

Confidentiality Requested:

Yes No

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

1083004

Form ACO-1 August 2013 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 🗌 East 🗌 West
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:
		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: Origin	al Total Depth:	
Deepening Re-perf. Conv.	to ENHR Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Conv.	to GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
Commingled Permit #:		Chloride content: ppm Fluid volume: bbls
_		Dewatering method used:
<u> </u>		Location of fluid disposal if hauled offsite:
ENHR Permit #:		
GSW Permit #:		Operator Name:
		Lease Name: License #:
Spud Date or Date Reached TD	Completion Date or	QuarterSecTwpS. 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
Geologist Report Received
UIC Distribution
ALT I II Approved by: Date:

Page Two



Operator Name:			Lease Name: _			Well #:		
Sec Twp	S. R	East West	County:					
open and closed, flow and flow rates if gas t	ving and shut-in presson surface test, along w	formations penetrated. I ures, whether shut-in pro vith final chart(s). Attach	essure reached stati n extra sheet if more	c level, hydrosta space is neede	itic pressures, bott d.	tom hole tempe	erature, fluid r	recovery,
		otain Geophysical Data a or newer AND an image		egs must be ema	ailed to kcc-well-lo	gs@kcc.ks.gov	n. Digital elec	tronic log
Drill Stem Tests Taken (Attach Additional	•	Yes No		_	on (Top), Depth ar		Samp	
Samples Sent to Geo	ological Survey	☐ Yes ☐ No	Nam	e		Тор	Datur	m
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No						
List All E. Logs Run:								
		CASING	RECORD Ne	ew Used				
		Report all strings set-	conductor, surface, inte	ermediate, product	ion, 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 P Additiv	
		ADDITIONAL	OFMENTING / OOL					
Purpose:	Depth		CEMENTING / SQL	JEEZE RECORD		araant Additiraa		
Perforate	Top Bottom	Type of Cement	# Sacks Used		Type and F	ercent Additives		
Protect Casing Plug Back TD								
Plug Off Zone								
Did vou perform a hydra	ulic fracturing treatment o	on this well?		Yes	No (If No, ski	p questions 2 ar	nd 3)	
	=	raulic fracturing treatment ex	xceed 350,000 gallons		= ' '	p question 3)	,	
Was the hydraulic fractu	ring treatment information	n submitted to the chemical	disclosure registry?	Yes	No (If No, fill	out Page Three	of the ACO-1)	
Shots Per Foot		ON RECORD - Bridge Plug Footage of Each Interval Per			cture, Shot, Cement			Depth
	Сроспу Г	octago of Laon morvari of	ioratou	(>1	mount and rand or ma	teriar Good)		Борит
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No			
Date of First, Resumed	Production, SWD or EN							
Fotimeted Day 1 2	0" -	Flowing			Other (Explain)	) O" D "		
Estimated Production Per 24 Hours	Oil E	Bbls. Gas	Mcf Wate	er B	bls. G	Gas-Oil Ratio	Gr 	ravity
DISPOSITI	ON OF GAS:	1	METHOD OF COMPLE	ETION:		PRODUCTIO	ON INTERVAL:	
Vented Sold		Open Hole	Perf. Dually	Comp. Con	mmingled			
	bmit ACO-18.)	Other (Specify)	(Submit )	ACO-5) (Sub	omit ACO-4)			

#### **CEMENT JOB REPORT**



CUSTOMER	SHELL	WESTERN	E&PI	NC	DAT	TE 10-AP	R-12 F.	R.#	100190	0648		SERV. SI	JPV.	KENNE	TH W ST	ΔPN	EG
LEASE & WE					LOC	ATION			1900000			COUNTY	DADIS			AIN	
	MASNE	R 3307 #30	-1 - API	15077217	7550 :	30-33S-7W							Kansa		N.		
DISTRICT McAlester					DRII	LING CO	NTRACTOR	RIG#				TYPE OF	-				
	R TYPE	OF PLUGS		L	IST-CSG-	HARDWAR	RE	MEC	HANIC	AL BARRI	EDC .	Surfac		IANOED	T/DE0		
9-5/8" Top C	em Plu	g, Nitrile c	vr, Phe					T	TIVITO)	TE DANNI	LKO N	ID TV	D H	IANGER '	IYPES	MI	O TVD
						T		-		P	HYSICAL	SLURRY	PROP	EDTIES			
								SAC	cks	SLURRY	SLURR		INOI	PUMP		T	Bbl
MATERIAL	S FURNI	SHED BY E	IJ			LAB RE	EPORT NO.	CEM	S	WGT PPG	YLD FT3	WA'	TER	TIME	Bb		MIX
Fresh water								CLIVII	-141	8.34	Г13	Gr	3	HR:MIN	SLURF		WATER
C+.01%Stat	icfree+2	2%CaCl2+	.25pps	Celloflak	e				500	14.8	1.:	35	6.34	02:45	- 4	20	75.0
Fresh water									000	8.34	1	33	0.34	02.45	-	20	75.3
Available Mix	Water	į	500	В	bl. Ava	ilable Disp	l. Fluid	5	00	Bbl.						58	
. 4.	HOLE				4.14		TBG-CSG-		V				TOTA			98	75.3
SIZE	% EXC		EPTH	ID	OD	WGT.	TYP		MD	TVD	GRADE	SH	OE	COLLAR	OAT		STAGE
12.25	150		802	8.921	9.625	36	CSG		80		2 H-40		802		756	-	HAGE
	AST CAS	3/323/5			PKR-CM	RET-BR F	PL-LINER		PE	RF. DEPT	н	TOP C	ONN	V	VELL FLI	JID	
1D OD W	/GT 84	TYPE	MD 60		E	BRAND & T	YPE	DEPT	H TO	OP E	BTM	100 E 200 E 20	HREA				WGT.
DISPL. VOL		1	1									9.625	8R	D WAT	ER BAS	ED	8.8
VOLUME	UOM			L. FLUID		CAL. PSI	CAL. MA		OP. MAX		X TBG PS	-	MA	X CSG P	SI		MIX
58	100000		TYPE		-	UMP PLUG	-	V.	SQ. PSI	RATE	D Ope	rator	RATE	D Op	erator		NATER
36	BBLS	Fresh wa	ter		8.34	289		0		0	0	0	20	48	1500	Rig	N.
				100	-	Circ	culation	Prior	o Joh	and the state of	-		-	1			
Circulated V	Vell:	Rig X	1	BJ					ation Ti		1		Circula	ation Ra	o: DD	N #	
Mud Densit	y In: L	BS/GAL	Mu	d Densit	v Out:	LBS/GAL			YP Muc						<b>-</b> .	IVI	
Gas Presen	t: NO	X YE			Units:	200,0112		10, 100, 100, 100		nt at End	of Circula		NO NO	YP Mud			1
F 1- K W.	75 THE	28 70		1 1 D	o i iii.	Dienle	oomont.				OI CIICUIA	auon.	NO	X	YES		
Displaced	Bv:	Rig		BJ X		Dispia	cement			THE RESERVE			l de				
Returns Du	-		NONE	-	PARTIA	L X F	ULL	- Table 1971		Back Afte		.5 BB	LS				
Cement Ref	13.500		X	YES	f	0	ULL			to Verify Planned				- [17	1		
Pipe Moven		ROTA	- Indiana		CIPROCA		NONE	The same of the sa					N	0 X	YES		
Centralizers	: [	X NO	11011	YE		TION		ntity:	ADLE	DUE TO	STUCKE			1			
Job Pumpe			СНОК	E MANII		SOLIFE	ZE MANIF	-	C MAN	IIEOI D	NO	Type:		BOW	RI	GID	
			- 14 ve		020	OGOLLI			NIPAI	III-OLD	NO	MANIFO	LD				
Number of At	tempts	by B.I.		Com	petition:		Plu		Della III	d. [	V						
Plug Catcher	-		NO	YE					Balls Us		X NO			Quantity	:		
Was There a			NO	YE			-	Top of	w Used	FT	X NO		ES of DI	ug: FT			
	., ., .,					ate Origi	inal Trea				imon. I		10171	ug. Fi			
BLOCK SQU	FF7F	SH	-	UEEZE					Перо				- 12.5		BATTE		1907
Liner Packer:		X NO	F	ES	'		INER SQL nd Log:	X NO	Y	PLANNI ES P	SI Applie	UNPL/		D id Weigh	t IRS	/GAI	
			C	asing T	est (Up	date Ori	ginal Tre		- House				· iui	a rreigi	L. LDO	- OAI	
Casing Test P	ressure	: F	PSI	With	LBS	S/GAL	Mud	Time H	eld:	Hours M	inutes	•		1		150	
			S	hoe Te			inal Trea					Job)					
Depth Drilled	out of S	hoe: F								LBS/GA	Mary Control		LEMM	V: LBS/	GAL	100	Maria America
Number of Tir			ted:					-		hen Test					GAL		
EXPLANATION:				., RUNNIN	IG CSG, I	ETC. PRIOF		-			1743 0011		LBS	S/GAL	5 <del>5</del>		

