

FLUID SAMPLE DATA				Date 8-11-78		Ticket Number 369548	
Sampler Pressure 600 P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District HOBBS	
Recovery: Cu. Ft. Gas 3.999				Tester HAM		Witness PERRY BRASH	
cc. Oil 900				Drilling Contractor ARD # 2		NM S	
cc. Water 500				EQUIPMENT & HOLE DATA			
cc. Mud				Formation Tested Pennsylvania			
Tot. Liquid cc. 1400				Elevation - Ft.			
Gravity _____ ° API @ _____ °F.				Net Productive Interval - Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushing			
RESISTIVITY				Total Depth 7732' Ft.			
				Main Hole/Casing Size 7 7/8"			
CHLORIDE CONTENT				Drill Collar Length 729' I.D. 2.50"			
				Drill Pipe Length 6922' I.D. 3.340"			
Recovery Water @ _____ °F. _____ ppm				Packer Depth(s) 7682' - 7690' Ft.			
Recovery Mud @ _____ °F. _____ ppm				Depth Tester Valve 7649' Ft.			
Recovery Mud Filtrate @ _____ °F. _____ ppm							
Mud Pit Sample @ _____ °F. _____ ppm							
Mud Pit Sample Filtrate @ _____ °F. _____ ppm							
Mud Weight _____ vis _____ sec							
Cushion		TYPE AMOUNT NONE		Depth Back Pres. Valve NONE		Surface Choke 1" ADJ. Bottom Choke .75"	
Recovered 325'		Feet of gas cut mud					
Recovered 1500'		Feet of condensate					
Recovered 500'		Feet of salt water					
Recovered 250'		Feet of mud					
Recovered 2575'		Feet of TOTAL FLUID...					
Remarks CHARTS INDICATE PARTIAL PLUGGING OF ANCHOR PERFORATONS DURING THE INITIAL FLOW PERIOD.							
SEE PRODUCTION TEST DATA SHEET...							
TEMPERATURE							
Gauge No. 1516		Gauge No. 1496		Gauge No.		TIME	
Depth: 7667' Ft.		Depth: 7728' Ft.		Depth: _____ Ft.			
24 Hour Clock		24 Hour Clock		Hour Clock			
Est. °F. Blanked Off NO		Blanked Off YES		Blanked Off		Tool Opened 0631 A.M. P.M.	
Actual °F.		Pressures		Pressures		Opened A.M. P.M.	
		Field Office		Field Office		Bypass 1110 P.M.	
Initial Hydrostatic		3919 3893		3857 3842		Reported Computed	
Flow Initial		195 295		288 160		Minutes Minutes	
Flow Final		303 308		399 379		15 18	
Closed in		2682 2675		2634 2630		30 29	
Flow Initial		303 406		399 435		105 103	
Flow Final		867 887		887 882		129 128	
Closed in		2660 2669		2656 2641			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		3898 3857		3835 3835			

Legal Location Sec. - Twp. - Range
 Lease Name LAMBRITH
 Well No. 4
 Test No. 1
 Tested Interval 7690' - 7732' (42')
 County ROOSEVELT
 State NEW MEXICO
 Lease Owner/Company Name ENSERCH EXPLORATION COMPANY
 Field Area W. DORA
 Med. From Tester Valve

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 369548
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED

Date Time	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
8-10-78 2300 a.m. p.m.					
2300					Picked up the tools.
8-11-78 0130					Going in the hole.
0631	BUBBLE HOSE				Tool opened with a good blow -increasing.
0634	"	10			Had a strong blow.
0636	"	16			"
0641	"	33			"
0646	"	52			"
					Closed tool.
0716	"	38			Reopened tool
0726	"	55			Blow increasing.
0736	"	75			"
0739	"	80			Gas to the surface.
	3/8"				Opened to separator.
0741	"	85			
0746	"	80			Blow decreasing.
0756	"	53			"
0806	"	40			"
0821	"	30			"
0831	"	20			"
0841	"	18			"
0846	"	16			"
0856	"	15			"
0901	"	14			"
					Closed tool.
1110					Opened bypass. Jarred loose..
					SEE PAGE # 2

