



**Southwestern Energy
Production Company**

A subsidiary of Southwestern Energy Company

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Houston, Texas 77032
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RECEIVED

JAN 9 2004

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

06 January 2004

New Mexico Energy, Minerals,
and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attn: Mr. William Jones

**RE: Request for Increased Injection Pressure
Corbin-Abo SWD #G-31
Lea County, New Mexico
API No.: 30-025-01337
Administrative Order SWD-890**

*Yulea Queen SA
3400-6373
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SWD-890
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Dear Mr. Jones:

Pursuant to Administrative Order SWD-890, issued 23 September 2003, Southwestern Energy Production Company is limited to a wellhead injection pressure of 680 psi for the Corbin-Abo SWD #G-31. Southwestern Energy Production Company requests that the maximum wellhead injection be increased to 1,400 psig.

The Corbin-Abo SWD #G-31 is permitted to inject in the interval of 3,400 ft to 6,375 ft. The maximum wellhead injection pressure was calculated by multiplying a 0.2 psi/ft gradient to the minimum permitted injection depth of 3,400 ft.

A step-rate injection test was performed on Monday, 8 December 2003 on the above referenced well. This step-rate test was conducted with a surface pressure gauge and a downhole pressure gauge. Lease produced water was used as the injection fluid. Precision Pressure Data provided the pressure gauges and data measurement.

The test was pumped in 30-min stages with 200 bbl of water per day increments. The first stage, which started at 8:49 AM MST, was pumped at a 200 bbl per day injection rate. The final stage, which ended at 9:19 PM MST, was pumped at a 5,000 bbl per day injection rate. The final stage ended prematurely due to lack of available injection fluid and injection pump horsepower limitation.

The initial wellhead injection pressure was 456 psig (at a 200 bbl per day injection rate) and the final wellhead injection pressure was 1,458 psig (at a 5,000 bbl per day injection rate).

Examination of the wellhead injection pressure data and the downhole injection pressure data show that a hydraulic fracture was never initiated. Since the maximum wellhead injection pressure of 1,458 psig seen in this step-rate test was below that required to initiate a fracture, Southwestern Energy Production Company requests that the maximum wellhead injection pressure be increased to 1,400 psig from the current 680 psig.

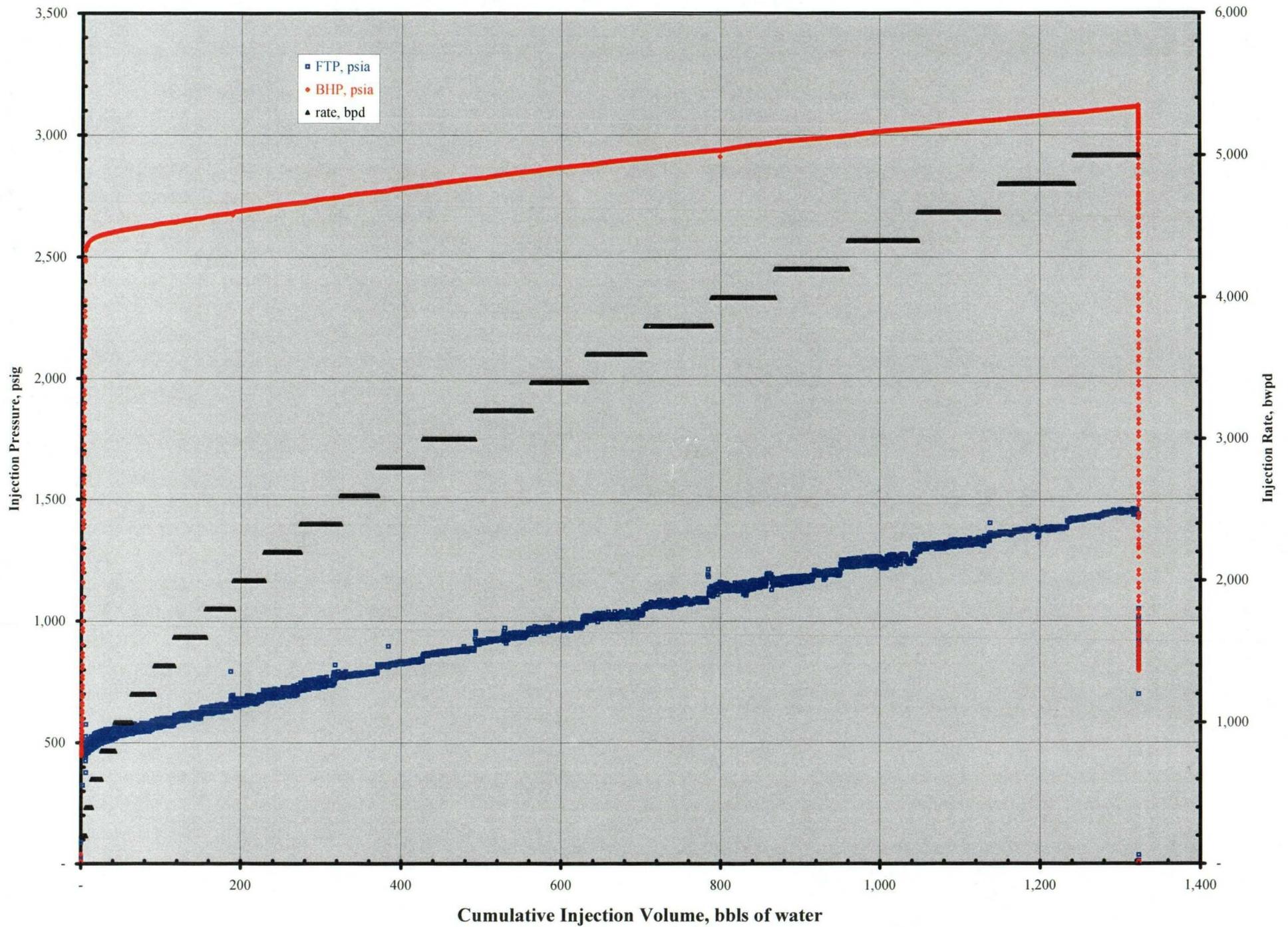
With this letter, I've attached six plots documenting the step-rate test and a CD with the files containing the surface and subsurface pressure data. If you have any questions, please do not hesitate to call me at (281) 618-4788 (office) or (713) 213-5909 (cellular).

