1076509

Confidentiality Requested:

#### KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

August 2013 Form must be Typed Form must be Signed All blanks must be Filled

Form ACO-1

#### WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15					
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:						
Wellsite Geologist:						
Purchaser:	County:					
Designate Type of Completion:	Lease Name: Well #:					
New Well Re-Entry Workover	Field Name:					
Oil       WSW       SWD       SIOW         Gas       D&A       ENHR       SIGW         OG       GSW       Temp. Abd.         CM (Coal Bed Methane)       SIGW	Producing Formation:					
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?					
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 ENHR       Conv. to SWD         Plug Back       Conv. to GSW       Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)					
Commingled         Permit #:           Dual Completion         Permit #:	Chloride content: ppm Fluid volume: bbls Dewatering method used:					
SWD         Permit #:	Location of fluid disposal if hauled offsite:					
ENHR         Permit #:	Operator Name:					
GSW Permit #:	Lease Name: License #:					
	Quarter Sec Two S B Fact West					
Spud Date or         Date Reached TD         Completion Date or           Recompletion Date         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 III Approved by: Date:

	Page Two	1076509		
Operator Name:	_ Lease Name:	Well #:		
Sec TwpS. R East _ West	County:			
INCTRUCTIONS: Chause important tang of formations paratrated	atail all aaraa Banart all final	apping of drill stome tools giving interval tooled, time tool		

**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	eets)	Yes No		og Formatio	on (Top), Depth a	nd Datum	Sample	
Samples Sent to Geolog	gical Survey	Yes No	Nam	e		Тор	Datum	
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No						
List All E. Logs Run:								
	CASING RECORD New Used Report all strings set-conductor, surface, intermediate, production, 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 / SQU	EEZE RECORD				
Burpaga	Depth							

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

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

(If No, skip questions 2 and 3) (If No, skip question 3)

No

No No

No

(If No, fill out Page Three of the ACO-1)

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated			A	Acid, Fracture, Shot, Co (Amount and Kind	ement Squeeze Record d of Material Used)	Depth			
TUBING RECORD:	Siz	ze:	Set At:		Packe	r At:	Liner Ru	un:	No	
Date of First, Resumed	Product	ion, SWD or ENHF	<b>}</b> .	Producing N	/lethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bbl	S.	Gas	Mcf	Wat	ər	Bbls.	Gas-Oil Ratio	Gravity
DISPOSITION OF GAS:			METHOD OF COMPLETION: PRODUCTION		PRODUCTION IN	TERVAL:				
Vented Sold Used on Lease			Open Hole	Perf.	Dually	Comp. Commingled		·		
(If vented, Sul	bmit ACC	D-18.)		Other (Specify	)	GUDINIC		(Submit ACO-4)		

Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	Moore 1-27
Doc ID	1076509

Tops

Name	Тор	Datum		
Anhydrite	680	+1817		
Topeka	3019	-1134		
Heebner	3340	-1455		
Lansing	3522	-1637		
Base Lansing	3785	-1900		
Viola	3928	-2043		
Simpson Shale	4050	-2165		
Simpson Sand	4071	-2186		
Arbuckle	4110	-2225		
TD	4150	-2265		

	DRILL STEM TES	T REPO	ORT		
	Rama Operating Co		27-24S-	12W Staf	ford
ESTING , INC.	101 S Main		Moore	1-27	
	Stafford, KS 67578	Job Ticket: 45765			DST#:1
	ATTN: Josh Austin		Test Star	t: 2012.03.0	04 @ 00:52:15
GENERAL INFORMATION:					
Formation:TorontoDeviated:NoWhipstock:Time Tool Opened:03:50:00Time Test Ended:07:43:00	ft (KB)		Test Type Tester: Unit No:	e: Conven Leal Ca 45	tional Bottom Hole (Initial) son
Interval: 3336.00 ft (KB) To 33	70.00 ft (KB) (TVD)		Referenc	e Elevations	:: 1885.00 ft (KB)
Total Depth: 3370.00 ft (KB) (T Hole Diameter: 7.88 inches Hole	/D) • Condition: Good			KB to GR/C	1876.00 ft (CF) F: 9.00 ft
Serial #: 6798InsidePress@RunDepth:68.59 psigStart Date:2012.03.04Start Time:00:52:16TEST COMMENT:IF: Weak Blow 1/ISI: No Blow BacFF: Weak 3/4 incFSI: No Blow BacFSI: No Blow Bac	<ul> <li>@ 3337.00 ft (KB)</li> <li>End Date:</li> <li>End Time:</li> <li>/2 inch</li> <li>k</li> <li>h Blow</li> <li>ck</li> </ul>	2012.03.04 07:43:00	Capacity: Last Calib.: Time On Btm: Time Off Btm:	2012.03 2012.03	8000.00 psig 2012.03.04 3.04 @ 03:43:00 3.04 @ 05:58:15
Pressure vs. T	ime		PRES	SURE SU	MMARY
1000 1000	Transative Transative	Time (Min.) 0 7 39 69 69 102 135 136	Pressure (psig)         Ter (deg (deg 1662.97           14.58         98           43.56         98           1186.37         100           45.80         100           68.59         107           1156.24         102           1622.63         102	mp Anno g F) 3.09 Initial I 3.28 Open 9.91 Shut-II 0.64 End SI 0.44 Open 1.57 Shut-II 2.47 End SI 2.55 Final I	-tydro-static To Flow (1) n(1) hut-ln(1) To Flow (2) n(2) hut-ln(2) tydro-static
Recovery				Gas Rate	es
Length (ft)         Description           65.00         SGCM 1%G 99%M	Volume (bbl) 0.32		c	hoke (inches) F	Pressure (psig) Gas Rate (Mct/d)

