

KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM G-1
8-7-58

TYPE TEST: ☒ Initial ☐ Annual ☐ Special		TEST DATE: 10/25/2002	
COMPANY McCoy Petroleum Corporation		LEASE Froetschner OWWO	
COUNTY Edwards		WELL NO. 1-34	
LOCATION S2 S2 NW	SECTION 34	TWP 25s	RNG 20w
FIELD Trenton	RESERVOIR Mississippian	PIPELINE CONNECTION Mid-Kan Plant	
COMPLETION DATE 7/6/2001	PLUG BACK DEPTH 4683	PACKER SET AT 4600	
CASING SIZE 4.500	WT. 10.500	ID 4.052	SET AT 4678
TUBING SIZE 2.375	WT. 4.700	ID 1.995	SET AT 4600
TYPE COMPLETION (Describe) Open Hole		TYPE FLUID PRODUCTION	
PRODUCING THRU (Annulus/Tubing) tubing		RESERVOIR TEMPERATURE F 124	
GAS GRAVITY - Gg .765		% CARBON DIOXIDE 45.640	
VERTICAL DEPTH (H) 4680		API GRAVITY OF LIQUID 64.00	
REMARKS during 3d & 4th pt well made .42 bbl water & .208 bbl condensate		METER RUN SIZE 2.067	

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. (h _w) (h _t)	FLOWING TEMP. t.	WELLHEAD 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								1118	1132	96.00	
1.	1.000	591.40	6.70	37				1065	1079	1.00	
2.	1.000	592.00	10.90	38				1005	1019	1.00	
3.	1.000	594.10	21.70	41				939	953	1.00	
4.	1.000	605.50	47.40	41				853	867	1.00	.2

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW Q Mcfd	GOR	G _m
1.	5.073	605.8	63.71	1.1433	1.0229	1.0384	392		.765
2.	5.073	606.4	81.30	1.1433	1.0218	1.0382	500		.765
3.	5.073	608.5	114.91	1.1433	1.0188	1.0374	704		.765
4.	5.073	619.9	171.42	1.1433	1.0188	1.0381	1051	210629.2	.777

PRESSURE CALCULATION

RATE NO.	P _t psia	P _c psia	P _w psia	(P _c) ² Thousands	(P _w) ² Thousands	PLOTING POINTS		% SHUT-IN 100 $\left[\frac{P_w - P_a}{P_c - P_a} \right]$
						(P _c) ² - (P _w) ² Thousands	Q Mcfd	
1.	1079.4	1132.4	1081.1	1282.3	1168.7	113.6	392.5	95.4
2.	1019.4	1132.4	1022.2	1282.3	1044.9	237.4	500.2	90.1
3.	953.4	1132.4	959.2	1282.3	920.0	362.3	704.4	84.5
4.	867.4	1132.4	881.3	1282.3	776.7	505.6	1051.5	77.5

INDICATED WELLHEAD OPEN FLOW

2577

Mcfd @ 14.65 psia

"n" = .988

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 herein and that said report is true and correct. Executed this the 28 day of Oct, 20 02

Witness (if any)

For Commission

For Company

Checked by

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
 (Rev.8/98)

TYPE TEST:

- ☒ Open Flow
☒ Deliverability

TEST DATE: 10/27/2002 API No. 15-047-20179

Company McCoy Petroleum Corporation		Lease Froetschner OWWO		Well Number 1-34	
County Edwards	Location S2 S2 NW	Section 34	TWP 25s	RNG (E/W) 20w	Acres Attributed
Field Trenton	Reservoir Mississippian	Gas Gathering Connection Mid-Kan Plant			
Completion Date 7/6/2001	Plug Back Total Depth 4683	Packer Set at 4600			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.052	Set at 4678	Perforations 4678	To 4683
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 4600	Perforations	To
Type Completion (Describe) Open Hole	Type Fluid Production	Pump Unit or Traveling Plunger? no			
Producing Thru (Annulus/Tubing) tubing	% Carbon Dioxide	% Nitrogen 45.640		Gas Gravity- Gg .765	
Vertical Depth (ft) 4680	Pressure Taps flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	2002/10/25@1600	TAKEN	2002/10/25@1000		
Well on Line: Started	2002/10/26@1240	TAKEN	2002/10/27@1515		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	Wellhead Temp. t.	Casing Wellhead Press. (P _w) (P _t) (P _c)		Tubing Wellhead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in								1118	1132	96.0	
Flow	1.000	602.4	53.70	61				824	838	26.5	.2

