KOLAR Document ID: 1475381

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY					
Confidentiality Requested					
Date:					
Confidential Release Date:					
Wireline Log Received Drill Stem Tests Received					
Geologist Report / Mud Logs Received					
UIC Distribution					
ALT I II Approved by: Date:					

KOLAR Document ID: 1475381

Page Two

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

Form	ACO1 - Well Completion	
Operator	Barnard, R.L. dba Barnard Oil Operations	
Well Name	AUSTIN-HORST 1	
Doc ID	1475381	

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12	8	26	207	Portland	120	2
Production	8	4.5	11.6	2180	Port A	75	2



Customer	Barnard Oil Ope	erations	Lease & Well #	Austin Horst #1				Date		8/9/2019
Service District	Garnett, KS		County & State	Greenwood, KS	Legals S/T/R			Job#		ICT 2231
Job Type	Longstring	✓PROD	□INJ	□swb	New Well?	√YES	ΠNo	Ticket #		ICT 2231
Equipment #	Driver			Job Safety An	alysis - A Discus	sion of Hazards	& Safety P	SECURIOR SE		
265	Kevin	✓ Hard hat		✓ Gloves		Lockout/Ta		Warning Sig	ns & Flaggin	
240	Garrett	✓H2S Monitor		✓ Eye Protection		Required Pe	_	Fall Protection		9
77	Jake H	✓ Safety Footwea	ar	Respiratory Pro	tection	Slip/Trip/Fa		Specific Job		nastations
		✓FRC/Protective	Clothing	Additional Che		Overhead H		Muster Poin		
		✓ Hearing Protec	tion	Fire Extinguishe	er	Additional	oncerns or is	ssues noted below	, medical Loc	ations
					Cor	nments		The state of the s		
0 1 110 1										
Product/ Service Code		Descri	ption		Unit of Measure	Quantity				Net Amount
c015	Cement Pump				ea	1.00			1	\$1,350.00
										\$1,000.00
m010	Heavy Equipment	Mileage			mi	15.00				\$54.00
m025	Ton Mileage- Min	imum			each	1.00				\$270.00
~		*								4270.00
cp031	HSC				sack	75.00				\$1,620.00
				,						
cp170	Mud Flush				gal	500.00				\$450.00

			•							
			No.							
Custon	ner Section: On t	he following scale ho	w would you rate I	lurricane Services	Inc?			107978, 5277		
					1172 **** 3 2 2 2 2 3 3 3 3 3 3 3	Total Taxable			Net:	\$3,744.00
Bas	ed on this job, he	ow likely is it you wo	ould recommend	HSI to a colleague	?	Total Taxable State tax laws dee	m certain non	Tax Rate: lucts and services	0.1.7	
						used on new wells	to be sales ta	x exempt. Hurricane	Sale Tax:	\$ -
Uni	ikely 1 2	3 4 5	6 7 8			Services relies on information above	to make a det	ermination if		
			- , 0	J IU Ex	tremely Likely	services and/or pr	oducts are tax	exempt.	Total:	\$ 3,744.00
TERMS: Cash in advan	ice unless Hurricana	Services Inc. (HSI) has	annowed could a	the colo Co. Co.		HSI Represe		Jake	Hea	rd

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/25 per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer stated above, and Hurricane has been provided accurate well information in determining taxable services.