	DRILL STEM TES	TREPO	DRT	
I RILUDITE	Rama Operating Co		27-24S-12W	Stafford
ESTING , INC.	101 S Main		Moore 1-27	
	Stafford, KS 67578		Job Ticket: 4576	65 <b>DST#:1</b>
	ATTN: Josh Austin		Test Start: 2012	2.03.04 @ 00:52:15
GENERAL INFORMATION:				
Formation:TorontoDeviated:NoWhipstock:Time Tool Opened:03:50:00Time Test Ended:07:43:00	ft (KB)		Test Type: Co Tester: Lea Unit No: 45	nventional Bottom Hole (Initial) al Cason
Interval: 3336.00 ft (KB) To 33	370.00 ft (KB) (TVD)		Reference Eleva	ations: 1885.00 ft (KB)
Hole Diameter: 7.88 inches Hole	e Condition: Good		KB to 0	GR/CF: 9.00 ft
Serial #: 8367OutsidePress@RunDepth:psigStart Date:2012.03.04Start Time:00:52:16TEST COMMENT:IF: Weak Blow 1.ISI: No Blow BacFF: Weak 3/4 incFSI: No Blow BacFSI: No Blow Bac	<ul> <li>3337.00 ft (KB)</li> <li>End Date:</li> <li>End Time:</li> </ul>	2012.03.04 07:42:45	Capacity: Last Calib.: Time On Btm: Time Off Btm:	8000.00 psig 2012.03.04
Pressure vs. 1	īme		PRESSURE	SUMMARY
1000 1000	S807 Temperature	Time (Min.)	Pressure Temp (psig) (deg F)	Annotation
Recovery			Gas	Rates
Length (ft) Description	Volume (bbl)		Choke (inch	nes) Pressure (psig) Gas Rate (Mcf/d)
65.00 SGCM 1%G 99%M	0.32			

10 m		DRI	LL STEM TEST REPO	ORT	F	LUID SUMMARY
		Rama (	Operating Co	27-24S-12	W Stafford	
	ESTING , INC.	101 S I	Main	Moore 1-2	27	
		Staffor	rd, KS 67578	Job Ticket: 4	45765	DST#: 1
		ATTN:	Josh Austin	Test Start: 2	2012.03.04 @ 00	:52:15
Mud and	Cushion Information					
Mud Type:	Gel Chem		Cushion Type:		Oil A PI:	deg API
Mud Weight:	9.00 lb/gal		Cushion Length:	ft	Water Salinity:	ppm
Water Loss:	49.00 Sec/qt 8 79 in <sup>3</sup>		Cushion Volume:	וממ		
Resistivity:	ohm.m		Gas Cushion Pressure:	psig		
Salinity:	1800.00 ppm					
Filter Cake:	0.20 inches					
Recovery	Information		Pocourry Table			
	· · · · ·				7	
	Leng	th	Description	V olume bbl		
		65.00	SGCM 1%G 99%M	0.32	0	
	Total Length:	65	5.00 ft Total Volume: 0.32	20 bbl		
	Num Fluid Samp	les: 0	Num Gas Bombs: 0	Serial #	ŧ:	
	Laboratory Nam	ne:	Laboratory Location:			
	Recovery Com	nents:				

Printed: 2012.03.04 @ 12:19:55

Ref. No: 45765

Trilobite Testing, Inc



Rama Operating Co

Moore 1-27

DST Test Number: 1

Printed: 2012.03.04 @ 12:19:56

Ref. No: 45765





	DRILL STEM TES	DRILL STEM TEST REPORT						
I HILUDITL	Rama Operating Co		27-2	24S-12W	Stafford			
ESTING , INC	101 S Main		Мо	ore 1-27				
	Stafford, KS 67578		Job	Ticket: 457	66	DST#:2		
	ATTN: Josh Austin		Test	Start: 2012	2.03.05 @	04:07:15		
GENERAL INFORMATION:								
Formation:Lansing " H, I, & JDeviated:NoWhipstock:Time Tool Opened:06:30:30Time Test Ended:10:54:30	ft (KB)		Test Test Unit	t Type: Co ter: Le No: 45	onventional al Cason	Bottom Hole	e (Reset)	
Interval: 3650.00 ft (KB) To 3	710.00 ft (KB) (TVD)		Refe	erence Eleva	ations:	1885.00	ft (KB)	
Total Depth: 3710.00 ft (KB) (	VD) le Condition: Good			KB to	GR/CF	1876.00	ft (CF)	
					GNCF.	9.00		
Serial #: 6798 Inside			<b>o</b> ''					
Start Date: 2012.03.05	@ 3651.00 ft (KB) End Date:	2012.03.05	Last Calik	D.:	2	8000.00	psig	
Start Time: 04:07:16	10:54:30	Time On I	Btm: 20	12.03.05 @	06:30:00			
			Time Off	Btm: 20	12.03.05 @	09:05:15		
TEST COMMENT: IF: Fair Blow, 6 ISI: No Blow Ba FF: Weak Blow FSI: NO Blow E	1/2 inches ck , 1 inch ack							
Pressure vs.	Time		PF	RESSURE	SUMMA	ARY		
6798 Pressure	6793 Temperature	Time	Pressure	Temp	Annotation	า		
		(1/111.)	(psig) 1853.56	(deg F) 101.81	nitial Hydro	-static		
1600		1	20.58	101.38	1.38 Open To Flow (1)			
		31	67.15	103.69	Shut-In(1)	(4)		
	nemiting nemiting the second	78	73.71	106.16	Doen To Flo	(1) ow (2)		
		109	118.97	107.33	Shut-In(2)			
		155	1080.16	109.44 E	End Shut-In	(2)		
5 Mon Mar 2012	о	156	1824.51	109.65 F	-īnal Hydro∙	-static		
Baasian			I		Patas			
Length (ft) Description	Volume (bbl)			Choke (incl	hes) Pressure	e (psig) Gas	Rate (Mcf/d)	
62.00 SOGMCW 5%G 5%O 4	2%M48%W 0.30					(F-1.5) Su		
120.00 SOGCM 5%G 10%O 85	%M 0.59							
* Recovery from multiple tests	+ +							

