KOLAR Document ID: 1431086

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 #	API No.:		
Name:	Spot Description:		
Address 1:	SecTwpS. R East _ West		
Address 2:	Feet from North / South Line of Section		
City:	Feet from East / West Line of Section		
Contact Person:	Footages Calculated from Nearest Outside Section Corner:		
Phone: ()	□NE □NW □SE □SW		
CONTRACTOR: License #	GPS Location: Lat:, Long:		
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)		
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84		
Purchaser:	County:		
Designate Type of Completion:	Lease Name: Well #:		
New Well Re-Entry Workover	Field Name:		
	Producing Formation:		
☐ Oil ☐ WSW ☐ SWD	Elevation: Ground: Kelly Bushing:		
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:		
☐ OG ☐ GSW	Amount of Surface Pipe Set and Cemented at: Feet		
CM (Coal Bed Methane)	Multiple Stage Cementing Collar Used?		
Cathodic Other (Core, Expl., etc.):			
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet		
Operator:	If Alternate II completion, cement circulated from:		
Well Name:	feet depth to: sx cmt.		
Original Comp. Date: Original Total Depth:			
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD	Drilling Fluid Management Plan		
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)		
Commingled Permit #:	Chloride content:ppm Fluid volume:bbls		
Dual Completion Permit #:	Dewatering method used:		
SWD Permit #:	Location of fluid disposal if hauled offsite:		
EOR Permit #:	Ecodition of hald disposal in riddied choice.		
GSW Permit #:	Operator Name:		
_	Lease Name: License #:		
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R		
Recompletion Date Recompletion Date	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 Approved by: Date:				

KOLAR Document ID: 1431086

Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp.	S. R.	E	ast 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 files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No					
		B	CASING eport all strings set-c		New Used	ion, etc.		
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD			
Purpose:		epth T Bottom	ype of Cement	# Sacks Used	sed Type and Percent Additives			
Perforate Protect Casi Plug Back T								
Plug Off Zor								
Did you perform a Does the volume Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)		
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT
,	,			B.11 B1				
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:				
TODING RECORD:	. 3126.	Set	n.	i donei Al.				

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	RIEMANN 1-4
Doc ID	1431086

Tops

Name	Тор	Datum
ANHYDRITE	2120	+599
BASE ANHYDRITE	2149	+570
STOTLER	3532	-813
HEEBNER	3930	-1211
LANSING	3970	-1251
STARK	4230	-1511
MARMATON	4328	-1609
FORT SCOTT	4480	-1761
CHEROKEE	4504	-1785
MISSISSIPPI	4591	-1872

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	RIEMANN 1-4
Doc ID	1431086

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	23	330	60/40 POZMIX	3%CC,1/4 #Celloflak e



County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247

Operation:
Uploading recovery & pressures

DATE November 18

18 2018

DST #1 Formation: Lansing Test Interval: 4040 - Total Depth: 4057'

Time On: 05:17 11/18 Time Off: 12:19 11/18

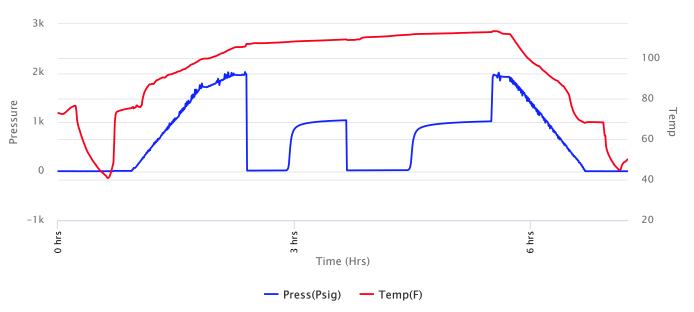
Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

Electronic Volume Estimate:

44'

1st Open Minutes: 30 Current Reading: 2.2" at 30 min Max Reading: 2.2" 1st Close Minutes: 45 Current Reading: 0" at 45 min Max Reading: .5" 2nd Open Minutes: 45 Current Reading: 1.3" at 45 min Max Reading: 1.3" 2nd Close Minutes: 60 Current Reading: 0" at 60 min Max Reading: 0"

Inside Recorder





County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247

Operation:
Uploading recovery &
pressures

DATE

November

18 2018

DST #1 Formation: Lansing Test Interval: 4040 - Total Depth: 4057'

Time On: 05:17 11/18 Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

Recovered

 Foot
 BBLS
 Description of Fluid
 Gas %
 Oil %
 Water %
 Mud %

 25
 0.2565
 SLOCM
 0
 2
 0
 98

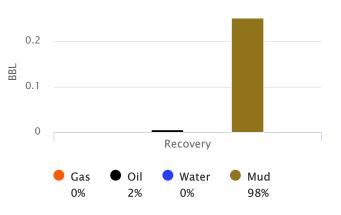
Total Recovered: 25 ft

Close / Final Close

Total Barrels Recovered: 0.2565

		NO
Initial Hydrostatic Pressure	1956	PSI
Initial Flow	10 to 14	PSI
Initial Closed in Pressure	1037	PSI
Final Flow Pressure	15 to 20	PSI
Final Closed in Pressure	1015	PSI
Final Hydrostatic Pressure	1951	PSI
Temperature	113	°F
Pressure Change Initial	2.1	%

Recovery at a glance





Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W

County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

DATE

November

18

2018

DST #1 Formation: Lansing Test Interval: 4040 -Total Depth: 4057' 4057'

Time On: 05:17 11/18 Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

BUCKET MEASUREMENT:

1st Open: Wsb built to 2.2"

1st Close: Nobb

2nd Open: Wsb built to 1.3"

2nd Close: Nobb

REMARKS:

Tool Sample: 10% Gas 8% Oil 2% Water 80% Mud



Lease: Riemann #1-4

State: Kansas Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247

County: LANE

Operation: Uploading recovery & pressures

> **DATE** November 18

2018

DST #1 Formation: Lansing Test Interval: 4040 -Total Depth: 4057' 4057'

Time On: 05:17 11/18 Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

Down Hole Makeup

Heads Up: Packer 1: 20.72 FT 4035 FT

Drill Pipe: 4028.15 FT Packer 2: 4040 FT

ID-3 1/4 Top Recorder: 4024.42 FT

Weight Pipe: FT **Bottom Recorder:** 4042 FT

ID-2 7/8

Well Bore Size: 7 7/8 Collars: FT

ID-2 1/4 **Surface Choke:** 1"

