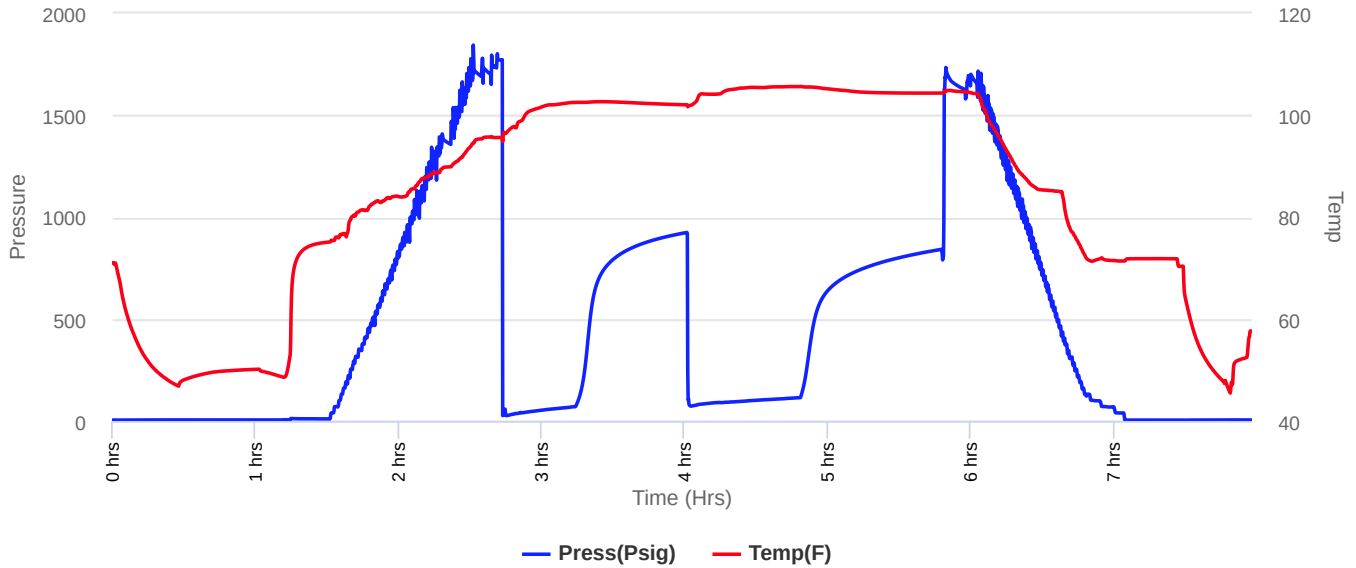
Electronic Volume Estimate:
 564'

1st Open
 Minutes: 30
 25" at 30 min

1st Close
 Minutes: 45
 .1" at 45 min

2nd Open
 Minutes: 45
 38" at 45 min

2nd Close
 Minutes: 60
 .5" at 60 min





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
 County: BARTON
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 1981 EGL
 Field Name: Olmitz West
 Pool: Infield
 Job Number: 109

DATE
 March
24
 2018

DST #6 Formation: Arbuckle Test Interval: 3500 - 3570' Total Depth: 3570'

Time On: 20:43 03/24 Time Off: 04:28 03/25
 Time On Bottom: 23:22 03/24 Time Off Bottom: 02:22 03/25

Recovered

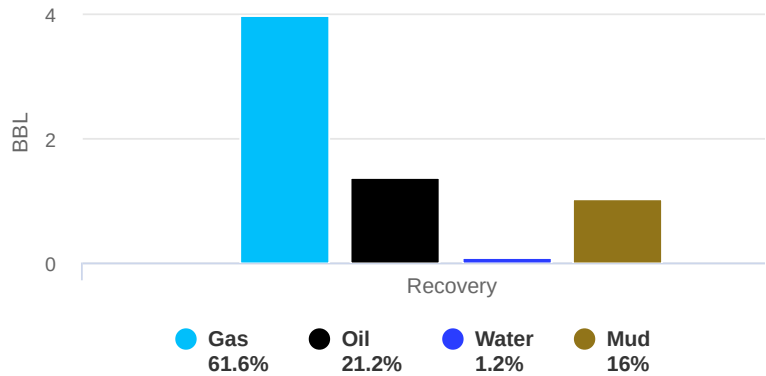
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
378	3.87828	G	100	0	0	0
252	2.58552	SLWCSLGCHMCO	4	53	3	40