Gauge No.		1516		Depth		7667'		Clock No.		5981		24 hour		Ticket No.		369548	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second In Pressure		Third Flow Period		Closed In Pressure		Third In Pressure			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$	
0	.000	.000	308	.000	406	.000	406	.000	887								
1	.0087	.0070	1819*	.0770	518**	.0770	518**	.0168	2593								
2	.0173	.0176	2639	.1440	592	.1440	592	.0335	2621								
3	.0260	.0281	2656	.2110	685	.2110	685	.0503	2634								
4	.0347	.0387	2662	.2780	787	.2780	787	.0670	2641								
5	.0433	.0492	2667	.3450	887	.3450	887	.0838	2645								
6	.0520	.0598	2671					.1005	2647								
7		.0703	2673					.1173	2652								
8		.0809	2673					.1341	2654								
9		.0914	2675					.1508	2656								
10		.1020	2675					.1676	2658								
11								.2212	2662								
12								.2748	2665								
13								.3285	2667								
14								.3820	2669								
15								.4290	2669								

Gauge No.		1496		Depth		7728'		Clock No.		5979		hour		24		
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second In Pressure		Third Flow Period		Closed In Pressure		Third In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	
		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		
0	.000	.000	379	.000	435	.000	435	.000	882							
1	.0103	.0068	2523*	.0775	526**	.0775	526**	.0168	2557							
2	.0207	.0169	2590	.1449	599	.1449	599	.0336	2583							
3	.0310	.0270	2608	.2122	685	.2122	685	.0504	2596							
4	.0413	.0372	2616	.2796	783	.2796	783	.0672	2603							
5	.0517	.0473	2621	.3470	882	.3470	882	.0840	2608							
6	.0620	.0574	2623					.1008	2612							
7		.0676	2625					.1176	2616							
8		.0777	2627					.1344	2619							
9		.0879	2630					.1512	2623							
10		.0980	2630					.1680	2623							
11								.2217	2630							
12								.2755	2634							
13								.3292	2636							
14								.3830	2641							
15								.4300	2641							

Reading Interval 3 3 20
 REMARKS: * INTERVAL = 2 MINUTES. ** INTERVAL = 23 MINUTES. *** FIRST 10 READINGS = 5 MINUTES EACH - NEXT 4 READINGS = .16 MINUTES EACH AND THE LAST READING = 14 MINUTES.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W78-735

To Research Exploration Company
Box 4815
Midland, Texas 79701
ATTN: Mr. Fred Wilcox

Date 8-12-78

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TICKET NUMBER 369548

Submitted by _____ Date Rec. 8-12-78

Well No. Lambirth #4 Depth 7690-7732' Formation Penn

County Roosevelt Field W. Dora Source DST #1

	Sampler	Tool Top	Top of Fluid
Resistivity	0.086 @ 74° F.	0.089 @ 74° F.	0.080 @ 74° F.
Specific Gravity	1.070		
pH	6.2		
Calcium (Ca)	12,000		*MPL
Magnesium (Mg)	3,600		
Chlorides (Cl)	59,000	58,000	81,500
Sulfates (SO ₄)	1,200		
Bicarbonates (HCO ₃)	1,220		
Soluble Iron (Fe)	60		
API Gr. of Oil	46.5 @ 60° F.		46.4 @ 60° F.

Middle of fluid	- Res. @ 74° F. - 0.084	Chlorides, mpl - 65,000
Pit Sample	- Res. @ 74° F. - 0.071	Chlorides, mpl - 96,500

Remarks: _____ *Milligrams per liter

Respectfully submitted,

Analyst: Brewer
cc:

HALLIBURTON COMPANY

By W. L. Brewer
CHEMIST

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	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4"	3.340"	6922'	
Drill Collars	-	2.50"	729'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	4'	7649'
Multiple CIP Sampler	5"	3.75"	5'	
Extension Joint 2 EACH	5"	.87"	10'	
AP Running Case	5"	3.75"	4'	7667'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1.00"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	7682'
Distributor 3000 PSI	5"	1.68"	2'	
Packer Assembly	6 3/4"	1.53"	6'	7690'
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"	2.87"	35'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	5'	7728'
Total Depth				7732'