Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1371715

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 #	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.xxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
	Field Name:
New Well Re-Entry Workover	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)	
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
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:w/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)
Described	Chloride content: ppm Fluid volume: bbls
□ Commingled Permit #: □ Dual Completion Permit #:	Dewatering method used:
☐ Dual Completion Permit #:	Location of fluid disposal if hauled offsite:
☐ EOR Permit #:	Location of fluid disposal if flauled offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R
Recompletion Date 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 III Approved by: Date:									

Page Two



Operator Name: _				Lease Name:		Well #:					
Sec Twp	S. R.	Eas	t West	County:							
	flowing and shu	t-in pressures, wh	ether shut-in pre	ssure reached sta	tic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,			
Final Radioactivity files must be subn						iled to kcc-well-lo	gs@kcc.ks.gov	. Digital electronic log			
Drill Stem Tests Ta			Yes No		o .	on (Top), Depth ar					
Samples Sent to 0	Geological Surv	ey :	Yes No	Na	me		Тор	Datum			
Cores Taken Electric Log Run Geolgist Report / I List All E. Logs Ru	_		Yes □ No Yes □ No Yes □ No								
go	•••										
		Rep			New Used	on, etc.					
Purpose of String Size Hole Drilled			ize Casing et (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives			
	DII	lied Si	et (III O.D.)	LDS.71t.	Берит	Cement	Oseu	Additives			
		I	ADDITIONAL	. CEMENTING / SC	LIFEZE BECORD						
Purpose:		pth Typ	e of Cement	# Sacks Used	(OLLEE FILEGORIE	Type and F	Percent Additives				
Perforate	•	Sottom									
Protect Casi	.D										
Plug Off Zor	ne										
 Did you perform a Does the volume Was the hydraulic 	of the total base fl	uid of the hydraulic f	racturing treatment	_		No (If No, sk	ip questions 2 an ip question 3) out Page Three c				
Date of first Product	tion/Injection or Re	esumed Production/	Producing Meth	nod:							
Injection:	•		Flowing	Pumping	Gas Lift C	Other (Explain)					
Estimated Producti Per 24 Hours	ion	Oil Bbls.	Gas	Mcf W	ater B	bls. (Gas-Oil Ratio	Gravity			
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			N INTERVAL:			
	Sold Used	on Lease	Open Hole			nmingled mit ACO-4)	Тор	Bottom			
Shots Per	Perforation	Perforation	Bridge Plug	Bridge Plug	Acid.	Fracture, Shot, Cer	menting Squeeze	Record			
Foot	Shots Per Perforation Perforation Foot Top Bottom			Set At		(Amount and Kind					
TUBING RECORD:	: Size:	Set At	:	Packer At:							

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KNOTTS 1-13
Doc ID	1371715

All Electric Logs Run

COMPENSATED DENSITY / NEUTRON PE LOG
DUAL INDUCTION LOG
MICRO LOG
SONIC LOG

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KNOTTS 1-13
Doc ID	1371715

Tops

Name	Тор	Datum
ANHYDRITE	1472	+723
BASE ANHYDRITE	1514	+681
HEEBNER	3670	-1475
LANSING	3718	-1523
BASE KANSAS CITY	4066	-1871
PAWNEE	4148	-1953
FORT SCOTT	4228	-2033
CHEROKEE	4252	-2057
MISSISSIPPI 'U' WARSAW	4318	-2123
MISSISSIPPI OSAGE	4347	-2152

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KNOTTS 1-13
Doc ID	1371715

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	7.875	8.625	25	244	60/40 POZMIX	3%CC,1/4 #CF



FIELD SERVICE TICKET

275 A

BASIC	10244 NE Hwy. 61 P.O. Box 8613 Pratt, Kansas 67124	1718 15
ENERGY SERVICES	Phone 620-672-1201	
RESSLIRE DI IMPINIG & WIRELINE	10 10 00	