Total Recovered: 630 ft
 Total Barrels Recovered: 6.4638

Reversed Out
 NO

Initial Hydrostatic Pressure	1732	PSI
Initial Flow	26 to 73	PSI
Initial Closed in Pressure	925	PSI
Final Flow Pressure	73 to 120	PSI
Final Closed in Pressure	842	PSI
Final Hydrostatic Pressure	1735	PSI
Temperature	106	°F
Pressure Change Initial Close / Final Close	8.9	%

Recovery at a glance





Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
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Job Number: 109

<p>DATE March 24 2018</p>

DST #6 Formation: Arbuckle Test Interval: 3500 - Total Depth: 3570'
3570'

Time On: 20:43 03/24

Time Off: 04:28 03/25

Time On Bottom: 23:22 03/24

Time Off Bottom: 02:22 03/25

REMARKS:

If: 1" Bob in 13.5 min

Is: wsb

Ff: 1" Bob in 9 min

Fs: .5 bb

tool sample: 95-o - 1w - 4m



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
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 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 1981 EGL
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<p>DATE March 24 2018</p>
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DST #6 Formation: Arbuckle Test Interval: 3500 - 3570' Total Depth: 3570'

Time On: 20:43 03/24 Time Off: 04:28 03/25
 Time On Bottom: 23:22 03/24 Time Off Bottom: 02:22 03/25

Down Hole Makeup

Heads Up: 29.28 FT	Packer 1: 3495 FT
Drill Pipe: 3496.71 FT <i>ID-3 1/4</i>	Packer 2: 3500 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3484.42 FT
Collars: FT <i>ID-2 1/4</i>	Bottom Recorder: 3477 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 70	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 34 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Eugene #2-4

SEC: 4 TWN: 18S RNG: 15W
County: BARTON
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 1981 EGL
Field Name: Olmitz West
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<p>DATE March 24 2018</p>

DST #6 Formation: Arbuckle Test Interval: 3500 - Total Depth: 3570'
3570'

Time On: 20:43 03/24 Time Off: 04:28 03/25
Time On Bottom: 23:22 03/24 Time Off Bottom: 02:22 03/25

Mud Properties

Mud Type: Chemical **Weight:** 9.2 **Viscosity:** 48 **Filtrate:** 9.6 **Chlorides:** 8200 ppm

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-584-9709 * WICHITA, KS

GEOLOGIST'S REPORT

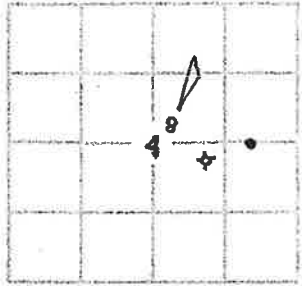
DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, Inc.
 LEASE *2-4 EUGENE
 FIELD OLMITZ WEST
 LOCATION 3055' FSL & 2310' FEL
 SEC 4 TWP 18s RGE 15w
 COUNTY BARTON STATE KANSAS
 CONTRACTOR L. D. DRILLING, Inc.
 SPUD 3-16-18 COMP 3-26-18
 RTD 3670 LTD 3671
 MUD UP 2815 TYPE MUD CHEMICAL

ELEVATIONS
 KB. 1986
 DE.
 GL. 1981
 Measurements Are All From 1986 KB
 CASING SURFACE 8 5/8" @ 1018'
 PRODUCTION 5 1/2" @
 ELECTRICAL SURVEYS
 DUAL IND., DENS-N. MICRO

SAMPLES SAVED FROM 2900 TO 3670
 DRILLING TIME KEPT FROM 2900 TO 3670
 SAMPLES EXAMINED FROM 2900 TO 3670
 GEOLOGICAL SUPERVISION FROM 3000 TO 3670
 GEOLOGIST ON WELL Kim B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	1002 + 984	1001 + 985
B/ANH	1030 + 956	1033 + 953
TOPEKA	2988 - 1002	2987 - 1001
HEEBNER	3223 - 1237	3224 - 1238
LANSING	3303 - 1317	3302 - 1316
B/KC	3504 - 1518	3502 - 1516
ARBUCKLE	3554 - 1568	3554 - 1568
BROWN LIME	3289 - 1303	3290 - 1304