#### **CEMENT JOB REPORT**



Problems Before Job (I.E. Running Casing, Circulating Well, ETC)

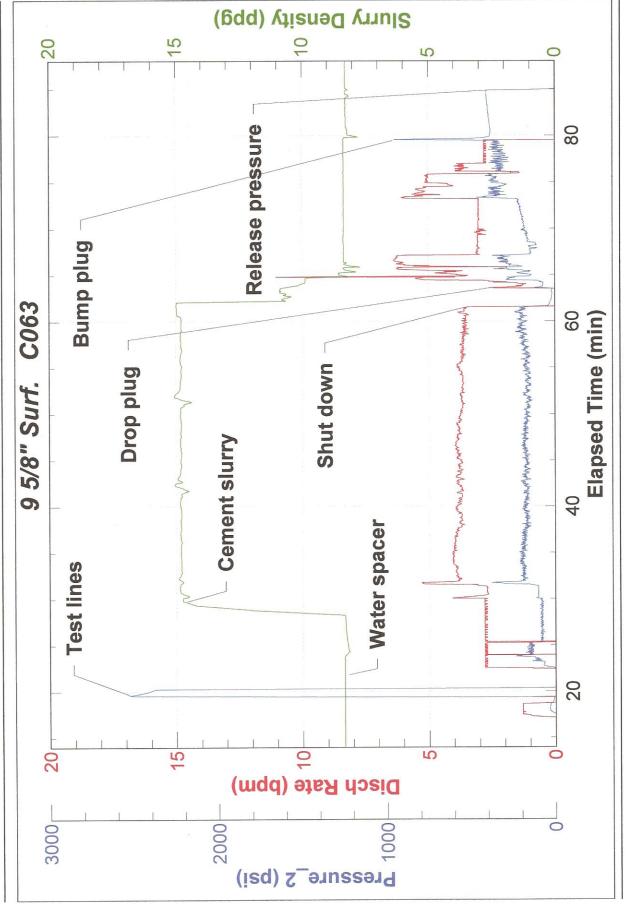
Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)

Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)

		PRESSURE	/RATE DETAI			EXPLANATION
TIME	PRESSU	RE - PSI	RATE	Bbl. FLUID	FLUID	SAFETY MEETING: BJ CREW X CO. REP. X
HR:MIN.	PIPE	ANNULUS	BPM	PUMPED	TYPE	TEST LINES 2500 PSI
						CIRCULATING WELL - RIG X BJ
18:09						On location
04:09	2500				WATER	Test lines
04:12	183		5	20	WATER	Pump water spacer ahead
04:19	213		4	120	CEMENT	Pump cement @ 14.8#
04:51						Shut down
04:53	143		4	0	WATER	Drop plug / Start displacement
05:00	183		3	25	WATER	Displacement
05:06	303		3	50	WATER	Displacement
05:09	976		3	58	WATER	Bump plug
05:14				.5	WATER	Check floats
BUMPED PLUG Y N	PSI TO BUMP PLUG 363	TEST FLOAT EQUIP. Y N	BBL.CMT RETURNS/ REVERSED 76	TOTAL BBL. PUMPED 198	PSI LEFT ON CSG	SPOT TOP OUT CEMENT Y N 4-//-/2



BJ Services JobMaster Program Version 3.50
Job Number: 1001900648
Customer: Shell
Well Name: Starks&Masner3307.30-1