Test Tool: 33.57 FT **Bottom Choke:** 5/8"

ID-3 1/2-FH

Jars Safety Joint

Total Anchor: 17

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/4

Change Over: FT

Perforations: (below): 16 FT

4 1/2-FH



County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247

Operation:
Uploading recovery & pressures

DATE November 18 2018 DST #1 Formation: Lansing Test Interval: 4040 - Total Depth: 4057'

Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

Mud Properties

Mud Type: Chemical Weight: 8.9 Viscosity: 48 Filtrate: 8.8 Chlorides: 2800 ppm



Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W County: LANE

State: Kansas Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: NA Pool: Infield Job Number: 247



DATE November 18 2018

DST #1 Formation: Lansing Test Interval: 4040 -Total Depth: 4057' 4057'

Time On: 05:17 11/18 Time Off: 12:19 11/18

Time On Bottom: 07:38 11/18 Time Off Bottom: 10:38 11/18

Gas Volume Report

	1st Op	en		
Time	Orifice	PSI	MCF/D	Time

2nd Open			
Time	Orifice	PSI	MCF/D



SEC: 4 TWN: 18S RNG: 28W County: LANE

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

> **DATE** November 19

> > 2018

DST #2 Formation: Lansing H and J

Time On: 03:30 11/19

Test Interval: 4124 -4219'

Total Depth: 4219'

Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

Electronic Volume Estimate:

47'

1st Open Minutes: 30 **Current Reading:** 2.4" at 30 min

Max Reading: 2.4"

1st Close Minutes: 45 **Current Reading:** 0" at 45 min Max Reading: 0"

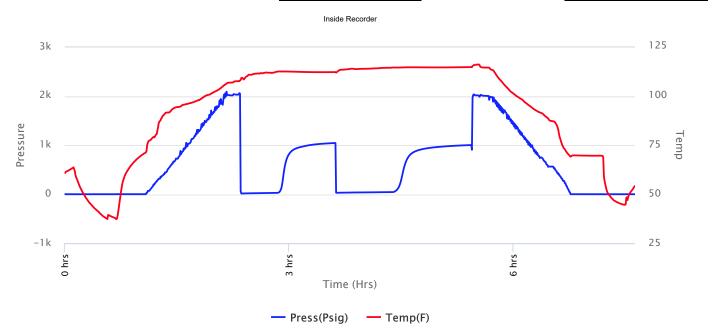
2nd Open Minutes: 45 **Current Reading:**

1.8" at 45 min

Max Reading: 1.8"

2nd Close Minutes: 60 **Current Reading:** 0" at 60 min

Max Reading: 0"





County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield

Job Number: 247

Operation: Uploading recovery & pressures

> **DATE** November

19 2018 **DST #2** Formation: Lansing H and J

Test Interval: 4124 -

Total Depth: 4219'

4219'

Time On: 03:30 11/19 Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

Gas %

0 0

Recovered

<u>Foot</u>	<u>BBLS</u>	Description of Fluid
2	0.02052	0
62	0.63612	SLOCM

100	0	0
10	0	90

Water %

Mud %

Total Recovered: 64 ft

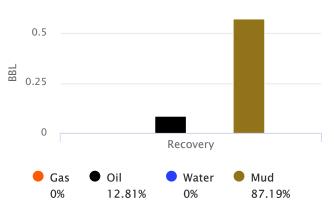
Total Barrels Recovered: 0.65664

Reversed Out
NO

Initial Hydrostatic Pressure	2026	PSI
Initial Flow	13 to 26	PSI
Initial Closed in Pressure	1042	PSI
Final Flow Pressure	28 to 42	PSI
Final Closed in Pressure	1000	PSI
Final Hydrostatic Pressure	2013	PSI
Temperature	115	°F
Pressure Change Initial	4.0	%
Close / Final Close		

Recovery at a glance

Oil %





County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

DATE

November

19

2018

DST #2 Formation: Lansing Test Interval: 4124 -H and J

Total Depth: 4219'

4219'

Time On: 03:30 11/19 Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

BUCKET MEASUREMENT:

1st Open: Wsb built to 2.4"

1st Close: Nobb

2nd Open: Wsb built to 1.8"

2nd Close: Nobb

REMARKS: 2 ft slide to btm

Tool Sample: 0% Gas 15% Oil 5% Water 80% Mud

Gravity: 33.4 @ 60 °F



SEC: 4 TWN: 18S RNG: 28W County: LANE

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

> **DATE** November

> > 19 2018

DST #2 Formation: Lansing H and J

Test Interval: 4124 -

Total Depth: 4219'

4219'

Time On: 03:30 11/19 Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

Down Hole Makeup

Heads Up: 30.06 FT Packer 1: 4119 FT

Drill Pipe: 4121.49 FT Packer 2: 4124 FT

ID-3 1/4

Top Recorder: 4108.42 FT

Weight Pipe: FT

Bottom Recorder: 4193 FT

ID-2 7/8

Well Bore Size: 7 7/8

Collars: FT

ID-2 1/4

Surface Choke: 1"

Test Tool: 33.57 FT

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 95

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

2 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor):

63 FT

ID-3 1/4

Change Over:

Perforations: (below):

1 FT 27 FT

4 1/2-FH

Bottom Choke: 5/8"



Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W County: LANE

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

> **DATE** November 19 2018

DST #2 Formation: Lansing Test Interval: 4124 -Total Depth: 4219' H and J 4219'

Time On: 03:30 11/19 Time Off: 10:56 11/19

Time On Bottom: 05:48 11/19 Time Off Bottom: 08:48 11/19

Mud Properties

Mud Type: Chemical Viscosity: 52 Chlorides: 3000 ppm Weight: 93 Filtrate: 8.0



County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield

Job Number: 247

Operation: Uploading recovery & pressures

DATE

November

20

2018

DST #3

Formation: Marmaton

Test Interval: 4305 -

Total Depth: 4340'

4340'

Time On: 02:08 11/20 Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

Electronic Volume Estimate:

32'

1st Open Minutes: 30 **Current Reading:**

1.8" at 30 min Max Reading: 1.8"

1st Close Minutes: 45 **Current Reading:** 0" at 45 min

Max Reading: 0"