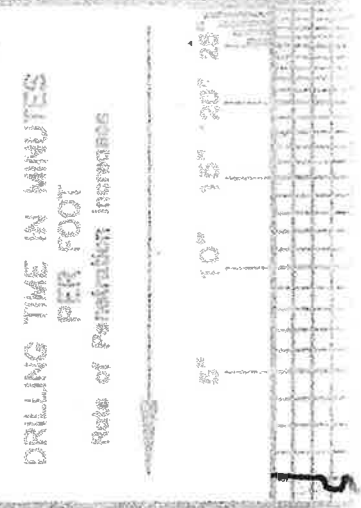
API: 15-009-26198

*: This is a 'thin' to 1-4 Eugene drilled
 7-31-17 - 8-4-17 original well became stuck @ 2803', Drill Collar and some drill pipe were not recovered. The new location was drilled 85' North of 1st location.

- REMARKS
- 3-16-18 SPUD
 - 3-17 @ 1003'
 - 3-18 @ 1223'
 - 3-19 @ 2270'
 - 3-20 @ 2817'
 - 3-21 @ 3180'
 - 3-22 @ 3310'
 - 3-23 @ 3377'
 - 3-24 @ 3510'
 - 3-25 @ 3580'
 - 3-26 @ 3670'

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Dol.Lime
- Gneiss
- Dolomite