#### **CEMENT JOB REPORT**



The second secon	HELL WEST	TERN E & P IN	С	DA	TE 29-APR	F.R.	# 100190	J5243		ERV. SUPV			AN M SCHU	
ASE & WELL N STARKS & MA		7 #30_1 _ API 1	5077217		CATION 30-33S-7W				C	OUNTY-PAI Harper Kai		LOCK		
TRICT	ASNER 330	7 #30-1 - ALT	5077211	DR	RILLING CON	TRACTOR F	RIG#		T	YPE OF JOI Intermedia				
McAlester	YPE OF PL	ugs	LI	ST-CSC	-HARDWAR	E	MECHANIC	CAL BARRIE	RS MI	TVD	HANG	ER T	YPES M	D TVD
Top Cem Plu	ig, Nitrile	CVI, PHEH						Р	HYSICAL S	LURRY PR	PERT	IES		
MATERIALS F	FURNISHE	D BY BJ			LAB RE	PORT NO.	SACKS OF CEMENT	SLURRY WGT PPG	SLURR YLD FT	WATER GPS	TI	JMP ME :MIN	Bbl SLURRY	Bbl MIX WATER
EALBOND S	PACER							8.41					40	
15:85:8 +4pp		+ 5% SMS	+ 10% N	NaCl +	.25		790	12.4	2.4	15 13.	52 05	5:00	344.39	
50:50:2 +5%							200	14.2	1.3	32 5.	66 03	3:45	46.91	26.8
		oppo colioni	, , , , , , , , , , , , , , , , , , ,					8.34					207.31	
RESH WATE		500		Bbl.	Available D	ispl. Fluid	500	0 В	bl.	T	OTAL		638.61	280.9
vailable Mix W		500			7	TBG-CSG-E	).P.				co		DEPTHS	
	HOLE % EXCESS	DEPTH	ID	10	WGT.	TYPE		D TVD	GRADE	SHO		FL	OAT	STAGE
8.75	6 EXCLOS	5372	6.366	3	7 23	CSG	53	5359						
	ST CASING			PI	(R-CMT RET	BR PL-LINE	R PI	ERF. DEPTH		OP CONN			WELL FLUI	WGT.
ID OD WG			TVD	ВІ	RAND & TYPE	D	EPTH TO		VI SIZI	7 8RD		/PE	BASED N	
8.9 9.625	36	80	00 800	0			40							MIX
	IME	DIS	PL. FLUI	D	CAL. PSI	CAL. MA	X PSI OP. I		IAX TBG P		MAX	1		WATER
DISPL. VOLU			BUS THE		DUMED DI	IG TO RE	V. SQ.	PSI RAT	TED Op	erator R	ATED	U	perator	
VOLUME	UOM	TYPE		WGT.	BUMP PLU	JG TO IKE			Market Residen					NO TANK
207.3	BBLS F	RESH WATE	R	8.3	4 125	0			LOCATIN (	9 700, RUNI	IING CA	ASING	0000	RIG TANK
VOLUME	BBLS F	RESH WATE	OL, RUN	8.3	4 125	0	MENTING: A	ARRIVE ON		EXPLAN	ATION	ASING	0000	RIG TANK
207.3 XPLANATION:	BBLS FF	RESH WATE	OL, RUN	8.3	4 125	IOR TO CEN	SAFETY	ARRIVE ON	BJ CREW	EXPLAN X CO. RE	ATION	ASING	0000	RIG TANK
207.3	BBLS FF	E SETTING TO	OL, RUN	8.3	4 125	IOR TO CEN	SAFETY TEST LIN	MEETING:	BJ CREW 4000 PS	EXPLAN  X CO. RE	ATION P. X	ASING	0000	RIG TANK
207.3 XPLANATION:	UOM BBLS FF	RESH WATE	OL, RUN	8.3	4 125	IOR TO CEN	SAFETY TEST LIN CIRCULA	MEETING:	BJ CREW 4000 PS	X CO. RE	ATION P. X	ASING	0000	RIG TANK
207.3 XPLANATION:	UOM BBLS FF	RESH WATE	OL, RUN	8.3	ESG, ETC. PR	FLUID TYPE	SAFETY TEST LIN CIRCULA Arrive on	MEETING: IES ITING WELL location @	BJ CREW 4000 PS - RIG ) am 4/29	EXPLAN  X CO. RE  I  X BJ	ATION P. X	ASING	0000	RIG TANK
XPLANATION: TIME HR:MIN. 07:00 11:30	UOM BBLS FF	PRESSURE URE - PSI ANNULUS	OL, RUN	8.3	ESG, ETC. PR	FLUID TYPE  SPACER	SAFETY TEST LIN CIRCULA Arrive on rig pumpi	MEETING: JES ATING WELL Location @ ed sealbon	BJ CREW 4000 PS - RIG ) am 4/29	EXPLAN  X CO. RE  I  X BJ	ATION P. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45	UOM BBLS FF	PRESSURE URE - PSI ANNULUS	OL, RUN	8.3 INING CO	Bbl. FLUID PUMPED	FLUID TYPE  SPACER WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumpi test pumpi	MEETING: IES ITING WELL location @ ed sealbon ps & lines	BJ CREW 4000 PS RIG ) am 4/29 d spacer	EXPLAN  X CO. RE  I  X BJ  2012  N/BRP	ATION P. X	ASING	0000	RIG TANK
TIME HR:MIN. 07:00 11:30 11:45 23:47	UOM BBLS FF	PRESSURE URE - PSI ANNULUS	OL, RUN	8.3 INING COETAIL FE M	Bbl. FLUID PUMPED	FLUID TYPE SPACER WATER WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumper test pumper open wel	MEETING: IES ITING WELL location @ ed sealbon ps & lines II/ pump wa	BJ CREW 4000 PS - RIG ) am 4/29 d spacer	EXPLAN  X CO. RE  I  X BJ  2012  N/BRP	ATION P. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49	PRESS PIPE	PRESSURE URE - PSI ANNULUS	OL, RUN	8.3 INING CONTRACTOR MINING CO	Bbl. FLUID PUMPED 40	FLUID TYPE SPACER WATER WATER LEAD	SAFETY ITEST LIN CIRCULA Arrive on rig pumpi test pumi open wel start lead	MEETING: IES ITING WELL location @ ed sealbon ps & lines	BJ CREW 4000 PS - RIG am 4/29 d spacer atter space	EXPLAN  X CO. RI  I  X BJ  /2012  w/BRP	ATION P. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39	PRESS PIPE 4000 578 462 230	PRESSURE URE - PSI ANNULUS  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OL, RUN	8.3 INING COETAIL E M 2 4 5	Bbl. FLUID PUMPED 40 5	FLUID TYPE SPACER WATER WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumpo test pum open wel start leace bbls pum end lead	MEETING: IES ITING WELL location @ ed sealbon ps & lines II/ pump wa d slurry @ nped when slurry/star	BJ CREW 4000 PS - RIG ) am 4/29 d spacer ater space 12.4ppg lead at sh	EXPLAN  X CO. RE  I  X BJ  /2012  w/BRP	ATION EP. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06	PRESS PIPE  4000 578 423 24	PRESSURE URE - PSI ANNULUS  3 3 4 1	OL, RUN	8.3 INING CONTRACTOR MINING CO	Bbl. FLUID PUMPED 40 5	FLUID TYPE  SPACER WATER WATER LEAD LEAD	SAFETY TEST LIN CIRCULA Arrive on rig pumpo test pum open wel start leace bbls pum end lead end tail s	MEETING: IES ITING WELL location @ ed sealbon ps & lines II/ pump wa d slurry @ nped when slurry/star	BJ CREW 4000 PS - RIG am 4/29 d spacer atter space 12.4ppg lead at sh t tail slurn down	EXPLAN  X CO. RE  I  X BJ  /2012  w/BRP  oe  //@14.2ppg	ATION EP. X	ASINO	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06 01:19	PRESS PIPE  4000 578 462 230 24	PRESSURE URE - PSI ANNULUS  3 3 1 1	OL, RUN	8.3 INING CONTRACTOR OF THE MINING CONTRACTOR	Bbl. FLUID PUMPED 40 5	FLUID TYPE  SPACER WATER WATER LEAD LEAD LEAD	SAFETY TEST LIN CIRCULA Arrive on rig pumpi test pumi open wel start lead bbls pum end lead end tail s drop TRI	MEETING: IES ITING WELL location @ ed sealbon ps & lines Il/ pump wa d slurry @ inped when slurry/star slurry/ shut P/start disp	BJ CREW 4000 PS - RIG am 4/29 d spacer atter space 12.4ppg lead at sh t tail slurn down	EXPLAN  X CO. RE  I  X BJ  /2012  w/BRP  oe  //@14.2ppg	ATION EP. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06 01:19 01:22	PRESS PIPE 4000 578 463 234 10 6	PRESSURE URE - PSI ANNULUS  3 3 1 1 1	OL, RUN	8.3 INING COETAIL  E M  2 4 5 3	Bbl. FLUID PUMPED 40 5	FLUID TYPE  SPACER WATER WATER LEAD LEAD LEAD TAIL WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumpi test pumi open wel start lead bbls pum end lead end tail s drop TRI slow rate	MEETING: IES ATING WELL location @ ed sealbon ps & lines ll/ pump wa d slurry @ inped when slurry/star slurry/ shut P/start disp e to bump	BJ CREW 4000 PS - RIG am 4/29 d spacer ater space 12.4ppg lead at sh t tail slurn down blacement	EXPLAN  X CO. RE  I  X BJ  /2012  w/BRP  oe  //@14.2ppg	ATION EP. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06 01:19 01:22 01:53	PRESS PIPE  4000 578 462 230 24	PRESSURE URE - PSI ANNULUS  3 3 1 1 1 1 2	OL, RUN	8.3 INING C DETAIL E M  2 4 5 5 3 3 3	25 ESG, ETC. PR Bbl. FLUID PUMPED 40 5 211 340 50	FLUID TYPE  SPACER WATER WATER LEAD LEAD LEAD TAIL WATER WATER WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumpi test pumi open wel start lead bbls pum end lead end tail s drop TRI slow rate shutdow	MEETING: IES ATING WELL location @ ed sealbon ps & lines ll/ pump wa d slurry @ inped when slurry/star slurry/ shut P/start disp e to bump	BJ CREW 4000 PS - RIG am 4/29 d spacer ater space 12.4ppg lead at sh t tail slurn down blacement	EXPLAN  X CO. RE  X BJ  72012  M/BRP  r  oe  7@14.2ppg	ATION EP. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06 01:19 01:22	PRESS PIPE 4000 578 462 230 244 100 6 97 78	PRESSURE URE - PSI ANNULUS  3 3 1 1 1 1 2	OL, RUN	8.3 INING C DETAIL  E M  2 4 5 5 3 3 5	25 ESG, ETC. PR Bbl. FLUID PUMPED 40 5 211 340 50	FLUID TYPE  SPACER WATER WATER LEAD LEAD LEAD TAIL WATER WATER WATER	SAFETY TEST LIN CIRCULA Arrive on rig pumpi test pumi open well start lead bbls pum end lead end tail s drop TRI slow rate shutdow check flow check flow check flow rate shutdow rate shutdow rate shutdow check flow rate shutdow	MEETING: IES ATING WELL location @ ed sealbon ps & lines ll/ pump wa d slurry @ inped when slurry/star slurry/ shut P/start disp e to bump m/no bump poat/ holding	BJ CREW 4000 PS - RIG am 4/29 d spacer ater space 12.4ppg lead at sh t tail slurry down blacement	EXPLAN  X CO. RE  X BJ  72012  W/BRP  r  oe  7@14.2ppg	ATION EP. X	ASING	0000	RIG TANK
TIME HR:MIN.  07:00 11:30 11:45 23:47 23:49 00:39 01:06 01:19 01:22 01:53 01:58	PRESS PIPE 4000 578 462 230 244 100 6 97 78	PRESSURE URE - PSI ANNULUS  3 3 2 6 1 1 1 2 9	OL, RUN	8.3 INING C DETAIL  E M  2 4 5 5 3 3 5	Bbi. FLUID PUMPED 40 5 211 340 50 200 209	FLUID TYPE  SPACER WATER WATER LEAD LEAD LEAD TAIL WATER WATER WATER	SAFETY ITEST LIN CIRCULA Arrive on rig pumpi test pum open well start lead bbls pum end lead end tail s drop TRI slow rate shutdow check fid Thank Y	MEETING: IES ITING WELL location @ ed sealbon ps & lines ll/ pump wa d slurry @ inped when slurry/star slurry/start disp e to bump in/no bump pat/ holding ou for usin	BJ CREW 4000 PS - RIG am 4/29 d spacer ater space 12.4ppg lead at sh t tail slurry down blacement	EXPLAN  X CO. RE  X BJ  72012  W/BRP  r  oe  7@14.2ppg	ATION EP. X	ASING	0000	RIG TANK
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# Triple Combo 1 in. & 5 in. MEASURED DEPTH 6 3/4 in. WeatherfordLWD™ **RECORDED DATA**