2nd Open Minutes: 45 **Current Reading:**

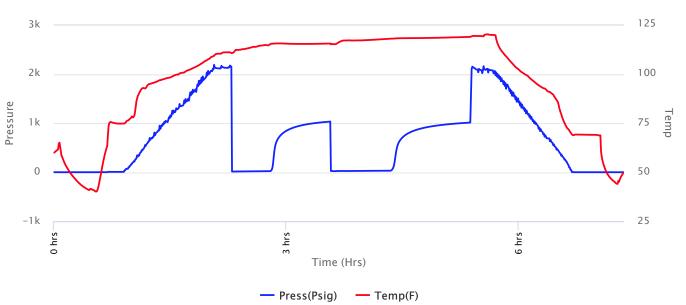
.9" at 45 min

Max Reading: .9"

2nd Close Minutes: 60 **Current Reading:** 0" at 60 min

Max Reading: 0"

Inside Recorder





County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield

Job Number: 247

Operation: Uploading recovery & pressures

DATE

November

20 2018 **DST #3**

Formation: Marmaton Test Interval: 4305 -

Total Depth: 4340'

4340'

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

Recovered

<u>Foot</u> **BBLS** 45 0.4617 **Description of Fluid SLWCHMCG**

Gas % 0

Oil % 0

Water % 15

Mud % 85

Total Recovered: 45 ft

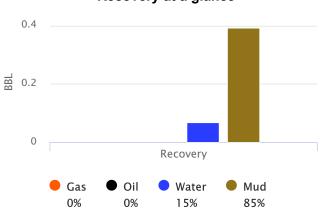
Total Barrels Recovered: 0.4617

Close / Final Close

Reversed Out NO

Initial Hydrostatic Pressure	2124	PSI
Initial Flow	11 to 21	PSI
Initial Closed in Pressure	1030	PSI
Final Flow Pressure	22 to 29	PSI
Final Closed in Pressure	1010	PSI
Final Hydrostatic Pressure	2120	PSI
Temperature	119	°F
Pressure Change Initial	2.0	%

Recovery at a glance





State: Kansas Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

County: LANE

Operation: Uploading recovery & pressures

DATE

November

20 2018

DST #3

Formation: Marmaton

Test Interval: 4305 -

Total Depth: 4340'

4340'

Time On: 02:08 11/20 Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

BUCKET MEASUREMENT:

1st Open: Wsb built to 1.8"

1st Close: Nobb

2nd Open: Wsb built to .9"

2nd Close: Nobb

REMARKS:

Tool Sample: 0% Gas 1% Oil 49% Water 50% Mud

Ph: 7

Measured RW: .6 @ 33 degrees °F

RW at Formation Temp: 0.19 @ 119 °F

Chlorides: 25000 ppm



Lease: Riemann #1-4

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

County: LANE State: Kansas

Operation: Uploading recovery & pressures

> **DATE** November 20

> > 2018

DST #3 Formation: Marmaton

Test Interval: 4305 -

Total Depth: 4340'

4340'

Time On: 02:08 11/20 Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

Down Hole Makeup

Heads Up: 36.48 FT Packer 1: 4300 FT

Drill Pipe: 4308.91 FT Packer 2: 4305 FT

5/8"

ID-3 1/4

Top Recorder: 4289.42 FT

Weight Pipe: FT

Bottom Recorder: 4309 FT

ID-2 7/8

Well Bore Size: 7 7/8

Collars: FT

ID-2 1/4

Surface Choke: 1"

Test Tool: 33.57 FT

Bottom Choke:

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 35

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 2 FT

4 1/2-FH

Change Over: FT

Drill Pipe: (in anchor): FT

ID-3 1/4

Change Over: FT

Perforations: (below): 32 FT

4 1/2-FH



Lease: Riemann #1-4

County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

> **DATE** November

> > 20 2018

DST #3

Formation: Marmaton

Test Interval: 4305 -

Total Depth: 4340'

4340'

Time On: 02:08 11/20

Time Off: 09:17 11/20

Time On Bottom: 04:22 11/20 Time Off Bottom: 07:22 11/20

Mud Properties

Mud Type: Chemical Viscosity: 49 Chlorides: 3600 ppm Weight: 9.4 Filtrate: 7.2



SEC: 4 TWN: 18S RNG: 28W County: LANE

County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield

Pool: Infield Job Number: 247

Operation:
Uploading recovery &
pressures

DATE November

21 2018

DST#4

Formation: Altamonte, fortscott

Test Interval: 4390 -

Total Depth: 4500'

4500'

Time On: 05:14 11/21 Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21 Time Off Bottom: 09:59 11/21

Electronic Volume Estimate:

18'

1st Open Minutes: 30 Current Reading: 1.5" at 30 min

Max Reading: 1.5"

1st Close Minutes: 30 Current Reading: 0" at 30 min

Max Reading: 0"

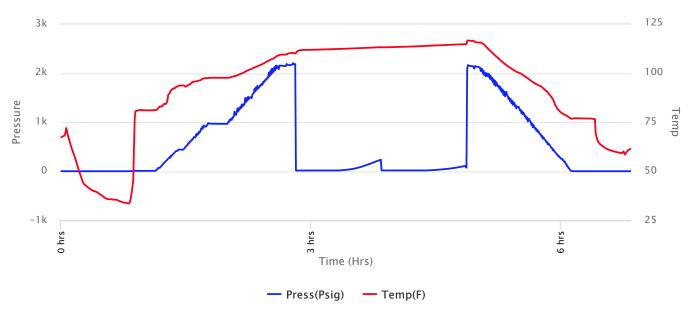
2nd Open Minutes: 30 Current Reading: 0" at 30 min

Max Reading: 0"

2nd Close Minutes: 30 Current Reading: 0" at 30 min

Max Reading: 0"







Operation:

Uploading recovery &

pressures

Company: L. D. Drilling, Inc Lease: Riemann #1-4

SEC: 4 TWN: 18S RNG: 28W

County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat Pool: Infield

Job Number: 247

DATE November 21

2018

DST #4 Formation: Altamonte, fortscott Test Interval: 4390 -

Total Depth: 4500'

4500'

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21 Time Off Bottom: 09:59 11/21