	PRESSU	JRE PUM	IPING & WIRELINE	13-	19 -	23		DATE	TICKET NO.				
DATE OF O	1/2	017	DISTRICT Prs + 1	IKS		NEW NEUL C	VELL F	PROD IN	ı 🗆 MDM		USTOMER PRDER NO.:		
CUSTOMER /	-D	Dr	Ming			LEASE Kno	0115	,			WELL NO	-/3	
ADDRESS						COUNTY Ness STATE ICS							
CITY			STATE			SERVICE CRI	EWD G	rin, mo	Grew,	ma (Clymer		
AUTHORIZED E	BY					JOB TYPE:)				
EQUIPMENT	Γ#	HRS 2	EQUIPMENT#	HRS	EQU	IPMENT#	HRS	TRUCK CAL	SPAT	DATE AM TIME			
19860	X	1/						ARRIVED A	Т ЈОВ	10/	M51	5	
1 1 6 60		1 20						START OPE		101		00	
								FINISH OPE	RATION	101	1	Cie :	
								RELEASED		10/		00	
		F						MILES FROM	M STATION TO	WELL	- 115		
products, and/or su become a part of th	pplies inc	orized to cludes all	TRACT CONDITIONS: (This of execute this contract as an ago of and only those terms and of the written consent of an office.)	gent of the conditions a	customer. As ppearing on	such, the undersi the front and back	gned agre of this doo	ees and acknow cument. No addi	ledges that this co	terms	and/or conditions	shall	
ITEM/PRICE REF. NO.		N	MATERIAL, EQUIPMENT	AND SER	VICES USE	ED	UNIT	QUANTITY	UNIT PRIC	E	\$ AMOUN	Т	
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CC100	Cer	nen.					46	576 -	N. Wales		99	00	
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SERVICE REPRESENTATIV	F 2	g.				IAL AND SERVI		BY: //		1			
		000	a success		51 0001			1.1	OR CONTRACTO	R OR	AGENT)	-	



TREATMENT REPORT

Customer D DC:11.09					- 1	Lease No.						Date							
Lease K	notts	7.7.1.			V	Well # /-/3							10	2//,	120	リフ			
Field Order		on F	197	1,113	-	Casing Depth						County Ness State As							
Type Job	242/	PI	A	-		Formation					Legal Description 13 - 15 - 23								
	E DATA		PER	FORAT	ING	NG DATA FLUID U						TF	REAT	MENT F	RESUME				
Casing/Size	Tubing S	ize	Shots/f	=t		Acid				RA			RATE PRESS			ISIP			
Depth 153	Depth		From		То		Pre	Pad			Max				5 Min.				
Volume 21.			From		То		Pad				Min				10 Min.				
Max Press	Max Pres	ss	From		То		Frac				Avg	-			15 Min.				
Well Connection	on Annulus	Vol.	From		То						HHP Used				Annulus F	ressure			
Plug Depth	Packer D	epth	From		То		Flusi	Fresh	WSI	er	Gas Volum				Total Load	t			
Customer Rep	resentative	Ric	IC	_		Station	Mana	ger Jus	din	Les	sterman	Treater	D	9110	Fran	Klin			
Service Units	92911	84	1981	198	43	1988	19 1	9860											
Driver Names	Decin			McG	πW	Clype	or C	Tymer											
∉ Time	Casing Pressure		ubing essure	Bbls.	. Pum	ped	F	late		Service Log									
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10244	NE Hiw	ay (61 • P	.O. B	ox 8	3613 •	Prat	t, KS 67	7124-	861	3 • (620)	672-1	201	• Fax	(620) 6	72-53	83		

(Fimil 2)



FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

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

FIELD SERVICE TICKET

1718 13986 A

Phone 620-672-1201 PRESSURE PUMPING & WIRELINE DATE TICKET NO. CUSTOMER ORDER NO.: DATE O OLD PROD ☐ WDW DISTRICT CUSTOMER LEASE WELL NO! **ADDRESS** COUNTY STATE CITY STATE SERVICE CREW JOB TYPE: **AUTHORIZED BY** TIME **EQUIPMENT#** HRS **EQUIPMENT# HRS EQUIPMENT#** HRS TRUCK CALLED AM PM ARRIVED AT JOB AM START OPERATION AM **FINISH OPERATION** AM RELEASED AM 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: (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT) ITEM/PRICE REF. NO. MATERIAL, EQUIPMENT AND SERVICES USED UNIT QUANTITY **UNIT PRICE** \$ AMOUNT 55 SUB TOTAL CHEMICAL / ACID DATA: SERVICE & EQUIPMENT %TAX ON \$ MATERIALS %TAX ON \$ TOTAL SERVICE THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: REPRESENTATIVE (WELL OWNER OPERATOR CONTRACTOR OR AGENT)



TREATMENT REPORT

Field Order # Station	Customer	Dulling		1.		Lease No	D.			-	Date				
Field Order # Station Att Casing State County State	- 1	acoulde	1	Inc		Well #	13				9/2	2/1	7		
PIPE DATA PERFORATING DATA FLUID USED TREATMENT RESUME Casing Size Tubing Size Depth Depth From To Pre Pad Max From To Pad Min To Min To Min Max Press Max Press From To Frac Avg To HHP Used Annulus Vol. From To From To From To Flush Gas Volume Total Load Customer Representative Service Units 38 950 S			Par	#			1	Casing	5/8 Depth	744		155	/	State	45
Casing Size Tubing Size Shots/Ft Acid RATE PRESS ISIP Depth Depth From To Pre Pad Max 5 Min. Volume Volume From To Pad Min 10 Min. Max Press Max Press From To Frac Avg 15 Min. Well Connection Annulus Vol. From To Flush Gas Volume Total Load Customer Representative Service Units 3 8 9 50 8 4 9 5 7 20 9 20 P4 9 3 7 3 7 6 8 Depth Service Units 3 8 9 50 8 4 9 5 7 20 9 20 P4 9 3 7 3 7 6 8 Diriver Names Casing Tubing Pressure Bbls. Pumped Rate Service Log A 10 17 300 5 7 00 5 5 5 1 4 5 5 5 5 1 5 1 5 1 5 1 5 1 5 1	Type Joh	18 5	Surli	ace	· I	ine.			Formation		3	Legal [Description		/
Depth Prom To Pre Pad Max 5 Min. Volume Volume From To Pad Min 10 Min. Max Press Max Press From To Frac Avg 15 Min. Well Connection Annulus Vol. From To Flush Gas Volume Total Load Customer Representative Service Units 38 950 8 495 7 20920 F903 7 3 7 68 7 68 Service Units 38 950 8 495 7 20920 F903 7 3 7 68 7 68 Driver Names Casing Tubing Pressure Bbls. Pumped Rate Service Log Pressure Pressure Pressure Pressure Bbls. Pumped Rate Service Log Pressure Pressure Pressure Pressure Pressure Pressure Pressure Pressure Pressure Pres	PIP	E DATA	Р	ERF	ORATIN	G DATA	F	LUID (JSED		TREA	ATMENT	RESUM		-
Volume Volume From To Pad Min 10 Min. Max Press Max Press From To Frac Avg 15 Min. Well Connection Annulus Vol. From To HHP Used Annulus Pressure Plug Depth Packer Depth From To Flush Gas Volume Total Load Customer Representative Service Units 38 9 50 8 4 9 5 1 20 9 20 19 9 0 3 7 3 7 6 8 Driver Service Units 38 9 5 0 8 4 9 5 1 20 9 20 19 9 0 3 7 3 7 6 8 Driver Casing Tubing Pressure Bbls. Pumped Rate Service Log 10 17 200 5 150 5 140 140 140 140 140 140 140 140 140 140	Casing Size	Tubing Si	ze Sh	ots/Ft			Acid				RATE PRI	ESS	ISIP		2.3
