KOLAR Document ID: 1358578

Confiden	tiality Requeste	d:
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	- DESCRIP	WELL &	IFASE
	IIISTORI			LLASL

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
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:
	Elevation: Ground: Kelly Bushing:
	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
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)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #: Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Location of huid disposal in hadred offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West
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 III Approved by: Date:

KOLAR Document ID: 1358578

Operator Name:	Lease Name: V	Nell #:
Sec TwpS. R East _ West	County:	

Page Two

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 (Attach Additional Sh	eets)	Y	es 🗌 No			og Formatio	n (Top), Depth	and Datum	Sample
Samples Sent to Geolog	*		és 🗌 No	Ν	lame	e		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:			ies No ies No ies No						
		Repo	CASING I] Ne	w Used rmediate, productio	on, etc.		
Purpose of String	Size Hole Drilled		ze Casing tt (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose: Depth Ty Top Bottom Ty		Туре	e of Cement # Sacks Used			Type and	Percent Additives		
Protect Casing Plug Back TD Plug Off Zone									
 Did you perform a hydra Does the volume of the is Was the hydraulic fractu Date of first Production/Inj 	total base fluid of the h ring treatment informa	nydraulic fra tion submit	acturing treatment	al disclosure regis	-	Yes Yes Yes Yes	No (If No, s	kip questions 2 ar kip question 3) ill out Page Three	
Injection:			Flowing	Pumping		Gas Lift 🗌 O	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er Bb	ls.	Gas-Oil Ratio	Gravity
DISPOSITION	I OF GAS:		M	ETHOD OF COM	IPLE	TION:			ON INTERVAL:
Vented Sold Used on Lease Open Hole Perf			-		mingled	Тор	Bottom		
Shots Per Perforation Perforation Bridge Plug Bridge Plu Foot Top Bottom Type Set At		Bridge Plug Set At							
TUBING RECORD:	Size:	Set At:		Packer At:					

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	KNOP 1-27
Doc ID	1358578

All Electric Logs Run

Dual Induction
CDNL
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	KNOP 1-27
Doc ID	1358578

Casing

	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	23	401	3% cc 1/4 cell flake	270	60/40 Poz
Production	7.875	5.5	15.5	3505	AA-2	100	n/a



	PAGE 1 of 1	сият NO 1007020	YARD # 1718	INVOICE DATE 07/27/2017
		INVOICE	E NUMBER	
		924	81671	
B EDISON OPERATING COMPANY LLC I 8100 E 22ND ST N L WICHITA KS US 67226	J LEASE D LOCATI B COUNTY S STATE I JOB DE E JOB CO	ON Bar KS SCRIPTION Cem	op 1-27 ton ment-New We	ell Casing/Pi

JOB #	EQUIPMENT #	PURCHASE	ORDER NO.	_	TERMS	DUE DATE
41043428	27463				Net - 30 days	08/26/2017
			QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Date	s: 07/14/2017 to	07/14/2017				
0041043428						
171815307A Cem Cement Surface	nent-New Well Casing/	Pi 07/14/2017				
60/40 POZ			270.00		6.60	1 '
Calcium Chloride			699.00		0.58	
Celloflake	- 0 = (0!!!!!		68.00 1.00		2.04 88.00	
"Wooden Cmt Plug	g, a b/a (PU, cars one way)"		55.00		2.47	
Heavy Equipment			110.00		4.13	
641"Propp & Bu	ulk Del.Chra per ton m	nil	1.00		881.04	
Blending & Mixing	Service Charge		270.00		0.77	
Plug Container Util	I. Chg.	LIN	1.00	EA	137.50	137.5
Depth Charge; 0-5	00'	C.7	1.00	EA	550.00	550.0
	or, first 8 hrs on loc.	to gunt	1.00	EA	96.25	96.2
(Service Charge I. Chg. 00' rr, first 8 hrs on loc. For 86 For 96 G1	08 g.4				
PLEASE REMIT		ND OTHER CORRES			SUB TOTAL	4,874.61
	SERVICES, LP BA	ND OTHER CORRES SIC ENERGY SERV 1 CHERRY ST, ST	ICES, LP		SUB TOTAL TAX	4,874.61





FIELD SERVICE TICKET 1718 15307 A

PRESS	PRESSURE PUMPING & WIRELINE						DATE TICKET NO				
JOB 7-14-17 DISTRICT PIATT					NEW OLD PROD INJ WDW CUSTOMER WELL WELL						
CUSTOMER EDISON OPMANING COMPANY					LEASE KNOP WELL NO. 1-2>						
ADDRESS COUNTY BATTON STATE H					STATE US						
CITY	÷.	STATE			SERVICE CREW MAILAL, Magram Clyman						
AUTHORIZED BY		A.			JOB TYPE: Z - 412 Sty Suiter						
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	JIPMENT#	HRS	TRUCK CALLED 7_ PATE AM TIME				
77463	. 5						ARRIVED AT JOB				
71.11.3	76					_	START OPERATION				
21010	9						FINISH OPERATION				
							RELEASED AM 1 35				
							MILES FROM STATION TO WELL 5				

(Lu)

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.

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	60/00 802	54	270.	/	3,240 00
66109	CALCINAL CALORIDE	15	699-		733 95
26102	Cellor-AV.	15	68 -	/	251 60
CEIST	WOOD Plug Sys	21-	11-		16000
			×		
6100	P.M. Mill	m	55 3	A	247 50
6101	heavy eye miles	mi	110	1	825 00
2113	Prof + Jula del	TM	641	1.62	1,601 88
60200	depin charge 0-500 Yh.	(0.3)	1	B	1,000 02
60245	blend + Mix	54	270	4	378 00
5003	SUPALVISH	, e .a	1	\$	175 00
(500	flug cont.	530	1	6	250 00
CHE	EMICAL / ACID DATA:			SUB TOTAL	386233
	SERVICE & EQUIP	MENT	%74	X ON \$	
	MATERIALS			X ON \$	
				TOTAL	
L				CIGAE	4,87461
				~ /	7
SERVICE REPRESENTATIV	THE ABOVE MATERIAL AND SERV ORDERED BY CUSTOMER AND R		DBY:X	mping to	pp -

CLOUD LITHO LANGE TO

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

-	李氏	
1 mm		
	DA	
	ENERGY	SERVICES
	PRESSURE PUMP	PING & WIRELINE

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

FIELD SERVICE TICKET

1718 A

TICKET NO. DATE

DATE OF JOB					NEW OLD PROD INJ WDW CUSTOMER WELL WELL PROD INJ ORDER NO.:					
CUSTOMER	CUSTOMER					LEASE WELL NO.				
ADDRESS					COUNTY STATE					
CITY STATE					SERVICE CREW					
AUTHORIZED BY					JOB TYPE:					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQU	JIPMENT#	HRS	TRUCK CALLED DATE AM TIME			
7786							ARRIVED AT JOB			
			-				START OPERATION			
and the state of the second	at rest	·····································	-62.W	S STAT)	出行はまたので		FINISH OPERATION			
							RELEASED AM			
							MILES FROM STATION TO WELL			

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SIGNED:_

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES	USED UNIT	QUANTITY	UNIT PRICE	\$ AMOUN	Т
C. 01.00 04	ROAD FREE TRANSFER	51	2:742	8	3,240	6.0
	for the state was a state of the state of th					1100
10/12/2019	Frank Carlos		699-		733	95
- 6 A	 Quantizione se la construcción 	The second se	48 -		- 251	60
and proceeding to	WW SAM DANNESS	5 Ys 1 44	13		160	02
		the second second			-11-1	
- L 3	participant in the second second	r 1	5.9	1	247	20
ang master a	1. 24 Eq. 100	00			825	11.2
the second second	the set the second the	1	1.41	Contraction of the Party of the	1.601	88
an 19 - Harling an	Party second cardination of the second second	and the state of the state			1.000	11.5
14 Jack 14	0.10	54	270		378	35
	tot the the the the the the the the the th				- 250	00
	and the second s	the stand of the				00
	- 10 ⁻					
	Carrie Down					
	Giv	A				
31			1. 1 K.		1211	
		San San San		SUB TOTAL	3362	23
CHE	EMICAL / ACID DATA:	SERVICE & EQUIPMENT	%ТА	X ON \$		
1.25		MATERIALS		X ON \$	1.14/	
		and the state of the		TOTAL	and stranger	
				ant	4 874	61

THE ABOVE MATERIAL AND SERVICE

ORDERED BY CUSTOMER AND RECEIVED BY:

FIELD SERVICE ORDER NO.

SERVICE

CLOUD LITHO ANIENE TX

REPRESENTATIVE

BASSIC energy services, L.P.

TREATMENT REPORT

Customer ►	of a rea	NS 6-0		10.			Date	-14	$\sim 1^{-1}$	7	e
Lease	Knor		Well #	1 - 2	7		1		,		
Field Order #		n Piar	F	Casing	S Depth	402	County	RATIO		State k	
Type Job	2 41	515	SHARA		Formation			Legal (Description	9 5 = 7 8	6
PIPI	E DATA	PERI	ORATING DAT	A FLUID U	JSED		TRE	ATMENT	RESUM	IE	
asing Size	Tubing Si	ze Shots/F	Ft 🛛	Acid	70-56.	60/41	RATE PR	ESS	ISIP		
Depth 400 2	Depth	From	То	Pre Pad		Max			5 Min. 10 Min.		
olume 5.6	Volume	From	То		175 8	Min					
lax Press	Max Pres		То	Frac		Avg			15 Min.		
/ell Connection	on Annulus \		То			HHP Used			Annulu	s Pressure	
lug Depth	Packer D	epth From	То	Flush 2 1	3.	Gas Volum	ie		Total Lo	Total Load	
ustomer Rep	presentative	Kier Po	iti Stat	ion Manager 📈	Sterna	1	Treater ,	N2 71	-, i L		1
ervice Units	5.350		2741-5	19954	2/010		1				
)river lames	Lot at much		Print Trains	e by A	$ k_{1} $						
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	· · · · · · · · · · · · · · · · · · ·		Ser	vice Log			
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Taylor Printing, Inc. 620-672-3656



	1718 E NUMBER 85013	07/31/2017
924	85013	
E KS DESCRIPTION Cem	cton	ll Casing/Pi
	CONTACT	

ЈОВ #	EQUIPMENT	# PUR	CHASE	ORDER NO.		TE	RMS	DUE 1	DATE
41044464	27463					Net -	30 days	08/30,	/2017
				QTY	U of M	UNIT	PRICE	INVOICE	AMOUNI
For Service Date	s: 07/21/2017	' to 07/21/2012	7						
0041044464									
171813097A Cen	ient-New Well Ca	sing/Pi 07/21/2017							
Cement Longstring									
AA2 Cement				100.00			9.35		935.0
60/40 POZ FLA-322				30.00 47.00			6.60 4.12		198. 193.
C-41P				24.00			2.20		52.
Gilsonite				501.00	EA		0.37		184.
Salt				503.00			0.27		138.
"Auto Fill Float Sh				1.00 1.00			198.00 220.00		198. 220.
"Latch Down Plue "Turbolizer, 5 1/2"		(BIU		8.00			60.50		484.
Mud Flush				500.00			0.83		412.
Claymax KCL Subs	stitute			5.00	EA		19.25		96.
"Unit Mileage Chg		ау)"		55.00	1		2.47		136.
Heavy Equipment I	Mileage			110.00			4.13		453.
"Proppant & Bulk Blending & Mixing	Del. Chgs., per to Service Charge	n mil		330.00 130.00	I		1.38 0.77		453. 100 <i>.</i>
Plug Container Util	. Cha.	<i>h</i> .	0.500	1.00			137.50		137.
Depth Charge; 300)1-4000'	Ala.	~	1.00			1,188.00		1,188.
"Service Superviso	r, first 8 hrs on l	oc. 51°		1.00	EA		96.26		96.
		FON		()					
	A . EN		01						
	EME	0000	8. 4	A					
	U.	12 .	X	4					
		N	//						
		7208	1						
LEASE REMIT 1	:0:	SEND OTHER C	ORRESI	PONDENCE TO):				670 0
ASIC ENERGY S	ERVICES, LP	BASIC ENERGY	SERVI	ICES, LP		SUB TO		5	6,678.8
PO BOX 841903 DALLAS,TX 7528	4-1903	801 CHERRY S FORT WORTH,	ST, STE TX 761	E 2100 102	T 1 T 1		TAX	-	0.0
			,01		TNAC	DICE TO	IAL	5	678.8



10244 NE Hwy. 61 TMH21 P.O. Box 8613

Pratt, Kansas 67124 Phone 620-672-1201	101126		
	DATE	TICKET NO	
18		WDW CUSTOMER ORDER NO.:	

DATE OF 7-21-17 DISTRICT 1718					NEW CONTRACTOR			DER NO.:	
CUSTOMER Ed	150	n Oper Co	MAN		LEASE KNOD 1-27 WELL NO.				
ADDRESS					COUNTY Barton STATE KS				
CITY STATE					SERVICE CREW 1718				
AUTHORIZED BY					JOBTYPE: Longstring 242				
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	JIPMENT#	HRS	TRUCK CALLED	AM TIME	5
21463	1						ARRIVED AT JOB	AM 1200	5
1130-14302)	1						START OPERATION	AM 1430	2
	_				_	1	FINISH OPERATION	AM PM	
							RELEASED	AM PM	
							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: Juny Supp

(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

FIELD SERVICE TICKET

1718 13097 A

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY UNIT PRIC	E	\$ AMOUN	т
CPIOS	AA-2 Cement		1003/5-		1700	1
CP103	60-40 202		305k-		360	-
CC129	FLA.322		49 4		352	50
CC105	C= 41		2416		96	
CC 201	Gilsonite		5016-		335	67
CCIII	Sat		503 Lb	1	251	50
CF1251	Auto Fill Shee	512	1 (9-		360	-
CF607	Latch Down Plug + Baffle	51/2	159		400	
CF1651	Turbalizers	512	889		880	-
CCISI	Mud Flush		500 941-		750	-
C 704	Claymax KCL Substitute		5991		175	-
E100	Pickup mileage way	159	55 '		247	50
Elol	Truck mileage way	214	110. 1		825	
E113	Bulk DelV Charge		330 ton/14, 1		825	
CE204	Pump Charge 3001- 4000'	lea	4hr ·		2160	-
CE240	Bulk Delv Charge		130sk 1		182	
5003	Service Supr Charge	199	8kn '		175	-
CES04	Plug Container Charge	189	542 1		230	-
				I		
СНЕ	MICAL / ACID DATA: BOOK Discon	HT te	A Price SUBTO	TAL	10,325	17
	SERVICE & EQUIP	MENT	%TAX ON \$	_		
	MATERIALS		%TAX ON \$		1	
	Bre	in K	Discounted De	TAL	5678	84

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:

FIELD SERVICE ORDER NO.