Trilobite Testing, Inc

DRILL STEM TEST REPOR	Т	FLUID SUMMARY
Rama Operating Co	27-24S-12W Stafford	
101 S Main Stafford, KS 67578	Moore 1-27 Job Ticket: 45766	DST#:2
ATTN: Josh Austin	Test Start: 2012.03.05 @ (	04:07:15
Cushion Type: Cushion Length: Cushion Volume: Gas Cushion Type: Gas Cushion Pressure:	Oil API: ft Water Salinity bbl psig	deg API : ppm
th Description	) (olumo	
	bbl	
62.00 SOGMCW 5%G 5%O 42%M 48%W 120.00 SOGCM 5%G 10%O 85%M	0.305	
182.00 ft Total Volume: 0.895 bbl		
oles: 0 Num Gas Bombs: 0 ne: Laboratory Location: ments:	Serial #:	
	DRILL STEM TEST REPOR         Rama Operating Co         101 S Main         Stafford, KS 67578         ATTN: Josh Austin         Cushion Type: Cushion Length: Cushion Volume: Gas Cushion Volume: Gas Cushion Pressure:         Recovery Table         th       Description         62.00       SOGMCW 5%G 5%O 42%M 48%W         120.00       SOGCM 5%G 10%O 85%M         182.00 ft       Total Volume:       0.895 bb         vies: 0       Num Gas Bombs:       0         nerts:	DRILL STEM TEST REPORT         Rama Operating Co       27-24S-12W Stafford         101 S Main       Moore 1-27         Stafford, KS 67578       Job Ticke: 45766         ATTN: Josh Austin       Cli API:         Cushion Type:       Cli API:         Cushion Type:       Cli API:         Cushion Type:       Cli API:         Cushion Type:       Cli API:         Cushion Pressure:       psig         Prevention         Volume         Gas Cushion Pressure:       psig         Num Gas Souch 48% W       0.305         182.00 ft       Total Volume:       0.895 bbl         Num Gas Bombs:       0       Serial #:         re:       Laboratory Location:         The Start S

Printed: 2012.03.05 @ 12:12:51

Ref. No: 45766





DST Test Number: 2

Serial #: 6798 Inside

	DRILL STEM TES	TREP	ORT			
I HILUDITE	Rama Operating Co		27-24	S-12W Si	tafford	
ESTING , INC	101 S Main		Moor	e 1-27		
	Stafford, KS 67578		Job Tic	ket: 45767	DST#:	3
	ATTN: Josh Austin		Test St	tart: 2012.0	03.05 @ 21:00:26	
GENERAL INFORMATION:						
Formation:Lansing "K & L"Deviated:NoWhipstock:Time Tool Opened:23:22:41Time Test Ended:03:31:41	ft (KB)		Test Ty Tester: Unit No	ype: Conv : Leal o: 45	ventional Bottom Ho Cason	le (Reset)
Interval: 3719.00 ft (KB) To 37	79.00 ft (KB) (TVD)		Refere	ence Elevation	ons: 1885.00	ft (KB)
Hole Diameter: 7.88 inches Hole	e Condition: Good			KB to GF	R/CF: 9.00	ft (CF)
Serial #: 6798InsidePress@RunDepth:111.99 psigStart Date:2012.03.05Start Time:21:00:27TEST COMMENT:IF: Weak Blow , 3ISI: No Blow BacFF: Weak Blow , 4	<ul> <li>3720.00 ft (KB)</li> <li>End Date:</li> <li>End Time:</li> <li>1/2 inches</li> <li>k</li> <li>inch</li> </ul>	2012.03.06 03:31:41	Capacity: Last Calib.: Time On Btn Time Off Btr	n: 2012 m: 2012	8000.00 2012.03.06 2.03.05 @ 23:13:11 2.03.06 @ 01:23:26	psig
FSI: No Blow Ba	ck					
Pressure vs. 1	Time 		PRE	SSURE S	SUMMARY	
000 1200 1200 1200 1200 1000 1200 1000 1	6788 Temperature 0788 Temperature 000 000 000 000 000 000 000 0	Time (Min.) 0 10 40 70 70 100 130 131	Pressure         T           (psig)         (c           1947.55         1           18.14         1           77.50         1           1171.59         1           83.34         1           111.99         1           152.69         1           1853.03         1	Temp         A           deg F)         Initi           99.78         Initi           100.22         Op           101.85         Shi           105.57         Enc           105.19         Op           107.03         Shi           109.69         Enc           109.75         Fin	nnotation ial Hydro-static en To Flow (1) ut-ln(1) d Shut-ln(1) en To Flow (2) ut-ln(2) d Shut-ln(2) al Hydro-static	
Recovery				Gas R	ates	
Length (ft)         Description           120.00         MCW 5%M 95%W	Volume (bbl)			Choke (inches	) Pressure (psig) G	as Rate (Mcf/d)
90.00 SOWCM 5%O 30%W 65	%M 0.70					
* Recovery from multiple tests						
Trilobite Testing, Inc	Ref. No: 45767		F	Printed: 201	2.03.06 @ 08:12:5	] 5

(Or)		DRI	LL STEM TEST REPOR	Т	F	LUID SUMMARY
	I RILUBITE	Rama	Operating Co	27-24S-12	W Stafford	
	ESTING, INC	101 S	Main	Moore 1-2	27	
		Staffor	rd, KS 67578	Job Ticket:	45767	DST#: 3
		ATTN:	Josh Austin	Test Start:	2012.03.05 @ 21:	00:26
Mud and C	ushion Information	l				
Mud Type:	Gel Chem		Cushion Type:		Oil A PI:	deg API
Mud Weight:	9.00 lb/gal		Cushion Length:	ft	Water Salinity:	90000 ppm
Viscosity:	52.00 sec/qt		Cushion Volume:	bbl		
Water Loss: Resistivity:	ohm m		Gas Cushion Pressure:	nsia		
Salinity:	5000.00 ppm		Gas Gashion Pressure.	psig		
Filter Cake:	0.20 inches					
Recovery I	nformation					
	r		Recovery Table	1	-	
	Leng	gth	Description	Volume bbl		
		120.00	MCW 5%M 95%W	0.59	0	
		90.00	SOWCM 5%O 30%W 65%M	0.69	8	
	Total Length:	210	.00 ft Total Volume: 1.288 bbl			
	Num Fluid Sam	ples: 0	Num Gas Bombs: 0	Serial #	<b>#:</b>	
	Laboratory Na	me:	Laboratory Location:			
	Recovery Com	iments: R	W was .12 @ 55 degrees			
Trilobite Te	esting, Inc	F	Ref. No: 45767	Printe	d: 2012.03.06 @ (	08:12:56

