

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1175192

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:			
Address 2:	Feet from		
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.xxxxxx) (e.gxxx.xxxxxxx)		
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84		
Purchaser:	County:		
Designate Type of Completion:	Lease Name: Well #:		
☐ New Well ☐ Re-Entry ☐ Workover	Field Name:		
□ Oil □ WSW □ SHOW □ Gas □ D&A □ ENHR □ SIGW □ OG □ GSW □ Temp. Abd. □ CM (Coal Bed Methane) □ Cathodic □ Other (Core, Expl., etc.): If Workover/Re-entry: Old Well Info as follows:	Producing Formation: Elevation: Ground: Kelly Bushing: Total Vertical Depth: Plug Back Total Depth: Amount of Surface Pipe Set and Cemented at: Feet Multiple Stage Cementing Collar Used? Yes No 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 Commingled Permit #: Dual Completion Permit #: SWD Permit #:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit) Chloride content: ppm Fluid volume: bbls Dewatering method used: Location of fluid disposal if hauled offsite:		
☐ ENHR Permit #: ☐ GSW Permit #:	Operator Name:		
GSW Permit #:	Lease Name: License #:		
Spud Date or Date Reached TD Completion Date or Recompletion Date Recompletion Date	Quarter Sec. Twp. S. R. East West 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



Operator Name:				_ Lease I	Name: _			Well #:	
Sec Twp	S. R	East	West	County	:				
INSTRUCTIONS: Shopen and closed, flow and flow rates if gas to	ring and shut-in press o surface test, along v	ures, whe	ther shut-in pre chart(s). Attach	ssure reac extra shee	hed stati	c level, hydrosta space is neede	tic pressures, b d.	ottom hole temp	erature, fluid recov
Final Radioactivity Lo files must be submitte						ogs must be ema	alled to kcc-well-	logs@kcc.ks.go	v. Digital electronic
Drill Stem Tests Taker (Attach Additional		Y	es No			J	on (Top), Depth		Sample
Samples Sent to Geo	logical Survey	Y	es No		Nam	е		Тор	Datum
Cores Taken Yes No Electric Log Run Yes No									
List All E. Logs Run:									
				RECORD	Ne				
	0: 11.1					ermediate, product		" 0 1	T 15
Purpose of String	Size Hole Drilled		ze Casing t (In O.D.)	Weig Lbs.		Setting Depth	Type of Cement	# Sacks Used	Type and Percer Additives
			ADDITIONAL	CEMENTI	NG / SQL	JEEZE RECORD			
Purpose:	Depth Top Bottom	Туре	of Cement	# Sacks	Used		Type and	Percent Additives	
Perforate Protect Casing	Top Dottom								
Plug Back TD Plug Off Zone									
1 lug 0 li 20 lio									
Did you perform a hydrau	ulic fracturing treatment	on this well	?			Yes	No (If No, s	skip questions 2 a	nd 3)
Does the volume of the t			-		-			skip question 3)	
Was the hydraulic fractur	ing treatment informatio	n submitted	to the chemical of	disclosure re	gistry?	Yes	No (If No, i	ill out Page Three	of the ACO-1)
Shots Per Foot			RD - Bridge Plug Each Interval Perl				cture, Shot, Ceme	nt Squeeze Recor	rd Depth
						(* *			200
TUBING RECORD:	Size:	Set At:		Packer A	t·	Liner Run:			
		0017111				[Yes N	o	
Date of First, Resumed	Production, SWD or EN	HR.	Producing Meth	nod:	g 🗌	Gas Lift (Other (Explain)		
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wat	er B	bls.	Gas-Oil Ratio	Gravity
DIODOCITI	01.05.040			4ETUOD 05	. 00145/	TION:		DDOD! ICT!	
DISPOSITION Solo	ON OF GAS: Used on Lease		N Open Hole	∥ETHOD OF Perf.			mmingled	PRODUCTION	ON INTERVAL:
	bmit ACO-18.)		Other (Specify)		(Submit		mit ACO-4)		

Form	ACO1 - Well Completion			
Operator	Cimarex Energy Co.			
Well Name	Hammer 19-6			
Doc ID	1175192			

Tops

Name	Тор	Datum
Top GLorietta	1235	1623
Base Stone Corral	1760	1098
Chase	2635	223
Heebner Shale Base	4170	-1312
KC Drum	4500	-1642
KC Swope LS	4675	-1817
Marmaton	4840	-1982
Cherokee	5015	-2157
Atoka	5155	-2297
Morrow	5290	-2432
Mississippi	5460	-2602