REPRESENTATIVE

Scott

SERVICE

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)



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

FIEL	D SE	RV	ICE	TICKE	Г
	~	10	nn	10.00	_

1718 A

	DATE TICKET NO									
DATE OF JOB	7 0	ISTRICT	$\mathcal{O}_{2,1}$	Sec. 4	NEW OLD PROD INJ WDW CUSTOMER WELL WELL					
CUSTOMER				LEASE	A D P	WELL NO.				
ADDRESS				COUNTY	2.2	STATE STATE				
CITY STATE				SERVICE CR	EW	718				
AUTHORIZED BY					JOB TYPE:	BTYPE: Longstong 242				
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	JIPMENT#	HRS	TRUCK CALLED DATE AM TIME			
21463 1	1						ARRIVED AT JOB			
CHAR HISEC	1				_		START OPERATION			
the authority in way 200 st	1.22	from the factor	au area	disa.t	Contraction of the second	1.4	FINISH OPERATION			
							RELEASED AM			
							MILES FROM STATION TO WELL			

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SIGNED:

NH36

			(WELL OWNER	, OPERATOR, CONT	RACTOR OR AC	GENT)
ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUN	IT
eetos	AA-2 Commit		The sha		1700	-
CP103	60.40 N.2		3051-		360	-
CC129	FL 4 322		476-		352	50
PENOS	C 41		2416 -		96	-
12201	- Gilsenite		50/16-		335	67
CE 111	Sat		36365-		251	50
SF1251	Aur Fill Shoe 1 1	572	1.59		360	
FECT	Latch Down Play + Pittelle	5 12	1-54-5-		400	-
PF 1651	Turbalieres, 1, 1 1	12 5th	829-	a terrare sel	880	
61 151	Mud Elish & all		500 pl-		750	-
E 1104	- CLOYMER KELLARDER	- to - to -	Saul 1	internet of the	-175	
Elec	Pretsupples leger laway	104	55 "		247	50
E101	Truck palenger from	213	110	1	825	-
Ells	BALK DAVELYAN		230 to M. C.		825	-
CEWY	PURSE a here the tot 4000	S - Ixa	445		2160	-
18 2.96	Butte Detr By Pyc		1 -1 -1 -1 - 1		182	-
Rec 3	Stevice PNAN Charger	189	Shr	and the second sec	11)5	-
SE 504	May Cartholice Charte	112	Dave -		230	~
	DENE B A					
	C ATU R XIA	aminte	the Print	SUB TOTAL	1.1.1.1.1.1.1	1
CHE	EMICAL / ACID DATA:				10.323	11
and diving more served	SERVICE & El MATERIALS	QUIPMENT	%TAX (%TAX (
	MATERIALS		/01AA (TOTAL		-
		As a fer	· Derenau	INTAL	5698	84
				Sec. Sec. Y		1 1
				4	6	
SERVICE	THE ABOVE MATERIAL AND		D DV.	P. ta		
REPRESENTATIV	ORDERED BY CUSTOMER A			CONTRACTOR OR		

W. Street M.

FIELD SERVICE ORDER NO.



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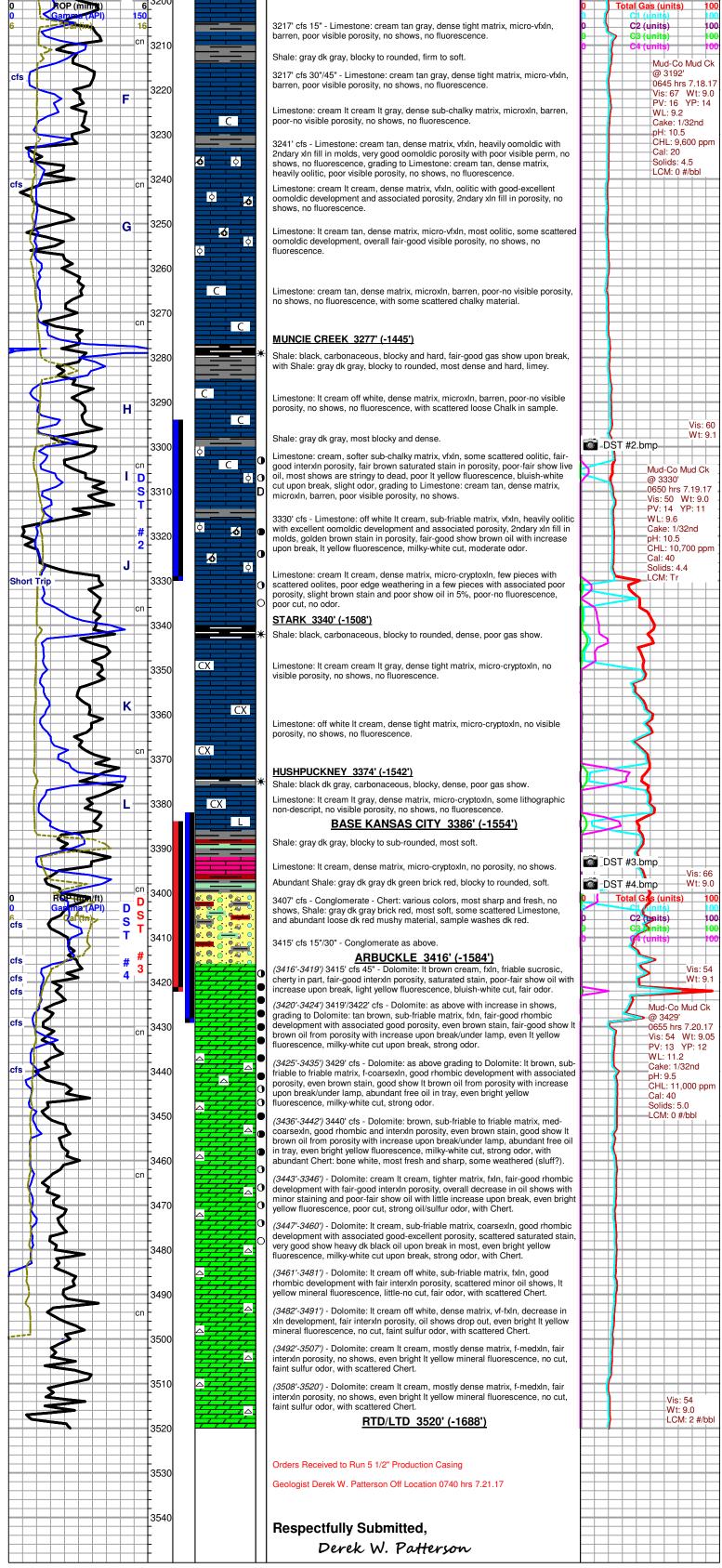
TREATMENT REPORT

Customer	lison	OBEC	Comp	Lea	ise No.				Date			
Lease	NOD	1		Wel	#	1-27			17.	21-17		
Field Order #	Station	P.	o H K	s		Casing	51/2 Del	pth 510		Sav For	ĥ	State
Type Job	542 L		Strive	7			Formati				Description	
PIPE	E DATA	1	ERFORAT		ATA	FLUID	D USED		TRE	ATMENT	RESUME	
Casing Size	Tubing Siz	e Sho	ots/Ft			Acid	1.1.2	-	RATE PI	RESS	ISIP	
Depth	Depth	Fro	m	То		Pre Pad		Max	/	500	5 Min.	
Volume	Volume	Fro		То		Pad		Min			10 Min.	
Max Press	Max Press			То		Frac		Avg	Avg		15 Min.	
/360 Well Connectio	n Annulus V			То				HHP Us	ed		Annulus F	Pressure
Plug Depth	Packer De			То		Flush	1.01 1	Gas Volu	Gas Volume		Total Load	d
Customer Rep	resentative	- K	Papp		Station	Manager i	Wester	39.2015	Treater	DSroi	II-	
Service Units	Va	2741	11	50 1	9.87	2				1.0	1.15	
Driver Names	Sec H	War Et	1.16	e /2 -	101	B	Whatie	1d	1100		1.0	-
Time	Casing Pressure	Tubin Pressu		Pumpe	ed	Rate			Se	ervice Log		
10:00	S.						Coll	ed O.	u t			
230	5						Onl	er W	Toks	Safe	ty m	+9
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							Cent	1-2-3	-5-6-	1-8-9	t.	
							Csq 5	N BO	+++ Ins	Dig	Ball	Cre the
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821	300	_	4	5	_	6	1/20	Space	Ê			
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							Rele	635 Pl	ú y		t.	
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840	500		6	8		5	l_{a} f +	Cin	f = 68	3 Bhlz	Dap	dut-
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1897	E.						Reter	ise pa	, flod	+ He	1 d	<u> </u>
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Taylor Printing, Inc. 620-672-3656

