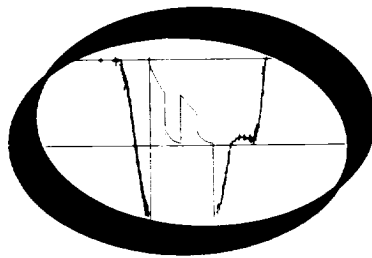
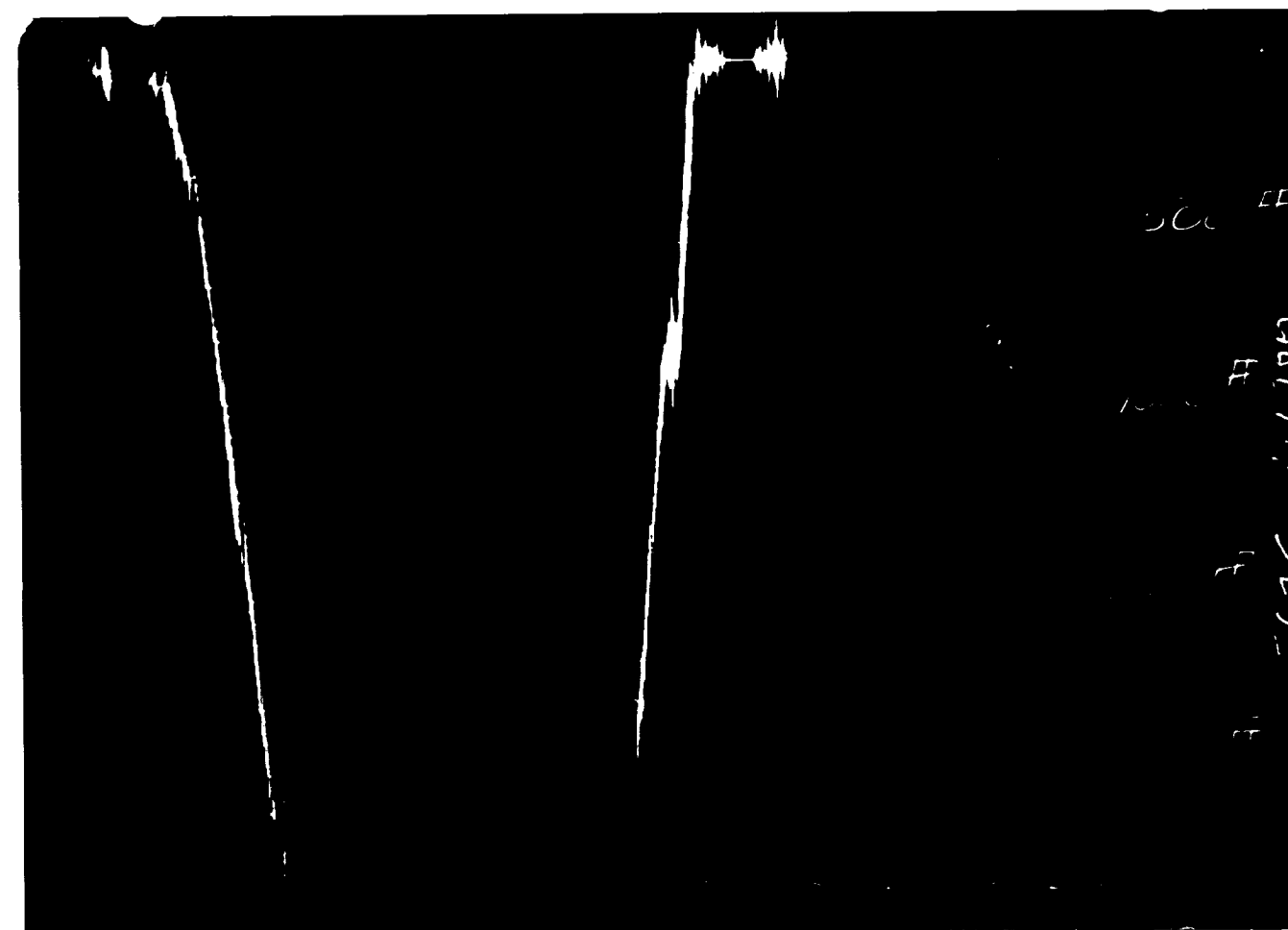
