

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

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 9 / 7 / 1962

COMPANY: The Pure Oil Company LEASE: B.L.Parks WELL NO.: 1

COUNTY: Comanche LOCATION: SECTION 32 TWP 33 S RNG 17 W ACRES 160

FIELD: Coldwater RESERVOIR: Marmeton PIPELINE CONNECTION: The Pure Oil Company

COMPLETION DATE: PLUG BACK TOTAL DEPTH: Packer set at 4888 5056

CASING SIZE: 5 1/2" WT. 15# I.D. 4.976" SET AT 6683 PERF. 4920 TO 4945

TUBING SIZE: 1.67" WT. 2.31# I.D. 1.31" SET AT 4888 PERF. Open TO

TYPE COMPLETION (Describe): Quadruple TYPE FLUID PRODUCTION: 4.5" Dist. & Water - 7.52 bbl. Distillate & Water 40% Dist- 3.0 bbl- 60% water- 4.52bbl

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 135 (Assumed) BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .648 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID: —

VERTICAL DEPTH (H): 4888 TYPE METER CONN.: Flange (METER RUN) (FLOWER SIZE): 3.066"

SHUT-IN PRESSURE: SHUT IN 9 / 4 19 62 AT 9:00 (AM) (PM) TAKEN 9 / 7 19 62 AT 10:00 (AM) (PM)

FLOW TEST: STARTED 9 / 7 19 62 AT 10:15 (AM) (PM) TAKEN 9 / 8 19 62 AT 9:30 (AM) (PM)

OBSERVED DATA

DURATION OF SHUT-IN 73 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN								1491.0	1505.4	73	
FLOW	1.00"	530.0	5.0"	74	60			1228.0	1242.4	23 1/4	7.52

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _p) Mcfd	(METER) PRESSURE psia	EXTENSION √P _m xh _w	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
4.912	544.4	52.173	1.242	.9868	1.054	331.1	44029	

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 2266.2 ; (P_w)² = 1558.5 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_e)² = 0.207 ; (P_d)² = .207

(P _e) ² - (P _a) ² or (P _e) ² - (P _d) ²	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
2266.0	707.5	3.203	.5054	.741	.3745	2.369	784.4

OPEN FLOW 784.4 784 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 20 day of Sept., 1962

John C. Stillard
 Notary Public - Comm. Exp. 4-14-64
 For Commission

L. B. Brown
 For Company
 Checked by

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

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 3/14/62

COMPANY: The Pure Oil Company LEASE: B.L. Parks WELL NO.: 1

COUNTY: Comanche LOCATION: SECTION: 32 TWP: 33S RNG: 17W ACRES: 160A

FIELD: Coldwater RESERVOIR: Simpson PIPELINE CONNECTION: The Pure Oil Co.

COMPLETION DATE: 4/10/56 PLUG BACK TOTAL DEPTH: 5700' PACKER SET AT: 4425'

CASING SIZE: 5-1/2" WT. 15# I.D. 4.976 SET AT 5683' PERF. 5670' TO 5683'

TUBING SIZE: 2-3/8" WT. 4.7 I.D. 1.995 SET AT Thru Packer PERF. TO

TYPE COMPLETION (Describe): Dual TYPE FLUID PRODUCTION: Gas Distillate

PRODUCING THRU Tubing RESERVOIR TEMPERATURE F 145° BAR. PRESS - P_a 14.4 Psia

GAS GRAVITY - G_g .710 % CARBON DIOXIDE 0 % NITROGEN 0 API GRAVITY OF LIQUID 67 @ 60/60

VERTICAL DEPTH (H) 5677' TYPE METER CONN. Flg. (METER RUN)(PROVER) SIZE 3.068

SHUT-IN PRESSURE: SHUT IN 3/11/ 19 62 AT 11:15 (AM) (PROV) TAKEN 3/14/ 19 62 AT 11:15 (AM) (PROV)

FLOW TEST: STARTED 3/14/ 19 62 AT 11:15 (AM) (PROV) TAKEN 3/15/ 19 62 AT 11:15 (AM) (PROV)

OBSERVED DATA DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN								1770	1784.4		
FLOW	1.500	585	71	54	63			1627	1641.4	24	35.31

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _p) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P _m h _w	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
11.41	599.4	206.33	1.1868	1.0058	1.0827	3,042.6		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 3184.1 ; (P_w)² = 2854.0 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_w)² = 0.207 ; (P_d)² = _____

(P _c) ² - (P _w) 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 Mcfd
3183.9	330.1	9.645	.98430	.665	.65456	4.514	13,734

OPEN FLOW 13,734 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 26 day of March, 19 62.