Licen Drilling Surface (Bottom Hole (Groun K.E Logg	ce Location: Se m Location: API: 15 ase Number: 34 Spud Date: 7/ Region: Ba Completed: 7/ Coordinates: 47 Coordinates: 48 Coordinates: 48 Coor	Scale 1:240 nop #1-27 ec. 27 - T19S - R12W 5-009-26176-0000 4434 13/2017 arton County 20/2017 70' FNL & 828' FWL 323.00ft 332.00ft 550.00ft 520.00ft		11:00 AM 10:30 PM 3520.00ft	
Contac	Company: Ed Address: 81 Bu V Ct Geologist: Da Phone Nbr: 31 Well Name: Kr Location: Se API: 15 Pool:	Ansing-Kansas City hemical/Fresh Water OPERA dison Operating Com 100 E. 22nd St. North uilding 1900 (ichita, KS 67226 avid Withrow 16.613.1544 hop #1-27 ec. 27 - T19S - R12W 5-009-26176-0000 ansas	TOR pany LLC	Unnamed USA	
	Address: 81 Bi	LOGGE EDISON OPERA dison Operating Com 100 E. 22nd St. North uilding 1900 lichita, KS 67226	D BY TING COMPANYLLC pany LLC		
	Phone Nbr: 31 Logged By: Go eologic log, DST ion casing for furt	6.655.3550 eologist REMAF results, and the open			cided upon by operator
Drilling Contractor Tool Pusher Daylight Driller Evening Driller Morning Driller	: Wes Pfaff : Louis Nolde : Derek Petz	GENERAL INF Service Cor Ig - Rig #9	mpanies Dr	Engineers: Rick H Jason	n Whiting
Engineer: Unit Operational By Deviatio	Bluestem Enviro Keith Reavis 5259 1800' on Survey Surve	y		Company: Eli Wi Engineer: Jeff Lu Logs Ran: DI, CI Company: Eagle Tester: Gene Pipe Strap	uebbers DNL, Micro, Sonic • Testers
402' 3182' RTD - 3520' Bit # Size 1 12 1/4" 2 7 7/8"	1/4° 1/4° 1° Make Smith JZ		ord mber Depth In D 0'	epth Out F 402' 4	.63' Long to Board eet Hours 402' 6.5 118' 78
7.13.2017	Cemented with 2 Plug down @ 00 Ran 81 joints of 1 Cemented with 1	70 sacks 60/40 Poz, 15 hrs 7.14.17. By Ba Production used and tested 15.5#	e casing, tallying 390.15 3% cc, 2% gel, 1/4 #/sx asic Energy Services. Casing t, 5 1/2" production casin rathole with 30 sacks. C asic Energy Services.	flocell. Cement d	16', set @ 3505' KB.
Date 0700 Hrs Dep 7.17.2017 3045' 7.18.2017 3196'	Drilling and cor Derek W. Patte and connectior Made 524' ove WOB: 30k R DMC: \$89.12 Drilling and cor Conduct 20 sta and connectior drilling and cor drop survey, st test unsuccess and connectior	Pr nnections upper Penn erson on location 1810 as Topeka, Heebner, a r past 24 hrs of opera PM: 80 PP: 980 S CMC: \$5,319.62 nnections Toronto, Do and short trip, CTCH. as Brown Lime and int nections Lansing-Kar trap out for DST #1 18 eful. TIH with bit, CTC as Lansing-Kansas Cit	evious 24 Hours of Oper sylvanian beds. Displac) hrs 7.16.17. Reset Blo and into Toronto. tions. PM: 60 uglas, and Brown Lime. Resume drilling following o Lansing-Kansas City. isas City. CFS @ 3182' 20 hrs 7.17.17. TIH with H, resume drilling following.	e mud system @ odhound and test Short trip @ 313 g short trip 1305 h CFS @ 3158' (Lk (LKC 'B'). Shows n tool, conduct DS	t system. Drilling 4' 1050 hrs 7.17.17. hrs 7.17.17. Drilling (C 'A'). Resume s warrant test. CTCH, ST #1, TOH with tool,
7.19.2017 3330'	WOB: 30k R DMC: \$1,122.5 Drilling and cor CFS @ 3330' (Pulling tight co for DST #2. TI Made 134' ove	LKC 'J'). Shows in Lk ming out of hole, deci H with tool, conduct D r past 24 hrs of opera	PM: 58 nsas City. CFS @ 3217' (C 'I'/ 'J' warrant test. C ⁻ sion made to run short tr IST #2, TOH with tool, te tions.	TCH, TOH for DS ip. Conduct shor	T #2 1710 hrs 7.18.17. t trip, CTCH, TOH
7.20.2017 3429'	DMC: \$1,176.5 CTCH, resume City and Base CFS @ 3415' (CFS @ 3422' (conduct DST # DST #3 0530 H Made 99' over WOB: 32k R	Kansas City. CFS @ BKC-Conglomerate). Arb). Shows warrant 3, TOH with tool, test ars 7.20.17. Drilling A past 24 hrs of operation PM: 80 PP: 890 S	#2 0915 hrs 7.19.17. D 3407' (BKC-Conglomerate Drilling Conglomerate a test. CTCH, TOH for DS successful. TIH with bit rbuckle. CFS @ 3429' (<i>j</i> ons.	ate). Drilling Base and into Arbuckle. ST #3 1935 hrs 7. , CTCH. Resume	e Kansas City. CFS @ 3419' (Arb), 19.17. TIH with tool,
7.21.2017 RTD - 3520 LTD - 3520	DMC: \$284.26 CFS @ 3429' (conduct DST # DST #4 1700 h Arbuckle ahear open hole logg Logging operat for further eval Geologist Dere Made 91' over WOB: 32k	CMC: \$6,902.98 (Arb). Shows warrant (2, TOH with tool, test mrs 7.20.17. Drilling Ar d to RTD of 3520'. RT ing operations. Rig up tions complete 0630 h uation of the Lansing- ek W. Patterson off loc past 24 hrs of operation PM: 80 PP: 1070	test. CTCH, TOH for DS successful. TIH with bit rbuckle. CFS @ 3440' (D reached 2230 hrs 7.2 o loggers. Commence lo rs 7.21.17. Orders rece Kansas City and Arbuck ation 0740 hrs 7.21.17. ons.	, CTCH. Resume Arb). Resume dri 0.17. CTCH, drop ogging operations ived to run 5 1/2"	e drilling following illing and connections p survey, TOH for 0145 hrs 7.21.17.
1823	Drilling Well dison Operating - Knop # Sec. 27 - T19S - R12W 470' FNL & 828' FWL 3 GL 2 KB	/ S DHCA - LI 1828 K	Comparison Well Trans Era - Knop 'B' #1 Sec. 27 - T19S - R12W SW NW NW KC/Arb Structural B Relationship	B & R Dri Sec. 2 Oil - Arbuckle 1816 KB	Relationship
Formation Sample Topeka 2755 King Hill 2844 Queen Hill 2919 Heebner 3015 Toronto 3033 Douglas 3051 Brown Lime 3131 Lansing-Kansas City 3147 LKC 'B' 3194 LKC 'F' 3215	Sub-Sea Log -923 2755 -1012 2845 -1087 2919 -1183 3016 -1201 3034 -1219 3051 -1315 3147 -1339 3171 -1362 3193 -1292 214	-923 2755 -1013 n/a -1087 n/a -1184 3016 -1202 3034 -1219 3051 -1299 3131 -1315 3146 -1339 3172 -1361 3194	Sub-Sea Sample Log -927 4 4 n/a n/a n/a n/a n/a n/a n/a n/a n/a -11206 5 4 -1223 4 4 -1303 4 4 -1318 3 3 -1344 5 5 -1366 4 5 -1388 5 6	Log Sub- 2719 -90 2810 -99 2886 -10 2982 -11 3000 -11 3018 -12 3099 -12 3114 -12 3138 -13 3164 -13 3186 -13	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
LKC 'F' 3215 LKC 'G' 3233 Muncie Creek 3277 LKC 'H' 3285 LKC 'I' 3300 LKC 'J' 3316 Stark 3343 LKC 'K' 3345 Hushpuckney 3373 LKC 'L' 3376 Base Kansas City 3387 Arbuckle 3414 Total Depth 3520	-1383 3214 -1401 3233 -1445 3277 -1453 3285 -1468 3300 -1484 3316 -1511 3343 -1513 3343 -1544 3376 -1555 3386 -1582 3416 -1688 3520	-1382 3216 -1401 3232 -1445 3275 -1453 3282 -1468 3298 -1468 3298 -1484 3316 -1508 3338 -1511 3342 -1542 3370 -1544 3375 -1554 3384 -1584 3409 -1688 3422	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3186 -13 3203 -13 3244 -14 3251 -14 3266 -14 3282 -14 3303 -14 3310 -14 3334 -15 3338 -15 3348 -15 3362 -15 3379 -15	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Chtcongl	LMST2 LMST3 LMST4	ACCESS	T5 SH. STONE SH. STORES	ALE CAR ALE GRN ALE GRA	SHALE RED
•• Silty ← E ← Chert White F F ↔ C ↔ C	SSIL Bioclastic or Fragmenta Fossils < 20% Dolite Domoldic T T	STRINGER Shale Green Shale Gray Shale Red OTHER SY	TEXTURE C Chalky CX Cryptocrystallir L Lithogr	ne	
Digital Photo Document Document Folder Link Vertical Log File	DST2 DST3 Core ail pipe				
Horizontal Log File Core Log File Drill Cuttings Rpt			Printed by GE0		
Gamma (API)			,	Тс	Arsion 4.0.8.15 (www.grsi.ca) TG, C1 - C5 otal Gas (units) 1 (units)
Cal (in)	DST Interval	DI STOW	Geological Descriptions	Tr C C C	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) 1:240 Imperial
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I:240 Imperial 6 ROP (min/ft) 6 Cal (in) 16 Cal (in) 16 Cal (in) 266 Cal (in) 267 Cal (in) 266 Cal (in) 270 Cal (in) 271 Cal (in) 272		Displace Mud System @ Start 10' Wet & Dry Samp <u>T</u> Limestone: cream gray, de	Geological Descriptions	dn fill, fair interxln	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) Total Gas (units) 100 C1 (units) 100 C2 (units) 100 C3 (units) 100 C4 (units) 100 C3 (units) 100 C3 (units) 100 C3 (units) 100 C3 (units) 100 C4 (units) 100 C4 (units) 100 100 100 100 100 100 100 100 100 100 100 100
I:240 Imperial 6 ROP (min/ft) 6 Cal (in) 16 Cal (in) 17		Displace Mud System @ Start 10' Wet & Dry Samp T Limestone: cream gray, de porosity, no shows, no fluo Shale: gray dk gray, blocky Limestone: cream gray, de fair interxIn porosity, no sh	Geological Descriptions 2704' 2704' Ples OPEKA 2755' (-923') Inse matrix, vf-fxln, some 2ndary x rescence, with some interbedded r, most firm. Inse matrix, some chalky, vf-fxln, s	dn fill, fair interxln I Shale.	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) 100 C1 (units) 100 C2 (units) 100 C2 (units) 100 C2 (units) 100 C3 (units) 100 100 110 1110 1120 11340 hrs 7.16.17 VI: 7.2 Cake: 1/32nd PH: 11.5 CA: 20 Solids: 2.7
I:240 Imperial 6 ROP (min/ft) 6 Cal (in) 16 Cal (in) 17		Displace Mud System @ Start 10' Wet & Dry Samp T Limestone: cream gray, de porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream gray, de fair interxIn porosity, no sh Limestone: gray dk gray, d shows, no fluorescence. Limestone: It cream, dense porosity, no shows, no fluo Geologist Derek W. Patter	Geological Descriptions Geological Descriptions 2704' 2704' 2704' inse matrix, vf-fxln, some 2ndary x rescence, with some interbedded ; most firm. inse matrix, some chalky, vf-fxln, s ows, no fluorescence. ense, microxln, scattered fossils, e matrix, vf-fxln, scattered fossils, inse matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, scattered fossils, inse matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, scattered fossils, inse matrix, vf-fxln, scattered fossils, e matrix, vf-fxln, fossiliferous with	dn fill, fair interxIn I Shale. some 2ndary xIn fill, poor porosity, no fair interxIn 5.17	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) Total Gas (units) 100 C1 (units) 100 C2 (units) 100 C2 (units) 100 C3 (units) 100 C4 (units) 100 C4 (units) 100 C4 (units) 100 C4 (units) 100 100 100 100 100 11340 hrs 7.16.17 VVI: 7.2
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1.240 Imperial 0. Camma (API) 6. Cal (in) 6. Cal (in) 6. Cal (in) 7.26 7.27 7		Displace Mud System @ Start 10' Wet & Dry Samp Image: Comparison of the start of the sta	Geological Descriptions Geological Descriptions 2704'	di fill, fair interxln some 2ndary xln fill, poor porosity, no fair interxln 5.17 h 2ndary xln, poor idary xln, poor idary xln, some no shows. ix, vfxln, scattered coernee. ist fossiliferous, ixisible porosity, no parren, fair interxln	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) Total Gas (units) 100 C2 (units) 101 C2 (units) 102 C3 (units) 103 C4 (units) 104 C3 (units) 100 C3 (units) 101 C4 (units) 102 103 104 105 106 107 108 109 100 101 102 103 104 105 106 107 108 108 109 1140 11340 1140 11340 11340 11340 11340 11340 1141 115
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1240 Imperial ROP (minit) Cal (m) Cal (m) Ca		Displace Mud System @ Start 10' Wet & Dry Samp Image: Start 10' Res 10: Start 10 cream Shale: gray dk gray, most 10 Image: Start 10' Res 10: Start 10 cream Image: Start 10' Res 10: Start 10 cream Image: Start 10' Res 10: Start 10 cream Image: Interstone: It cream 11 gray Image: Interstone: It cream 11 gray Image: Interstone: It cream 11 gray Image: Inte	Geological Descriptions Geological Descriptions 2704'	Image: selection of the se	TG, C1 - C5 otal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) Total Gas (units) 100 C2 (units) 00 C3 (units) 100 C2 (units) 100 C3 (units) 101 C4 (units) 1120 11300 https 7.16.17 Vis: 97 Vis: 97 WL: 7.800 ppm Cal: 20 Solids: 2.7 Solid
1.240 Imperial 0. IROP (minim) 5. Cal (m) 1.6 5. Cal (m) 1.6 5. Cal (m) 5. Cal (m)		 Displace Mud System @ Start 10' Wet & Dry Samp Limestone: cream gray, de porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream gray, de fair interxIn porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: It cream, denss; porosity, no shows, no fluc Geologist Derek W. Patter Limestone: It cream, denss; porosity, no shows, no fluc Geologist Derek W. Patter Limestone: It cream, denss; visible porosity, no shows, no fluc Limestone: It cream, denss; visible porosity, no shows, no fluc Shale: gray dk gray, most no limestone: cream th cream fossiliferous, poor-fair inter Shale: gray dk gray, most no limestone: cream tan, dere poor-fair interxIn porosity, no shows, no fluc Shale: gray dk gray, most no limestone: it cream tan, dere poor-fair interxIn porosity, no shows, no fluc Shale: gray dk gray, most no limestone: it cream tan, dere poor-fair interxIn porosity, no shows, no fluc Shale: gray dk gray, most no limestone: it cream tan, dere poor-fair intersIn porosity, no shows, no fluc Limestone: it cream tan, dere poor-fair intersIn porosity, no shows, no fluc Limestone: it cream tan, dere poor sity, no shows, no fluc Limestone: it cream tan, dere poor sity, no shows, no fluc Limestone: it cream tan, dere poor sity, no shows, no fluc Limestone: it cream tan, dere poor sity, no shows, no fluc Limestone: cream tan, dere poor sity, no shows, no fluc Limestone: cream tan, dere poor sity, no shows, no fluc Limestone: cream tan, dere poor sity, no shows, no fluc Limestone: cream tan, dere poor sity, no shows, no fluc Limestone: cream tan, dere poor sity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream tan, de	Geological Descriptions Geological Descriptions 2704'	Image: selection of the se	TG, C1 - C5 clail Gas (units)
1240 Imperial 180P (min(h)) 16 16 16 16 16 16 16 16 16 16		 Displace Mud System @ Start 10' Wet & Dry Samp Limestone: cream gray, de porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream gray, de fair interxin porosity, no shows, no fluc Shale: gray dk gray, blocky, Limestone: lt cream, densy porosity, no shows, no fluc Ceologist Derek W. Patter Limestone: lt cream, densy visible porosity, no shows, no fluc Limestone: lt cream, dense mal Shale: gray dk gray, most no shows, no fluc Limestone: lt cream, dense mal Shale: gray dk gray, most no limestone: tan, dense mal Shale: gray dk gray, most no limestone: cream tan, dense mal Shale: gray dk gray, most no limestone: cream tan, dense mal Shale: gray dk gray, most no limestone: cream tan, dense mal Shale: gray dk gray, most no limestone: lt cream tan, dense mal Shale: gray dk gray, most no limestone: lt cream tan, dense porosity, no shows, no flucescence. GUEEN HILL 2919 (-11 Shale: black, carbonaceou Limestone: lt cream tan, der porosity, no shows, no flucescence. GUEEN HILL 2919 (-11 Shale: black, carbonaceou Limestone: lt cream tan, der porosity, no shows, no flucescence. GUEEN HILL 2919 (-11 Shale: black, carbonaceou Limestone: lt cream tan, der porosity, no shows, no flucescence. GUEEN HILL 2919 (-11 Shale: black, carbonaceou Limestone: lt cream tan, der porosity, no shows, no flucescence. GUESTALE CREAM (CREAM) (CREAM	Geological Descriptions: Geological Descriptions: PDEKA 2755' (-923') Inse matrix, vf-fxin, some 2ndary y rescence, with some interbedded most firm. Inse matrix, vf-fxin, some 2ndary y rescence, with some interbedded most firm. Inse matrix, vf-fxin, scattered fossils, rescence. Inse matrix, vf-fxin, fossiliferous with 2 matrix, vf-fxin, fossiliferous with 2 s, blocky and waxy, no gas show. rix, microxfn, ossible porosity, r ound and soft. It gray, dense to sub-friable matrix, vfxin, mo to shows, no fluorescence. dense matrix, vfxin, fair-poor interi- tith scattered Chert: bone while, fr additional soft. se to sub-friable matrix, vfxin, mo to shows, no fluorescence. dense matrix, vfxin, fossiliferous rescence. dense matrix, vf-microxin, scatterer, suber matrix, vf-microxin, scatterer, suber matrix, wf-microxin, scatterer, suber matrix, microxin, barren, pro- to rounded, most firm. RONTO 3034' (-1202') ed dk green, blocky to rounded, fir	Image: set in the source of the set in the s	TG, C1 - C5 plat Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) 7 Total Gas (units) 7 C (units) 7
1.240 Imperial ROP (min/ft) 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7		Start 10' Wet & Dry Samp Limestone: cream gray, de porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream gray, de porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: gray dk gray, ds porosity, no shows, no fluc Shale: gray dk gray, ds porosity, no shows, no fluc Geologist Derek W. Patter Limestone: It cream, dense, visible interxin porosity, no shows, ible interxin porosity, no shows, no fluc Shale: gray dk gray, most r Limestone: th cream it cream	Geological Descriptions Geological Descriptions 2704' 2	Image: a series and sharp. Image: a series and sharp. a sub-fossiliferous, Image: a series and sharp. b series and sharp. Image: a series and sharp. a sub-fossiliferous, Image: a series and sharp. a sub-fossiliferous, Image: a series and sharp. a series and sharp. Image: a series and sharp. a sub-fossiliferous, Image: a series and sharp. a series and sharp. Image: a series and sharp.	TG, C1 - C5 tal Gas (units) 1 (units) 2 (units) 3 (units) 4 (units) 1 (
1.240 imperial 6 1.60 6 1.60 6 1.60 6 1.60 6 1.60 7		 Limestone: cream tan, densibiliterous, poor-lair intervan porosity, no shows, no fluce Geologist Derek W. Patter Shows, no fluce Geologist Derek W. Patter Shows, no fluce Geologist Derek W. Patter Limestone: gray dk gray, do shows, no fluce Geologist Derek W. Patter Limestone: gray dk gray, do shows, no fluce Geologist Derek W. Patter Limestone: gray dk gray, do shows, no fluce Geologist Derek W. Patter Limestone: lt cream, densi visible intervan porosity, no shows, no fluce Geologist Derek W. Patter Limestone: lt cream, densi visible intervan porosity, no shows, no fluce Shale: gray dk gray, most no shows, no fluce Geologist Derek W. Patter Cimestone: lt cream it cream fossiliferous, poor-lair intervan forosity, no shows, no fluce Shale: gray dk gray, most no shows, no fluce Shale: gray dk gray, most no shows, no fluce Shale: gray dk gray, most no fluce Shale: gray dk gray, most no gray di gray, most no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der porosity, no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der porosity, no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der porosity, no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der porosity, no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der interparticle porosity, no shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der shows, no fluce Shale: gray dk gray, blocky Limestone: lt cream tan, der Shale: gray dk gray, blocky Com Shale: gray dk gray brick ru Shale: gray dk gray brick ru	Geological Descriptions Geological Descriptions Partial Content of the second of the	Image: a series and seri	TG., C1 - C5 tal Gas (units) 1 (units) 2 (units) 4 (units) 1 (units) 1 (units) 4 (units) 1
12.40 Importal 100 Control (10) 100 Control (1		 Start 10' Wet & Dry Samp Displace Mud System @ Start 10' Wet & Dry Samp Limestone: cream gray, de prossity, no shows, no fluc Shale: gray dk gray, blocky Limestone: cream gray, de fair intervin porosity, no shows, no fluc Shale: gray dk gray, blocky Limestone: It cream, densi porosity, no shows, no fluc Ceologist Derek W. Patter Shale: gray dk gray, most n Limestone: It cream, densi porosity, no shows, no fluc Limestone: It cream, densi porosity, no shows, no fluc Limestone: It cream, densi porosity, no shows, no fluc Shale: gray dk gray, most n Limestone: It cream, densi visible porosity, no shows, no fluc Shale: gray dk gray, most n Limestone: cream it gray, it intervin porosity, no shows, no fluc Shale: gray dk gray, most n Limestone: off white it creat shows, no fluc rescence. Shale: gray dk gray, most n Limestone: off white it creat shows, no fluc rescence. Displate: black, carbonaceou Limestone: cream it gray, it porosity, no shows, no fluc Limestone: it cream it gray, it porosity, no shows, no fluc Limestone: it cream it gray, it porosity, no shows, no fluc Limestone: it cream it gray, it obarren, poor visible poro Limestone: cream it gray, it porosity, no shows, no fluc Shale: gray dk gray brick rescence. Shale: g	Seological Descriptions Geological Descriptions Seological Descriptions CPEKA 2755' (-923') resematrix, vf-fan, some 2ndary y rescence, with some interbedded mese matrix, vf-fan, some 2ndary y rescence, with some interbedded mese matrix, vf-fan, scattered fossils, resen On Location 1810 hrs 7.16 resence, resence, scattered fossils, resen On Location 1810 hrs 7.16 resence, resence, scattered fossils, resen On Location 1810 hrs 7.16 resence, resence, scattered fossils, resence, scattered fossils, resen On Location 1810 hrs 7.16 resence, resence, scattered fossils, resence, scattered, fossilferous scattered for the scattered fossil, resence, scattered fossils, resence, scattered, fossilferous scattered for the scattere	a a a a a a a a b a b a a a a a b a b a a a a a a a b a a	TG., C1 - C5 tal Gas (units) 1 (units) 2 (units) 4 (units) 1 (units) 1 (units) 4 (units) 1
		 Jisplace Mud System @ Jisplace Mud System @ Start 10' Wet & Dry Samg Jisplace Mud System @ Start 10' Wet & Dry Samg Jisplace Mud System @ Start 10' Wet & Dry Samg Jisplace Mud System @ Start 10' Wet & Dry Samg Jisplace Mud System @ Shale: gray dk gray, blocky Limestone: cream gray, de fair interxin porosity, no sh Shale: gray dk gray, de Shows, no fluorescence. Limestone: It cream, dens porosity, no shows, no fluo Geologist Derek W. Patter Geologist Derek W. Patter (Limestone: It cream, dens porosity, no shows, no fluo Geologist Derek W. Patter Shale: gray dk gray, most n Limestone: It cream, dense mal Shale: gray dk gray, most n Limestone: It cream it cream fossiliterous, poor-fair inter fossiliterous, poor-fair inter fossiliterous, poor-fair inter fossiliterous, poor-fair inter porosity, no shows, no fluor Shale: gray dk gray, most n Limestone: cream it gray, t interparticle porosity, no Shale: gray dk gray, most n Limestone: cream it gray, Limestone: lt cream for porosity, no shows, no fluor Shale: gray dk gray, blocky Limestone: cream it gray, Limestone: cream it gray, to barren, poor visible porc Shale: gray dk gray, blocky Limestone: cream it gray, to barren, poor visible porc Shale: gray dk gray blocky Limestone: cream it gray, to barren, poor visible porc Shale: gray dk gray blocky Distribution: gray the gray sonted and; gray the gray fluorescence. Shale: gray dk gray blocky Shale: gray dk gray block r Shale: gray dk gray	Geological Desoriptions Geological Desoriptions Competence of the second of the seco	Image: Construction of the sector of the	TG., C1 - C5 tal Gas (units) 1 (units) 2 (units) 4 (units) 1 (units) 1 (units) 4 (units) 1