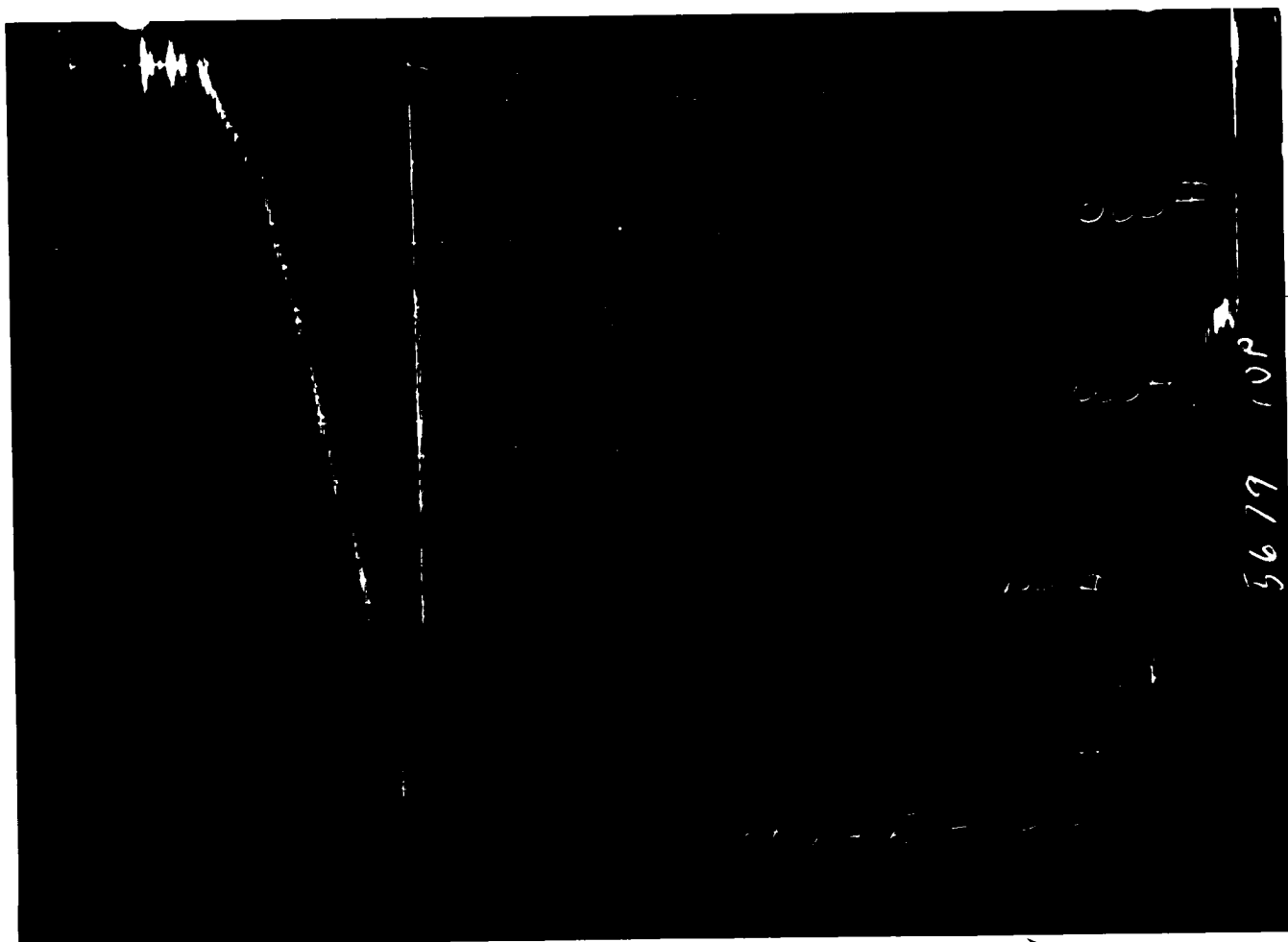


