



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

January 16, 1997

WFX-688

EOR-21

PDEV0020600688

Great Western Drilling Company
P.O. Box 1659
Midland, Texas 79702

Attn: Mr. Joe N. Clement

**RE: Injection Pressure Increase South Carter (San Andres)
Unit Waterflood Project, Lea County, New Mexico**

Dear Mr. Clement:

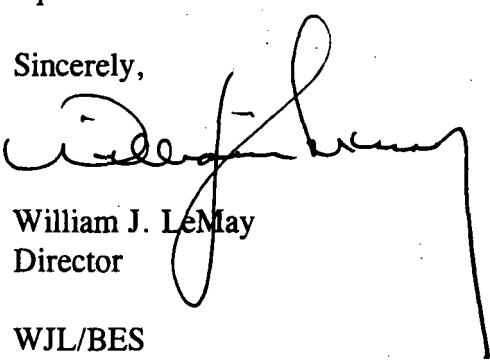
Reference is made to your request dated November 27, 1996 to increase the surface injection pressure on 1 well in the above referenced waterflood project. This request is based on a step rate test conducted on November 12, 1996. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following wells:

Well and Location	Maximum Surface Injection Pressure
South Carter (San Andres) Unit Well No.703	1660 PSIG
Unit 'M', Section 5, Township 18 South, Range 39 East, Lea County, New Mexico.	

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,


William J. LeMay
Director

WJL/BES

cc: Oil Conservation Division - Hobbs
Files: WFX-688, EOR-21, PSI-X 2nd QTR97

321

PS1-X

N/R

OIL CONSERVATION DIVISION
RECEIVED

1996 DEC 9 PM 8 52



GREAT WESTERN DRILLING COMPANY
Post Office Box 1659 • Midland, Texas 79702 • 915/682-5241

November 27, 1996

TO: David Catanach
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

Re: South Carter (San Andres) Unit #703
Maximum Injection Pressure

Mr Catanach:

Great Western Drilling Company respectfully requests an increase in the maximum injection pressure on our South Carter (San Andres) Unit #703. Currently, the maximum injection pressure is 0.2 psi per foot, as outlined in Order No. R-110251. Results of the step rate test on the subject injection well is as follows:

Well Number	Surface Parting Pressure
SCSAU #703	1710 psi

APPROVE
1660

It is our recommendation that new maximum surface injection pressures of 50 psi under the surface parting pressure, as indicated by the step rate tests, be approved. This well is located in T18S, R39E, Lea County, New Mexico.

If you have any questions regarding this matter, please feel free to contact my office at 505-396-5538.

Very truly yours,

Joe N. Clement
Division Engineer

cc: Jerry Sexton - Hobbs OCD

LIGHTFOOT WIRELINE SERVICE, INC.

STEP RATE TEST

GREAT WESTERN
SOUTH CARTER UNIT #703
SOUTH CARTER

11/12/96

WELL DATA

WELL STATUS: INJECTING
PRESSURE DATUM: 5220'
TUBING: 2 3/8"
CASING:
PERFS:
FORMATION:
PACKER DEPTH:
T.D. :

TEST INFORMATION

STABILIZED RATE: 50 B/D
STABILIZED PRESSURE: 2527.31 BHP
RATE INCREMENTS: 50 B/D
STEP LENGTH: 30 MINS.
CUMULATIVE INJECTION:
TEST OPERATOR: R. McCULLOUGH

SUMMARY

BHP PARTING PRESSURE: ---- 3703.00 BHPSI
SURFACE PARTING PRESSURE: 1710.00 SPSI
PARTING GRADIENT: ----- .709

COMPANY: LIGHTFOOT WIRELINE SERV
CLIENT: GREAT WESTERN
GAUGE NUMBER: 77675
WELL NAME: SOUTH CARTER UNIT #703
WELL NUMBER: 1
TEST NUMBER: 1
LOCATION: SOUTH CARTER FIELD
TEST OPERATOR: R. McCULLOUGH
COMMENTS: STEP-RATE TEST BHP/RATE
GAUGE SET @ 5220'

