KOLAR Document ID: 1475894

Confiden	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	- DESCRIP	WEII &	IFASE
	INSIONI			LLASL

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.xxxx) (e.gxxx.xxxx)
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:
Gas DH EOR	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 #:	Dewatering method used:
Dual Completion Permit #:	
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Operator Name:
GSW Permit #:	Lease Name: License #:
Could Date are Date December 170 Occurrent view Date	Quarter Sec TwpS. R East _ West
Spud Date orDate Reached TDCompletion Date orRecompletion DateRecompletion 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: 1475894

Operator Name:	Lease Name: Well #:
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	acate)	Y	′es 🗌 No			og Formatio	n (Top), Depth a	and Datum	Sample
Samples Sent to Geolo			⁄es 🗌 No	1	Name	Э		Тор	Datum
Cores Taken Electric Log Run Geologist Report / Mud List All E. Logs Run:		□ Y □ Y	Yes ☐ No Yes ☐ No Yes ☐ No						
		Rep	CASING ort all strings set-c] Ne	w Used rmediate, productio	on. etc.		
Purpose of String	Size Hole Drilled	Siz	ze Casing et (In O.D.)	Weight Lbs. / Ft.		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
[ADDITIONAL	CEMENTING /	SQU	EEZE RECORD			
Purpose:	Depth Top Bottom	Туре	e of Cement	# Sacks Use	d		Type and	Percent Additives	
Protect Casing Plug Back TD Plug Off Zone									
 Did you perform a hydra Does the volume of the Was the hydraulic fracture 	total base fluid of the	hydraulic fr	acturing treatment		-	☐ Yes ns? ☐ Yes ☐ Yes	No (If No, s	kip questions 2 ar kip question 3) ill out Page Three	
Date of first Production/Inj Injection:	jection or Resumed Pr	oduction/	Producing Meth	iod:		Gas Lift 🗌 O	ther <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wate	er Bb	ls.	Gas-Oil Ratio	Gravity
DISPOSITIO	N OF GAS:		Ν	IETHOD OF COM	MPLE	TION:		PRODUCTIC Top	DN INTERVAL: Bottom
Vented Sold (If vented, Subn	Used on Lease		Open Hole		-	·	nit ACO-4)	юр	Bollom
	foration Perform Top Botto		Bridge Plug Type	Bridge Plug Set At		Acid,		ementing Squeezend of Material Used)	
TUBING RECORD:	Size:	Set At:		Packer At:					

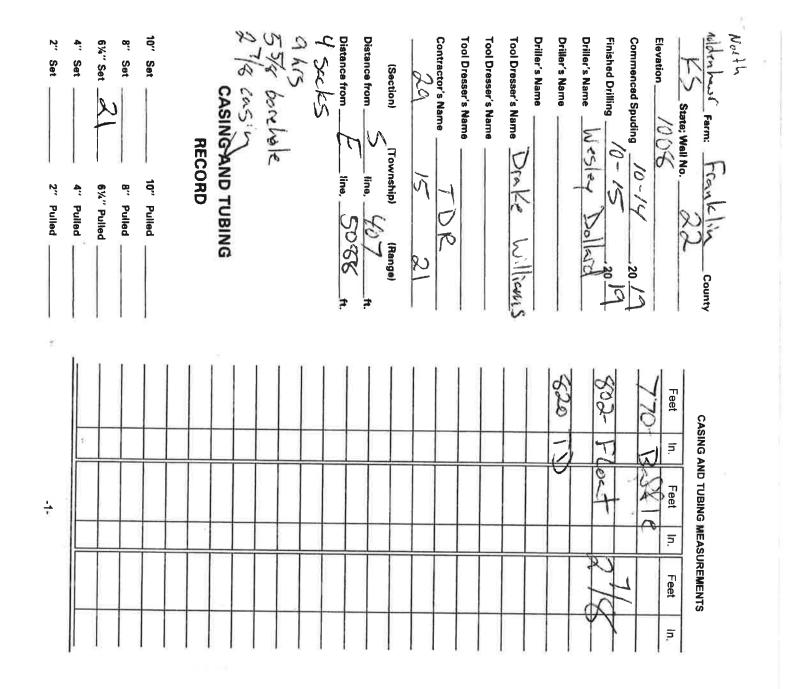
Form	ACO1 - Well Completion
Operator	TDR Construction, Inc.
Well Name	NORTH MOLDENHAUER 22A
Doc ID	1475894