Formation Testing Service Report



PRESSURE



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

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b₁	= 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
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{ot}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q₁	= 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	_____
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given,
Fresh Water Corrected to 100° F.

NEW MEXICO

FLUID SAMPLE DATA				Date	9-2-80		Ticket Number 727249-B		
Sampler Pressure <u>150</u> P.S.I.G. at Surface				Kind of D.S.T.	OPEN HOLE		Halliburton Location		
Recovery: Cu. Ft. Gas _____							FARMINGTON		
cc. Oil <u>500</u>				Tester		FREIDLINE			
cc. Water _____				Witness		DOUG HARRIS			
cc. Mud _____				Drilling Contractor		YOUNG # 3 DR			
Tot. Liquid cc. _____				EQUIPMENT & HOLE DATA					
Gravity _____ ° API @ _____ ° F.				Formation Tested <u>Mesa Verde</u>					
Gas/Oil Ratio _____ cu. ft./bbl.				Elevation _____ Ft.					
RESISTIVITY				Net Productive Interval _____ Ft.					
CHLORIDE CONTENT				All Depths Measured From <u>Kelly Bushing</u>					
Recovery Water <u>1.1</u> @ <u>77</u> ° F. <u>3000</u> ppm				Total Depth <u>4125'</u> Ft.					
Recovery Mud <u>4.15</u> @ <u>82</u> ° F. <u>800</u> ppm				Main Hole/Casing Size <u>7 7/8"</u>					
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm				Drill Collar Length <u>518'</u> I.D. <u>2 1/4"</u>					
Mud Pit Sample <u>4.5</u> @ <u>78</u> ° F. <u>700</u> ppm				Drill Pipe Length <u>3515'</u> I.D. <u>3.826"</u>					
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm				Packer Depth(s) <u>4059-4065'</u> Ft.					
Mud Weight <u>9.2</u> vis <u>70</u> sec.				Depth Tester Valve <u>4042'</u> Ft.					
TYPE		AMOUNT		Depth Back		Surface		Bottom	
Cushion				Ft. Pres. Valve		Choke		Choke	
						3/4"		3/4"	
Recovered		<u>210</u> Feet of <u>mud</u>		Med. From Tester Valve					
Recovered		<u>180</u> Feet of <u>gas cut mud</u>							
Recovered		<u>60</u> Feet of <u>gas cut oil</u>							
Recovered		<u>60</u> Feet of <u>gas cut water</u>							
Recovered		<u> </u> Feet of <u> </u>							
Remarks		<u>See production test data sheet</u>							
TEMPERATURE		Gauge No. <u>5679</u>		Gauge No. <u>5678</u>		Gauge No.		TIME	
Depth:		<u>4047</u> Ft.		<u>4121</u> Ft.		Depth:		(00:00-24:00 hrs.)	
Est. ° F.		<u>12</u> Hour Clock		<u>24</u> Hour Clock		Hour Clock		Tool	
		Blanked Off <u>NO</u>		Blanked Off <u>YES</u>		Blanked Off		Opened <u>1220</u>	
Actual <u>121</u> ° F.		Pressures		Pressures		Pressures		Opened Bypass <u>1920</u>	
		Field	Office	Field	Office	Field	Office	Reported	Computed
Initial Hydrostatic		<u>1958.2</u>	<u>1958.1</u>	<u>2015</u>	<u>1997.2</u>			Minutes	Minutes
First Period	Flow Initial	<u>1.4</u>	<u>21.5</u>	<u>12.5</u>	<u>127.7</u>				
	Flow Final	<u>4.7</u>	<u>37.6</u>	<u>12.5</u>	<u>127.0</u>			<u>15</u>	<u>15</u>
	Closed in	<u>1421.5</u>	<u>1429.0</u>	<u>1454.8</u>	<u>1447.9</u>			<u>45</u>	<u>42</u>
Second Period	Flow Initial	<u>4.9</u>	<u>47.3</u>	<u>12.5</u>	<u>129.1</u>				
	Flow Final	<u>13.3</u>	<u>135.7</u>	<u>17.4</u>	<u>168.0</u>			<u>120</u>	<u>123</u>
	Closed in	<u>1435.3</u>	<u>1434.5</u>	<u>1494.8</u>	<u>1458.1</u>			<u>240</u>	<u>239</u>
Third Period	Flow Initial								
	Flow Final								
Closed in									
Final Hydrostatic		<u>1916.9</u>	<u>1927.1</u>	<u>1960</u>	<u>1960.3</u>				

