Appendix B

Data Charts

Appendix B

Data Charts

Appendix B is a collection of the charts generated from the acquired data, and are graphical representations of time versus temperature profiles, time versus acceleration profiles, and time versus pressure profiles. The charts are arranged by test number as assigned by the Energetic Materials Research and Testing Center, and not in the order in which the tests are described in the main body of the report. Some tests were not included with the following graphical representations. These include:

- Test 1 (poor quality of data)
- Test 5 (flat line)
- Test 6 (flat line)
- Test 12a (no ignition).

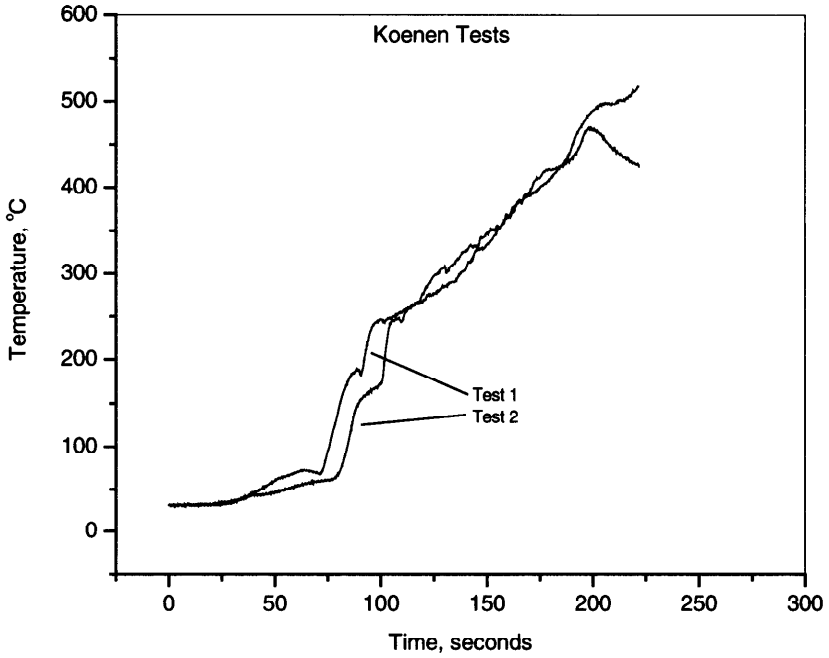

Figure B-1. Koenen Tests 1 and 2: Temperature profiles.

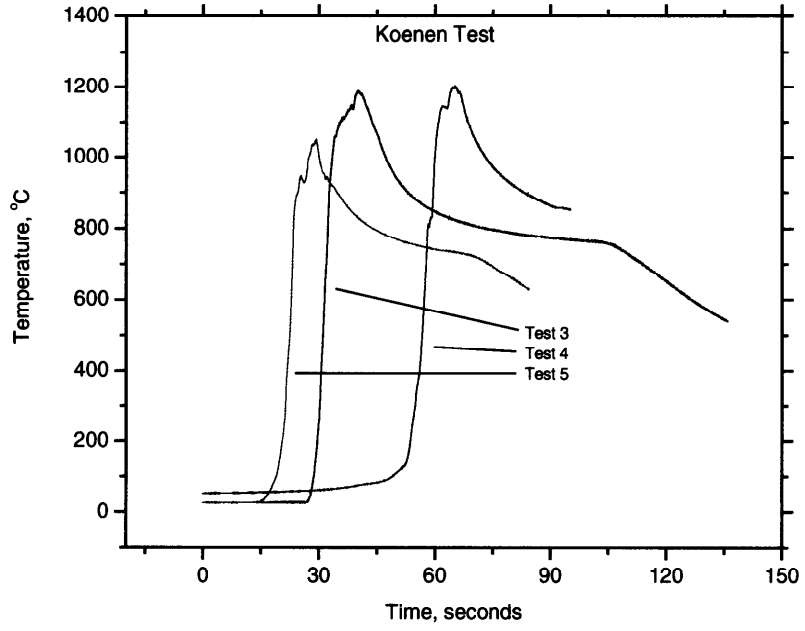

Figure B-2. Koenen Tests 3, 4, and 5: Temperature profiles.

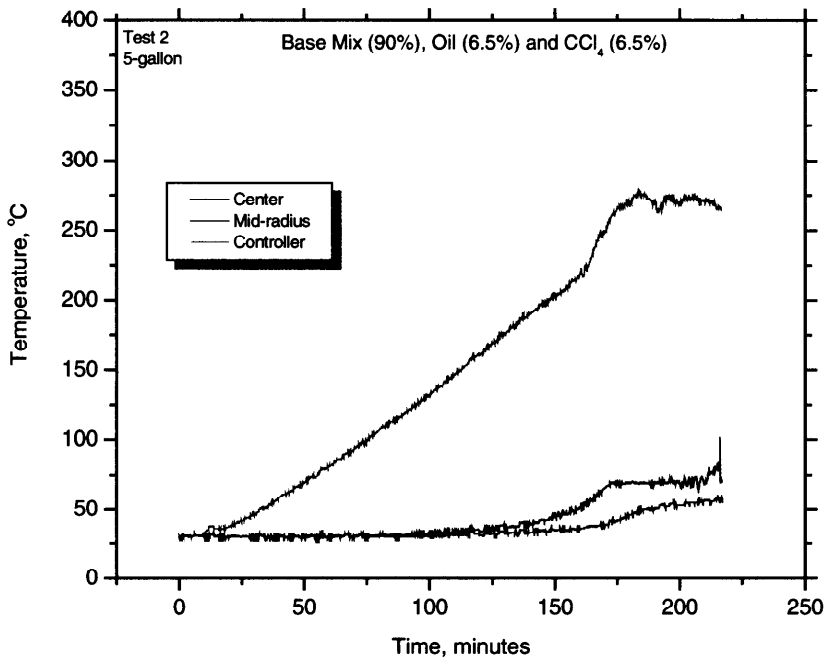

Figure B-3. Test 2: Temperature versus time profile.

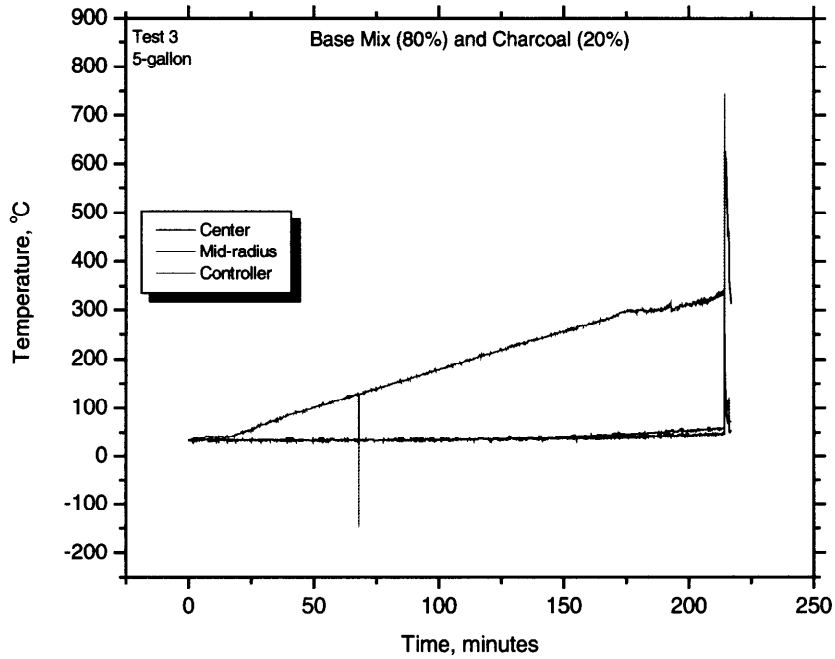

Figure B-4. Test 3: Temperature versus time profile.

