KOLAR Document ID: 1481660

Confident	tiality Requested:
Yes	No

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION Form ACO-1 January 2018 Form must be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No.:
Name:	Spot Description:
Address 1:	
Address 2:	Feet from Dorth / 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? Yes No
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 #:	
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: 1481660

Operator Nar	ne:			Lease Name:	Well #:
Sec	Twp	S. 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		۱ []	⁄es 🗌 No		L	.og Fo	ormation (To	p), Depth an	d Datum	Sample
(Attach Additional Sh					Nam	е			Тор	Datum
Samples Sent to Geolog Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:			∕es ∐No ∕es ∏No ∕es ∏No ∕es ∏No							
		Rep	CASING ort all strings set-o	RECORD [Ne			c.		
Purpose of String	Size Hole Drilled		ze Casing et (In O.D.)	Weight Lbs. / Ft.		Settir Dept		Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING	/ SQL	JEEZE REG	CORD			
Purpose: Perforate Protect Casing	Depth Top Bottom	Тур	e of Cement	# Sacks Use	ed			Type and Pe	ercent Additives	
Plug Back TD Plug Off Zone										
 Did you perform a hydra Does the volume of the Was the hydraulic fractular 	total base fluid of the	hydraulic fr	acturing treatment		-	ons?	res	No <i>(If No, ski</i> p	o questions 2 an o question 3) out Page Three (
Date of first Production/Inj Injection:	ection or Resumed Pr	oduction/	Producing Meth	nod:		Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er	Bbls.	G	as-Oil Ratio	Gravity
DISPOSITION			_						PRODUCTIC Top	ON INTERVAL: Bottom
Vented Sold	Used on Lease		Open Hole			Comp. ACO-5)	Comming (Submit AC			
	foration Perfor Top Bott		Bridge Plug Type	Bridge Plug Set At					enting Squeeze of Material Used)	
TUBING RECORD:	Size:	Set At:		Packer At:						

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	KUHN 1-17
Doc ID	1481660

All Electric Logs Run

DUCP
MICRO
DUAL INDUCTION
SONIC

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	KUHN 1-17
Doc ID	1481660

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.25	8.625	24	392	60/40 poz	3% cc, 2% gel



DRILL STEM TEST REPORT

Prepared For:

Edison Operating Company LLC

8100 East 22nd Street North Building 1900 Wichita, Kansas 667226

ATTN: Adam Kennedy

Kuhn #1-17

17-19s-12w Barton

Start Date:	2019.11.03 @	02:02:00	
End Date:	2019.11.03 @	08:01:00	
Job Ticket #:	01385	DST #:	1

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

	DRILL STEM TES						
Lage . ?	Edison Operating Company LLC			19s-12w	Barton		
Iesters	8100 East 22nd Street North			hn #1-17			
Parrock Barriel Parroce	Building 1900			Ticket: 01		DST#:	1
Shear Quint Manage	Wichita, Kansas 667226 ATTN: Adam Kennedy		Tes	t Start: 20)19.11.03 @	02:02:00	
GENERAL INFORMATION:							
Formation: LANSING A-B							
Deviated: No Whipstock Time Tool Opened: 03:05:00 Time Test Ended: 08:01:00	ft (KB)		Tes	ter: 0	Conventiona Gene Budig 1	al Bottom Ho	ble (Initial)
Interval: 3178.00 ft (KB) To			Ref	erence Ele	evations:		ft (KB)
Total Depth:3225.00 ft (KB)Hole Diameter:7.78 inches H	TVD) ble Condition: Fair			KB t	o GR/CF:	1874.00 8.00	
Serial #: 9119 Inside Press@RunDepth: 938.26 psig	@ 3219.84 ft (KB)		Capacity	:		5000.00) psig
Start Date: 2019.11.03 Start Time: 02:02:00		2019.11.03 09:00:30	Last Cali Time On			2019.11.03	
Start Time: 02:02:00	End Time:	09:00:30	Time Off		2019.11.03 2019.11.03		
Pressure v 949 Pressure	Time 949 Fengerate	Time (Min.)	P Pressure (psig)	RESSUF Temp (deg F)	RE SUMM Annotatio		
1500		(Min.) 0	(psig) 1649.64	(deg F) 95.75	Initial Hydro	o-static	
		1	53.16	95.25	Open To F		
		32 76	52.88 654.29	95.77 96.86	Shut-In(1) End Shut-I	n(1)	
		76	53.88		Open To F	low (2)	
		76 106 195	58.42 938.26	97.35 99.73	Shut-In(2) End Shut-I	n(2)	
Sunver 200 Time (Ho		197	1557.31	99.94	Final Hydro	o-static	
Recover	/			Ga	s Rates		
Length (ft) Description	Volume (bbl)			Choke (i		ıre (psig)	as Rate (Mcf/d)
0.00 1050 feet of gas in the							
30.00 oil cut mud 80%Mud 20	1% Oil 0.42						

	DRILL STEM	TES	T REPO	ORT				
	Edison Operating Compa	any LLC		17-	19s-12w	Barton		
	8100 East 22nd Street N Building 1900	North			hn #1-17 Ticket: 01		DST#:	4
Great Send, Kana	Wichita, Kansas 667226 ATTN: Adam Kennedy)19.11.03 @		•
							02.02.00	
GENERAL INFORMATION Formation: LANSING A								
	pstock: ft (KB)			Tes	ter:	Conventiona Gene Budig 1	al Bottom Hc	le (Initial)
Total Depth: 3225.00 ft	To 3225.00 ft (KB) (TVD) (KB) (TVD) chesHole Condition: Fair			Ref	erence Ele KB t	evations:	1882.00 1874.00 8.00	ft (CF)
								-
Start Date: 201	ide 44 psig @ 3219.84 ft (KB) 9.11.03 End Date: 2:02:00 End Time:	:	2019.11.03 09:00:30	Capacity Last Cali Time On Time Off	b.: Btm: 2	2019.11.03	5000.00 2019.11.03 @ 04:04:30 @ 07:21:00	
2nd Sh	ening 30 Minutes strong blow bob ut-In 90 Minutes blow back	imediatel	y bled off bo			RE SUMM	IARY	
9139 Pressure	9139 Temperature	·	Time	Pressure	Temp	Annotati		
1500		- 100	(Min.) 0	(psig) 1650.69	(deg F) 97.68	 Initial Hydr	o-static	
		- - 90 -	1	54.95	97.32	Open To F	Flow (1)	
		- 80	32 76	53.85 655.74	97.50 98.80	Shut-In(1) End Shut-I		
750			76	56.50		Open To F		
		mperature (deg F)	106	60.14	99.43	,		
		- 60 - 7) - 60 - 7 - 7 - 7 - 70	195 197	941.44 1560.86	101.89 101.81	End Shut-I Final Hydr		
270 0 0 344 Sunky 279	Grad See							
De	201021					. Potos		
	cription Volume (bbl)				Choke (i	s Rates	ure (psig) G	as Rate (Mcf/d)
0.00 1050 feet of ga	,				1			. ,
30.00 oil cut mud 80%								
Eagle Testers	Ref. No: 01385		I			2019.11.03		-

			Edison Op	erating Company LLC		17-19s-12w Barton	
Great Band, Kaneas			8100 East	22nd Street North	Kuhn #1-17		
		anena	Building 19 Wichita K	900 ansas 667226	Job Ticket: 01385	DST#:1	
			· · ·	dam Kennedy		Test Start: 2019.11.03 @	02:02:00
Tool Informatio	on		Į				
Drill Pipe:	Length:	3168.00 ft	Diameter:	3.80 inches Volume:	44.44 bbl	Tool Weight:	2000.00 lb
Heavy 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:	54000.00 lb
				Total Volume:	44.44 bbl	Tool Chased	0.00 ft
Drill Pipe Above I		20.00 ft				String Weight: Initial	40000.00 lb
Depth to Top Pac		3178.00 ft				Final	41000.00 lb
Depth to Bottom		ft					
Interval between	Packers:						
Tool Length:		76.84 ft	_				
Number of Packe	ers:	2	Diameter:	6.75 inches			
Tool Comments:							

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3153.00		
Hydraulic tool	5.00			3158.00		
Jars	5.00			3163.00		
Safety Joint	5.00			3168.00		
Packer	5.00			3173.00	30.00	Bottom Of Top Packer
Packer	5.00		Fluid	3178.00		
Anchor	4.00			3182.00		
Change Over Sub	0.75			3182.75		
Drill Pipe	31.34			3214.09		
Change Over Sub	0.75		Inside	3214.84		
Anchor	5.00			3219.84		
Recorder	0.00	9119	Inside	3219.84		
Recorder	0.00	9139	Outside	3219.84		
Bullnose	5.00			3224.84	46.84	Bottom Packers & Anchor