Recovered

<u>Foot</u> **BBLS** 10 0.1026 **Description of Fluid** Μ

<u>Gas %</u> 0

Oil % 0

Water % 0

Mud % 100

Total Recovered: 10 ft

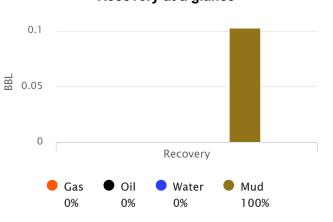
Total Barrels Recovered: 0.1026

Close / Final Close

Reversed	(
NO	

		110
Initial Hydrostatic Pressure	2142	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	234	PSI
Final Flow Pressure	14 to 14	PSI
Final Closed in Pressure	105	PSI
Final Hydrostatic Pressure	2142	PSI
Temperature	115	°F
Pressure Change Initial	55.0	%

Recovery at a glance





Operation:
Uploading recovery &

SEC: 4 TWN: 18S RNG: 28W

County: LANE State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

DATE

pressures

November

21

2018

DST #4

Formation: Altamonte, fortscott

Test Interval: 4390 -

Total Depth: 4500'

4500'

Time On: 05:14 11/21 Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21 Time Off Bottom: 09:59 11/21

BUCKET MEASUREMENT:

1st Open: 1/4" built to 1.5"

1st Close: Nobb

2nd Open: No blow no build

2nd Close: Nobb

REMARKS:

Tool Sample: 0% Gas 0% Oil 0% Water 100% Mud



Lease: Riemann #1-4

State: Kansas

County: LANE

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

Operation: Uploading recovery & pressures

DATE

November

21

2018

DST #4

Formation: Altamonte, fortscott Test Interval: 4390 -

Total Depth: 4500'

4500'

Time On: 05:14 11/21

Time Off: 11:53 11/21

Time On Bottom: 07:59 11/21 Time Off Bottom: 09:59 11/21

Down Hole Makeup

Heads Up: 13.88 FT Packer 1: 4385 FT

Drill Pipe: 4371.31 FT Packer 2: 4390 FT

5/8"

ID-3 1/4

Top Recorder: 4374.42 FT

Weight Pipe: FT

Bottom Recorder: 4489 FT

ID-2 7/8

Collars: FT Well Bore Size: 7 7/8

ID-2 1/4

Surface Choke: 1"

Bottom Choke:

Test Tool: 33.57 FT

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 110

Anchor Makeup

Packer Sub: 1 FT

Perforations: (top): 2 FT

4 1/2-FH

Change Over: 1 FT

Drill Pipe: (in anchor): 94 FT

ID-3 1/4

Change Over: 1 FT

Perforations: (below): 11 FT

4 1/2-FH



Operation:

Uploading recovery &

pressures

Company: L. D. Drilling, Inc

Lease: Riemann #1-4

Drilling Contractor: L. D. Drilling, Inc -

SEC: 4 TWN: 18S RNG: 28W

Rig 1

Elevation: 2719 EGL Field Name: Wildcat

Pool: Infield Job Number: 247

County: LANE State: Kansas

DATE November

21 2018 DST #4 Formation: Altamonte, fortscott Test Interval: 4390 -

Total Depth: 4500'

4500'

Time On: 05:14 11/21 Time Off: 11:53 11/21

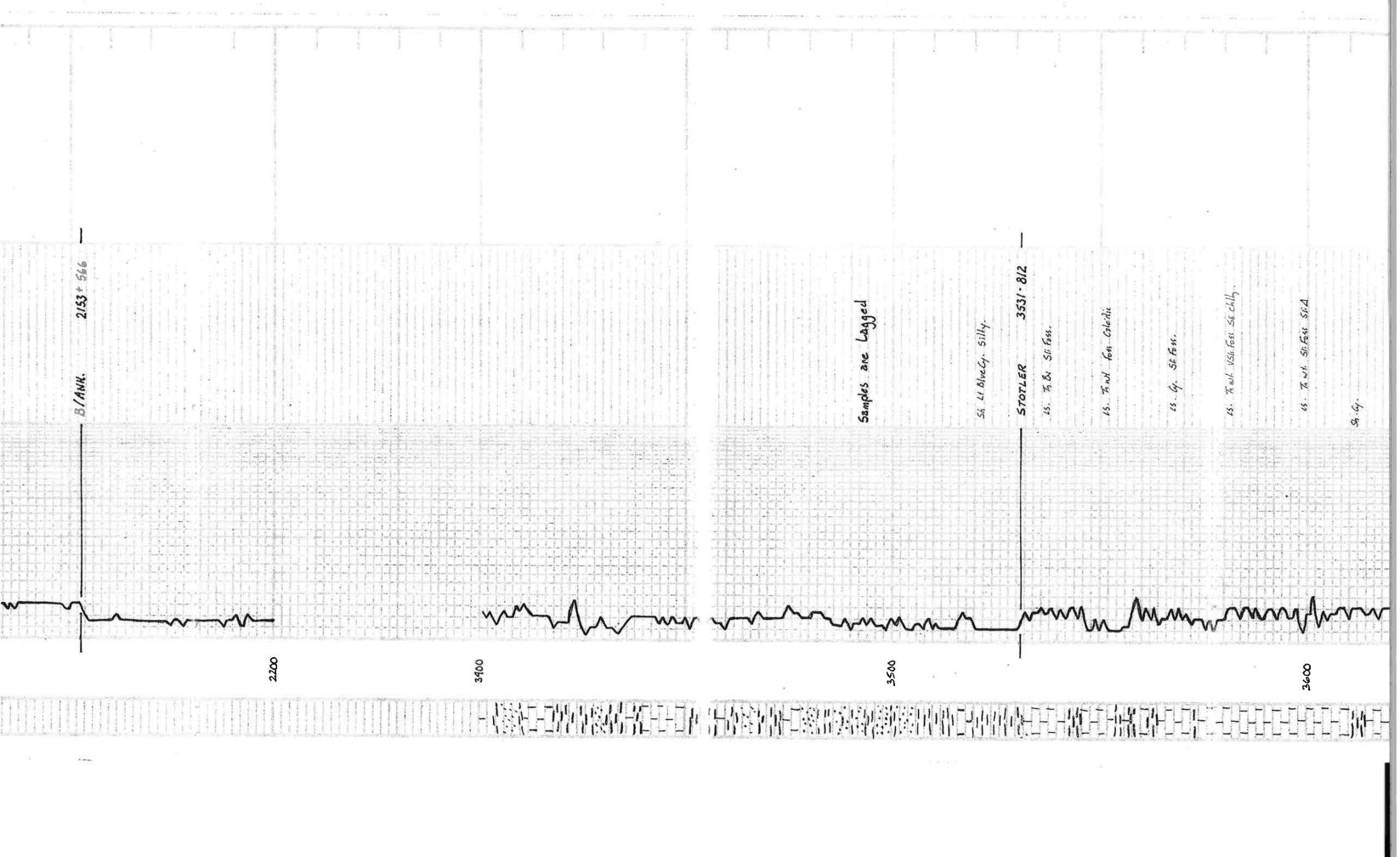
Time On Bottom: 07:59 11/21 Time Off Bottom: 09:59 11/21