Printed: 2012.03.06 @ 08:12:57

Ref. No: 45767





Moore 1-27

DST Test Number: 3

Serial #: 6798 Inside Rama Operating Co

	DRILL STEM TES	TREP	ORT						
I HILUDITL	Rama Operating Co		27-2	24S-12W	Stafford	ł			
ESTING , INC	101 S Main		Мос	ore 1-27					
	Stafford, KS 67578		Job <sup>-</sup>	Ticket: 457	768	DST#:4	1		
	ATTN: Josh Austin		Test	Start: 201	2.03.06 @	19:26:54			
GENERAL INFORMATION:									
Formation: Viola									
Deviated: No Whipstock: Time Tool Opened: 21:59:24 Time Test Ended: 03:37:09	ft (KB)		Test Test Unit I	Type: Co er: Le No: 45	onventiona eal Cason 5	al Bottom Ho	le (Reset)		
Interval: 3925.00 ft (KB) To	931.00 ft (KB) (TVD)		Refe	erence Elev	vations:	1885.00	ft (KB)		
Total Depth: 3931.00 ft (KB) ( Hole Diameter: 7.88 inches Ho	IVD) le Condition: Good			KB to	GR/CE	1876.00 9.00	ft (CF)		
						5.00			
Serial #: 6798 Inside			0 1						
Press@RunDepth: 146.08 psig Start Date: 2012.03.06	@ 3926.00 ft (KB) End Date:	2012.03.07	Last Calib			8000.00	psig		
Start Time: 19:26:55	End Time:	03:37:09	Time On E	Btm: 20	012.03.06	@ 21:51:39			
			Time Off E	Btm: 20	012.03.07	@ 01:03:09			
IEST COMMENT: IF: Strong Blow , BOB in 30 seconds ISI: No Blow Back FF: Fair Blow , BOB in 8 minutes, GTS in 25 minutes, Gas w as TSTM FSI: 1 inch Blow Back									
Pressure vs.	Time		PR	RESSURE	E SUMM	ARY			
	- 115	Time (Min.)	Pressure (psia)	Temp (dea F)	Annotatio	n			
	110	, í	2061.26	105.06	Initial Hydro	o-static			
		8	58.39	107.82	Open To F	low (1)			
		100	213.32	109.34	End Shut-In(1)	n(1)			
		100	127.73	111.85	Open To F	low (2)			
	ature (a	145	146.08	113.66	Shut-In(2)	- (0)			
		191 192	194.60 1966.03	114.98	End Snut-I	n(2) o-static			
	nenco' Ennanctinco Bintinco								
0 9PM 9PM 6 Tue Mar 2012 Time (Hour									
Recovery	· · · · · · · · · · · · · · · · · · ·			Gas	Rates				
Length (ft) Description	Volume (bbl)			Choke (inc	ches) Pressu	re (psig) Ga	as Rate (Mcf/d)		
0.00 3631 GIP	0.00								
	0.90								
40.00 GSV W/MCO 40% C 10%	6M 22%W 28%D 0.56								
	0111227011 2070Ψ 0.00								
* Recovery from multiple tests	łł								

Trilobite Testing, Inc

an-		DRI	LL STEM TEST REPORT	Г	F	LUID SUMMARY
		Rama	Operating Co	27-24S-12	W Stafford	
	ESTING , INC.	101 S Staffor	Main rd, KS 67578	Moore 1-2	<b>27</b> 45768	DST#:4
		ATTN:	Josh Austin	Test Start: 2	2012.03.06 @ 19:2	26:54
Mud and Cu	ushion Information					
Mud Type: G	el Chem		Cushion Type:		Oil A PI:	deg API
Mud Weight:	9.00 lb/gal		Cushion Length:	ft	Water Salinity:	60000 ppm
Viscosity:	51.00 sec/qt		Cushion Volume:	bbl		
Water Loss:	11.19 in <sup>3</sup>		Gas Cushion Type:			
Resistivity:	ohm.m		Gas Cushion Pressure:	psig		
Salinity:	6800.00 ppm					
Filter Cake:	0.20 inches					
Recovery In	nformation					
			Recovery Table			
	Leng ft	th	Description	Volume bbl		
		0.00	3631 GIP	0.00	0	
		182.00	Water	0.89	5	
		62.00	OMCW 12% O 10%M 78%W	0.87	0	
		40.00	GSY WMCO 40%G 10%M 22%W 28%O	0.56	1	
	Total Length:	284	.00 ft Total Volume: 2.326 bbl			
	Num Fluid Sam	مامع: 0	Num Gas Bombs: 0	Serial #	<u>+</u> -	
	Laboratory Nan	nes. 0 ne:	Laboratory Location:		r.	
	Recovery Com	nents:R\	N w as 17 @ 53 degrees			

Printed: 2012.03.07 @ 08:09:05

Ref. No: 45768





	OPERATOR									
Company:	RAMA Operating Co., INC.									
Address.	Stafford, Kansas 67578									
Contact Geologist:	620-234-5101									
Well Name:	Moore # 1-27									
Location:	8 5/8" @ 280'	API:	15-185-23738-	00-00						
Pool:	-	Field:	North Star							
State:	Kansas, Stafford County	Country:	USA							
	Scale 1:240 Impe	erial								
Well Name:	Moore # 1-27									
Surface Location:	8 5/8" @ 280'									
Bollom Location:	15-185-23738-00-00									
License Number:	10 100 20100 00 00									
Spud Date:	2/29/2012	Time:	3:30 PM							
Region:	NE-SE-NW-NE 27-24s-12w	-								
Drilling Completed:	3/8/2012 765' From North Lino & 156	lime: 0' From Fast Lino	5:50 PM							
Bottom Hole Coordinates	100 TTOM NOLLI LINE & 100	o i ioni East Line								
Ground Elevation:	1876.00ft									
K.B. Elevation:	1885.00ft									
Logged Interval:	2900.00ft	To:	4150.00ft							
Iotal Depth: Formation:	4150.00ft Viola									
Drilling Fluid Type:	Chemical/Fresh Water Gel									
	SURFACE CO-ORD	NATES								
Well Type:	Vertical									
Longitude: N/S Co-ord:	765' From North Line	Latitude:								
E/W Co-ord:	1560' From East Line									
	LOGGED BY									
Company:										
Address:										
Disease Nilser										
Phone Nor: Logged By:	620-546-3960 Geologist	Name:	Josh Austin							
Logged Dy.	Cologist	Name.	003117(03111							
	CONTRACTO	R								
Contractor:	Sterling Drilling Company									
Rig #:	4 mud rotany									
Spud Date:	2/29/2012	Time:	3.30 PM							
TD Date:	3/8/2012	Time:	5:50 PM							
Rig Release:		Time:								
				,						
K B Elevation		Fround Elevation:	1876 00ft							
K.B. to Ground:	9.00ft		1070.001							
	NOTES									
On the basis of the positive struct	ural position and marginal dril	stem test it was re	commended by	all parties involved in						
the Moore 1-27 that 5 1/2" produc	tion casing be set and cemen	ed to further test th	e tollowing zone	s; Toronto, Lansing H,						
RA	MA Operating	CO Inc								
	and about the	<b></b> , <b></b>								