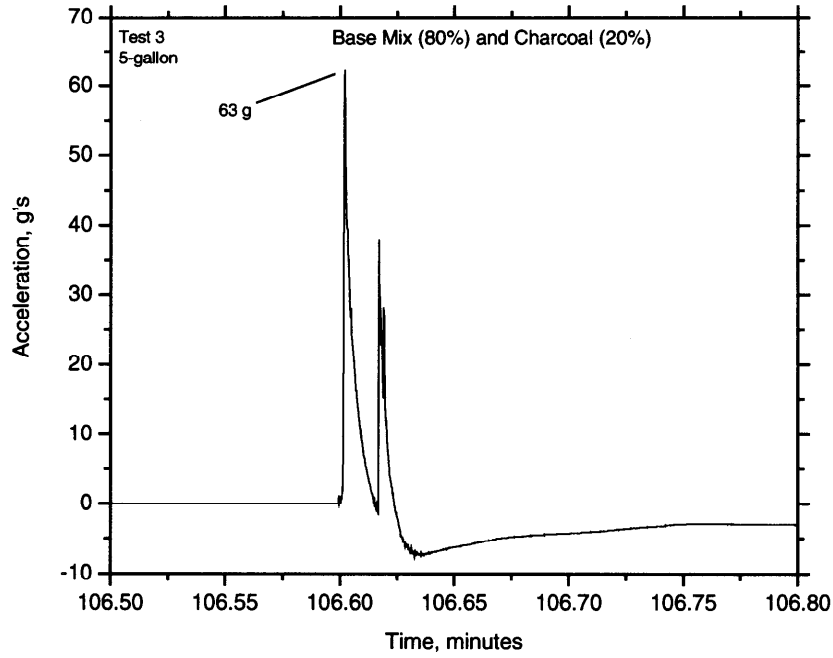

Figure B-5. Test 3: Acceleration profile.

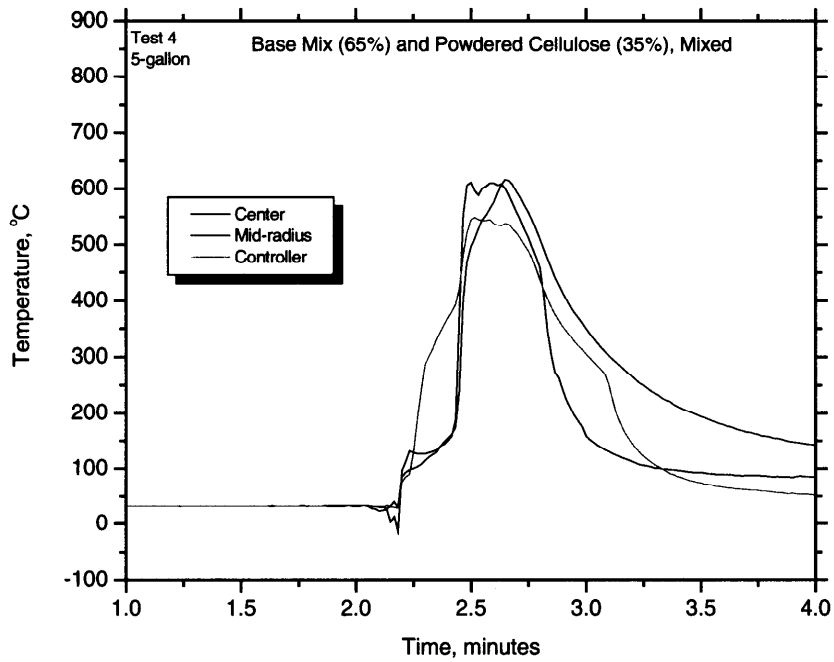

Figure B-6. Test 4: Temperature versus time profile.

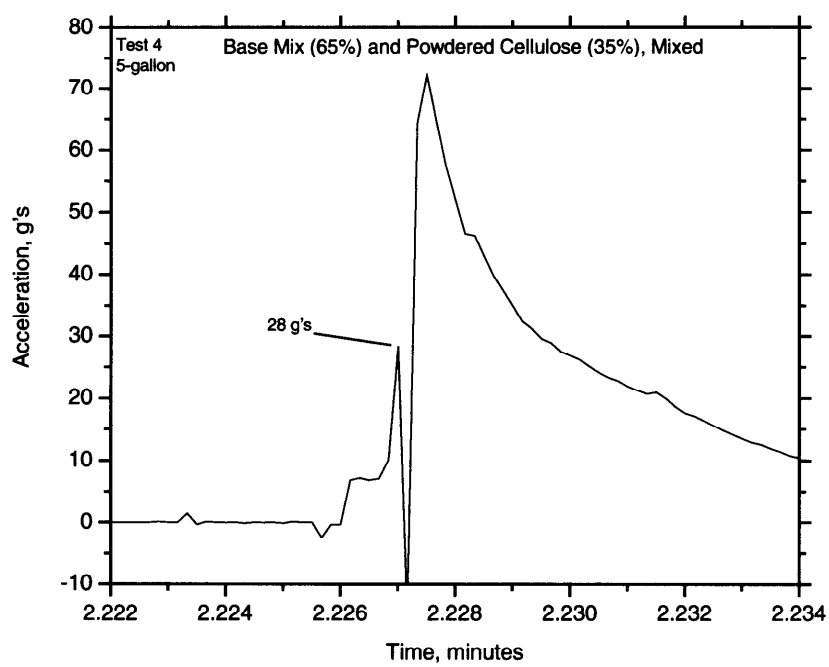

Figure B-7. Test 4: Acceleration profile.

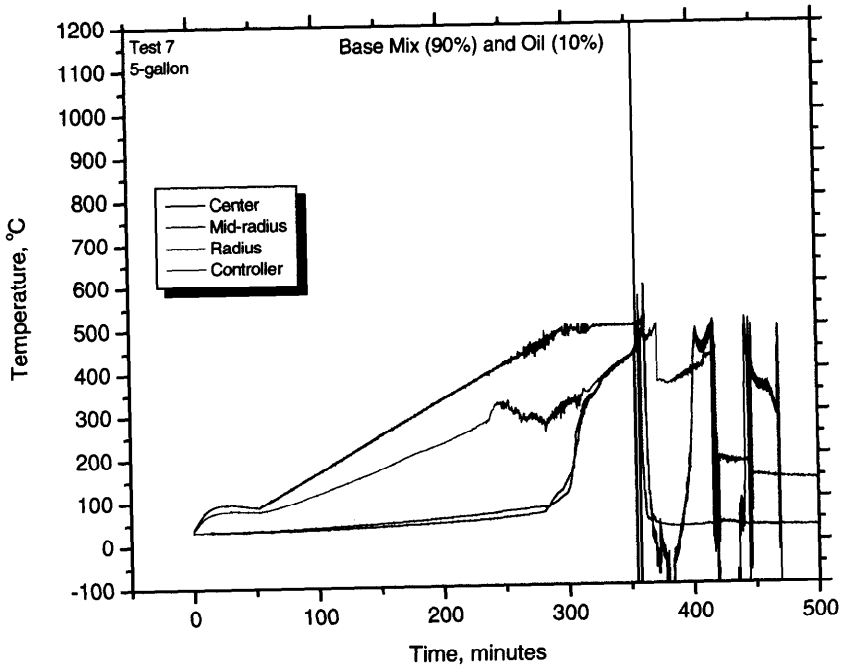

Figure B-8. Test 7: Temperature versus time profile.

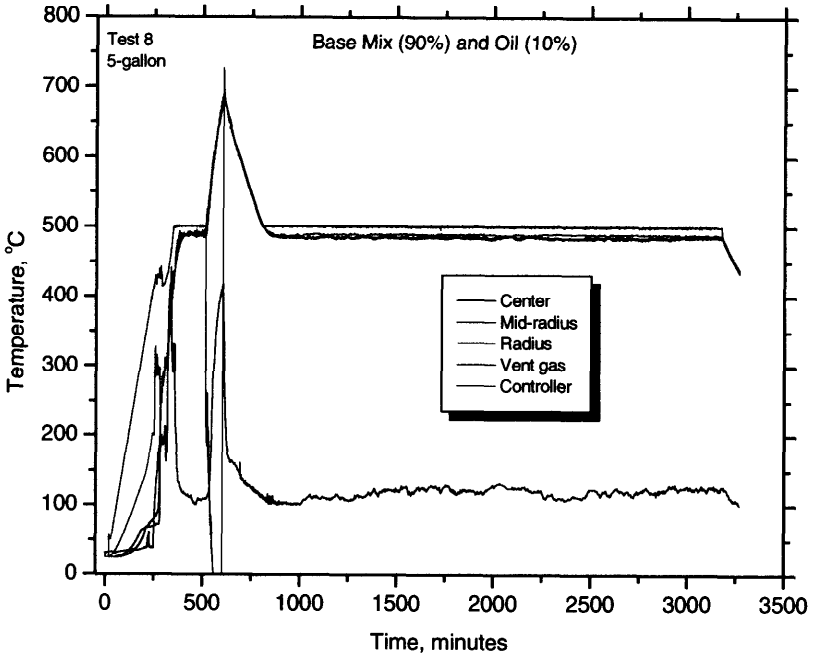

Figure B-9. Test 8: Temperature versus time profile.