DST #1.bmp

	DRILL STEM TES	TREP	ORT					
	Edison Operating Company		27-19s-12w Barton					
Grap Bands Kanne	8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226		Knop #1-27 Job Ticket: 01178 DST#:1					
	ATTN: Derek Patterson		Test Start: 2017.07.17 @ 08:10:00					
GENERAL INFORMATION:								
Formation:Kans as City "B"Deviated:NoWhipstock:Time Tool Opened:09:48:00Time Test Ended:00:00:00	ft (KB)	Test Type:Conventional Bottom Hole (Initial)Tester:Gene BudigUnit No:1						
Interval:3160.00 ft (KB) To31Total Depth:3182.00 ft (KB) (The second secon		Reference Elevations: 1832.00 ft (KB) 1823.00 ft (CF) KB to GR/CF: 9.00 ft						
Serial #: 93335 Outside Press@RunDepth: 925.61 psig Start Date: 2017.07.18 Start Time: 20:10:00		Capacity: 5000.00 psig 2017.07.19 Last Calib.: 2017.07.18 20:26:30 Time On Btm: 2017.07.18 @ 21:47:30 Time Off Btm: 2017.07.18 @ 23:53:30						
TEST COMMENT: 1st Opening 12 Minutes w eak blow for 8 minutes and died 1st shut-in 30 minutes no blow back 2nd opening 20 minutes no blow 2nd shut-in 60 minutes no blow back								
Pressure vs. 7 9226 Pressure	1ime		PRESSURE SUMMARY					
500 500 500 500 500 500 500 500		Time (Min.) 0 1 12 44 44 64 124 126	Pressure (psig) Temp (deg F) Annotation 1563.57 107.31 Initial Hydro-static 50.32 107.38 Open To Flow (1) 52.69 107.44 Shut-In(1) 741.46 107.86 End Shut-In(1) 745.54 107.87 Open To Flow (2) 802.92 108.04 Shut-In(2) 925.61 108.47 End Shut-In(2) 1519.31 108.51 Final Hydro-static					
Recovery			Gas Rates					
Length (ft) Description 5.00 Drilling mud	Volume (bbl) 0.07		Choke (inches) Pressure (psig) Gas Rate (Mct/d)					
Eagle Testers	Ref. No: 01178		Printed: 2017.07.18 @ 01:48:24					

DST #2.bmp

	DRILL STEM TEST REPORT							
- Testars	Edison Operating Company	27-19s-12w Barton						
	8100 e.22nd St.bldg 1900	Knop #1-27						
Green Bond Range	Wiochita, Kansas 67226	Job Ticket: 01179 DST#:2						
June Stand Menter	ATTN: Derek Patterson	Test Start: 2017.07.18 @ 08:30:00						