Total Tool Length: 76.84

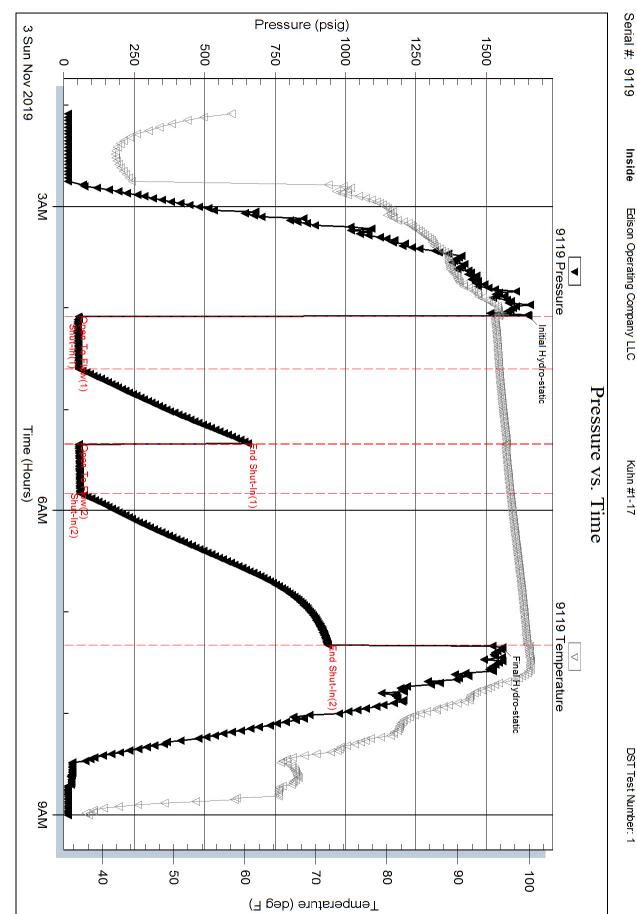
		DRILL STEM TEST REPO	DRILL STEM TEST REPORT				
And Road Roma		Edison Operating Company LLC	17-19s	17-19 s -12w Barton Kuhn #1-17			
		8100 East 22nd Street North	Kuhn				
		Building 1900 Wichita, Kansas 667226	Job Tick	et: 01385 D	DST#:1		
		ATTN: Adam Kennedy	Test Sta	art: 2019.11.03 @ 02:02	02:02:00		
Mud and Cu	shion Information						
Mud Type: G	el Chem	Cushion Type:		Oil A PI:	deg API		
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm		
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl				
Water Loss:	8.00 in ³	Gas Cushion Type:					
Resistivity:	ohm.m	Gas Cushion Pressure:	psig				
Salinity:	5000.00 ppm						
	1.00 inches						

	Length ft		Description		Volume bbl
	0.00	1050 fee	et of gas in the pipe		0.000
	30.00	0.421			
Tot	al Length: 30	.00 ft	Total Volume:	0.421 bbl	
Lab	m Fluid Samples: 0 poratory Name: covery Comments:		Num Gas Bombs: Laboratory Locatior	0 1:	Serial #:

Printed: 2019.11.03 @ 08:23:39

Ref. No: 01385





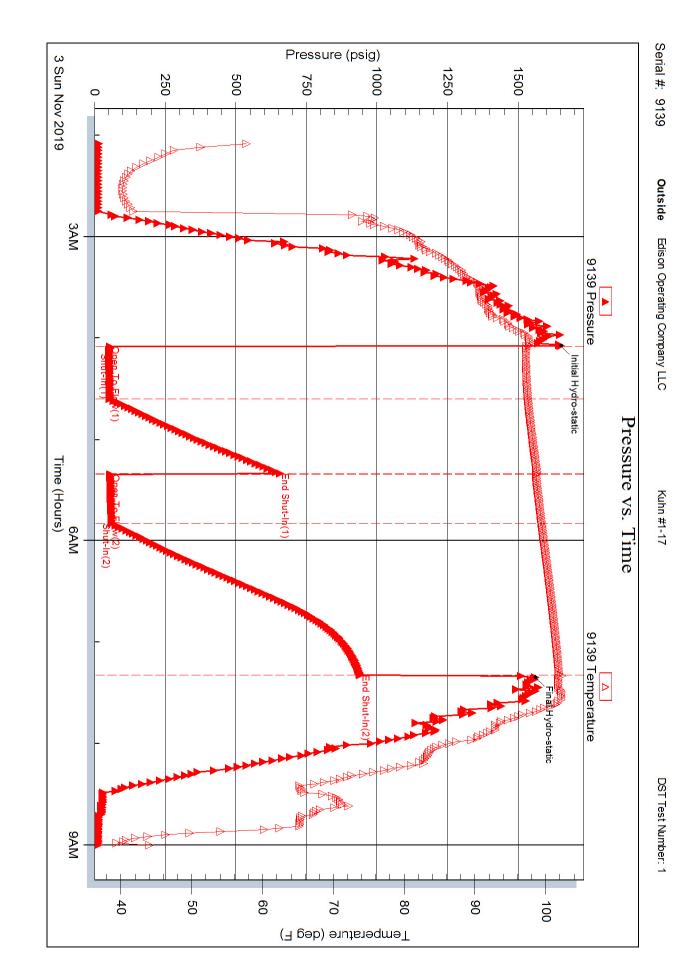
Kuhn #1-17

DST Test Number: 1

Printed: 2019.11.03 @ 08:23:40

Ref. No: 01385







DRILL STEM TEST REPORT

Prepared For: Edison Operating Company LLC

8100 East 22nd Street North Building 1900 Wichita, Kansas 667226

ATTN: Adam Kennedy

Kuhn #1-17

17-19s-12w Barton

Start Date: 2019.11.03 @ 17:55:00 End Date: Job Ticket #: 01386 DST #: 2

2019.11.03

Edison Operating Company LLC

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

t Production DF	RILL STEM TES	T REPO	ORT				
	on Operating Company LLC		17-	19s-12w	Barton		
Build) East 22nd Street North ling 1900 nita, Kansas 667226			hn #1-17 Ticket: 01		DST	#:2
	ATTN: Adam Kennedy			Start: 20)19.11.03	@ 17:55:00)
GENERAL INFORMATION:							
Formation:Kansas City "H"Deviated:NoWhipstock:Time Tool Opened:19:28:00Time Test Ended:Volume Content	ft (KB)		Test Test Unit	ter: (Convention Gene Budi 1		Hole (Initial)
Interval:3314.00 ft (KB) To3331.00 ftTotal Depth:3331.00 ft (KB) (TVD)Hole Diameter:7.78 inches Hole Condition			Refe	erence Ele KB t	evations: o GR/CF:	1874.	00 ft (KB) 00 ft (CF) 00 ft
Start Date: 2019.11.03 Start Time: 17:55:00 TEST COMMENT: 1st Opening 10 Minute 1st Shut-In 45 Minut 2nd Opening 45 Minut	3326.00 ft (KB) End Date: End Time: es w eak blow built to 4 inchers res no blow back res w eak steady 1 1/2 inch b res no blow back		Capacity: Last Calit Time On I Time Off ater	o.: Btm: 2		5000. 2019.11. 3 @ 19:28: 3 @ 22:40:	00
Pressure vs. Time			PF	RESSUF	RE SUMI	MARY	
129 129 129 129 129 129 129 129	919 Temperature 00 919 Temperature 00 95 99 90 Temperature 00 90 99 90 75 90 99 90 75 90 99 90 75 90 99 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 90 9	Time (Min.) 0 1 11 55 56 108 192 193	Pressure (psig) 1677.08 39.25 37.71 501.93 38.40 48.77 550.24 1622.52	Temp (deg F) 94.76 94.59 95.07 95.37 95.27 96.50 98.98 100.94	Open To Shut-In(1 End Shut Open To	dro-static Flow (1)) t-In(1) Flow (2) 2) t-In(2)	
Recovery				Ga	s Rates		
Length (ft) Description 30.00 oil cut mud 10% Oil 90% Mud	Volume (bbl)			Choke (i	nches) Pres	isure (psig)	Gas Rate (Mcť/d)
Eagle Testers	Ref. No: 01386)4 @ 00:37	

DRIL	L STEM TES	T REPO	ORT				
Edison Op	perating Company LLC		17-	19s-12w	Barton		
8100 Eas Building 1	t 22nd Street North 900			nn #1-17 Tiskati 01		DOT	# - 0
	Wichita, Kansas 667226 ATTN: Adam Kennedy			Job Ticket: 01386 DST#:2 Test Start: 2019.11.03 @ 17:55:00			
			1001				
GENERAL INFORMATION: Formation: Kansas City "H"							
Deviated: No Whipstock: Time Tool Opened: 19:28:00 Time Test Ended:	ft (KB)		Test Test Unit	ter: (Conventio Gene Bud 1	nal Bottom H ig	Hole (Initial)
Interval:3314.00 ft (KB) To3331.00 ft (KB)Total Depth:3331.00 ft (KB) (TVD)Hole Diameter:7.78 inches Hole Condition:			Refe	erence Ele KB t	evations: o GR/CF:	1874.0	00 ft (KB) 00 ft (CF) 00 ft
Start Date:2019.11.03EndStart Time:17:55:00End	Time: eak blow built to 4 inche blow back eak steady 1 1/2 inch b		Capacity: Last Calit Time On I Time Off ater	o.: Btm: 2		5000.(2019.11.(3 @ 19:27:(3 @ 22:39:(00
Pressure vs. Time	≜		PF	RESSUF	RE SUM	MARY	
Sankiv 289		Time (Min.) 0 13 55 56 109 192 193	Pressure (psig) 1694.06 41.51 40.92 502.68 38.41 51.60 541.63 1597.23	Temp (deg F) 96.07 95.93 97.34 97.27 99.31 102.35 102.63	Open To Shut-In(End Shu Open To Shut-In(End Shu	dro-static Flow (1) I) t-ln(1) Flow (2) 2)	
Recovery				Ga	s Rates		
Length (ft) Description 30.00 oil cut mud 10% Oil 90% Mud	Volume (bbl)			Choke (i	nches) Pres	ssure (psig)	Gas Rate (Mct/d)
Eagle Testers Ref.	No: 01386)4 @ 00:37:	

Connet Bend, Konnee

DRILL STEM TEST REPORT

Edison Operating Company LLC

8100 East 22nd Street North Building 1900 Wichita, Kansas 667226 ATTN: Adam Kennedy
 Kuhn #1-17
 DST#:2

 Job Ticket: 01386
 DST#:2

 Test Start: 2019.11.03 @ 17:55:00

17-19s-12w Barton

TOOL DIAGRAM

Tool Information

Drill Pipe:	Length:	3292.00 ft	Diameter:	inches Volume:	3197923 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	inches Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	inches Volume:	0.00 bbl	Weight to Pull Loose:	48000.00 lb
				Total Volume:	3197923 bbl	Tool Chased	0.00 ft
Drill Pipe Above K	KB:	8.00 ft				String Weight: Initial	40000.00 lb
Depth to Top Pac	ker:	3314.00 ft				Final	4000.00 lb
Depth to Bottom F	Packer:	ft				T mai	4000.00 Ю
Interval betw een	Packers:	17.00 ft					
Tool Length:		47.00 ft					
Number of Packer	rs:	2	Diameter:	6.75 inches			
Tool Comments:							

