

#### Kansas Corporation Commission Oil & Gas Conservation Division

#### 1054482

Form ACO-1

June 2009

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. 15
Name:	Spot Description:
Address 1:	SecTwpS. R
Address 2:	Feet from North / South Line of Section
City:	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	Amount of Surface Pipe Set and Cemented at: Feet  Multiple Stage Cementing Collar Used? Yes No  If yes, show depth set: Feet  If Alternate II completion, cement circulated from: sx cmt
Operator:	
Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth:  Deepening Re-perf. Conv. to ENHR Conv. to SWD  Conv. to GSW	Chloride content: ppm Fluid volume: bbls  Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD Permit #:	Quarter Sec Twp S. R
☐ ENHR         Permit #:           ☐ GSW         Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date	

#### **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
Letter of Confidentiality Received
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I III Approved by: Date:

Side Two



Operator Name:			Lease Name	e:			Well #:	
Sec Twp	S. R	East West	County:					
time tool open and clorecovery, and flow rate	sed, flowing and shut-	base of formations per in pressures, whether s i, along with final chart( vell site report.	hut-in pressure	reached sta	atic level,	hydrostatic press	sures, bottom h	ole temperature, fluid
Drill Stem Tests Taken (Attach Additional S		☐ Yes ☐ No		Log	Formation	n (Top), Depth an	d Datum	Sample
Samples Sent to Geol	logical Survev	Yes No	1	Name			Тор	Datum
Cores Taken Electric Log Run Electric Log Submittee (If no, Submit Copy	d Electronically	Yes No Yes No Yes No						
List All E. Logs Run:								
		CASING Report all strings set-	RECORD		Used te. production	on, etc.		
Purpose of String	Size Hole	Size Casing	Weight	Se	etting	Type of Cement	# Sacks	Type and Percent Additives
	Drilled	Set (In O.D.)	Lbs. / Ft.		Depth	Cement	Used	Additives
		ADDITIONAL	CEMENTING /	SQUEEZE I	RECORD			
Purpose:  —— Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	d		Type and F	Percent Additives	
Protect Casing Plug Back TD								
Plug Off Zone								
Shots Per Foot	PERFORATIOI Specify Fo	N RECORD - Bridge Plug ootage of Each Interval Per	s Set/Type forated			ture, Shot, Cement Count and Kind of Ma		Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner	Pun:			
TOBING REGORD.	GIZC.	oct Att.	T donor Att.	Linei	_	Yes No		
Date of First, Resumed	Production, SWD or ENH	R. Producing Met	hod:	Gas Lift	t 🗌 0	ther (Explain)		
Estimated Production Per 24 Hours	Oil Bi	ols. Gas	Mcf	Water	Bb	ols. (	Gas-Oil Ratio	Gravity
DIODOGITIA			METHOD OF OCA	ADI ETIONI			DRODUCTIC	MINITEDVAL.
Vented Sold	ON OF GAS:  Used on Lease	Open Hole	METHOD OF COM	ually Comp.	Com	nmingled	FRUDUCIIC	N INTERVAL:
(If vented, Sub		Other (Specify)		bmit ACO-5)		nit ACO-4)		

