

OPERATOR: A. T. SKAER  
3250 MONACO STREET PARKWAY  
DENVER 7, COLORADO



LEASE: No. 3 KIRK

LOCATION: SE NW SE SECTION 18, T9N, R53W, LOGAN COUNTY, COLORADO

ELEVATION: 4208 GROUND LEVEL  
4214 KELLY BUSHING

SPUD: FEBRUARY 20, 1959

COMPLETED: FEBRUARY 25, 1959

TOTAL DEPTH: 5116 DRILLER  
5117 ELECTRIC LOG

SURFACE CASING: 68' OF 8-5/8 SET AT 74' WITH 100 SACKS CEMENT

CORE DATA: NO CORES TAKEN

D.S.T. DATA: D.S.T. #1 4913-4921 ("D")  
D.S.T. #2 5026-5032 ("J")

ELECTRIC LOGS: 1. INDUCTION ELECTRIC FROM 5111 TO 76  
2. MICRO LOG FROM 5111 TO 4800

RIG TYPE: IDECO H-30

CONTRACTOR: HURON DRILLING COMPANY  
506 PATTERSON BUILDING  
DENVER, COLORADO

TOOL PUSHER: MR. GENE PHILLIPS  
Box 633  
FORT MORGAN, COLORADO

BIT RECORD:

<u>RUN</u>	<u>SIZE</u>	<u>MAKE</u>	<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>FEET</u>	<u>HOURS</u>
1	7-7/8	HTC	OSC-3	94	3460	3366	21-3/4
2	7-7/8	VARGL	V3D	3460	4360	900	10-3/4
3	7-7/8	VARGL	V3D	4360	4921	561	8-1/4
4	7-7/8	VARGL	VH2	4921	5064	143	10-1/2
5	7-7/8	VARGL	VH2	5064	5116	52	10

MUD: JELL AND CHEMICAL WITH OIL MIX

STATUS: SET 5-1/2 PRODUCTION CASING AT 5091 WITH 200 SACKS CEMENT



ELECTRIC LOG FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>
NIOBRARA	4078	+ 136
FORT HAYS	4419	- 205
CODELL	4460	- 246
CARLILE	4468	- 254
GREEN HORN	4678	- 464
BENTONITE	4822	- 608
"D"	4912	- 698
"J"	5019	- 805
TOTAL DEPTH	5117	

CORE AND/OR SAMPLE DATA:

"D" SAND - THE "D" WAS DRILLED AND SAMPLES CIRCULATED OUT WITH STAINING AND FLOURESENCE PRESENT. SAMPLES LOOKED TIGHT WITH SHALE STREAKS PRESENT.

"J" SAND - THE "J" SAND WAS DRILLED AND SAMPLES INDICATED STAINING IN THE TOP ZONE. SAMPLES INDICATED A TIGHT SAND WITH SOME SHALE PRESENT.

ELECTRIC LOG ANALYSIS:

<u>FORMATION</u>	<u>ZONE</u>	<u>POROSITY</u>	<u>WATER SATURATION</u>	<u>PROBABLE PRODUCTION</u>
"D"	4913-4919	17	65	TIGHT - LOW OIL
"J"	5026-5032	16	70	TIGHT - LOW OIL

DRILL STEM TEST DATA:

D.S.T. #1 4913-4921 (D") - TOOL OPEN 2 HOURS, SHUT IN 30 MINUTES BY-PASSED AFTER 1 HOUR. RECOVERED 15' OF SLIGHTLY OIL CUT MUD. INITIAL FLOW PRESSURE 0 PSI. FINAL FLOW PRESSURE 0 PSI. SHUT IN PRESSURE 305 PSI. HYDROSTATIC PRESSURE 2665 PSI. BOTTOM HOLE TEMPERATURE 148° F.

D.S.T. #2 5026-5032 ("J") - TOOL OPEN 2 HOURS. SHUT IN 30 MINUTES. RECOVERED 120' FLUID. 16 FEET OF FREE OIL. 100' OF HEAVY OIL CUT MUD. 4 FEET MUDDY WATER. INITIAL FLOW PRESSURE 0 PSI. FINAL FLOW PRESSURE 38 PSI. SHUT IN PRESSURE 1257 PSI. HYDROSTATIC PRESSURE 2665 PSI.

CONCLUSION:

"D" SAND - THE "D" CONTAINS 5-1/2 TO 6 FEET OF SATURATED SAND. ELECTRIC LOG AND D.S.T. RESULTS INDICATE THE SAND IS TIGHT AND HAS A LOW BOTTOM HOLE PRESSURE. IT IS FELT THAT THE BOTTOM HOLE PRESSURE MAY BE SUFFICIENT TO PRODUCE OIL. A COMPARATIVE ANALYSIS WITH THE #1 KIRK INDICATES THIS ZONE IN THE #3 KIRK TO BE AS GOOD OR BETTER THAN THE #1 KIRK. IT IS RECOMMENDED THAT AN ATTEMPT BE MADE TO COMPLETE THE WELL IN THIS ZONE.

"J" SAND - THE "J" CONTAINS APPROXIMATELY 6 FEET OF STAINED SAND AND RECOVERED 16' OF FREE OIL FROM THIS ZONE ON A DRILL STEM TEST. ELECTRIC LOG ANALYSIS INDICATES A TIGHT ZONE WITH POSSIBLE OIL PRODUCTION. IT IS FELT THIS ZONE WILL PRODUCE COMMERCIAL AMOUNTS OF OIL AND IT WAS RECOMMENDED THAT PRODUCTION CASING BE RUN AND AN ATTEMPT MADE TO PRODUCE THIS ZONE.