Volume Volume From To Pad Min 10 Min. Max Press Max Press From To Frac Avg 15 Min. Well Connection Annulus Vol. From To HHP Used Annulus Pressure Plug Depth Packer Depth From To Flush Gas Volume Total Load Customer Representative Service Units 38 950 8 4951 20920 1990 3 73 768 Driver Names Scott Manager Tubing Pressure Bbls. Pumped Rate Service Log Time Casing Tubing Pressure Pressure Bbls. Pumped Rate Service Log Diver Service Log From To Flush Gas Volume Total Load Treater Scott Manager	Depth CICI	Depth	Fro	om	To)	Pre Pa	d		Max	18		5 Min.		
Max Press Max Press From To Frac Avg 15 Min. Well Connection Annulus Vol. From To Flush Gas Volume Total Load Plug Depth Packer Depth From To Flush Gas Volume Total Load Customer Representative Service Units 38 950 8 4951 20920 1993 75768 Driver Names Scasing Tubing Pressure Bbls. Pumped Rate Service Log Plug Depth Packer Depth From To Flush Gas Volume Total Load Service Units 38 950 8 4951 20920 1993 75768 Driver Names Scasing Tubing Pressure Bbls. Pumped Rate Service Log Plug Depth Packer Depth From To Flush Gas Volume Total Load Plug Depth Packer Depth From To Flush Gas Volume Total Load Plug Depth Packer Depth From To Flush Gas Volume Total Load Driver Service Units 38 950 8 4951 20920 1993 75768 Plug Depth Gas Volume Total Load Plug Depth Gas Volume Total Load	Volume	Volume					Pad			Min			10 Min.		
Plug Depth Packer Depth From To Flush Gas Volume Total Load Customer Representative Service Units 38950 8495 20920 1990 373768 Driver Names Scott Matter Colc Total	Max Press	Max Pres			To		Frac		24	Avg			15 Min.		
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Service Units 38950 84981 20920 19903 73768 Driver Names	Customer Rep	presentative	1,130	_		Statio	n Manage	y, n	Liste	(mun	Treater	coll	Grac	105	
Time Casing Pressure Bbls. Pumped Rate Service Log On Cocation Setely Meeting Right Plant of Pressure Pressure Bbls. Pumped Bbls. Pumped Bols. Pump	Service Units	38950	849	181	20920										
Time Pressure Pressure Bbls. Pumped Rate Service Log 10	Driver Names		Moi	161	or or other desired	Col	<u>-</u>						20		4
9:15 10:17 300 5 Pamp 1470 5 parec 10:18 150 3 5 Start Cement 2005K5 60140 1 10:77 100 48, 5 Start displacement 10:28 150 5 Cement circulated 10:30 700 9.6 Ø Shut clown	Time	Casing Pressure			Bbls. Pt	umped	Rat	e			Sen	vice Log			310.00
10:17 300 5 Pamp HTO 5 pares 10:18 150 3 5 Start Cement 2005K5 60140 1 10:77 100 48, 5 Start displacement 10:28 150 5 5 Cement circulated 10:30 700 9.6 Ø Shut down	6 30	24							On Lo	catio	n So	1-14	men	ling	Riga
10:18 150 3 5 Start Cement 2005K5 60140 1 10:77 100 48. 5 Start displacement 10:28 150 5 5 Cement ciculated 10:30 700 96 Ø Shut down	9.15			-41					Break	Cia	ulate	m		0	0.1
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Lease: Knotts #1-13