### Well Report HUMMER 10J-28

API Number: G01013600700

Project Area: SYCAMORE AFE Amount: \$0.00

KS Wilson 30S - 14E - 28 1805FSL - 1640FEL

Activity Date	Activity Description
12/8/2010	MIRU THORNTON DRILLED 11" HOLE 40 DEEP, RIH W/2 JOINTS 8-5/8" SURFACE CASING MIXED 8 SX TYPE 1 CEMENT, DUMPED DOWN THE BACKSIDE. SDFN
12/9/2010	TIH W/ 6 3/4" BIT, HAMMER AND DRILL PIPE, DRILLED OUT FROM UNDER SURFACE TO 1262' TD, TESTING SAMPLES AT ZONES OF INTEREST RD DRILL RIG MOVE IN OSAGE WIRELINE PULLED LOGS FROM LOGGER DEPTH TO SURFACE RD MOL.
12/10/2010	MI PU, RIH W/31 JOINTS 4-1/2" CASING, RIG UP CONSOLIDATED, BREAK CIRCULATION WITH 30 BBLS FRESH WATER PUMP 10 SKS GEL FLUSH WITH 5 BBLS WATER SPACER W/HULLS, 20 BBLS CAUSTIC PRE-FLUSH, 10 BBLS DYE WATER, MIXED 135 SKS THKSET CMT W/8#KOL-SEAL,1/8# PHENOSEAL PER SK., 1/2% CFL-110, 1/4% CAF-38 @ 13.4#/GAL YIELD 1.75. WASHED OUT PUMP AND LINES SHUTDOWN, RELEASE PLUG, DISPLACE W/19.6 BBLS FRESH WTR. FINAL PUMPING PRESSURE 600 PSI, BUMP PLUG TO 1100 PSI. WAIT 2 MINUTES, RELEASE PRESSURE, FLOAT HELD GOOD CEMENT RETURNS TO SURFACE, 8 BBLS TO PIT. RD MOL. WELL SHOWED GOOD OIL FLOW TO PIT WHILE RUNNING IN CASING STRING.  CSG STRING: 31 JOINTS 4-1/2" LANDED CSG @ 1232.9' PBTD - 1232.9' TD 1262"

#### 12/20/2010

MOL RU Osage Wireline and Consolidated Oil Well Servicing. Osage RIH and ran CBL-CCL-VDL Log from 1222' to surface. Good Bond all depths. Osage Perfed the Cattleman sands from 1123' to 1126' and 1144' to 1150' with 2 spf, 180 degree phase, and 25 gm charges. Total 20 holes. Consolidated rigged up and spotted 100 gallons 15% HCL across Cattleman perfs. Pumped 300 gallons additional (400 gal total) 15% HCL with 35 ball sealers. Good ball action and balled off perfs. RIH with wireline junkbasket and knock balls off. Fracked Cattleman with 85 bbls PAD (25 ppt gelled water with 2% KCL & biocide) followed with 4,000 lbs 16/30 and 6,800 lbs 12/20 frac sand @ 0.25 ppg - 3 ppg concentration, droping 7 balls during frac. Flushed with 20 bbls gel.

Breakdown 1637 psig, ISIP 568 psig, 5 min 510 psig, 10 min 496 psig, 15 min 487 psig, ATP 850 psig, MTP 948 psig, ATR 26 BPM, MTR 26 BPM.

TOTAL JOB: 10,800 lbs 16/30 & 12/20 sand, 400 gallons 15% HCL, and 295 bbls gelled water SI WELL AFTER FRAC TO ALLOW GEL TO BREAK

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## 12/21/2010 TIH W/ TBG WASHED TO TD TIH W/ RODS SPACED ROD STRING HUNG ON JACK. WASHED 20' OF SAND

TBG STRING 36- 2 3/8 TBG 0- SUBS SN @ 1175 15' OEMA @ 1180

ROD STRING 46- 3/4 RODS 1-8',1-4' PONYS 1 1/2 X 6' BHD CUP INST PMP 1 1/8 X 11' POLISH ROD

#### 1/11/2011

POOH W/ RODS & PMP REPLACED PMP BECAUSE OF SAND TIH W/ ROD & REBLT PMP HUNG ON JACK WELL ON PROD.

TBG STRING 36- 2 3/8 TBG 0- SUBS SN @ 1175 15' OEMA @ 1180

ROD STRING 46- 3/4 RODS 1-8',1-4' PONYS 1 1/2 X 6' BHD CUP INST PMP 1 1/8 X 11' POLISH ROD

#### 1/28/2011

POOH W/ RODS & PMP REPLACED PMP BECAUSE OF SAND TIH W/ ROD & REBLT PMP HUNG ON JACK WELL ON PROD.

TBG STRING 36- 2 3/8 TBG 0- SUBS SN @ 1175 15' OEMA @ 1180

ROD STRING 46- 3/4 RODS 1-8',1-4' PONYS 1 1/2 X 6' BHD CUP INST PMP 1 1/8 X 11' POLISH ROD

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# 3/14/2011 MI RU POOH WITH RODS AND PUMP CHECKED FILL TO 32' NO SAND. PUT ON REBUILT PUMP RAN RODS BACK IN HUNG OFF ON WELL HEAD WELL BACK ON PROD.