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3289.00		
Hydraulic tool	5.00			3294.00		
Jars	5.00			3299.00		
Safety Joint	5.00			3304.00		
Packer	5.00			3309.00	30.00	Bottom Of Top Packer
Packer	5.00		Fluid	3314.00		
Anchor	12.00			3326.00		
Recorder	0.00	9119	Inside	3326.00		
Recorder	0.00	9139	Outside	3326.00		
Bullnose	5.00			3331.00	17.00	Bottom Packers & Anchor
Total Tool Length	n: 47.00					

		DRILL STEM TEST REPO	F	FLUID SUMMARY			
		Edison Operating Company LLC		-19s-12w Barton			
Great Bank Range		8100 East 22nd Street North	Kuhn i	#1-17			
		Building 1900 Wichita, Kansas 667226	Job Tick	et: 01386	DST#:2		
		ATTN: Adam Kennedy	Test Sta	Test Start: 2019.11.03 @ 17:55:00			
Mud and Cu	shion Information	1					
Mud Type: Ge	l Chem	Cushion Type:		Oil A PI:	deg API		
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm		
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl				
Water Loss:	9.20 in ³	Gas Cushion Type:					
Resistivity:	ohm.m	Gas Cushion Pressure:	psig				
Salinity:	8500.00 ppm						

Recovery Information

1.00 inches

Filter Cake:

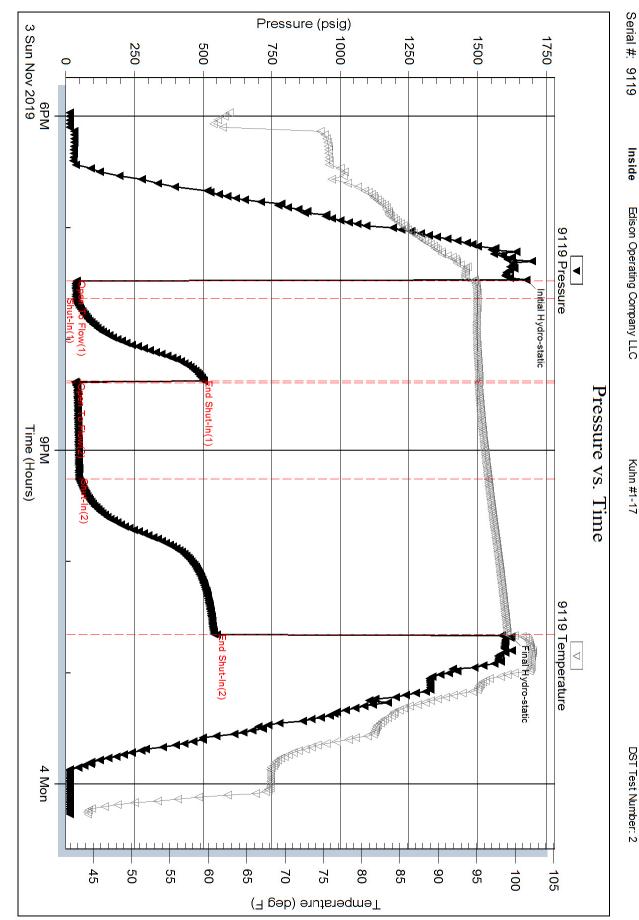
Recovery Table

	Length ft		Description			Volume bbl
	30.0) oil cut m	nud 10% Oil 90%Mud			
Tota	al Length:	30.00 ft	Total Volume:		bbl	
Lab	n Fluid Samples: 0 oratory Name: :overv Comments		Num Gas Bombs: Laboratory Location	0 I:		Serial #:
Nun Lab	al Length: n Fluid Samples: 0		Total Volume: Num Gas Bombs:	-	bbl	Seria



Ref. No: 01386

Eagle Testers

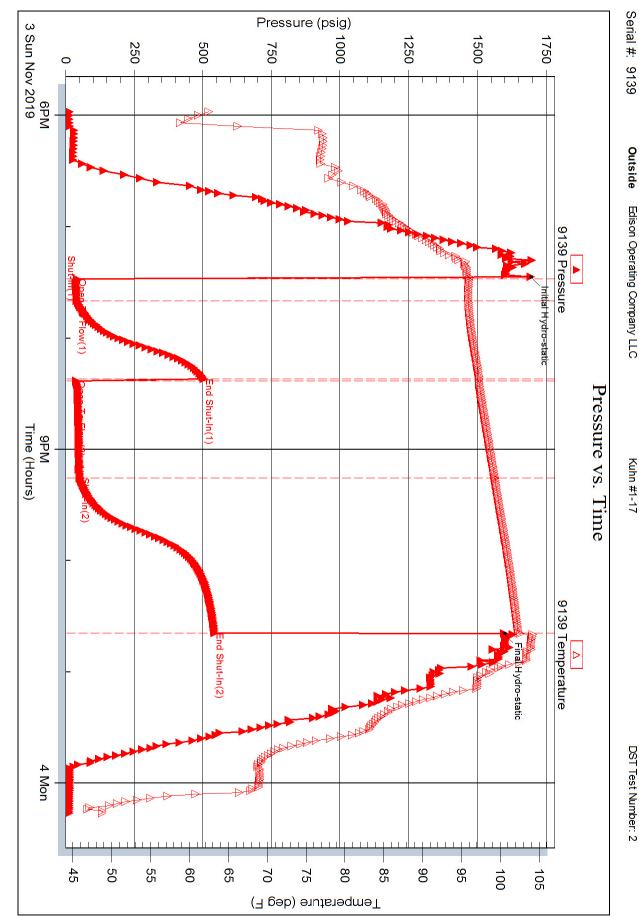


Kuhn #1-17



Ref. No: 01386

Eagle Testers



Outside Edison Operating Company LLC

Kuhn #1-17

DST Test Number: 2



DRILL STEM TEST REPORT

Prepared For: Edison Operating Company LLC

8100 East 22nd Street North Building 1900 Wichita, Kansas 667226

ATTN: Adam Kennedy

Kuhn #1-17

17-19s-12w Barton

Start Date: 2019.11.04 @ 19:09:00 End Date: 2019.11.04 @ 00:13:00 Job Ticket #: 01387 DST #: 3

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

* — —		LOT		דסר				
	Edison Operating Company				100 100	Barton		
	8100 East 22nd Street North Building 1900	ר			nn #1-17		507"	
Great Bends Kanea	Wichita, Kansas 667226 ATTN: Adam Kennedy				Ticket: 01) 19.11.04 @	DST#:	3
-				Tes	. Start. 20	19.11.04 @	<u>v</u> 19.09.00	
GENERAL INFORMATION								
Formation:ArbuckleDeviated:NoWhipTime Tool Opened:20:49:00Time Test Ended:00:13:00	stock: ft (KB)			Test Test Unit	ter: (Convention Gene Budig 1	al Bottom Ho J	ole (Initial)
Total Depth: 3494.00 ft				Refe	erence Ee		1882.00 1874.00 8.00	ft (CF)
Hole Diameter: 7.78 inc	hesHole Condition: Fair				KBI	o GR/CF:	8.00	
Start Date: 2019	de 3 psig @ 3489.06 ft (KB) .11.04 End Date: :09:14 End Time:	-	19.11.05 00:13:14	Capacity Last Calit Time On Time Off	o.: Btm: 2		5000.00 2019.11.05 @ 20:48:44 @ 22:30:44	; ;
	ning 30 Minutes no blow t-In 30 Minutes ssure vs. Time			PF	RESSUF	RE SUMM	IARY	
T S139 Pressure	9139 Temperature	110	Time	Pressure	Temp	Annotati		
1750		105	(Min.)	(psig) 1779.74	(deg F) 102.61	Initial Hydi	ro-static	
1500		100 95	1	75.79	102.41	Open To I	Flow (1)	
1270 1		90	11 41	78.12 1206.41	102.77 105.09	Shut-In(1) End Shut-		
			42	80.07	104.85	Open To I	Flow (2)	
700		mperature (deg F)	72 101	84.96 1180.13	106.56 108.09	Shut-In(2) End Shut-		
500 500 200 Turner All States Sta		70 T	102	1731.08	107.70	Final Hydr		
Rec	OVery				Ga	s Rates		
	iption Volume (bbl)	t l			Choke (i		sure (psig)	as Rate (Mcf/d)
30.00 Drilling Mud	0.42	ļ '			•	I	I	
		$\left \right $						
		$\left \right $						
		†						
		[
Eagle Testers	Ref. No: 01387				Duinte -la	2019.11.0	- <u> </u>	

	DRILL STEM TES	T REP	ORT		
	Edison Operating Company LLC			2w Barton	1
- Testers	8100 East 22nd Street North		Kuhn #	1-17	
	Building 1900 Wichita, Kansas 667226		Job Ticke		DST#:3
	ATTN: Adam Kennedy		Test Start	: 2019.11.04	@ 19:09:00
GENERAL INFORMATION:					
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:20:49:00Time Test Ended:00:13:00	ft (KB)		Test Type Tester: Unit No:	: Conventio Gene Bud 1	onal Bottom Hole (Initial) lig
Interval:3410.00 ft (KB) To3494Total Depth:3494.00 ft (KB) (TV D)Hole Diameter:7.78 inches Hole C)			e Elevations: KB to GR/CF:	1882.00 ft (KB) 1874.00 ft (CF) 8.00 ft
1 5		2019.11.05 00:14:22 and died	Capacity: Last Calib.: Time On Btm: Time Off Btm:		5000.00 psig 2019.11.05 14 @ 20:49:22 14 @ 22:31:52
2nd Opening 30 M	Vinutes no blow Vinutes e 919 Temperature		· · · · · ·	SURE SUM	
949 Pressue 1759	945) Tomponkue 945) Tomponkue 100 100 100 100 100 100 100 10	Time (Min.) 0 1 12 41 42 73 102 103	73.56 99 75.72 100 1201.81 102 76.12 101 80.66 103	F) 1.17 Initial Hy 0.96 Open To 0.14 Shut-In(0.03 End Shu .49 Open To 0.36 Shut-In(6.36 Shut-In(6.46 End Shu	dro-static p Flow (1) 1) it-ln(1) p Flow (2) 2)
Recovery				Gas Rates	
Length (ft) Description 30.00 Drilling Mud	Volume (bbl) 0.42		Cł	ooke (inches) Pre	Gas Rate (Mcf/d)
Eagle Testers	Ref. No: 01387			ted: 2019.11.	