**FINAL PRINT** 

## COMPANY FIELD WELL Shell Starks and Masner 3307 30-1 Wildcat

						t	
5372 ft	4402 ft	9.00 ppg	WBM	5.20°	0.30°		8.750 in.
То	From	Weight	Type	Max. Inc.	Min. Inc.	7	Hole Size
	ord	Mud Record		rd	Borehole Deviation Record	ehole [	Bor
798 ft	Surface	36.00 lb/ft	9.625 in.	5372 ft	798 ft		8.750 in.
То	From	Weight	Size	То	From		Hole Size
	ecord	Casing Record			Borehole Record	Borel	
2		7-Apr-12	Spud Date:	28-Apr-12	28-Apr-12 to 2		Date Logged:
and of		_	Runs:	to 5372 ft	4348 ft to 5	d: 43	Depth Logged:
1410 49 ft	leva	<u>5372 ft</u>	Total Depth:	Ψ	<u>Drillers Tally</u>	ence:	Depth Reference:
1384 00 ft		e perm. datum	1410.49 ft above perm. datum	Elev: <u>1</u>	n: <u>Drill Floor</u>	d Fron	Log Measured From:
Top Drive	χ 			Level	Mean Sea Leve	)atum:	Permanent Datum:
			ne	ervices: None	Other Services:		Co We Fie Rig
: 58.66°	Mag Dip:	176,519.808 ft	y =	de: 98.11929° W	cation Longitude:	unty	ld:
ป: 0.79°	Mag Decl: 0.79°	2,110,965.133 ft	×	: 37.15083° N	E Latitude:	:	ny:
		00-00	15-077-21755-00-00	١.	API#	Harpe	Shell Starks Wildo
S	Kansas	STATE	er		COUNTY		at
			Nabors F01	i	RIG		
			at	D Wildcat	FIELD		ner 3
	' 30-1	Starks and Masner 3307 30-1	s and Ma		WELL		307
				Y Shell	COMPANY		30-1

All interpretations of log data are opinions based on inferences from electrical or other measurements. Weatherford

liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any

International does not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be

interpretation or recommendation made by any of our employees or agents.

RUN SUMMARY											
LWD Run Number		1	2	3	4	5	6	7			
Bit Size	in.	8.750									
Bit Type		Rock									
Bit TFA	sq.in.	0.920									
Bit Start Depth	ft	4402									
Bit End Depth	ft	5372									
Top Log Interval	ft	4348									
Bottom Log Interval	ft	5372									
Begin Log Time	hrs	5:42									
Begin Log Date	DD-MMM-YY	28-Apr-12									
End Log Time	hrs	13:24									
End Log Date	DD-MMM-YY	28-Apr-12									
Drill or Wipe		Wipe									
Flow Rate	gal/min	212									
Max AV / CV @ MWD	ft/min	375 / 395									
Min Inc @ Depth	deg @ ft	5.20 @ 871									
Max Inc @ Depth	deg @ ft	0.30 @ 171									
MUD DATA											
Depth	ft	5372									
Fluid Type		WBM									
Mud Weight	ppg	9.00									
Plastic Viscosity	cР	21									
Solids / Sand	%	3.30 / 0.05									
NaCl Equiv. Chlorides	ppm	29700									
рН		8.5									
Oil:Water Ratio	% Vol	0.0 : 100.0									
Rm @ Temperature	ohm-m @ deg F	0.15 @ 109									
Rmc @ Temperature	ohm-m @ deg F	na	_								
Rmf @ Temperature	ohm-m @ deg F	na									
KCI	% Vol	0									
Client Representative		C. Strickland									
WeatherfordLWD Engineer		A. Gaskamp									