Sincerely,

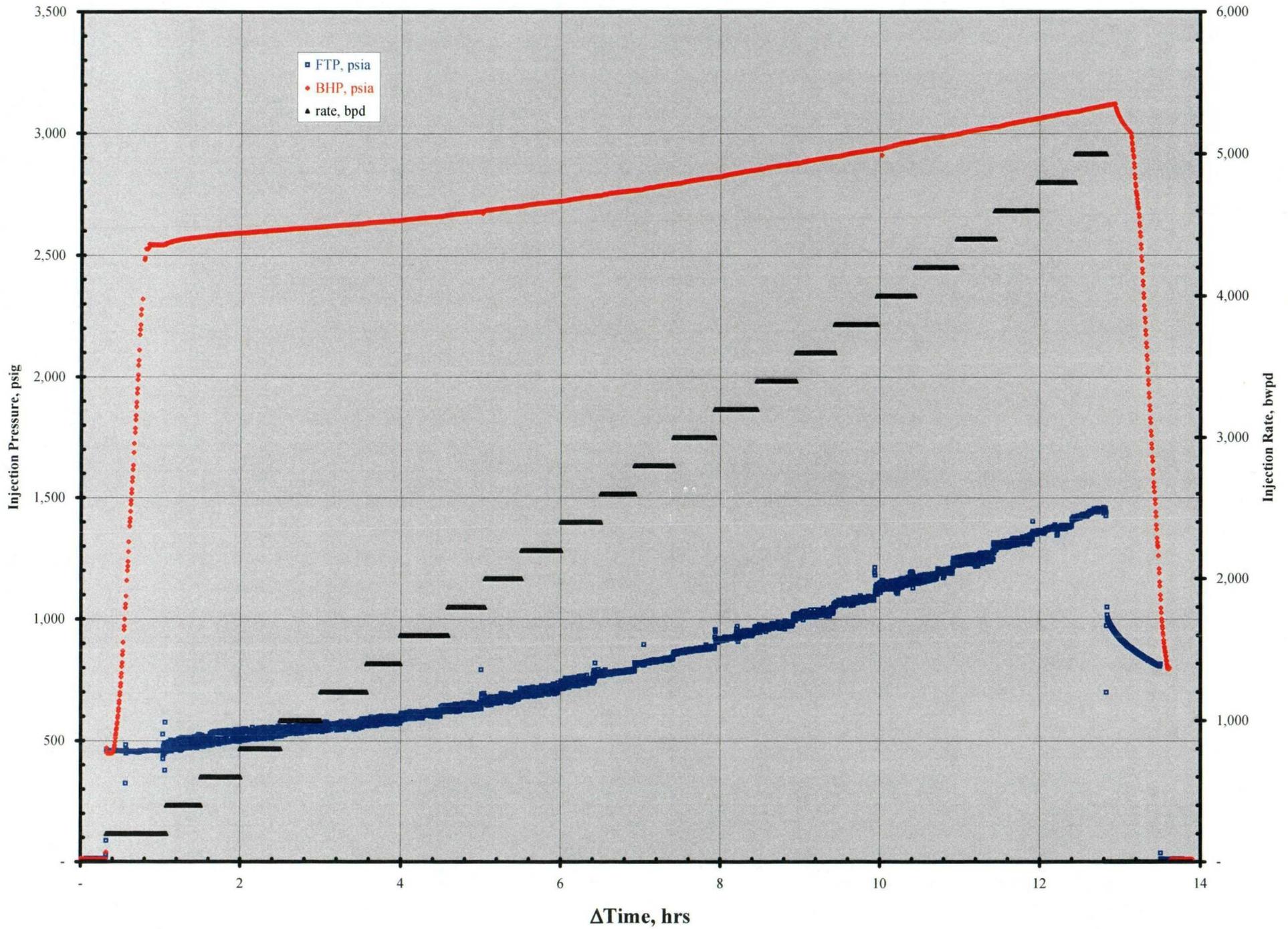
A handwritten signature in black ink, appearing to read "L. I. Williams", with a long horizontal flourish extending to the right.