TBG STRING 36- 2 3/8 TBG 0- SUBS SN @ 1175 15' OEMA @ 1180

ROD STRING 46- 3/4 RODS 1-8',1-4' PONYS 1 1/2 X 6' BHD CUP INST PMP 1 1/8 X 11' POLISH ROD

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Air Drilling Specialist Oil & Gas Wells

# THORNTON AIR ROTARY, LLC PO Box 449 Office Phone: 620-879-2073 Cancy, 85-67333

Office Phone: 620-879-2073

Date Started	12/8/2010
Date Completed	12/9/2010

Well No.	Operator	Lease	A.P.I #	County	State
10J-28	Layne Energy Operating	Hummer	25-205-27892-00-00	Wilson	Kansas
			6	Twp.	Rge.
1/4	1/4	1/4	Sec.	<del></del>	
		†	28	30	14E
				D-v4b	Size of Hole
Driller	Type/Well	Cement Used	Casing Used	Depth	
<u> </u>	Oil	8	44' 85/8	1262	6 3/4

### **Formation Record**

		Formatio	n Record		
)-2	DIRT	850-869	SANDY SHALE	1173-1179	SAND / ODOR
2-13	CLAY	869-871	LIME	1179-1200	SANDY SHALE
13-49	SHALE	871-872	COAL (MULBERRY)	1200-1262	SHALE
19-55	LIME	872-911	LIME (PAWNEE)	1262	TD
55-70	LMY SHALE	911-916	BLK SHALE (LEXINGTON)		
70-118	LIME	916-953	SHALE		
118-134	SHALE	953-975	LIME (OSWEGO)		
134-146	SAND	975-984	BLK SHALE (SUMMIT)		
146-340	SHALE	984-992	LIME		
340-420	SAND	992-995	BLACK SHALE		
420-448	SHALE	995-996	COAL		
448-558	LIME	996-999	LIME		
536	WENT TO WATER	999-1041	SHALE		
558-563	SHALE	1041-1042	COAL		
563-573	LIME	1042-1058	SHALE		
573-578	SAND	1058-1060	LIME		
578-579	COAL	1060-1061	SHALE		
579-596	SAND	1061-1062	COAL		
596-601	SANDY SHALE	1062-1080	SANDY SHALE		
601-655	LIME	1080-1099	SHALE		
655-685	SHALE	1099-1100	COAL		
685-689	LIME	1100-1106	SHALE	_	
689-694	SHALE	1106-1123	SANDY SHALE		
694-699	LIME	1123-1130	SAND / ODOR		
699-726	SHALE	1130-1133	SANDY SHALE		
726-735	LIME	1133-1140	SHALE		
735-751	SAND	1140-1153	SAND / ODOR		
751-771	LIME	1153-1156	SANDY SHALE		
771-810	SANDY SHALE	1156-1163	SAND		
810-850	SAND/SANDY SHALE	1163-1173	SANDY SHALE		