x Tim Gally



HURRICANE SERVICES INC

Customer	Barnard Oil Oper	ations	Lease & Well #	Austin Horst #1				Date	8.	5.2019
Service District	Madison		County & State	Greenwood KS	Legals S/T/R			Job#		
Job Type	Surface	☑PROD	□INJ	□SWD	New Well?	☑YES	□No	Ticket#	IC	T2213
Equipment #	Driver			Job Safety An	alysis - A Discuss	sion of Hazards &	& Safety Pro	cedures		
77	Jake H	☑Hard hat		☑ Gloves		□Lockout/Tago	out	☐Warning Signs	& Flagging	
240	тс	☑H2S Monitor		☑ Eye Protection		Required Perr	nits	Fall Protection		
265	Kevin	☑Safety Footwe	ear	☑Respiratory Prot	ection	☐Slip/Trip/Fall	Hazards	☑Specific Job Se	quence/Expe	ctations
		☑FRC/Protectiv	e Clothing	Additional Chem	nical/Acid PPE	Overhead Ha	zards	☑Muster Point/I	Medical Locat	ions
		☑Hearing Prote	ection	Fire Extinguisher		Additional co	ncerns or issu	ies noted below		7136
					Con	nments				
		4								
		-								
Product/ Service							List		léam	
Code		Des	cription		Unit of Measure	Quantity		Gross Amount	Item Discount	Net Amount
M010	Heavy Equipment	Mileage			mi	-				\$0.00
M025	Ton Mileage- Minir	num			each	1.00				\$270.00
C010	Cement Pump				ea	1.00				\$675.00
CP015	H-325				sack	120.00				\$2,160.00
Custo	omer Section: On	the following scale	how would you rate	Hurricane Services	Inc.?		Gross:		Net:	\$3,105.00
Ba	sed on this job, he	ow likely is it you	would recommend	HSI to a colleague	a?	Total Taxable State tax laws dee	\$ -	Tax Rate:	Cala Taux	
		3 4 5	6 7 8		ctremely Likely		to be sales tax the customer p to make a dete	c exempt. Hurricane provided well ermination if	Sale Tax:	\$ - \$ 3,105.00
						HSI Represe			Total:	\$ 3,105.00
TERMS: Cash in adva	nce unless Hurricane	Services Inc. (HSI) h	as approved credit price	or to sale. Credit terms	of sale for approved	accounts are total in	nvoice due on o	r before the 30th da	y from the date	of invoice. Past

IEMMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/3/k per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. DISCLAIMER NOTICE: Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable se

٠	L	,	
	3		



HURRICANE SERVICES INC

STIMULATION TREATMENT REPORT			
Customer: Barnard Oil Operations	Well: Austin Horst #1	Ticket:	ICT2281
City, State: Madison, KS	County: Greenwood KS	Date:	8.23.2019
Field Rep: Dick	S-T-R: 12-22S-10E	Service:	LG Frac

Downhole Information					
Formation: Bartlesville					
Casing:	4.5 in				
Tubing:	in				
Treatment Via:	Casing				
Perfor	ations				
Top Perf:	2074 ft				
Bottom Perf:	2112 ft				
Shots Per Foot:	1 spf				
Total Shots:	38 shots				

	Capac	ity				
Casing /	Casing / Tubing: 0.01595 bl					
Displa	cement:	33.1 b	bls			
Pressure Test						
Ire	on Test:	3,000 p	si			
Max P	ressure:	3,000 psi				
	Proppai	nt (#)				
20/40		12/20	8,700			
16/30	300	8/12	3,000			
Diversion						
Salt		Balls	14			

Tre	eatment Fluid	
Product	GPT	Gal
Water		15,000
Gel	6.0	90.0
Xlink		
KCI	1.0	15.0
Biocide	0.3	4
FLC		50#
Breaker	0.3	5.0
Acid - 15% NEFe		250.0