Form	ACO1 - Well Completion
Operator	Cimarex Energy Co.
Well Name	Hammer 19-6
Doc ID	1175192

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.2500	8.6250	24	1850	A-Con blend/Pre mium Plus	815	3%cc, polyflake
Production	7.8750	5.5000	15.50	5700	AA2 Class H		5%cc,10% salt, deformer, polyflake



Cement Report

Customer	Liberal, Kansas 771	er con-central existings (protogramment and annual	ILease No.	angerinas partimos partiros primingantes camantes distancia de camanas (conseguiros nacionas escuis	Data 7			
Lease					Service Receipt	1-14-15		
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			County	asketi	<u>Isbue KS</u>			
Job Type		Formation tour	,	Legal Des	<u> </u>	2-31		
	Pipe	Midelfore representation of the contract of th		Perfor	ating Data	Cement Data		
Casing size	5'A" 155#	Tubing Size		1	ols/Ft	Lead		
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Customer Representative

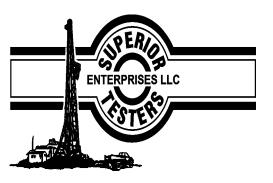
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	<u>Liberal</u>	I, Kansas			rougustance memoritoristististististististististististististi	BERRY OF LOCAL PROPERTY OF THE			
Customer () VANYEX			Lease No.	-	-	Date G	-11-13		
Lease	Mamare			Well # 19	-6	Se	rvice Receipt	04267	
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Customer Representative

Station Manager

Cementer Duren



Prepared For: Cimarex Energy Co.

348 Rd. DD

Santana Ks, 67870

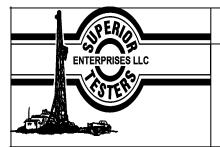
ATTN: Kevin Martin

Hammer #19-6

19/30s/31w/Haskell

Start Date: 2013.09.16 @ 20:35:00 End Date: 2013.09.17 @ 08:07:00 Job Ticket #: 18494 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902



Cimarex Energy Co.

348 Rd. DD

Santana Ks, 67870

ATTN: Kevin Martin

19/30s/31w/Haskell

Hammer #19-6

Job Ticket: 18494 **DST#:1**

Test Start: 2013.09.16 @ 20:35:00

GENERAL INFORMATION:

Formation: swope limestone

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:58:00 Time Test Ended: 08:07:00

Interval: 4655.00 ft (KB) To 4698.00 ft (KB) (TVD)

Total Depth: 4698.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Initial)

Shane Konem

3330/388/Great Bend

0,000, 010at 2011a

Reference Elevations:

Tester:

Unit No:

2859.00 ft (KB)

2850.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8400 Inside

Press @ RunDepth: 120.74 psia @ 4694.00 ft (KB) Capacity: 5000.00 psia

 Start Date:
 2013.09.16
 End Date:
 2013.09.17
 Last Calib.:
 2013.09.16

 Start Time:
 20:35:00
 End Time:
 08:07:00
 Time On Btm:
 2013.09.17 @ 00:50:30

Time Off Btm: 2013.09.17 @ 05:07:00

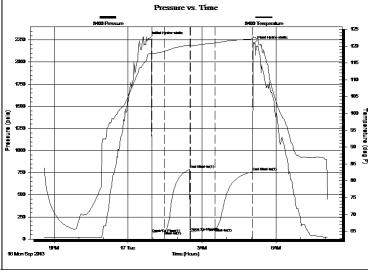
PRESSURE SUMMARY

TEST COMMENT: 1st Open/ 30 Minutes. Weak blow built to 1/4 inch in bucket of water.

1st Shut In/ 60 Minutes. No blow back.

2nd Open/ 60 Minutes. No blow. Did not flush tool per K. Martin.

2nd Shut In/ 90 Minutes. No blow back.



	PRESSURE SUIVIIVIART										
1	Time	Pressure	Temp	Annotation							
	(Min.)	(psia)	(deg F)								
	0	2261.12	117.71	Initial Hydro-static							
	8	66.17	117.68	Open To Flow (1)							
	38	86.77	118.44	Shut-In(1)							
	100	790.43	120.33	End Shut-In(1)							
	101	84.92	120.08	Open To Flow (2)							
	161	120.74	120.94	Shut-In(2)							
,	253	761.50	122.11	End Shut-In(2)							
9	257	2212.12	122.66	Final Hydro-static							

Recovery

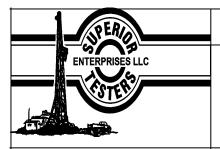
Description	Volume (bbl)
No gas	0.00
100% mud	0.29
	No gas

Gas Rat	es	
Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

Superior Testers Enterprises LLC

Ref. No: 18494

Printed: 2013.09.16 @ 08:30:18



Cimarex Energy Co.