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcfd	GOR	G _m
5.070	616.8	181.99	1.1433	.9990	1.0325	1088	*****	.765

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P _c) ² = 1282.3		(P _w) ² = 728.6		Pd = 53.2	%	(Pc - 14.4) + 14.4 =		(Pa) ² = 0.207
(P _c) ² - (P _a) ²		(P _c) ² - (P _w) ²		$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$		LOG		(Pd) ² = 362.89
or (P _c) ² - (P _d) ²		$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$		LOG		Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope		Open Flow Deliverability = R x Antilog Mcfd
1282.12		553.73		2.315		.3646		2494
919.44		553.73		1.660		.2202		1795

OPEN FLOW 2494 Mcfd @ 14.65 psia DELIVERABILITY 1795 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 herein and that said report is true and correct. Executed this the 28 day of Oct, 2002

Witness (if any)

For Commission

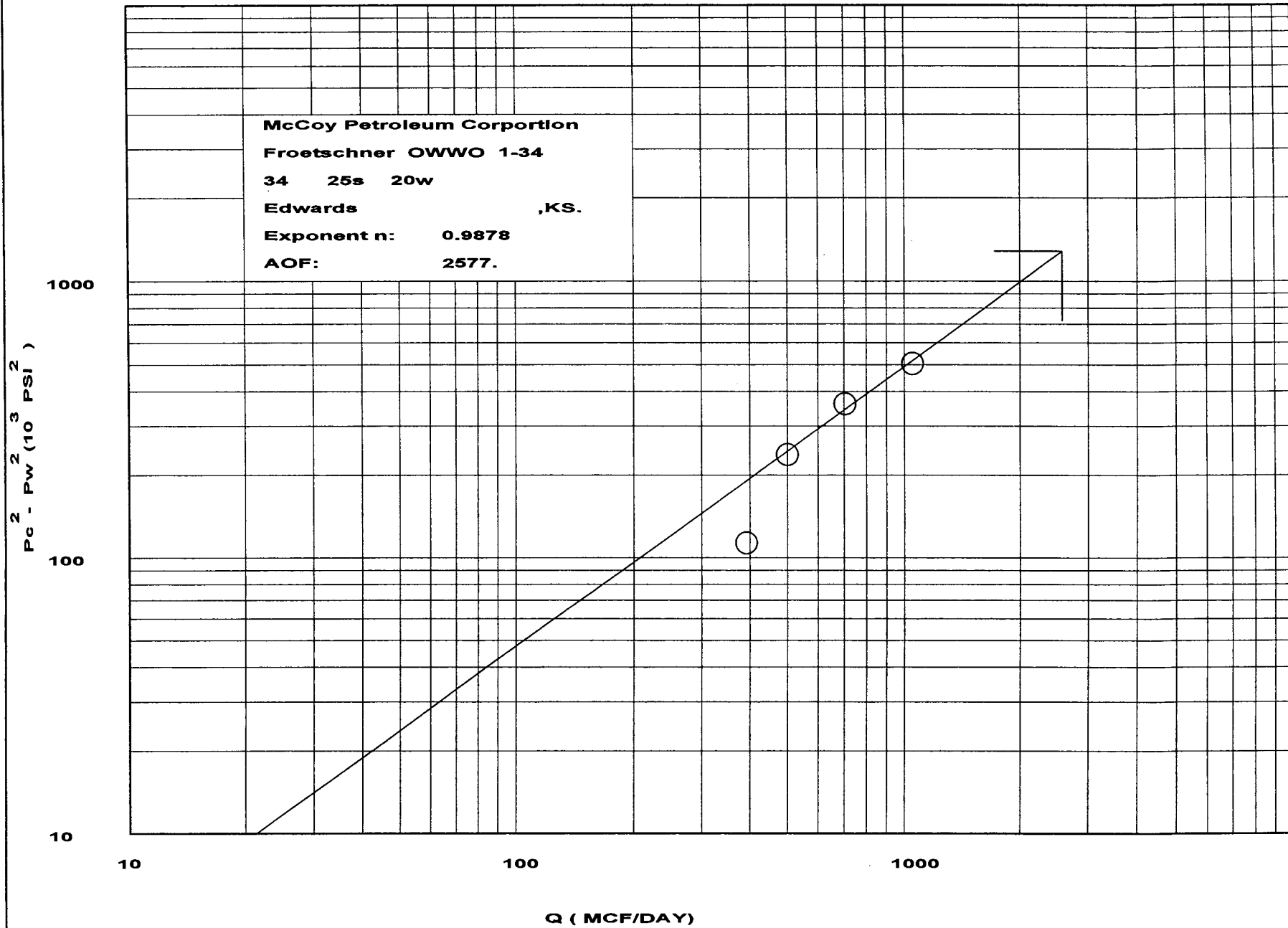
For Company

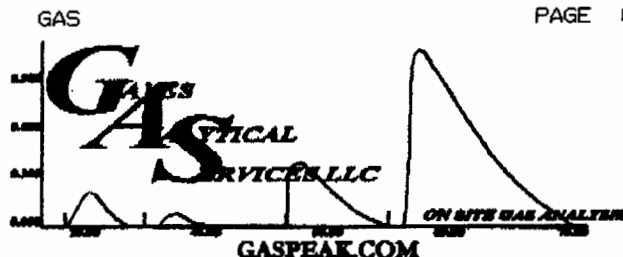
Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER: Trilobite Testing

TEST DATE: 10/25/2002





(620) 428-6069 Fax
 (620) 428-6053 Office
 (620) 428-2277 Cellular

PO Box 253
 Hugoton, Kansas 67951
