SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION

WELL COMPLETION OR RECOMPLETION FORM
ACO-1 WELL HISTORY

DESCRIPTION OF WELL AND LEASE

Operator: license # 5673
name W. L. Kirkman, Inc.
address P.O. Box 18611, 453 S. Webb Road
City/State/Zip Wichita, Kansas 67207

Operator Contact Person Wayne L. Kirkman
Phone (316)685-5372

Contractor: license # 5829
name Aldebaran Drilling Co., Inc.

Wellsite Geologist Brian J. Kissick
Phone (316) 685-5372
PURCHASER Koch Oil Company

Designate **Type of Completion**
New Well | Re-Entry | Workover

☒ Oil ☐ SWD ☐ Temp Abd
☐ Gas ☐ Inj ☐ Delayed Comp.
☐ Dry ☐ Other (Core, Water Supply etc.)

If **OWWO:** old well info as follows:
Operator
Well Name
Comp. Date Old Total Depth

API NO. 15 - 119-20,663-00-00

County Meade

App. C NE SE Sec 2 Twp 34S Rge 29 East / West
(location)

1980 Ft North from Southeast Corner of Section
660 Ft West from Southeast Corner of Section
(Note: locate well in section plat below)

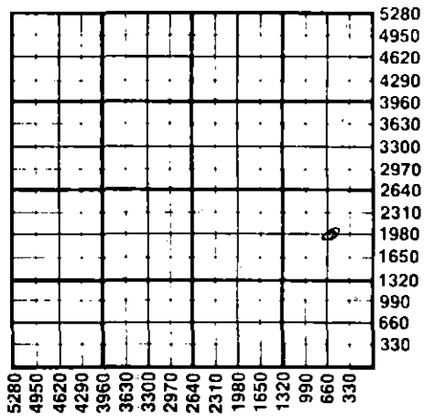
Lease Name Cordes Well# A-1

Field Name

Producing Formation N/A KCKCC

Elevation: Ground 2468 KB 2476

Section Plat



WELL HISTORY

Drilling Method: ☒ Mud Rotary ☐ Air Rotary ☐ Cable

6-18-84	7-4-84	7-4-84
Spud Date	Date Reached TD	Completion Date

6440	5745
Total Depth	PBTD

Amount of Surface Pipe Set and Cemented at 1484 feet

Multiple Stage Cementing Collar Used? ☐ Yes ☒ No

If Yes, Show Depth Set feet

If alternate 2 completion, cement circulated
from feet depth to w/ SX cmt

WATER SUPPLY INFORMATION

Source of Water:

Division of Water Resources Permit #

☒ Groundwater N/A Ft North From Southeast Corner and
(Well) N/A Ft. West From Southeast Corner of
Sec 2 Twp 34S Rge 29 ☐ East ☒ West

☐ Surface Water Ft North From Sourtheast Corner and
(Stream, Pond etc.) Ft West From Southeast Corner
Sec Twp Rge ☐ East ☐ West

☐ Other (explain)
(purchased from city, R.W.D.#)

Disposition of Produced Water: ☐ Disposal ☐ Repressuring

Docket #

INSTRUCTIONS: This form shall be completed in duplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 90 days after completion or recompletion of any well. Rules 82-3-130 and 82-3-107 apply.

Information on 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 drillers time log shall be attached with this form. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

RECEIVED
STATE CORPORATION COMMISSION

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.

OCT 04 1984

CONSERVATION DIVISION
Wichita, Kansas

Signature
Wayne L. Kirkman
Title President Date 10-3-84

Subscribed and sworn to before me this 3rd day of October 19 84

Notary Public Kathleen G. Quinn
Date Commission Expires 3-20-87

KATHLEEN G. QUINN
STATE NOTARY PUBLIC
Sedgwick County, Kansas
My Appt. Exp. 3-20-87

K.C.C. OFFICE USE ONLY
F ☐ Letter of Confidentiality Attached
C ☑ Wireline Log Received
C ☐ Drillers Timelog Received

Distribution
☑ KCC ☐ SWD/Rep ☐ NGPA
☐ KGS ☐ Plug ☐ Other (Specify)

Sec. 2 Twp. 34 Rge. 29W

Form ACO-1 (7-84)

SIDE TWO

Operator Name W. L. Kirkman, Inc. Lease Name Cordes Well# A-1 SEC 2 TWP 34S RGE 29 ☐ East ☒ West

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken	☒ Yes	☐ No
Samples Sent to Geological Survey	☒ Yes	☐ No
Cores Taken	☐ Yes	☒ No

DST #1
The Council Grove 'C' and 'D' zones were tested together:

3107-41
30-60-45-90
IF: 124-296
ISIP: 866
FF: 325-402
FSIP: 866
JP: 1498-1459
Gas to surface 1st shut in
2nd opening: 5 min - 17.2 MCF
10 min - 78. MCF
15 min - 116. MCF
20 min - 129. MCF
25 min - 129. MCF
30 min - 129. MCF
35 min - 134. MCF
40 min - 134. MCF
45 min - 134. MCF

Recovery: 985' muddy slatwater - 50,000 ppm.