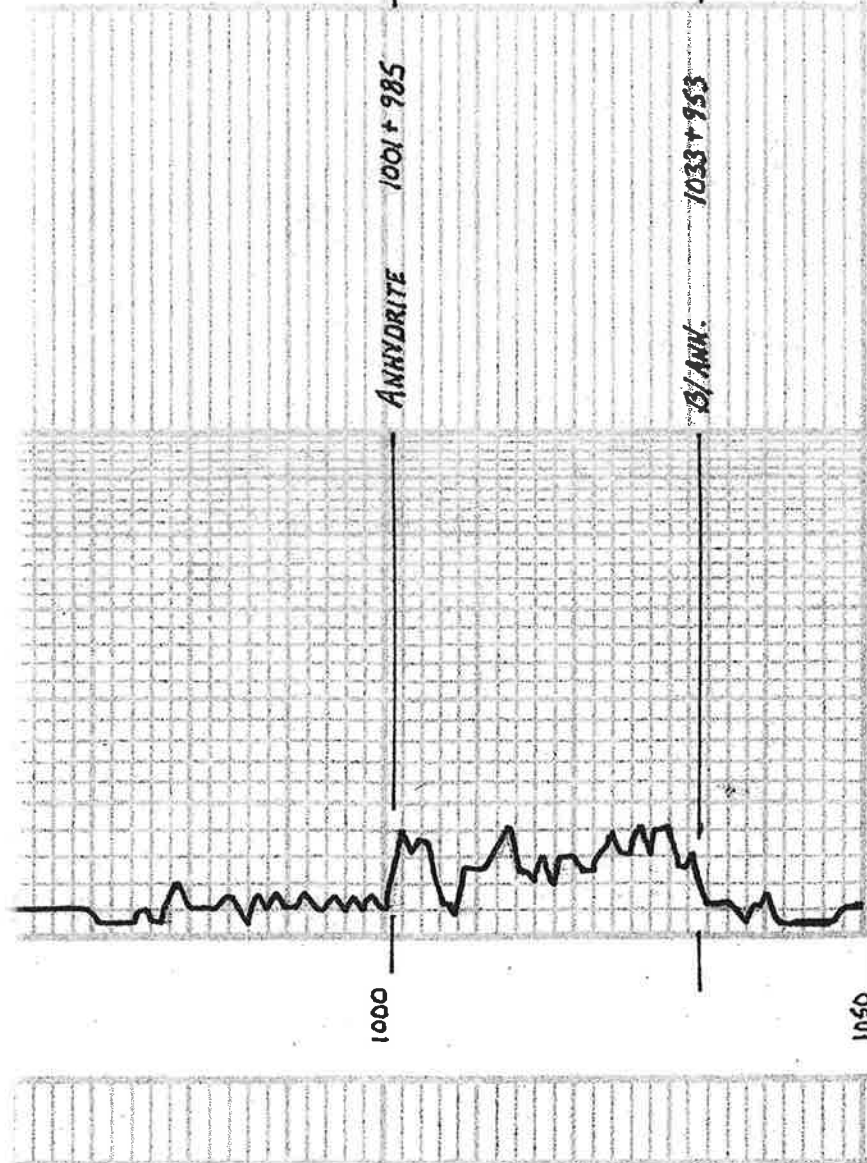


DEPTH
 950

REMARKS

SAMPLE DESCRIPTIONS

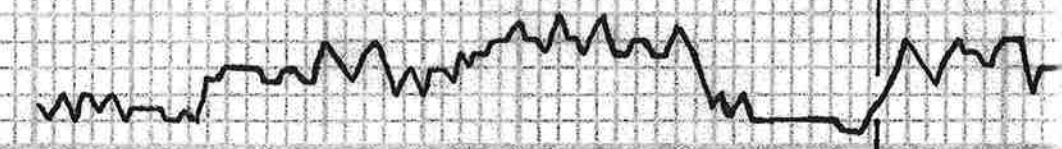
LITHOLOGY



1050

Mid V @ 2897
Vis: 72
WT: 8.7
VL: 8.0
CAL: 3300

2900



3000

Samples are logged

Sh. Ltg Silty

Ls. Silty. Silty

Sh. Gy.

Ls. Gy. Dtl.

Sh. Ltg. Silty

TOPEKA 2987-1001

Ls. Ltg. VSh Foss.

Ls. Ltg. VSh Foss.

Ls. Ltg. Silty Foss w/ DK G. Foss.

Ls. Ltg. VSh Foss VSh Chilly.

Ls. Tan. VSh Foss Silty Chilly. Fe spots

Ls. w/ Silty Foss Chilly.

Sh. Blu

Sh. Ltg.

Ls. w/ Silty Foss Chilly.

Sh. Ltg. G.

Ls. w/ Ltg. Silty Foss. Calcitic

Ls. Ltg. VSh A

Sh. Blu G.

Ls. Tan. VSh Foss.

Sh. Blu.

Ls. Tan. Silty Foss Chilly.

A DK B.

Ls. Tan. VSh A

Sh. G.

Ls. G. Silty Foss. Vaggy. Fe Sp

NE 6th Hwy SH. FSD DE RI Hwy. Nooder

Vis: 66
WT: 9.0
VL: 9.2
CAL: 7000



DST (1) 3160-3180

1st OPEN: Bottom bucket 2 min. 88: 6"

2nd OPEN: " " 5 " 89: Bottom bucket

Rec. 661 G.A.P.

32' CO. 10 Grav. @ 60°F

315' OGCV (3576.25/411.40/W)

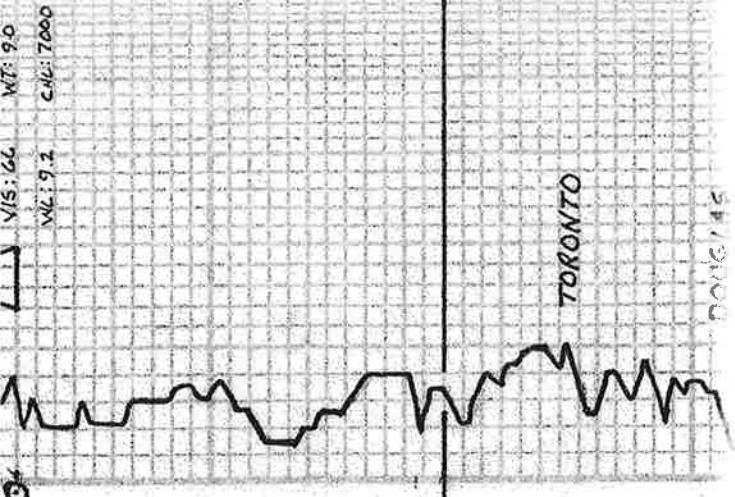
370' SOCV (57081.99/411.40/W)

TR. 225'

FP: 78-220 230-330 "