SEC: 13 TWN: 198 RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 28 2017 DST #1 Formation: Ft. Scott

Test Interval: 4208 -

Total Depth: 4254'

4254

Time On: 15:14 09/28

Time Off: 21:56 09/28

Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28

Recovered

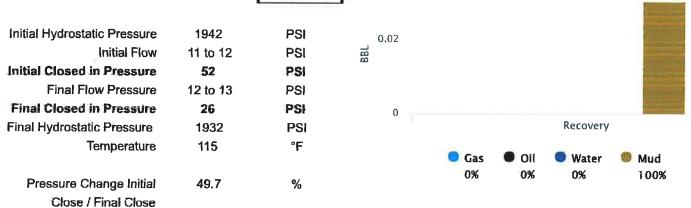
Foot <u>BBLS</u> 3 0.03078 Description of Fluid M <u>Gas %</u>

<u>Oil %</u> 0 Water % 0 <u>Mụợ %</u> 100

Total Recovered: 3 ft

Total Barrels Recovered: 0.03078

Reversed Out NO Recovery at a glance





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

September 28 2017

DST #1 Formation: Ft. Scott

Test Interval: 4208 -

Total Depth: 4254'

4254

Time On: 15:14 09/28

Time Off: 21:56 09/28

Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28

REMARKS:

IF: Weak surface blow

ISI: No BB

FF: Surface blow lasting 2 1/2 min

FSI: No BB

TOOL SAMPLE: 100% MUD



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 28 2017 DST #1 Formation: Ft. Scott

cott Test Interval: 4208 -

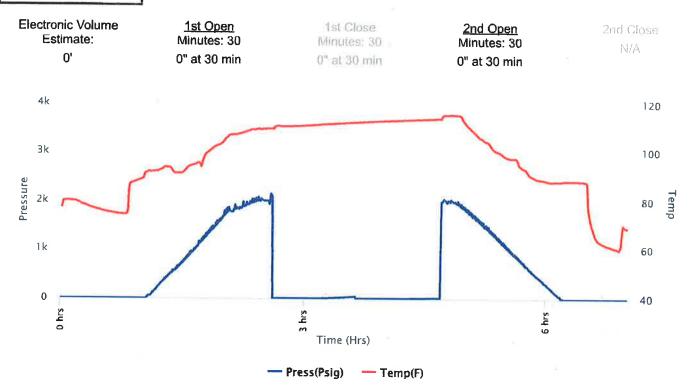
Total Depth: 4254'

4254'

Time On: 15:14 09/28

Time Off: 21:56 09/28

Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 28 2017

DST #1 Formation: Ft. Scott Test Interval: 4208 -

Total Depth: 4254'

4254

Time On: 15:14 09/28

Time Off: 21:56 09/28

Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28

Down Hole Makeup

Heads Up:

8.38 FT

Packer 1:

4203.28 FT

Drill Pipe:

4184.09 FT

Packer 2:

4208.28 FT

ID-3 1/4

Top Recorder:

4192.7 FT

Weight Pipe:

0 FT

Bottom Recorder:

4247 FT

ID-2 7/8

Well Bore Size:

Collars:

0 FT

7 7/8

ID-2 1/4

33.57 FT

Surface Choke: **Bottom Choke:**

1"

5/8"

Test Tool: ID-3 1/2-FH

Jars

Safety Joint

Total Anchor:

45.72

Anchor Makeup

Packer Sub:

1FT

Perforations: (top):

3FT

4 1/2-FH

Change Over:

1 FT

Drill Pipe: (in anchor):

31.72 FT

ID-3 1/4

Change Over:

1FT

Perforations: (below):

8 FT

4 1/2-FH



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 28

2017

DST #1

Formation: Ft. Scott

Test interval: 4208 -

Total Depth: 4254'

4254

Time On: 15:14 09/28

Time Off: 21:56 09/28

Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28

Mud Properties

Mud Type: Chemical

Weight: 9.35

Viscosity: 46

Filtrate: 10.4

Chlorides: 7,800 ppm



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 28 2017 **DST #1**

Formation: Ft. Scott

Test Interval: 4208 -

Total Depth: 4254'

4254

Time On: 15:14 09/28

Time Off: 21:56 09/28

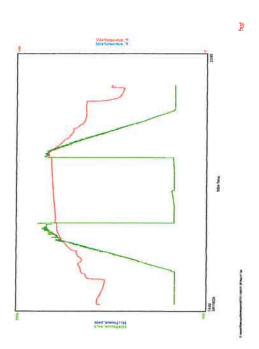
Time On Bottom: 17:40 09/28 Time Off Bottom: 19:40 09/28