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 727249-B
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1600						On location
2330						Picked up tools
100						Trip in hole with tools
130						Filled 180' collars with water
347						Opened tool with no blow
350						Lost packer seat, picked up
355						Set back down on bottom
						Opened tool with no blow
427						No blow, pulled out of hole to check
						tools and move packers.
730						Out of hole with tools
930						Picked up tools
1030						Trip in hole with tools
1220						Opened tool with a weak blow
1235						Closed tool
1320						Opened tool with no blow
1323						Weak blow
1332						Bubble hose 8" into bucket.
1340						Weak blow at bottom of bucket
1400						Fair blow at bottom of bucket
1520						Fair blow, closed tool
1920						Unseated packer, by pass tools
						Trip out of hole with tools
2200						Out of hole with tools

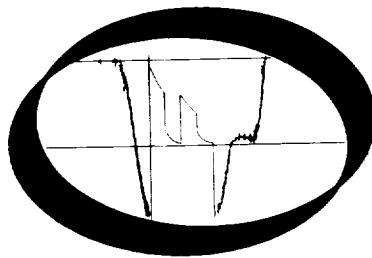
Gauge No.		5679		Depth		4047'		Clock No.		14121		12 hour		Ticket No.		727249-B	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.000	21.5		.000	37.6	.000	47.3	.000	135.7								
1	.0206	24.3	.0421*	.1523**	1075.7	.1523**	63.3	.1017**	1145.3								
2	.0412	27.1	.0702	.2849	1226.5	.2849	78.6	.2101	1274.1								
3	.0618	29.9	.0983	.4174	1298.8	.4174	92.6	.3186	1323.0								
4	.0824	32.7	.1264	.5500	1342.9	.5500	106.5	.4270	1352.6								
5	.1030	37.6	.1545	.6825	1367.7	.6825	121.1	.5355	1371.2								
6			.1826	.8150	1386.3	.8150	135.7	.6439	1386.3								
7			.2107		1400.8			.7524	1397.3								
8			.2388		1412.5			.8608	1407.0								
9			.2669		1421.4			.9693	1414.5								
10			.2950		1429.0			1.0777	1421.4								
11								1.1862	1426.3								
12								1.2946	1431.1								
13								1.4031	1435.2								
14								1.5115	1438.7								
15								1.6200	1434.5								

Gauge No.		5678		Depth		4121'		Clock No.		9756		hour		24	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t + \theta}{\theta}$
0	.000	127.7	.000	.000	127.0	.000	129.1	.000	168.0						
1	.051	127.0	.0201*	.0763**	1130.1	.0763**	128.4	.0499**	1163.0						
2			.0336	.1426	1265.7	.1426	128.4	.1032	1278.0						
3			.0470	.2090	1326.6	.2090	135.4	.1565	1325.3						
4			.0604	.2753	1362.3	.2753	146.5	.2098	1354.0						
5			.0739	.3417	1390.3	.3417	156.9	.2631	1373.2						
6			.0872	.4080	1408.8	.4080	168.0	.3164	1388.3						
7			.1007		1421.8			.3697	1400.6						
8			.1141		1433.5			.4230	1411.6						
9			.1276		1442.4			.4763	1420.5						
10			.1410		1447.9			.5295	1429.4						
11								.5828	1437.6						
12								.6361	1443.8						
13								.6894	1449.2						
14								.7427	1454.0						
15								.7960	1458.1						

