

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9-13-82		OCT 7 1982	
Company TRANSWESTERN GAS COMPANY				Connection AIR		O. C. D.	
Pool WILCOCK				Formation ABBO Hbo		Unit ARTESIA, OFFICE	
Completion Date 9-3-82		Total Depth 3500		Flow back To 3297		Elevation 4280	
Form. or Lease Name 4 MILE DRAW FED.		Well No. 1		Unit H		Sec. Twp. Rge. 15 6 22	
Csg. Size 4 1/1		Wt. 10		Set At 2760		Perforations: From 2829 To 2858	
Tub. Size 2		Wt. 2760		Set At 2760		Perforations: From To	
Type well - Single - Provenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru TBG.		Reservoir Temp. °F 102 @ 2843		Mean Annual Temp. °F 60		Boro. Press. - P _d 13.2	
L 2843		H 2843		G _g .633		% CO ₂ 0	
				% N ₂ 7.435		% H ₂ S 2"	
				Prover 2"		Meter Run Taps	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	2 X .218			80		82	760		760		
2.	2 X .218			170		66	675		675		
3.	2 X .218			250		56	600		600		
4.	2 X .218			272		56	530		530		
5.	2 X .218						450		450		

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mgd
1.	.8393		93.2	.9795	1.257	nil	96
2.	.8393		183.2	.9943	1.257	1.015	195
3.	.8393		263.2	1.004	1.257	1.023	285
4.	.8393		285.2	1.004	1.257	1.025	310
5.							

NO.	P _f	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.14	542	1.54	nil	DRY		.633		659	351
2.	.28	526	1.50	.971						
3.	.40	516	1.47	.955						
4.	.43	516	1.47	.952						
5.										

NO.	P _f	P _w	P _w ²	P _f ² - P _w ²
1.	*	709.1	502.8	86.1
2.	*	648.4	420.4	168.5
3.	*	575.8	331.5	257.4
4.	*	483.5	233.8	355.1
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.288$

ADP = 0 $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .652$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.288$