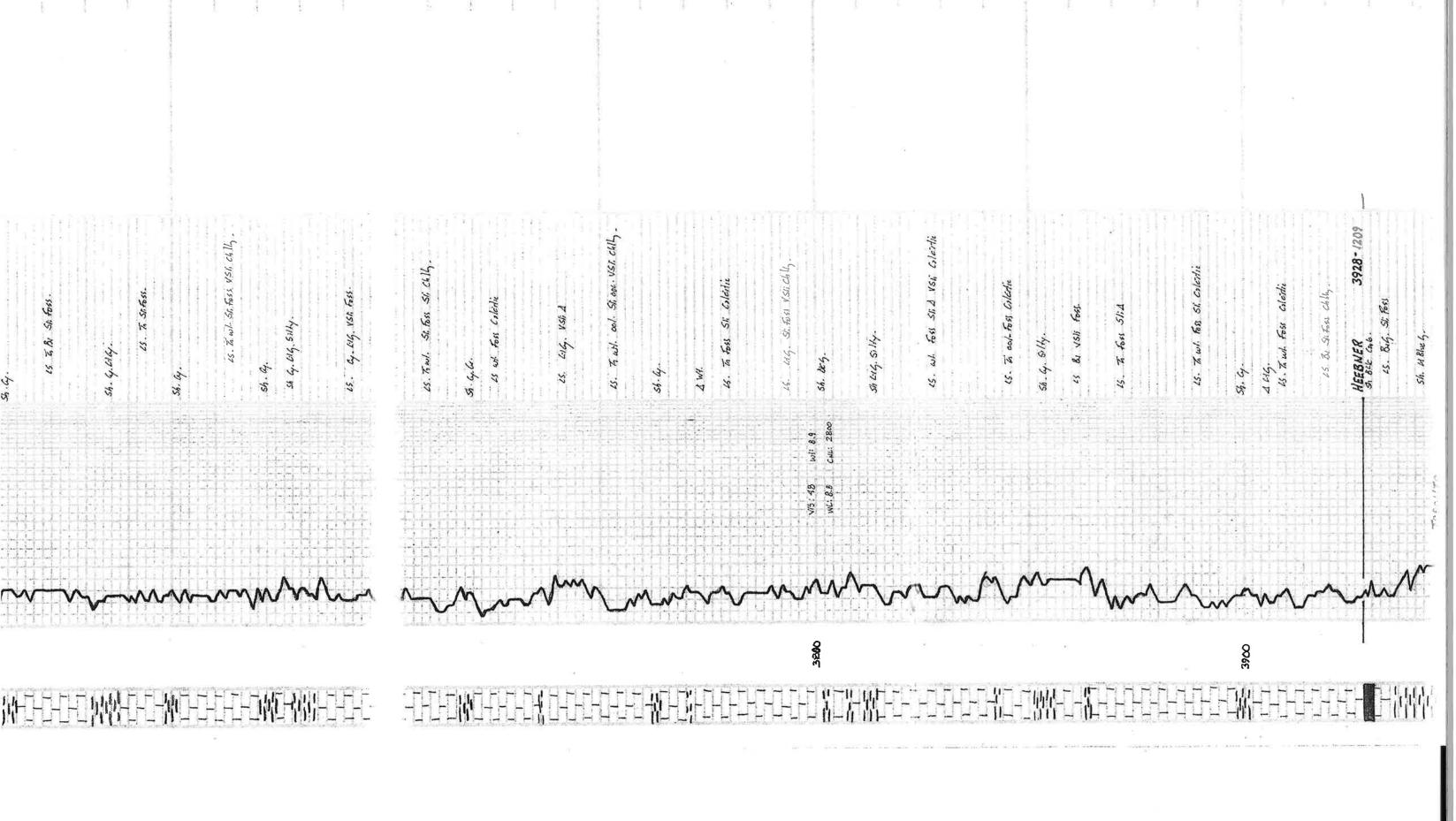
Mud Properties

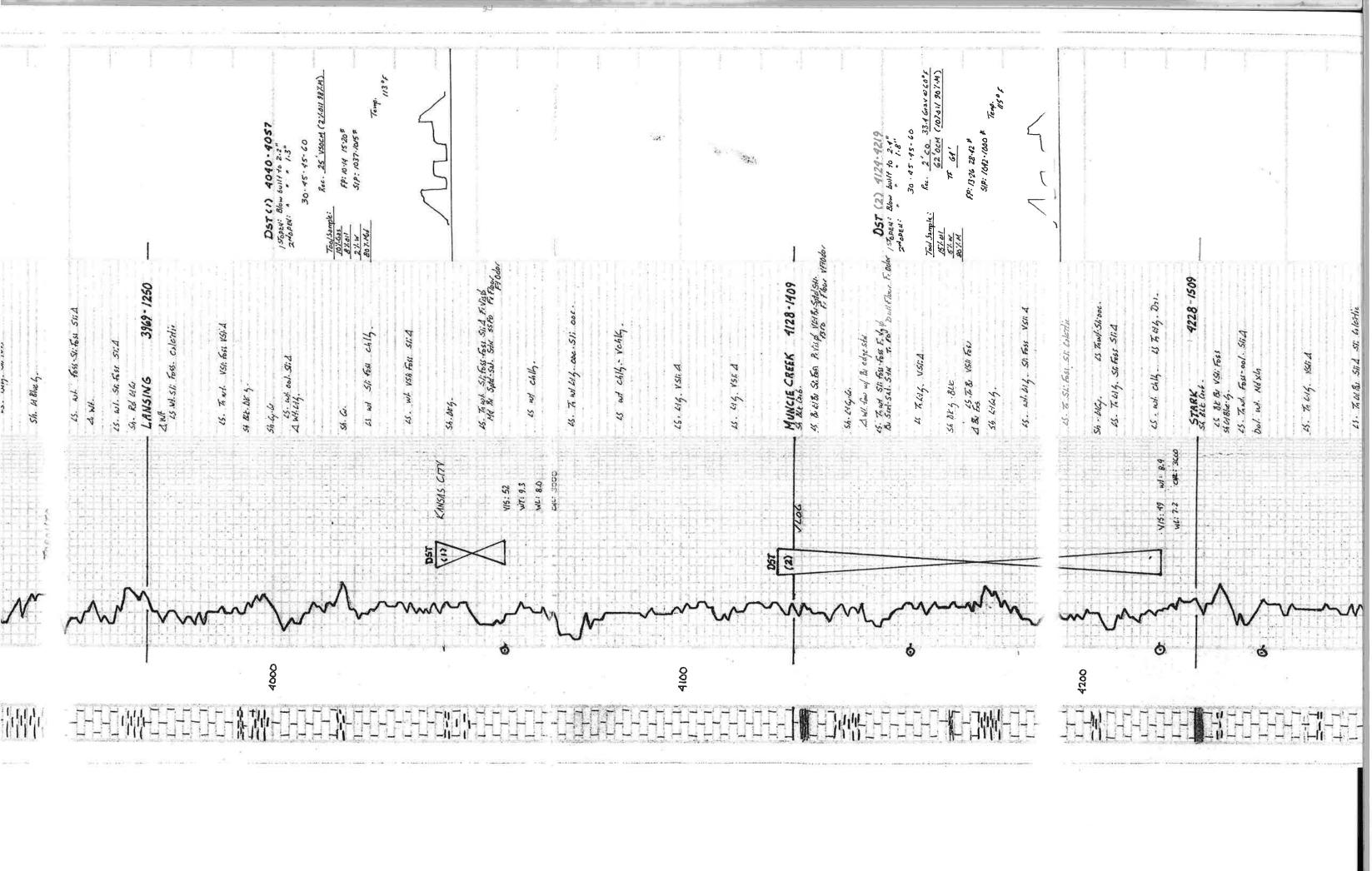
Mud Type: Chemical Viscosity: 50 Chlorides: 3900 ppm Weight: 9.5 Filtrate: 7.2