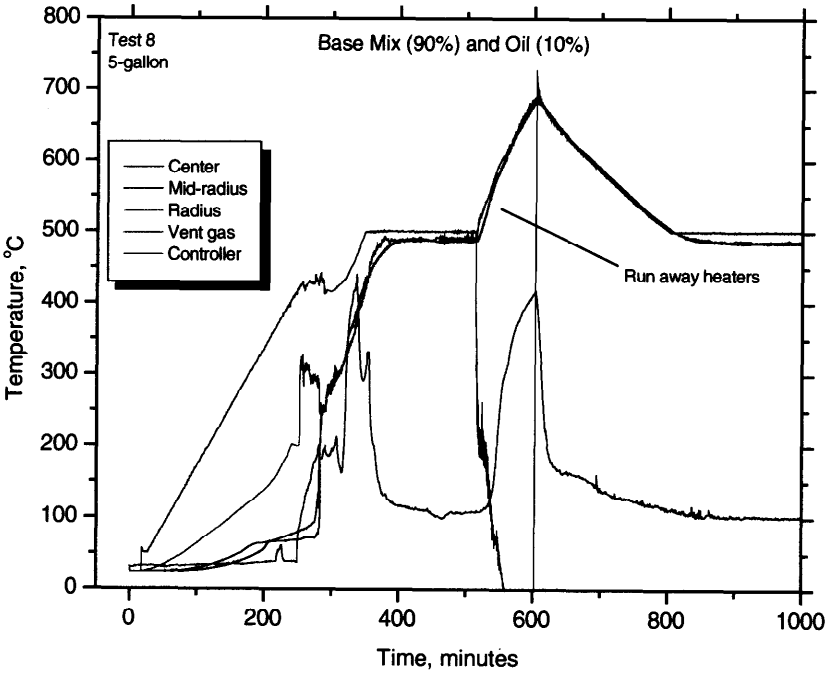

Figure B-10. Test 8: Expanded temperature versus time profile.

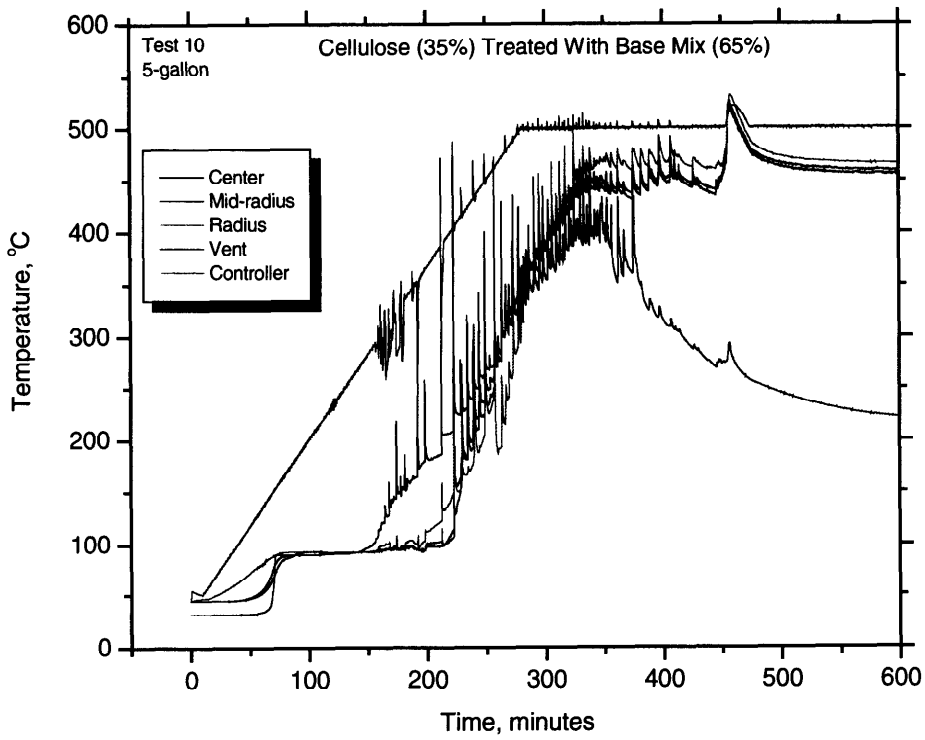

Figure B-11. Test 10: Temperature versus time profile.

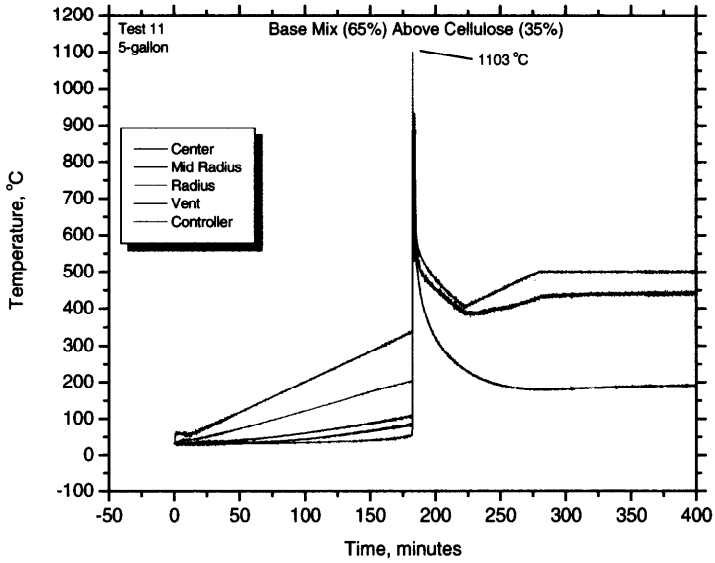

Figure B-12. Test 11: Temperature versus time profile.

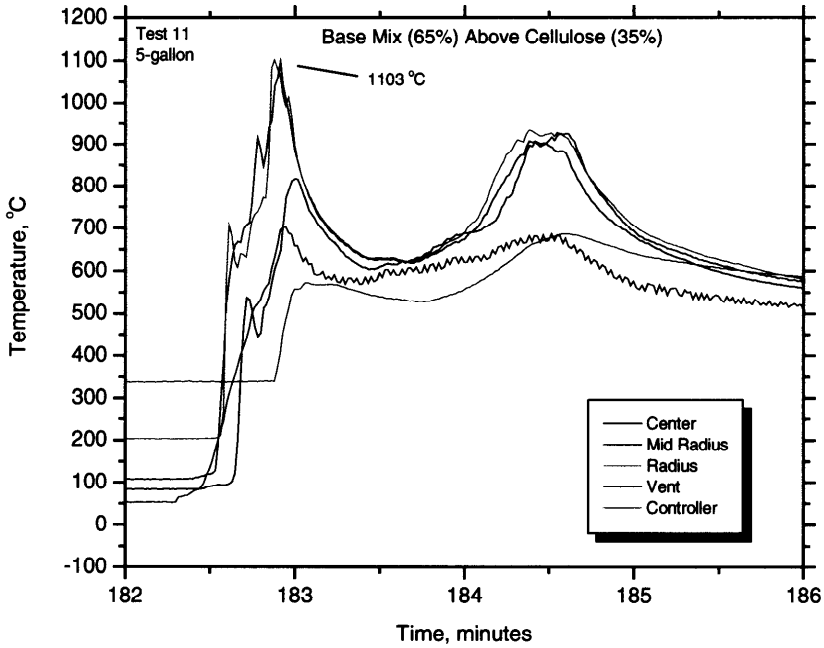

Figure B-13. Test 11: Expanded temperature versus time profile.

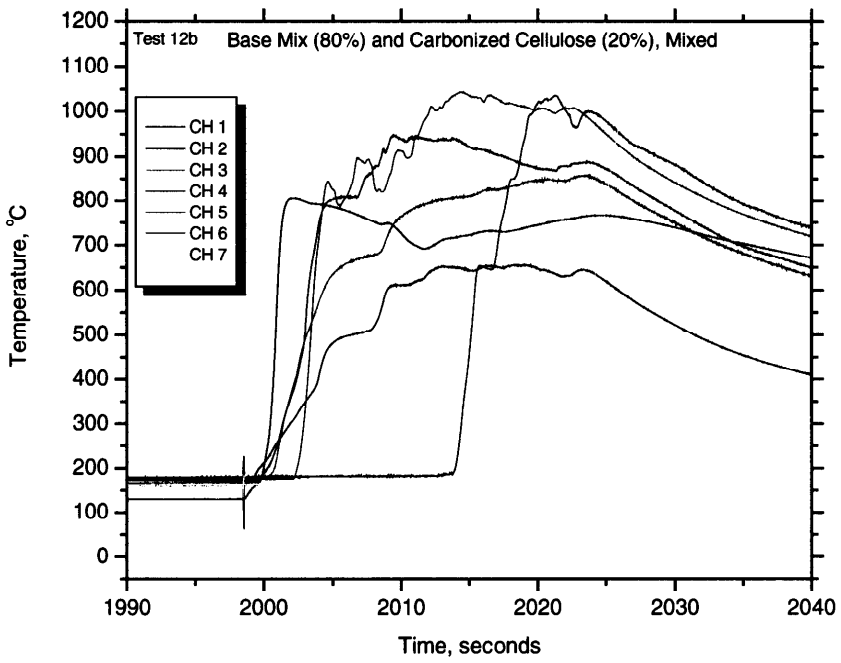

Figure B-14. Test 12b: Burn rate profile.