TICKET NUMBER_	30072
LOCATION_ Eu	reks
FOREMAN Tro	Strickler

PO Box	B\$4, (	Çhai	rute, l	KS	66720	
820,431						

### FIELD TICKET & TREATMENT REPORT

DATE	or 800-467-8676			CEMEN		······································	T	ANIDEN
W/11 M	CUSTOMER#	WELL N	AME & NUMB	ER	SECTION	TOWNSHIP	RANGE	COUNTY
2-10-10	8274	Hummer	***	<u> </u>				10:120v
JSTOMER			1052	Safety	TRUCK#	DRIVER	TRUCK#	DRIVER
<i>ل</i> مر AILING ADDR	the Everant			resolat	445	John		
	_			22.₹	479	040		
P.O.		ATE ZI	P CODE	من		1		
_		Ks						
Sycamo DB TYPE_4		LE SIZE	63/4"	i HOLE DERT	H_1263'	CASING SIZE &	WEIGHT 4%	
ASING DEPTH		LE 8125  LL PIPE		TUBING			OTHER	
LURRY WEIGH	17 17:4 F		1251	WATER gal/	sk 8' =	CEMENT LEFT IN	CASINGO'	
ISPLACEMEN	r 19.6881 DIS				00 Bump My	RATE	<u> </u>	
ISPLACEMEN	Sely Meetry:	O	11 km /2		nen k. Chronilet	ion w/ 3086	) Fresh Wen	ler.
EMARKS: S	L Gol-Phyl	ANG LOTTO	7/1	2009. 531	Complete Student	Arr - Flush	100LI OVE	water
	k (set - Plust	SULI MAREA	1000	2 # V	Caller Van	Phonoses /s	x , 12 7 FL-	110, + 47
Miked L	13.4 4/94/ We	et (ene	0	13	On law on Phy	a nicolace	4/ 19.68	bl Fresh
:AF-38 ⊆	Final Auman	ash Gut	DAMP T	Des Ru		ILDO ACT	Wait Zein	Release
<u>vater.</u> F	- Mal Human	7 7 7 7 7 7	<u>/c (-co</u>	PCZ: 130	ma Fish re	54000 500	<i>†</i> .	, , , , , , , , , , , , , , , , , , , ,
resoure.	Flort Held	Good Co	n <i>ent</i> :		CC - 2 24	Sharry to pi		
			<del></del>		<del></del>	Job Con	plete	
			·····		****		,	
ACCOUNT			P.0	OCCUPATION -	of SERVICES or Pf	PODUCT	UNIT PRICE	TOTAL
	QUANITY or U	JNIT8	DE	SCHIL HOM C	of orkalces at L	100001	A SHILL LINE	
CODE							<del> </del>	
SAO!		P	UMP CHARG	E			925.∞	452.∞
	40		UMP CHARG	E			925.∞ J.65	146.00
5401	40			E			<del></del>	146.00
SYOI	40 1322h		ILEAGE	Set Cen			J.65 /7.00	146.00
5401 5406 1126A		М	ILEAGE	Sect Cecr			3.65	144.00 2295.00 453.40
5401 5406 11264 1110A	13544	М	ILEAGE . ' Thick '	Sect Cem Seel /sx			J.65 /7.00	146.00 2295.00 453.60 19.55
5401 5404 11264 1110A	1322k	М	Thick	Set Cerr Seel /se enoseal			J.65 /7.00	144.00 2295.00 453.40
5401 5404 11264 1110A 1107A	1352k 1080 N	М	Thick: 8* Kol-S	Set Cem Seel Isk enomenal			17.00 .42 /./5	146.00 2295.00 453.60 19.55
5401 5404 11264 1110A	1254 1324 1324 1324 1324 1324 1324 1324 132	М	Thick:  8* Kol-Ve*/Ph	Set Cem Seel Isk enomenal			1.65 17.00 .42 1.15 7.50	146.00 2295.00 453.60 19.55 510.00
5401 5404 11264 1110A 1107A 1135 1144	344 489 40801 13281	M	Thick:  8 Kol-  1/2 */ Ph  1/2 */ Ph  1/4 Z CA	Set Cem Seel /sk enoseal 110 F-38			1.65 17.00 .42 1.15 7.50	146.00 2295.00 453.60 19.55 510.00
5401 5401 5406 1126A 1100A 1107A 1135 1146	375k 1080 m 174 684 344	M	Thick:  R* Kol-J  Y2*/ Ph.  Y2. FL  Y4. CA  Gel-Flu	Set Cem Seel /sk enoseal 110 F-38			7.65 /7.00 .42 /./5 7.50 7.70	146.00 2295.00 453.60 19.55 510.00 261.80
5401 5406 11264 1110A 1107A 1135 1146 1188	200# 34# 1322#	M	Thick:  R* Kol-J  Ye*/Ph  Yz FL  Gel-Flu  Hulls	Set Cerr Set /su enoseal -110 F-38			7.65 17.00 .42 1.15 7.50 7.70	146.00 2295.00 457.60 19.55 510.00 261.80
