

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**ORIGINAL**

Form ACO-1  
October 2008  
Form Must Be Typed

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

OPERATOR: License # 34024  
Name: KAMC Oil & Gas LLC  
Address 1: 800 Henry Circle  
Address 2: \_\_\_\_\_  
City: Fruita State: CO Zip: 81521 + 2289  
Contact Person: Charles Bisbee  
Phone: ( 970 ) 639 2335  
CONTRACTOR: License # 33374  
Name: L & S Well Service, Jim Lorenz  
Wellsite Geologist: Mark Brcheisen  
Purchaser: Crude Marketing ... Pacer  
Designate Type of Completion:  
 New Well \_\_\_\_\_ Re-Entry \_\_\_\_\_ Workover  
 Oil \_\_\_\_\_ SWD \_\_\_\_\_ SIOW  
 Gas \_\_\_\_\_ ENHR \_\_\_\_\_ SIGW  
\_\_\_\_\_ CM (Coal Bed Methane) \_\_\_\_\_ Temp. Abd.  
\_\_\_\_\_ Dry \_\_\_\_\_ Other \_\_\_\_\_  
*(Core, WSW, Expl., Cathodic, etc.)*

If Workover/Re-entry: Old Well Info as follows:  
Operator: N/A  
Well Name: Loether 5Z  
Original Comp. Date: 8-11-08 Original Total Depth: 4127'  
\_\_\_\_\_ Deepening \_\_\_\_\_ Re-perf. \_\_\_\_\_ Conv. to Enhr. \_\_\_\_\_ Conv. to SWD  
\_\_\_\_\_ Plug Back: \_\_\_\_\_ Plug Back Total Depth  
\_\_\_\_\_ Commingled \_\_\_\_\_ Docket No.: \_\_\_\_\_  
\_\_\_\_\_ Dual Completion \_\_\_\_\_ Docket No.: \_\_\_\_\_  
\_\_\_\_\_ Other (SWD or Enhr.?) \_\_\_\_\_ Docket No.: \_\_\_\_\_  
8-13-08 8-14-08 8-26-08  
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements are complete and correct to the best of my knowledge.

Signature: Dale R. Erickson  
Title: Manager Date: 2-5-10

Subscribed and sworn to before me this 05 day of FEBRUARY

Notary Public: Kandy L. Pankl  
Date Commission Expires: 17 July 2012

KANDY L PANKL  
NOTARIAL SEAL - STATE OF IOWA  
COMMISSION NUMBER 759193  
MY COMMISSION EXPIRES JULY 17, 2012

API No. 15 - 15-205 - 27597 - 0000  
Spot Description: Loether # 5Z  
SW NW SE SE Sec. 2 Twp. T29 S. R. R14  East  West  
750 Feet from  North /  South Line of Section  
910 1210 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Wilson  
Lease Name: Loether Well #: 5Z  
Field Name: \_\_\_\_\_  
Producing Formation: Bartlesville  
Elevation: Ground: 889' Kelly Bushing: \_\_\_\_\_  
Total Depth: 1127' Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 44' Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 8' 5/8"  Feet  
 (If Alternate II completion, cement circulated from: ) 44  
feet depth to: 0 w/ 12 <sup>5x cml</sup>  
ALT-7-2110/10  
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: \_\_\_\_\_  
Operator Name: N/A  
Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Docket No.: \_\_\_\_\_

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KCC Office Use ONLY FEB 08 2010  
N Letter of Confidentiality Received CONSERVATION DIVISION  
If Denied, Yes  Date: \_\_\_\_\_ WICHITA, KS  
Wireline Log Received  
Geologist Report Received RECEIVED  
UIC Distribution DEC 24 2009

KCC WICHITA

Operator Name: KAMC Oil & Gas LLC Lease Name: Loether Well #: 5Z  
 Sec. 2 Twp. T29 S. R. R14  East  West County: Wilson