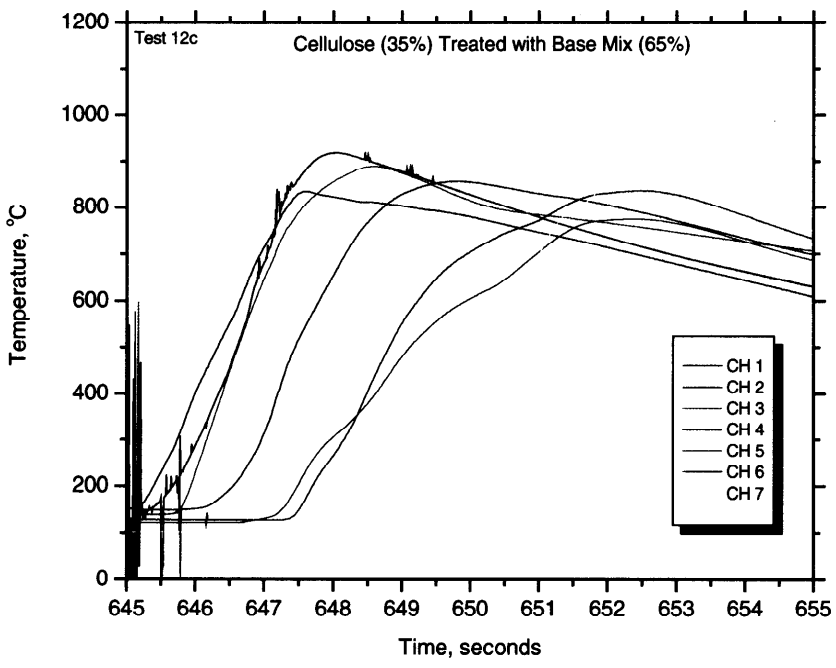

Figure B-15. Test 12c: Burn rate profile.

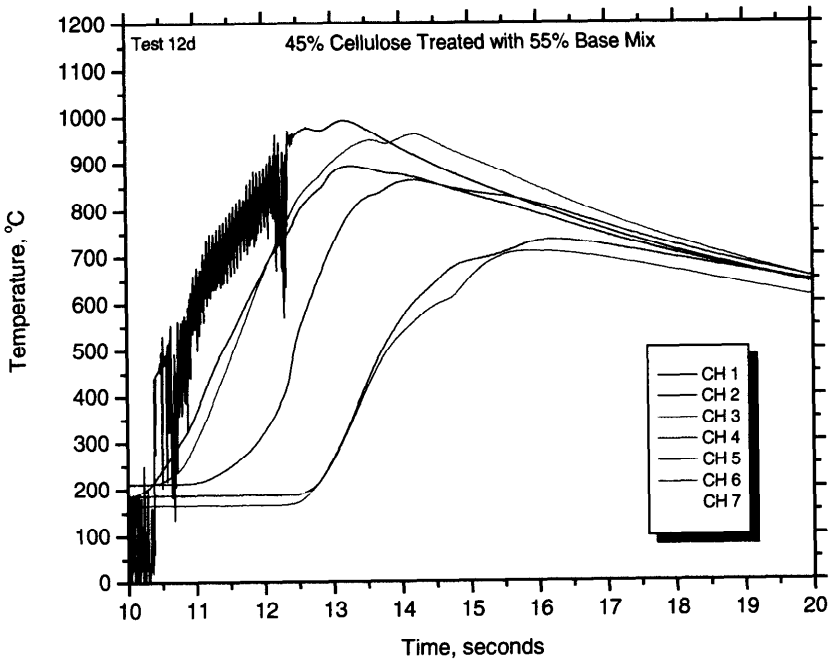

Figure B-16. Test 12d: Burn rate profile.

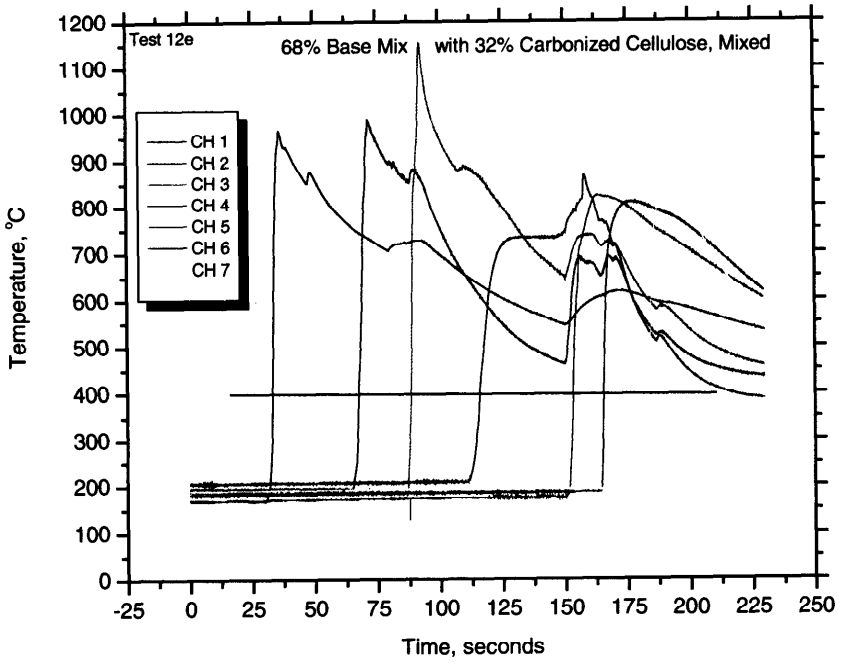

Figure B-17. Test 12e: Burn rate profile.

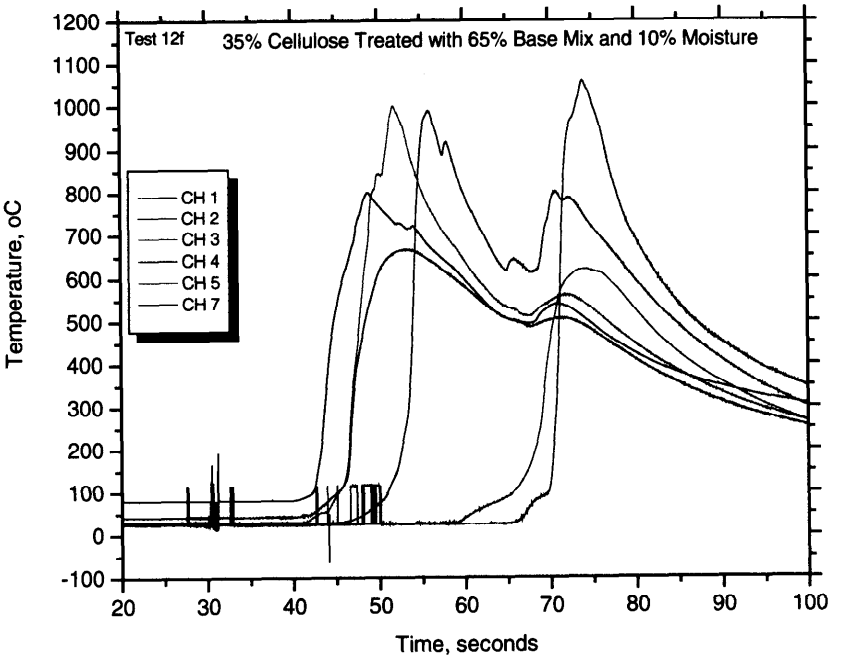

Figure B-18. Test 12f: Burn rate profile.