348 Rd. DD

Santana Ks, 67870

ATTN: Kevin Martin

19/30s/31w/Haskell

Hammer #19-6

Tester:

Unit No:

Job Ticket: 18494 **DST#:1**

Test Start: 2013.09.16 @ 20:35:00

GENERAL INFORMATION:

Formation: swope limestone

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:58:00 Time Test Ended: 08:07:00

Interval: 4655.00 ft (KB) To 4698.00 ft (KB) (TVD)

Total Depth: 4698.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Initial)

Shane Konem

3330/388/Great Bend

Reference Elevations: 2859.00 ft (KB)

2850.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6999 Outside

Press@RunDepth: 762.46 psia @ 4695.00 ft (KB) Capacity: 5000.00 psia

 Start Date:
 2013.09.16
 End Date:
 2013.09.17
 Last Calib.:
 2013.09.16

 Start Time:
 20:35:00
 End Time:
 08:06:30
 Time On Btm:
 2013.09.17 @ 00:53:30

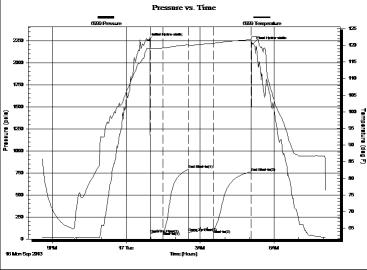
Time Off Btm: 2013.09.17 @ 05:08:00

TEST COMMENT: 1st Open/ 30 Minutes. Weak blow built to 1/4 inch in bucket of water.

1st Shut In/ 60 Minutes. No blow back.

2nd Open/ 60 Minutes. No blow. Did not flush tool per K. Martin.

2nd Shut In/ 90 Minutes. No blow back.



	PRESSURE SUMMARY						
	Time	Pressure	Temp	Annotation			
	(Min.)	(psia)	(deg F)				
	0	2253.49	119.10	Initial Hydro-static			
	6	60.98	119.14	Open To Flow (1)			
	36	86.33	119.19	Shut-In(1)			
	98	792.55	120.17	End Shut-In(1)			
	99	78.81	120.02	Open To Flow (2)			
Temperature (deg	159	108.43	120.63	Shut-In(2)			
	251	762.46	121.69	End Shut-In(2)			
J	255	2212.67	122.66	Final Hydro-static			

Recovery

0.00
0.29

Gas Rates Choke (inches) | Pressure (psia) | Gas Rate (Mct/d)

Superior Testers Enterprises LLC

Ref. No: 18494

Printed: 2013.09.16 @ 08:30:18



TOOL DIAGRAM

Cimarex Energy Co.

19/30s/31w/Haskell

348 Rd. DD

Hammer #19-6

Santana Ks, 67870

Job Ticket: 18494 DST#: 1

ATTN: Kevin Martin

Test Start: 2013.09.16 @ 20:35:00

Tool Information

Drill Collar:

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 4403.00 ft Diameter: 0.00 ft Diameter:

244.00 ft Diameter:

3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

Total Volume:

61.76 bbl 0.00 bbl 1.20 bbl

62.96 bbl

Tool Weight: Weight set on Packer: 20000.00 lb Weight to Pull Loose: 76000.00 lb

> Tool Chased 0.00 ft String Weight: Initial 67000.00 lb

Printed: 2013.09.16 @ 08:30:18

Final 67000.00 lb

2000.00 lb

Drill Pipe Above KB: 21.00 ft

Length:

Depth to Top Packer: 4655.00 ft Depth to Bottom Packer: ft 43.00 ft

Interval between Packers: 72.00 ft Tool Length:

Number of Packers: 2 Diameter: 6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4627.00		
Shut-In Tool	5.00			4632.00		
Hydroic Tool	5.00			4637.00		
Jars	6.00			4643.00		
Safety Joint	2.00			4645.00		
Packer	5.00			4650.00	29.00	Bottom Of Top Packer
Packer	5.00			4655.00		
Perforations	38.00			4693.00		
Recorder	1.00	8400	Inside	4694.00		
Recorder	1.00	6999	Outside	4695.00		
Bullnose	3.00			4698.00	43.00	Bottom Packers & Anchor

Ref. No: 18494

Total Tool Length: 72.00



FLUID SUMMARY

Cimarex Energy Co.

