

ALPHA TWENTY-ONE PROD. CO.
 Harrison #3
 Sec. 27 T-25-S R-37-E
 Unit E

MCF/MO

BBLS - H₂O/MO

CUM. GAS 63,602 MCF
 CUM. H₂O 73,965 BBLS

MONTHLY AVERAGES BY YEAR

MCF/MO
 BBLS/MO

80
 1991
 2787

81
 1995
 2275

82
 1730
 2395

83
 619
 1990

MAXIMUM GAS
 PRODUCTION
 4182 3385 MCF

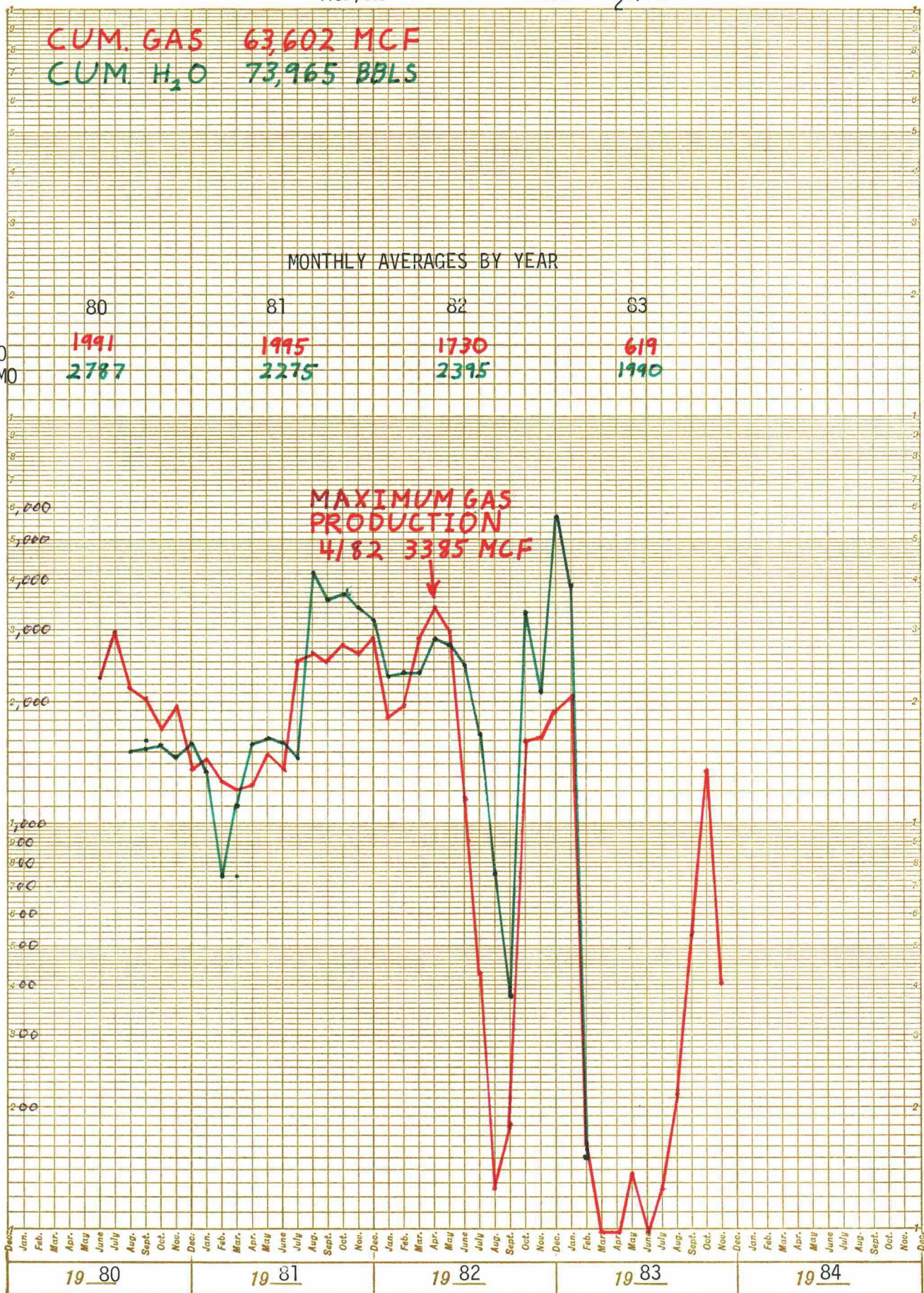


Exhibit # _____

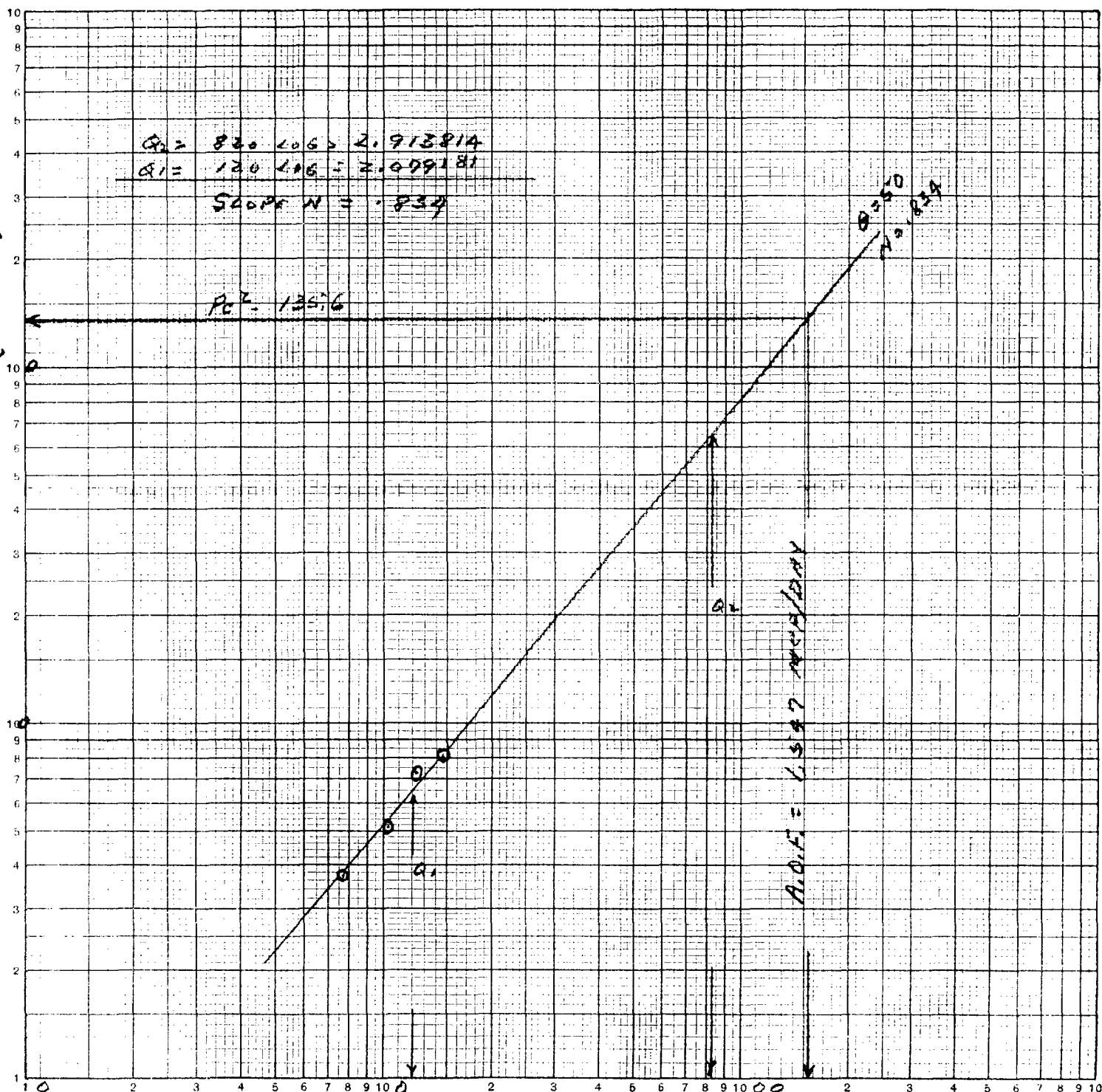
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 9-2-85							
Company Lewis Burleson				Concession El Paso Natural Gas Company							
Pool Jalmat Yates Seven Rivers				Formation Yates		Unit					
Completion Date 5-9-85		Total Depth 3071		Plug Back TD 2958		Elevation 3051 GR					
Casing Size 5 1/2		Set At 3071		Perforations: From 2878 To 2924		Well No. 2					
Tub. Size 2		Set At 2951		Perforations: From open To ended		Unit Sec. Twp. Rye. P 21 25 37					
Type Well - Single - Brdenhead - G.C. or G.O. Multiple single				Packer Set At none		County Lea					
Producing Thru tbg		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a					
L 2951		H 2951		G _g .650		% CO ₂					
				% N ₂		% H ₂ S					
				Prover		Meter Run 4					
						Taps flg					
FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							350		355		77
1.	4	X	.750	7.0	28.09	86	345		350		30 min
2.	4	X	.750	8.0	47.61	88	345		348		45 min