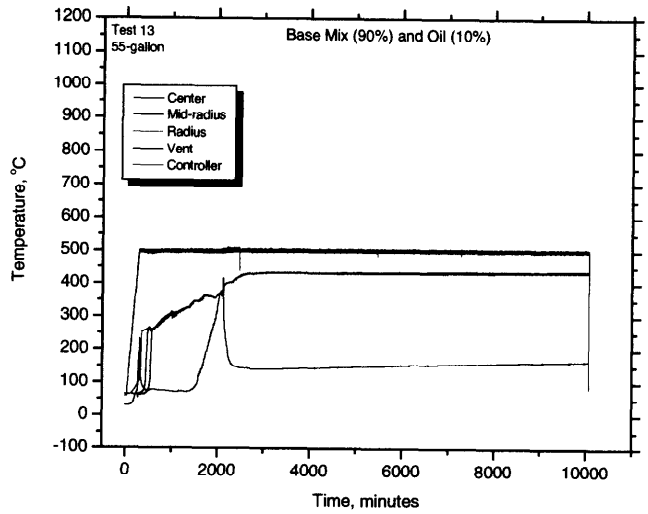

Figure B-19. Test 13: Temperature versus time profile.

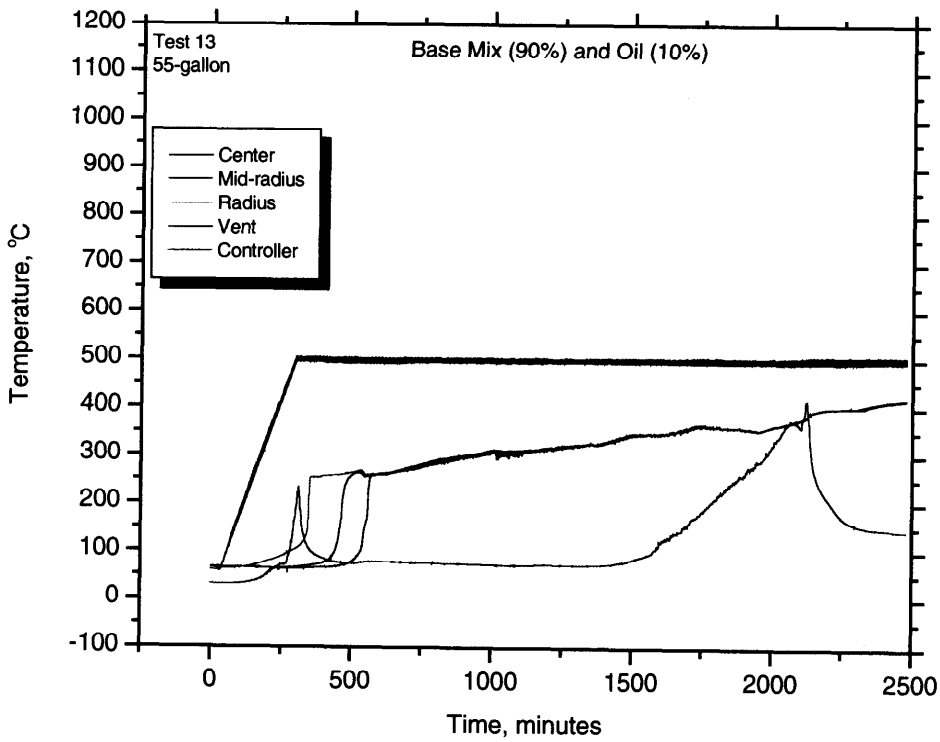

Figure B-20. Test 13: Expanded temperature versus time profile.

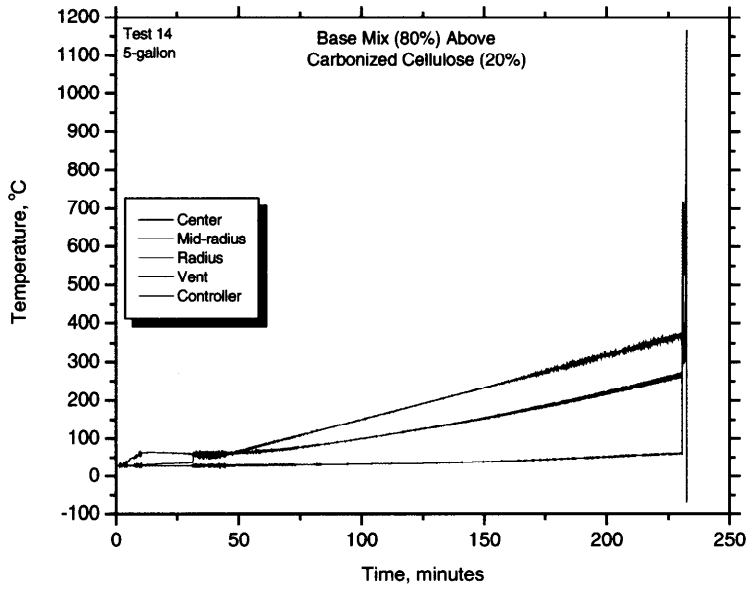

Figure B-21. Test 14: Temperature versus time profile.

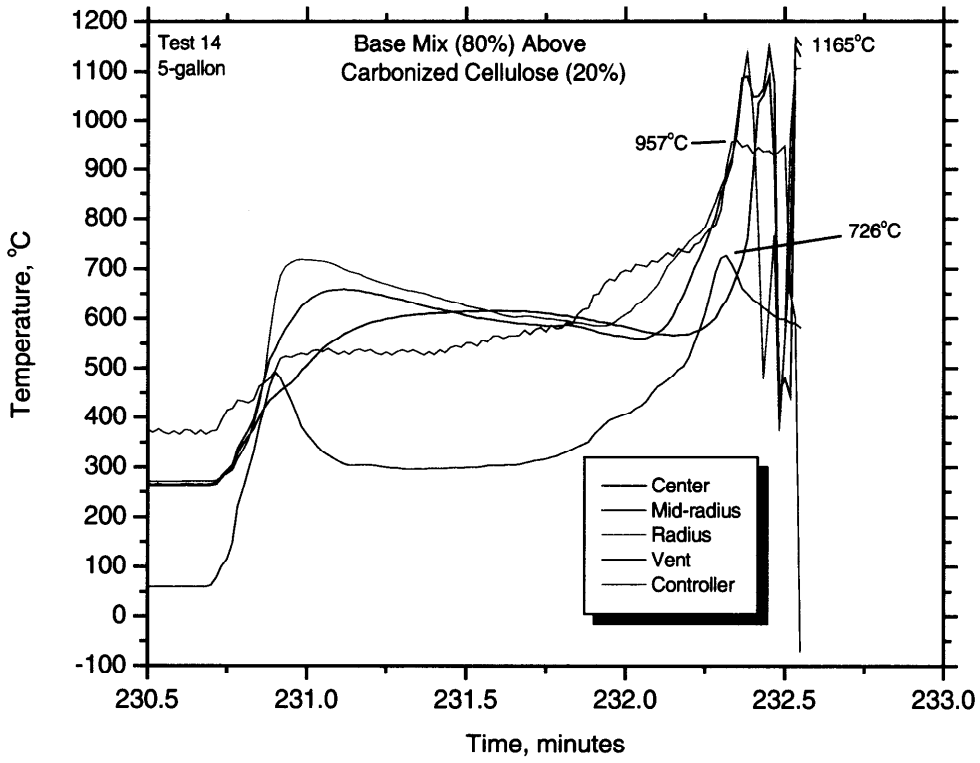

Figure B-22. Test 14: Expanded temperature versus time profile.

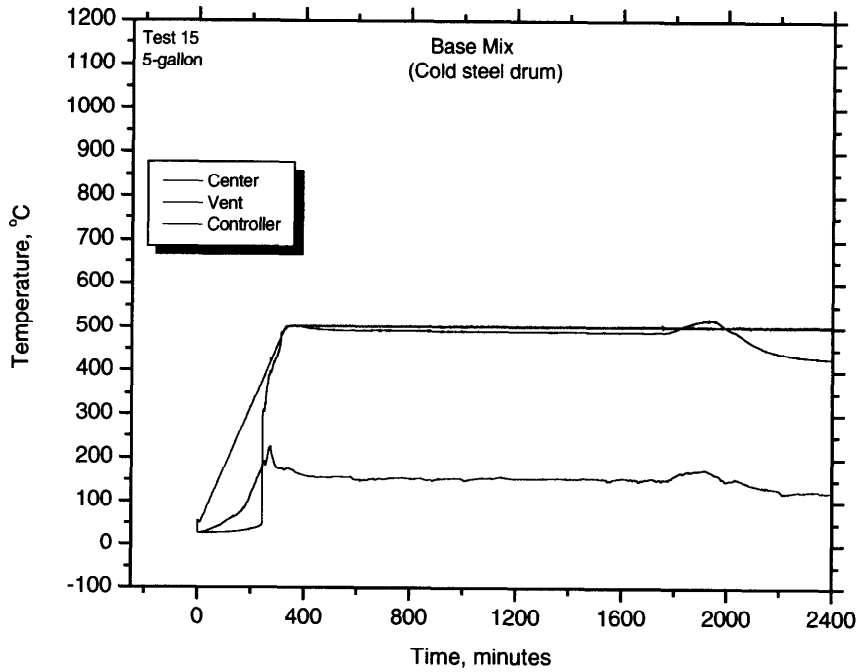

Figure B-23. Test 15: Temperature versus time profile. (The radius thermocouple failed and is not shown.)

