

## NOMENCLATURE

$b$	= Approximate Radius of Investigation	Feet
$b_1$	= Approximate Radius of Investigation (Net Pay Zone $h_1$ )	Feet
D.R.	= Damage Ratio	
El	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
$h$	= Interval Tested	Feet
$h_1$	= Net Pay Thickness	Feet
$K$	= Permeability	md
$K_1$	= Permeability (From Net Pay Zone $h_1$ )	md
$m$	= Slope Extrapolated Pressure Plot (Psi <sup>2</sup> /cycle Gas)	psi/cycle
OF <sub>1</sub>	= Maximum Indicated Flow Rate	MCF/D
OF <sub>2</sub>	= Minimum Indicated Flow Rate	MCF/D
OF <sub>3</sub>	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF <sub>4</sub>	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
$P_s$	= Extrapolated Static Pressure	Psig.
$P_f$	= Final Flow Pressure	Psig.
$P_{ei}$	= Potentiometric Surface (Fresh Water *)	Feet
$Q$	= Average Adjusted Production Rate During Test	bbls/day
$Q_1$	= Theoretical Production w/Damage Removed	bbls/day
$Q_g$	= Measured Gas Production Rate	MCF/D
$R$	= Corrected Recovery	bbls
$r_w$	= Radius of Well Bore	Feet
$t$	= Flow Time	Minutes
$t_o$	= Total Flow Time	Minutes
$T$	= Temperature Rankine	°R
$Z$	= Compressibility Factor	
$\mu$	= Viscosity Gas or Liquid	CP
Log	= Common Log	

\* Potentiometric Surface Referenced to 2.8 p.p.m. Tide When Elevation Not Given, Fresh Water Corrected to 100 ft.

Each Horizontal Line Equal to 1000 p.s.i.

← PRESSURE →

← TIME →

08458.6039

08458.6040

FLUID SAMPLE DATA		Date	1-3-77	Ticket Number	008958
Sampler Pressure _____ P.S.I.G. at Surface		Kind of Job	OPEN HOLE	Halliburton District	FARMINGTON
Recovery: Cu. Ft. Gas _____		Tester	MR. HOEFER	Witness	MR. MOORE
cc. Oil _____		Drilling Contractor	FOUR CORNERS DRILLING COMPANY SM		
cc. Water 2250		EQUIPMENT & HOLE DATA			
cc. Mud _____		Formation Tested	Entrada		
Tot. Liquid cc. 2250		Elevation	6903'	Ft.	
Gravity _____ ° API @ _____ °F.	RESISTIVITY _____	Net Productive Interval	15'	Ft.	
Gas/Oil Ratio _____ cu. ft./bbl.	CHLORIDE CONTENT _____	All Depths Measured From	Kelly bushing		
Recovery Water .92 @ 60 °F. _____ ppm		Total Depth	6618'	Ft.	
Recovery Mud 2.93 @ 62 °F. _____ ppm		Main Hole/Casing Size	8 3/4"		
Recovery Mud Filtrate @ _____ °F. _____ ppm		Drill Collar Length	621' I.D. 2 1/4"		
Mud Pit Sample 2.45 @ 59 °F. _____ ppm		Drill Pipe Length	5944' I.D. 3.826"		
Mud Pit Sample Filtrate @ _____ °F. _____ ppm		Packer Depth(s)	6597-6603'	Ft.	
Mud Weight 8.9 vis 63 sec $\times$ P		Depth Tester Valve	6575'	Ft.	

Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
				3/4" Adj.	3/4"
Recovered	186	Feet of water cut mud			
Recovered	5044	Feet of water			
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Remarks	SEE PRODUCTION TEST DATA SHEET				

Charts indicate possible partial plugging of anchor perforations during initial flow period.

TEMPERATURE	Gauge No. 6040		Gauge No. 6039		Gauge No.		TIME	
	Depth:	6580 Ft.	Depth:	6614 Ft.	Depth:	Ft.		
Est. °F.	Blanked Off	no	Blanked Off	yes	Blanked Off		Tool A.M.	
							Opened	1235 P.M.
Actual 160 °F.	Pressures		Pressures		Pressures		Opened	A.M.
							Bypass	1528 P.M.
	Field	Office	Field	Office	Field	Office	Reported	Computed
							Minutes	Minutes
Initial Hydrostatic	3166	3158	3183	3176				
First Period Flow	Initial	1706	1621	2299	2264			
	Final	2613	2550	2892	2616		20	
	Closed in	2626	2634	2892	2656		30	
Second Period Flow	Initial	2626	2599	2892	2599			
	Final	2626	2636	2892	2661		63	
	Closed in	2626	2639	2892	2661		60	
Third Period Flow	Initial							
	Final							
	Closed in							
Final Hydrostatic	3113	3121	3143	3144				

Legal Location Sec. - Twp. - Rng. 3-21-6  
 Lease Name FEDERAL 3  
 Well No. 1  
 Test No. 4  
 Tested Interval 6603 - 6618'  
 County SANDOVAL  
 State NEW MEXICO  
 Lease Owner/Company Name DOMESTIC PETROLEUM CORPORATION

008958

[illegible]

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....	6"	2.50"	1'	
Reversing Sub .....				
Water Cushion Valve .....				
Drill Pipe .....	4 1/2"	3.826"	5944'	
Drill Collars .....	6 1/4"	2.25"	621'	
Handling Sub & Choke Assembly .....				
Dual CIP Valve .....				
Dual CIP Sampler .....	5"	.87"	8'	6567'
Hydro-Spring Tester .....	5"	.75"	5'	6575'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	3.50"	4'	6580'
Hydraulic Jar .....	5"	1.75"	5'	
VR Safety Joint .....	5"	1.00"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly .....	7 3/4"	1.53"	6'	6597'
Distributor .....				
Packer Assembly .....	7 3/4"	1.53"	6'	6603'
Flush Joint Anchor .....				
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....				
Drill Collars .....				
Anchor Pipe Safety Joint .....				
Packer Assembly .....				
Distributor .....				
Packer Assembly .....				
Anchor Pipe Safety Joint .....				
Side Wall Anchor .....				
Drill Collars .....				
Flush Joint Anchor .....	5 3/4"	2.50"	10'	
Blanked-Off B.T. Running Case .....	5 3/4"	3.50"	4'	6614'
Total Depth .....				6618'