 Email: jogfas@pld.com

Sample ID: 29638

Station #: 342520

Name: FREETSCHNER 1-34

Code: TRILOBITE

Sampled Date: 10/25/2002

Effective Date: 10/25/2002

Analysis File: 342520.BDF

Components	Mole %	Btu	Gravity	GPM
Helium:	3.734	0.000	0.005	0.000
Hydrogen:	0.000	0.000	0.000	0.000
Oxygen:	0.000	0.000	0.000	0.000
Nitrogen:	45.464	0.000	0.440	0.000
Methane:	44.987	455.420	0.249	0.000
Carbon Dioxide:	0.000	0.000	0.000	0.000
Hydrogen Sulfide:	0.000	0.000	0.000	0.000
Ethane:	4.280	75.888	0.044	1.145
Propane:	0.944	23.807	0.014	0.260
I-Butane:	0.170	5.541	0.003	0.056
n-Butane:	0.193	6.311	0.004	0.061
I-Pentane:	0.050	2.005	0.001	0.018
n-Pentane:	0.042	1.688	0.001	0.015
Hexanes+C6:	0.136	6.992	0.004	0.056
Ideal Total:	100.000	577.652	0.767	1.611

Gasoline Content

Propane GPM:	0.260
Butane GPM:	0.117
Gasoline GPM:	0.089
26# Gasoline GPM:	0.162

Gross BTU/Real Cu. Ft. (@ 60 deg F, 14.730 PSI)

Dry: 578.3

Sat: 569.3

(1.000 lbs. water/MMCF)

Gas Compressibility: 0.9988

Real Gravity Calculated: 0.765

H2S PPM: 0

Comments: McCoy Petroleum

Analyst: Dee C. Graves

McCoy Petroleum Corp
S/2 S/2 34-25s-20w Edwards KS
Start Test Date: 2002/10/25
Final Test Date: 2002/10/27