well comparison sheet

		DRILLING	WELL			COMPARIS	ON WELL			COMPARISON WELL		
		Moore	<b>‡1−27</b>			Jenkins #2				Reed	1 #1	
							Struct	ural			Struc	tural
	1885	KB		1	1876	KB	Relatio	onship	1879	KB	Relat	ionship
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	LO	G	Log	Sub-Sea	L	.OG
Topeka	3018	-1133	3019	-1134								
Heebner	3338	-1453	3340	-1455	3340	-1464	9		3333	-1454	-1	
Toronto	3356	-1471	3354	-1469					3344	-1465	-4	
Douglas	3380	-1495	3377	-1492			8		3370	-1491	-1	
Brown Lime	3494	-1609	3495	-1610	3496	-1620	10		3488	-1609	-1	
Lansing	3520	-1635	3522	-1637	3518	-1642	5		3512	-1633	-4	
Base KC	3785	-1900	3785	-1900	3763	-1887	-13		3757	-1878		
Marmaton	3818	-1933	3820	-1935							2	
Kinderhook	3848	-1963	3844	-1959								
Viola	3925	-2040	3928	-2043	3922	-2046	3		3920	-2041	-2	
Simpson Shale	4047	-2162	4050	-2165	4044	-2168	3		4045	-2166	1	
Simpson Sand	4069	-2184	4071	-2186	4061	-2185	-1		4068	-2189	3	
Arbuckle	4106	-2221	4110	-2225	4115	-2239	14		4108	-2229	4	
Total Depth	4150	-2265	4150	-2265	4072	-2196			4150	-2271		

	DRILL STEM T	EST REP	ORT				
I ILUDITE	Rama Operating Co		27-	24S-12V	V Stafford		
ESTING , INC	101 S Main Stafford, KS 67578		Mo Job	ore 1-27	7 5765	DST#:1	
	ATTN: Josh Austin		Tes	t Start: 20	012.03.04 @ 0	0:52:15	
GENERAL INFORMATION:							
Formation:TorontoDeviated:NoWhipstock:Time Tool Opened:03:50:00Time Test Ended:07:43:00	ft (KB)		Tes Tes Unit	t Type: ter: No:	Conventional E Leal Cason 45	Bottom Hole	e (Initial)
Interval:3336.00 ft (KB) To3Total Depth:3370.00 ft (KB) (THole Diameter:7.88 inches Hole	370.00 ft (KB) (TVD) ∀D) e Condition: Good		Ref	erence Ee KB 1	evations:	1885.00 1876.00 9.00	ft (KB) ft (CF) ft
Serial #: 6798 Inside							
Press@RunDepth: 68.59 psig	@ 3337.00 ft (KB)		Capacity		101	8000.00	psig
Start Date: 2012.03.04	End Date:	2012.03.04	Last Cali	b.:	20	012.03.04	
Start Time: 00:52:16	End lime:	07:43:00	Time On Time Off	Btm:	2012.03.04 @ 2012.03.04 @	03:43:00	
TEST COMMENT: IF: Weak Blow 1 ISI: No Blow Bac FF: Weak 3/4 in FSI: No Blow Ba	/2 inch sk sh Blow ick						
Pressure vs.	Time		PI	RESSUR	RE SUMMA	RY	
6700 Pressure	6798 Temperature	- 100 <b>Time</b> - 100 (Min.)	Pressure (psig)	Temp (deg F)	Annotation		
1500		0	1662.97	98.09	Initial Hydro-	static	
		-∞ 7	14.58	98.28	Open To Flo	w (1)	
	Prof State (a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	39	43.56	99.91	Shut-In(1)		
		- <sup>69</sup>	1186.37	100.64	End Shut-In(	1)	
		- 70 mpor	45.80	100.44	Open To Flo	w (2)	
l # 1 if		ž 102	68.59	101.57	Shut-In(2)		



	DRILL STEM TES	ST REP	ORT				
	Rama Operating Co		27-	24S-12W	Stafford		
ESTING , INC.	101 S Main Stafford, KS 67578		Mo	ore 1-27	766	DST#·2	
	ATTN: Josh Austin		Tes	t Start: 20	12.03.05 @	04:07:15	
GENERAL INFORMATION:							
Formation:Lansing "H, I, & J"Deviated:NoWhipstock:Time Tool Opened:06:30:30Time Test Ended:10:54:30	ft (KB)		Tes Tes Unit	t Type: ( ter: L t No: 4	Conventional _eal Cason 45	Bottom Hole	e (Reset)
Interval: 3650.00 ft (KB) To 37	10.00 ft (KB) (TVD)		Ref	erence 🛛	vations:	1885.00	ft (KB)
Total Depth: 3710.00 ft (KB) (T			KD 4		1876.00	ft (CF)	
Hole Diameter: 7.88 Inches Hole	e Condition: Good			KBT	O GR/CF:	9.00	π
Serial #: 6798         Inside           Press@RunDepth:         118.97 psig           Start Date:         2012.03.05           Start Time:         04:07:16	<ul> <li>@ 3651.00 ft (KB)</li> <li>End Date:</li> <li>End Time:</li> </ul>	Capacity:         8000.00           2012.03.05         Last Calib.:         2012.03.05           10:54:30         Time On Btm:         2012.03.05 @ 06:30:00           Time Off Btm:         2012.03.05 @ 09:05:15			psig		
TEST COMMENT: IF: Fair Blow, 6 1 ISI: No Blow Bao FF: Weak Blow, FSI: NO Blow Ba	l/2 inches k 1 inch ick						
Pressure vs. 1	íme 🔽		PI	RESSUR	RE SUMMA	ARY	
6700 Pressure	6700 Temperature	Time	Pressure	Temp	Annotation	n	
1750		(1/11.)	1853.56	(deg P) 101.81	Initial Hydro	-static	
		1	20.58	101.38	Open To Flo	ow (1)	
		31	67.15	103.69	Shut-In(1)		
		77	1124.25	106.61	End Shut-In	n(1)	
		78	73.71	106.16	Open To Flo	ow (2)	
		109	118.97	107.33	Shut-In(2)	(0)	
		155	1824 51	109.44	Final Hydro	-static	
		100	1024.01	100.00	- mar nyaro		

