

KANSAS DRILLERS LOG

State Geological Survey
WICHITA, BRANCHAPI No. 15 — 175 — 20186
County Number

Operator

Hickerson Oil Co.

Address 2420 Western Federal Savings Building
Denver, Colorado 80202

Well No.

#1

Lease Name

Russell

Footage Location

660 feet from (N) (S) line 660 feet from (E) (W) line

Principal Contractor

Sage Drilling Company

Geologist

John B. Elder

Spud Date

December 19, 1973

Total Depth

6235

P.B.T.D.

6080

Date Completed

April 23, 1973

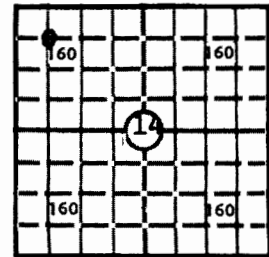
Oil Purchaser

Negotiating Contract

S. 14 T. 35 R. 31 W

Loc. C NW NW

County Seward

640 Acres
N

Locate well correctly

Elev.: Gr. 2684

DF 2690 KB 2691

CASING RECORD

Report of all strings set — surface, intermediate, production, etc.

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives
Surface	12-1/4	8-5/8	24	1484	Halco Light Common	400 200	3% CC 10% salt + 3%CC 18% salt
Production	7-7/8	4-1/2	10-1/2	6237	50-50 POZ	200	0.6%CFK-2, 1/2#Flocele

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
None					
TUBING RECORD			4		6154-56
			4		6107-11
Size	Setting depth	Packer set at	2		6013-17
2-3/8	6038	None	2		6040-44

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
500 gal. 15% MCH	6154-56
50 SX FLAC Cmt. below model K retainer @ 6140	6154-56
750 gal. 15% MEC	6107-11
18,000 gal. 3% gelled acid wtr w/15000# 20-40 Sd down csg.	6107-11
50 SX FLAC cement below model K retainer @ 6080	6107-11
1500 gal. 15% BDA	6013-17, 6040-44

INITIAL PRODUCTION

Date of first production		Producing method (flowing, pumping, gas lift, etc.)			
February 13, 1973		Flowing thru tubing			
RATE OF PRODUCTION PER 24 HOURS	Oil	Gas	Water	Gas-oil ratio	
	1.5 bbls.	2,184 MCF	0 bbls.	1,456,000 CFPB	
Disposition of gas (vented, used on lease or sold)			Producing interval (s)		
			6013-17 & 6040-44		

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Drillers Log shall be transmitted to the State Geological Survey of Kansas, 4150 Monroe Street, Wichita, Kansas 67209. Copies of this form are available from the Conservation Division, State Corporation Commission, 3830 So. Meridian (P.O. Box 17027), Wichita, Kansas 66217. Phone AC 316-522-2206. If confidential custody is desired, please note Rule 82-2-125. Drillers Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044.

Operator Hickerson Oil Company		DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:
Well No. 1	Lease Name Russell	Gas Well
S <u>14</u> T <u>35</u> R <u>31</u> ^E _N C NW/4 NW/4 Seward Ks		

WELL LOG

Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
<u>Certified Drillers Log Attached</u>			<u>Log Tops</u>	
Drill Stem Test #1 5940-6045'			Anhydrite Base	2696
Opened for 15 min. preflow w/strong			Council Grove ls	3042
flow. Initial shut in for 60 min.			Heebner Sh base	4503
Reopened for final flow for 60 min. w/GTS			Toronto ls	4518
in 7 min. of final flow w/rates of:			KC-Lansing ls	4638
15 min. 4 psi 156 MCF			Hodges 3 one	5193
25 min. 5 psi 175 MCF			Marmaton ls	5336
35 min. 5.5 psi 185 MCF			Cherokee	5582
45 min. 6.0 psi 194 MCF			Atoka	5823
55 min. 6.0 psi 194 MCF			13 Fingers ls	5902
60 min. 6.0 psi 194 MCF			Morrow sh	5942
Shut in for final shut in.			U Morrow SS	6010
Recovered 170' drlg. mud and GTS.			L Morrow SS	6105
IHMP 2903#, IPF 78-145#,			Miss-Chester	6139
ICIP 1694#, FHMP 2770			Total Depth	6235
Drill Stem Test #2 6095-6235'				
Opened for 15 min. preflow w/				
strong flow. Initial shut in				
60 min. Reopened for final				
flow w/strong flow, decreasing				
to weak flow. Final shut in				
60 min.				
Recovered 90' drlg. mud.				
IHMP 3030#, IFP 46-60#,				
ICIP 275#, FFP 46-46#,				
FCIP 257#, FHMP 2827#,				
<u>Electric Logs</u>				
Dual Induction - Laterolog				
TD to base of 8-5/8 surf. csg.				
Comp Formation, Density w/GR				
TD to 4500'				