### EQUIPMENT SUMMARY

LWD Run Number		1	2	3	4	5
HEL Serial Number		NW20569PDBI6.75				
MFR Serial Number		NW20571RBBK6.75				
TNP-AZD Serial Number		NW20570NZBB6.75				
Density Source Serial Number		26198B				
Neutron Source Serial Number		6909B				
Sensor to Bit Offsets / Acquisition	n Rates					
Directional	ft / sec	71.61 / RT				
Gamma Ray	ft / sec	13.80 / 5				
Resistivity	ft / sec	23.37 / 5				
Density	ft / sec	46.34 / 5				
Neutron Porosity	ft / sec	54.31 / 5				
Other Information						
Total BHA Length	ft	957.21				
BHA Assembly Type		Conventional				
Run Circulating Time	hr	9.76				
Run Drilling Time	hr	0.00				

					MUD SUMMARY			
Date and Time	Run	Bit Depth	Mud Weight	% K	Rm @ Temp	Rmf @ Temp	Rmc @ Temp	внст

na

109 F

na

28 Apr 12 @ 00:30 01 WBM

#### LWD RUN REMARKS

WFT Services Provided:

Hole Size:

KCI Concentration:

Recorded and Real Time Logging: Gamma Ray, Deep, Medium and Shallow Resistivity, Bulk Density, Neutron Porosity and Temperature. Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

0%

8.750 in. Gamma Ray: Corrected for mud weight, hole size and KCl concentration.

Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity

109° F and dielectric correction.

Borehole Temperature:

Standard Temperature: 75° F Bulk Density: No corrections.

Mud Salinity NaCl Equiv: 29700 ppm Neutron Porosity: Corrected for mud type, mud salinity, mud weight, hole size,

WBM standard temperature and processed using a LIMESTONE matrix.

Matrix Processing: Limestone (2.71 g/cc)

Drilling Fluid Resistivity: 0.15 @ 109° F

Mud Type:

Mud Weight: 9.00 ppg

Run Number: 1:: RECORDED DATA LOG

#### LWD LOG COMMENTS

#### Comment No. 1-1

RECORDED DATA LOG

Start of LWD Wipe Run 01

The WBM at the start of drilling was 9.00 ppg.

Weatherford International provided 6 3/4 in. Directional, Resistivity, Gamma Ray, Density Porosity, Neutron Porosity and Temperature for Run 01.

Run 01 started formation wiping April 28, 2012 at 05:42 at 4402 MD / 4399 TVD. Weatherford International logged the 8.750 in. borehole.

Comment No. 1-2

End of LWD Wipe Run 01

Run 01 ended formation wiping April 28, 2012 at 13:24 at 5372 MD / 5369 TVD. Weatherford International logged the 8.750 in. borehole.

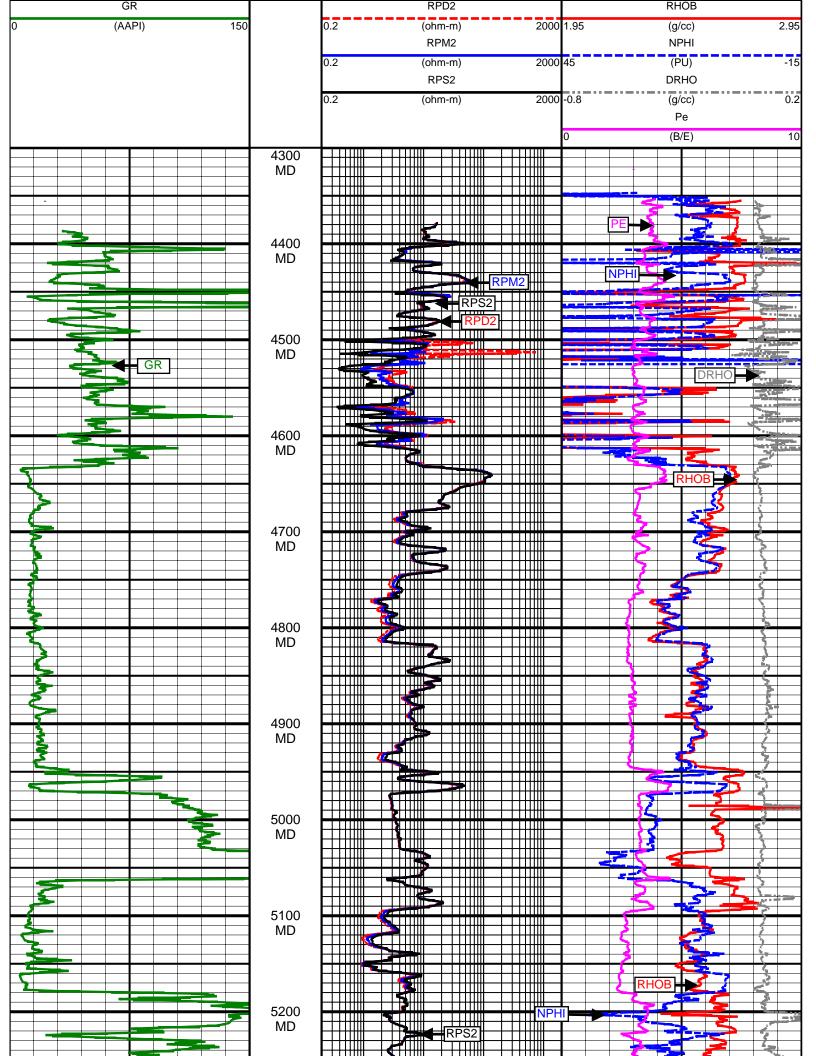
The WBM at the end of wiping was 9.00 ppg.

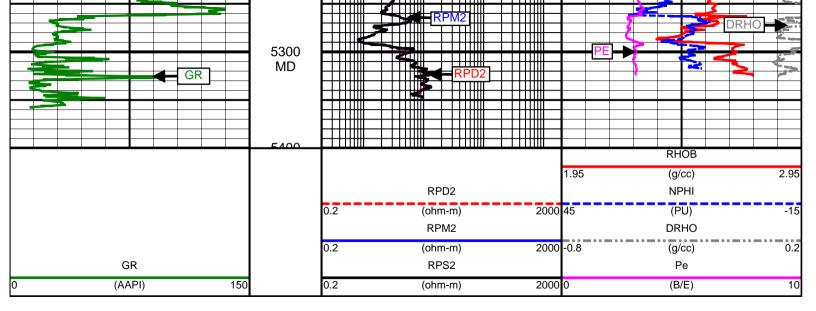
### CURVE SPECIFICATIONS

CURVE TYPE	MNEMONIC UNITS		COMMENTS	CORRECTIONS
Gamma Ray	GR	AAPI	Gamma Ray	See LWD Run Remarks
Ganiilla Kay	GR	AAFI	3.0 ft window 0.5 ft Exponential Smoothing	See LWD Rull Remarks
Deep Phase Resistivity	RPD2	ohm-m	2MHz Deep Phase Resistivity	
Deep Fliase Resistivity	KPD2	OHHI-III	3.0 ft window 0.5 ft Exponential Smoothing	
Modium Phone Posicitivity	Medium Phase Resistivity RPM2		2MHz Medium Phase Resistivity	See LWD Run Remarks
ivieulum Fhase Resistivity	Medium Phase Resistivity RPM2 ohm-m		3.0 ft window 0.5 ft Exponential Smoothing	See LWD Run Remarks
Shallow Phase Posistivity	Challan Bhasa Basistirity BBC		2MHz Shallow Phase Resistivity	
Shallow Phase Resistivity	RPS2	ohm-m	3.0 ft window 0.5 ft Exponential Smoothing	
Bulk Density	RHOB	alss	Bulk Density	
Duik Delisity	KIIOB	g/cc	3.0 ft window 0.5 ft Exponential Smoothing	None
Delta RHO	DRHO	2/00	Spine and Rib Correction	none
Della KHO	סחאט	g/cc	3.0 ft window 0.5 ft Exponential Smoothing	
Thormal Noutron Dorosity	Thermal Neutron Density NDIII DII		Neutron Porosity	See LWD Run Remarks
mermai neutron Porosity	Thermal Neutron Porosity NPHI PU		3.0 ft window 0.5 ft Exponential Smoothing	See LWD Run Remarks
Dhata dastria Effect Footer	DI		Recorded Near Pe Count Rate	None
Photoelectric Effect Factor	PE	cts	0.0 (1) - 1 0.5 (1.5	None

