NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

45F
File

RECEIVED
OCT 29 1982
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 8-22-82		
Company: TRANSWESTERN GAS SUPPLY CO.		Connection: AIR			
Pool: Wildcat		Formation: ABO		Unit	
Completion Date: 8-14-82	Total Depth: 3600	Plug Back TD: 3131	Elevation: 4472 GL	Farm or Lease Name: ANTELOPE FED.	
Csg. Size: 4 1/2 / Wt.: 10.50 / d: / Set At: 3600 3558		Perforations: From 3079 To 3172		Well No.: 1	
Tbg. Size: 2 3/8 / Wt.: / d: / Set At: 2933		Perforations: From To		Unit: E / Sec.: 29 / Twp.: 4 / Rge.: 22	
Type well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: NONE		County: CHAVES	
Producing Thru: TBG.	Reservoir Temp. °F: 105 @ 3125	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: NEW MEXICO	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3125	3125	.6192	.065	6.462			2"	FLG.

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					940		980		
1.	2 x 1.500	80	8.0	60	550		780		3 HRS.
2.	2 x 1.500	81	4.0	60	590		770		1 HR.
3.	2 x 1.500	82	2.0	60	600		780		4 HRS.
4.	2 x 1.500	75	1.0	60	600		800		4 HRS.
5.									

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, Mcfd
1	12.76	27.31	93.2	1.000	1.271	nil	443
2	12.76	19.41	94.2	1.000	1.271	nil	315
3	12.76	13.80	95.2	1.000	1.271	nil	224
4	12.76	9.39	88.2	1.000	1.271	nil	152
5							

NO.	P_t	Temp. °R	T_t	Z
1	.14	520	1.49	nil
2	.14	520	1.49	nil
3	.14	520	1.49	nil
4	.13	520	1.49	nil
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .6192 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 660 P.S.I.A. _____ P.S.I.A.
Critical Temperature 348 R _____ R

P_c 993.2 P_c^2 986.4

NO	BHP	P_w	P_w^2	$P_c^2 - P_w^2$
1	856.2	796.0	633.6	352.8
2	849.2	789.5	623.3	363.1
3	866.2	805.1	648.2	338.2
4	901.2	837.4	701.2	285.2
5	1048.2	SIP		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.717$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.717$

Post FD-2
11-5-82
Comp + BK.

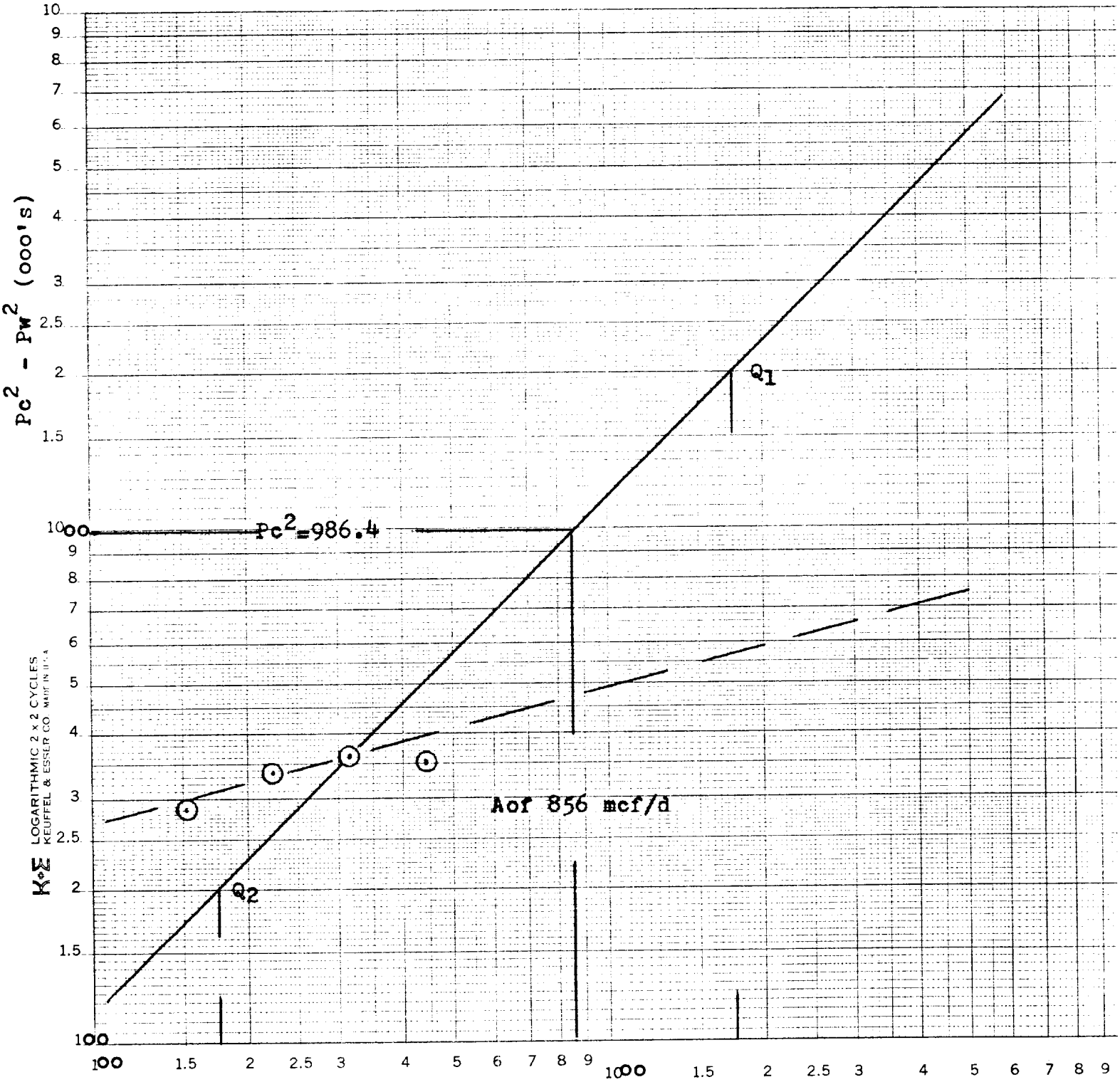
$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .856$