3.	4	X	.750	8.0	65.61	93	344		345		45 min
4.	4	X	.750	9.0	94.09	94	340		344		45 min
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	2.661	23.82	20.2	.9759	1.240	Nil	77				
2.	2.661	31.77	21.2	.9741	1.240	"	102				
3.	2.661	37.30	21.2	.9697	1.240	"	121				
4.	2.661	45.70	22.2	.9688	1.240	"	146				
5.											
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ No Fluid _____ Mcf/bbl.						
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.					Specific Gravity Separator Gas .650 XXXXXXXXXX						
3.					Specific Gravity Flowing Fluid XXXXX						
4.					Critical Pressure 670 P.S.I.A. _____ P.S.I.A.						
5.					Critical Temperature 375 _____ R _____ R						
P_c 368.2 P_w^2 135.6											
NO.	P_1^2	P_w	P_w^2	$P_c^2 - P_w^2$	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 16.95$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.60$						
1		363.2	131.9	3.7	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.547$						
2		361.2	130.5	5.1							
3		358.2	128.3	7.3							
4		357.2	127.6	8.0							
5											
Absolute Open Flow 1,547 Mcfd @ 15.025 Angle of Slope Φ 50 Slope, n 834											
Remarks:											
Approved By Division				Conducted By: JOE B. MURRAY (AGENT)				Calculated By: J. B. MURRAY (AGENT)			
Checked By:											