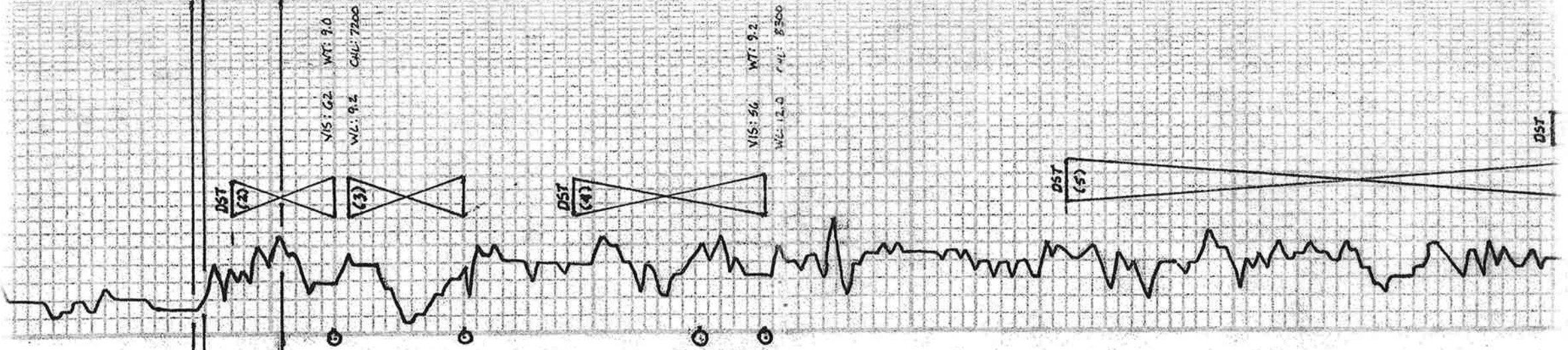
SIP: 724-653 F

Temp. 109°F

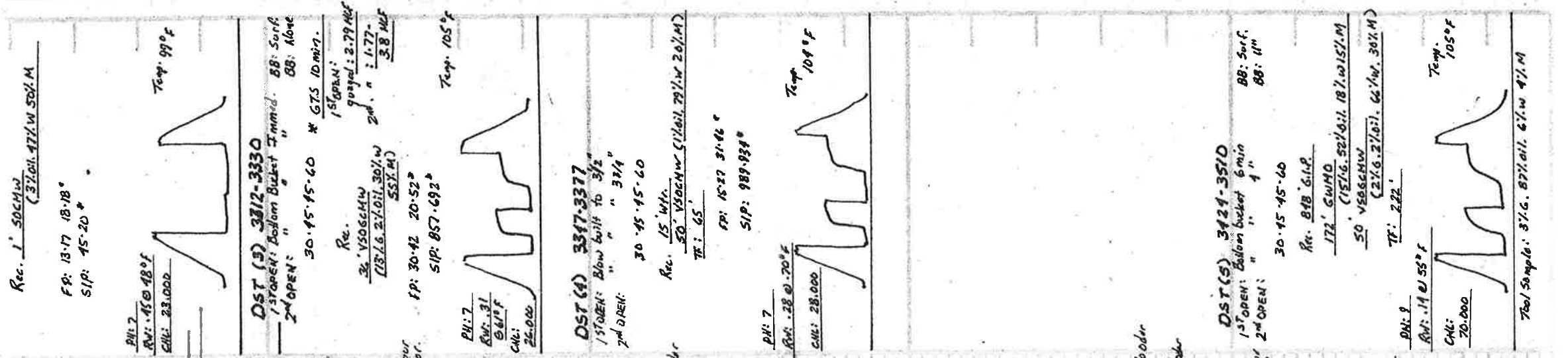


VIS: 66 WT: 90
 WCL: 9.2 CML: 7000
 LS. ML Lgy, VSH. Foss. Sil. Chlly, Fe. Fluber
 LS. Gg. Duv.
 LS. wt. VSH. Foss. Chlly. Fe. Fluber
 LS. Tn. L. Bl. Sil. A
HEBNER 3224-1238
 Sh. Bl. Crab.
 Sh. L. Bl. V.