Tested by L. K. Brown
 Witness (if any)
 For Commission

For Company
 Checked by

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

FORM G-2
8-7-58
STATE CORPORATION COMMISSION

TYPE TEST: Deliverability Open Flow TEST DATE: 3/14/62 APR 5 1962

COMPANY: The Pure Oil Co. LEASE: B. L. Parks WELL NO.: 1 CONSERVATION DIVISION
Wichita, Kansas
COUNTY: Comanche LOCATION: SECTION 32 TWP 33S RNG 17W ACRES 160A
FIELD: Coldwater RESERVOIR: K. C. Lansing PIPELINE CONNECTION: The Pure Oil Co.

COMPLETION DATE: 4/10/56 PLUG BACK TOTAL DEPTH: 5700' PACKER SET AT

CASING SIZE: 5-1/2" WT. 15# I.D. 4.976 SET AT 5683' PERF. 4368' TO 4390'

TUBING SIZE: 2-3/8" WT. 4.7 I.D. 1.995 SET AT 4425' PERF. Packer on Tubing

TYPE COMPLETION (Describe): Dual TYPE FLUID PRODUCTION: Gas Distillate

PRODUCING THRU: Casing Annulus RESERVOIR TEMPERATURE F: 129° BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .680 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID

VERTICAL DEPTH (H): 4379' TYPE METER CONN.: Flg. (METER RUN)(PROVER) SIZE: 3"

SHUT-IN PRESSURE: SHUT IN 3/11/ 1962 AT (AM)(PM) TAKEN 3/14/ 1962 AT 11:00 (AM)(PM)
FLOW TEST: STARTED 3/14/ 1962 AT 11:00 (AM)(PM) TAKEN 3/15/ 1962 AT 11:00 (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						1247	1261.4			72	
FLOW	1.125	585	35.5	81	67	1025	1039.4			24	53.20

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
6.251	599.4	145.9	1.2127	.9804	1.0612	1,150.7	216,296	.680

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1591.1 ; (P_w)² = 1081.0 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_c)² = 0.207 ; (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1590.9	510.1	3.119	.49402	.702	.34680	2.222	2557

OPEN FLOW 2,557 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 26 day of March, 1962.

Tested by L. K. Brown

Witness (if any)

[Signature]
For Commission

[Signature]
For Company

Checked by

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

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: November 18, 1963

COMPANY: The Pure Oil Company LEASE: B. L. Parks WELL NO.: 1

COUNTY: Comanche LOCATION: 32 SECTION: 32 TWP: 33S R1G: 17 W ACRES: 160

FIELD: Coldwater RESERVOIR: Mississippi PIPELINE CONNECTION: The Pure Oil Co.

COMPLETION DATE: PLUG BACK TOTAL DEPTH: Packer set at 5056 5630

CASING SIZE: 5-1/2" WT. 15# I.D. 4.976" SET AT 6683' PERF. 5080' TO 5107'

TUBING SIZE: 2-3/8" WT. 4.7# I.D. 1.995" SET AT 5625' PERF. Prod. thru side door sleeve.

TYPE COMPLETION (Describe): Quadruple TYPE FLUID PRODUCTION: Water

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 145 BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .632 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): 5625' TYPE METER CONN.: Flange (METER RUN) (PROVER) SIZE: 3.066"

SHUT-IN PRESSURE: SHUT IN 11-15-19 63 AT 9:45 (AM)(PM) TAKEN 11-18-19 63 AT 9:30 (AM)(PM)

FLOW TEST: STARTED 11-18-19 63 AT 9:30 (AM)(PM) TAKEN 11-19-19 63 AT 9:30 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN: 69-3/4

SHUT-IN OR FLOW	GRIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN								1272	1286.4	69 3/4	
FLOW	1.000	598	8"	96				686	700.4	24	13.2 (Water)

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
4.912	612.4	69.993	1.258	.9971	1.052	453.7	None	.632

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1654.8 ; (P_w)² = 490.6 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_d)² = 0.207

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_a^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1654.6	1164.2	1.421	.15259	.512	.78126	6.043	2741.7

OPEN FLOW 2,741.7 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 6th day of December, 1963.