Lee I. Williams
Production Engineer
Permian Basin Asset Team

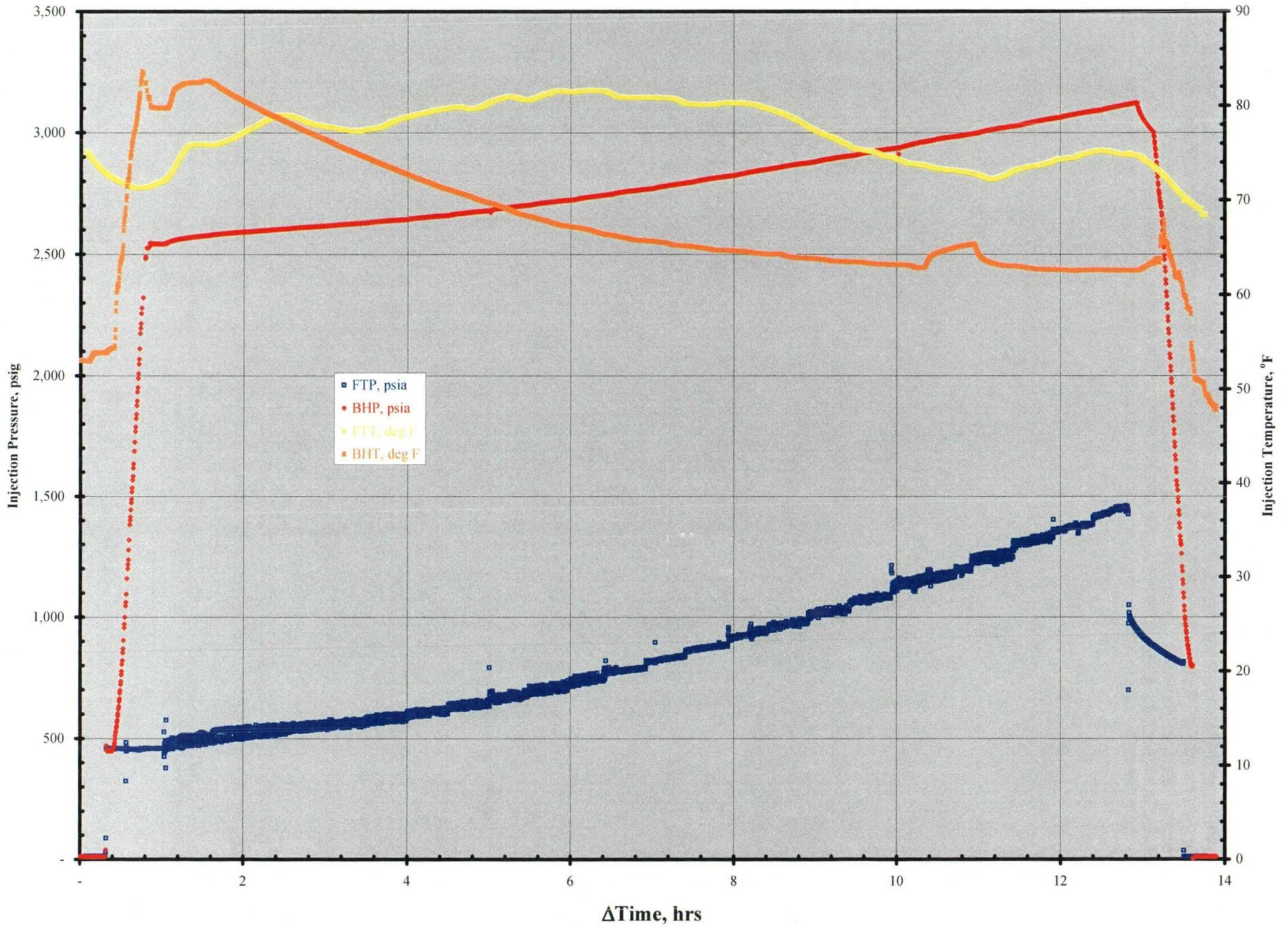
Corbin-Abo SWD #G-31 Step-Rate Test
12-08-2003