POSITION	GAUGE SERIAL NUMBER
1	
2	63150
3	77675
4	

PAGE START DATE: 11/12/96
PAGE START TIME: 10:25:44
DATA FILE: 1

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
0.000	50.00		96.70	SPSI 250
-0.002	50.00	2527.31		
0.032	100.00		96.83	250
0.034	100.00	2531.30		
0.067	100.00		96.94	
0.065	100.00	2532.62		
0.098	100.00		97.01	
0.101	100.00	2533.75		
0.129	100.00		97.06	
0.132	100.00	2534.63		
0.165	100.00		97.09	
0.163	100.00	2535.45		
0.196	100.00		97.11	
0.199	100.00	2536.22		
0.232	100.00		97.13	
0.230	100.00	2536.88		
0.263	100.00		97.13	
0.265	100.00	2537.60		
0.298	100.00		97.12	
0.296	100.00	2532.73		
0.329	100.00		97.13	
0.332	100.00	2536.08		
0.361	100.00		97.13	
0.363	100.00	2537.95		
0.396	100.00		97.12	
0.394	100.00	2539.08		
0.427	100.00		97.12	
0.430	100.00	2540.06		
0.462	100.00		97.11	SPI 350
0.460	100.00	2540.79		
0.493	100.00		97.10	
0.496	100.00	2541.54		
0.528	150.00		97.09	
0.530	150.00	2549.65		
0.559	150.00		97.08	
0.561	150.00	2552.61		
0.594	150.00		97.06	
0.592	150.00	2554.90		
0.625	150.00		97.04	
0.628	150.00	2557.16		
0.661	150.00		97.02	
0.659	150.00	2558.90		
0.692	150.00		97.00	
0.694	150.00	2560.72		
0.728	150.00		96.97	
0.726	150.00	2562.18		
0.759	150.00		96.96	
0.761	150.00	2563.74		
0.790	150.00		96.93	
0.792	150.00	2565.01		