James L. ...
For Company

Witness (if any)

For Commission

Checked by

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

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: October 12, 1966

COMPANY: Union Oil Co. of California LEASE: B.L. Parks WELL NO.: 1

COUNTY: Comanche LOCATION: SECTION 32 TWP 33 S RNG 17 W ACRES 160

FIELD: Beals RESERVOIR: Simpson PIPELINE CONNECTION: Union Oil Co. of Calif.

COMPLETION DATE: 4-10-56 PLUG BACK TOTAL DEPTH: 5700' PACKER SET AT: 4425'

CASING SIZE: 5 1/2" WT. 15# I.D. 4.976" SET AT 5683' PERF. 5670' TO 5683'

TUBING SIZE: 2 3/8" WT. 4.7# I.D. 1.995" SET AT Thru Packer PERF. TO

TYPE COMPLETION (Describe): Tripple TYPE FLUID PRODUCTION: Gas Distillate

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 145° BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .727 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID: 67 @ 60

VERTICAL DEPTH (H): 5677' TYPE METER CONN.: Flange (METER RUN) (PROVER) SIZE: 3.068"

SHUT-IN PRESSURE: SHUT IN 10-8-1966 AT 10:30 (AM)(PM) TAKEN 10-11-1966 AT 10:55 (AM)(PM)

FLOW TEST: STARTED 10-11-1966 AT 10:55 (AM)(PM) TAKEN 10-12-1966 AT 10:55 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN 72+ HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASINO WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN							PKr.	1729	1743.4	72+	
FLOW	1.750	671	13	69	60		PKr.	1430	1444.4	24	30 Cond. 115 Wtr.

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _p) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
16.01	685.4	94.394	1.173	.9915	1.097	1,928	64,000/1	1.05

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_d)² = 3039.4; (P_w)² = 2091.9; P_d = _____ % (P_c - 14.4) + 14.4 = _____; (P_w)² = 0.207; (P_d)² = .207

$\frac{(P_d)^2 - (P_w)^2}{(P_c)^2 - (P_w)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
$\frac{3039.2}{947.5}$	947.5	3.207	.50610	.665	.3365	2.171	

OPEN FLOW 4,186 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 _____ day of _____, 19____.

C R Pierce

For Company

Witness (if any)

For Commission

Checked by

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

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: November 10, 1967

COMPANY Union Oil Co. of Calif. LEASE B.L. Parks WELL NO. 1

COUNTY Comanche LOCATION SECTION 32 TWP 33 S RNG 17 W ACRES 160

FIELD Beals RESERVOIR Simpson PIPELINE CONNECTION Union Oil Co. of Calif.

COMPLETION DATE 4-10-56 PLUG BACK TOTAL DEPTH 5700' PACKER SET AT 4425'

CASING SIZE 5 1/2" WT. 15# I.D. 4.976" SET AT 5683' PERF. 5670' TO 5683'

TUBING SIZE 2 3/8" WT. 4.7# I.D. 1.995" SET AT Thru Packer PERF. TO

TYPE COMPLETION (Describe) Quadruple TYPE FLUID PRODUCTION Gas Distillate & Water

PRODUCING THRU Tubing RESERVOIR TEMPERATURE F 145° BAR. PRESS - P_a 14.4 Psia

GAS GRAVITY - G_g .738 % CARBON DIOXIDE — % NITROGEN — API GRAVITY OF LIQUID 67 @ 60

VERTICAL DEPTH (H) 5677' TYPE METER CONN. Flange (METER RUN) (PROVER) SIZE 3.068"

SHUT-IN PRESSURE: SHUT IN 11-6 1967 AT 11:15 (AM)(PM) TAKEN 11-9 1967 AT 11:15 (AM)(PM)

FLOW TEST: STARTED 11-9 1967 AT 11:15 (AM)(PM) TAKEN 11-10 1967 AT 11:15 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.			TUBING WELLHEAD PRESS.			DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia		psig	(P _w)(P _t)(P _c) psia			
SHUT-IN						PKr.			1624	1638.4	72		
FLOW	1.250	735	11	74	60	"			1175	1189.4	24	14 Cond. 234 Wtr.	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
7.771	749.4	90.8	1.164	.9868	1.104	895	63,929/1	1.06

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 2684.3; (P_w)² = 1415.6; P_d = — % (P_c - 14.4) + 14.4 = —; (P_a)² = 0.207; (P_d)² = .207

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
2684.1	1268.7	2.1156	.32531	.665	.21633	1.646	1,473

OPEN FLOW 1,473 Mcfd @ 14.65 psia

DELIVERABILITY Mcfd @ 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 22 day of November, 1967.