No shows were noted through either of these zones (3107-41) as samples were fine and "powdery" and no gas trailer was employed on this hole. Electric log examintation shows lower water saturation figures through the "d" zone as well as "gas-effect" or "crossover" on the Neutron/Density Porosity Log. It is thought that the gas came from this zone and the water from the 'C' zone.

CONTINUED ON SEPERATE PAGE

Formation Description ☒ Log ☐ Sample

Name	Top	Bottom
Council Grove	3060	(- 584)
Heebner	4374	(-1898)
Lansing	4537	(-2061)
Swope 'porosity'	5043	(-2567)
Marmaton	5183	(-2707)
Cherokee Shale	5382	(-2906)
Morrow	5708	(-3232)
Chester	5812	(-3336)
St. Genevieve	6146	(-3670)
St. Louis Porosity	6276	(-3800)

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
Surface	12 1/4	8 5/8	23	1484	Class A	700	2% gel, 3% CC
Production	7 7/8	5 1/2	15.5	6188-35	L.W.	50	
					60-40 POZ	300	15% salt, .75%CFR2 w/8# GIL/sack

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
shots per foot	specify footage of each interval perforated	(amount and kind of material used)	Depth
4	5755-5757	400 gals 15% MCA	5755-57
4	5259-5261	500 gals 15% MCA	5259-61
		1500 gals 28% acid	5259-61

TUBING RECORD size set at packer at Liner Run ☐ Yes ☐ No

Date of First Production | Producing method ☐ flowing ☒ pumping ☐ gas lift ☐ Other (explain)

Estimated Production Per 24 Hours	Oil	Gas	Water	Gas-Oil Ratio	Gravity
	Bbls	MCF	300 Bbls	CFPB	

Disposition of gas: ☐ vented ☐ sold ☐ used on lease

METHOD OF COMPLETION
☐ open hole ☒ perforation
☐ other (specify)
☐ Dually Completed.
☐ Commingled

PRODUCTION INTERVAL
5259-5261

The "Middle" Marmaton at 5258 is described as: Limestone, light brown, fine crystalline, oolitic to oolicastic, fair vuggy porosity, good oolicastic porosity, good odor, good flourescence, good show gas, fair show oil. DST #2 covers this zone.

5236-5280 10-15-30-45
IF: 124-124
ISIP: 769
FF: 153-162
FSIP: 972
HP: 2521-2511
RECOVERY: 4910' gas in pipe
10' mud cut oil
240' frothy oil
120' saltwater - chlorides 130,000 ppm.

A very slight show of oil was noted at 5344 to 5346 in the Marmaton. Log calculations show a porosity of 9% and a Sw of 70%.

At 5313 to 5318 in the Marmaton, limestone with a faint flourescence and a fleeting odor was noted. E-log calculations show 14% porosity and Sw of 61%.

Three sands were encountered through the Morrow section. The top and bottom sands were tested. The middle sand was not tested as no sandstone was noted through the drilling break.

The first Morrow sand at 4346 is described as: Sandstone, fine grained, subangular to subrounded, glauconitic, good visible porosity, faint flourescence, no odor, fair show oil and gas. This sand was covered by DST #3:

5733-5753 10-15-30-45
IF: 86-86
ISIP: 95
FF: 86-86
FSIP: 363
HP: 2856-2787
RECOVERY: 475' gas in pipe
65' gas cut mud

No sand was noted at 5754 to 5758. Examination of the E-log shows that a sand is probably present through this interval. No test was run.

The lower Morrow sand at 5774 through 5781 is described as: Sandstone, white, fine grained, subangular to subrounded, fair visible porosity, slight show oil and gas, only one cluster found. This sand was covered by DST #4:

5767-5785 10-15-30-45
IF: 95-95
ISIP: 817
FF: 134-134
FSIP: 1537
HP: 2885-2836
Recovery: 295' gas in pipe
5' gas cut mud
120' oil and gas cut watery mud (5% oil, 2% gas, 55% mud, 38% water)
60' slightly oil cut muddy water - chlorides 48,000 ppm
(2% oil, 1% gas, 25% mud, 72% water).

The Mississippian Chester drilled hard (4-5 minutes/foot). The E-log shows the upper 34' to be dense limestone with thin shale streaks scattered throughout. Sample examination showed dense limestone and also two pieces of: Limestone, fine crystalline, some fossiliferous, scattered pinpoint porosity, slight show oil. Only the bottom five feet of the upper 34' of Chester limestone was covered on DST #5:

5845-5875 10-15-30-45
IF: 57-57
ISIP: 57
FF: 57-57
FSIP: 67
HP: 2935-2885
RECOVERY: 60' mud

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OCT 04 1984
CONSERVATION DIVISION
Wichita, Kansas

A sandstone with a show of gas was encountered in the Basal Chester at 6080 to 6084 in the E-log. This sand is described as follows: Sandstone, fine grained, angular to subangular, much gilsonite, poor visible porosity, slight show of gas. This zone was not tested. The rest of the Basal Chester is a limey sandstone or a sandy limestone, gilsonitic, very slight to some with fair show of oil and poor visible porosity. E-log calculations show 10% porosity and 57% water saturation from 6112 to 6117 and 7% porosity and 52% water saturation at 6130.

Pipe was set at 6188 with the intention of further evaluating the Basal Chester Sand, Morrow Sand, Middle Marmaton, and Council Grove 'D' zone.