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DATA FILE: 1

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
0.825	150.00		96.91	
0.823	150.00	2566.15		
0.856	150.00		96.90	
0.859	150.00	2567.38		
0.892	150.00		96.87	
0.890	150.00	2568.46		
0.923	150.00		96.85	
0.926	150.00	2569.48		
0.959	150.00		96.82	
0.957	150.00	2570.43		
0.991	150.00		96.80	SPSI 400
0.989	150.00	2571.42		
1.021	200.00		96.76	
1.023	200.00	2579.43		
1.056	200.00		96.72	
1.054	200.00	2582.82		
1.087	200.00		96.68	
1.090	200.00	2585.83		
1.123	200.00		96.64	
1.121	200.00	2588.13		
1.154	200.00		96.61	
1.157	200.00	2590.34		
1.185	200.00		96.57	
1.188	200.00	2592.18		
1.221	200.00		96.54	
1.219	200.00	2593.95		
1.252	200.00		96.51	
1.254	200.00	2595.84		
1.287	200.00		96.48	
1.286	200.00	2597.29		
1.319	200.00		96.46	
1.321	200.00	2598.93		
1.354	200.00		96.43	
1.352	200.00	2600.36		
1.385	200.00		96.45	
1.388	200.00	2601.95		
1.416	200.00		96.39	
1.419	200.00	2603.27		
1.452	200.00		96.35	
1.450	200.00	2604.53		
1.484	200.00		96.31	SPSI 450
1.486	200.00	2605.99		
1.519	250.00		96.27	
1.517	250.00	2613.01		
1.550	250.00		96.23	
1.553	250.00	2617.15		
1.581	250.00		96.19	
1.584	250.00	2619.98		
1.617	250.00		96.16	
1.615	250.00	2622.49		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
1.648	250.00		96.13	
1.651	250.00	2625.01		
1.684	250.00		96.10	
1.682	250.00	2627.17		
1.715	250.00		96.07	
1.718	250.00	2629.46		
1.746	250.00		96.04	
1.749	250.00	2631.31		
1.782	250.00		96.01	
1.780	250.00	2633.09		
1.813	250.00		95.98	
1.816	250.00	2635.10		
1.849	250.00		95.94	
1.847	250.00	2636.81		
1.880	250.00		95.91	
1.882	250.00	2638.67		
1.915	250.00		95.87	
1.913	250.00	2640.31		
1.946	250.00		95.84	
1.949	250.00	2642.02		
1.978	250.00		95.82	SPSI 500
1.980	250.00	2643.55		
2.013	300.00		95.77	
2.011	300.00	2651.70		
2.044	300.00		95.73	
2.046	300.00	2657.72		
2.079	300.00		95.68	
2.078	300.00	2661.28		
2.111	300.00		95.64	
2.113	300.00	2664.79		
2.146	300.00		95.60	
2.144	300.00	2667.54		
2.177	300.00		95.57	
2.180	300.00	2670.34		
2.208	300.00		95.54	
2.211	300.00	2672.74		
2.244	300.00		95.49	
2.242	300.00	2675.22		
2.275	300.00		95.46	
2.278	300.00	2678.17		
2.311	300.00		95.41	
2.309	300.00	2680.49		
2.342	300.00		95.37	
2.344	300.00	2682.98		
2.377	300.00		95.32	
2.375	300.00	2684.88		
2.408	300.00		95.28	
2.411	300.00	2687.09		
2.439	300.00		95.24	
2.442	300.00	2689.01		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
2.474	300.00		95.20	SPSI 520
2.477	300.00	2691.11		
2.506	350.00		95.16	
2.508	350.00	2700.38		
2.541	350.00		95.10	
2.539	350.00	2705.54		
2.573	350.00		95.06	
2.575	350.00	2710.15		
2.608	350.00		95.02	
2.606	350.00	2713.42		
2.639	350.00		94.98	
2.642	350.00	2716.99		
2.670	350.00		94.94	
2.673	350.00	2719.70		
2.706	350.00		94.89	
2.704	350.00	2722.25		
2.737	350.00		94.85	
2.739	350.00	2724.93		
2.773	350.00		94.79	
2.771	350.00	2727.23		
2.804	350.00		94.75	SPSI 550
2.806	350.00	2729.70		
2.839	350.00		94.71	
2.837	350.00	2731.77		
2.870	350.00		94.67	
2.873	350.00	2734.02		
2.901	350.00		94.63	
2.904	350.00	2736.39		
2.937	350.00		94.59	
2.935	350.00	2738.51		
2.969	350.00		94.56	
2.971	350.00	2740.69		
3.004	400.00		94.52	
3.002	400.00	2742.45		
3.035	400.00		94.43	
3.038	400.00	2751.63		
3.066	400.00		94.38	
3.069	400.00	2757.55		
3.102	400.00		94.34	
3.100	400.00	2760.55		
3.133	400.00		94.29	
3.136	400.00	2763.41		
3.169	400.00		94.25	
3.167	400.00	2767.13		
3.200	400.00		94.21	
3.202	400.00	2769.95		
3.235	400.00		94.16	
3.233	400.00	2772.30		
3.266	400.00		94.11	
3.269	400.00	2774.83		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
3.298	400.00		94.06	
3.300	400.00	2777.34		
3.334	400.00		94.02	
3.332	400.00	2779.65		
3.365	400.00		93.98	
3.368	400.00	2782.20		
3.401	400.00		93.93	
3.399	400.00	2784.35		
3.432	400.00		93.90	
3.434	400.00	2786.70		
3.464	400.00		93.87	SPSI 580
3.467	400.00	2788.77		
3.498	450.00		93.82	
3.500	450.00	2799.18		
3.529	450.00		93.78	
3.531	450.00	2804.20		
3.564	450.00		93.73	
3.562	450.00	2806.91		
3.595	450.00		93.69	
3.598	450.00	2809.34		
3.631	450.00		93.64	
3.629	450.00	2811.83		
3.662	450.00		93.60	
3.664	450.00	2814.56		
3.698	450.00		93.55	
3.696	450.00	2816.77		
3.729	450.00		93.50	
3.731	450.00	2819.48		
3.760	450.00		93.45	
3.762	450.00	2823.73		
3.795	450.00		93.41	
3.793	450.00	2826.86		
3.826	450.00		93.37	
3.829	450.00	2829.76		
3.862	450.00		93.33	
3.860	450.00	2832.26		
3.893	450.00		93.29	
3.896	450.00	2834.75		
3.929	450.00		93.25	
3.927	450.00	2836.95		
3.961	450.00		93.20	SPSI 650
3.959	450.00	2839.09		
3.991	500.00		93.16	
3.994	500.00	2850.27		
4.027	500.00		93.10	
4.025	500.00	2855.65		
4.058	500.00		93.06	
4.061	500.00	2860.29		
4.094	500.00		93.00	
4.092	500.00	2863.87		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
4.125	500.00		92.95	
4.127	500.00	2867.63		
4.156	500.00		92.88	
4.159	500.00	2870.80		
4.192	500.00		92.81	
4.190	500.00	2873.82		
4.223	500.00		92.76	
4.226	500.00	2877.16		
4.259	500.00		92.70	
4.257	500.00	2880.02		
4.290	500.00		92.65	
4.292	500.00	2883.08		
4.321	500.00		92.60	
4.323	500.00	2885.80		
4.356	500.00		92.55	
4.354	500.00	2888.41		
4.388	500.00		92.51	
4.390	500.00	2891.24		
4.423	500.00		92.46	
4.421	500.00	2893.63		
4.453	500.00		92.43	SPSI 725
4.456	500.00	2896.06		
4.488	600.00		92.43	
4.486	600.00	2913.89		
4.519	600.00		92.36	
4.522	600.00	2921.86		
4.555	600.00		92.26	
4.553	600.00	2927.40		
4.586	600.00		92.16	
4.589	600.00	2933.56		
4.622	600.00		92.11	
4.620	600.00	2938.36		
4.653	600.00		92.14	
4.651	600.00	2942.89		
4.684	600.00		92.01	
4.686	600.00	2947.62		
4.719	600.00		91.81	
4.717	600.00	2950.81		
4.751	600.00		91.74	
4.753	600.00	2954.73		
4.786	600.00		91.67	
4.784	600.00	2958.27		
4.817	600.00		91.60	
4.820	600.00	2961.91		
4.848	600.00		91.58	
4.851	600.00	2965.15		
4.884	600.00		91.56	
4.882	600.00	2968.24		
4.915	600.00		91.52	
4.918	600.00	2971.66		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
4.949	600.00		91.47	SPSI 800
4.951	600.00	2974.82		
4.983	700.00		91.38	
4.981	700.00	2993.45		
5.014	700.00		91.42	
5.017	700.00	3004.54		
5.050	700.00		91.38	
5.048	700.00	3011.17		
5.081	700.00		91.23	
5.083	700.00	3017.58		
5.116	700.00		91.08	
5.114	700.00	3024.40		
5.147	700.00		91.03	
5.150	700.00	3030.91		
5.179	700.00		90.75	
5.181	700.00	3036.09		
5.214	700.00		90.65	
5.212	700.00	3040.82		
5.245	700.00		90.59	
5.248	700.00	3045.94		
5.281	700.00		90.55	
5.279	700.00	3049.18		
5.312	700.00		90.39	
5.314	700.00	3053.05		
5.348	700.00		90.38	
5.346	700.00	3056.50		
5.379	700.00		90.30	
5.381	700.00	3060.30		
5.410	700.00		90.26	
5.412	700.00	3063.61		
5.446	700.00		90.19	SPSI 900
5.444	700.00	3066.88		
5.475	800.00		90.31	
5.478	800.00	3087.27		
5.511	800.00		90.28	
5.509	800.00	3097.16		
5.542	800.00		90.25	
5.544	800.00	3105.52		
5.577	800.00		90.15	
5.576	800.00	3111.73		
5.609	800.00		90.01	
5.611	800.00	3117.78		
5.644	800.00		89.88	
5.642	800.00	3122.70		
5.675	800.00		89.78	
5.678	800.00	3127.66		
5.706	800.00		89.64	
5.709	800.00	3131.63		
5.742	800.00		89.51	
5.740	800.00	3135.39		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
5.773	800.00		89.42	
5.776	800.00	3139.80		
5.809	800.00		89.39	
5.807	800.00	3143.52		
5.840	800.00		89.34	
5.843	800.00	3147.86		
5.871	800.00		89.27	
5.874	800.00	3151.41		
5.907	800.00		89.22	
5.905	800.00	3154.80		
5.938	800.00		89.15	SPSI 1000
5.941	800.00	3158.58		
5.973	900.00		89.06	
5.971	900.00	3178.04		
6.004	900.00		89.03	
6.007	900.00	3189.40		
6.040	900.00		88.93	
6.038	900.00	3196.75		
6.071	900.00		88.79	
6.074	900.00	3203.80		
6.107	900.00		88.62	
6.105	900.00	3209.32		
6.138	900.00		88.54	
6.136	900.00	3214.52		
6.169	900.00		88.47	
6.171	900.00	3219.90		
6.204	900.00		88.37	
6.203	900.00	3224.37		
6.236	900.00		88.27	
6.238	900.00	3229.88		
6.271	900.00		88.10	
6.269	900.00	3238.05		
6.302	900.00		88.01	
6.305	900.00	3243.77		
6.333	900.00		87.93	
6.336	900.00	3248.36		
6.369	900.00		87.84	
6.367	900.00	3252.69		
6.400	900.00		87.81	
6.403	900.00	3257.38		
6.436	900.00		87.79	SPSI 1100
6.434	900.00	3261.30		
6.466	1000.00		87.58	
6.468	1000.00	3279.56		
6.501	1000.00		87.32	
6.499	1000.00	3290.74		
6.532	1000.00		87.19	
6.535	1000.00	3298.96		
6.568	1000.00		87.01	
6.566	1000.00	3304.98		