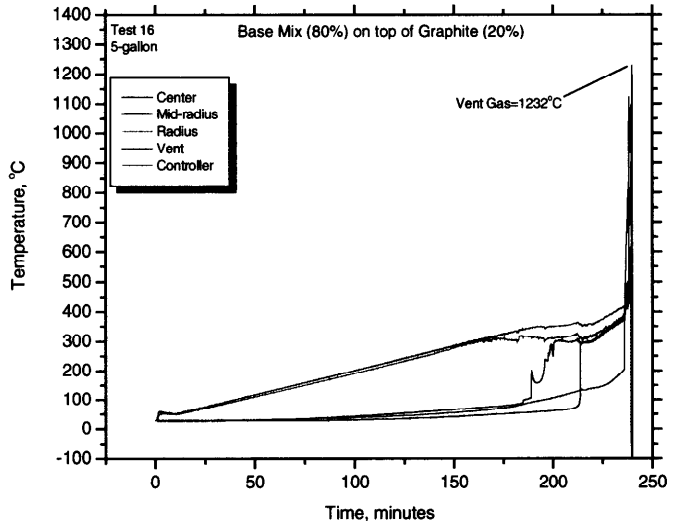

Figure B-24. Test 16: Temperature versus time profile.

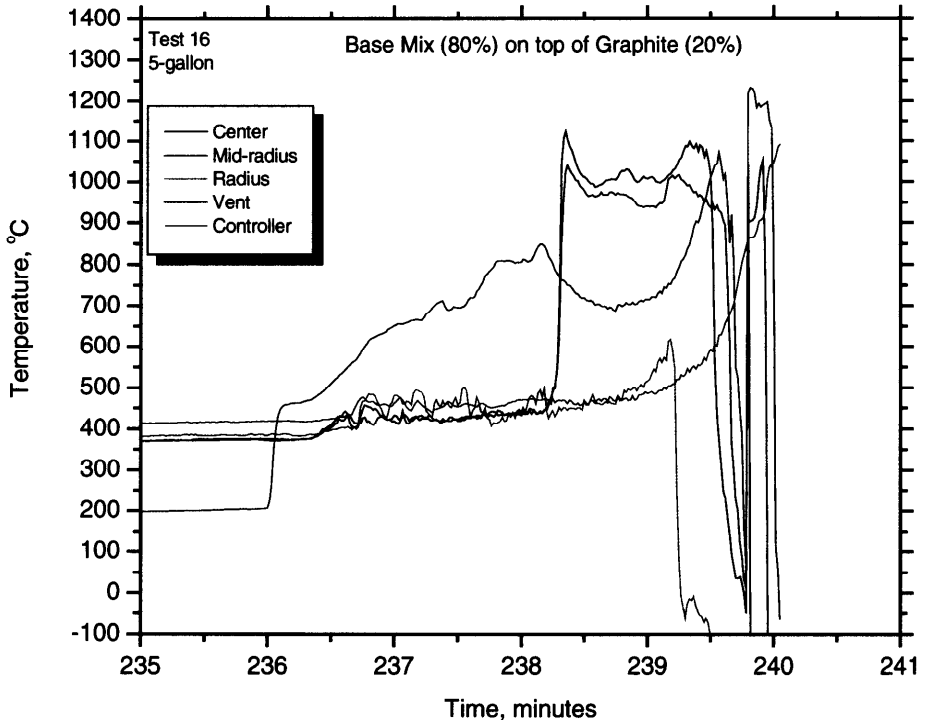

Figure B-25. Test 16: Expanded temperature versus time profile.

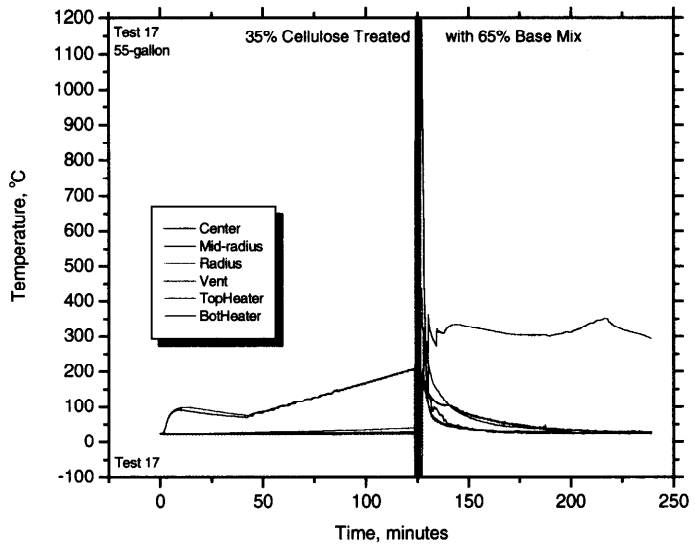

Figure B-26. Test 17: Temperature versus time profile.

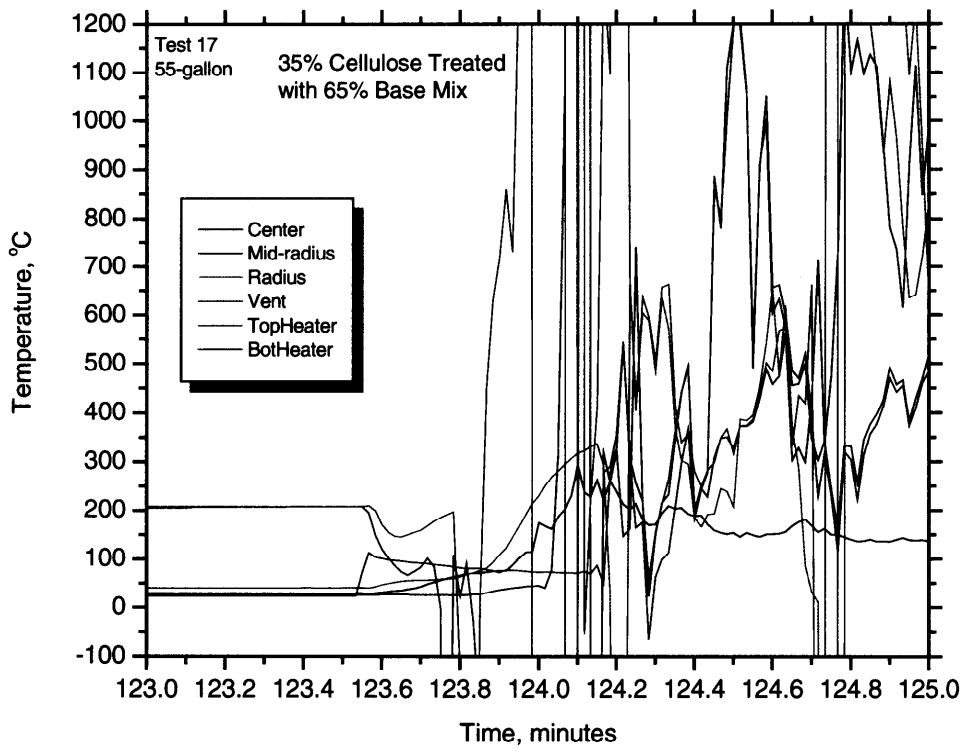

Figure B-27. Test 17: Expanded temperature versus time profile.

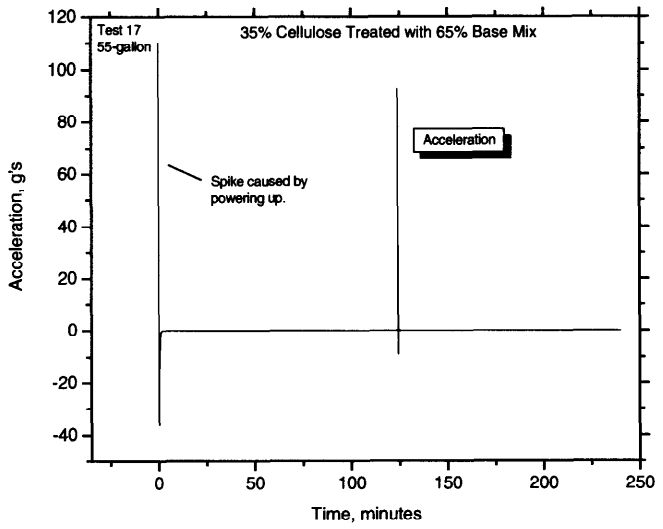

Figure B-28. Test 17: Accelerometer data.