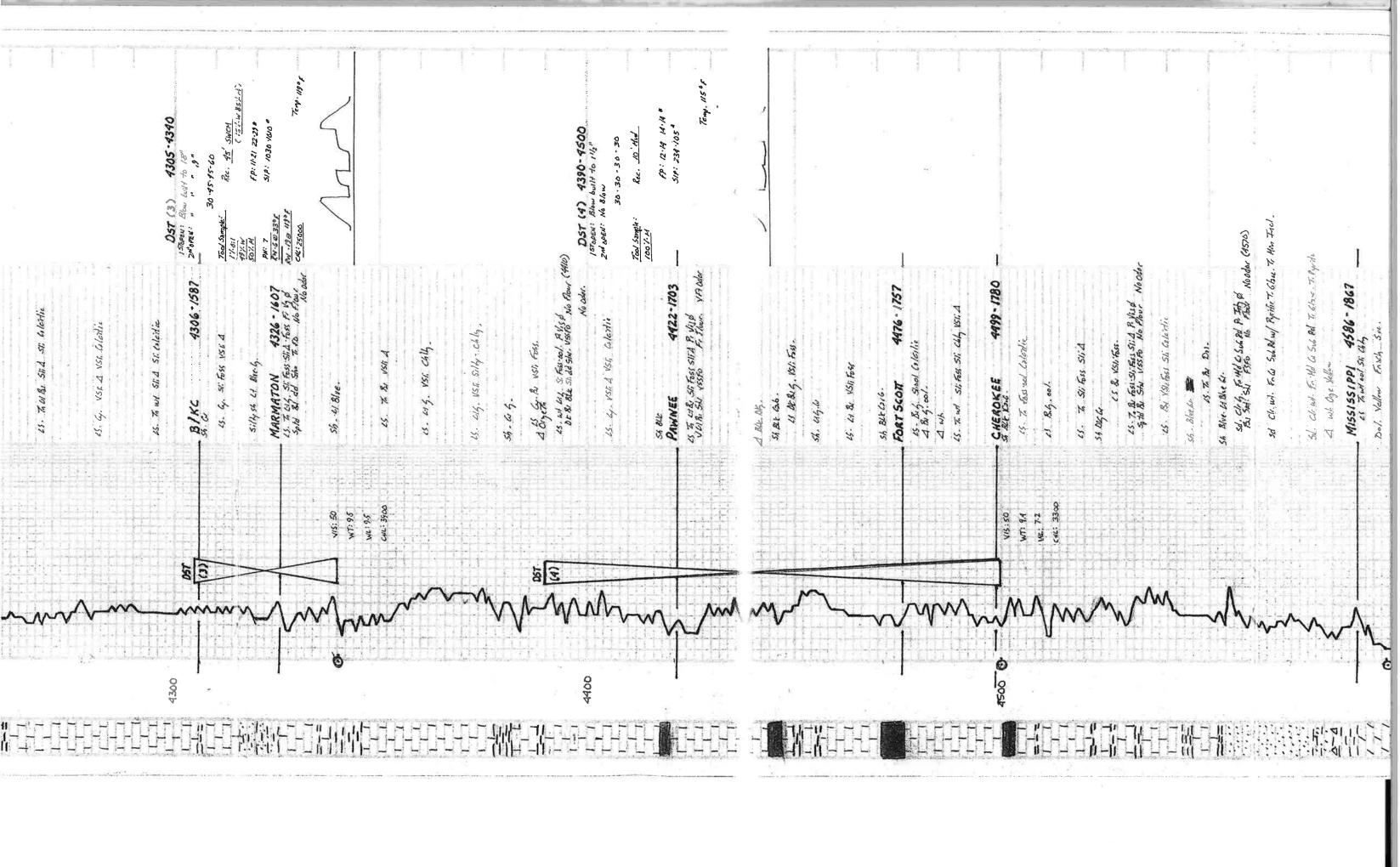
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	DENSELL	HNG	GE(LOGIST	
116-	684-9	709		WICHER	