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 copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Name	Top Datum
Cores Taken	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Electric Log Run <i>(Submit Copy)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No		
List All E. Logs Run:			

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of Siring	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
<u>Surf</u>	<u>8 5/8"</u>			<u>44'</u>		<u>12</u>	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	
			Depth

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 CONSERVATION DIVISION  
 WICHITA, KS

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or Enhr. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <b>RECEIVED</b>
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Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

**DEC 24 2009**  
**KCC WICHITA**

Geological Report

Loether #5-Z  
750' FSL/1210' FEL  
Section 2, T29S-R14E  
Wilson Co., KS

**Operator:** KAMC Oil & Gas LLC

**Drilling Contractor:** L&S Well Service, Jim Lorenz, driller. Ingersoll-Rand air rotary drilling w/auxiliary air compressor.

**Wellsite Geologist:** Mark Brecheisen – On location from 0' to T.D.

**Dates Drilled:** August 14<sup>th</sup>, 2008

**Size Hole:** 6 3/4"

**Total Depth:** 1127'

**Elevation:** 887'

**Drilling Fluid:** Compressed air with injected water

**Surface Casing:** 44' of 8 5/8" surface casing cemented to surface with 12 sacks cement.

**Electric Logs Run:** Gamma Ray, Neutron, Induction, Temperature and Density Logs.

**Formation Tops:** Formation tops were picked from the gamma ray, neutron and density logs

**Status:** Gas Well

**Gas Shows:**

<b>Weiser Sandstone</b>	<b>678' - 684 1/2'</b>	<b>11mcf/day</b>
<b>Mulky Shale &amp; Coal</b>	<b>853 1/2' - 856'</b>	<b>2mcf/day</b>
<b>Weir Coal</b>	<b>1038 1/4' - 1044'</b>	<b>17mcf/day</b>

**Oil Shows:**

Hertha Limestone @ 539' - 542'  
Weiser Sandstone @ 678' - 684 1/2'  
Lower Cattleman Sandstone @ 996' - 1003'  
Bartlesville Sandstone @ 1087' - 1090'

**Water Encountered:** Started Injecting water after cutting drill joint #9 @ 255' - 285'

**Notes:** Well cuttings were examined at rig and discarded. Some samples of "zones of interest" were saved and examined with a binocular microscope and black light.

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## Field and Laboratory Sample Examination

0' - 435'	Samples not examined.
435' - 436'	Stark Shale, grayish black to black.
436' - 437'	Shale, Dark gray, calcareous.
437' - 443'	Canville Limestone, tan to olive gray, mottled, fine crystalline, hard.
443' - 457'	Shale, medium to medium dark gray, sandy in part.
457' - 480 ½'	Sandstone, medium gray to medium dark gray, fine grained, fair to good friability, argillaceous in part, no petroliferous odor/show.
480 ½' - 490'	Hushpuckney Shale, medium dark gray to dark gray.
490 - 506 ½'	Limestone, medium olive gray to medium dark brown, fine crystalline, slightly sucrosic, very hard.
506 ½' - 519'	Shale, medium dark gray.
519' - 550'	Hertha Limestone – a description of a sample taken within the Hertha follows: 539' - 542' Limestone, medium olive gray, fine crystalline, traces of intergranular porosity observed, sucrosic, fairly hard, strong petroliferous odor present. 5% variegated bright yellow hydrocarbon fluorescence, 80% fairly even dull yellow mineral fluorescence. Slow, uneven, very poor milky blue cut; no residual oil show to tray after cut. It should be noted that a strong petroliferous odor was picked up between 522' and 525' – no sample of this interval had any visible oil show.
<b>Gas Check @ 525'</b>	<b>Stark Test – very slight blow; not enough to register on gauge</b>
550' - 555'	Shale, grayish black.
555' - 560'	Shale, grayish black to black, carbonaceous.
<b>Gas Check @ 555'</b>	<b>Very slight blow; Gas check same</b>
560' - 567'	Shale, dark gray.
567' - 574 ½'	Checkerboard Limestone, medium to dark brown, fine crystalline, very hard, dense, no visible porosity.
574 ½' - 586'	Shale, dark gray to grayish black.
586' - 597'	Shale, medium gray, micaceous, silty in part.
597' - 600'	Shale, medium dark gray
600' - 623'	Lenapah Limestone, medium olive gray, fine crystalline, hard, no visible porosity observed in gross sample examination. Few scattered shale breaks present.
623' - 640'	Shale, medium dark gray, locally limey.
<u>Top of the Altamont Limestone @640' (247')</u>	
640' - 650'	Limestone, medium brown, mottled, fine crystalline, slightly sucrosic, fair intercrystalline porosity observed on some samples.
650' - 652'	Shale, grayish black.
652' - 678'	Shale, light to medium gray, sandy in part, slight petroliferous odor @ 670'.
678' - 684 ½'	Weiser Sandstone, light gray, fine grained, excellent friability, good petroliferous odor in samples. Few specks of light brown oil “popping” out of some rock samples. Samples show no real oil saturation on freshly broken surfaces.
684 ½' - 757'	Shale, medium dark gray, locally silty/sandy, calcareous in part.