GENERAL INFORMATION:							
Formation:Kansas City "I&J"Deviated:NoWhipstock:Time Tool Opened:10:13:00Time Test Ended:03:03:00	ft (KB)		Test Teste Unit N	er: (Conventional Gene Budig I	Bottom Ho	ole (Initial)
Interval: 3294.00 ft (KB) To 3330.00 f	it (KB) (TVD)		Refer	rence Ele	vations:	1832.00	ft (KB)
Total Depth: 3330.00 ft (KB) (TVD)						1823.00	· · ·
Hole Diameter: 7.88 inches Hole Condi	tion: Fair			KB t	o GR/CF:	9.00	ft
Serial #: 93335 Outside							
	3325.00 ft (KB)		Capacity:			5000.00	
Start Date: 2017.07.18	End Date:	2017.07.19	Last Calib.			2017.07.19	
Start Time: 20:30:00	End Time: 02:52:59 Time Or Time Of				2017.07.18 @ 2017.07.19 @	-	
						01.09.00	
	s no blow back s good blow built to the bot				utes		
Pressure vs. Time			PR	ESSUR		ARY	
170	52236 Tempendure.	Time	Pressure	Temp	Annotatio	n	
Minima I		(Min.)		(deg F)			
	1 105	0	1600.19	106.70	Initial Hydro		
1 1200		1	67.56 64.22	106.71 106.34	Open To Flo Shut-In(1)	bw (1)	
		57	742.78	106.98	End Shut-In	(1)	
		58	73.86	106.99	Open To Flo	. ,	
		86	97.10	107.23	Shut-In(2)		
		176	749.26	108.69	End Shut-In	. ,	
		178	1583.81	108.73	Final Hydro	-static	
18 Tue Ad 2017 Time (Hours)	<u>.</u>						
Recovery				Gas	s Rates		
Length (ft) Description	Volume (bbl)			Choke (in	nches) Pressur	e (psig) G	as Rate (Mcf/d)
0.00 1200 feet of gas in the pipe	0.00						
80.00 mud and water cut gassy oil	1.12						
0.00 10%Gas 60%Oil 15%Mud 15%	Nater 0.00						
30.00 Oil ans gas cut muddy water	0.42						
0.00 5%Gas 15%oil 5% Mud 75% W	ater 0.00						
0.00 Chlorides 58000	0.00						
Eagle Testers	Ref. No: 01179	1		Printed:	2017.07.19	@ 03:19:0	0

DST #3.bmp

·						
	DRILL STEM TES	T REPO	ORT			
	Edison Operating Company		27-19 s -1	2w Barton		
	8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226		Knop #1			
Grad Band Kanas	ATTN: Derek Patterson		Job Ticket Test Start:	: 01180 : 2017.07.19 @	DST#:3 ⊅ 20:20:00	
GENERAL INFORMATION:						
Formation: Arbuckle						
Deviated: No Whipstock: Time Tool Opened: 22:54:00 Time Test Ended: 02:26:00	ft (KB)		Test Type: Conventional Bottom Hole (Initial) Tester: Gene Budig Unit No: 1			
	00 ft (KB) To 3422.00 ft (KB) (TVD) Reference ⊟evations:					
1st Shut-In 4 2nd Opening 3			Capacity: Last Calib.: Time On Btm: Time Off Btm: help		5000.00 psig 2017.07.20 @ 22:27:30 @ 00:50:00	
Pressure vs. 1	ime		PRESS	URE SUMM	IARY	
507/8 Roser 900 900 900 900 900 900 900 90	UT B Torpendaro UT B Torpendaro 101 0 100 000 000 000 000 000 000 000 0	Time (Min.) 0 1 13 56 57 88 142 143	Pressure (psig) Tem (deg 1644.42 109 56.61 109 56.76 108 108.84 109 56.84 109 58.65 110 94.33 110	p Annotati F) 20 Initial Hydr 16 Open To F	ion ro-static Flow (1) In(1) Flow (2) In(2)	
Decement				Gas Rates		
Recovery						
Length (ft) Description	Volume (bbl)			oke (inches) Press	ure (psig) Gas Rate (Mcf/d)	
Length (ft) Description	. ,			oke (inches) Press	ure (psig) Gas Rate (Mct/d)	
Length (ft) Description	. ,			oke (inches) Press	ure (psig) Gas Rate (Mct/d)	
Length (ft) Description	. ,			oke (inches) Press	ure (psig) Gas Rate (Mct/d)	
Length (ft) Description	. ,			oke (inches) Press	ure (psig) Gas Rate (Mct/d)	

DST #4.bmp

•						
	DRILL STEM TES	T REPO	ORT			
	Edison Operating Company		27-	19s-12w	Barton	
	8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226			op #1-27 Ticket: 01		DST#:4
Great Said Kaike	ATTN: Derek Patterson)17.07.20 @	
GENERAL INFORMATION:						
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:10:54:00Time Test Ended:01:48:00	ft (KB)		Test Test Unit	ter: 0	Gene Budig	al Bottom Hole (Initial)
Interval: 3382.00 ft (KB) To 3429.00 ft (KB) (TVD) Reference Elevations: 1832.00 Total Depth: 3429.00 ft (KB) (TVD) 1823.00 1823.00 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00						
2nd Opening 20	End Date: End Time:		Capacity: Last Calit Time On I Time Off eak blow 2 r	o.: Btm: 2 Btm: 2	2017.07.20 2017.07.20	5000.00 psig 2017.07.20 @ 10:53:00 @ 12:23:30
Pressure vs. T	îme		PF	RESSUF	RESUMM	ARY
1790 500 500 500 500 500 500 500 5	9778 Torparks	Time (Min.) 0 2 12	Pressure (psig) 1680.22 61.98 60.82	104.61	Annotatio Initial Hydr Open To F Shut-In(1) End Shut-I	o-static ilow (1)
3) hud 2997	Territoria de la companya de la comp	40 42 60 91 92	443.50 62.90 65.12 312.00 1590.67	105.48 106.03	Open To F Shut-In(2) Final Hydro	low (2) o-static
		42 60 91	62.90 65.12 312.00	105.48 106.03 107.02 107.24	Open To F Shut-In(2) Final Hydro	low (2) o-static
20 20 20 20 20 20 20 20 20 20		42 60 91	62.90 65.12 312.00	105.48 106.03 107.02 107.24	Open To F Shut-In(2) Final Hydro Final Hydro s Rates	low (2) o-static



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company

8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226

ATTN: Derek Patterson

Knop #1-27

27-19s-12w Barton

 Start Date:
 2017.07.17 @ 08:10:00

 End Date:
 2017.07.18 @ 00:00:00

 Job Ticket #:
 01178
 DST #:
 1

Eagle Testers 1309 Patton Road Great Bend, Kansas 67530 620-791-7394 Edison Operating Company

	1							
i Fadle		STEM TES	ST REP	ORT				
	Edison Ope	erating Company		27-	19s-12w	Barton		
		nd St.bldg 1900 Kansas 67226			op #1-27			
Great Band, Kan					Ticket: 01		DST	
•	ATTN: De	erek Patterson		les	t Start: 20)17.07.17	@ 08:10:0	0
GENERAL INFORMATIO								
Formation:Kansas CDeviated:NoWtTime Tool Opened:09:48:00Time Test Ended:00:00:00	-	t (KB)		Test Type: Conventional Bottom Hole (Initial) Tester: Gene Budig Unit No: 1				
Interval: 3160.00 ft (KI Total Depth: 3182.00 Hole Diameter: 7.88		Refe	erence Ele KB t	evations:	1823	.00 ft (KB) .00 ft (CF) .00 ft		
Control # 02225 Out	side							
Press@RunDepth: 92 Start Date: 20			2017.07.19 20:26:30	Capacity Last Calil Time On Time Off	b.: Btm: 2	2017.07.18 2017.07.18	2017.07 3 @ 21:47	:30
TEST COMMENT: 1st Op 1st sh 2nd op 2nd sl	ut-in 30 minutes no b pening 20 minutes no bl	blow back low	and died					
53336 Pressure	Pressure vs. Time							
1500			Time (Min.)	Pressure (psig)	Temp (deg F)	Annota		
1220		- 106	0	1563.57 50.32	107.31 107.38	Initial Hyd Open To		
			12	52.69	107.44	Shut-In(1)	
			44	741.46 745.54	107.86 107.87	End Shut Open To		
700			64	802.92	108.04			
			124 126	925.61 1519.31	108.47 108.51	End Shut Final Hyc		
	67.	16M						
D	ecovery			ļļ	Ga	s Rates		
	ecovery	Volume (bbl)			Choke (i		sure (psig)	Gas Rate (Mcf/d)
5.00 Drilling mud		0.07			· `	·		1 ,
		+						
		+						
		- İ						

A							
	BRILL STEM TES			06-194	Barton		
<i>Filence</i>							
	8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226			p #1-27 icket: 01		DST#	. 4
Great Send, Kaneae	ATTN: Derek Patterson				17.07.17 @		. 1
GENERAL INFORMATION:							
Formation: Kansas City "B							
Deviated: No Whipsto Time Tool Opened: 09:48:00 Time Test Ended: 00:00:00			Test Type:Conventional Bottom Hole (Initial)Tester:Gene BudigUnit No:1				
Total Depth: 3182.00 ft (KB	3182.00 ft (KB) (TVD)) (TVD) sHole Condition: Fair		Refer	ence Ele ^r KB to	vations:	1823.0	0 ft(KB) 0 ft(CF) 0 ft
Serial #: 91716 Inside							
Serial #: 91710InsidePress@RunDepth:916.23 pStart Date:2017.07Start Time:20:10	.18 End Date:	2017.07.19 01:26:00	Capacity: Last Calib. Time On Bt Time Off B	im: 2	2017.07.18 (2017.07.18 (8
1st shut-in	12 Minutes w eak blow for 8 minutes 30 minutes no blow back 20 minutes no blow 60 minutes no blow back	and died					
9076 Pressure	e vs. Time 91716 Temperature		· · · · ·		ESUMM		
		Time (Min.)	Pressure (psig)	Temp (deg F)	Annotatio	n	
		02			Initial Hydro Open To Fl		
		12			Shut-In(1)	OW (1)	
		42	709.07		End Shut-Ir		
		42 63	705.43 791.41		Open To Fl Shut-In(2)	0w (2)	
			916.23 1505.55	108.53	End Shut-Ir Final Hydro		
0 martine state st	1 FN 9 Wed VM						
Recov	ery			Gas	s Rates		
Length (ft) Descriptio	,			Choke (in		re (psig)	Gas Rate (Mcf/d)
5.00 Drilling mud	0.07						
Eagle Testers	Ref. No: 01178			D' L L	2017.07.18	<u> </u>	

t 🕞			DRI	LL STI	EM TEST	REPO	DR'	Т	TOOL DIAGRAM
			Edison	Operating C	Company			27-19s-12w Barton	
				22nd St.bld	•			Knop #1-27	
Grant E	and R	anene	Wiochit	a, Kansas (67226			Job Ticket: 01178	DST#:1
grand g			ATTN:	Derek Patt	erson			Test Start: 2017.07.17 @	08:10:00
Tool Informatio	n		Į						
Drill Pipe:	Length:	3141.00 ft	Diameter:	3.80	inches Volume:	44.06 I	bl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches Volume:	0.00	bl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches Volume:	0.00 l	bl	Weight to Pull Loose:	48000.00 lb
	<i>(</i>)	0.00.0			Total Volume:	44.06	bl	Tool Chased	0.00 ft
Drill Pipe Above k		8.00 ft						String Weight: Initial	38000.00 lb
Depth to Top Pac		3160.00 ft						Final	38000.00 lb
Depth to Bottom F Interval betw een		ft							
	Packers:	22.00 ft 49.00 ft							
Tool Length: Number of Packe		49.00 II 2	Diameter:	6 7E	inches				
	15.	2	Diameter.	0.75	Inches				
Tool Comments:									
Tool Descriptic	on	Le	ngth (ft)	Serial No	. Position	Depth (ft) Ac	ccum. Lengths	
Shut In Tool			5.00			3138.00			
Hydraulic tool			5.00			3143.00			
Jars			5.00			3148.00			

3150.00

3155.00

3160.00

3177.00

3177.00

3177.00

3182.00

Inside

Outside

27.00

22.00

Bottom Of Top Packer

Anchor Tool

Safety Joint

Top Packer

Packer

Anchor

Recorder

Recorder

Bullnose

2.00

5.00

5.00

17.00

0.00

0.00

5.00

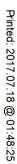
49.00

Total Tool Length:

