

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1047199

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:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	
Phone: ()	
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
	Amount of Surface Pipe Set and Cemented at: Feet
Gas D&A ENHR SIGW	Multiple Stage Cementing Collar Used?
OG GSW Temp. Abd.	If yes, show depth set: Feet
CM (Coal Bed Methane)	If Alternate II completion, cement circulated from:
Cathodic Other (Core, Expl., etc.):	feet depth to:w/sx cmt.
If Workover/Re-entry: Old Well Info as follows:	
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	Chloride content: ppm Fluid volume: bbls
Conv. to GSW	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 TwpS. R East West
ENHR Permit #:	
GSW Permit #:	County: Permit #:
Spud Date or Recompletion Date Date Reached TD Completion Date or 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								
Confidential Release Date:								
Wireline Log Received Geologist Report Received								
UIC Distribution ALT I II III Approved by: Date:								

	Side Two	1047199
Operator Name:	Lease Name:	Well #:
Sec TwpS. R East _ West	County:	

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional She	eets)	Yes No	L	-	n (Top), Depth an		Sample Datum
Samples Sent to Geolog	ical Survey	Yes No	INAM	е		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitted E (If no, Submit Copy)	Electronically	<pre> Yes □ No Yes □ No Yes □ No</pre>					
List All E. Logs Run:							
		CASING	GRECORD Ne	ew Used			
		Report all strings set	-conductor, surface, inte	ermediate, producti	on, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD				
Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated							Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)					
TUBING RECORD:	Siz	ze:	Set At:		Packer	At:	Liner R	un:	No				
Date of First, Resumed I	Product	ion, SWD or ENHI	۶.	Producing N		oing	Gas Lift	Other (Explain)					
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wat	ər	Bbls.	Gas-Oil Ratio	Gravity			
			I										
DISPOSITIC	ON OF C	GAS:			METHOD	OF COMPLE	TION:		PRODUCTION INTE	RVAL:			
Vented Sold		Used on Lease		Open Hole	Perf.	Uually (Submit)		Commingled (Submit ACO-4)					
(If vented, Sub	omit ACC)-18.)		Other (Specify)								



November 18, 2010

Amanda Pickney Apache Corporation 2000 POST OAK BLVD, STE 100 HOUSTON, TX 77056

Re: ACO1 API 15-119-21264-00-00 HAGER 1-18 SW/4 Sec.18-34S-27W Meade County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully, Amanda Pickney

Cementing Job Summary

						he Road t		celle				th Safe	ty							
Sold To #: 3	0049	6		Ship	о То	#: 280415	50				e #:					ales	Order	#: 76	105	11
Customer: A	APAC	HE CC	DRP							isto	omer	Rep: -	luds	son, Jin	n					
Well Name:	Hage	er				W	ell #:	: 1-1	8					API	/UW	#:				
Field:			Cit	ty (SA	AP):	MEADE		Cou	unty/P	aris	sh: M	eade			S	tate:	Kansa	IS		
Legal Descr	iptio	n: Sec	tion 18	Том	vnshi	p 34N Ra	nge 2	27W	1											
Contractor:	-					Rig/Plat				m:	55									
Job Purpos			Multip	e Sta	aes				•											
Well Type: [<u></u>	Job Typ	e: Ce	eme	nt Mul	tiple	e Stad	ies								
Sales Perso					7	Srvc Su				-				MBU IC) Fm	n #:	19581	1		
					•	MERSH		.001		101	,	1				P		•		
								Job	Perso	onn	el									
HES Emp) Nam	e E	xp Hrs	s En	np#	HES	Emp				o Hrs	Emp	#	HE	S Em	p Nar	ne	Exp	Hrs	Emp #
FARNUM, G			12	0	- <u>-</u> -	LOPEZ,				12		19851		MATA,				12		419999
WILTSHIRE			12	195	811															
MERSHEK T			.–																	
								E	quipm	ent	:									
HES Unit #	Dis	tance-1	way	HES	Unit	# Dista	nce-1	1 wa	y ŀ	IES	Unit ;	# Dis	tan	ce-1 wa	y I	HES L	Jnit #	Dis	tanc	e-1 way
									Î											
			K			I		J	ob Ho	urs										
Date	On	Locatio	on O	perati	ing	Date		On l	Locatio	on	Оре	erating		Dat	е	On	Locati	on	Ор	erating
		Hours		Hour	s			ŀ	lours		ŀ	lours					Hours		ŀ	lours
TOTAL									Tota	al is	the st	um of ea	ach							
				Jok)									1	10000	Time	1	<u> </u>		
Formation Na						— <u> </u>									Date		Tim			ne Zone
Formation De	epth (MD) T	ор		10110	Botto	om		00 1			d Out		04 - 5			07:0			CST
Form Type			100 #		BHS		<u> </u>		22 deg	_		ocation		04 - 5			11:0 14:8			CST CST
Job depth MI	J	0	100. ft			Depth TVE Ht Above F		_	6100. f	_		Started	ad	04 - S 04 - S	<u> </u>		21:3			CST
Water Depth Perforation D	lanth				AAK I	To	1001	1		_		Complet		04 - 5			23:0			CST
Perioration D	epui					10		v	Vell Da		Depa		<u>.</u>	04-0	ieh - 1	2010	2.(001
Descriptio	un I	New /	Ma		Size	ID	Weig		VCII DO		read		<u> </u>	rade	Тор	MD	Bottor	n T	ор	Bottom
Descriptio	/1 C	Used	press		in	in	lbm	- 1			cau		Ŭ	laue	f		MD		VD	TVD
			ps					<i>"</i>									ft	1	ft	ft
7-7/8" Produc	tion	·		1		7.875									385	50.	6100.			
Open Hole Lo	wer																			
Section			1			7.875									400	<u></u>	0050	_		
7-7/8" Produc Open Hole Up						7.875									160	<i>.</i> .	3850.			
Section	pci																	1		
Multiple Stage	е	Unknow	/														4100.			
Cementer		<u>n</u>																		
5-1/2" 17 ppf		New			5.5	4.892	17	′.	8	RD	(LT&(C)	L	-55			6100.			
Production Ca 8-5/8" Surface		New			8.62	5 8.097	24		8	PD	(ST&	\sim		-55			1596.	_		
Casing					0.02	0.001	24	r•	0	ND	10100	~,	L		•		1000.			
	L.			L			Too	ls al	nd Aco	ces	sorie	S		L E de la composition		l.				
Туре	Size	Qty	Make	Der	oth	Туре	Siz		Qty	In XANDON CODE	lake			Тур	e	S	ize	Qt	V	Make
Guide Shoe		-		1		acker								p Plug					•	
Float Shoe						Bridge Plug				ĺ				ttom P	lug					
Float Collar					F	Retainer								R plug						`
Insert Float				1										ug Cont		•				
Stage Tool													Ce	entralize	ers					