Casing

Purpose Of String		Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	9	6.25	12	21	Portland	4	50/50 POZ
Production	5.625	2.875	6.5	802	Portland		50/50 POZ 2%Bento nite

				\langle	HC	I	>							
CEMENT TR	EATMEN	IT REP	ORT		_									
Custome	TDR Co	nstruct	ion	Well:	Nort	h Moldenhauer	#22	Ticket :		CT2588				
City, State	- Louisbi	urg, KS		County:	6	FR, KS		Date	te: 10/15/2019					
Field Rep	Lance 1	ſown		S-T-R:		SW 29-15-21	Service:	lo	ngstring					
Downhole	Informati	on		Calculate	d Sturry		Pr	oduct	%1#	#				
Hole Size	5 5/8	l in		Weight:		# / sx	Class A		50%	5123				
Hole Depth	820) ft	1	Water / Sx:		gal / sx	Poz		50%	4033				
Casing Size	2 7/8	l in	1	Yield:		ft ³ / sx	Gel		2%	183				
Casing Dept	: 802	: ft	1	Bbis/Ft.:	-		CaCl							
Tubing / Line	ner: In			Depth:		ft	Gypsum	1						
Depth		ft		Annular Volume:	0	bbis	Metso							
Tool / Packer	: bai	fle		Excess:			Kol Seal							
Depth	. 770) ft]	Total Slurry:	0.0	bbis	Flo Seal							
Displacement	- 4.5	i bbis		Total Sacks:	#DIV/01	sx	Salt (bw	w)						
)					Total	9,339				
TIME RAT	E PSI	BBLs				REMARKS	;							
4.0			established o											
4.0	<u> </u>		mixed and p	umped 200# Bentonite folio	wed by 5 bbl	s fresh water								
4.0	_													
	4.0 cement to surface, flushed pump clean													
1.0				2" rubber plug to baffle w/ 4	4.46 bbls fres	h water								
			pressured to											
				ssure to set float valve										
4.0			washed up e	quipment										
	-													
	-													
	1													
		<u> </u>												
	1													
	CREW			UNIT				SUMMAR	Y					
Cementer	Case	y Kenned	iy	69		Average Rate	Averag	e Pressure	Total F	Total Fluid				
Pump Operator	Haro	ld Bechtie	9	239		3.5 bpm	#DIV/01	psi		bbis				
Bulk #1		Mader		248										
Bulk #2	Kelti	Detwiler		123										

D - RPMXd over SPMXR d - SPMXRXD over RPM SPM - RPMXD over RXD R - RPMXD over SPMXD BELT LENGTH - 2C + 1.57(D + d) + (D-d)* * Need these to figure belt length WATTS = AMPS TO FIGURE AMPS: VOLTS = AMPS	RPM - Engine Speed R - Gear Box Ratio *C - Shaft Center Distance	TO FIGURE PUMP DRIVES * D - Diameter of Pump Sheave * d - Diameter of Engine Sheave SPM - Strokes per minute	HP equals BPH x PSI x .0004 BPH - barrels per hour PSI - pounds square inch	BARRELS PER DAY Multiply gals. per minute x 34.2	Short Cuts TANK CAPACITY BBLS. (42 gal.) equals D ² x.14xh D equals diameter in feet. h equals height in feet.
Town Oilfield Services, Inc. 1207 N. 1st East Louisburg, KS 66053 913-710-5400	-059-	Section) (Township) (Range) For TDR Construction	(State) F(c.v. K in (county)	Farm North Moldenhave	Log Book