19/30s/31w/Haskell

348 Rd. DD

Hammer #19-6

Santana Ks, 67870

Job Ticket: 18494 **DST#:1**

ATTN: Kevin Martin

Test Start: 2013.09.16 @ 20:35:00

Printed: 2013.09.16 @ 08:30:18

Mud and Cushion Information

Mud Type:Gel ChemCushion Type:Oil API:deg APIMud Weight:9.00 lb/galCushion Length:ftWater Salinity:ppm

Viscosity: 47.00 sec/qt Cushion Volume: bbl

Water Loss: 8.00 in³ Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psia

Salinity: 1500.00 ppm Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	No gas	0.000
59.00	100% mud	0.290

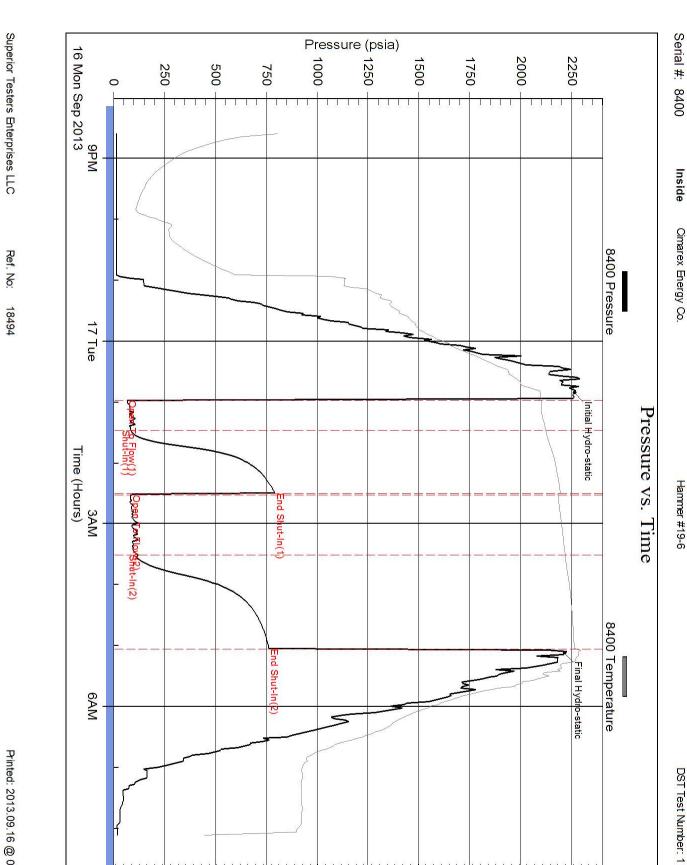
Total Length: 59.00 ft Total Volume: 0.290 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

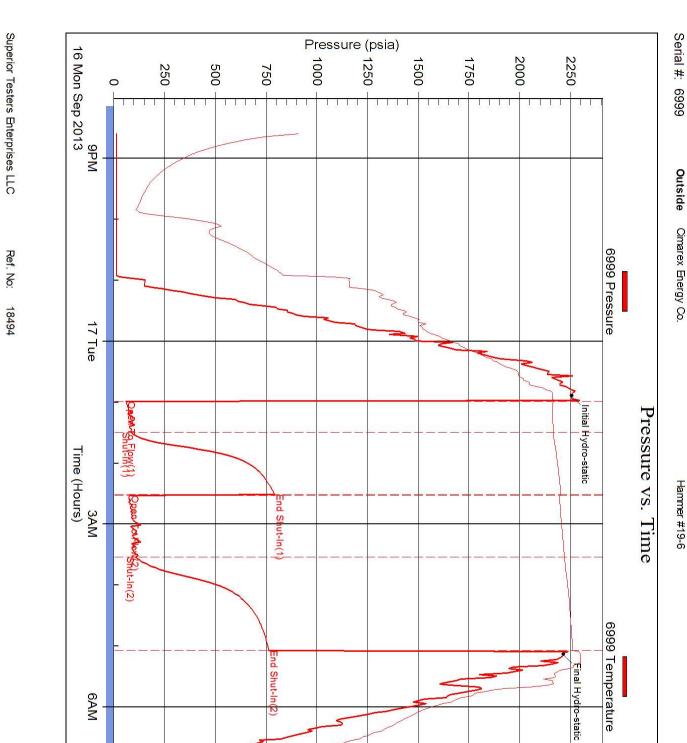
Laboratory Name: Laboratory Location:

Ref. No: 18494

Recovery Comments:



Temperature (deg F)



DST Test Number: 1

Temperature (deg F)