Time	Rate	PSI	PPG	Stage Pounds	Stage BBLs	Total BBLs	Remarks
	-	-			-	-	On location, job & safety meeting, rig up to casing
	4.0	1,050			39.0	39.0	Spot 250 gal acid on perfs, load casing, stage in acid to breakdown well
	20.0	1,000			70.0	109.0	Start pad with FLC500 in pad water
	20.0	1,000	0.50	300.0	14.3	123.3	Start 16/30 sand
	20.0	950	1.00	1,000.0	23.8	147.1	Start 12/20 sand
	20.0	950	1.50	1,000.0	15.9	163.0	Increase sand concentration to 1.5 ppg
	20.0	950	2.00	2,200.0	26.2	189.2	Increase sand concentration to 2.0 ppg
	20.0	1,000			-	189.2	Start 8/12 sand
	20.0	1,000	2.00	1,500.0	17.9	207.0	Drop 5 balls with 8/12 sand
	20.0	1,100	1.00	1,000.0	23.8	230.8	Back to 12/20 sand; drop 5 balls
	20.0	1,400	1.50	1,500.0	23.8	254.6	Increase concentration to 1.5 ppg; drop 4 balls
	20.0	1,400	2.00	2,000.0	23.8	278.4	Increase concentration to 2.0 ppg, finish 12/20 sand
	20.0	1,200	2.00	1,500.0	17.9	296.3	Pump remaining 8/12 sand
	20.0	1,200			35.0	331.3	Flush casing
	20.0				-	331.3	Release pressure off casing to release balls
	20.0	1,050			20.0	351.3	Overflush
		775				351.3	ISIP - 775#
		770			-	351.3	5 min shut in - 770#
					-		
					-		
					-		
					-		
		_					

	CREW	UNIT	SUMMARY			
Treater / Foreman:	Josh	807	Average Rate (bpm)	Max Rate (bpm)	Total Proppant (#)	
Pump Operator:	Landon	815	17.8	20.0	12000	
Sand:	Gary	809	Average PSI	Max Pressure (psi)	Total Load (bbls)	
Water:	Ryan	134/131	988	1400	351	
Acid:	Keith	195/125				