ww	21	6/	H1	8	10	ù	v	14	בק	b	٩ľ.	79	22	36	22	W	6	8	14	ν	η	5	1-19	Thickness of Strata
Lime	Lime	shale	Lime	Shale	Lime	Shale	LMC	Shale	Linge	Shale	Linne	Shale	Lime	shall e	Lime	Shale	Lime	Shale	Lime	Shale	Linge	Shale 1	Soil- Clay	Formation
438	432	411	401	387	285	375	10	357	339	337	317	276	197	175	139	117	114	104	96	78	75	70	19	Total Depth
															shells									
																								Remarks
	00	ere	Lime Lime	Lime Lime Lime	Shale Lime Lime Lime	Lime Shale Lime Lime	Lime 40 Shale 32 Lime 40 Shale 40 Shale 40 Lime 40 Lime 40 Lime 40 Lime 40 Lime 40 Lime 40	Lime 43 Lime 45 Lime 46 Shale 38 Lime 46 Lime 43 Lime 43	Shale 35 Lime 35 Lime 35 Lime 35 Lime 40 Shale 40 Lime 40 Lime 40 Lime 40 Lime 40 Lime 40 Lime 40	Lime 40 Shale 35 Lime 40 Shale 35 Lime 40 Lime	Shale 33 Lime 23 Shale 33 Lime 23 Shale 33 Lime 40 Shale 33 Lime 40 Shale 33 Lime 40 Shale 40 Shale 40 Shale 40 Lime 40 Shale 40	Lime 40 Shale 33 Lime 33 Lime 33 Lime 33 Lime 33 Lime 33 Lime 40 Lime 40 Li	Shale 33 Shale 33 Sha	Lime Lime 19 Shale 33 Lime 233 Lime 233		$ \begin{array}{c} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c cccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} Lime & 96 \\ Shale & 104 \\ Lime & 129 \\ Lime & 139 \\ Lime & 337 \\ Lime & 337 \\ Lime & 337 \\ Lime & 358 \\ Shale & 385 \\ Lime & 461 \\ Lime & 435 \\ Lime & 435 \\ Lime & 436 \\ Lime & 436 \\ \end{array}$	Shale 78 $Shale 78$ $Shale 76$ $Shale 76$ $Shale 76$ $Shale 76$ $Shale 76$ $Shale 337$ $Shale 357$ $Shale 357$ $Shale 358$ $Shale 358$ $Shale 387$ $Shale 401$ $Shale 401$	$\begin{array}{c c} c_{im}e & 75 \\ shale & 78 \\ shale & 378 \\ shale & 337 \\ shale & 337 \\ shale & 337 \\ shale & 387 \\ shale & 385 \\ shale & 401 \\ shale & 435 \\ shale & 401 \\ shale & 435 \\ shale & 535 $	Shale 70 $Shale 70$ $Shale 75$ $Shale 376$ $Shale 376$ $Shale 357$ $Shale 387$ $Shale 385$ $Shale 40 $ $Shale 40 $ $Shale 435$ $Shale 435$ $Shale 435$	soil- clay 19 Shale 70 Lime 75 Shale 70 Shale 70 Shale 70 Shale 70 Shale 70 Shale 19 Shale 37 Shale 337 Shale 337 Shale 355 Shale 385 Shale 385 Shale 385 Shale 385 Shale 385 Shale 40 Shale 40 Shale 40 Shale 40 Shale 40 Shale 435

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		78	8	0	w	ż	6	/	Ś	/	/	R	14	4	ù.	6	6	cq.	12	7	S	6	34	11	121	Thickness of Strata	Ι.,
4		Shale	Sind	Sano	Savel	smoly shelf	Shale	Limt	Shele	LIME	Shalp	Lime	Shalp	Lime	Shalp	Lime	Shale	LIME	Shalp	lime	Shale	Sind	Shalk	Sale	Shalp	Formation	
		820	742	734	724	721	719	709	70%	693	692	691	689	675	671	656	650	644	642	630	623	620	614	580	569	Tota! Depth	84H
ψ		TD O	a store	1- ased. Saturat	broken - anor schule the								P									arey no Oil	THUR THUR	F		Remarks	

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Franklin County,KS Well: Moldenhauer #22A Lease Owner: TDR

WELL LOG

Thickness of Strata	Formation	Total Depth
0-19	soil-clay	19
51	shale	70
5	lime	75
3	shale	78
18	lime	96
8	shale	104
10	lime	114
3	shale	117
22	lime	139 shells
36	shale	175
22	lime	197
79	shale	276
41	lime	317
20	shale	337
2	lime	339
18	shale	357
3	lime	360
15	shale	375
10	lime	385
2	shale	387
14	lime	401
10	shale	411
21	lime	432
3	shale	435
3	lime	438
5	shale	443
5	lime	448 Hertha
121	shale	569
11	sand	580 gas odor-slight oil show
34	shale	614
6	sand	620 grey-no oil
3	shale	623
7	lime	630
12	shale	642
2	lime	644
6	shale	650
6	lime	656
15	shale	671
4	lime	675
14	shale	689
2	lime	691

Franklin County,KS Well: Moldenhauer #22A Lease Owner: TDR

Thickness of Strata	Formation	Total Depth
1	shale	692
1	lime	693
15	shale	708
1	lime	709
10	shale	719
2	sandy shale	721
3	sand	724 broken-good saturation
10	sand	734 solid-good saturation
8	sand	742 broken-good saturation
78	shale	820 TD