Gas Volume Report

1st Open

2nd Open

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





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 29 2017 DST #2

Formation: Mississippian Test Interval: 4248 -

Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29

Recovered

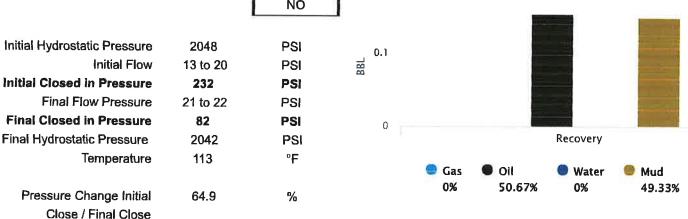
Foot	BBLS	Description of Fluid	Gas %	<u>Oil %</u>	Water %	Mud %
10	0.1026	0	0	100	0	0
20	0.2052	OCM	0	26	0	74

Total Recovered: 30 ft

Total Barrels Recovered: 0.3078

Payamad Out
Reversed Out
NO

Out Recovery at a glance





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 29

29 2017 DST #2 Formation: Mississippian Test Interval: 4248 -

Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29

REMARKS:

IF: 1 3/4 inch blow

ISI: No BB

FF: Weak surface blow

FSI: No BB

TOOL SAMPLE: 17% OIL, 83% MUD

Gravity: 38.9 @ 60 degrees F



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 29 2017 **DST #2**

Formation: Mississippian

Test Interval: 4248 -

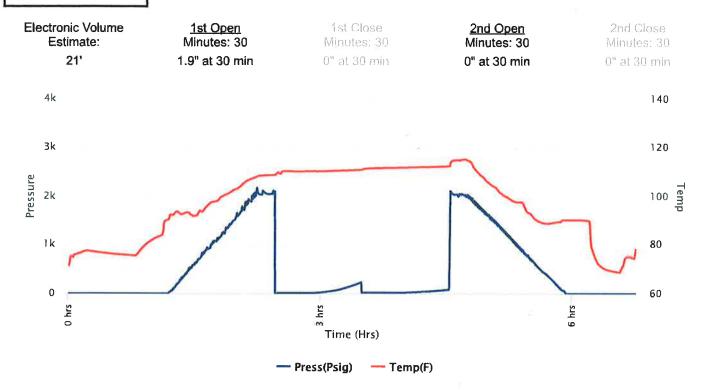
Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 29 2017

DST #2

Formation: Mississippian Test Interval: 4248 -

Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29

Down Hole Makeup

Heads Up:

33.14 FT

Packer 1:

4242.72 FT

Drill Pipe:

4248.29 FT

Packer 2:

4247.72 FT

ID-3 1/4

Top Recorder:

Weight Pipe:

0 FT

4232.14 FT

ID-2 7/8

Bottom Recorder:

4317 FT

Collars:

0 FT

33.57 FT

Well Bore Size:

7 7/8

ID-2 1/4

Surface Choke:

Bottom Choke:

1"

5/8"

Test Tool: ID-3 1/2-FH

Jars Safety Joint

Total Anchor:

82,28

Anchor Makeup

Packer Sub:

1 FT

Perforations: (top):

3 FT

4 1/2-FH

Change Over:

1 FT

62.28 FT

Drill Pipe: (in anchor):

ID-3 1/4

Change Over:

1 FT

Perforations: (below):

14 FT

4 1/2-FH



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 29 2017 **DST #2**

Formation: Mississippian

Test Interval: 4248 -

Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29

Mud Properties

Mud Type: Chemical

Weight: 9.3

Viscosity: 51

Filtrate: 9.6

Chlorides: 8,200 ppm



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September

29 2017 **DST #2**

Formation: Mississippian

Test Interval: 4248 -

Total Depth: 4330'

4330'

Time On: 11:26 09/29

Time Off: 18:01 09/29

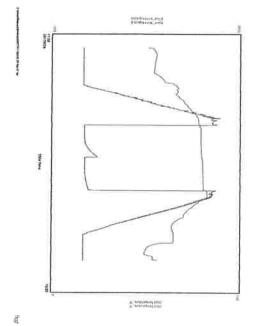
Time On Bottom: 13:49 09/29 Time Off Bottom: 15:49 09/29