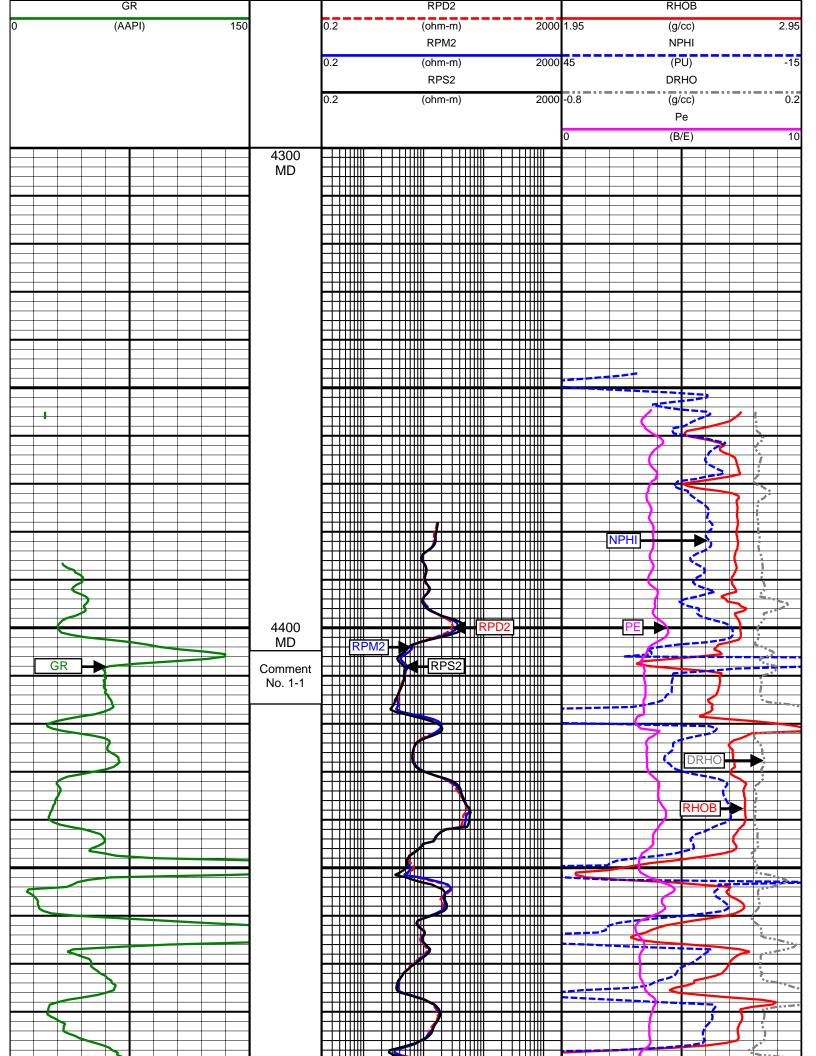
3.0 ft window 0.5 ft Exponential Smoothing