			DRIL	L STEM TEST	Г	TOOL DIAGRAM	
	<u>y l</u> e		Edison O	perating Company LLC		17-19s-12w Barton	
			8100 Eas	t 22nd Street North		Kuhn #1-17	
amas	and f	amena	Building 1	900 Kansas 667226		Job Ticket: 01387	DST#:3
Juin C			í í	Adam Kennedy		Test Start: 2019.11.04 @	19:09:00
Tool Informatio	n		!				
Drill Pipe:	Length:	3387.00 ft	Diameter:	3.80 inches Volume:	47.51 bbl	Tool Weight:	2000.00 lb
Heavy 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:	49000.00 lb
	6	-		Total Volume:	47.51 bbl	Tool Chased	0.00 ft
Drill Pipe Above K		7.00 ft				String Weight: Initial	40000.00 lb
Depth to Top Pac		3410.00 ft				Final	40000.00 lb
Depth to Bottom F		ft					
Interval betw een	Packers:	84.06 ft					
Tool Length:		114.06 ft					
Number of Packer	rs:	2	Diameter:	6.75 inches			
Tool Comments:							
Tool Descriptio	on	Le	ngth (ft) S	Serial No. Position	Depth (ft) Ac	cum. Lengths	

	Eoligii (ii)	001101110		Boptii (it)	Abbann Eongino	
Shut In Tool	5.00			3385.00		
Hydraulic tool	5.00			3390.00		
Jars	5.00			3395.00		
Safety Joint	5.00			3400.00		
Packer	5.00			3405.00	30.00	Bottom Of Top Packer
Packer	5.00		Fluid	3410.00		
Anchor	5.00			3415.00		
Change Over Sub	0.75			3415.75		
Drill Pipe	63.56			3479.31		
Change Over Sub	0.75		Inside	3480.06		
Anchor	9.00			3489.06		
Recorder	0.00	9119	Inside	3489.06		
Recorder	0.00	9139	Outside	3489.06		
Bullnose	5.00			3494.06	84.06	Bottom Packers & Anchor

Total Tool Length: 114.06

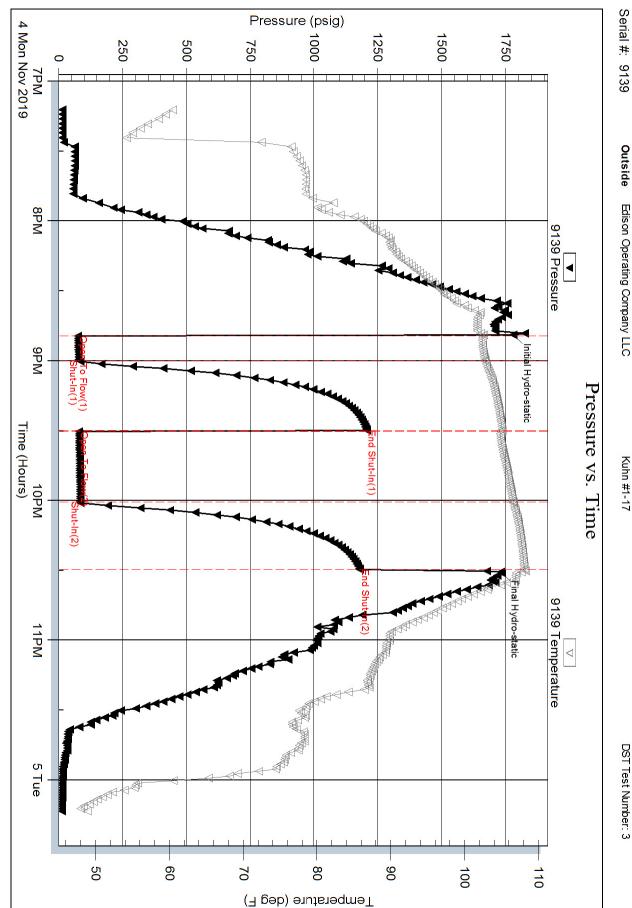
Eagle: >		DRILL STEM TEST REPO	I	FLUID SUMMARY		
		Edison Operating Company LLC		-12w Barton		
	acters	8100 East 22nd Street North	Kuhn #	#1-17		
amas	Bond Rancos	Building 1900 Wichita, Kansas 667226		et: 01387	DST#:3	
		ATTN: Adam Kennedy	Test Sta	rt: 2019.11.04@19	9:09:00	
Mud and Cu	shion Information					
Mud Type: Ge	el Chem	Cushion Type:		Oil A PI:	deg API	
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm	
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl			
Water Loss:	12.40 in ³	Gas Cushion Type:				
Resistivity:	ohm.m	Gas Cushion Pressure:	psig			
Salinity:	10000.00 ppm					
Filter Cake:	1.00 inches					
Recovery In	formation					
		Recovery Table				

Length ft		Description		Volume bbl	
30.00	Drilling N	ſud	0.421		
Total Length: 3 Num Fluid Samples: 0 Laboratory Name: Recovery Comments:	0.00 ft	Total Volume: Num Gas Bombs: Laboratory Locatior	0.421 bbl 0 n:	Serial #:	



Ref. No: 01387





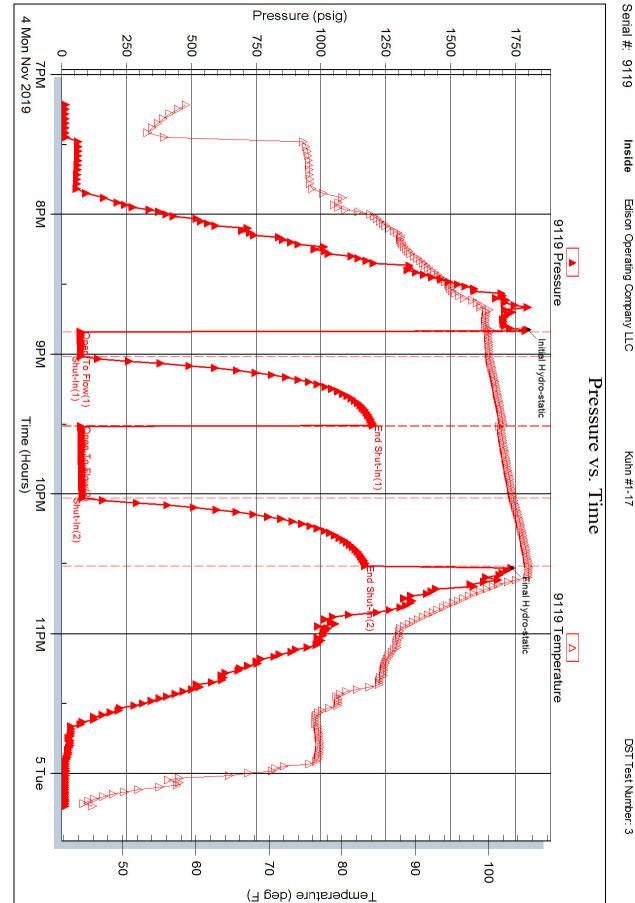
DST Test Number: 3

Serial #: 9139 Outside Edison Operating Company LLC



Ref. No: 01387





Edison Operating Company LLC

Kuhn #1-17

DST Test Number: 3

EDISON OPERATING COMPANY, LLC Kuhn #1-17 1829' FSL & 1451' FEL Sec 17-19S-12W Barton Co., Kansas

1874' GL 1884' KB

Report – Set 8-5/8" surface

10-30-19
7:00 am, MIRU Southwind Drilling Rig #1, start spudding @ 2:30 pm 10-29-19. Cut 392' of 12 ¼" hole w/ survey @ 392' – ¾ °. Run 9 jts of new 8-5/8" 24# csg, tallied 379.02', set @ 392'. RU Basic Energy, LLC, cement w/ 250 sx 60/40 poz 3% cc, 2% gel & ¼ #/sx flocell. Cement did circulate w/ 25 sx to pit, plug down @ 6:30 am 10-30-19. WOC 8 hrs, Will drill plug @ 2:30 pm 10-30-19 then drill ahead.