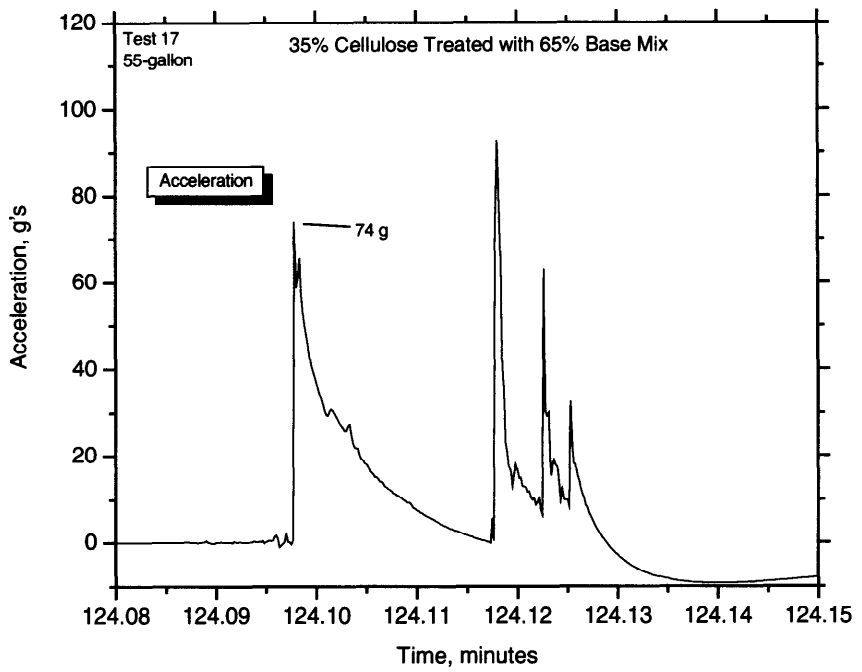

Figure B-29. Test 17: Expanded accelerometer data.

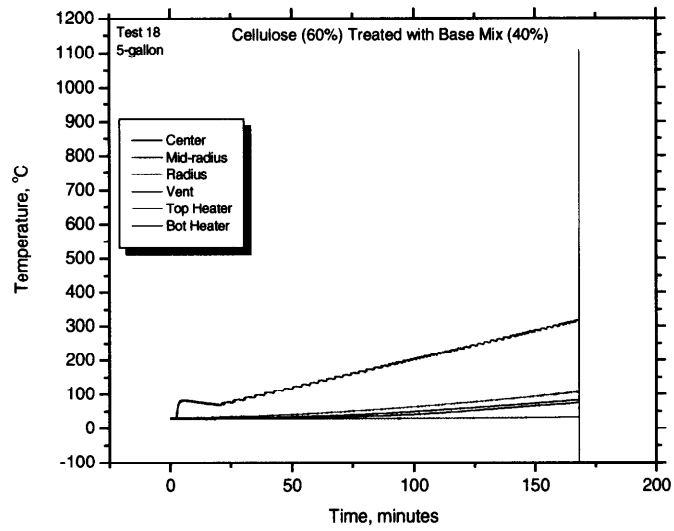

Figure B-30. Test 18: Temperature versus time profile.

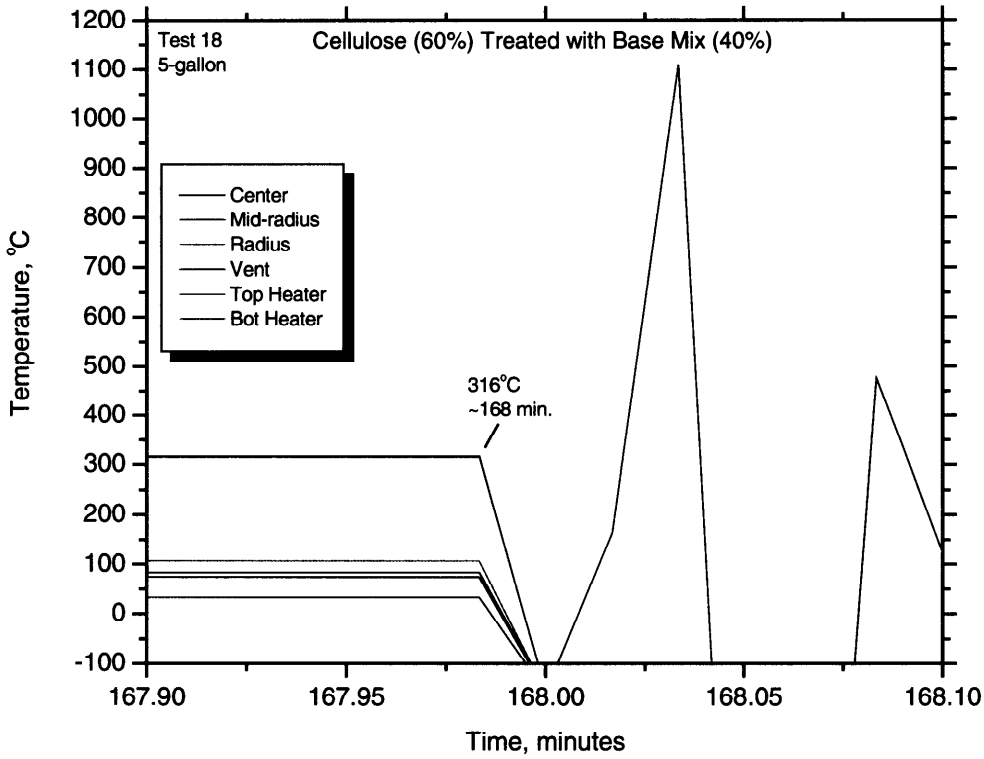

Figure B-31. Test 18: Expanded temperature versus time profile.

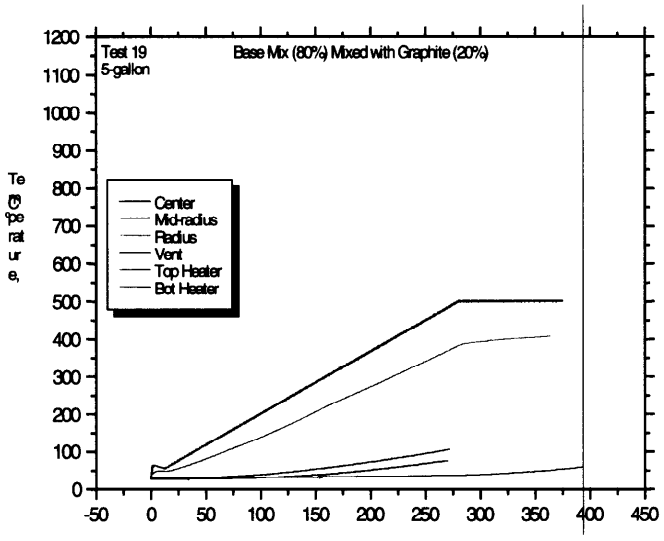

Figure B-32. Test 19: Temperature versus time profile.

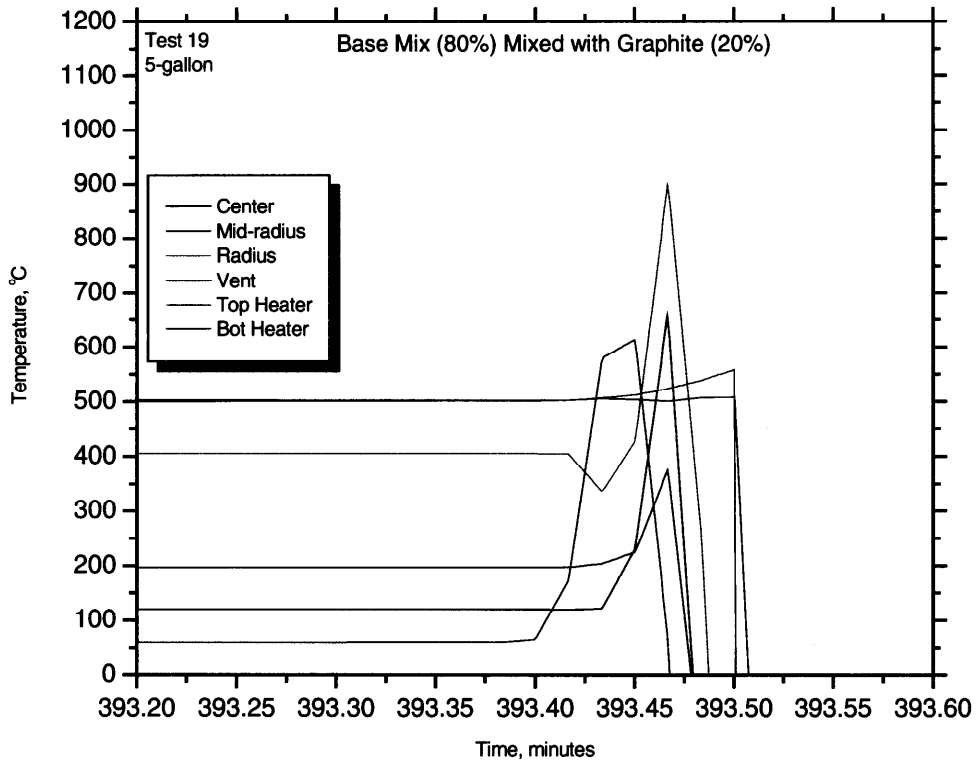

Figure B-33. Test 19: Expanded temperature versus time profile.