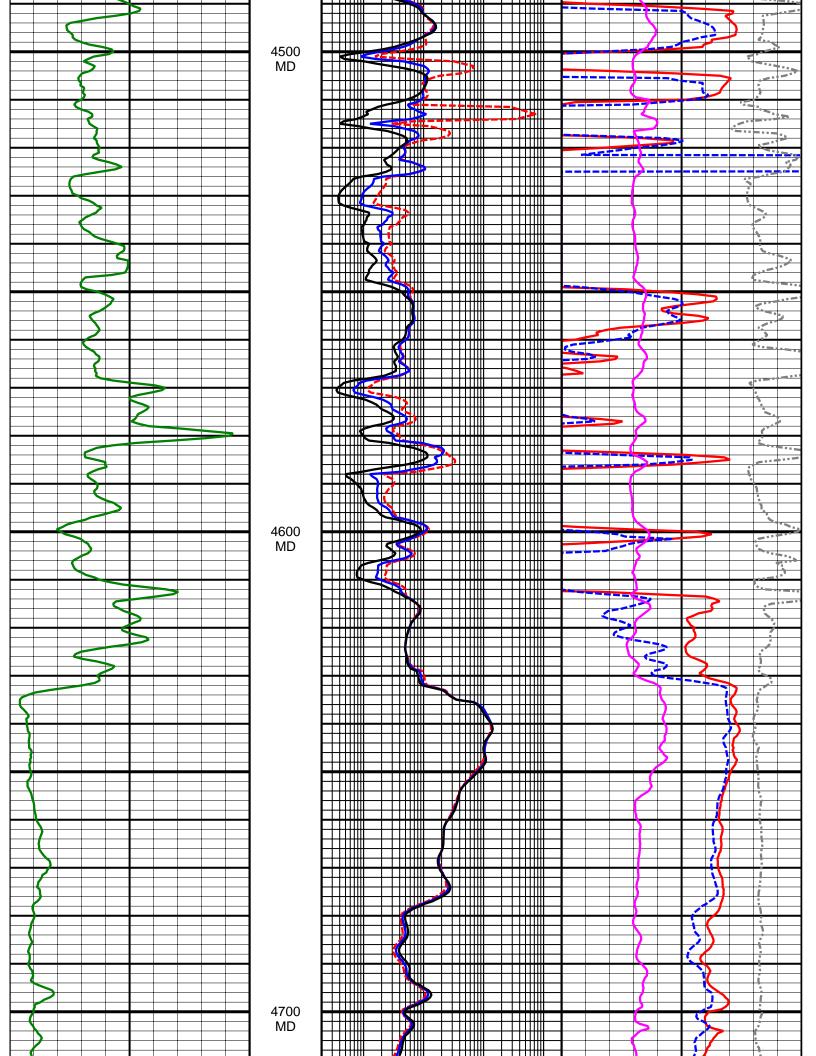
# 1 Inch - Measured Depth

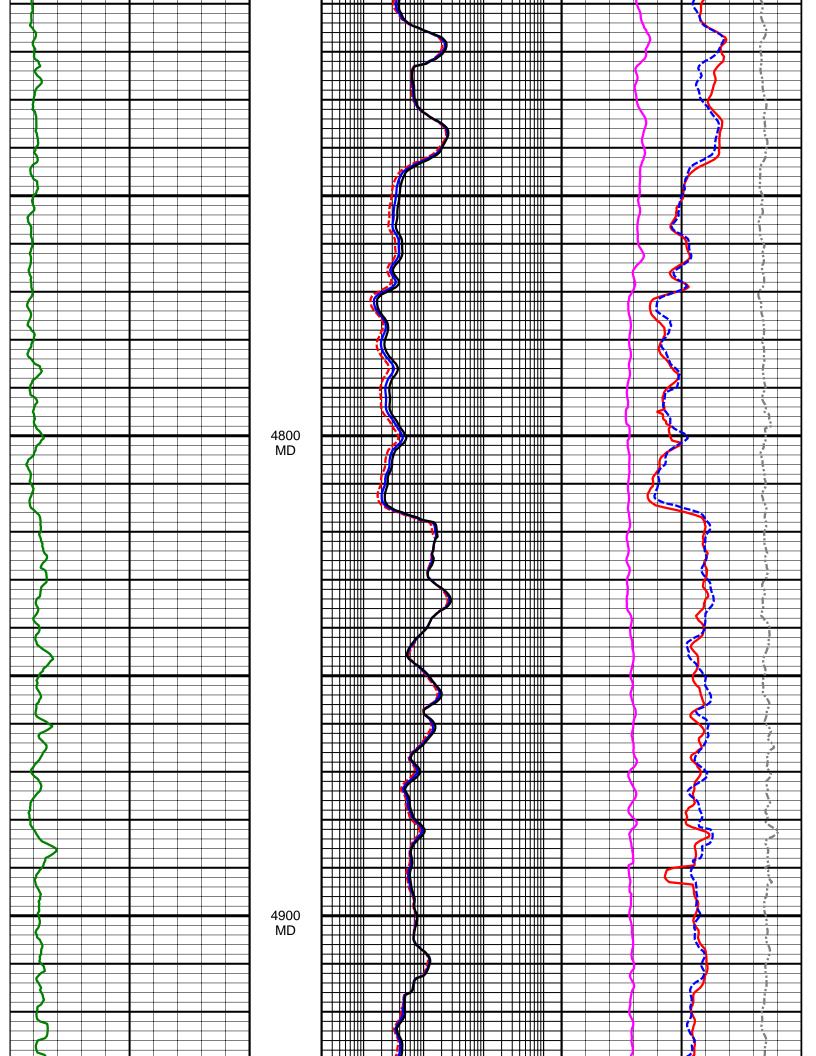


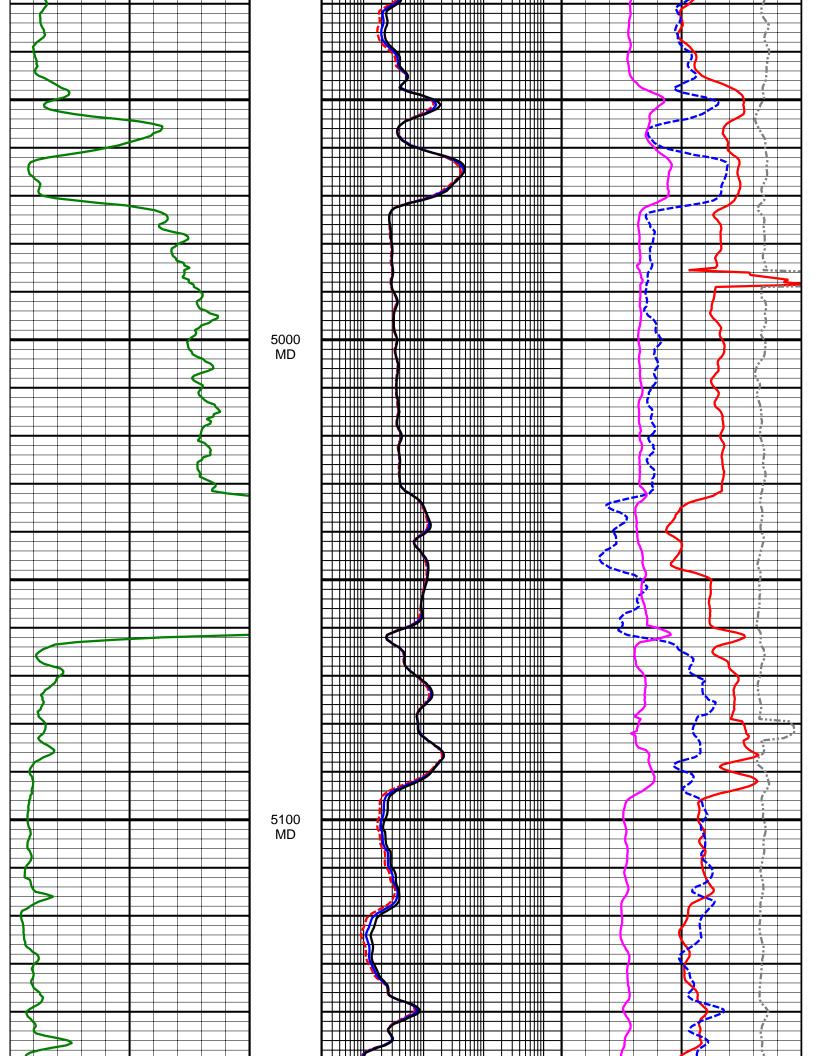


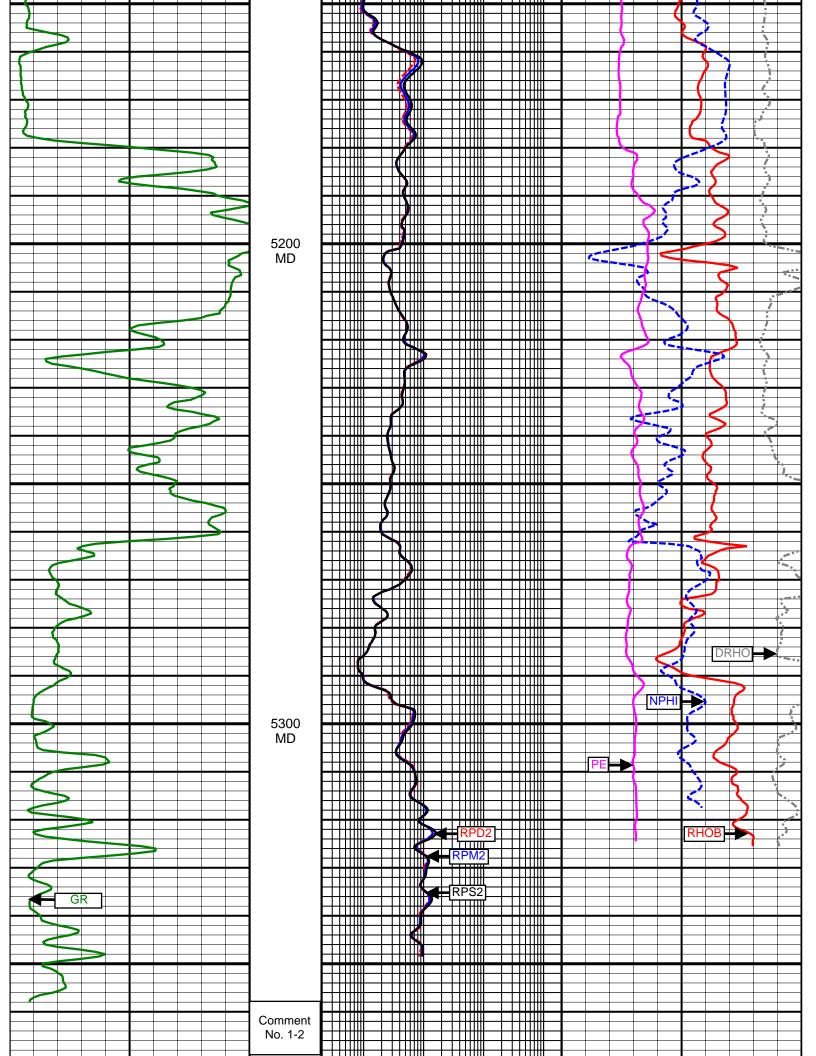
# **5 Inch - Measured Depth**

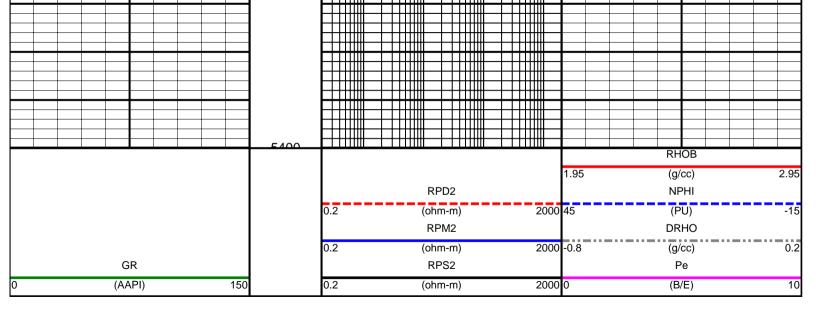












#### **AZD Density and Pe Calibration**

All count rates are corrected for deadtime, without background subtraction.

Tool Serial Number:	19496	Stabilizer blade:	8.25 in.	Aluminum Block:	AL03
Insert Serial Number:	33774	Calibration Date:	Mar 17, 2012	Magnesium Block:	MG03
Source Serial Number:	26198B	Calibration Time:	11:18:14 AM	Run Numbers:	

Near Detector	В	ackground		Al	with Source	9	AI + S	ST with sou	ırce	Mg	with Source	е	Units
Peak (214-216):	02	215.027	tener		214.545	23		214.973	5		214.710		Ch
	214		216	214		216	214		216	214		216	
Resolution (5-13.5%):		8.363	100		8.182			8.372		600	8.354		%
	5	•	13.5	5		13.5	5		13.5	5	•	13.5	
HV:		778.101	120		777.570			778.101		100	778.101		V
	600		1300	600		1300	600		1300	600		1300	
Density:		490.980			10477.670			9849.382			15513.310		CPS
Pe:		108.909			2950.247			2435.565			4373.469		CPS
Source:		234.812			254.019			253.399			259.670		CPS
	150		300										
Far Detector	В	ackground		Al	with Source	)	AI + S	ST with sou	ırce	Mg	with Source	е	Units
Peak (214-216):		215.047			215.090			214.753			214.913		Ch
31	214		216	214	16	216	214		216	214		216	e .
Resolution (5-13.5%):		9.778			8.635			9.271			9.373		%
	5		13.5	5		13.5	5		13.5	5		13.5	
HV:		922.888		5000 •	922.888	• 4.55000		922.534			922.534	• **********	V
	600	1	1300	600	1	1300	600		1300	600		1300	
Density:		176.989			1005.665			777.422			6254.492		CPS
Pe:		34.375			175.725			126.732			1139.792		CPS
Source:		149.461			150.008			149.175			154.981		CPS
	100		200										
Results	N	ear Density	•	F	ar Density			Near Pe			Far Pe		
Slope:		-0.4511	10.000	2.0	-2.2050			3.9865	-		9.6641		
	-0.56		-0.43	-2.26	1	-2.16	0.1		10				
Offset:		10.3784			12.4272			-0.7745			-1.2887		
							-3		0.1				

#### **TNP Neutron Calibration**

All count rates are corrected for deadtime.

Tool Serial Number:	19496	Collar Diameter:	7.19 in.	Calibrator Number:	RD9THIN
Insert Serial Number:	33770	Calibration Date:	Mar 17, 2012	Verifier Number:	RD9THICK