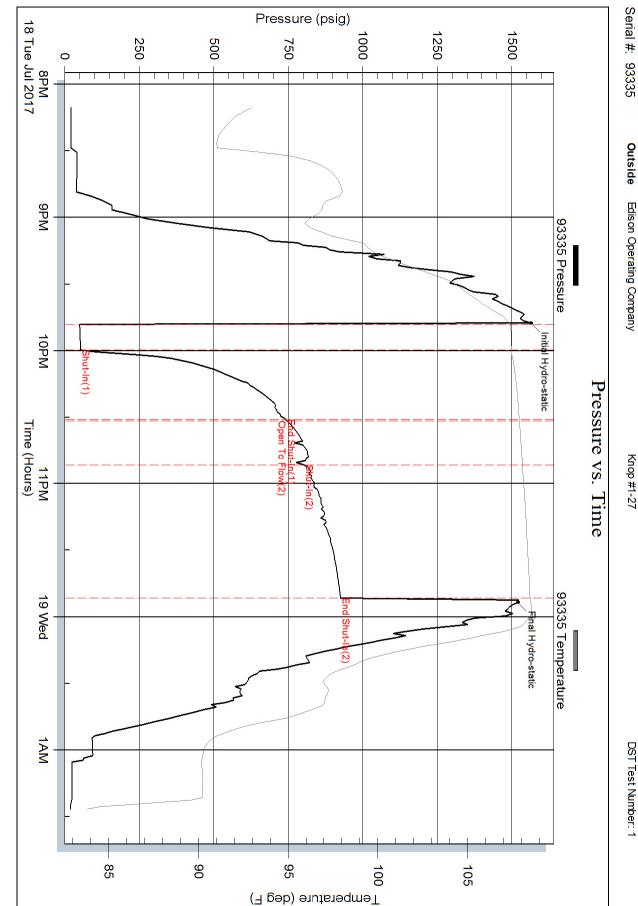
91716

93335

		DRI	LL S1	EM TEST RE	EPORT			FLUID S	
		Edison	Operating	Company		27-19s-12	w Barton		
	<u>asters</u>		.22nd St.b			Knop #1-2	27		
Great E	and Rancos	Wiochi	ta, Kansas	67226		Job Ticket: (01178	DST#:1	
		ATTN:	Derek Pa	tterson		Test Start: 2	2017.07.17 @ 0	8:10:00	
Mud and Cus	hion Information	- 							
Mud Type: Gel	Chem		С	ushion Type:			Oil A PI:		deg API
Mud Weight:	9.00 lb/gal		С	ushion Length:		ft	Water Salinity:	:	ppm
Viscosity:	48.00 sec/qt		С	ushion Volume:		bbl			
Water Loss:	8.80 in ³		G	as Cushion Type:					
Resistivity:	ohm.m		G	as Cushion Pressure:		psig			
Salinity:	2800.00 ppm								
Filter Cake:	1.00 inches								
Recovery Inf	ormation								
			F	ecovery Table					
	Len			Description		Volume bbl			
		5.00	Drilling m	ud		0.07	0		
	Total Length:	5	.00 ft	Total Volume:	0.070 bbl				
	Num Fluid San	nples:0		Num Gas Bombs:	0	Serial #	t :		
	Laboratory Na	ame:		Laboratory Location:					
	Recovery Cor	nments:							







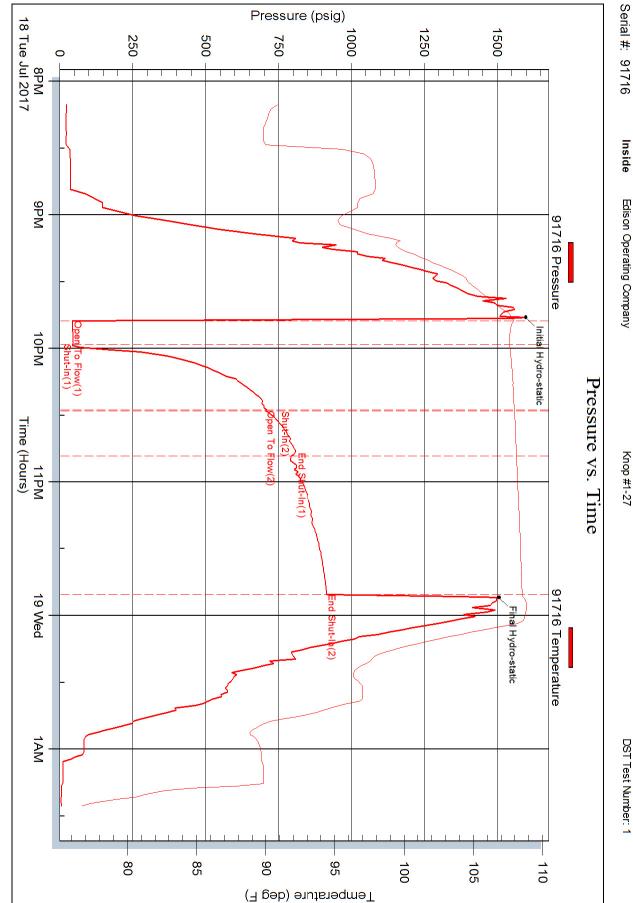
Knop #1-27

Outside

Edison Operating Company

DST Test Number: 1





Knop #1-27

Inside

Edison Operating Company

DST Test Number: 1



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company

8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226

ATTN: Derek Patterson

Knop #1-27

27-19s-12w Barton

 Start Date:
 2017.07.18 @ 08:30:00

 End Date:
 2017.07.19 @ 03:03:00

 Job Ticket #:
 01179
 DST #:
 2

Eagle Testers 1309 Patton Road Great Bend, Kansas 67530 620-791-7394 Edison Operating Company

			~			
i Earle >>	DRILL STEM TES	T REP	ORT			
	Edison Operating Company		27-	19s-12w	Barton	
	8100 e.22nd St.bldg 1900		Kno	op #1-27	7	
Great Bend, Kanzas	Wiochita, Kansas 67226		Job	Ticket: 01	179	DST#:2
	ATTN: Derek Patterson		Test	Start: 20)17.07.18 @	08:30:00
GENERAL INFORMATION:	1					
Formation: Kansas City "I&J"				_		
Deviated: No Whipstock: Time Tool Opened: 10:13:00 Time Test Ended: 03:03:00	ft (KB)		Test Test Unit	ter: (Conventional Gene Budig 1	Bottom Hole (Initial)
Interval: 3294.00 ft (KB) To	330.00 ft (KB) (TVD)		Refe	erence Ele	evations:	1832.00 ft (KB)
Total Depth: 3330.00 ft (KB) (1823.00 ft (CF)
Hole Diameter: 7.88 inches Ho	le Condition: Fair			KB t	o GR/CF:	9.00 ft
Serial #: 93335 Outside						
Press@RunDepth: 749.26 psig Start Date: 2017.07.18		2017.07.19	Capacity: Last Calib		2	5000.00 psig 017.07.19
Start Time: 20:30:00		02:52:59	Time On E		2017.07.18 @	
			Time Off	Btm: 2	2017.07.19 @	01:09:30
2nd Shut-In 9	0 Minutes good blow built to the both 0 Minutes good blow back	lonior a 5 ga				
Pressure vs 9336 Ressure	S336 Temperature					
	Fair Fair and	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotatior	1
1500	- 105	0	1600.19	106.70	Initial Hydro	
120		1	67.56 64.22	106.71 106.34	Open To Flo Shut-In(1)	ow (1)
		57	742.78	106.98	End Shut-In	(1)
		58	73.86		Open To Flo	ow (2)
		86	97.10 749.26	107.23 108.69	Shut-In(2) End Shut-In	(2)
		178	1583.81	108.73	Final Hydro-	
	- 55					
200						
0						
99M 1 18 Tue.Jd 2017 Time≬kur	Wed 3MM)					
Recovery	,			Ga	s Rates	
Length (ft) Description	Volume (bbl)			Choke (i	nches) Pressure	e (psig) Gas Rate (Mcf/d)
0.00 1200 feet of gas in the						
80.00 mud and water cut gas						
0.00 10%Gas 60%Oil 15%M						
30.00 Oil ans gas cut muddy						
0.00 5%Gas 15%oil 5% Mud 0.00 Chlorides 58000						
	0.00					

		DRILL STEM T	EST R	EPO	ORT				
		Edison Operating Company			27-	19s-12w	Barto	n	
	lesters	8100 e.22nd St.bldg 1900			Kn	op #1-27	7		
amas	Bond Roman	Wiochita, Kansas 67226				Ticket: 01		DST	ſ#:2
green e		ATTN: Derek Patterson			Tes	t Start: 20	017.07.18	3 @ 08:30:0	00
GENERAL II	NFORMATION:								
Formation: Deviated: Time Tool Oper Time Test Ende		ft (KB)			Tes	ter:	Conventio Gene Buo 1		n Hole (Initial)
Interval: Total Depth: Hole Diameter:	3330.00 ft (KB) (T	330.00 ft (KB) (TVD) VD) e Condition: Fair			Ref	erence Ele KB t	evations: to GR/CF	1823	.00 ft (KB) .00 ft (CF) .00 ft
Serial #: 9 ⁻ Press@RunDe Start Date: Start Time: TEST COMM	Ppth: 741.16 psig 2017.07.18 20:30:00 MENT: 1st Opening 10 1st Shut-In 45	 @ 3325.00 ft (KB) End Date: End Time: 9 Minutes good blow built to the 6 Minutes no blow back 9 Minutes good blow built to the 	bottom of a	52:30 a 5 gall		b.: Btm: 2 Btm: 2 1/2 min	2017.07.	5000 1899.12 18 @ 22:08 19 @ 01:08	:00
				a 5 gai	ION DUCKET IN	n 1 minute			
) Minutes good blow back		a 5 gai					
1000 1250 770 770 220 0 1 374 13 The JJ 2017	2nd Shut-In 90	Minutes good blow back	- 110 Tit	me in.) 0 5 15 60 62 90 180 181		RESSUF Temp (deg F) 106.42 106.47 106.12 106.98	Annot Initial Hy Open T Shut-In End Shu Open T Shut-In End Shu	ation /dro-static o Flow (1) (1) ut-In(1) o Flow (2) (2)	
	2nd Shut-In 90	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.12 106.98 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu Open T Shut-In End Shu	ation /dro-static o Flow (1) (1) ut-ln(1) o Flow (2) (2) ut-ln(2) /dro-static	
1220 1000 770 400 270 40 270 40 40 41 42 42 42 42 42 42 42 42 42 42	2nd Shut-In 90	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.12 106.98 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-ln(1) o Flow (2) (2) ut-ln(2) /dro-static	Gas Rate (Mcf/d)
220 779 900 259 85 Tue JA 2017	2nd Shut-In 90 Pressure vs. 1 9790 Pressure Pressure vs. 1 Pressure vs. 1 Pr	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.92 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-In(1) io Flow (2) (2) ut-In(2) /dro-static	Gas Rate (Mct/d)
220 500 500 500 500 500 500 500	2nd Shut-In 90 Pressure vs. T 9770 Pressure 9770 Press	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.92 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-In(1) io Flow (2) (2) ut-In(2) /dro-static	Gas Rate (Mct/d)
220 270 270 270 270 270 270 270	2nd Shut-In 90 Pressure vs. 1 9770 Pressure 9770	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.92 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-In(1) io Flow (2) (2) ut-In(2) /dro-static	Gas Rate (Mct/d)
E The Jul 2017	2nd Shut-In 90 Pressure vs. 1 9790 Pressure Pressure vs. 1 Pressure vs. 1	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.92 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-In(1) io Flow (2) (2) ut-In(2) /dro-static	Gas Rate (Mct/d)
220 5000 750 500 200 200 500 500 500 500 5	2nd Shut-In 90 Pressure vs. 1 9770 Pressure 9770	Minutes good blow back	110 Til (M 105 55 90 5 85	me in.) 5 15 60 62 90 180	Pressure (psig) 1615.09 68.54 60.21 733.38 71.53 93.39 741.16	RESSUF Temp (deg F) 106.42 106.47 106.92 106.92 107.18 108.46 108.48	Annot Initial Hy Open T Shut-In End Shu End Shu Final Hy s Rates	ation /dro-static o Flow (1) (1) ut-In(1) io Flow (2) (2) ut-In(2) /dro-static	Gas Rate (Mct/d)

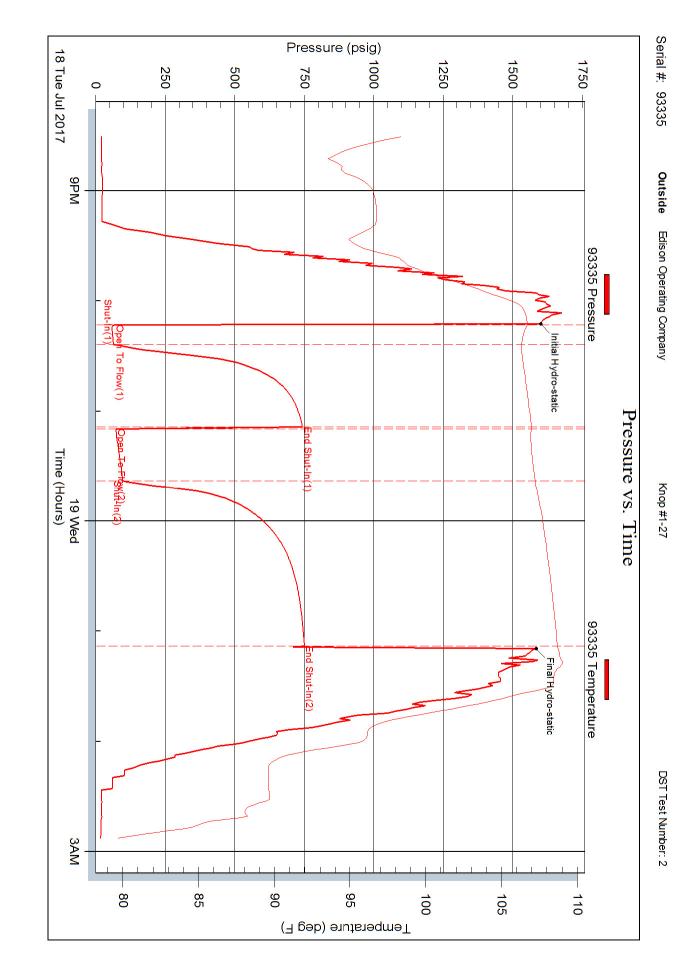
			DRIL	L STE	M TEST	REPO	RT	TOOL DIAGRAM
			Edison O	perating Co	mpany		27-19s-12w Barton	
Great	Rands K		Wiochita,	2nd St.bldg Kansas 67	226		Knop #1-27 Job Ticket: 01179	DST#:2
			ATTN: [Derek Patter	son		Test Start: 2017.07.18 @	@ 08:30:00
Tool Informatio	on		ļ					
Drill Pipe:	Length:	3298.00 ft	Diameter:	3.80 in	ches Volume:	46.26 bb	I Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 in	ches Volume:	0.00 bb	Weight set on Packer	: 20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 in	ches Volume:	0.00 bb	Weight to Pull Loose:	48000.00 lb
		01 00 4		·	Total Volume:	46.26 bb	Tool Chased	0.00 ft
Drill Pipe Above k		31.00 ft					String Weight: Initial	40000.00 lb
Depth to Top Pac		3294.00 ft					Final	42000.00 lb
Depth to Bottom I Interval betw een		ft 36.00 ft						
Tool Length:	rackers.	63.00 ft						
Number of Packe	are ·	2	Diameter:	6.75 in	ches			
Tool Comments:		L	Diameter.	0.75 11				
Tool Description	on	Le	ngth (ft) S	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool			5.00			3272.00		
Hydraulic tool			5.00			3277.00		
lare			5.00			3282.00		