W. Kirk Jentrick
Witness (if any)

C.R. Pierce
For Company

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: Deliverability Open Flow TEST DATE: November 10, 1967

COMPANY: Union Oil Company of Calif. LEASE: B.L. Parks WELL NO.: 1

COUNTY: Comanche LOCATION: SECTION 32 TWP 33 S RNG 17 W ACRES 160

FIELD: Beals RESERVOIR: Marmaton PIPELINE CONNECTION: Union Oil Co. of Calif.

COMPLETION DATE: 4-10-65 PLUG BACK TOTAL DEPTH: 5700' PACKER SET AT: 4888'
5056'

CASING SIZE: 5 1/2" WT. 15# I.D. 4.976" SET AT 6683' PERF. 4920' TO 4945'

TUBING SIZE: 1.315" WT. 1.80# I.D. 1.049" SET AT 4888' PERF. Open TO Open

TYPE COMPLETION (Describe): Quadruple TYPE FLUID PRODUCTION: Distillate

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 135° BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .647 % CARBON DIOXIDE: - % NITROGEN: - API GRAVITY OF LIQUID: -

VERTICAL DEPTH (H): 4888' TYPE METER CONN.: Flange (METER RUN) (PROVER) SIZE: 3.066"

SHUT-IN PRESSURE: SHUT IN 11-6 1967 AT 11:30 (AM)(PM) TAKEN 11-9 1967 AT 11:30 (AM)(PM)

FLOW TEST: STARTED 11-9 1967 AT 11:30 (AM)(PM) TAKEN 11-10 1967 AT 11:30 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN								1060	1074.4	72	
FLOW	1.000	735	6	68	60			813	827.4	24	None

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
4.912	749.4	67.05	1.243	.9924	1.074	436		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1154.3; (P_w)² = 845.9; P_d = _____ % (P_c - 14.4) + 14.4 = _____; (P_c)² = 0.207; (P_d)² = _____

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{[P_c^2 - P_a^2]}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1154.1	308.4	3.7422	.57310	.741	.42466	2.659	1.159

OPEN FLOW 1.159 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 22 day of November, 1967.

W. Kirkpatrick
Witness (if any)

C.R. Pierce
For Company

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

BD

FORM G-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: February 2, 1968

COMPANY: Union Oil Company of Calif. LEASE: B. L. Parks WELL NO.: 1

COUNTY: Comanche LOCATION: SECTION: 32 TWP: 33S RNG: 17W ACRES:

FIELD: Beals RESERVOIR: Kansas City Bancing PIPELINE CONNECTION: Union Oil Co. of Calif.

COMPLETION DATE: 4-10-56 PLUG BACK TOTAL DEPTH: 5700' PACKER SET AT: 5630 - 5056 - 4888

CASING SIZE: 5 1/2" WT. 15# I.D. 4.796" SET AT 5683' PERF. TO 4390'

TUBING SIZE: 2 3/8" x 1.66" WT. 4.70# x 2.30# I.D. 1.995" x 1.580" SET AT 2" @ 5668' PERF. TO 4390'

TYPE COMPLETION (Describe): Quadruple TYPE FLUID PRODUCTION: Distillate

PRODUCING THRU: Tubing - Casing Annulus RESERVOIR TEMPERATURE F: 129° BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: .697 % CARBON DIOXIDE: -0- % NITROGEN: -0- API GRAVITY OF LIQUID: 72 @ 60

VERTICAL DEPTH (H): 4372' TYPE METER CONN.: Flange (METER RUN) (PROVER) SIZE: 3.068"

SHUT-IN PRESSURE: SHUT IN 1-29 19.68 AT 1:00 (AM)(PM) TAKEN 2-1 19.68 AT 1:00 (AM)(PM)

FLOW TEST: STARTED 2-1 19.68 AT 1:00 (AM)(PM) TAKEN 2-2 19.68 AT 1:00 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN _____ HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						1525	1539.4		Pkr.	72	
FLOW	1.500	398	8	60	60	1037	1051.4		"	24	-0-

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
11.41	412.4	57.44	1.178	1.000	1.051	824	-0-	.697

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 2369.7 ; (P_w)² = 1106.1 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_w)² = 0.207 ; (P_d)² = .207

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
2369.5	1263.4	1.875	.27300	.702	1.916	1.554	1,280

OPEN FLOW 1,280 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 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 12 day of February, 1968.

W. Kirk Patrick
Witness (if any)

C. R. Pierce
For Company

For Commission

Checked by