	Recovery		• • •	Gas Rat	tes	
Length (ft)	Description	Volume (bbl)		Choke (inches)	Pressure (psig)	Gas Rate (Mct
62.00	SOGMCW 5%G 5%O 42%M 48%W	0.30		10		278
120.00	SOGCM 5%G 10%O 85%M	0.59				

	DRILL STEM TEST REPORT						
I NILUDITE	Rama Operating Co		27-24S-1	2W Stafford			
ESTING , INC.	101 S Main Stafford, KS 67578		Moore 1	<b>27</b> 45767	DST#:3		
	ATTN: Josh Austin		Test Start:	2012.03.05 @ 2	1:00:26		
GENERAL INFORMATION:							
Formation:Lansing "K & L"Deviated:NoWhipstock:Time Tool Opened:23:22:41Time Test Ended:03:31:41	ft (KB)		Test Type: Tester: Unit No:	Conventional E Leal Cason 45	Bottom Hole (Reset)		
Interval: 3719.00 ft (KB) To 37 Total Depth: 3779.00 ft (KB) (T Hole Diameter: 7.88 inchesHole	779.00 ft (KB) (TVD) √D) ∋ Condition: Good		Reference	⊟evations: B to GR/CF:	1885.00 ft (KB) 1876.00 ft (CF) 9.00 ft		
Serial #: 6798         Inside           Press@RunDepth:         111.99 psig @ 3720.00 ft (KB)         Capacity:         8000.00 psig           Start Date:         2012.03.05         End Date:         2012.03.06         Last Calib.:         2012.03.06           Start Time:         21:00:27         End Time:         03:31:41         Time On Btm:         2012.03.06 @ 01:23:26           TEST COMMENT:         IF: Weak Blow, 3 1/2 inches         ISI: No Blow Back         FF: Weak Blow, 1 inch         FSI: No Blow Back							
Pressure vs. 1	lime		PRESS	JRE SUMMA	RY		
	6768 Temperiture 100 100 100 100 100 100 100 10	Time (Min.) 0 10 40 70 70 100 130 131	Pressure (psig)         Temp (deg I 1947.55           18.14         100.3           77.50         101.3           1171.59         105.3           83.34         105.3           111.99         107.0           1152.69         109.0           1853.03         109.3	Annotation Annotation	static v (1) 1) v (2) 2) static		

0 Tue Time (Hours)

BPM 5 Mon Mar 2012 3AM

	<b>D</b>					
	Recovery			Gas Ra	ites	
Length (ft)	Description	Volume (bbl)		Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
120.00	MCW 5%M 95%W	0.59				
90.00	SOWCM 5%O 30%W 65%M	0.70				
* Recovery from n	nultiple tests	•				

