

FLUID SAMPLE DATA				Date 3-10-80		Ticket Number 727157	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ 10 cc. Water _____ 2240 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 D. AULD		Witness C.D. MOORE	
				Drilling Contractor BRINKERHOFF		TJH	
EQUIPMENT & HOLE DATA							
				Formation Tested Entranda			
				Elevation 6805' Ft.			
				Net Productive Interval 9' Ft.			
				All Depths Measured From Kelly Bushing			
				Total Depth 5996' Ft.			
				Main Hole/Casing Size 8 3/4"			
				Drill Collar Length 528'		I.D. 2.25"	
				Drill Pipe Length 5422'		I.D. 3.340"	
				Packer Depth(s) 5981' - 5987' Ft.			
				Depth Tester Valve 5963' Ft.			
TYPE		AMOUNT		Depth Back Ft.		Surface Choke	
Cushion				Pres. Valve		3/4" Adj. Bottom Choke .75"	
Recovered	5004	Feet of	fluid.				
Recovered	340	Feet of	oil cut mud.				
Recovered	1600	Feet of	50% oil cut - 50% sand and water.				
Recovered	3064	Feet of	15% oil - 83% sand and water.				
Recovered		Feet of					
Remarks SEE PRODUCTION TEST DATA SHEET							
TEMPERATURE		Gauge No. 2033		Gauge No. 2032		Gauge No.	
		Depth: 5967 Ft.		Depth: 5992 Ft.		Depth: Ft.	
		12 Hour Clock		24 Hour Clock		Hour Clock	
Est.	°F.	Blanked Off NO		Blanked Off YES		Blanked Off	
Actual 162 °F.						TIME (00:00-24:00 hrs.)	
		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic		2996.0	2983.8	2993.4	2997.3		
First Period	Flow Initial	1146.7	1597.5	1584.7	1761.9		
	Flow Final	2404.6	2362.9	2421.4	2370.6		
	Closed in	2364.3	2411.2	2394.7	2426.6		
Second Period	Flow Initial	2418.1	2385.7	2421.4	2411.9		
	Flow Final	2418.1	2415.3	2421.4	2429.3		
	Closed in	2418.1	2416.6	2421.4	2430.6		
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		2955.7	2955.6	2940.2	2966.7		

Casing perms. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. **727157**
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

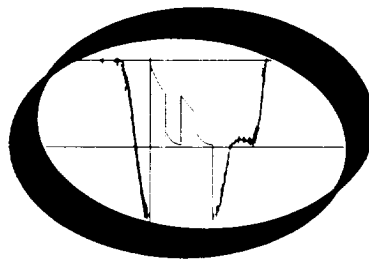
Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0016						On location.
0600						Picked up tool.
0730						Tool on trip in.
1027		Bubble Hose	1 lb.			Opened tool with a weak blow.
1032		"	5			
1033		"	7			
1034		"	9			
1035		"	11			
1036		"	14			
1037		"	17			
1038		"	20			
1039		"	22			
1040		"	25			
1041		"	27			
1043		"	30			Closed tool.
1113		"	1			Opened tool with a weak blow.
1118		"	4			
1123		"	3.5			
1128		"	2			
1133		"	1			
1143		"	0			Dead.
1215						Closed tool.
1413						Opened bypass.
1935						Tool out of hole.
2140						Job completed.

Gauge No. 2033				Depth 5967				Clock No. 10444				12 hour		Ticket No. 727157	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure	
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"	PSIG Temp. Corr.
0	.0000	1597.5		.0000	2362.9	.0000	2385.7	.0000	2415.3						
1	.0204	1613.6		.0135	2399.1	.0550*	2411.2	.8060	2416.6						
2	.0408	1965.2		.0271	2403.2	.1238	2412.6								
3	.0612	2180.1		.0406	2405.9	.1926	2413.9								
4	.0816	2295.7		.0541	2407.2	.2614	2413.9								
5	.1020	2362.9		.0677	2408.6	.3302	2413.9								
6				.0812	2408.6	.3990	2415.3								
7				.0947	2409.9										
8				.1082	2409.9										
9				.1218	2409.9										
10				.1353	2409.9										
11				.1488	2411.2										
12				.1624	2411.2										
13				.1759	2411.2										
14				.1894	2411.2										
15				.2030	2411.2										

Gauge No. 2032				Depth 5992				Clock No. 13840				24 hour	
First Flow Period		Closed In Pressure		Second 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.
0	.0000	1761.9		.0000	2370.6	.0000	2411.9	.0000	2429.3				
1	.0098	1828.0		.0066	2407.9	.0268*	2423.9	.4120	2430.6				
2	.0196	2117.3		.0133	2415.9	.0602	2427.9						
3	.0294	2237.3		.0200	2418.6	.0936	2427.9						
4	.0392	2315.9		.0266	2421.3	.1271	2427.9						
5	.0490	2370.6		.0333	2422.6	.1605	2429.3						
6				.0400	2423.9	.1940	2429.3						
7				.0466	2425.3								
8				.0533	2425.3								
9				.0599	2425.3								
10				.0666	2425.3								
11				.0733	2425.3								
12				.0799	2426.6								
13				.0866	2426.6								
14				.0933	2426.6								
15				.1000	2426.6								
Reading Interval 3				2				10				Minutes	
REMARKS: *Interval = 8 minutes													

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Drill Collars				
Reversing Sub	6"	3'	1'	
Water Cushion Valve				
Drill Pipe	4"	3.340"	5422'	
Drill Collars	6.25"	2.25"	528'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.03"	.87"	3'	5954'
Dual CIP Sampler	5"	2.75"	4'	5958'
Hydro-Spring Tester	5"	.75"	5'	5963'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25"	4'	5967'
Hydraulic Jar	5.03"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7 3/4"	1.53"	6'	5981'
Distributor				
Packer Assembly	7 3/4"	1.53"	6'	5987'
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"	5'	
Blanked-Off B.T. Running Case	5 3/4"	2.44"	4'	5992'
Total Depth				5996'

Formation Testing Service Report



— PRESSURE —
↓



— TIME —→



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)	Feet
$D.R.$	= Damage Ratio	—
E_l	= 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)	md
m	= Slope Extrapolated Pressure Plot ($\text{Psi}^2/\text{cycle Gas}$)	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_{ot}	= 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.