Source Serial Number:	6909B (AmBe)	Calibration Time:	09:54:12 AM	Run Numbers:	

	Calib	ration Pipe		Verific	cation Pipe		Units	
Near Count Rate:	(	660.600			862.160		CPS	
Far Count Rate:		38.990			66.300		CPS	
Ratio:		16.942			13.003			
Assigned Ratio:		16.440			12.400			
Calibration Factor:		0.970						
	0.95		1.05					
Calibrated Ratio:					12.613			
Deviation:		3.05			1.72		%	
	-5		5	-3		3		

Survey Calculati	on Method: M	inimum Curvature				
Magnetic	Target	Total	Magnetic	Magnetic	Grid	Total
Reference	Direction	Magnetic Field	Dip Angle	Declination	Convergence	Correction
<b>Grid North</b>	305.00 deg	51895 nT	65.29 deg	4.67 deg	0.23 deg	4.44 deg
Survey	Depth	INC	AZ	TVD	NS	EW
Tie-On	<b>4288.00 ft</b>	<b>0.40 deg</b>	<b>258.10 deg</b>	<b>4285.24 ft</b>	<b>65.12 ft</b>	-89.97 ft

		lead	Well H				
Dogleg	VSect	EW	NS	TVD	Azm	Inc	Depth
(deg/100ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(deg)	(ft)
0.19	111.60	-90.62	65.14	4388.24	287.75	0.35	4391.00
0.24	112.03	-91.16	65.13	4484.24	248.08	0.33	4487.00
0.10	112.35	-91.64	65.00	4579.23	263.32	0.28	4582.00
0.03	112.71	-92.12	64.94	4673.23	262.44	0.31	4676.00
0.62	113.46	-92.76	65.34	4768.23	319.22	0.70	4771.00
0.46	114.87	-93.62	66.57	4863.22	328.13	1.11	4866.00
0.25	116.59	-94.51	68.30	4958.20	337.21	1.25	4961.00
0.20	118.17	-95.17	70.11	5052.18	342.92	1.10	5055.00
0.28	119.41	-95.50	71.79	5148.16	355.57	0.96	5151.00
0.15	120.31	-95.56	73.28	5243.15	0.61	0.84	5246.00

The total correction is 4.44 deg relative to Grid North.

<sup>\*</sup>Weatherford Surveys 4391 ft MD to 5246 ft MD.\*  $^{\star}$  TD at 5372 ft MD.\*



### **Weatherford®**

Final Print

WELL Starks and Masner 3307 30-1

COMPANY

Wildcat

STATE Kansas

Shell

Nabors F01

COUNTY

Harper

Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Mark Sievers, Chairman Ward Loyd, Commissioner Thomas E. Wright, Commissioner

June 08, 2012

DAMONICA PIERSON Shell Gulf of Mexico Inc. 150 N DAIRY-ASHFORD (77079) PO BOX 576 (77001-0576) HOUSTON, TX 77001-0576

Re: ACO1

API 15-077-21755-00-00 Starks & Masner 3307 30-1 NE/4 Sec.30-33S-07W Harper 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, DAMONICA PIERSON