

Two production tests were completed with the following field results:

DST:	1	2
INTERVAL	2590.5-2597.0	2525-2535
CHOKE	42/64"	42/64"
GAS RATE	13.6x10 <sup>6</sup> SCF/D	16.7x10 <sup>6</sup> SCF/D
CONDENSATE	1250 STB/D	1590 STB/D
°API	58°	59°
GAS GRAVITY	0.791	0.797
CO <sub>2</sub>	0.2-0.5%	0.2%
H <sub>2</sub> S	0%	0%

16/7-4 MFT REPORT

I MFT sample

One MFT sample was taken.

Results from MFT no.1 (run 9A):

Depth : 2638.5 mRKB  
Chamber : 2 3/4 gal  
Analysis : Wellsite analysis  
Recovered : 45.2 cub. feet of gas, 1.2 litres of condensate, 2.0 liters of water

Wellsite analysis of condensate:

Density : 57°API at 70°F  
Color : Light brownish yellow

Wellsite analysis of MFT water sample (2.0 liters)

	<u>Bottle 1</u>	<u>Bottle 2</u>
Resistivity	0.232 and 0.237	0.233 and 0.234
PH	7.6	7.4
Temperature	54°F	
Recorded by	Nigel Wuerzer, Dresser Atlas	
Date	November 17, 1982	

INTERPRETATION: The MFT water sample appears to be a mixture of Formation water and Mud filtrate.

MFT Water sample average resistivity : 0.234 at 54°F

Resistivity of Mud filtrate while MFT-logging: 0.389 at 62°F  
which equals: 0.45 at 54°F

Estimated resistivity of Formation water : 0.03 + 0.0003 at 200°F  
which equals: 0.095 - 0.12 at 54°F

	Equivalent NaCl concentration (ppm)
MFT Water sample :	36 000
Mudfiltrate :	19 000
Formation water :	80 000 - 100 000

From this it is estimated that there is approximately 24% of Formation water in the MFT water sample.

II MFT pressures

A total of 58 Multi Formation Tests was taken in 51 different zones. Thirty nine (39) of these were considered successful. Some of these tests never reached formation pressure within a reasonable time due to the lack of permeability, but were still considered successful.

Wellsite wireline multi-formation test:

No.	Depth	Init. hydr.	Drawd.	Press.	M/W	Final Hydr.	Test Time	Perm code	Remarks
1	2530	5074	3950	4265	9.88	5073	150	e	excel perm good test.
2	2652	5308	3810	4374	-	5310	-	g	seems to high prob slow leak at pad.
3	2652	5311	4130	4358	9.63	5310	150	e	good test
4	2743	5489	3170	4509	9.63	5489	300	f	good test 1000 o.p.
5	2740	5484	982	4550	-	1200	op 470	f	bad test part leak
6	2739.5	5484	3100	4490	9.61	5482	170	e	good test (19 lower than above) 1000 o.p.
7	2734.5	5472	4390	4483	9.61	5472	100	e	good test
8	2727.5	5459	4150	5083?	-	-	-	-	too high
9	2727.5	5458	4100	4473	9.6	5458	110	e	good test
10	2723	5449	3600	4573?	9.84	5450	-	-	good test? 1000 o.p. part. leak.
11	2723	5449	3350	4568	9.83	5449	200	p-f	too high, good test, part. leak? 1000 o.p.
12	2721	5445	600	4672+	-	5445	630	p	part.leak? good test?
13	2707.5	5418	4350	4429	9.59	5418	140	e	good test
14	2700	5404	4050	4434	9.60	5404	120	e	good test, 1200 o.p.
15	2693.5	5391	4210	4401	9.58	5391	140	e	good test
16	2688.5	5383	1380	1836+	-	5383	300	tight	good test
17	2683.5	5373	3100	4408	9.63	5373	190	g	good test
18	2681	5367	2530	4526	9.89	5367	300	f	good test
19	2675.5	5357	5400	-	-	-	-	-	no seat
20	2676	5358	4375	4495	9.84	5356	160	g	good test
21	2665	5333	4350	4382	9.64	5335	150	p-f	good test
22	2660	5325	1658	4610?+	-	5325	15 min	t-p	no test leak?
23	2656	5319	478	600+	-	-	200	tight	good test
24	2652	5309	4246	4361	9.64	5310	160	g	good test
25	2645.5	5295	2567	4540?+	-	5292	425	p.f	leak in seat?
26	2644	5293	1170	4441+	-	5295	22 min	t	tight, 20 min tried for f.p. but took too long 2000 o.p.
27	2643.5	5295	4298	4325	9.59	5295	120	g	good test
28	2542.5	5292	3780	4323	9.59	5292	118	g	good test
29	2638.5	5282	4242	4317	9.59	5284	130	g	good test
30	2637	5281	2800	4405+	-	5281	20 min	tight	no test
31	2637.5	5286	2534	4393	9.76	5286	800sec	tight	good test?
32	2636.5	5280	2540	4476+	-	5279	10 min	tight	poss slow leak
33	2635.5	5279	3650	4341	9.65	5278	350 sec	p-f	good test
34	2638.5	5286	4242	4320	9.60				ret. for sample. good test, open sample chamber-drop to 1800 psi after 31 min 4270 psi (1800 op) close chamber-jumped to fp=4316 psi, fh=5282 psi.

Continued

No.	Depth	Init. hydr.	Drawd.	Press.	M/W	Final Hydr.	Test Time	Perm code	Remarks
35	2530	5079	4230	4270	9.89	5077	110	g	good test
36	2530	5270	4220	4314	9.61	5269	120	g	good test
37	2621	5252	3928	4320	9.66	5250	500	f	good test
38	2618	5246	3830	4311	9.66	5248	500	f	good test
39	2616	5244	4100	4311	9.66	5243	140	g	good test
40	2612	5235	4077	4315	9.66	5235	250	f-g	good test
41	2609	5226	4265	4306	9.67	-	120	g	good test
42	2605.5	5222	3830	4389+	-	5222	370	p-f	bad test.poor seat?
43	2606	5225	3740	4400+	-	5223	550	tight	bad test
44	2596.5	5205	4100	4306	9.72	5205	500	p	good test
45	2592	5197	4220	4299	9.72	5196	120	g	good test
46	2587	5189	4180	4296	9.73	5187	100	e	good test
47	2582	5175	4200	-	-	5177	-	-	lost seat
48	2582	5176	3645	4014	-	5175	513	t	tight,build up too slow,stop.
49	2578	5168	4186	4293	9.76	5168	150	g	good test
50	2574	5157	4100	4290	9.77	5160	150	g	good test
51	2567	5145	4220	4287	9.78	5146	160	g	good test
52	2560	5132	4210	4285	9.81	5132	160	g	good test
53	2555	5123	3480	4298+	-	5123	19 min	-	poor perm, no compl. test.
54	2552	5119	4120	4280	9.83	5117	150	g	good test
55	2555	5126	3400	3956+	-	5124	5 min	tight	no test
56	2540	5094	4080	4276	9.86	5094	120	g	good test
57	2533	5080	4170	4272	9.86	5080	150	g	good test
58	2523	5060	4136	4268	9.91	5061	150	g	good test