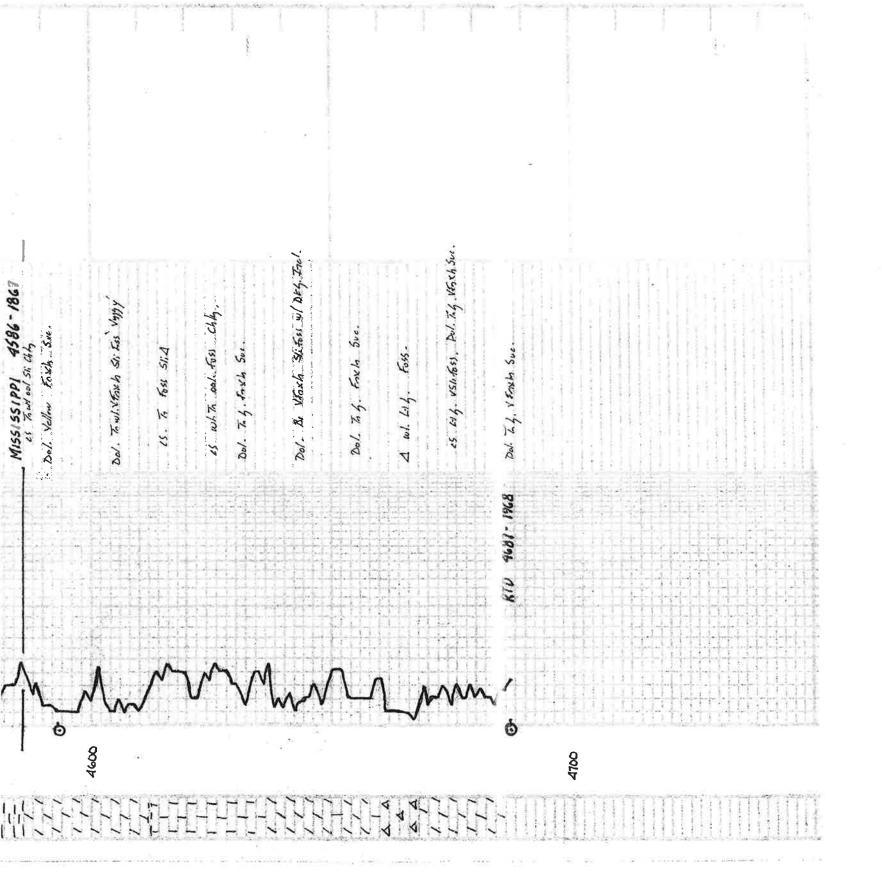
118-884-9709 • V	MCHITA, RS			
GEOLOGIST'S F	EPORT S166	- 22614		
L.D. DRILLING, INC.	2719	16. 18. 101		
WILDOAT 2122' FNL 4 1848' FEL	2714			28%
COUNTY LANE STATE KANSAS	From 2719 KB		mayin n	2123 + 596
11-5:18 11-22-18	8 5 18" 0 33C'			AWKYDRITE
4687 4690 1417 42 3407 CHEMICAL	DUAL IND., DENS-N., MICED			Awaro
	4687			
ž	100 4687 500 4687		4 1 2 1 1 2 1	
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CONTROL KIM B. SHOEMAKER	and the second s	2222	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
FORMACION TOPS DOS SAME	125	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		
ANHYDRITE 2120+599 2123+ B/ANH. 2149+570 2153+ STOTLER 3532-813 3531- HEEBNER 3930-1211 3928- LANSING 3970-1251 3969.	566 812 1209	H-18 H-20 H-21 H-21 H-22		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
STARK 4230-1511 4228- MARMATON 4328-1609 4326- FORT SCOT 4480-1761 4476-	1607 1607	3310, 3310,	2050	7180
CHEROKEE 4504-1785 4499- MISSISSIPPI 4591-1872 4586-		元	. remorder	













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

FIELD SERVICE TICKET 1718 17487 A

	PRESS	URE PUM	IPING & WIRELINE					DATE	TICKET NO			
DATE OF	JOB 11/22/2014 DISTRICT Praddies					NEW WELL	OLD O	PROD IN	J 🗌 WDW	□ Cl	JSTOMER RDER NO.:	
CUSTOMER	CUSTOMER LD Dr.11.29					LEASE R	(em	90			WELL NO.	1.4
ADDRESS	C.						Sne		STATE	105		
CITY			STATE						d, David			
AUTHORIZED B	3Y		9		4	JOB TYPE:		1	b			
EQUIPMENT		HRS	EQUIPMENT#	HRS	EQU	IPMENT#	HRS	TRUCK CAL	LED	DATE	am /TI	ME
20970		4						ARRIVED A	T 105	11/2		30
73768		1/2						START OPE		1/22	- A100-0 1	00
						W		FINISH OPE	RATION /	1/23	450	00
						****		RELEASED	1.	1/2	2 AM 12	_
								MILES FRO	M STATION TO	WELL	147	
ITEM/PBICE	is donar		the written consent of an of				UNIT	(WELL OWN	ER, OPERATOR, UNIT PRIC		S AMOUN	-
REF. NO.	10	Tun	Das.	71110 OLITO	71020 002		CIG	260	UNIT PRIC		\$ AIVIOUN	_
CC200	Ce	men	601				1.6	482			120	50
CC102	Ce	110 F	18/00				40	71			262	70
CF153	WO	uden	Cemera Plug	, 85/8	/		FG	1			160	00
E100	Unio	mil	esse Chise -	Picke	ps, Sm	CILLISMSCO	mi	100			450	00
E101	-	VY 1:	quipmens mil	P450			mi	200			1,500	00
F/13	Pros	DSN:	Sna Bulle De	livery	Cheiso	De, Kara	TWO	1205			3,012	50
CE 203	Dep.		nerse; 2,00)				4hr	280			352	2
5003	Ser	11/1/2	& Mixing Seru Supervisor, t	Pixel C	his or	100	SIC	1			175	00
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									2		- W.	
									SUB TO	TAL /	1,232	70
CHE	MICAL /	ACID DAT	A;		Committee						1232	
						/ICE & EQUIPN	MENT		ON \$			
					1417.111					TAL -	7	,
, 4								12130	CUNKE TO	IWI	7,076	60
SERVICE REPRESENTATIVE	29	Dein	Federko			AL AND SERVI		BY: Post	IMI			

FIELD SERVICE ORDER NO.