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GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
6.599	1000.00		86.88	
6.601	1000.00	3311.20		
6.631	1000.00		86.76	
6.633	1000.00	3316.44		
6.666	1000.00		86.78	
6.664	1000.00	3321.16		
6.697	1000.00		86.72	
6.700	1000.00	3326.07		
6.733	1000.00		86.65	
6.731	1000.00	3330.10		
6.764	1000.00		86.61	
6.766	1000.00	3334.45		
6.799	1000.00		86.56	
6.798	1000.00	3338.14		
6.831	1000.00		86.51	
6.833	1000.00	3342.19		
6.862	1000.00		86.47	
6.864	1000.00	3345.53		
6.897	1000.00		86.43	
6.895	1000.00	3348.80		
6.930	1000.00		86.40	SPSI 1200
6.932	1000.00	3360.51		
6.960	1100.00		86.37	
6.963	1100.00	3375.91		
6.996	1100.00		86.28	
6.994	1100.00	3386.76		
7.027	1100.00		86.15	
7.029	1100.00	3397.56		
7.063	1100.00		86.02	
7.061	1100.00	3405.37		
7.094	1100.00		85.89	
7.096	1100.00	3412.77		
7.129	1100.00		85.75	
7.127	1100.00	3418.13		
7.160	1100.00		85.66	
7.163	1100.00	3425.97		
7.191	1100.00		85.57	
7.194	1100.00	3431.36		
7.227	1100.00		85.49	
7.225	1100.00	3435.99		
7.258	1100.00		85.42	
7.261	1100.00	3443.75		
7.294	1100.00		85.34	
7.292	1100.00	3448.83		
7.325	1100.00		85.29	
7.327	1100.00	3454.81		
7.360	1100.00		85.22	
7.358	1100.00	3459.06		
7.391	1100.00		85.16	
7.394	1100.00	3463.41		