Gas Volume Report

1st Open

2nd Open

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





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W County: NESS

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East

Pool: WILDCAT Job Number: 65

DATE September 30 2017

DST #3

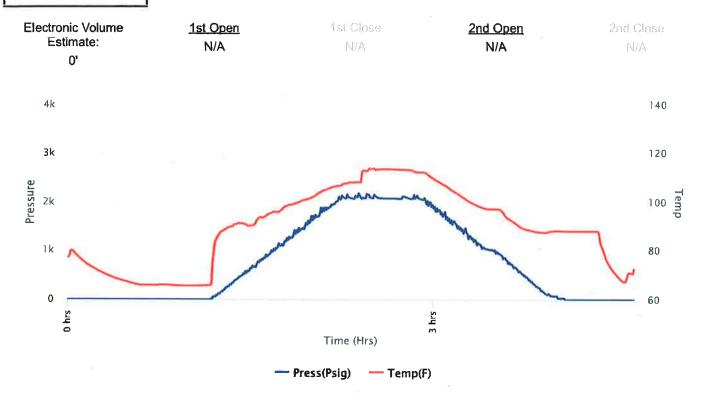
Formation: Mississippian Test Interval: 4327 -4348'

Total Depth: 4348'

Time On: 23:36 09/29

Time Off: 04:08 09/30

Time On Bottom: 00:00 01/01 Time Off Bottom: 02:16 09/30





Lease: Knotts #1-13

County: NESS

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September

30 2017

DST #3 Formation: Mississippian Test Interval: 4327 - 4348'

Total Depth: 4348'

Time On: 23:36 09/29

Time Off: 04:08 09/30

Time On Bottom: 00:00 01/01 Time Off Bottom: 02:16 09/30

Recovered

Foot BBLS 205 2.1033

Description of Fluid
M

Gas %

0

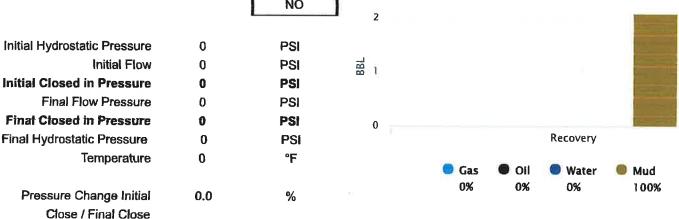
Oil % Water % 0 0

Mud_% 100

Total Recovered: 205 ft

Total Barrels Recovered: 2.1033

Reversed Out NO Recovery at a glance





Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September

30

2017

REMARKS:

PACKER FAILURE

DST #3

Formation: Mississippian Test Interval: 4327 -

Total Depth: 4348'

4348

Time On: 23:36 09/29

Time Off: 04:08 09/30

Time On Bottom: 00:00 01/01 Time Off Bottom: 02:16 09/30



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017

DST #3

Formation: Mississippian Test Interval: 4327 -

Total Depth: 4348'

4348

Time On: 23:36 09/29

Time Off: 04:08 09/30

Time On Bottom: 00:00 01/01 Time Off Bottom: 02:16 09/30

Down Hole Makeup

Heads Up:

16.14 FT

Packer 1:

4322 FT

Drill Pipe:

4310.57 FT

Packer 2:

4327 FT

ID-3 1/4

Top Recorder:

4311.42 FT

Weight Pipe:

0 FT

Bottom Recorder:

4329 FT

ID-2 7/8

0 FT

Well Bore Size:

7 7/8

Collars: ID-2 1/4

Surface Choke:

1"

5/8"

Test Tool:

33.57 FT

Bottom Choke:

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor:

21 Anchor Makeup

Packer Sub:

1FT

Perforations: (top):

0 FT

4 1/2-FH

Change Over:

0 FT

Drill Pipe: (in anchor):

0 FT

ID-3 1/4

Change Over:

0 FT

Perforations: (below):

20 FT

4 1/2-FH



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W County: NESS

State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017 **DST #3**

Formation: Mississippian Test Interval: 4327 -

Total Depth: 4348'