FieldNotes

Field Measurements

Froetschner 1-34 OWWO

	Date	Clock Time	Comments	Tubing Pres	Diff1 Pres	Meter1 Temp	Static1 Pres	Gas1 Rate	Cum. Gas1	Measured Wat1 lev	Water1 Rate	Measured Cond1 Lev	LP Cond1 Rate
	yyyy/mm/dd	hh:mm:ss		psi(g)	in of H2O	°F	psi(a)	MMCF/D	MMCF	in	bbl/d	in	bbl/d
1	2002/10/25	10:00:00	shutin										
2		10:00:00		1118.00	0.00	0.00	0.00	0.000	0.000	38.000		47.000	
3		10:15:00		1100.00	6.20	33.80	607.50	0.379	0.004	38.000	0.000	47.000	0.000
4		10:30:00		1090.00	7.70	34.70	605.80	0.421	0.008				
5		10:45:00		1077.00	6.70	36.20	605.90	0.392	0.012				
6		11:00:00	1st pt										
7		11:00:00		1065.00	6.70	36.80	605.80	0.392	0.016				
8		11:15:00		1036.00	10.50	37.20	606.40	0.491	0.021				
9		11:30:00		1025.00	10.50	37.50	606.20	0.490	0.026				
10		11:45:00		1015.00	10.40	38.00	606.60	0.488	0.031				
11		12:00:00	2nd pt										
12		12:00:00		1005.00	10.90	38.40	606.40	0.499	0.036				
13		12:15:00		965.00	22.00	38.80	609.30	0.710	0.043				
14		12:30:00		959.00	21.80	39.90	608.50	0.706	0.050				
15		12:45:00		949.00	19.20	40.20	608.50	0.662	0.057				
16		13:00:00	3rd pt										
17		13:00:00		939.00	21.70	40.60	608.50	0.703	0.064				
18		13:15:00		848.00	45.10	40.20	615.80	1.021	0.073				
19		13:30:00	dumping condensate & water										
20		13:30:00		850.00	49.30	40.50	616.40	1.068	0.084				
21		13:45:00		851.00	49.20	40.80	615.90	1.066	0.095				
22		14:00:00	4th pt										
23		14:00:00		853.00	47.40	41.10	615.90	1.046	0.106	38.500	5.344	47.125	1.336
24		14:45:00			38.70	42.50	613.70	0.941	0.137				
25	2002/10/26	12:35:00	froze @ meter										
26		12:35:00		1116.00	0.00	0.00	602.60	0.000	0.137	38.750	0.444		

2002/10/25 10:00:00 To 2002/10/26 12:35:00

Gas	0.137	Cum.	0.137 MMCF
Oil	0.209	Cum.	0.209 bbl
Water	0.835	Cum.	0.835 bbl
Condensate	0.209	Cum.	0.209 bbl

McCoy Petroleum Corp
S/2 S/2 34-25s-20w Edwards KS
Start Test Date: 2002/10/25
Final Test Date: 2002/10/27

FieldNotes

Field Measurements

Froetschner 1-34 OWWO

[illegible]