DST (2) 3224-3310
 1st OPEN: Blow built to 1"



Sh. L. Gg. Silty
 Sh. L. Gg. Silty
BROWN LIME 3290-1304
 LS. Bl. Gg. V. Sil. Foss
 Sh. G. G.
LANSING 3302-1316
 LS. wt. cool. Sil. Chlly. P. V. Gg. Duv. Flour No Odr
 V. Bl. Bl. Silt. Sil. V. Foss. V. Foss. No Odr
 LS. Tn. L. Gg. One. Sil. cool. 9d. cool. p. No Flour
 Sp. Bl. L. Bl. Bl. Sil. Silt. V. Foss. No Odr
 LS. wt. VSH. Foss. Sil. Chlly.
 LS. Tn. Gg. Sil. A
 LS. L. Gg. Duv.
 LS. DE. Bl. V. Sil. Foss
 Sh. G. G.
 LS. Tn. wt. cool. Fl. V. Gg. Bl. Sil. V. Foss. No Odr
 P. V. Flour No Odr
 LS. Bl. Sil. Foss.
 LS. Gg. Sil. Foss. P. V. Gg. DE. Bl. Sil. Silt. No Flour
 V. Foss. No Odr
 LS. L. Gg. Sil. Foss. w/ DE. Bl. Sil. Silt. No Flour
 No Odr
 LS. Tn. Bl. Gg. V. Sil. A
 LS. wt. cool. Sil. Chlly. P. V. Gg. DE. Bl. Silt. No Flour
 DE. Bl. Silt. DE. Bl. Sil. V. Foss. V. Foss. No Flour No Odr
 LS. L. Gg. V. Sil. A
 Sh. Gg. G.
 LS. Tn. Gg. Sil. Foss. P. V. Gg. No Flour
 DE. Bl. Silt. Sil. V. Foss. V. Foss. No Odr
 LS. wt. VSH. Foss. Sil. Chlly.
 LS. wt. VSH. Foss. Sil. A



Rec. 1' 5064W
 (37.0m. 477.1W 506.1M
 FP: 13-17 18-18°
 SIP: 45-20°
 Temp: 99°F

PH: 7
 RW: 45 @ 48°F
 CML: 23,000
 Temp: 99°F

DST (3) 3312-3330
 1st OPEN: Bottom Bucket 7 min. 88: Surf.
 2nd OPEN: " " " " 88: 11"
 30-45-45-60 * GTS 10 min. 1st OPEN.
 Re. 1st OPEN: 2-29 HLF
 2nd OPEN: 1-17-3.8 HLF
 26' V5064W (18.1.6. 27.0.1. 30.1. W 55X.M)
 FP: 30-42 20-52°
 SIP: 857.692°
 Temp: 105°F

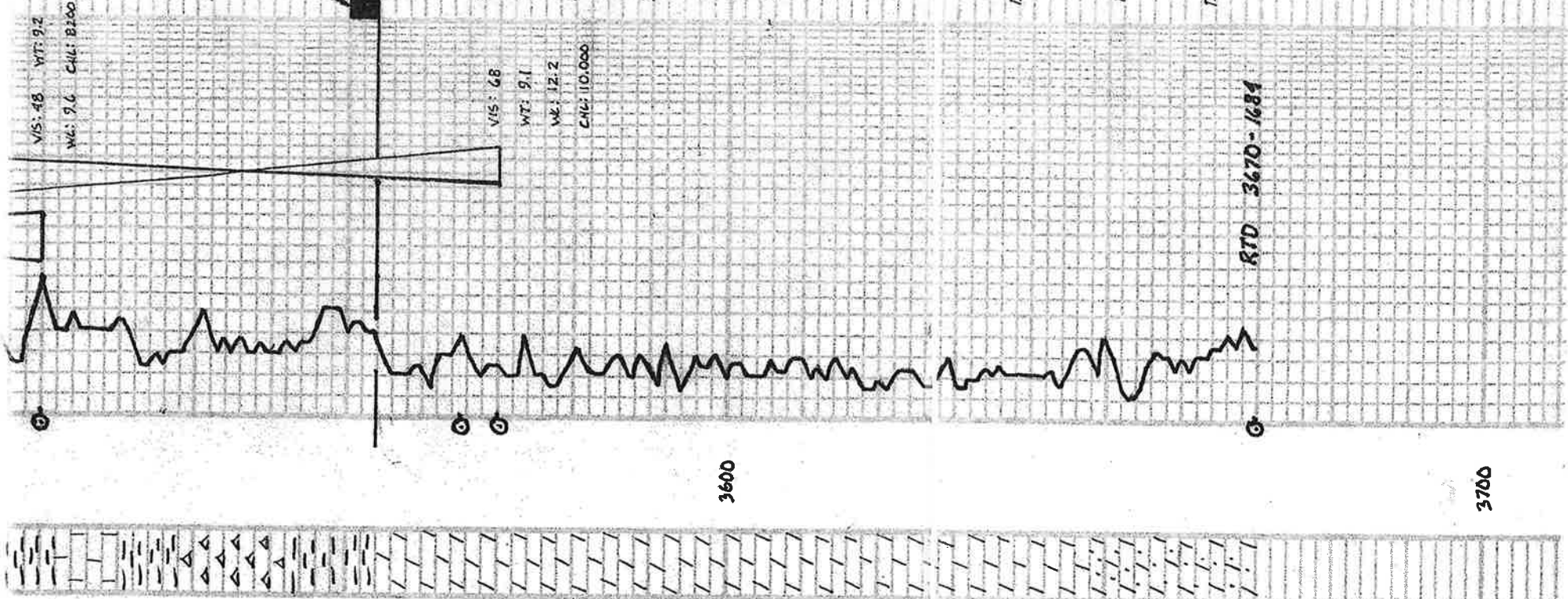
PH: 7
 RW: 31 @ 81°F
 CML: 26,000
 Temp: 105°F