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)



TREATMENT REPORT

Customer	-D Pr	11105		Lease No.					Dat	te ///	77	10	*oca
Lease P	eman	And in the Copy		Well# /	-4	/ UI				11/	d de	1201	5
Field Order	# Statio	on Prest	115	· ·	,	Casing		epth	Cou	nty 25n	e		State 1C5
Type Job	242/	PIA					Forma	ation		Le	egal De	scription 4	State K5 -/85-28
PIF	E DATA	PER	FORATIN	G DATA		FLUID (JSED	- 2		TREATM			
Casing Size	Tubing S	Size Shots/I	Ft		Ac	id			RATI	E PRESS	41	ISIP	
Depth 320	Depth	From	То		Pr	e Pad		Max	x			5 Min.	
Volume 3/	Volume	From	То		Pa	d		Min				10 Min.	
Max Press	Max Pres		То		Fra	ac		Avg				15 Min.	
Well Connect	ion Annulus	Vol. From	То					НН	P Used			Annulus Pre	essure
Plug Depth	Packer D	epth From	То		Flu	ish Warr	mus	Gas	Volume			Total Load	
Customer Re	presentative	RICK L	1,150-	Station	Mar	nager Jus	tin h	resien	ms n Tr	eater D 9	'n	Fisnici	1,0
Service Units	92911	84980		9095	15	73768							
Driver Names	Dein	Ed	ES	Davis	1	David							
Time	Casing Pressure	Tubing Pressure	Bbls. Pu			Rate				Service L	oa	1	
7:30pm							On	1009	tion 1	Safer		rection	
							280	SK	60140	POZ 6	19/2	Ge1 1/2	+ Celloss
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2'ocpm		-						Jo	ob Co	mplere	10	siin d	Crew
				-						Snicyou			



Pra Pho

FIELD SERVICE TICKET 1718 **17463** A

44 NE Hwy. 61 . Box 8613	mut
tt, Kansas 67124 one 620-672-1201	7 34

DATE OF 1 - 5 - 18 DISTRICT PrATT CUSTOMER LD Drilling LEASE RIGHT WELL ADDRESS COUNTY LANC STATE US	: 0./ <i>-4</i>
	0./-4
ADDRESS COUNTY LANC STATE US	
	OF ERVEL
CITY STATE SERVICE CREW MATTAI HANSUN DA	-ViP
AUTHORIZED BY JOB TYPE: 7-42 8 1/8 SUIFA-9	
EQUIPMENT# HRS EQUIPMENT# HRS EQUIPMENT# HRS TRUCK CALLED	SIME Side
19843 L ARRIVED AT JOB	7240
CTART OPERATION AM	8228
	3:58
	1245
MILES FROM STATION TO WELL \mathcal{U})
become a part of this contract without the written consent of an officer of Basic Energy Services LP. SIGNED (WELL OWNER, OPERATOR, CONTRACTOR O ITEM/PRICE DEF NO MATERIAL, EQUIPMENT AND SERVICES USED UNIT QUANTITY UNIT PRICE \$ AMO	2000 SUL
REF. NO.	20 00
CP 103 60140 PSZ SK 300 3,60 CC 109 CAlcium Chloria, 16 774 8	271
CC WZ Celloriane	1750
\$(00 P.M. Mile) Mil (00	5000
	10 W
E117 Prop. + Bulk del 17/1290 3,2	2500
ce 200 de PT 0-500- 4hr (400	
cerus blend + rik 34 300 4	CHARLES IN
Sou3 Supervisor en 1	500
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and the second s	to the section
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	olan lisw
	230000
CHEMICAL / ACID DATA:	0 20
SERVICE & EQUIPMENT %TAX ON \$	nerit vous
MATERIALS %TAX ON \$	De au
7,21	9 93

REPRESENTATIVE Mille Mattal

THE ABOVE MATERIAL AND SERVICE
ORDERED BY CUSTOMER AND RECEIVED BY
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)



TREATMENT REPORT

Customer	ID	5	Le	Lease No.						Date								
Lease R	W	Well #								1 -	5.	- [δ,					
Field Order	Statio		Pra			Casing & 7/8 Depth					County	L	71	_		State 1/5		
Type Job	-42 8	785	surk	Au		Formation					Legal Description							
PIPE DATA PERFORATIN					ΓING	NG DATA FLUID U				JSED TREATME				MENT	NT RESUME			
Casing Size	′ς Tubing Size		Shots/Ft				Aci	d 300	0	54,6	OLY URAPE ZPA			ESS ISIP				
Depth 33c	Depth		From		То		Pre	Pad 3			Max2 5			5 Min.	5 Min.			
Volume	Volume		From		То		Pad	d			Min					10 Min.		
Max Press	Max Press		From		То		Fra	С			Avg				15 Min.			
	on Annulus Vol.		From		То						HHP Used				Annulus Pressure			
Plug Depth	Packer Depth		From		То		1 .		9.5		Gas Volume			Total Load		_oad		
Customer Re	ч	T	,	Station	n Manager We					Treater MATS		701						
Service Units Driver		1		-		1984	7		$\perp \!\!\! \perp \!\!\!\! \perp$	9960	73768			·				
Names	mA7179\ Casing		ubing	H	41	301				DAV	i q							
Time	Pressure		essure	Bbls	Bbls. Pumped			Rate			Service Log							
B140			 		<u> </u>					On Location SAFTEY MEETING								
C . 401C	-(-	H			\rightarrow				- 1	run casing								
8105										CSng on Bottom								
D: 20	-) -		+	/				} —		PUMP 366 WATER								
8:28	Z <i>U</i> U				65		L	' —		Mix 300 SKS CO/US POZ								
8:51	200		+							STANT dusplacement								
8:56	200		+	19.5		<u>~</u>	(, 4			Plas down Shut in well								
0.) 0				/ 						CMT TO SULFACE								
										JOB (0M					·Me			
									JOB (SMPLETY THANK YOU! MIKE MATTUL JOSH + DAVID						141			
										mike natrul								
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