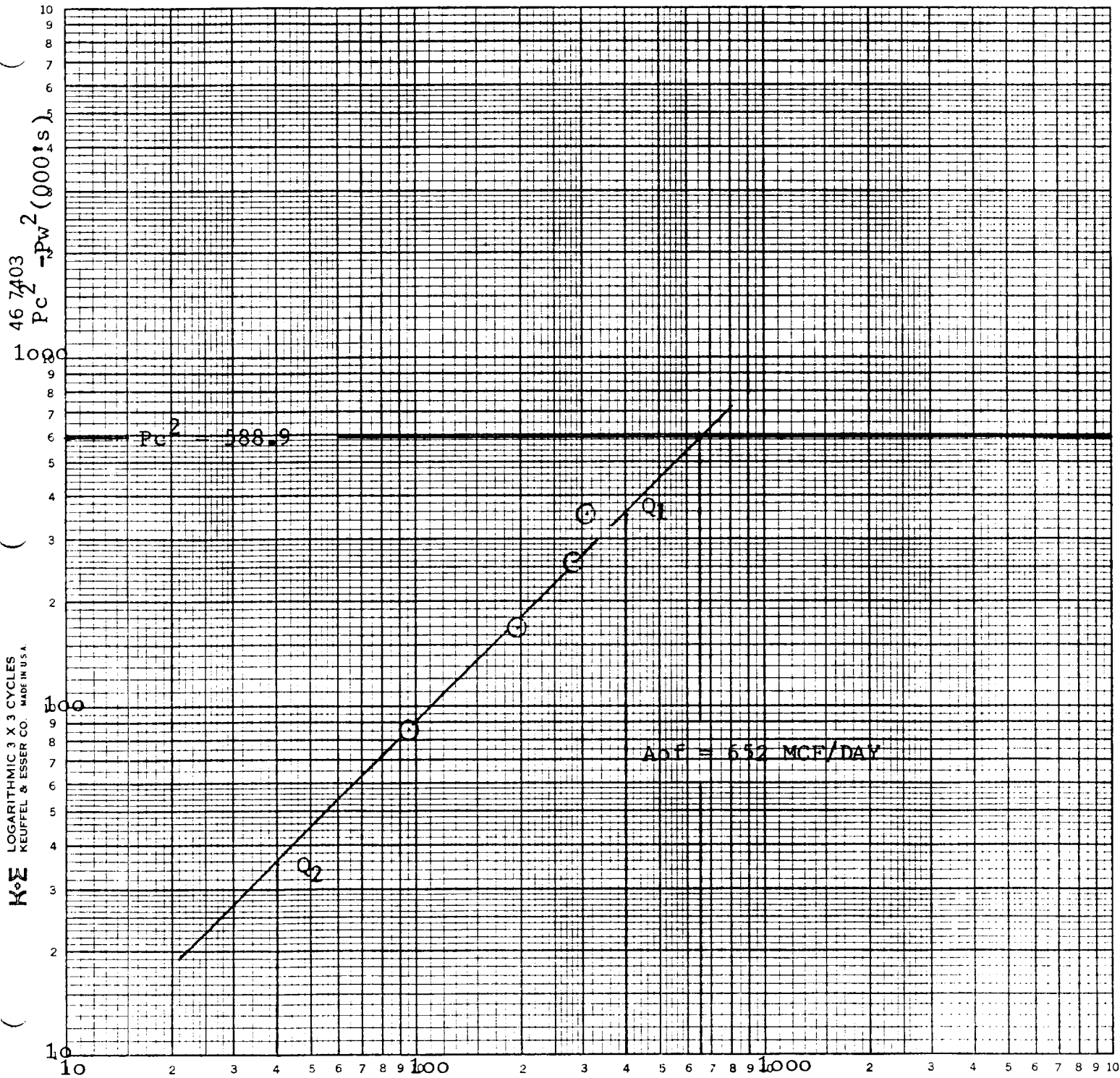
Post ID-2
10-15-82
Comp & BK

Absolute Open Flow	652	Mgd @ 15.025	Angle of Slope @	1.00	Slope, n	45
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH KUSTER GAUGE
CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES

Approved By Commission:	Conducted By: DAVIS SERVICES, INC.	Calculated By: DAVIS SERVICES, INC.	Checked By:
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COMPANY : TRANSWESTERN GAS COMPANY
 LE/ : FOUR MILE DRAW FED AL
 WELL # : 1
 UNIT : SEC 15 / TWP 6/ RGE 22
 COUNTY : CHAVES
 STATE : NEW MEXICO
 DATE : SEPTEMBER 13, 1982



LOG OF Q_1 400 = 2.602060
 LOG OF Q_2 40 = 1.602060
 N = 1.000000

**NEW-TEX
LAB**

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

SEP 13 1982

ANALYSIS CERTIFICATE

CLIENT: DAVIS SERVICES INC
ADDRESS: P O BOX 2033
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER: 8235
DATE OF RUN: 09/09/82
DATE SECURED:

SAMPLE IDENT: FOUR MILE DRAW FEDERAL #1
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

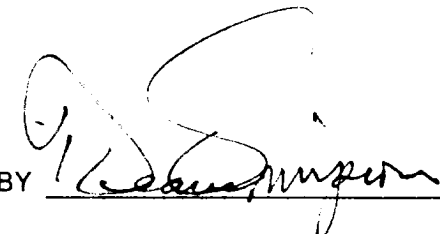
	MOLE PERCENT	GAL/ MCF
NITROGEN	7.435	
CARBON DIOXIDE	0.000	
METHANE	87.295	
ETHANE	2.676	0.714
PROPANE	1.272	0.349
ISO-BUTANE	0.203	0.066
NORMAL BUTANE	0.548	0.172
ISO-PENTANE	0.123	0.045
NORMAL PENTANE	0.203	0.073
HEXANES	0.109	0.045
HEPTANES PLUS	0.136	0.063
TOTAL	100.000	1.527