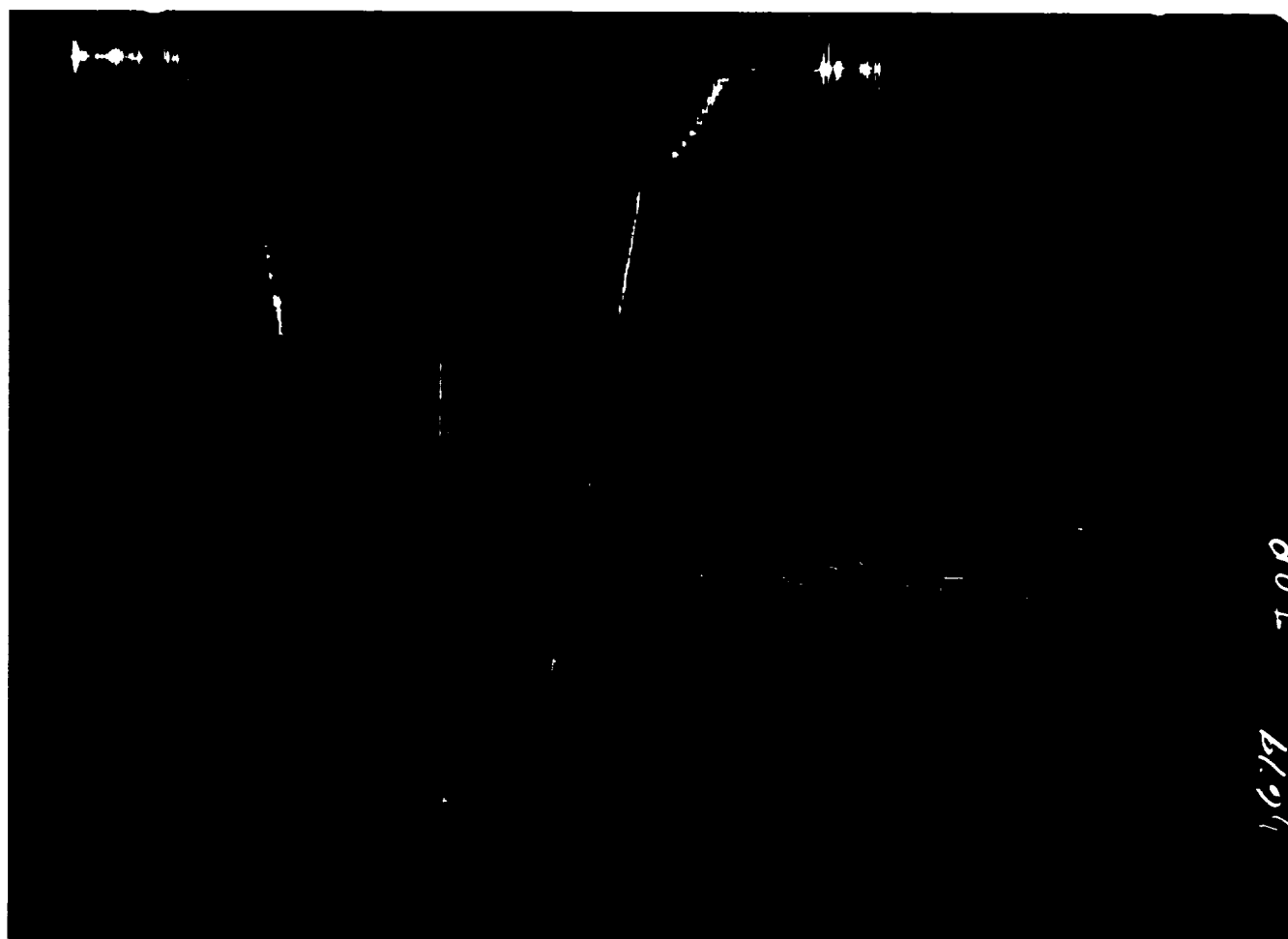
Reading Interval		4		20		16	
Minutes		Minutes		Minutes		Minutes	
* -6 minutes		** -23 minutes		*** -15 minutes			
REMARKS:							