DST (4) 3347-3377
 1st OPEN: Blow built to 3/2"
 2nd OPEN: " " " 3 3/4"
 30-45-45-60
 Rec. 15' Wt. 50' V5064W (18.1.6. 27.0.1. 29.1. W 20.1. M)
 TP: 65
 FP: 15-27 31-46°
 SIP: 989-934°
 Temp: 109°F

PH: 7
 RW: 28 @ 70°F
 CML: 28,000
 Temp: 109°F

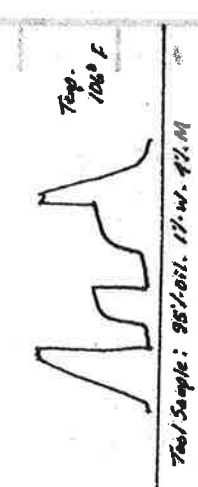
DST (5) 3424-3510
 1st OPEN: Bottom bucket 6 min
 2nd OPEN: " " " 4"
 30-45-45-60
 Re. 818' G. L. P.
 172' G. W. M.
 50' V5064W (27.6. 27.0.1. 66' W. 30% M)
 TP: 222
 PH: 9
 RW: 14 @ 55°F
 CML: 70,000
 Temp: 105°F

760' Sample: 8% G. 87% sil. 6' W 4' M



VIS: 48 WT: 9.2
 WC: 9.6 CMC: B200
 45. wt. vsl: Fss. Sil. Chl. w/ Rd sh. Incl.
 sh. Rd. G. G.
 Δ Rd. Orng. To Bl. Sil. weathered
 sh. Rd. G.
ARBUCKLE
 3559-1568
 Dol. w/ Coxln F. Xh. β
 Bl. SAT. SH. SFD F. Flow F. odor
 Dol. w/ Mid. Coxln F. Xh. β
 Bl. SAT. SH. SFD T. Gals. F. Flow
 F. odor
 Dol. w/ Coxln F. Xh. β
 SAT. SH. SFD ESTD F. Flow
 F. odor
 Dol. w/ G. Coxln F. Xh. β
 D.E. Bl. Sph. SH. SFD Dull Flow
 Col. odor
 Dol. wt. Mid. Coxln, T. Sph. Co. G.
 Dol. w/ Lig. Coxln T. Glauc. T. Pyrite
 Dol. w/ G. Mid. Coxln T. Glauc.
 Dol. wt. Fresh Sph. Mid. Co. G.
 Dol. T. G. Very Sph. Mid. Co. SUB. RD.

DST (6) 3500-3570
 1st OPEN: Bottom bucket 13.5 min. 88: SWC
 2nd OPEN: " " " 88: 1/2"
 30.45-45-60
 Rev. 378 G.I.P.
 252' 56 WARD
 [41.6.53/dst. 31 w. 98% M]
 FP: 26-29 73-120 *
 SIP: 925-892 *



Top Sample: 95' - dist. 11' w. 91' M

RTD 3670-1684

3600

3700