Absolute Open Flow 856 Mcfd @ 15.025 | Angle of Slope θ 45° | Slope, n 1.000

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DAVIS SERVICES, INC.	RICK PAGAN	

MPANY : TRANSWESTERN GAS UPPLY COMPANY
LEASE : ANTELOPE FEDERAL
WELL # : 1
COUNTY : CHAVES
STATE : NEW MEXICO
DATE : AUGUST 22, 1982



Q = MCF/DAY
Q_1 LOG 1750 = 3.243038
Q_2 LOG 175 = 2.243038
N = 1.000
Q = 450

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

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

Form C-122F
Adopted 9-1-65

COMPANY TRANSWESTERN GAS SUPPLY COMPANY LEASE ANTELOPE FEDERAL WELL NO. 1 DATE 8-22-82

LOCATION: Unit _____ Section _____ Township _____ Range _____

L 3125 H 3125 L/H 1.000 G .6192 % CO_2 .065 % N_2 6.462 % H_2S _____

GH 1935 P_{cr} 660 (TABLE IX & X) T_{cr} 348 (TABLE IX & X)

		1st RATE		2nd RATE		3rd RATE		4th RATE	
LINE		1	2	3	4	5	6	7	8
1	T_w(W.H. °R)	534	534	534	534	534	534	534	534
2	T_s(B.H. °R)	565	565	565	565	565	565	565	565
3	$T=(\frac{T_w + T_s}{2})$	549.5	549.5	549.5	549.5	549.5	549.5	549.5	549.5
4	Z (Est.)	.901	.905	.902	.906	.900	.903	.897	.900
5	TZ	495.1	497.3	495.6	497.8	494.6	496.2	492.9	494.6
6	GH/TZ	3.908	3.891	3.904	3.887	3.913	3.900	3.926	3.913
7	e^s(Table XIV)	1.158	1.157	1.158	1.157	1.158	1.157	1.159	1.15
8	P_f or P_s	856.2	856.2	849.2	849.2	866.2	866.2	901.2	901.2
9	P_f^2 or P_s^2	733.1	733.1	721.1	721.1	750.3	750.3	812.2	812.2
10	$P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$	633.1	633.6	622.9	623.3	647.9	648.2	701.0	701.3
11	P_c or P_w	795.7	796.0	789.3	789.5	804.9	805.1	837.2	837.4
12	$P=(\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	826.0	826.1	819.2	819.4	835.6	835.7	869.2	869.3
13	$P_r = (P/P_{cr})$	1.25	1.25	1.24	1.24	1.27	1.27	1.32	1.32
14	$T_r = (T/T_{cr})$	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
15	Z (Table XI)	.905	.905	.906	.906	.903	.903	.900	.900

NEW-TEX LAB

PHONE 505/393-3561 • P. O. BOX 1161 • 611 W. SNYDER • HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

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

ANALYSIS NUMBER: 6074
DATE OF RUN: 08/23/82
DATE SECURED: 08/21/82

SAMPLE IDENT: TRANSWESTERN GAS SUPPLY CO - ANTELOPE FED #1
SAMPLING PRESS: SAMPLING TEMP:

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

	MOLE PERCENT	GAL/ MCF
NITROGEN	6.462	
CARBON DIOXIDE	0.065	
METHANE	89.692	
ETHANE	1.754	0.468
PROPANE	0.885	0.243
ISO-BUTANE	0.146	0.048
NORMAL BUTANE	0.443	0.139
ISO-PENTANE	0.104	0.038
NORMAL PENTANE	0.161	0.065
HEXANES	0.117	0.048
HEPTANES PLUS	0.151	0.069
TOTAL	100.000	1.118

PROPANE GPM: 0.24 BUTANES GPM: 0.19
ETHANE GPM: 0.47 PENTANES PLUS GPM: 0.22

SPECIFIC GRAV (CALC): 0.6192
MOLE WEIGHT: 17.95

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	986	1004
	14.650	983	1001
	14.730	989	1006
	14.735	989	1007

ANALYZED BY: R H HAMILTON

APPROVED BY Deane Simpson by lo