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DATA FILE: 1

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
7.425	1100.00		85.11	SPSI 1350
7.423	1100.00	3466.72		
7.456	1200.00		85.02	
7.459	1200.00	3481.70		
7.492	1200.00		84.91	
7.490	1200.00	3491.91		
7.523	1200.00		84.76	
7.526	1200.00	3500.72		
7.559	1200.00		84.47	
7.557	1200.00	3507.33		
7.590	1200.00		84.57	
7.592	1200.00	3515.23		
7.621	1200.00		84.42	
7.623	1200.00	3521.90		
7.656	1200.00		84.22	
7.654	1200.00	3527.67		
7.688	1200.00		84.14	
7.690	1200.00	3533.91		
7.723	1200.00		84.04	
7.721	1200.00	3539.10		
7.754	1200.00		84.10	
7.757	1200.00	3545.71		
7.785	1200.00		84.15	
7.788	1200.00	3550.71		
7.821	1200.00		84.01	
7.819	1200.00	3555.98		
7.852	1200.00		83.93	
7.854	1200.00	3561.20		
7.888	1200.00		83.80	
7.886	1200.00	3566.63		
7.920	1200.00		83.75	SPSI 1450
7.922	1200.00	3572.46		
7.950	1300.00		83.79	
7.953	1300.00	3580.82		
7.986	1300.00		83.66	
7.984	1300.00	3588.99		
8.017	1300.00		83.60	
8.019	1300.00	3598.02		
8.052	1300.00		83.59	
8.051	1300.00	3604.78		
8.084	1300.00		83.42	
8.086	1300.00	3611.71		
8.119	1300.00		83.37	
8.117	1300.00	3619.20		
8.150	1300.00		83.26	
8.153	1300.00	3626.17		
8.181	1300.00		83.26	
8.184	1300.00	3631.92		
8.217	1300.00		83.20	
8.215	1300.00	3637.24		

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DATA FILE: 2

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
8.248	1300.00		83.12	
8.251	1300.00	3642.62		
8.284	1300.00		83.05	
8.282	1300.00	3647.32		
8.315	1300.00		83.01	
8.318	1300.00	3652.61		
8.346	1300.00		82.99	
8.349	1300.00	3657.07		
8.382	1300.00		82.95	
8.380	1300.00	3661.43		
8.413	1300.00		82.92	SPSI 1550
8.415	1300.00	3666.20		
8.448	1400.00		82.86	
8.446	1400.00	3675.22		
8.479	1400.00		82.86	
8.482	1400.00	3684.65		
8.515	1400.00		82.79	
8.513	1400.00	3691.20		
8.546	1400.00		82.65	
8.548	1400.00	3697.83		
8.581	1400.00		82.56	
8.579	1400.00	3703.46		
8.613	1400.00		82.48	
8.615	1400.00	3709.68		
8.644	1400.00		82.44	
8.646	1400.00	3714.64		
8.679	1400.00		82.51	
8.677	1400.00	3719.49		
8.710	1400.00		82.42	
8.713	1400.00	3724.65		
8.746	1400.00		82.35	
8.744	1400.00	3729.11		
8.777	1400.00		82.30	
8.779	1400.00	3734.81		
8.813	1400.00		82.25	
8.811	1400.00	3739.31		
8.844	1400.00		82.22	
8.846	1400.00	3744.21		
8.875	1400.00		82.26	
8.877	1400.00	3748.36		
8.911	1400.00		82.26	SPSI 1700
8.909	1400.00	3752.56		
8.941	1500.00		82.21	
8.943	1500.00	3761.61		
8.976	1500.00		82.10	
8.974	1500.00	3768.89		
9.007	1500.00		82.00	
9.010	1500.00	3775.77		
9.043	1500.00		81.89	
9.041	1500.00	3781.18		