		PAGE	CUST N	ro	YARD #	INVOICE DATE					
		1 of 1 100702		0	1718	10/31/2019					
		INVOICE NUMBER									
	93080020										
1201	J	LEASE	NAME	Kuhi	n 1-17						
	O B	LOCATI COUNTY		Barton							
	S	STATE		KS							
	, Т Е	JOB DE JOB CO		Cement-New Well Casing/Pi							
N	L	008 00.	MIACI								
PURCI	IASE	ORDER	NO.		TERMS	DUE DATE					
				Net	- 30 davs	11/30/2019					

 Pratt
 (620) 672-12

 B
 EDISON OPERATING COMPANY LLC

 L
 8100 E 22ND ST N

 WICHITA
 WICHITA

 T
 KS US

 O
 ATTN:

DAVID WITHROW

JOB #	EQUIPMENT #	PURCHASE	ORDER NO.		TERMS	DUE DATE		
41194303	20920				Net - 30 days	11/30/2019		
For Service Date	es: 10/30/2019 to	o 10/30/2019	QTY	U of M	UNIT PRICE	INVOICE AMOUNT		
0041194303								
171818389A Cen Cement Surface	nent-New Well Casing)/Pi 10/30/2019						
60/40 Poz Celloflake Calcium Chloride Wooden Cement F Light Vehicle Mile Heavy Equipment Plug Container Uti Depth Charge, 0'- Blending & Mixing	age Mileage Ilization Charge 1000'		250.00 63.00 1.00 65.00 130.00 1.00 250.00	LB LB EA MI MI	12.69 1.88 0.47 75.20 2.35 3.76 117.50 564.00 0.66	118.4 303. 75.1 152.7 488.8 117.5 564.0		
				~				
PLEASE REMIT		ND OTHER CORRESP		1	SUB TOTAL	5,156.8		
PO BOX 841903 DALLAS,TX 7528	80	1 CHERRY ST, STE RT WORTH, TX 761	2100	INVC	TAX DICE TOTAL	0.0 5,156.8		



	HTMH	Ŧ
10244 NE Hwy. 61 P.O. Box 8613	TI	
Pratt, Kansas 67124 Phone 620-672-1201	45	

FIELD SERVICE TICKET 1718 18389 A

						1.000	DATE TICKET NO	
JOB 10-30-19 DISTRICT Plutt							PROD INJ WDW CUSTOMER ORDER NO.:	
CUSTOMER EPISUA OPPIATION				LEASE KUHA WELL NO. 1-1				
ADDRESS	and and				COUNTY	BAI	STATE MS	
CITY STATE				SERVICE CREW MATTAI MARCHAZ CHARIN				
AUTHORIZED BY				JOB TYPE: Z-42 85/8 541675				
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	JIPMENT#	HRS	TRUCK CALLED DATE AM TIME	
20920	,5						ARRIVED AT JOB 10-30 PM 100	
19860	5						START OPERATION	
1100							FINISH OPERATION	
							RELEASED	
							MILES FROM STATION TO WELL 65	

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)

Jul,

SIGNED:

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICE	ES USED UNIT	QUANTITY	UNIT PRICE	\$ AMOUN	т
BC13?	60/40 PUZ	54	250		6,750	00
(CLUZ	Celluflan	15	63		252	00
((169	Alcium Chlorip	16			645	3)
			U.			
Melui	LIGHT KPH MITH	MI	65		375	00
meluz	heavy eq miles	n,	130			11
66504	Plug CONTRIACE	e1	- 1	14 M	250	0,
CCI	depth churge 0-1000	k -	1		1,200	0
(24)	bland + mix	51	250		350	05
(-153	Woonen Plug 8518	64	l		160	U
					· · · · ·	
3.0193	Supervisor	eA			-75-	w
13 - 104	-p-t-c	en	-3-		-105	4.3
			1			
<						
СНЕ	MICAL / ACID DATA:			SUB TOTAL	10,972	00
·		SERVICE & EQUIPMENT	%TA	X ON \$		
		MATERIALS	%TA	X ON \$		
				TOTAL	- 1 - I	

THE ABOVE MATERIAL AND SERVICE

REPRESENTATIVE Milke Marriel

ORDERED BY CUSTOMER AND RECEIVED BY X (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.



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

FIELD SERVICE TICKET 1718 18389 A

							DATE TICKET NO					
JOB	JOB DISTRICT							STOMER DER NO.				
CUSTOMER E17	36-3	- Well residen	y and			ily his	1 The second	WELL N	0. 1			
ADDRESS	1				COUNTY	RAI	STATE M					
СІТҮ		STATE	100		SERVICE CR	EW 7	MATTER PARENCE	ζk_1	a the			
AUTHORIZED BY		1.5			JOB TYPE:	2	42 St. S.2.					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQL	IIPMENT#	HRS	TRUCK CALLED DATE		TIME			
20470	• Fr					_	ARRIVED AT JOB	AM PM	1:000			
mar first of Dave.		- And an inflation of the	b.ł-	5	1. 1. 1. 1 +=	- Charles	START OPERATION		in to a			
		1					FINISH OPERATION	AM PM	1			
							RELEASED	AM PM	1.1.			
							MILES FROM STATION TO WELL	6-1				

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 OWN	ER, OPERATOR,	CONT	RACTOR OR AG	ENT)
ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT	AND SERVICES USE	D	UNIT	QUANTITY		E	\$ AMOUN	т
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malue	hearing the man	 Definition 		N.	1 Salt			1.040	31
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	and the second second	111122	Markey N			l série -	23		
						SUB TO	TAL	10,972	11-52
CHE	EMICAL / ACID DATA;			100		ALC: NO	121	101 1 C	-
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		MAT	ERIALS		%TA>	(ON\$	2. Y		
<u> </u>						AC .	TAL	L" ELE	NG.
							4.5	DITAR	21
	A CONTRACTOR OF							×1	
SERVICE	- A 14 VA +	THE ABOVE MATER			No the				
REPRESENTATIV	E Mille Metril	ORDERED BY CUST	OMER AND RE	CEIVED	BY:				

FIELD SERVICE ORDER NO.

CLOUD LITHO Ablene TX

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)



TREATMENT REPORT

Customer	Customer E Di Sun o lerAirer Lease No. Date												
Lease	K u		<u>A 11 º I</u>	Well #		1~1	7						-19
Field Order #	11 C 31 2 19 1	15	up.			Casing	C S/ Depth	the County					State
Type Job	Type Job Z-412 85/8 Suit Are							392		D	A / t o		
	-	<u> </u>										17	-195-12h
	E DATA		FORATIN	G DATA		FLUID					MENT R		
Casing Size	Tubing Si	ize Shots/I	-t		Acid	251		0/0	RATE	PRES	55	ISIP	
Depth 397	Depth	From	То		Pre Pa	2.1	<u>a o e </u>	Max				5 Min.	
24.1	Volume Max Pres	From	То		Pad	27		Min		_		10 Min.	
Max Press Well Connection		From	То		Frac	,24	ers c-1	Avg / A	1.50			15 Min.	
Plug Depth	Packer D	From	То		Fluch	2.2	mag	HHP Used				Annulus F	
Customer Rep	(C)	From	То		Flush Manage	23	, /		-			Total Loa	a
	1.335	(+(+	A PARTY A			W	- JT IXM				1 A7 7 M	50	
Service Units Driver	8335) HAT19	**	8498 mA		Carlos -		70959	19868	9			_	
Names	Casing	Tubing			N		cha	rife					
	Pressure	Pressure	Bbls. Pu	mped	Ra	te	a a lu		1	Servic			
1.00							On loc	+1101	15		rey	Mee	Ti to
4:45							CSAS ON BOTTOM						
6.00			1				11						
6:00	150		5		14		i and	HOUR J. CSHOFIBITAN CITCU. RIG					
6-01	150		51	1	4								
1220		- (MIN 250 545 60/00 Por						
1:22	175			-	3		LIAN DIPLACEMENT						
6-34	200	- 1	- 23	.7			Plug down Shut in Well						Vell
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5 - C													
10244	NE Hiw	ay 61 • P	.O. Box	8613 •	Pratt,	, KS 6	7124-861:	3 • (620)) 672-	1201	• Fax ((620) 6	72-5383

Taylor Printing, Inc. 620-672-3656

EDISON OPERATING COMPANYLLC								
Scale 1:240 Imperial								
Well Name: Surface Location: Bottom Location:	Kuhn #1-17 Sec. 17 - T19S - R12W							
Bottom Location: API: License Number:	15-009-26277-0000 34434	_						
Spud Date: Region:	10/29/2019 Barton County	Time:	7:30 AM					
Drilling Completed: Surface Coordinates: Bottom Hole Coordinates:	11/5/2019 1829' FSL & 1451' FEL	Time:	8:30 AM					
Ground Elevation: K.B. Elevation: Logged Interval: Total Depth: Formation:	1874.00ft 1884.00ft 2600.00ft 3575.00ft Arbuckle	To:	3575.00ft					
Drilling Fluid Type:	Chemical/Fresh Water Gel							
Company: Address:	OPERATOR Edison Operating Company LLC 8100 E. 22nd St. North Building 1900 Wichita, KS 67226							
Contact Geologist: Contact Phone Nbr: Well Name: Location: API:	David Withrow 316.613.1544 Kuhn #1-17 Sec. 17 - T19S - R12W 15-009-26277-0000							
Pool: State:	Kansas	Field: Country:	Ft. Zarrah North USA					
	LOGGED BY							
	EDISON OPERATING COMPAN	VY LLC						
Company: Address:	Edison Operating Company LLC 8100 E. 22nd St. North Building 1900 Wichita, KS 67226							
Phone Nbr: Logged By:	316.650.9677 Geologist	Name:	Adam T. Kennedy					
	REMARKS							
	ST results, and open hole logs, it wa		d by the operator that the Kuhn #1-17 ugged and abandoned.					
The well samples were saved, sub Library located in Wichita, KS.	was incapable of producing commercial quantities of oil and gas. Said well was plugged and abandoned. The well samples were saved, submitted, and will be available for review at the Kansas Geologic Survey's Well Sample Library located in Wichita, KS.							