PROPANE GPM:	0.35	BUTANES GPM:	0.24
ETHANE GPM:	0.71	PENTANES PLUS GPM:	0.23

SPECIFIC GRAV (CALC): 0.6333
MOLE WEIGHT: 18.36

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	994	1011
	14.650	991	1008
	14.730	996	1014
	14.735	996	1014

ANALYZED BY: R. H. HAMILTON

APPROVED BY: 

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_w or P_s)

Form C-122F
Adopted 9-1-83

FROM KNOWN BOTTOM HOLE PRESSURE (P_b or P_s)

COMPANY TRANSWESTERN GAS CO. LEASE FOUR MILE DRAW FED. WELL NO. 1 DATE 9-13-82

LOCATION: Unit 15 Section 15 Township 6 Range 22

L 2843 H 2843 L/H 1.00 G .633 % CO₂ --- % N₂ 7.435 % H₂S ---

GH 1800 P_{CT} 659 T_{CT} 351

LINE	RATE 1			RATE 2			RATE 3			RATE 4		
	1	2	3	4	5	6	7	8				
1	T _w (W.H. °R)	534	534	534	534	534	534	534				
2	T _s (B.H. °R)	562	562	562	562	562	562	562				
3	T = $(\frac{T_w + T_s}{2})$	548	548	548	548	548	548	548				
4	Z (Est.)	.913	.914	.920	.922	.929	.940	.941				
5	TZ	493.9	494.5	504.2	505.3	509.1	515.1	515.7				
6	GH/TZ	3.644	3.640	3.570	3.563	3.536	3.494	3.491				
7	e ^S (Table XIV)	1.146	1.146	1.143	1.143	1.142	1.140	1.139				
8	P _f or P _s	759.2	759.2	693.2	693.2	615.2	516.2	516.2				
9	P _f ² or P _s ²	576.4	576.4	480.5	480.5	378.5	266.5	266.5				
10	P _c ² = P _f ² /e ^S or P _w ² = P _s ² /e ^S	502.7	502.8	420.3	420.4	331.5	233.7	233.8				
11	P _c or P _w	709.1	709.1	648.3	648.4	575.7	483.5	483.5				
12	P = $(\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	734.1	734.2	670.8	670.8	595.5	499.8	499.8				
13	P _r = (P/P _{CT})	1.114	1.114	1.018	1.018	.904	.758	.758				
14	T _r = (T/T _{CT})	1.56	1.56	1.56	1.56	1.56	1.56	1.56				
15	Z (Table XI)	.914	.914	.922	.922	.931	.941	.941				

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_f)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_c)

COMPANY TRANSWESTERN GAS CO. LEASE FOUR MILE DRAW FED. WELL NO. 1 DATE 9-13-82

LOCATION: Unit 2843 Section 15 Township 6 Range 22

L 2843 H 2843 L/H 1.00 G .633 % CO₂ -- % N₂ 7.435 % H₂S ---

GH 1800 P_{cr} 659 T_{cr} 351

TABLE IX & X

TABLE IX & X

LINE		1	2	3	4	5	6	7	8
1	$T_w(W.H. \cdot R)$	534	534						
2	$T_s(B.H. \cdot R)$	562	562						
3	$T = (\frac{T_w + T_s}{2})$	548	548						
4	Z (Est.)	.906	.909						
5	TZ	496.5	498.1						
6	GH/TZ	3.625	498.1						
7	e^S (Table XIV)	1.145	1.145						
8	P_f or P_s	821.2	821.2						
9	P_f^2 or P_s^2	674.4	674.4						
10	$P_c^2 = P_f^2/e^S$ or $P_w^2 = P_s^2/e^S$	588.6	588.9						
11	P_c or P_w	767.2	767.4						
12	$P = (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	794.2	794.3						
13	$P_f = (P/P_{cr})$	1.21	1.21						
14	$T_f = (T/T_{cr})$	1.56	1.56						
15	Z (Table XI)	.909	...						

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OCT 12 1982

O. C. D.
ARTESIA, OFFICE