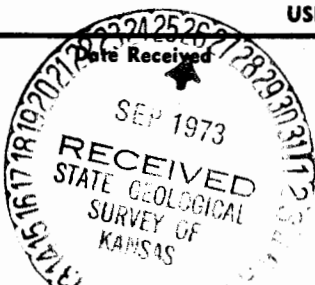
LOG	TOPS	DEPTH	DATUM
B SC		2696	- 05
CD GR		3042	- 351
B HEEB		4503	-1812
TOR		4518	-1827
LANS		4638	-1947
HODGES PA		5193	-2502
MRM		5336	-2645
CHEB		5582	-2891
ATOKA		5823	-3132
13 FINGER LS		5902	-3212
MRW SH		5942	-3251
U MRW SD		6010	-3319
L MRW SD		6105	-3414
CHEST		6139	-3448
RTD		6235	-3544
LTD		6237	-3546

INDEPENDENT OIL & GAS SERVICE

LOG	TOPS	DEPTH	DATUM
B SC		2696	- 05
CD GR		3042	- 351
B HEB		4503	-1812
TOR		4518	-1827
LANS		4638	-1947
HODGES PA		5193	-2502
MRM		5336	-2645
CHEP		5582	-2891
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MRW SH		5942	-3251
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L MRW SD		6105	-3414
CHEST		6139	-3448
RTD		6235	-3544
LTD		6237	-3546

INDEPENDENT OIL & GAS SERVICE

USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.



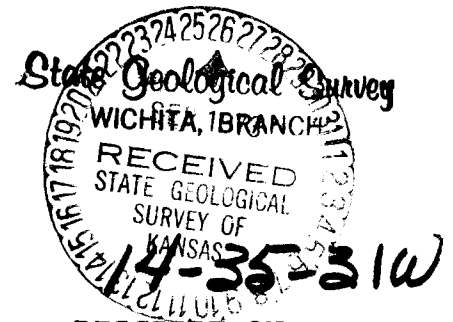
Shatta C Smith
Signature

Petroleum Engineer

September 9, 1973
Date

DRILLERS LOG

RUSSELL NO. 1



CASING RECORD: OPERATOR: Hickerson Oil Co.
8-5/8" @ 1485' CONTRACTOR: Sage Drilling Co.
w/600 sax cement
TOTAL DEPTH: COMMENCED: December 19, 1972
6235' COMPLETED: January 3, 1973

DESCRIPTION:
C NW NW
Sec. 14-35S-31W
Seward County,
Kansas

<u>FORMATION</u>	<u>FROM</u>	<u>TO</u>	<u>REMARKS</u>
Clay & Sand	0	580	
Red Bed	580	670	
Red Bed & Sand	670	1341	
Red Bed	1341	1429	
Anhydrite	1429	1498	
Shale	1498	1730	
Shale & Lime	1730	2430	
Lime & Shale	2430	4130	
Shale & Lime	4130	4237	
Lime & Shale	4237	5192	
Lime	5192	5320	
Lime & Shale	5320	6235	4 1/2" set @ 6237' w/200 sax cement

I certify that this is a true and correct copy of the above log to the best of my knowledge.

SAGE DRILLING CO., INC.

By Clarence Michael
Clarence Michael



Subscribed and sworn to before me this 5th day of January, 1973.