LEWIS BURLISON
HADFELD No. 2
P- 21-25-37
LEA COUNTY NEW MEXICO

LOGARITHMIC
KEUFFEL & ESSER CO. MADE IN U.S.A.
3 X 3 CYCLES

$P_2 - P_{w2}$ (PSI)



Q MCF/DAY

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 9-2-85											
Company Lewis Burleson				Connection El Paso Natural Gas Company											
Pool Jalmat Yates Seven Rivers				Formation Yates		Unit									
Completion Date 5-9-85		Total Depth 3071		Plug Back TD 2958		Elevation 3051 GR									
Form or Lease Name Hadfield															
Coq. Size 5½		WI. d		Set At 3071		Perforations: From 2878 To 2924									
Well No. 2															
Thq. Size 2		WI. 4.7		d 1.995		Set At 2951									
Perforations: From open To ended															
Type Well - Single - Indenhead - G.C. or G.O. Multiple single				Packer Set At none		County Lea									
Producing Thru tbq		Reservoir Temp. °F #		Mean Annual Temp. °F		Baro. Press. - P _a									
State NM															
L 2951		H 2951		G _q .650		% CO ₂									
				% N ₂		% H ₂ S									
Prover		Meter Run 4		Taps flg											
FLOW DATA											TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Dil. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F					
SI							350		355				72		
1.	4	X	.750	7.0	28.09	86	345		350				30 min		
2.	4	X	.750	8.0	47.61	88	345		348				45 min		
3.	4	X	.750	8.0	65.61	93	344		345				45 min		
4.	4	X	.750	9.0	94.09	94	340		344				45 min		
5.															
RATE OF FLOW CALCULATIONS															
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd								
1	2.661	23.82	20.2	.9759	1.240	Nil	77								
2	2.661	31.77	21.2	.9741	1.240	"	102								
3	2.661	37.30	21.2	.9697	1.240	"	121								
4	2.661	45.70	22.2	.9688	1.240	"	146								
5															
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ No Fluid _____ Mcf/bbl.										
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.										
2					Specific Gravity Separator Gas .650 _____ XXXXXXXXXX										
3					Specific Gravity Flowing Fluid _____ XXXXX										
4					Critical Pressure 670 _____ P.S.I.A. _____ P.S.I.A.										
5					Critical Temperature 375 _____ R _____ R										
P _c 368.2 P _c ² 135.6															
NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 16.95$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.60$										
1		363.2	131.9	3.71	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.547$										
2		361.2	130.5	5.1											
3		358.2	128.3	7.3											
4		357.2	127.6	8.0											
5															
Absolute Open Flow 1,547 _____ Mcfd @ 15.025					Angle of Slope @ 50 _____					Slope, n 834 _____					
Remarks:															
Approved By Division															
Conducted By: JOE B. MURRAY (AGENT)					Calculated By: J. B. MURRAY (AGENT)					Checked By:					

LEWIS BURLERSON
HADFELD No. 2
P-21-25-37
LEA COUNTY NEW MEXICO

LOGARITHMIC 359-120
KEUFFEL & ESSER CO. MADE IN U.S.A.
3 X 3 CYCLES