Respectfully Submitted,

Adam T. Kennedy

GENERAL INFORMATION Service Companies Drilling Contractor: Southwind Drilling - Rig #1 Drilling Fluid: Mud-Co/Service Mud Inc. Tool Pusher: Cecil Farmer Engineer: Jason Whiting Daylight Driller: Ryan Colby Evening Driller: Angel Martinez

Morning Driller: Shawn Jensen

Gas Detector: Bluestem Environmental Engineer: Keith Reavis Unit: 5279 Operational By: 1900'

 Deviation Survey

 Depth
 Survey

 392'
 1 deg

 3225'
 1/2 deg

 3575'
 1/2 deg

Logging Company: ELI Engineer: Jason Cappellucci Logs Ran: CDNL DIL MEL SONIC

Testing Company: Eagle Testers Tester: Gene Budig

Pipe Strap							
Depth	Pipe Strap						
3225'	1.01 LTB						

				Bit Record				
Bit #	Size	Make	Туре	Serial Number	Depth In	Depth Out	Feet	Hours
1	12 1/4	JZ	RR		0	392	392	3.25
2	7 7/8	JZ	RR		392	3225	2833	53.25
3	7 7/8	JZ	RR		3225	3575	350	12.5

Surface Casing

Ran 9 joints of new 24# 8 5/8 casing, tally @ 379, set @ 392. Used 250 sacks of 60/40 poz, 3%cc, 2% gel, cement did circulate, by Basic (ticket 18390), plug down @ 645 am on 10.30.19.

Plugging Info

Plugged well with 235 sacks of 60/40 poz 4% gel, 1/4 flo seal, 1st plug @ 3457', with 50 sacks, 2nd plug @ 750 w/ 50 sacks 3rd plug @ 450' w/ 80 sacks, 4th plug @ 40' w/ 10 sacks. 30 sacks for rathole, 15 sacks for mousehole, cemented by Quality ticket # 1821, job complete @ 1230 am 11.6.19.

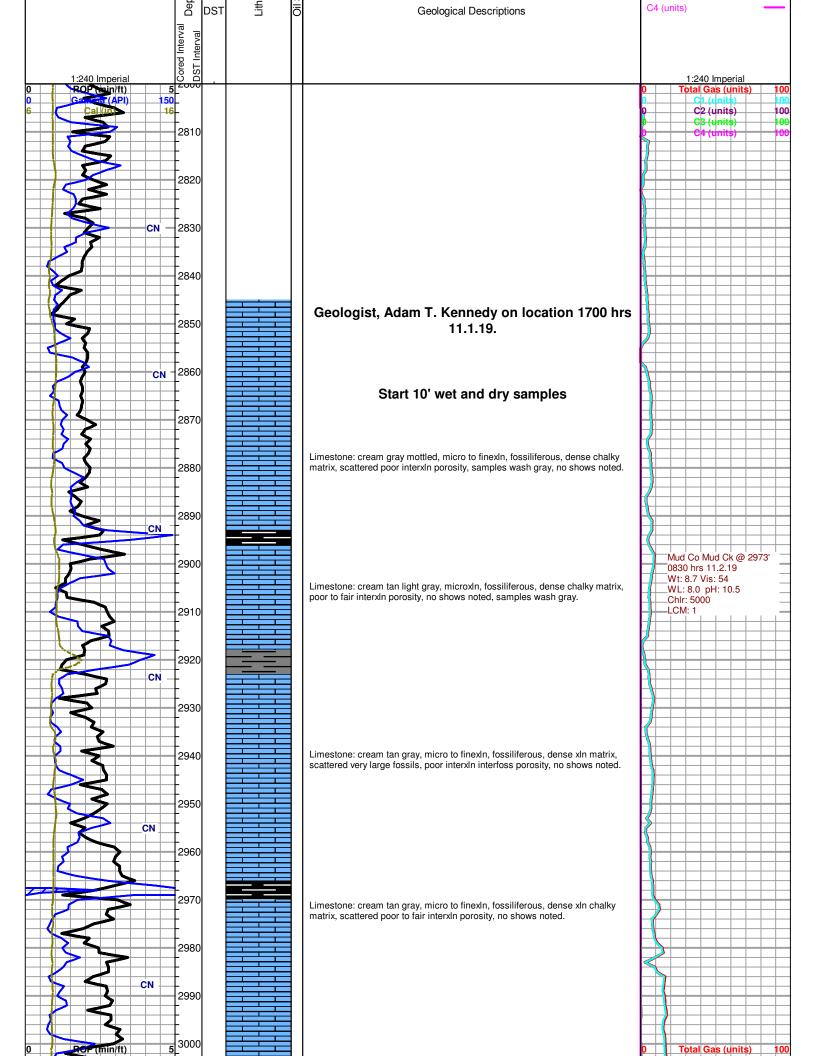
		DAILY DRILLING REPORT
Date	0700 Hrs Depth	Previous 24 Hours of Operations
11.2.19	2941'	Displace mud system @ 2500'. Geologist Adam T. Kennedy on location 11.1.19 @ 1700 hrs. Drilling ahead through Topeka. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$561.01 CMC: \$4,112.34
11.3.19	3225'	Drilling and connections Topeka, Heebner, Lansing. Short trip 20 stands @ 3178'. CTCH resume drilling Lansing A and B. CFS @ 3225'. Shows warrant test, TOH for DST #1. Short trip 15 stands. TOH for test, conduct test. Currently TOH to resume drilling. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$0.00 CMC: 4,112.34
11.4.19	3390'	Drilling and connections LKC, CFS @ 3331'. Shows warrant test, TOH for DST #2. Conduct test. TIH to resume drilling, drilling and connections lower Lansing. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$845.70 CMC: 4,958.04
11.5.19	3575'	Drilling and connections Lansing through Arbuckle. CFS @ 3470', 3478', 3486', 3494'. Shows warrant test, TOH for DST #3. Conduct test, TIH resume drilling Arbuckle. CFS @ 3504', 3514'. Rathole ahead to RTD of 3575'. RTD Reached 0900 hrs 11.6.19. Rig up loggers, logging complete 1700 hrs, orders received to plug well @ 1730 hours 11.6.19. Geologist off location. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$369.81 CMC: \$6,178.67

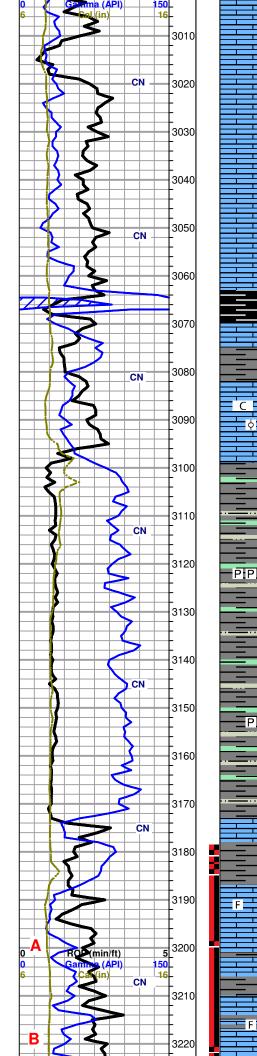
	WELL COMPARISON SHEET								
Γ	Drilling	Well			Compari	son Well			
	Edison Operating - Kuhn #1-17			Murfin Drilling Compnay - Traux #1					
	Sec. 17 - T19	9S - R12	2W	Sec. 17 - T19S - R12W					
	1829' FSL &	1380' F	EL	SW NW SE					
	1874 GL			C	Dry	Struc	tural		
	1884 KB			1874	KB	Relatio	onship		
Formation	Sample Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log		

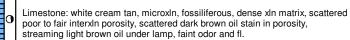
	Торека	2722	-838	2720	-838	2710	-836	-2	-2				
	King Hill	2895	-1011	2894	-1011	2054	1090	4	4				
	Queen Hill Heebner	2968 3061	-1084 -1177	2968 3062	-1084 -1177	2954 3052	-1080 -1178	-4 1	-4 1				
	Douglas Drawn Lines	3094	-1210	3096	-1210	3081	-1207	-3	-3				
	Brown Lime Lansing-Kansas City	3174 3186	-1290 -1302	3172 3186	-1290 -1302	3168 3179	-1294 -1305	4	4				
	LKC 'B'	3204	-1320	3202	-1320								
	LKC 'D' LKC 'F'	3234 3244	-1350 -1360	3232 3242	-1350 -1360	3224	-1350	0	0				
	LKC 'G'	3262	-1378	3261	-1378	3255	-1381	3	3				
	Muncie Creek	3316	-1432	3318	-1432	3312	-1438	6	6				
	LKC 'H' LKC 'I'	3324 3347	-1440 -1463	3222 3342	-1440 -1463	3320 3345	-1446 -1471	6 8	6 8				
	LKC 'J'	3364	-1480	3362	-1480	3354	-1480	0	0				
	Stark	3380	-1496	3378	-1496	3374	-1500	4	4				
	LKC 'K' Base Kansas City	3390 3414	-1506 -1530	3388 3413	-1506 -1530	3380 3406	-1506 -1532	0	0				
	Arbuckle	3482	-1598	3482	-1598	3470	-1596	-2	-2				
	Total Depth	3575	-1691	3575	-1691	3515	-1641	-50	-50				
Cht vari	DOL2		R	SIL	TYPES TSTONE ALE CAR			SHALE			SHALE	ERED	
				SIL	TSTONE						SHALE	ERED	
Congi	FOSSIL	TE	AC		TSTONE ALE CAR						SHALE	E RED	
Congl	LMST2	TE	AC		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy	FOSSIL F Fossils < 20% ¢ Oolite	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic	TE	AC EXTURE Chalky		TSTONE ALE CAR							ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST DST1 DST2	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report Digital Photo	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR							ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST DST1 DST2 PDST3	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite • Sandy MISC PR Daily Report Digital Photo Document	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
MINERAL L Calcareous P Pyrite • Sandy MISC DR Daily Report Image: Digital Photo Image: Document Image: Folder	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite • Sandy MISC PR Daily Report Digital Photo Document	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report Digital Photo Document Folder Congl	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report Digital Photo Document P Folder Congl	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report Digital Photo Document Folder Congl	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite · Sandy MISC PR Daily Report Digital Photo Document P Folder Congl	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL 1 Calcareous P Pyrite • Sandy MISC P Daily Report Digital Photo Document Folder Core Log File Core Log File	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL L Calcareous P Pyrite Sandy MISC Daily Report Digital Photo Document Folder Folder Link Vertical Log File Horizontal Log File	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR						SHALE	ERED	
Congl MINERAL 1 Calcareous P Pyrite • Sandy MISC P Daily Report Digital Photo Document Folder Core Log File Core Log File	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR	S		SHALE	GRA				
Congl MINERAL 1. Calcareous P Pyrite Sandy MISC P Daily Report Digital Photo Document Core Log File Horizontal Log File Core Log File Drill Cuttings Rpt	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR	S		SHALE	GRA		ion 4.0.8.1	5 (www.gr	rsi.ca)
Congl MINERAL L Calcareous P Pyrite Sandy MISC P Daily Report Digital Photo Digital Photo Document Core Log File Core Log File Drill Cuttings Rpt Curve Track #1	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR	S		SHALE	GRA	plog vers	ion 4.0.8.1 TG, C	<u>5 (www.gr</u>	rsi.ca
Congl MINERAL 1. Calcareous P Pyrite Sandy MISC P Daily Report Digital Photo Document Core Log File Horizontal Log File Core Log File Drill Cuttings Rpt	FOSSIL F Fossils < 20% ♦ Oolite ♦ Oomoldic DST ■ DST1 ■ DST2 ■ DST3 ■ Core	TE	AC EXTURE Chalky		TSTONE ALE CAR	S		SHALE	GRA	plog vers Tota	ion 4.0.8.1	<u>5 (www.gr</u>	rsi.ca)