REFERENCE WELLS FOR STRUCTURE	FORMATION SAMPLE TOP ELECTRIC LOG TOP SUB-SEA DATUM KC 1411 -194 BKC 1586 -369 Bartlesville Sand (Lower) 2084 -867 Base of Bartlesville Sand 2134 -917	TYPE MUD Chemical FORMATION TOPS AND STRUCTURAL		3arnard Oil Operations stin-Horst #1 (15-073-24244) nalorie-Sowder 3960FSL/330FWI (W2/W2/NW)	JARRED LEIS PETROLEUM GEOLOGIST 201 E. OAK ST. YATES CENTER, KS 66783 620-212-0048 jarredleis@gmail.com GEOLOGIST'S REF DRILLING TIME AND SAMPLE LOG
URE	STRUCTURAL POSITION A B C	mma R	Measurements Are All From KB CASING SURFACE 85/8" (210ft) PRODUCTION 4 1/2" (2172ft) FIECTRICAL SURVEYS	ELEVATIONS KB 1217 est DF	PLE LOC PLE LOC Can Stock Photo
	ort ns ation is based on m		opic examination of the this well were taken fr		
The Zone of interest comparable in thickr characteristics. I did but this well appeare Lower Bartlesville So 2090-2100: Sandstor scattered oil spots, g 2100-2018: Sandstor scattered oil spots, 6 2118-2126: Sandstor	ess to the other old not have access to a d to run fairly flat st and (2084-2134 sam he: brown to grey, m nood fluorescence, so he: grey to brown, f ne: grey to brown, fi ne: grey to brown, fi	l wells in the Geo Report tructurally mples) medium-gracettered garantered garantered garane dance-grained	d, sub-angular, good p s bubbles. l, sub-angular, fair por	e samples had good porosity, good to so	good oil-bearing e descriptions to rong odor, o strong odor,
2126-2134: Sandstor scattered oil spots. Summary Due to significant oil evaluate this zone the Respectfully Submitted Leis	ne: grey to brown, m shows in Lower Bar rough perforations. ed,	nedium-gra	s bubbles. / Scattered ained, sub-angular, god e decision was made t	od odor, fair flu	
Petroleum Geologist					Barnard Oil Operations #7 Austin-Horst
					#I Austin-Horst Spul: 8/5/19 Contractor: CiG (LElev: 1210est KB 1217
	1400 ***/0 ******************************	1 1 1 LS	Grace, B. Dens. Grace, B. Dens. From, xhydense, stolety success. Basilony At Bearing more (no someterstus	w/45/14t	Kansas Coty 1411 (-194)
	1450 1450 140 140 140 140 140 140	1 1 1 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	En, B. Sugar, terture, setal contents An, B. Sugar, terture, setal contents * What / SH: Gro; Blk : Cream-Itar, , xln, dense, No.		
	1500 +100 *20 *20 *40	15 15 15 15 15 15 15 15 15 15 15 15 15 1	Cream-Jon, XIn, dense w/ SH: Blk AH 20 Scomple Missing Fain La Bas Morkinss Blke, Corb: Can / Ls: Tan-Can, 1 Branel, Some Fair of, NS, No Cream, Tim-med grainel Some of Vussy; XIn O, DS, No ador : Cream, FS, XIn, dense, shorp	ishel Fine-	1544 Short down for hole in kelly Hose
	1550 +60 *70 *80 *40 *00		"AA LISH! by W. Sample Missey rom no He merhoss Gry & Blk / LS : Gry, Fs. Dere Gry & Blk mple Unidentifiable due to		BKC 1586 (-369)
	4-30 4-30 4-50 9-60 4-50	10 10 10 10 10 10 10 10	H: Gry Sithy		BitTIP@ 1631 PDC Bit talled in Shale
	*50 *70 *10 *10 *70 *79	SH	1: Drh Gry SBh Gry W/LS! L+Gry, Yln, dense, Sh Gry NFG, Soft, NS, Malor		
	*25 *30 *40 *50 *6)750		Crm-Tan, Xh, danse, No 4, NS/Sh. Tan, F3, Frake/Sh: Gry Prk Gry	4 Gary	
	770 790 700 700 700 730	SS:	Dribay/sold LS: Tan , xin, de UFG, Sub-Ars, Soft Gry/SS: AA Ble; Gry/SS: Tang UFG, Soft, H Tan-L+Gy, Nn, Mirita/SS: Go	B, No Obr	
	*60 850 *70 *80 *70 *80 *70	S/A	: Gry w/LS: AA. : Gry w/LS: HGry-Gry, xln, den, : Gry w/ Blk : Gry w/ More Blk /SS: Gry J. : Gry w/ SS: Gry, FG, Sul-Rw, 1 tofore: Gry, Fg, Sul-randel	FG,	@ 1860 Sped Rotur Toble Up And Pat Modelucisht On bit
	#30 *YU	The second secon	Gr, Sardy		
	#50 #60 /950 K70 #90	SH SF SS SS	Gy: Blk w/ LS: Tan, xln, De. Mostly 184, Gray H: Blk Gray Silterton - it. S: It sry, UFB, Sala Ans, WO. G. MA W/SH: Blk Drk Gry	St. free constants	
	*20 *730 *750	Sh	Historic: Gry Historic: Att/SH. Blk H: Blk/SS: Jan-Gry Ms, Sab March, Faint alor, NSFO		
	#90 For Symples	SS: NS: NS: NS: NS: NS: NS: NS: NS: NS:	BIL /SS: Gry FS, Tynt, NJ, FIFE Gry, FS, Submodel, Friendle, Pa. NO Oder Gry, FS, Submodel, Friendle, Pa. NS, NO Oder S: FS, runnled, Friendle, Fence of NS, No Oder S: FS, runnled, Friendle, Friendle, Fence of NS, No Oder S: FS, runnled, Friendle, Fence of NS, No Oder S: FS, runnled, Friendle, Friendle, Fence of NS, No Oder S: FS, runnled, Friendle, Friendle, Friendle, Fence of NS, No Oder S: FS, runnled, Friendle, Friendl	Por a, Por a,	Bartlesulle Sand 2084 (-261)
	-CIIC	201 Str 201 Str 201 Str 201 Str 305 St	: My Gay-Bon Swhabs I house of school Spots : Gay-Fon, 1-3 /SH-Gy t: Gay, Blk	dage value is a related upone to the of the	Base of Bartlevuille Sand 2134 (-911)
	72 -72	Service of the control of the contro	t: B)k, Drk Gry		TD 2172 Reached TD 8/9/19. @ 11:22 acc