10 m		DRILL STEM TEST REPORT									
「		Rama Operating Co		27-2	27-24S-12W Stafford						
团	ESTING , INC.	101 S Main Stafford, KS 67578		Mod	Moore 1-27						
		ATTN: Josh Austin		Job Test	Start: 20	12.03.06 @	USTR 19:26:54	#:4 1			
GENERAL	INFORMATION:										
Formation: Deviated: Time Tool Ope Time Test End	Viola No Whipstock: ened: 21:59:24 ded: 03:37:09	ft (KB)		Test Test Unit	Type: ( er: L No: 4	Conventiona .eal Cason 15	al Bottom I	Hole (Reset)			
nterval: otal Depth: lole Diameter	3925.00 ft (KB) To 39 3931.00 ft (KB) (Tv 7.88 inchesHole	31.00 ft (KB) (TVD) /D) e Condition: Good		Refe	erence Be KB te	vations: o GR/CF:	1885.( 1876.( 9.(	00 ft(KB) 00 ft(CF) 00 ft			
Serial #: 6 Yress@RunD Start Date: Start Time:	6798         Inside           Depth:         146.08 psig           2012.03.06         19:26:55	@ 3926.00 ft (KB) End Date: End Time:	2012.03.07 03:37:09	Capacity: Last Calib Time On E Time Off I	).: Btm: 2 Btm: 2	2012.03.06 ( 2012.03.07 (	8000.0 2012.03.0 @ 21:51:: @ 01:03:0	00 psig 07 39 09			
EST COM	IMENT: IF: Strong Blow	BOB in 30 seconds									
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, Bo FSI: 1 inch Blow	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	es, Gas was Ts	STM							
EST COM	IMENT: IF: Strong Blow, ISI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	es, Gas was TS	STM PR	RESSUR	E SUMM	ARY				
EST COM	IMENT: IF: Strong Blow, ISI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	es, Gas was Ts Time (Min.)	STM PR Pressure (psig)	RESSUR Temp (deg F)	E SUMM. Annotatic	ARY				
EST COM	IMENT: IF: Strong Blow, ISI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	es, Gas was Ts Time (Min.)	PF Pressure (psig) 2061.26 50 20	Temp (deg F) 105.06	E SUMM. Annotatic	ARY on o-static				
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 8 53	PR Pressure (psig) 2061.26 58.39 124.19	RESSUR Temp (deg F) 105.06 107.82 109.34	E SUMM. Annotatic Initial Hydro Open To F Shut-In(1)	ARY on o-static low (1)				
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100	PF Pressure (psig) 2061.26 58.39 124.19 213.32	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85	E SUMM Annotatic Initial Hydro Open To F Shut-In(1) End Shut-In	ARY on o-static low (1) n(1)				
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) (Min.) 8 53 100 100	Pressure (psig) 2061.26 58.39 124.19 213.32 127.73	Temp (deg F) 105.06 107.82 109.34 111.85 111.85	E SUMM. Annotatic Initial Hydro Open To F Shut-In(1) End Shut-Ii Open To F	ARY on o-static low (1) n(1) low (2)				
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100 100 145	PR Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 111.85 113.66	E SUMM Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2)	ARY on low (1) n(1) low (2)				
TEST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100 145 191 192	PF Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 111.85 113.66 114.98 115.93	E SUMM Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY on low (1) n(1) low (2) n(2) o-static				
	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 53 100 100 145 191 192	PR Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 111.85 113.66 114.98 115.93	E SUMM. Annotatic Open To F Shut-In(1) End Shut-In Shut-In(2) End Shut-Ir Final Hydro	ARY on low (1) n(1) low (2) n(2) o-static				
2000 700 700 700 700 700 700 700	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100 100 145 191 192	PR Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 111.85 113.66 114.98 115.93	E SUMM Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY o-static low (1) n(1) low (2) n(2) o-static				
2000 7750 700 700 700 700 700 700	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure ve. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back me DB in 8 minutes, GTS in 25 minut me MOB in 8 minutes, GTS in 25 minut me MOB in 9 minutes, GTS in 25 minut MOB in 9 minutes, GTS in 25 minutes,	Time (Mn.) 0 8 53 100 100 145 191 192	PF Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 113.66 114.98 115.93	E SUMM. Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY on low (1) n(1) low (2) n(2) o-static				
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow Pressure vs. T Tere: (House) Tree (House) Recovery Description	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back me DB in 8 minutes, GTS in 25 minut and and and and and and and and and and	Time (Min.) 0 8 53 100 100 145 191 192	PR Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	RESSUR Temp (deg F) 105.06 107.82 109.34 111.85 113.66 114.98 115.93 115.93 Gas Choke (ir	E SUMM Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY on o-static low (1) n(1) low (2) n(2) o-static	Gas Rate (Mcf/d)			
EST COM	IMENT: IF: Strong Blow, Blow Bac FF: Fair Blow, BC FSI: 1 inch Blow Pressure vs. T	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100 100 145 191 192	PF Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 113.66 114.98 115.93 115.93 Gas Choke (in	E SUMM Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY on o-static low (1) n(1) low (2) n(2) o-static	Gas Rate (Mcfid)			
EST COM	IMENT: IF: Strong Blow, SI: No Blow Bac FF: Fair Blow, B0 FSI: 1 inch Blow Pressure vs. T Test Strong Blow, B0 FSI: 1 inch Blow Pressure vs. T Strong Blow, B0 FSI: 1 inch Blow FSI: 1 inch Blow	BOB in 30 seconds k DB in 8 minutes, GTS in 25 minut Back	Time (Min.) 0 8 53 100 145 191 192	PF Pressure (psig) 2061.26 58.39 124.19 213.32 127.73 146.08 194.60 1966.03	ESSUR Temp (deg F) 105.06 107.82 109.34 111.85 113.66 114.98 115.93 Gas Choke (in	E SUMM. Annotatic Open To F Shut-In(1) End Shut-In Open To F Shut-In(2) End Shut-In Final Hydro	ARY on o-static low (1) n(1) low (2) n(2) o-static	Gas Rate (Mcf/d)			

40.00 GSY WMCO	40%G 10%M2	22%W 28%Φ 0.5		
* Recovery from multiple tests				
Cht Cht Dolprim Lmst fw7>		shale, grn shale, gry Carbon Sh	ROCK TYPES         shale, red         Shcol         Ss	
STRINGER			ACCESSORIES	
			OTHER SYMBOLS	
DST Int DST Int DST alt Core I tail pipe				
Curve Track #1			Printed by GEOstrip VC Striplo	g version 4.0.7.0 (www.grsi.ca) TG, C1 - C5
ROP (min/ft) Gamma (API) Cal (in) 1:240 Imperial	Cored Interval Depth   Intervals	Lithology Oil Show	Geological Descriptions	Total Gas (units)
ROP (min/ft) Gamma (API) Cal (in) 1		S	Shale; grey, micaceous, silty	O         Total Gas (units)         100           C1 (Inits)         00           C2 (units)         100           C3 (units)         100           C4 (units)         100           C3 (units)         100           C4 (units)         100
	2920	S	Shale; as above, plus trace Sand; It. grey, ery fine grained, sub angular, friable, nicaceous, no shows	
		<u>——</u> · · · · ·	IOWARD 2929 (-1044)	
	2940	L fc	imestone; cream-tan, fine-medium xIn, ossiliferous-oolitic in part, few scattered orosity, no shows	
\$	2960		imestone; as above, chalky in part, shaley	
	2980		imestone; cream, fine xln, chalky, finely ossiliferous, dense, poor porosity, plus loose ossil fragments	
		S	and; It. grey, very fine grained, silty, friable, nicaceous in part	KB 1885
ROP (min/tt) Gamma (APD) 15 Cal (in) 1	5 3000 0 6-	S	and as above plus shale; grey, micaceous, ilty in part	0 Total Gas (units) 100 C1 (Inits) 100 0 C2 (units) 100 C2 (units) 100



#### TOPEKA 3018 (-1133)

Limestone; cream, fine xln, chalky, fossiliferous, oolitic in part, poor visible dark grey-black shale

Limestone; grey-cream, highly oolitic, dense, chalky in part, poorly develop porosity

Limestone; tan-cream, fine-medium xln, granular in part, fossiliferous, slightly cherty, poor porosity

Limestone; cream, medium xln, fossiliferous, sparry calcite in porosity, chalky in part

Limestone; as above, scattered porosity

Limestone, buff-cream, fine xln, slightly sucrosic, dolomitic in part, poorly developed porosity, no shows

black carboniferous shale

Limestone; cream-buff-tan, fine xln, fossiliferous in part, slightly granular, plus grey boney chert

Limestone; cream-buff-grey, fine xln, chalky, fossilifeous in part, poor visible porosity, N/S