ft)				Total Gas (uni
PI)	 vals			C1 (units)
	 Inter	~	>	C2 (units)
	th	ology	Show	C3 (units)

Cal (in)







Limestone: white cream, micro to finexln, fossiliferous oolitic, dense xln matrix, scattered good interfossiliferous oomoldic porosity, trace dark brown oil stain and show under lamp, no odor or fl.

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Heebner 3061' (-1177)

Shale: gray black, dense fissile waxy, pyritic, trace carbonaceous

Limestone: cream tan, micro to finexln, trace fossils, oolitic, dense chalky matrix, poor visible porosity, no shows noted.

Douglas 3094' (-1210)

Shale: gray dark gray green, waxy chalky fissile, abundant micas and pyrite, with abundant gray siltstones, samples wash gray, abundant chalk.

Shales as above with increasing siltstones, very chalky, samples gummy, wash gray.

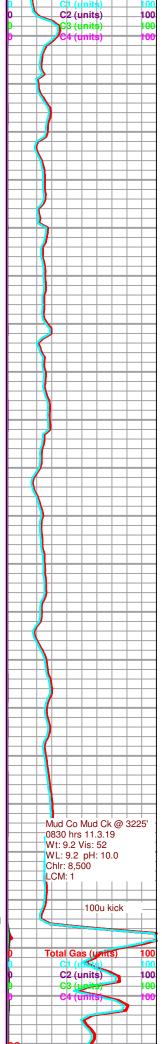
Brown Lime 3174' (-1290)

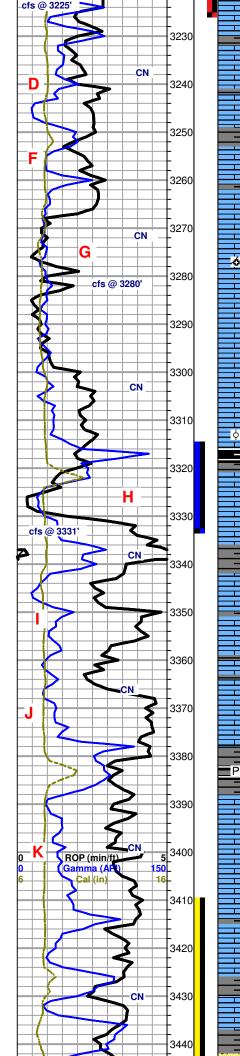
Lansing-Kansas City 3188' (-1304)

Limestone: white cream, micro to finexln, fossiliferous, dense xln matrix, abundant poor to fair interxln porosity, abundant light brown saturated stain and free oil/gas show, very strong odor, bright yellow green fl.

Limestone as above with slight decrease in show.

Limestone: cream tan, micro to finexln, trace fossils, dense subchalky matrix, scattered poor to good interxln porosity, scattered good light brown oil stain in porosity, increase under lamp, very strong odor, bright yellow fl.





Limestone: cream tan gray, micro to finexIn, fossiliferous, dense xIn matrix, scattered poor pinpoint porosity, mottled, scattered light brown oil stain in porosity, faint odor, no free oil in tray, pale yellow fl.

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Limestone: cream tan gray, micro to finexIn, trace fossils, dense xIn matrix, scattered poor to fair interxln vuggy porosity, scattered secondary crystals, scattered dark brown/black oil stain, slight free oil under lamp, faint odor.

Limestone: cream tan light brown mottled, micro to finexIn, fossiliferous, dense chalky matrix, poor visible porosity, scattered trace dark brown stain in porosity, samples wash gray, no odor or fl.

Limestone: white cream tan, micro to finexIn, fossiliferous oolitic, dense xIn matrix, scattered poor to fair interxIn porosity, no shows noted.

cfs Limestone: cream tan light brown, micro to finexln, fossiliferous ooliitc, dense xln matrix, scattered good interxln vuggy porostiy, scattered sucrosic texture, scattered trace light brown oil, faint odor.

Limestone: cream tan, micro to finexIn fossiliferous oolitic, friable xIn matrix, oomoldic, abundant good to vgood vuggy oomoldic porosity, abundant secondary rexln, no odor or shows noted.

Limestone: cream tan, micro to finexln, fossiliferous oolitic, dense xln oomoldic matrix, scattered good interxIn oomoldic porosity, abundant rexIn, no shows noted.

Muncie Creek 3316' (-1432)

cfs Limestone: cream tan, micro to finexln, fossiliferous oolitic, friable xln matrix, excellent vuggy interxln porosity, abundant golden brown stain and free oil / gas, abundant rexIn, strong odor, even yellowish fl.

Limestone: white cream tan, micro to finexIn, fossiliferous oolitic, dense xIn matrix, scattered poor to fair interxIn porosity, scattered light brown stain in porosity, no free oil shows, faint odor.

Limestone: white cream light brown, micro to finexIn, fossiliferous oolitic, dense sub chalky matrix, poor visible porosity, scattered dead black wormy stain, no shows noted.

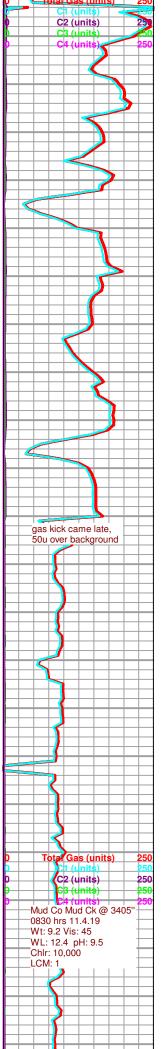
Stark 3380' (-1496)

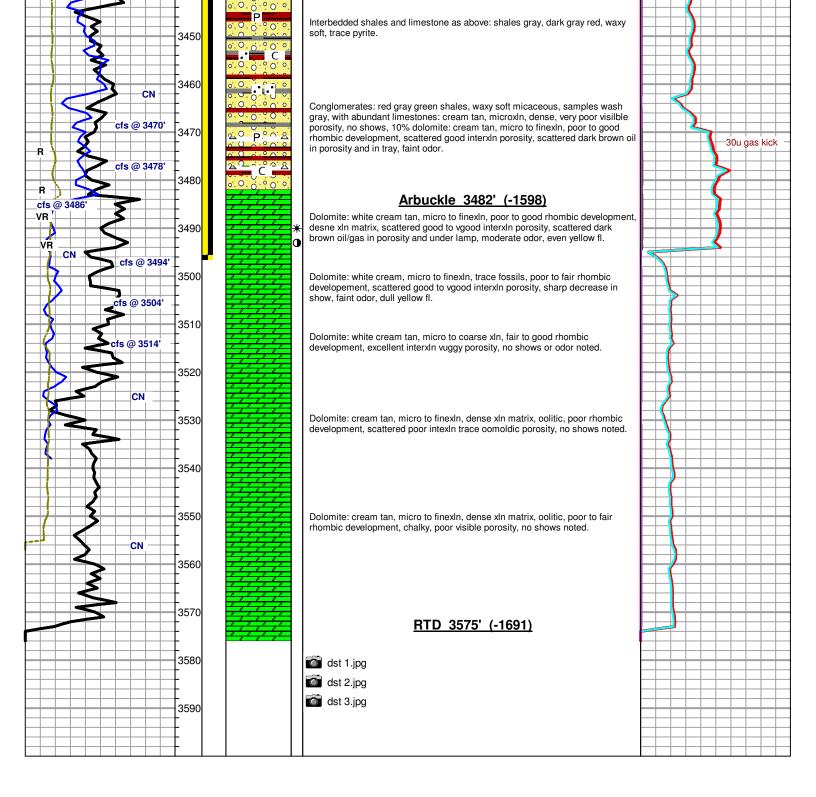
Shale: gray dark gray black, dense fissile waxy, pyritic, trace carbonaceous.