Wednesday, September 15, 2010 15:33:00

Cementing Job Summary

				laneous Ma	and the second	IA -:		T		
Gelling Treatr	nent Fld	Conc Conc	Surfactant Inhibitor		Conc Conc		Type d Type		Qty Size	Conc %
i i çatır				Fluid Data	loone l					
S	age/Plug #: 1									
Fluid #	Stage Type	Fluid	Name	Qty	Qty uom	Mixing Density Ibm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/s
1	Water Spacer		and a second	20.00	bbl	8.33	.0	.0	.0	
2	Superflush			20.00	bbl	9.3	.0	.0	.0	
	68 lbm/bbl	HALLIBURTON SUF	PER FLUSH (100	003639)	I					1
3	Water Spacer			20.00	bbl	8.33	.0	.0	.0	
4		t POZ PREMIUM 50/	50 - SBM (12302)	355.0	sacks	14.2	1.43	5.79		5.79
	5.792 Gal	FRESH WATER	·····	ł		L			1	
	0.6 %	HALAD(R)-322, 50 L	B (100003646)							
	3 lbm	KOL-SEAL, BULK (1	100064233)							
	5 %	CAL-SEAL 60, BUL					······			· · · · · · · · · · · · · · · · · · ·
	10 %	SALT, 100 LB BAG	(100003652)							
5	Mud	······································	. ,	141.00	bbl	9.		1	.0	
	Displacement									
S	age/Plug #: 2									
Fluid #	Stage Type	Fluid	Name	Qty	Qty uom	Mixing Density	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
						uom				
1	Water Spacer			20.00	bbl	8.33	.0	0.	.0	
2	Super Flush			20.00	bbl	9.3	.0	0.	0.	
	68 lbm/bbl	HALLIBURTON SUF	PER FLUSH (100					· · · · · · · · · · · · · · · · · · ·		
3	Water Spacer			20.00	bbl	8.33	.0	0.	.0	40.00
4	Lead Cement	EXTENDACEM (TM		81) 250.0	sacks	11.2	3.07	18.29		18.29
	0.125 lbm	POLY-E-FLAKE (10	1216940)	· ·						
	18.294 Gal	FRESH WATER				1 4 7 4		1.10	1	1.10
5	Tail Cement	CMT - PREMIUM CI			sacks	16.4	1.07	4.43		4.43
	94 lbm	CMT - PREMIUM - C		R TYPE V, BU	ILK (100	JU3687)				
	0.1 %	HR-800, 50 LB SAC				,				
	0.125 lbm	POLY-E-FLAKE (10	1216940)							
_	4.426 Gal	FRESH WATER					•			
6	Water			91.00	bbl	8.33	.0	0.	0.	
	Displacement Ilculated Value	Duese		and the second	alle dans the	 	olumes			
	cement	s Press Shut In: Instant		st Returns	1	Cement S		line and the second second	Pad	l l
-		5 Min	···· {································	ment Returns	-	Actual Di	-	ont	Treatn	hont
Top Of Cement 5 Min Ceme Frac Gradient 15 Min Space					3	Load and			Total	
. 1au O		DA MUL	l bh	Rates	1	Loau anu	JICARU		potajo	
Circu	lating	Mixing			cement			Avg. Jo	ob	
·····	ent Left In Pipe		eason Shoe Joi		oomont	1		vy. v		
	Ring #1@	ID Frac ring #		Frac Rin	na # 3 @			Frac Ring	#4@	ID
		<u>, </u>		ustomer Repres			I			1
Tł	ne Informatior	Stated Herein Is								