т	otal Tool Length:	63.00					
Bullnose		5.00			3330.00	36.00	Anchor Tool
Recorder		0.00	093335	Outside	3325.00		
Recorder		0.00	91716	Inside	3325.00		
Anchor		31.00			3325.00		
Packer		5.00			3294.00	27.00	Bottom Of Top Packer
Top Packer		5.00			3289.00		
Safety Joint		2.00			3284.00		
Jars		5.00			3282.00		
riyaraano toor		0.00			0277.00		

1 🕞			DRI	LL STEM TEST REPOR	Т	F	LUID SUMMAR
			Edison	Operating Company	27-19s-1	2w Barton	
				.22nd St.bldg 1900 ta, Kansas 67226	Knop # ⁻ Job Tickei		DST#:2
Greate	Seeds I	<i>Caneae</i>	ATTN:	Derek Patterson		:: 2017.07.18 @ 08	
Mud and Cu	shion Ir	nformation					
Mud Type: Ge	el Chem			Cushion Type:		Oil A PI:	deg API
Mud Weight:		0 lb/gal		Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	67.00	0 sec/qt		Cushion Volume:	bbl		
Water Loss:	9.20	0 in³		Gas Cushion Type:			
Resistivity:		ohm.m		Gas Cushion Pressure:	psig		
Salinity:	9600.00	0 ppm					
Filter Cake:	1.00	0 inches					
Recovery In	formatio	on		Decement Table			
				Recovery Table			
		Leng ft		Description	Volume bbl	9	
			0.00	1200 feet of gas in the pipe	0.	000	
			80.00	mud and w ater cut gassy oil	1.	122	
			0.00	10%Gas 60%Oil 15%Mud 15%Water		000	
			30.00	Oil ans gas cut muddy w ater	_	421	
			0.00	5%Gas 15%oil 5% Mud 75% Water		000	
			0.00	Chlorides 58000	0.	000	
	-	Total Length:	110	.00 ft Total Volume: 1.543 bb	bl		
	1	Num Fluid Samp	oles: 0	Num Gas Bombs: 0	Seria	al #:	
	l	Laboratory Nar	me:	Laboratory Location:			
	F	Recovery Com	ments:				



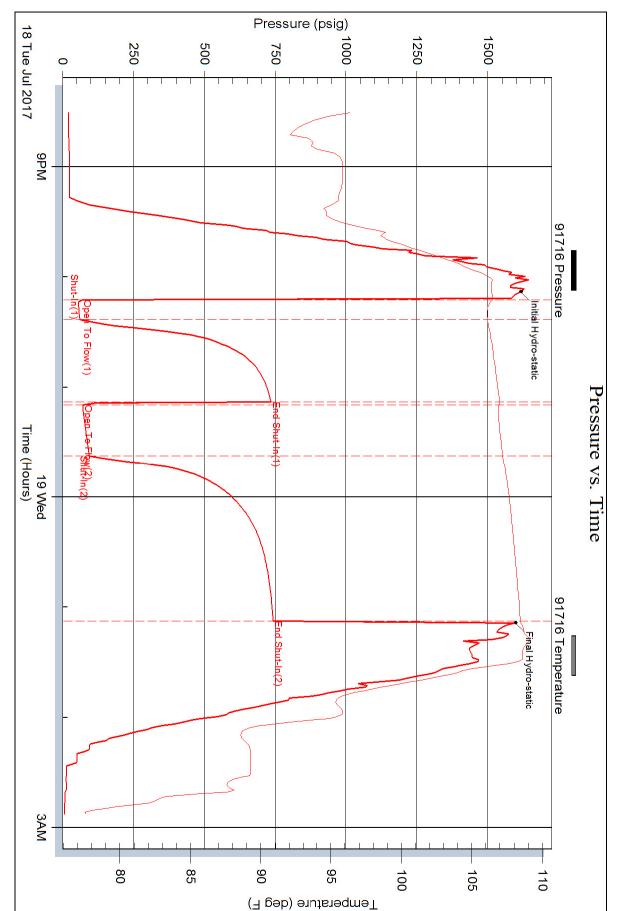
Eagle Testers



Printed: 2017.07.19 @ 03:19:02

Ref. No: 01179





Knop #1-27

DST Test Number: 2

Serial #: 91716 Inside Edison Operating Company



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company

8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226

ATTN: Derek Patterson

Knop #1-27

27-19s-12w Barton

 Start Date:
 2017.07.19 @ 20:20:00

 End Date:
 2017.07.20 @ 02:26:00

 Job Ticket #:
 01180
 DST #: 3

Eagle Testers 1309 Patton Road Great Bend, Kansas 67530 620-791-7394 DST # 3

	DRILL STEM TES	TREP	ORT				
	Edison Operating Company			9s-12w	Barton		
<u>Jesters</u>	8100 e.22nd St.bldg 1900		Knoj	p #1-27			
Great Bend, Kanzas	Wiochita, Kansas 67226		Job T	icket: 01	180	DST#	#:3
	ATTN: Derek Patterson		Test S	Start: 20	17.07.19 @	20:20:00	I
GENERAL INFORMATION:	•						
Formation:ArbuckleDeviated:NoWhipstockTime Tool Opened:22:54:00Time Test Ended:02:26:00	ft (KB)		Test T Teste Unit N	r: G	Conventiona Gene Budig	l Bottom H	Hole (Initial)
Total Depth: 3422.00 ft (KB)	3422.00 ft (KB) (TVD) TVD) ole Condition: Fair		Refer	ence Elev KB to	vations:	1823.0	00 ft(KB) 00 ft(CF) 00 ft
1st Shut-In	End Date:		Capacity: Last Calib. Time On Bt Time Off B	tm: 2	017.07.19 (017.07.20 (2017.07.2 @ 22:27:3	30
Pressure			PRI	ESSUR	E SUMM	ARY	
1700 91790 Hessure 1700 170	9179 Torponáce 	Time (Min.) 0 1 13 56 57 88 142 143	Pressure (psig)	Temp (deg F) 109.20 109.16 108.92 109.55 109.57	Annotatic Open To Fl Shut-In(1) End Shut-Ir Open To Fl Shut-In(2) End Shut-Ir Final Hydro	on o-static low (1) n(1) low (2) n(2)	
Recover	, , ,			Gas	Rates		
Length (ft) Description 5.00 Drilling Mud	Volume (bbl) 0.07			Choke (in	nches) Pressu	re (psig)	Gas Rate (Mcf/d)
Eagle Testers	Ref. No: 01180				2017.07.20		

	DRILL STEM TES	TREP	ORT				
	Edison Operating Company		27-1	19s-12w	Barton		
<u>slegters</u>	8100 e.22nd St.bldg 1900		Kno	op #1-27	7		
Great Bend, Kaneas	Wiochita, Kansas 67226		Job	Ticket: 01	180	DST	#:3
	ATTN: Derek Patterson		Test	Start: 20)17.07.19 @	20:20:00	0
GENERAL INFORMATION:							
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:22:54:00Time Test Ended:02:26:00	ft (KB)		Test Test Unit	er: (Conventiona Gene Budig 1	al Bottom	Hole (Initial)
Interval:3384.00 ft (KB) To3Total Depth:3422.00 ft (KB) (THole Diameter:7.88 inches Ho			Refe	erence Ele KB t	evations: to GR/CF:	1823.	00 ft (KB) 00 ft (CF) 00 ft
1st Shut-In 2nd Opening	 @ 3417.00 ft (KB) End Date: End Time: 0 Minutes w eak blow for 4 minutes 45 Minutes no blow back 30 Minutes no blow -Flushed tool-Ge 50 Minutes no blow back 		Capacity: Last Calib Time On E Time Off	o.: 3tm: 2	2017.07.19 2017.07.20	2017.07. @ 22:28:	:00
Pressure vs.		1	PF	RESSUE	RE SUMM	ARY	
9335 Pissue 9335 Pissue 90 90 90 90 90 90 90 90 90 90	SIGNET TATUE AND A SUM	Time (Min.) 0 1 12 56 57 87 142 142	Pressure (psig) 1659.28 55.84 57.38 111.33 56.96 58.34 95.90 1634.50	Temp (deg F) 109.17 109.27 109.26 109.60	Annotation Initial Hydr Open To F Shut-In(1) End Shut-I Open To F	on o-static flow (1) n(1) flow (2) n(2)	
Recovery				Ga	s Rates		
Length (ft) Description	Volume (bbl)			Choke (i	nches) Pressu	ure (psig)	Gas Rate (Mcf/d)
5.00 Drilling Mud	0.07						

			DRI	LL STE	EM TEST	REPO	RT	TOOL DIAGRAM
			Edison	Operating C	ompany		27-19s-12w Barton	
				.22nd St.bldg			Knop #1-27	
Great E	Rends R	anzas	Wiochit	a, Kansas 6	7226		Job Ticket: 01180	DST#:3
grinne g			ATTN:	Derek Patte	erson		Test Start: 2017.07.19 @	20:20:00
Tool Information	on		ļ					
Drill Pipe:	Length:	3371.00 ft	Diameter:	3.80 i	nches Volume:	47.29 bb	I Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 i	nches Volume:	0.00 bb	I Weight set on Packer	: 20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 i	nches Volume:	0.00 bb		52000.00 lb
Drill Pipe Above	KB.	7.00 ft			Total Volume:	47.29 bb	-	0.00 ft
Depth to Top Pac		3384.00 ft					String Weight: Initial	40000.00 lb
Depth to Bottom		5504.00 ft					Final	40000.00 lb
Interval betweer		38.00 ft						
Tool Length:		58.00 ft						
Number of Packe	ers:	2	Diameter:	6.75 i	nches			
Tool Comments:								
Tool Descripti	on	Le	ngth (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool			5.00			3369.00		
Hydraulic tool			5.00			3374.00		
Top Packer			5.00			3379.00		
Packer			5.00			3384.00	20.00	Bottom Of Top Packer
Anchor			33.00			3417.00		
Recorder			0.00	91716	Inside	3417.00		
Recorder			0.00	93335	Outside	3417.00		
Bullnose			5.00			3422.00	38.00	Anchor Tool

Total Tool Length: 58.00

		DRI	LL STEM TEST R	EPORT	-		FLUID S	UMMAR
		Edison	Operating Company		27-19s-12v	v Barton		
	<u>sters</u>	8100 e	.22nd St.bldg 1900		Knop #1-2	7		
amsB	and Ranges	Wiochi	ta, Kansas 67226		Job Ticket: 0	1180	DST#:3	
Juin Ch		ATTN:	Derek Patterson		Test Start: 2	017.07.19@2	20:20:00	
Mud and Cust	nion Information	ļ						
Mud Type: Gel (Chem		Cushion Type:			Oil A PI:		deg API
Mud Weight:	9.00 lb/gal		Cushion Length:		ft	Water Salinity	:	ppm
Viscosity:	50.00 sec/qt		Cushion Volume:		bbl			
Water Loss:	9.59 in ³		Gas Cushion Type:					
Resistivity:	ohm.m		Gas Cushion Pressure:		psig			
Salinity: 1	10700.00 ppm							
Filter Cake:	1.00 inches							
Recovery Info	ormation							
			Recovery Table					
	Len		Description		Volume bbl]		
		5.00	Drilling Mud		0.070			
	Total Length:	5	.00 ft Total Volume:	0.070 bbl				