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DATA FILE: 2

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
9.074	1500.00		81.82	
9.077	1500.00	3786.83		
9.106	1500.00		81.76	
9.108	1500.00	3791.43		
9.141	1500.00		81.75	
9.139	1500.00	3795.77		
9.172	1500.00		81.78	
9.175	1500.00	3800.44		
9.208	1500.00		81.78	
9.206	1500.00	3804.41		
9.239	1500.00		81.76	
9.242	1500.00	3808.46		
9.270	1500.00		81.72	
9.273	1500.00	3811.90		
9.306	1500.00		81.65	
9.304	1500.00	3815.06		
9.337	1500.00		81.62	
9.339	1500.00	3818.75		
9.372	1500.00		81.59	
9.371	1500.00	3821.89		
9.404	1500.00		81.56	SPSI 1750
9.406	1500.00	3825.40		
9.439	1600.00		81.51	
9.437	1600.00	3831.09		
9.470	1600.00		81.50	
9.473	1600.00	3836.77		
9.506	1600.00		81.50	
9.504	1600.00	3841.69		
9.537	1600.00		81.37	
9.539	1600.00	3846.18		
9.568	1600.00		81.29	
9.570	1600.00	3849.73		
9.603	1600.00		81.24	
9.601	1600.00	3853.37		
9.634	1600.00		81.28	
9.637	1600.00	3856.87		
9.670	1600.00		81.27	
9.668	1600.00	3860.10		
9.701	1600.00		81.26	
9.704	1600.00	3863.35		
9.737	1600.00		81.19	
9.735	1600.00	3865.90		
9.768	1600.00		81.14	
9.766	1600.00	3868.30		
9.799	1600.00		81.11	
9.801	1600.00	3871.00		
9.834	1600.00		81.08	
9.833	1600.00	3873.71		
9.866	1600.00		81.05	
9.868	1600.00	3876.18		

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DATA FILE: 2

GAUGE S/N: 77675

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE F	COMMENTS
9.901	1600.00		81.03	SPSI 1780
9.899	1600.00	3878.06		