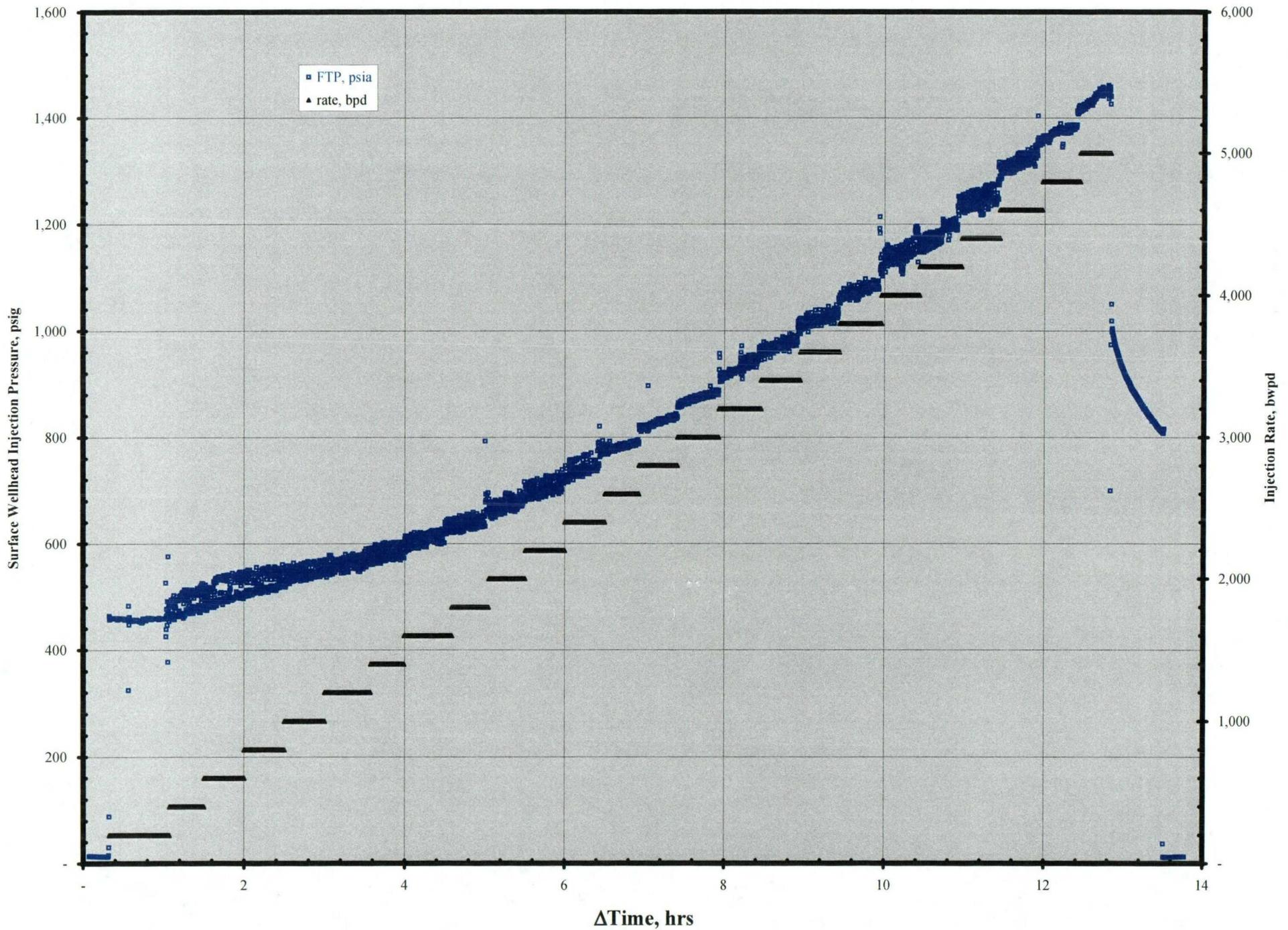
Corbin-Abo SWD #G-31 Step-Rate Test
12-08-2003