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**Gas Check @ 706' Weiser Test - 3" on 1/2" choke = 11 mcf/day (all from Weiser Sand)**

757'-759' Limestone, dark brown.  
759'-760' Shale, grayish black, calcareous.  
760'-761' Mulberry coal, thinly banded vitrain coal, vitreous luster.  
761'-763' Shale, dark gray, calcareous.

Top of the Pawnee Limestone @ 763' (+124')

763'-783' Limestone, pinkish gray to medium brown. Fine crystalline, sucrosic, no visible porosity.  
783'-784 1/2' Lexington shale, grayish black.  
784 1/2'-804' Shale, medium dark gray, silty/sandy in part.  
804'-807 1/2' Peru Sandstone, light gray, fine grained, fairly hard, no hydrocarbon odor/show.  
807'-819' Shale, medium dark gray.

Top of the Oswego Limestone @ 819' (+68)

819'-836' Limestone, tan to medium dark brown, fine crystalline. Scattered traces of intercrystalline porosity observed, fair petroliferous odor @ 829', no visible show in samples.

**Gas check @ 826'-Mulberry Test - 2 1/2" on 1/2" choke = 10mcf/day (slight decrease)**

836'-839 1/2' Shale, dark gray to grayish black.  
839 1/2'-840 1/2' Summit Shale, grayish black to black, pyritic.  
840 1/2'-844' Shales, dark gray, calcareous in part.  
844'-852' Limestone, medium olive gray.  
852'-853 1/2' Shale, grayish black.  
853 1/2'-855' Mulky Shale, black, carbonaceous.  
855'-856' Mulky coal.

**Gas Check @ 856'- Summit/Mulky Test- 3 1/2" on 1/2" choke = 12mcf/day- (2mcf increase)**

856'-860' Limestone, medium olive gray.  
860'-863' Shale, Light greenish gray.  
863'-869' Squirrel Sandstone, light gray, fine grained, laminated. Fairly hard, slight petroliferous odor, no oil show.  
869'-886' Shale, medium dark gray, few scattered sand laminations, locally limey.  
886'-910' Shale, dark gray.  
910'-911' Bevier Coal.  
911'-924' Shale, medium to medium dark gray.

Top of the Verdigris (Ardmore) Limestone @ 924' (-37')

924'-925 1/2' Limestone, dark brown, very hard, dense fossiliferous, fine crystalline.  
925 1/2'-927 1/4' Shale, dark gray.  
927 1/4'-928 3/4' Croweburg Shale, grayish black to black carbonaceous, no coal at base of shale.  
928 3/4'-983 3/4' Shale, medium to medium dark gray, sandy in part, locally limey.