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Drill Collars				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	3515'	
Drill Collars	6"	2 1/4"	518'	
Handling Sub & Choke Assembly	6"	3"	1'	
Dual CIP Valve	5"	.75"	7'	4038'
Dual CIP Sampler	5"	.75"	5'	4042'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25"	4'	4047'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	4059'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	4065'
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"	3.5"	55'	
Blanked-Off B.T. Running Case	5 3/4"	2.44 "	4'	4121'
Total Depth				4125'

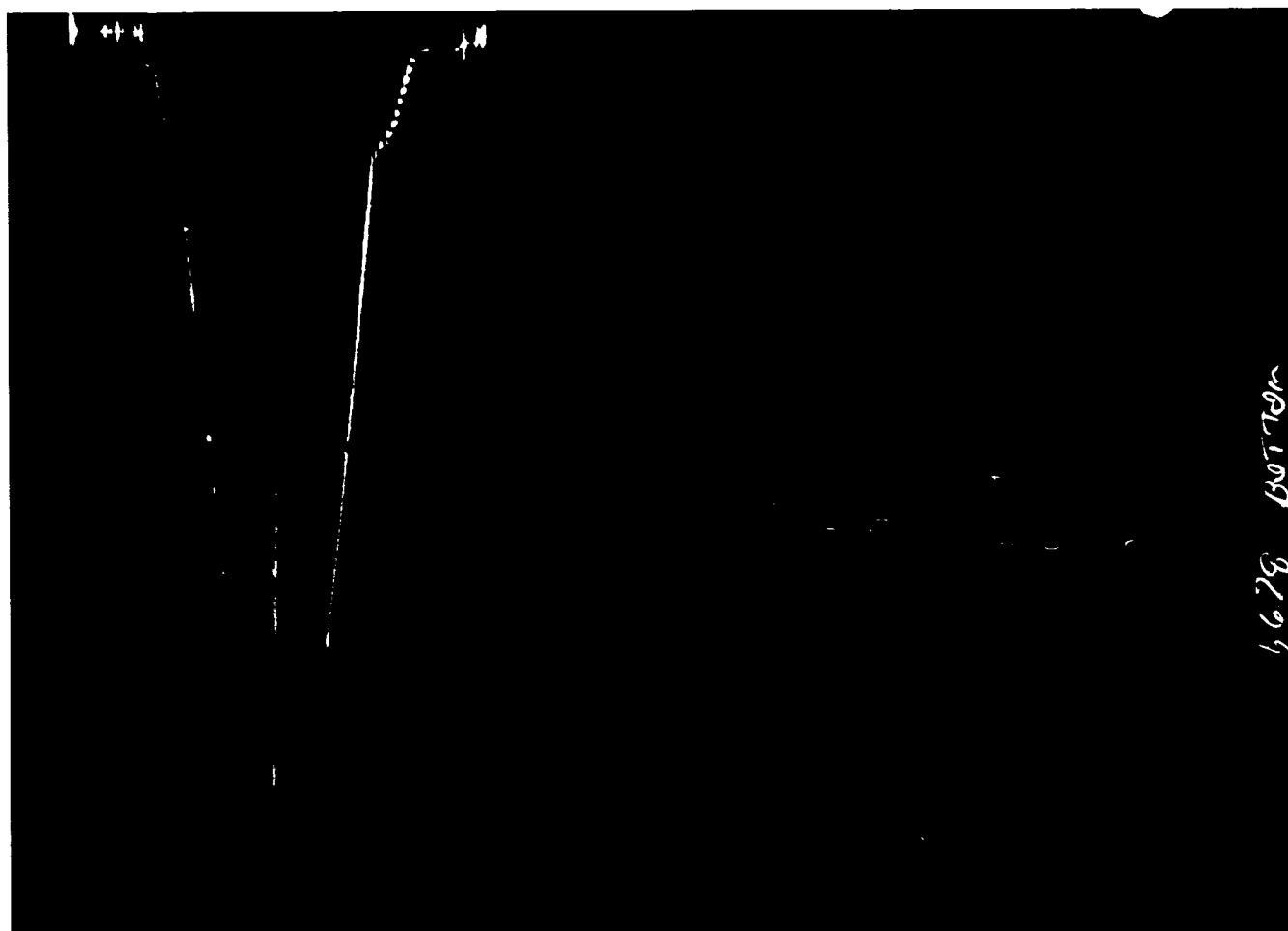
Formation Testing Service Report



PRESSURE



61.94
TOP



61.94
BOTTOM

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

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b_1	= Approximate Radius of Investigation (Net Pay Zone h_1)	Feet
$D.R.$	= Damage Ratio	—
EI	= 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 ² /cycle Gas)	psi/cycle
OF_1	= Maximum Indicated Flow Rate	MCF/D
OF_2	= Minimum Indicated Flow Rate	MCF/D
OF_3	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF_4	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{or}	= 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	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 727245 - A
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

[illegible]

FLUID SAMPLE DATA				Date 9-2-80		Ticket Number 727249 - A	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____ Gravity _____ ° API @ _____ °F. Gas/Oil Ratio _____ cu. ft./bbl.				Kind of D.S.T. OPEN HOLE		Halliburton Location FARMINGTON	