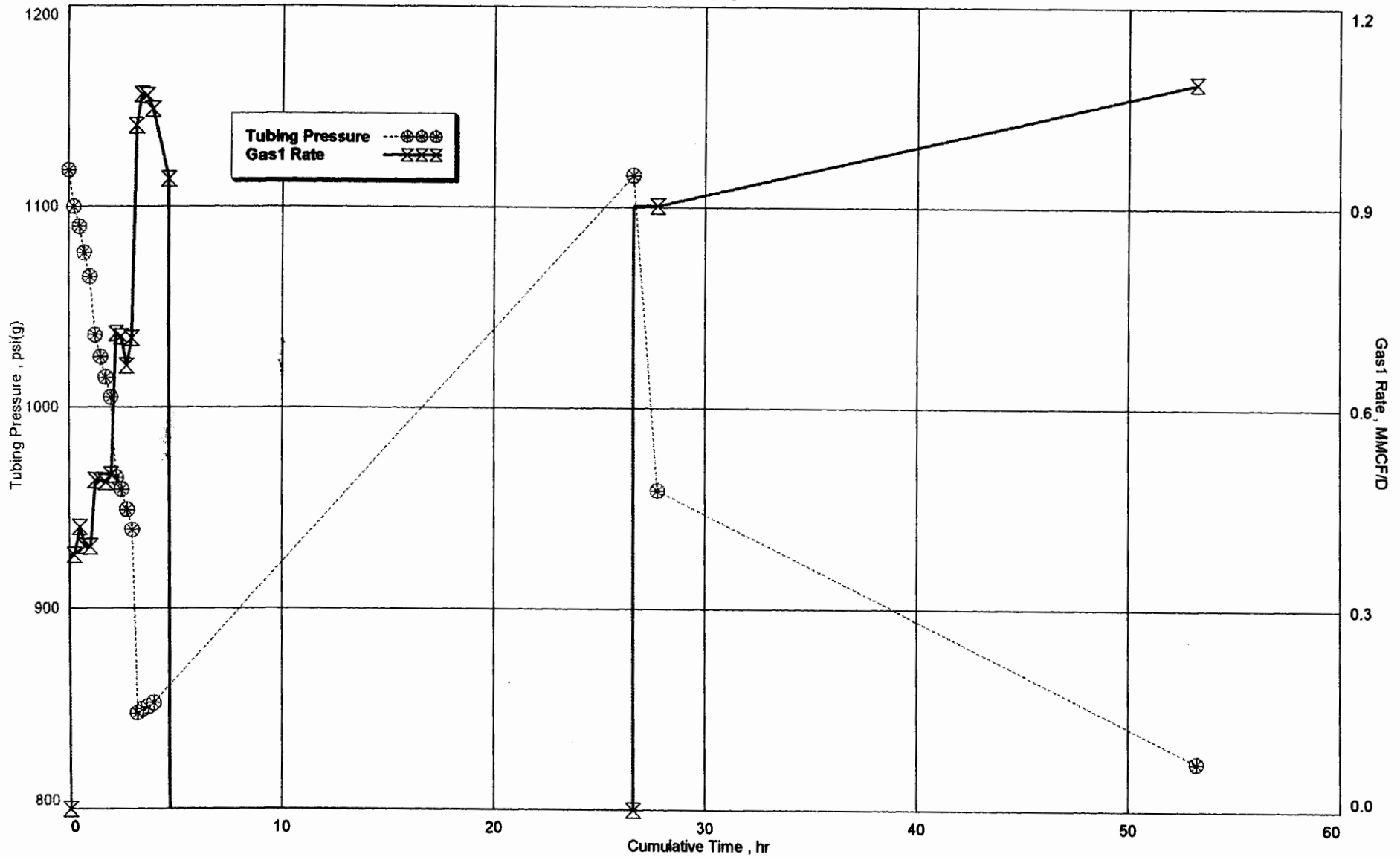
2002/10/26 12:35:00 To 2002/10/27 15:15:00

Gas	0.044	Cum.	0.181 MMCF
Oil	0.000	Cum.	0.209 bbl
Water	0.417	Cum.	1.252 bbl
Condensate	0.000	Cum.	0.209 bbl

McCoy Petroleum Corp
S/2 S/2 34-25s-20w Edwards KS
Start Test Date: 2002/10/25
Final Test Date: 2002/10/27

Froetschner 1-34 OWWO

Plot



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

FORM G-2 Rev.

TYPE TEST: ☐ Deliverability ☐ Open Flow		TEST DATE: <u>10/ /02</u>		API No. 15 - <u>047-20179-0001</u>	
COMPANY McCoy Petroleum Corp.		LEASE Froetschner 'OWWO'		WELL NO. 1-34	
COUNTY Edwards	LOCATION S2 S2 NW	SECTION 34	TWP 25 S	RNG (E/W) 20 W	ACRES
FIELD Trenton		RESERVOIR Mississippian		PIPELINE CONNECTION Mid-Kan Plant	
COMPLETION DATE <u>7/6/01</u>		PLUG BACK TOTAL DEPTH <u>4683'</u>		PACKER SET AT <u>4600'</u>	
CASING SIZE <u>4-1/2"</u>	WT <u>10.5#</u>	I.D. <u>4.052"</u>	SET AT <u>4678'</u>	PERF. <u>OH 4678'-</u>	TO <u>4683'</u>
TUBING SIZE <u>2-3/8"</u>	WT <u>4.7#</u>	I.D. <u>1.995"</u>	SET AT <u>4600'</u>	PERF.	TO
TYPE COMPLETION (Describe) Open Hole			TYPE FLUID PRODUCTION Gas		
PRODUCING NEHRU			RESERVOIR TEMPERATURE ° F		BAR. PRESS - P <u>14.4 Psia</u>
GAS GRAVITY - Gg		% CARBON DIOXIDE		% NITROGEN	
VERTICAL DEPTH (H)		TYPE METER CONNECTION		(METER RUN) (PROVER) SIZE	
SHUT IN PRESSURE: SHUT IN _____ 19__ AT _____ (AM)(PM) TAKEN _____ 19__ AT _____ (AM)(PM)					
FLOW CHART: STARTED _____ 19__ AT _____ (AM)(PM) TAKEN _____ 19__ AT _____ (AM)(PM)					