**Gas check @ 976' - Croweburg Test- 3 1/2" on 1/2" choke = 12mcf/day - same**

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983 ¾' - 984 ¾' Mineral Coal.  
 984 ¾' - 996' Shale, dark gray.  
 996' - 1003' Lower Cattleman Sandstone, sand with interbedded dark gray shale, fine grained, friable to very friable, dark brown to gray. Low percentage of sand in sample, traces of black bitumen in some samples. Strong petroliferous odor, 60% variegated bright yellow hydrocarbon fluorescence. Slow, fairly even, fair milky blue cut. Faint residual oil show to tray after cut.  
 1003' - 1011' Shale, dark gray, locally limey.

**Gas check @ 1006' - Lower Cattleman Test - 3 ½" on ½" choke = 12mcf/day - same**

1011' - 1016' Shale, dark gray to grayish black.  
 1016' - 1033' Shale, light to medium gray, locally silty/sandy.  
 1033' - 1038 ¼' Shale, grayish black, slightly pyritic.  
 1038 ¼' - 1044' Weir Coal, thinly banded vitrain/characin coal, few conchoidal fractures. >65% flat cleat faces, slightly pyritic, dull metallic to vitreous luster. Had a definite increase in gas from the Weir coal when checked.  
 1044' - 1059' Shale, medium to medium dark gray, few lime streaks present.

**Gas check @ 1051' - Weir Test - 22" on ½" choke = 29mcf/day (17mcf from Weir)**

1059' - 1087' Shale, medium dark gray with scattered sand lenses, few of which had a slight petroliferous odor. Two such samples were taken at the following depths:

- 1076' - 1078' Sandstone, fine grained, dark gray, fairly friable. Very argillaceous, very faint petroliferous odor w/traces of brown oil stain on few samples. 80% variegated dull yellow hydrocarbon fluorescence, no cut.
- 1082' - 1084' Sample mostly sandy shale. Sample had traces of medium brown oil stain on few surfaces, fine grained, friable, medium dark grayish color, very faint petroliferous odor. <3% variegated dull yellow hydrocarbon fluorescence, no oil cut.

Top of Bartlesville Sandstone @ 1087' (-200')

1087' - 1090' Sandstone, dark gray, fine grained. Friable, fair petroliferous odor, traces of dark brown oil stain on some rock surfaces. 70% variegated dull yellow hydrocarbon fluorescence, uneven, slow, poor milky blue cut. No residual oil show to tray after cut.  
 1090' - 1092' Sandstone, medium dark gray, fine grained, fairly hard. Micaceous, faint petroliferous odor, fairly even, medium brown oil stain on some samples. Saturation is better than previous sample, but still differential. 8-12% variegated bright yellow hydrocarbon fluorescence. Very slow, uneven, poor milky blue cut, no residual oil to tray after cut.  
 1092' - 1094' Sandstone, dark gray, fine grained. Fairly friable, faint petroliferous odor, traces of dark brown oil stain on surfaces of some samples. Sample overall is mostly shale, 15% variegated bright yellow hydrocarbon fluorescence. Slow, even, poor milky blue cut, no residual oil show to tray after cut.  
 1094' - 1096' Sandstone, dark gray to dark brown. Fine grained, good friability, fair petroliferous odor, even dark brown oil stain on rock samples. Saturation is even throughout rock fragments. 90% variegated dull yellow & bright yellow

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hydrocarbon fluorescence. Fast, uneven, poor milky blue cut, no residual oil to tray after cut.

1096' - 1098'


Sandstone, dark gray, fine grained, argillaceous. Fairly friable, faint petroliferous odor, traces of mottled brown oil stain on few samples. No fluorescence, no cut.

1098' - 1127'

Shale, medium dark gray, silty/sandy in part.

Gas check @ 1127' - Bartlesville Test- 27" on ½" choke = 31mcf/day (2mcf Bartlesville)

T.D. @ 1127'



(Mark D. Brecheisen)

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