Shale; black-grey, fissile

Limestone; cream-buff, fine xln, chalky, dense, slightly fossiliferous, poor porosity, N/S

Limestone; as above, highly fossiliferous in part, plus grey,opaque boney chert





black carboniferous shale

Limestone; cream-tan; fossiliferous, chalky in part, granular, poor porosity

Limestone; grey, highly oolitic-fossiliferous, granular in part, poorly developed porosity

Limestone; cream-grey, fine xln, chalky, granular in part, few fossiliferous pieces, no shows

Limestone; cream, fine xln, chalky, dense, slightly cherty in part, poor porosity Plus smokey grey, boney; Chert

### HEEBNER 3338 (-1453)

Black Carboniferous Shale

grey-marroon-green shale

### TORONTO 3356 (-1471)

Limestone; white, fine xln, chalky, few pinpoint type porosity, no staining, very light spotty SFO, no odor DST #1 3336-3370

otal Gas (units)

C2 (units)

C3 (units)

100

DOUGLAS 3380 (-1495)

grey-greyish green shale, silty in part, slightly micaceous

Sand; grey-greyish green, very fine grained, sud rounded, sub angular, micaceous, poor inter granular porosity, no shows

Sand as above, plus Shale; grey-greyish green, silty, micaceous, few soft pieces

Sand and Shale as above



Shale; grey-dark grey, silty in part, slightly micaceous

Shale as above, soft

#### BROWN LIME 3494 (-1609)

Limestone; tan-brown, fine xln, dense, cherty in part

shale; grey-dark grey shale

### LANSING 3520 (-1635)

Limestone; grey-cream, fossiliferous-oolitic, chalky in part, poor visible porosity, no shows

Limestone; cream, fine xln, chalky in part, trace inter xln-vuggy type porosity, lt. SFO, very faint odor

Limestone; grey-buff, highly fossiliferous, dense, poor porosity, no shows

grey-marroon soft shale

Limestone; It. grey-cream fine xln, dense, trace vuggy porosity, spotty golden brown stain, trace spotty free oil, very faint odor

Limestone; grey-buff-tan, fine xln, dense, fossiliferous, cherty in part, poor porosity

Limestone; cream, chalky in part, highly oolitic, fossilferous in part, oolicatic-fossil cast type porosity

Limestone; cream-buff-lt. grey, fine xln, chalky slightly fossiliferous, chert in part, plus grey-buff fossiliferous, boney Chert

Limestone; cream-lt. grey, fine xln, chalky in part, poorly developed porosity, slightly fossiliferous, cherty in part, plus grey-bufftan, boney Chert

Limestone; It. grey, fine xln, ool in part, oom, slightly chalky, fair oomoldic porosity, brown-





dark brown stain, slight SFO, faint odor

Limestone; cream-white, very chalky, poor porosity, black stain, NSFO, no odor

Limestone; white-cream, sub oomoldic, chalky, few oomoldic type porosity, trace golden brown stain, NSFO, no odor

black-dark grey shale

Limestone; cream-buff, fine xln, chalky in part, finely fossiliferous, poorly developed porosity, brown stain, trace spotty free oil, faint odor

Limestone; cream-lt. grey, fine xln, chalky, dense, slightly fossiliferous, poor porosity N/S

black carboniferous shale

Limestone; cream, fine-medium xIn, fair inter xIn, porosity, brown stain, SFO, faint odor

# BASE KANSAS CITY 3785 (-1900)

black-grey-marroon shale

Limestone; cream-tan, fine xln, dense, fossiliferous in part, poor visible porosity, cherty in part

Shale; grey-greyish green, soft/gummy

# MARMATON 3818 (-1933)

Limestone; cream-buff, fine xln, dense, cherty, slighlty fossiliferous, poorly developed porosity, plus tan-smokey grey boney chert

Limestone; white-cream, fine xln, chalky, few sparry calcite, trace brown stain, NSFO, no odor

# KINDERHOOK 3848 (-1963)

Shale; marroon, greyish green, silty in part

Shale; brown-grey-greyish green, soft, slightly silty in part





Shale; multi colored silty in part, plus trace sand; grey, very fine grained, friable

Shale; as above silty in part

#### VIOLA 3925 (-2040)

Dolomite; grey, fine xln, sucrosic in part, poorly developed interxIn porosity, brown stain, trace free oil, faint odor, gas bubbles

Chert; white-cream, few semi tripolitic pieces, boney, spotty black "dead oil" stain NSFO Plus dolomite; lt. grey-buff, fine-medium xln, sucrosic in part, brown-black stain, slight SFO, faint-fair odor

Dolomite and Chert as above, trace black stain NSFO, faint odor

Dolomite; buff, fine-medium xln, sucrosic in part, fair inter xln porosity, trace brown stain, trace spotty free oil, faint gassy odor, plus white, boney Chert

dolomite; It. grey-buff, fine-medium xIn, sucrosic in part, few with fair porosity, plus white-It. grey Chert, boney, no shows

dolomite and chert as above

### SIMPSON SHALE 4047 (-2162)

Shale; green-grey-marroon

Shale as above

Sand; grey, fine grained, sub angular, micaceous in part, poorly developed porosity, no shows

Sand; grey-cream, fine grained, sub angular, sub rounded, friable, fair inter granular porosity, black-brown stain, spotty SFO, faintfair odor

Shale; grey-green

# ARBUCKLE 4106 (-2221)





# BASIC energy services, L.P.

# TREATMENT REPORT

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10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383



# TREATMENT REPORT

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10244	NE Hiway	7 61 • P.O	. Box 8613 •	Pratt, KS 6	7124-86	I3 ° (620) (	o72-1201 ◎	Tax (020) 072-5383 Taylor Printing, Inc. 620-672-3

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/

Mark Sievers, Chairman Ward Loyd, Commissioner Thomas E. Wright, Commissioner Sam Brownback, Governor

April 03, 2012

Robin L. Austin Rama Operating Co., Inc. 101 S MAIN ST STAFFORD, KS 67578-1429

Re: ACO1 API 15-185-23738-00-00 Moore 1-27 NE/4 Sec.27-24S-12W Stafford 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, Robin L. Austin