				Tester FREIDLINE		Witness HARRIS	
				Drilling Contractor YOUNG # 3		NM	
EQUIPMENT & HOLE DATA							
				Formation Tested Mesa Verde			
				Elevation 6896' K.B. _____ Ft.			
				Net Productive Interval _____ Ft.			
				All Depths Measured From Kelly Bushing			
				Total Depth 4125' _____ Ft.			
				Main Hole/Casing Size 7 7/8"			
				Drill Collar Length ?? I.D. 2.25"			
				Drill Pipe Length ?? I.D. 3.826"			
				Packer Depth(s) _____ Ft.			
				Depth Tester Valve _____ Ft.			
TYPE		AMOUNT		Depth Back		Surface	
Cushion				Ft. Pres. Valve		Choke	
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks		NO DATA SHEET SUPPLIED...					
TEMPERATURE		Gauge No. 5679		Gauge No. 5678		Gauge No.	
		Depth: ?? Ft.		Depth: ?? Ft.		Depth: _____ Ft.	
Est. C 110°F.		Hour Clock		Hour Clock		Hour Clock	
		Blanked Off		Blanked Off		Blanked Off	
Actual °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2024.7		2039.6			
First Period	Flow Initial	342.2		403.6			
	Flow Final	350.5		409.8			
Closed in							
Second Period	Flow Initial						
	Flow Final						
Closed in							
Third Period	Flow Initial						
	Flow Final						
Closed in							
Final Hydrostatic		1949.1		1984.9			

 Legal Location
 Sec. - Twp. - Rng.

25 - 24N - 8W

Field Area

BASIN DAKOTA

County

RIO ARRIBA

State

NEW MEXICO

S. BLANCO FEDERAL 25

1

1A

??

MESA PETROLEUM COMPANY

Lease Owner/Company Name