4348

Time On: 23:36 09/29

Time Off: 04:08 09/30

Time On Bottom: 00:00 01/01 Time Off Bottom: 02:16 09/30

Mud Properties

Mud Type: Chemical

Weight: 9.3

Viscosity: 51

Filtrate: 9.6

Chlorides: 8,200 ppm



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30

2017

DST#3

Formation: Mississippian Test Interval: 4327 -

Total Depth: 4348'

4348

Time On: 23:36 09/29

Time Off: 04:08 09/30

Gas Volume Report

1st Open

and Open

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



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017

DST #4

Formation: Mississippian Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30

Recovered

Foot BBLS 10 0.1026 Description of Fluid М

Gas % 0

Oil % 0

Recovery at a glance

Water % 0

Mud % 100

Total Recovered: 10 ft

Total Barrels Recovered: 0.1026

Reversed Out NO

0.1

Initial Hydrostatic Pressure 2091 PSI Initial Flow 10 to 13 PSI 젊 0.05 **Initial Closed in Pressure** 1240 **PSI** Final Flow Pressure 14 to 15 **PSI Final Closed in Pressure** 1210 PSI Final Hydrostatic Pressure 2082 **PSI** Temperature 118 ٩F 2.4 %

Pressure Change Initial Close / Final Close

Gas 0%

lio 🌑 0%

Water 0%

Recovery

Mud 100%



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017 DST #4 Formation: Mississippian Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30

REMARKS:

IF: 1 inch blow

ISI: No BB

FF: Weak surface blow

FSI: No BB

TOOL SAMPLE: TRACE OIL, 100% MUD



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

140

120

100 Temp

80

60

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017

0 hrs

DST #4

Formation: Mississippian Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30



--- Press(Psig) --- Temp(F)

말 M Time (Hrs)



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017

DST #4

Formation: Mississippian Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30

Down Hole Makeup

Heads Up:

8.14 FT

Packer 1:

4330 FT

Drill Pipe:

4310.57 FT

Packer 2:

4335 FT

ID-3 1/4

Top Recorder:

4319.42 FT

Weight Pipe:

0 FT

0 FT

Bottom Recorder:

4337 FT

ID-2 7/8

Well Bore Size:

7 7/8

Collars: ID-2 1/4

Surface Choke:

1"

5/8"

Test Tool:

33.57 FT

Bottom Choke:

ID-3 1/2-FH

Jars

Safety Joint

Total Anchor: 13

Anchor Makeup Packer Sub:

1 FT

Perforations: (top):

0 FT

4 1/2-FH

Change Over:

0 FT

Drill Pipe: (in anchor):

ID-3 1/4

0 FT

Change Over:

4 1/2-FH

0 FT

Perforations: (below):

12 FT



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017 DST #4

Formation: Mississippian

Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30

Mud Properties

Mud Type: Chemical

Weight: 9.3

Viscosity: 51

Filtrate: 9.6

Chlorides: 8,200 ppm



Lease: Knotts #1-13

SEC: 13 TWN: 19S RNG: 23W

County: NESS State: Kansas

Drilling Contractor: L. D. Drilling, Inc -

Rig 1

Elevation: 2190 GL Field Name: Pfaff East Pool: WILDCAT Job Number: 65

DATE September 30 2017

DST #4

Formation: Mississippian Test Interval: 4335 -

Total Depth: 4348'

4348'

Time On: 04:35 09/30

Time Off: 10:17 09/30

Time On Bottom: 06:24 09/30 Time Off Bottom: 08:24 09/30

Gas Volume Report

1st Open

Time	Orifice	PSI	MCF/D	Time	Orifice	PSI	MCF/D	
								_

Mad Promote grades

E

KIM B. SHOEMAKER

316-684-9709 WICHITA,KS

GEOLOGIST'S REPORT

SL652-581-51 :10V

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			DUALI	/ 1 .4 - 10- 11-		14-
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B/ANH	1514+681	1513+ 682			Ĭ	4
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LANSING	3718 - 1523 4066 - 1871	3718-1523 4065-1870	4		ł.	1
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PAWNEE FORT SCOTT	4228-2033	4227 - 2032		*	1	
Cherokee	4252- 2057	4250-2055	1	4	1	
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