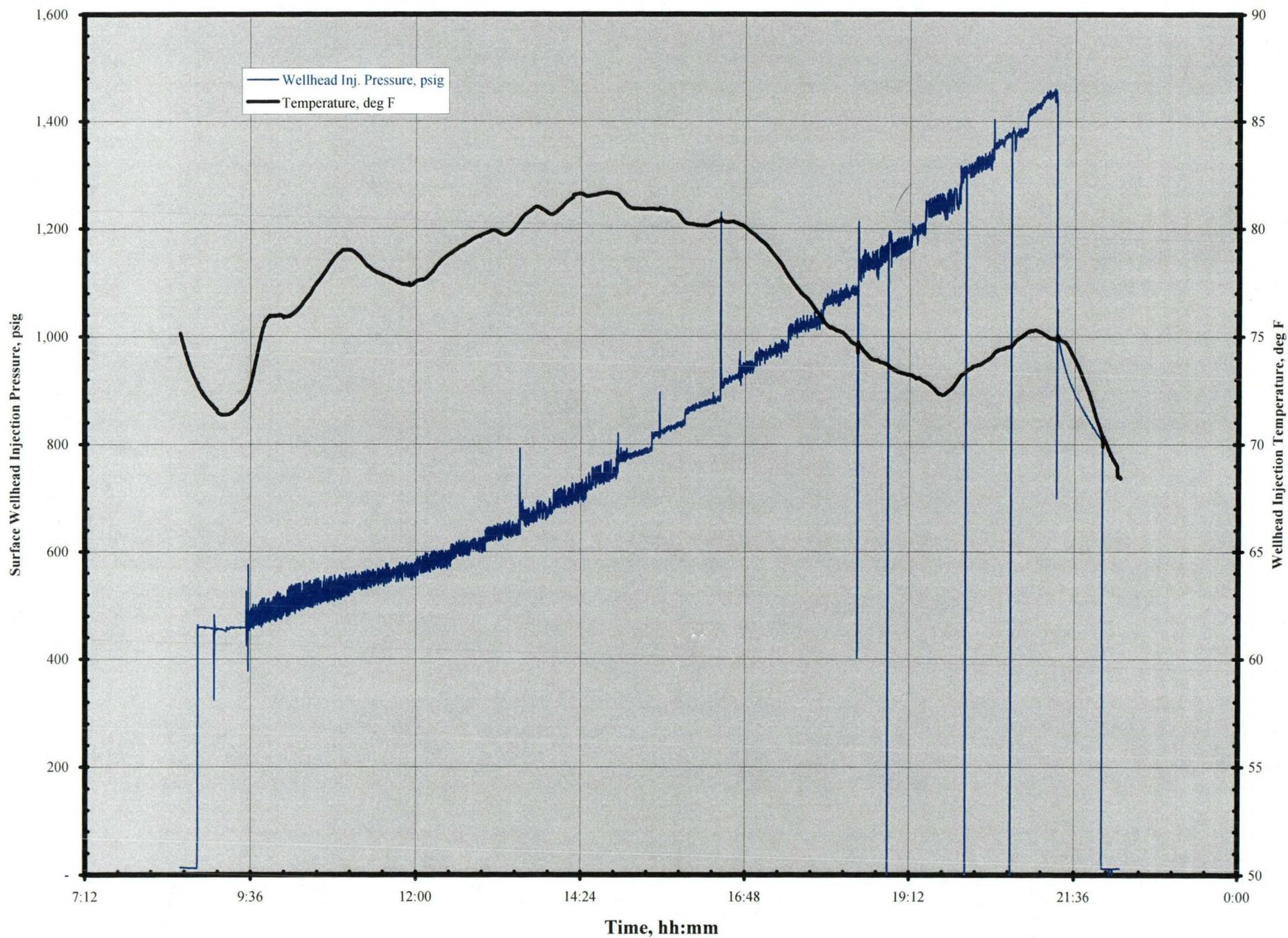
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