Plot starting date: 11/12/96

time: 10:25:44

Gauge S/N 77675

Company: LIGHTFOOT WIRELINE SERV

Client: GREAT WESTERN

Well name: SOUTH CARTER UNIT #703

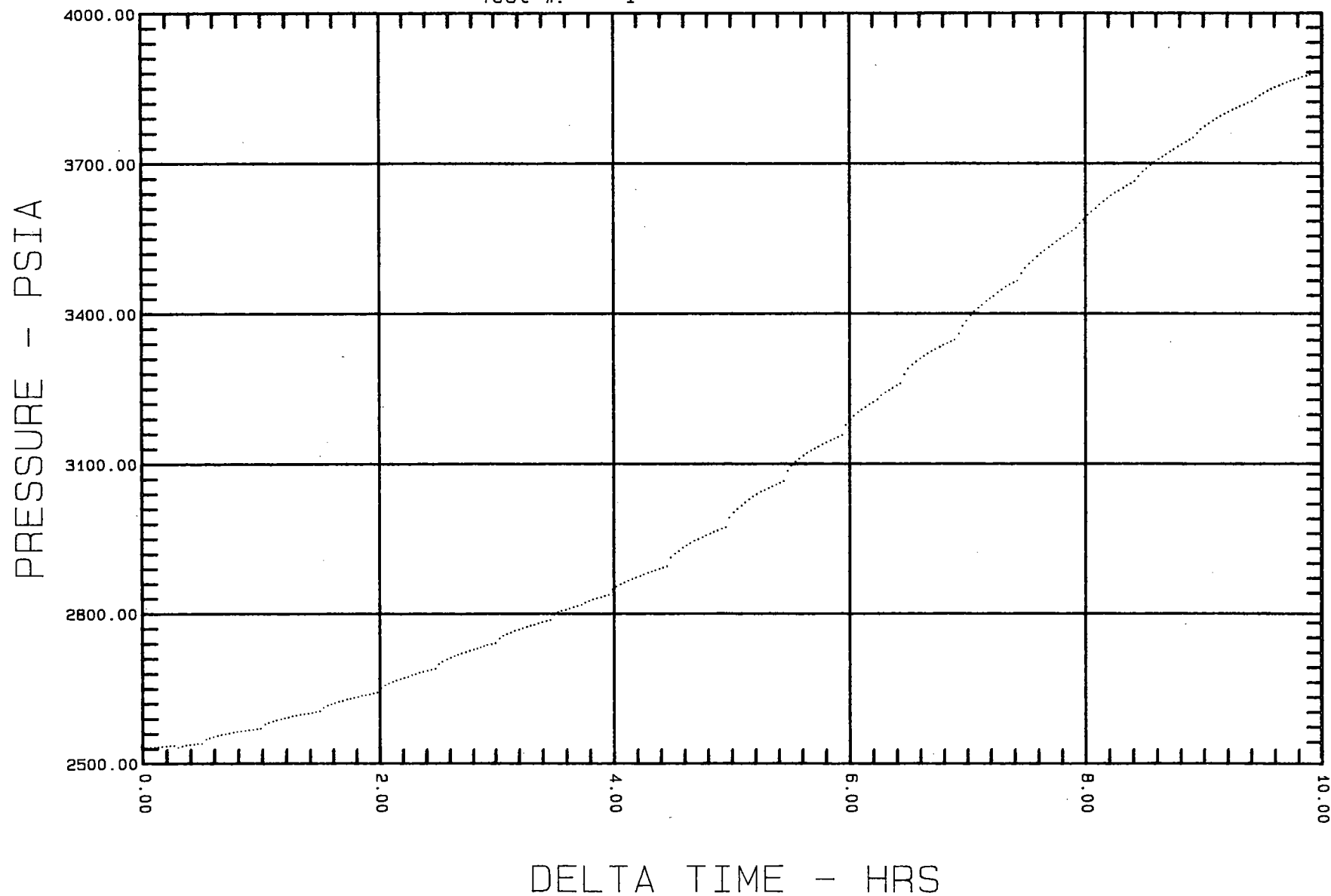
Well #: 1

Test #: 1

Location: SOUTH CARTER FIELD

Operator: R. McCULLOUGH

Comments: STEP-RATE TEST BHP/RATE
GAUGE SET @ 5220'



COMPANY: LIGHTFOOT WIRELINE SERV
CLIENT: GREAT WESTERN
GAUGE NUMBER: 77675
WELL NAME: SOUTH CARTER UNIT #703
WELL NUMBER: 1
TEST NUMBER: 1
LOCATION: SOUTH CARTER FIELD
TEST OPERATOR: R. McCULLOUGH
COMMENTS: STEP-RATE TEST BHP/RATE
GAUGE SET @ 5220'

POSITION	GAUGE SERIAL NUMBER
1	
2	63150
3	77675
4	

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GAUGE S/N:

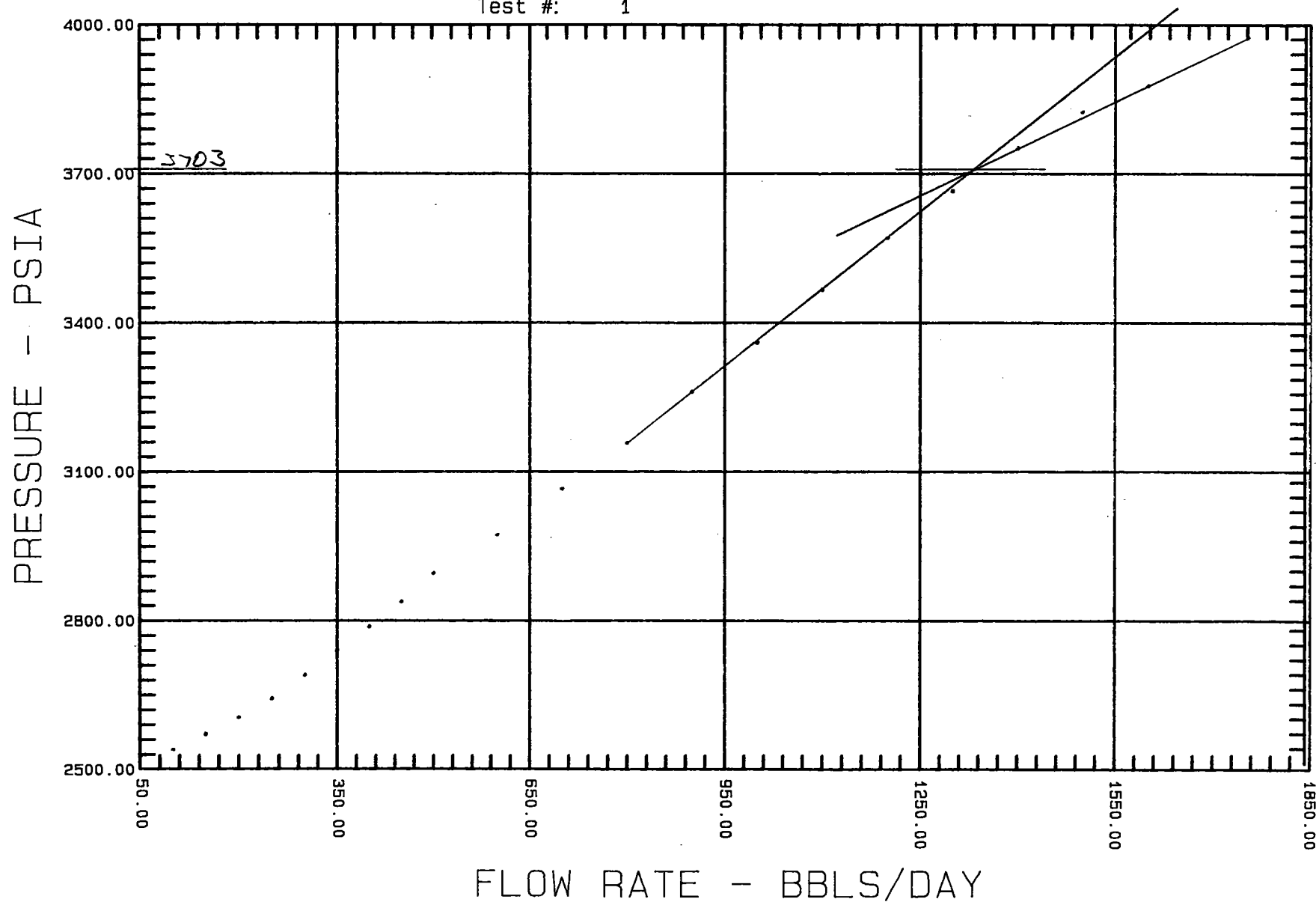
DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE F	COMMENTS
0.000	50.00	2527.31		
0.500	100.00	2541.54		
1.000	150.00	2571.42		
1.500	200.00	2605.99		
2.000	250.00	2643.55		
2.500	300.00	2691.11		
3.000	350.00	2740.69		
3.500	400.00	2788.77		
4.000	450.00	2839.09		
4.500	500.00	2896.06		
5.000	600.00	2974.82		
5.500	700.00	3066.88		
6.000	800.00	3158.58		
6.500	900.00	3261.30		
7.000	1000.00	3360.51		
7.500	1100.00	3466.72		
8.000	1200.00	3572.46		
8.500	1300.00	3666.20		
9.000	1400.00	3752.56		
9.500	1500.00	3825.40		
10.000	1600.00	3878.06		

Plot starting date: 11/12/96
time: 10:25: 0

Gauge S/N

Company: LIGHTFOOT WIRELINE SERV
Client: GREAT WESTERN
Well name: SOUTH CARTER UNIT #703
Well #: 1
Test #: 1

Location: SOUTH CARTER FIELD
Operator: R. McCULLOUGH
Comments: STEP-RATE TEST BHP/RATE
GAUGE SET @ 5220'



COMPANY: LIGHTFOOT WIRELINE SERV
CLIENT: GREAT WESTERN
GAUGE NUMBER: 77675
WELL NAME: SOUTH CARTER UNIT #703
WELL NUMBER: 1
TEST NUMBER: 1
LOCATION: SOUTH CARTER FIELD
TEST OPERATOR: R. McCULLOUGH
COMMENTS: STEP-RATE TEST SURF/RATE
GAUGE SET @ SURFACE

POSITION	GAUGE SERIAL NUMBER
1	
2	63150
3	77675
4	

PAGE START DATE: 11/12/96
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DATA FILE: 4

GAUGE S/N:

DELTA TIME HRS	FLOW RATE BBLs/DAY	PRESSURE PSIA	TEMPERATURE °F	COMMENTS
0.000	50.00	250.00		
0.500	100.00	350.00		
1.000	150.00	400.00		
1.500	200.00	450.00		
2.000	250.00	500.00		
2.500	300.00	520.00		
3.000	350.00	550.00		
3.500	400.00	580.00		
4.000	450.00	650.00		
4.500	500.00	725.00		
5.000	600.00	800.00		
5.500	700.00	900.00		
6.000	800.00	1000.00		
6.500	900.00	1100.00		
7.000	1000.00	1200.00		
7.500	1100.00	1350.00		
8.000	1200.00	1450.00		
8.500	1300.00	1550.00		
9.000	1400.00	1700.00		
9.500	1500.00	1750.00		
10.000	1600.00	1780.00		

Plot starting date: 11/12/96

time: 10:25: 0

Gauge S/N

Company: LIGHTFOOT WIRELINE SERV

Client: GREAT WESTERN

Well name: SOUTH CARTER UNIT #703

Well #: 1

Test #: 1

Location: SOUTH CARTER FIELD

Operator: R. McCULLOUGH

Comments: STEP-RATE TEST SURF/RATE

GAUGE SET @ SURFACE

