

STATE OF KANSAS - CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

NOV 17 1997

TYPE TEST: Deliverability Open Flow TEST DATE: 10-28-1997 CONSERVATION DIVISION WICHITA, KS

COMPANY: LARIO OIL & GAS COMPANY LEASE: WHEAT WELL NO.: 1

COUNTY: BARBER LOCATION: NE NW SECTION: 2 TWP: 33S RNO: 11W ACRES: 160

FIELD: N.E. RHODES RESERVOIR: MISSISSIPPI PIPELINE CONNECTION: WILLIAMS NATURAL GAS CO.

COMPLETION DATE: 4-15-1959 PLUG BACK TOTAL DEPTH: 4554' PACKER SET AT: NONE

CASINO SIZE	WT.	L.D.	SET AT	PERF.	TO
5 1/2"	14.0	5.012	4589'	4526'	4536'
TUBING SIZE	WT.	L.D.	SET AT	PERF.	TO
2 3/8"	4.70	1.995	4549'	4524'	4526'

TYPE COMPLETION (Describe): SINGLE TYPE FLUID PRODUCTION: WATER

PRODUCING THRU: CASING RESERVOIR TEMPERATURE F: BAR. PRESS - P_b: 14.4 Psia

GAS GRAVITY - G_g: 0.663 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID: _____

VERTICAL DEPTH (ft): 4531' TYPE METER CONN.: FLANGE (METER RUN)(PROVER) SIZE: 4"

SHUT-IN PRESSURE: SHUT IN 10-24 19 97 AT 8 (AM)(PM) TAKEN 10-27 19 97 AT 8 (AM)(PM)

FLOW TEST: STARTED 10-27 19 97 AT 8 (AM)(PM) TAKEN 10-28 19 97 AT 8 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _{up})(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASINO WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _c)(P _d) psia	psig	(P _w)(P _c)(P _d) psia		
SHUT-IN						106	120.4	80	94.4	72	0 BW
FLOW	.75	40	15	40	40	60	74.4			24	3 BW

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _o)(F _d) Mcd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{mshw}}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcd	GOR	G _m
2.729	54.4	28.57	1.228	1.02	1.000	98	0	

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 14.496 ; (P_w)² = 5.535 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ (P_w)² = 0.20723.839

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcd
14.289	8.961	1.595	0.2026	.794	0.1609	1.4484	142

OPEN FLOW 142 Mcd @ 14.65 psia DELIVERABILITY Mcd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 10th day of NOVEMBER, 19 97.

[Signature]

Operator (if any)

[Signature]

For Company
DAVID MUNRO - OPERATIONS ENGINEER