5401 5404 11264 1100 1107A 1135 1146 1105 1105	200# 200# 300# 1080 H 1324H	M	Thick:  R Kol-S  No F / Ph  No Z CA  Gel-Flu  Hulls  Castle:	Set Cem Seel Isk enoseel -110 F-38			3.65 17.00 .42 1.15 7.50 7.70 1.20 1.33	146.00 2295.00 453.60 19.55 510.00 261.80 100.00 19.50 145.00
5401 5405 1126A 1107A 1107A 1146 1188 1105 1103 5407A	1355ki 1080 h 17# 68# 34# 500# 100 h	M	Thick:  8* Kol-S  1/2*/Ph  1/47 CA  Gel-Flu  Hulls  Castic S  Ton-Mi	Set Cerr Set /sk enouseal -110 F-38 sik			7.65 /7.00 .42 /./5 7.50 7.70 .20 .39	147.00 147.00 19.55 510.00 241.80 100.00 19.50 145.00 356.65
5401 5405 11264 1110A 11107A 1135 1146 1118B 1105 1103 5407A	1354k 1080 k 1080 k 17# 68# 34# 500# 50# 7.43 4hs.	M	Thick:  R* Kol-S  Y** / Ph  Y** Z CA  Gel-Flu  Hulls  Gattle  Ton-Mi  2003	Set Cerr Set /su enoseal -110 F-38 six Sade Sade			1.65 17.00 .42 1.15 7.50 7.70 1.20 1.45 1.45	147.00 147.00 19.55 510.00 241.80 100.00 19.50 145.00 356.65
5401 5405 11264 1110A 1107A 1135 1146 1188 1105 1103 5407A 55026 1123	1355ki 1080 h 17# 68# 34# 500# 100 h	M	Thick:  R* Kol-J  Ye*/Ph  Yoz FA  Gel-Flu  Hulls  Costic Mi  80 Gal II  Cry Ma	Set Cerr Set /su enoseal -110 F-38 sh Seda lege sec Truck			1.65 17.00 .42 1.15 7.50 7.70 1.20 .39 1.45 1.20 85.0/h/	194,00 453,40 19.50 510.00 241.80 100.00 19.50 19.50 19.50 340.00
5401 5401 5401 11264 1107A 1135 1146 1188 1105 1103 5407A 55026	1354k 1080 k 1080 k 17# 68# 34# 500# 50# 7.43 4hs.	M	Thick:  R* Kol-J  Ye*/Ph  Yoz FA  Gel-Flu  Hulls  Costic Mi  80 Gal II  Cry Ma	Set Cerr Set /su enoseal -110 F-38 six Sade Sade			1.65 17.00 .42 1.15 7.50 7.70 1.20 1.45 1.45 1.20 85.00/hr 14.90/100	144.00 2295.00 453.40 19.50 50.00 19.50 145.00 346.00 441.10
5401 5405 11264 1110A 1107A 1135 1146 1188 1105 1103 5407A 55026 1123	1354k 1080 k 1080 k 17# 68# 34# 500# 50# 7.43 4hs.	M	Thick:  R* Kol-J  Ye*/Ph  Yoz FA  Gel-Flu  Hulls  Costic Mi  80 Gal II  Cry Ma	Set Cerr Set /su enoseal -110 F-38 sh Seda lege sec Truck			1.65 17.00 .42 1.15 7.50 7.70 1.20 .39 1.45 1.20 85.00/hy 14.90/www	146.00 2295.00 453.60 19.50 100.00 19.50 145.00 340.00 44.10 45.00 45
5401 5405 11264 1110A 1107A 1135 1146 1188 1105 1103 5407A 55026	1354k 1080 k 1080 k 17# 68# 34# 500# 50# 7.43 4hs.	M	Thick:  R* Kol-J  Ye*/Ph  Yoz FA  Gel-Flu  Hulls  Costic Mi  80 Gal II  Cry Ma	Set Cerrical Issue and seal Issue Issue Truck Issue Tr	e Phy		1.65 17.00 .42 1.15 7.50 7.70 1.20 1.39 1.45 1.20 85.00/hy 14.90/100 45.00	144.00  2295.00  453.40  19.55  510.60  241.80  19.50  145.00  346.00  44.10  45.00
5401 5405 1126A 1110A 1107A 1135 1146 1188 1105 1103 5407A 55026 1123 4404	1354k 1080 k 1080 k 17# 68# 34# 500# 50# 7.43 4hs.	M	Thick:  R* Kol-J  Ye*/Ph  Yoz FA  Gel-Flu  Hulls  Costic Mi  80 Gal II  Cry Ma	Set Cerrical Issue and seal Issue Issue Truck Issue Tr			1.65 17.00 .42 1.15 7.50 7.70 1.20 .39 1.45 1.20 85.00/hy 14.90/www	146.00 2295.00 453.60 19.50 100.00 19.50 145.00 356.60 346.00 44.70 45.00

l acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this fo.