OBSERVED DATA							DURATION OF SHUT-IN _____ HRS		
SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE Psig	DIFF. in (ha) (hd)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS. PSIG (P ₁)(P ₂)(P _c) Psia	TUBING WELLHEAD PRESS psig (P ₁)(P ₂)(P _c) Psia	DURATION HOURS	LIQUID PROD. Bbls
SHUT-IN									
FLOW									

RATE OF FLOW CALCULATIONS									
COEFFICIENT (F _b)(F _p) Mcfd	(METER) (PROVER) PRESSURE Psia	PRESS. EXTENSION V P _m * h _w	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{p_v}	RATE OF FLOW R Mcfd	GOR	G _m	

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS							
(p _c) ² =	(P _w) =	P _d = %	(P _c - 14.4) + 14.4 =	(p _c) ² = 0.207	(p _d) ² =		
$\frac{p_c^2 - (p_i \text{ or } (p_c - (p_d)^2)}{p_c^2 - P_w}$	$\frac{p_c^2 - (p_i \text{ or } (p_c - (p_d)^2)}{p_c^2 - P_w}$	$\frac{p_c^2 - p_d^2}{p_c^2 - P_w}$	LOG $\frac{p_c^2 - p_d^2}{p_c^2 - P_w}$	BACKPRESSURE CURVE 'n'	$n * LOG []$	ANnLOG	OPEN FLOW DELIVERABILITY EQUALS R X ANTILOG Mcfd

OPEN FLOW 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 October, 2002

Witness (if any) _____ For Company _____

For Commission _____ Checked by _____

Company: McCoy Petroleum									
Address:									
Wellname: Fischer 1-34									
Legal: S 25 27 28 20W				Sec: 34		Twp: 25S		Rge: 20W	
Formation: Miss			Field/Pool: Trendon			County: Edwards		St: Ks	
Casing size:		Feet of:		Wt:		Meter run size: 2"		SI: 1118	
Tubing Size:		Feet of:		Wt:		Orif (in): 1.875		95% 1062	
TD:		Plugged back depth:			Packer depth: 7600			90% 1006	
Type Test:			Tap Type: Flange			Gravity: .794		85% 950	
Type Completion:				Producing through: 2.95 48.52				80% 894	

Date	Clk Tim	Tbg Pres	Csg Pres	Diff	Temp	Static/Prover	Wat Vol1	Curel GPIV	Comment
mm/dd	clock	psi	psi	in of H2O	F	PSIA	inch	inch	
10/25	1000	1118					3' 2"	3' 11"	
	1015	1100		6.2	33.8	607.5			
	1030	1090		7.7	34.7	605.8			
	1045	1077		6.7	36.2	605.9			
	1100	1065		6.7	36.5	605.8			1st pt
	1115	1036		10.5	37.2	606.4			
	1130	1025		10.5	37.5	606.2			
	1145	1015		10.4	38	606.6			
	1200	1005		10.8	38.4	606.4			2nd
	1215	965		21.7	38.8	607.3			
	1230	959		17.6	39.9	608.5			
	1245	949		17.4	40.2	608.5			
	1300	939		17.2	40.6	608.5			3rd pt
	1315	848		45.1	40.2	615.8			
	1330	850		49.3	40.5	616.4	81.00		
	1345	851		49.2	40.8	615.9	.5"	.125"	
	1400	853		47.9	41.1	615.9			4th pt
	1445			38.7	42.5	613.7			
	1235	1116		Frang	40.2	602.6	36	47	
	1345	959		38.7	43	611.9			

Date	Miles	Name	Date	Miles	Name	Date	Miles	Name
10/15	81 way	P.S.						
10/16	81 way	P.S.						
10/20	81 way	P.S.						

10/20 1515 824

53.7 61.2 616.8 39 47.25