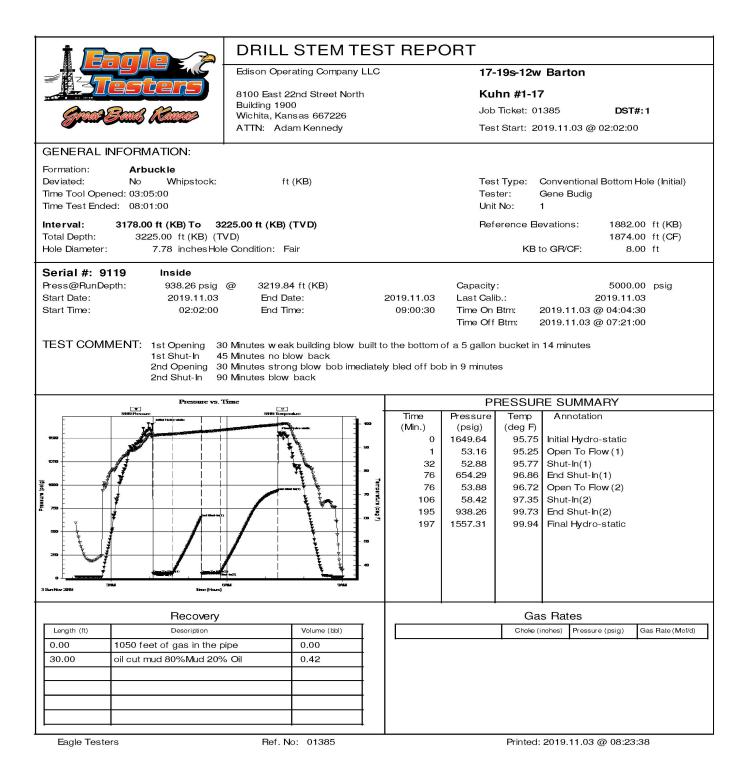
Limestone: cream tan light brown, micro to finexIn, fossiliferous trace oolitic, dense xln calcareous matrix, poor visible porosity, no shows noted.

Base Kansas City 3414' (-1530)

Limestone: cream tan, micro to finexln, dense chalky matrix, scattered poor interxIn porosity, no shows noted.







	DRILL STEM TES	TREPO	ORT				
	Edison Operating Company LLC		17-19	s-12w Bartor	า		
	8100 East 22nd Street North		Kuhn #1-17				
Great Bend, Kanzaz	Building 1900 Wichita, Kansas 667226		Job Tic	ket: 01386	DST#:2		
	ATTN: Adam Kennedy		Test S	tart: 2019.11.03	3 @ 17:55:00		
GENERAL INFORMATION:							
Formation:Kansas City "H"Deviated:NoWhipstock:Time Tool Opened:19:28:00Time Test Ended:	ft (KB)		Test Ty Tester Unit No	: Gene Bud	onal Bottom Hole (Initial) dig		
Interval:3314.00 ft (KB) To333Total Depth:3331.00 ft (KB) (TVHole Diameter:7.78 inches Hole			Refere	nce Eevations: KB to GR/CF:	1882.00 ft (KB) 1874.00 ft (CF) 8.00 ft		
Serial #: 9119 Inside							
Press@RunDepth: 550.24 psig 6 Start Date: 2019.11.03 2019.11.03 Start Time: 17:55:00 17:55:00	@ 3326.00 ft (KB) End Date: End Time:	2019.11.04 00:16:30	Capacity: Last Calib.: Time On Btr Time Off Btı		5000.00 psig 2019.11.04 03 @ 19:28:00 03 @ 22:40:30		
1st Shut-In 45 2nd Opening 45	Minutes weak blow built to 4 inch Minutes no blow back Minutes weak steady 1 1/2 inch I Minutes no blow back		ater				
Pressure vs. Th	GUČ 9119 Tonponius			SSURE SUM			
Standard 202 Jan 199 J	100 Toppadar 100 Toppadar 10	Time (Min.) 0 11 55 56 108 192 193	(psig) (4 1677.08 39.25 37.71 501.93 38.40 48.77 550.24	94.59 Open T 95.07 Shut-In(95.37 End Shu 95.27 Open T 96.50 Shut-In(98.98 End Shu	vdro-static o Flow (1) (1) ut-ln(1) o Flow (2) (2)		
Recovery			Į	Gas Rates	i		
Length (ft) Description	Volume (bbl)			Choke (inches) Pro	essure (psig) Gas Rate (Mcf/d)		
30.00 oil cut mud 10% Oil 90%M							

	DRILL STEM TES	TREP	ORT			
	Edison Operating Company LLC		17-19 s -12	w Barton		
	8100 East 22nd Street North Building 1900		Kuhn #1-			
Great Bend Kanee	Wichita, Kansas 667226		Job Ticket:			
	ATTN: Adam Kennedy		Test Start:	2019.11.04 @ 19:09:00		
GENERAL INFORMATION:						
Formation:ArbuckleDeviated:NoWhipstock:Time Tool Opened:20:49:00Time Test Ended:00:13:00	ft (KB)	Test Type: Conventional Bottom Hole (In Tester: Gene Budig Unit No: 1				
Interval:3410.00 ft (KB) To349Total Depth:3494.00 ft (KB) (TVLHole Diameter:7.78 inches Hole 0			Reference	Bevations: 1882.00 ft (KB) 1874.00 ft (CF) 3 to GR/CF: 8.00 ft		
Serial #: 9139 Outside						
Press@RunDepth: 1180.13 psig @ Start Date: 2019.11.04	and the second sec	2019.11.05	Capacity: Last Calib.:	5000.00 psig 2019.11.05		
Start Time: 19:09:14	End Time:	00:13:14 Time On Btm: 2019.11.04 @ 20:48:44 Time Off Btm: 2019.11.04 @ 22:30:44				
1st Shuyt-in 30 2nd Opening 30	minutes weak blow for 8 minutes Minurwa Minutes no blow Minutes	and died				
Pressure vs. Tim 958 Pressure	10 9839 Tempeniare			JRE SUMMARY		
Signature Signature	UTS Tempendar 005 Tempendar 005 005 005 005 005 005 005 00	Time (Min.) 0 11 41 42 72 101 102	Pressure (psig) Temp (deg f 1779.74 75.79 102.4 78.12 102.7 1206.41 105.0 80.07 104.8 84.96 106.5 1180.13 108.0 1731.08 107.7	 Initial Hydro-static Open To Flow (1) Shut-In(1) End Shut-In(1) Open To Flow (2) Shut-In(2) End Shut-In(2) 		
Recovery			G	as Rates		
Length (ft) Description 30.00 Drilling Mud	Volume (bbl) 0.42		Chok	e (inches) Pressure (psig) Gas Rate (Mcf/d)		
Eagle Testers	Ref. No: 01387		Printe	d: 2019.11.05 @ 00:32:34		



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665 PHONE:785-324-1041 FAX:785-483-1087 EMAIL: cementing@ruraltel.net

Invoice

Contact:

Address/Job Location:

Edison Operating

Reference: KUHN 1-17 SEC 17-19-12

Description of Work: PLUG JOB

Services / Items Included:	Quantity		Price	Taxable	Item Quantity	Price	Taxable
Labor		\$	684 02	Yes			¥
Common-Class A	141	\$	2,226.86	Yes			
POZ Mix-Standard	94	\$	504 47	Yes			
Bulk Truck Matl-Material Service Charge	243	\$	186.30	Yes			
Premium Gel (Bentonite)	8	\$	177.87	Yes			1
Flo Seal	60	\$	92 00	Yes			
Dry Hole Plug	1	\$	64.40	Yes			
Pump Truck Mileage-Job to Nearest Camp	15	\$	51,75	Yes			
Bulk Truck Mileage-Job to Nearest Bulk Plant	15	\$	40,25	Yes			
Invoice Terms:					SubTotal:	\$ 4,027.91	
Net 30			Discol	unt Avail	able <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$ (100.70)	
		-			SubTotal for Taxable Items:	\$ 3,927.22	
					SubTotal for Non-Taxable Items:	\$ -	
					Total:	\$ 3,927.21	
				7.50% Ba	arton County Sales Tax Tax:	\$ 294.54	
Thank You For Your Business!					Amount Due:	\$ 4,221.75	-
					Applied Payments:		

Past Due Invoices are subject to a service charge (annual rate of 24%) This does not include any applicable taxes unless it is listed. ©2008-2013 Straker Investments, LLC. All rights reserved. Date: 11/6/2019 Invoice # 1821

P.O.#:

Balance Due: \$

4,221.75

Due Date: 12/6/2019 Division: Russell

QUALI		LL CEMENTING, INC.						
Phone 785-483-1071 Cell 785-324-1041	Home Office P.O.	. Box 32 Russell, KS 67665 No. 1821						
Sec.	Twp. Range	County State On Location Finish						
Date //-0-/9 /7	19 12	Barton KS 12:30Am						
	Lo	cation JUCO RUY 1.56 125 Ento						
Lease Krhn	Well No. /-/>	Owner						
Contractor Southwind #1		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish						
Type Job Kotary Phy		cementer and helper to assist owner or contractor to do work as listed.						
Hole Size 77/8	T.D. 3575	To Ed. Son of Operating						
Csg.	Depth	Street						
Tbg. Size	Depth	City State						
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.						
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered 235440 4/162 1/4 #Flo						
Meas Line	Displace	.,						
EQUIPM	IENT	Common/4/						
Pumptrk 2 No. Cementer Helper	2 Site	Poz. Mix 94						
Bulktrk No. Driver 70.	u/ F.	Gel. Gel						
Bulktrk 3 No. Driver M. d	wel	Calcium						
JOB SERVICES	& REMARKS	Hulls						
Remarks:		Salt						
Rat Hole 30512		Flowseal 60 H						
Mouse Hole 153K		Kol-Seal						
Centralizers		Mud CLR 48						
Baskets		CFL-117 or CD110 CAF 38						
D/V or Port Collar		Sand						
15 3457 505	IC.	Handling 243						
211 750 50SK		Mileage						
32 450 8054	6	FLOAT EQUIPMENT 8 5/8 Dry Hol- Plug						
47 40 1051C		Guide Shoe						
	14	Centralizer						
		Baskets						
		AFU Inserts						
		Float Shoe						
		Latch Down						
		Pumptrk Charge P/UB						
		Mileage 15 / m/m						
		Tax						
Y AAAA		Discount						
x Signature (24) 2, fo	una	Total Charge						