Num Gas Bombs: 0

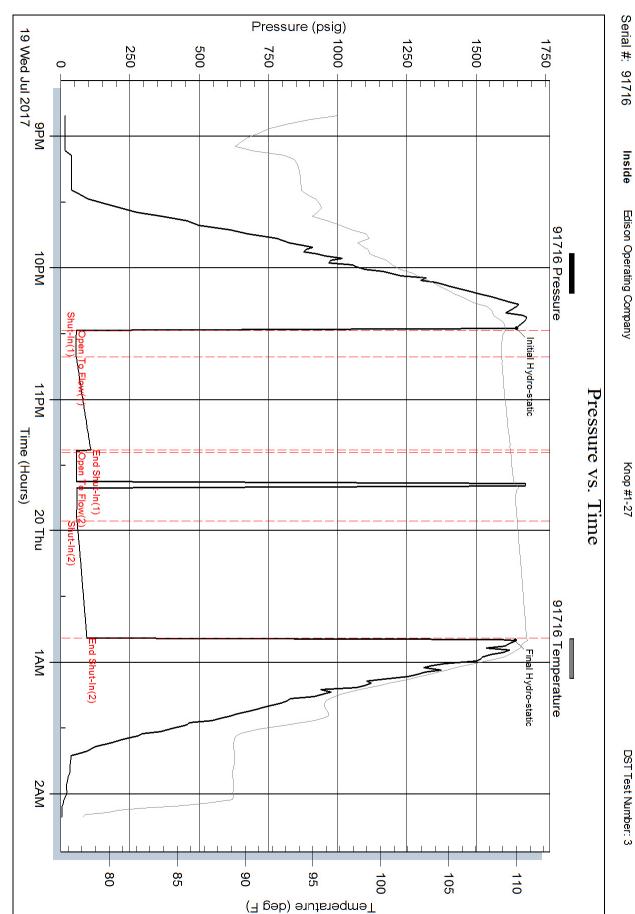
Laboratory Location:

Serial #:

Num Fluid Samples: 0 Laboratory Name: Recovery Comments:



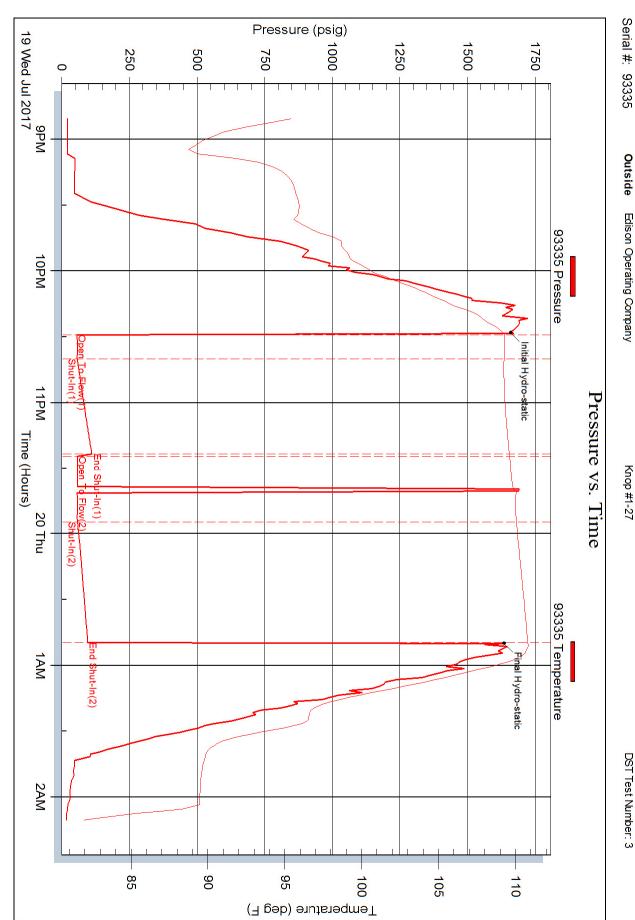
Eagle Testers



DST Test Number: 3



Eagle Testers



Knop #1-27



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company

8100 e.22nd St.bldg 1900 Wiochita, Kansas 67226

ATTN: Derek Patterson

Knop #1-27

27-19s-12w Barton

 Start Date:
 2017.07.20 @ 09:10:00

 End Date:
 2017.07.20 @ 01:48:00

 Job Ticket #:
 01181
 DST #: 4

Eagle Testers 1309 Patton Road Great Bend, Kansas 67530 620-791-7394

	DRILL STEM TES		ORT				
	Edison Operating Company			19s-12w	Barton		
Testers	8100 e.22nd St.bldg 1900		Kn	op #1-27	7		
Amont Band Remon	Wiochita, Kansas 67226			Ticket: 01		DST	#:4
Sugar Senas Maneas	ATTN: Derek Patterson		Tes	t Start: 20)17.07.20 @	@ 09:10:0	0
GENERAL INFORMATION:	1						
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:10:54:00Time Test Ended:01:48:00	ft (KB)		Tes Tes Unit	ter:	Convention Gene Budig 1		Hole (Initial)
Interval:3382.00 ft (KB) To3Total Depth:3429.00 ft (KB) (THole Diameter:7.88 inches Ho			Refe	erence Ele KB t	evations: to GR/CF:	1823.	.00 ft (KB) .00 ft (CF) .00 ft
Serial #: 91716 Inside Press@RunDepth: 443.50 psig Start Date: 2017.07.20 Start Time: 09:10:00	End Date: End Time:	2017.07.20 13:47:00	Capacity Last Calil Time On Time Off	b.: Btm: 2	2017.07.20 2017.07.20	2017.07. @ 10:53:	:00
2nd Opening 20 2nd Shut-In 30	Minutes no blow back Minutes w eak blow 1 minute died f Minutes n blow back						
Pressure vs. 91716 Pressure	Time 91716 Temperature	Time			RE SUMM		
150 150 150 150 150 150 150 150		Time (Min.) 2 12 40 42 60 91 92	Pressure (psig) 1680.22 61.98 60.82 443.50 62.90 65.12 312.00 1590.67		Open To F Shut-In(1) End Shut- Open To F	ro-static Flow (1) In(1) Flow (2) ro-static	
Recovery				Ga	s Rates		
Length (ft) Description	Volume (bbl)			Choke (i	nches) Press	ure (psig)	Gas Rate (Mcf/d)
15.00 Drilling Mud	0.21						

	Edison On				TOOL DIAGRAM
		erating Company		27-19s-12w Barton	
		nd St.bldg 1900		Knop #1-27	
Groat Band Ranges	Wiochita, ł	Kansas 67226		Job Ticket: 01181	DST#:4
	ATTN: De	erek Patterson		Test Start: 2017.07.20 @	09:10:00
Fool Information	-				
Drill Pipe: Length: 3364.00 ft	Diameter:	3.80 inches Volume:	47.19 bbl	Tool Weight:	2000.00 lb
leavy Wt. Pipe: Length: 0.00 ft	Diameter:	0.00 inches Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar: Length: 0.00 ft	Diameter:	0.00 inches Volume:	0.00 bbl	Weight to Pull Loose:	64000.00 lb
		Total Volume:	47.19 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB: 9.00 ft				String Weight: Initial	40000.00 lb
Depth to Top Packer: 3382.00 ft Depth to Bottom Packer: ft				Final	40000.00 lb
Depth to Bottom Packer: ft hterval betw een Packers: 46.92 ft					
ool Length: 73.92 ft					
Jumber of Packers: 2	Diameter:	6.75 inches			
Fool Comments:					

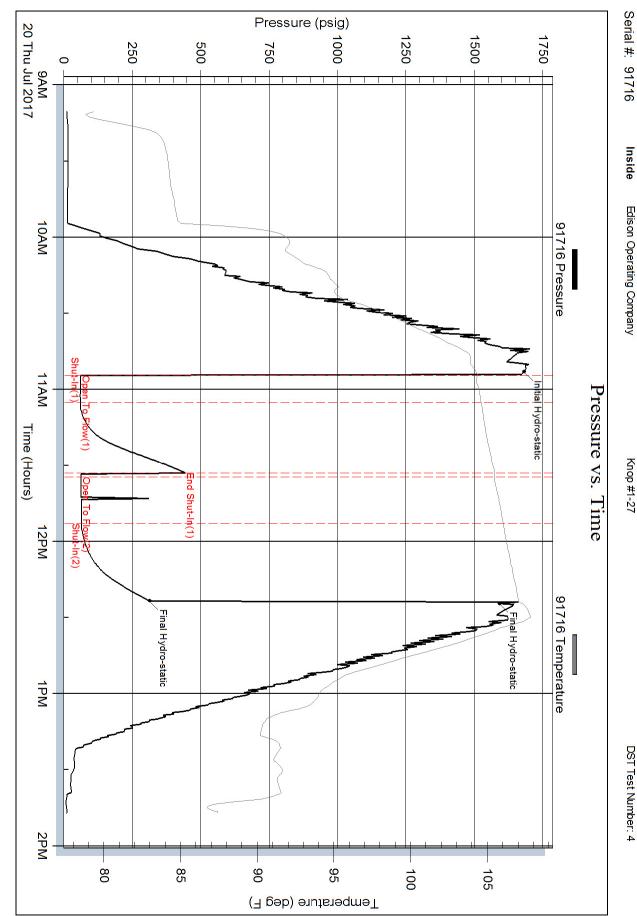
Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3360.00		
Hydraulic tool	5.00			3365.00		
Jars	5.00			3370.00		
Safety Joint	2.00			3372.00		
Top Packer	5.00			3377.00		
Packer	5.00			3382.00	27.00	Bottom Of Top Packer
Anchor	0.00			3382.00		
Change Over Sub	0.75			3382.75		
Drill Pipe	31.42			3414.17		
Change Over Sub	0.75			3414.92		
Anchor	9.00			3423.92		
Recorder	0.00	91716	Inside	3423.92		
Recorder	0.00	93335	Outside	3423.92		
Bullnose	5.00			3428.92	46.92	Anchor Tool
	=					

Total Tool Length: 73.92

Edison Operating Company 27-19s-12w Barton 8100 e.22nd St.bldg 1900 Knop #1-27 Job Ticket: 01181 DST#:4 ATTN: Derek Patterson Test Start: 2017.07.20 @ 09:10:00 Mud and Cushion Information Ushion Type: Mud Type: Gel Chem Cushion Type: Mud Weight: 9.00 lb/gal Outscostly: 54.00 sec/qt Viscosity: 54.00 sec/qt Water Loss: 11.20 in ³ Gas Cushion Type: Psig Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 1.00 inches Recovery Table Length Description 15.00 Drilling Mud 0.210 Total Length: 15.00 ft Total Volume: 0.210 bbl	UMMAF		
Wiochita, Kansas 67226 Job Ticket: 01181 DST#:4 ATTN: Derek Patterson Test Start: 2017.07.20 @ 09:10:00 Mud and Cushion Information Cushion Type: Oil API: Mud Yipe: Gel Chem Cushion Length: ft Water Salinity: Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity: Viscosity: 54.00 sec/qt Cushion Volume: bbl Water Loss: 11.20 in ³ Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Kecovery Table Length Description 15.00 Drilling Mud 0.210	27-19s-12w Barton		
Job licket: 01181 DST#:4 ATTN: Derek Patterson Test Start: 2017.07.20 @ 09:10:00 Mud and Cushion Information Oil API: Mud Type: Gel Chem Cushion Type: Oil API: Mud Weight: 9.00 lb/gal Cushion Length: ft Mud Veight: 9.00 lb/gal Cushion Volume: bbl Water Loss: 11.20 in ³ Gas Cushion Type: Psig Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Recovery Table Length Description Volume 15.00 Drilling Mud 0.210	Knop #1-27		
Mud and Cushion Information Oil API: Mud Type: Gel Chem Cushion Type: Oil API: Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity: Viscosity: 54.00 sec/qt Cushion Volume: bbl bbl Water Loss: 11.20 in ³ Gas Cushion Type: Gas Cushion Type: Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Cuength Description Volume tength Description Volume Joint Information			
Mud Type: Gel Chem Cushion Type: Oil API: Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity: Viscosity: 54.00 sec/qt Cushion Volume: bbl Water Loss: 11.20 in ³ Gas Cushion Type: Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Recovery Table Length Description Volume bbl 15.00 Drilling Mud 0.210			
Mud Weight:9.00 lb/galCushion Length:ftWater Salinity:Viscosity:54.00 sec/qtCushion Volume:bblWater Loss:11.20 in³Gas Cushion Type:Resistivity:ohm.mGas Cushion Pressure:psigSalinity:11000.00 ppmFilter Cake:1.00 inchesRecovery InformationRecovery TableLength ftDescriptionVolume bbl15.00Drilling Mud0.210			
Viscosity: 54.00 sec/qt Cushion Volume: bbl Water Loss: 11.20 in ³ Gas Cushion Type: Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Volume tf Length Description Volume bbl 15.00 Drilling Mud 0.210	deg API		
Water Loss: 11.20 in ³ Gas Cushion Type: Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Recovery Table Length Description Volume bbl 15.00 Drilling Mud 0.210	ppm		
Resistivity: ohm.m Gas Cushion Pressure: psig Salinity: 11000.00 ppm Pressure: psig Filter Cake: 1.00 inches Pressure: Pressure: Recovery Information Recovery Table Length Description Volume ft 0.210			
Salinity: 11000.00 ppm Filter Cake: 1.00 inches Recovery Information Recovery Table Length Description Volume bbl 15.00 Drilling Mud 0.210			
Filter Cake: 1.00 inches Recovery Information Recovery Table Length Description Volume ft 15.00 Drilling Mud 0.210			
Length ft Description Volume bbl 15.00 Drilling Mud 0.210			
Recovery Table Length ft Description Volume bbl 15.00 Drilling Mud 0.210			
Length ftDescriptionVolume bbl15.00Drilling Mud0.210			
ftbbl15.00Drilling Mud0.210			
Total Length: 15.00 ft Total Volume: 0.210 bbl			
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:			
Laboratory Name: Laboratory Location:			
Recovery Comments:			



Eagle Testers



Knop #1-27