Cementing Job Log

					with Sa	fety						
Sold To #: 300496	Ship To #: 2804	150		Quote #: Sales Order #: 7610511								
Customer: APACHE CORP			C	ustomer	r Rep: Hi	udson, Jim		1				
Well Name: Hager		Well #:	1-18			API/UWI #:						
Field: City	(SAP): MEADE	C	ounty/Pa	arish: Me	eade		State:	Kansas				
Legal Description: Section 18	Township 34N R	ange 27	W.									
Lat: N 0 deg. OR N 0 deg. 0 mi	n. 0 secs.		L	ong: E 0	deg. Ol	R E 0 deg. 0	min. 0	secs.				
Contractor: KENAI	Rig/Pla	atform	Name/Nu	im: 55								
Job Purpose: Cement Multiple	Stages					Ticket An	nount:	*****				
Well Type: Development Well		pe: Cei	ment Mu	ltiple Sta	ges							
Sales Person: MEREDITH, JEF	RY Srvc S MERSI		or: WIL	TSHIRE,	,	MBU ID E	Emp #:	195811				
			Rate	11 1		Pressu	Jre					
Activity Description	Date/Time	Cht	bbl/ min		ume bl	psig	1	Comments				
		#		Stage	Total	Tubing	Casing					
Call Out	09/04/2010 07:00											
Arrive At Loc	09/04/2010											
Pre-Job Safety Meeting	09/04/2010											
Start Job	09/04/2010											
Test Lines	09/04/2010 14:56						5000. 0					
Pump Spacer 1	09/04/2010 14:58		6	20			520.0	WATER				
Pump Spacer 2	09/04/2010 15:03		6	20			520.0	SUPERFLUSH				
Pump Spacer 1	09/04/2010 15:08		6	20	· · · ·		520.0	WATER				
Pump Cement	09/04/2010 15:11		6	96		:	520.0	355 SKS 50/50 POZ @ 14.2#				
Drop Top Plug	09/04/2010 15:28		6		96		130.0	END CEMENT				
Clean Lines	09/04/2010 15:29											
Pump Displacement	09/04/2010 15:37		5	141			60.0	50 BBLS WATER /// 91 BBLS MUD				
Other	09/04/2010 16:00		2.5	121			750.0	SLOW RATE				
Other	09/04/2010 16:04					9	950.0	PRESSURE BEFORE LANDING PLUG				
Bump Plug	09/04/2010 16:04		2.5		141		1800. 0	FLOAT HELD				
Drop Opening Device For Multiple Stage Cementer	09/04/2010 16:06											
Open Multiple Stage Cementer	09/04/2010 16:33						850.0					

Sold To #: 300496

Quote # :

SUMMIT Version: 7.20.130

" 1

Cementing Job Log

Activity Description	Date/Time	Cht	Rate bbl/ min		ume bl		sure sig	Comments	
		#		Stage	Total	Tubing	Casing		
End Job	09/04/2010 16:44							END FIRST STAGE /// CIRCULATE 4 HOURS	
Start Job	09/04/2010 20:32							STAGE 2	
Pump Spacer 1	09/04/2010 20:33		6.5	20			200.0	WATER	
Pump Spacer 2	09/04/2010 20:37		6.5	20			200.0	SUPERFLUSH	
Pump Spacer 1	09/04/2010 20:41		6.5	20			200.0	WATER	
Pump Lead Cement	09/04/2010 20:44		6.5	137			230.0	250 SKS EXTENDACEM @ 11.2#	
Pump Tail Cement	09/04/2010 21:04		5.5	19			180.0	100 SKS CLASS H @ 16.4#	
Drop Top Plug	09/04/2010 21:08		5.5		156		170.0	END CEMENT	
Clean Lines	09/04/2010 21:09								
Pump Displacement	09/04/2010 21:13		8	95			120.0	WATER	
Other	09/04/2010 21:27		2.5	75			480.0	SLOW RATE	
Other	09/04/2010 21:33							PRESSURE BEFORE LANDING PLUG	
Bump Plug	09/04/2010 21:33		2.5		95		2650. 0	FLOAT HELD	
Close Multiple Stage Cementer	09/04/2010 21:33			-			2650. 0		
End Job	09/04/2010 21:35								