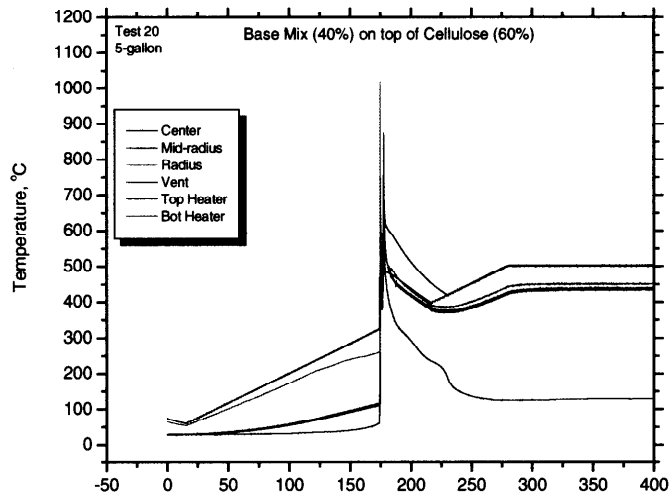

Figure B-34. Test 20: Temperature versus time profile.

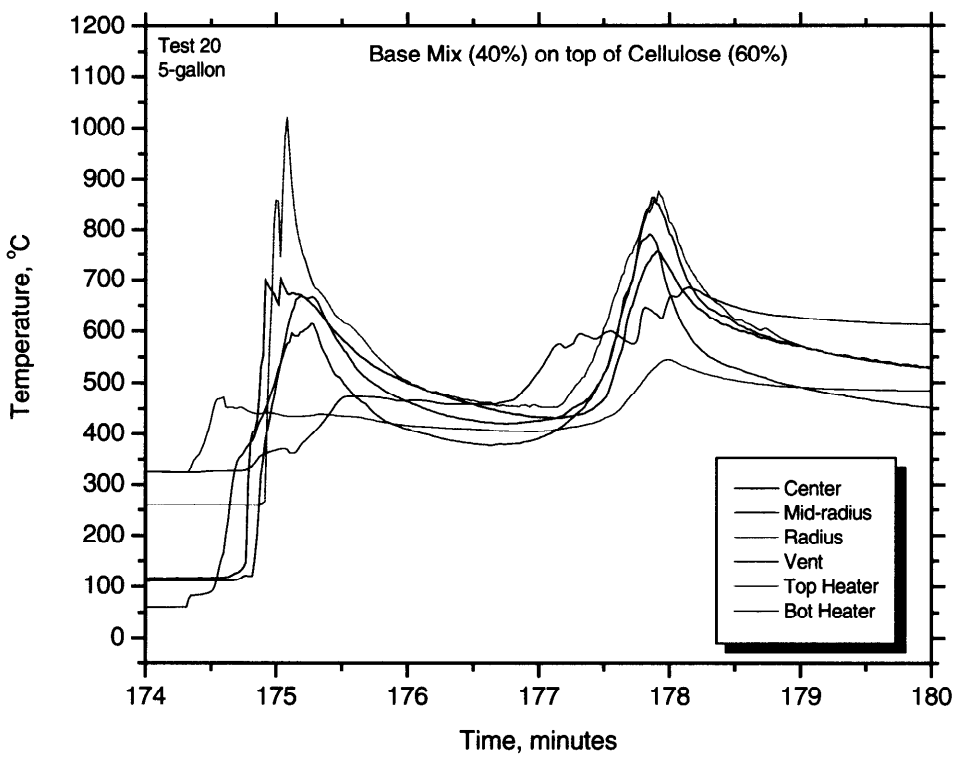

Figure B-35. Test 20: Expanded temperature versus time profile.

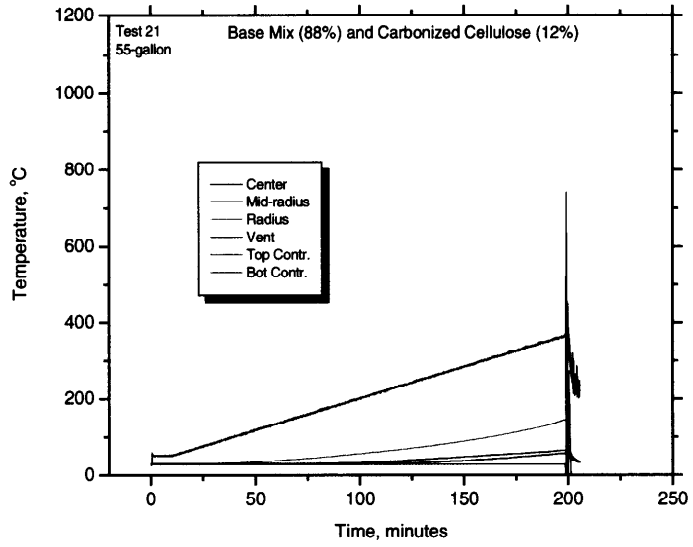

Figure B-36. Test 21: Temperature versus time profile.

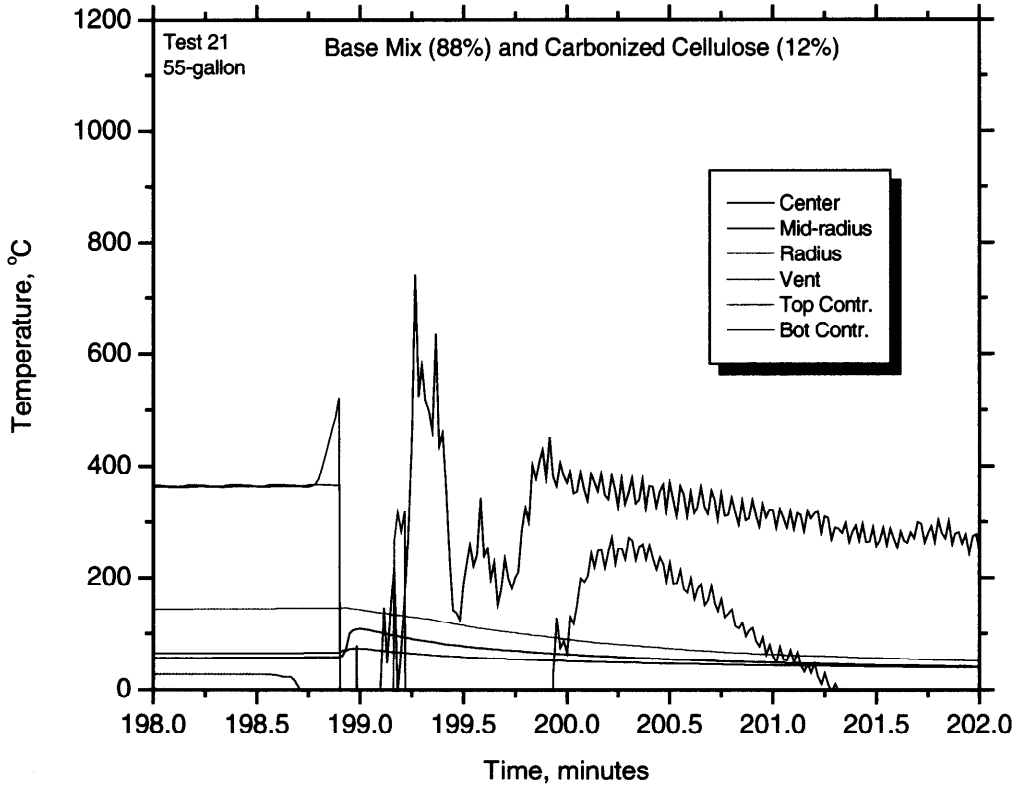

Figure B-37. Test 21: Expanded temperature versus time profile.

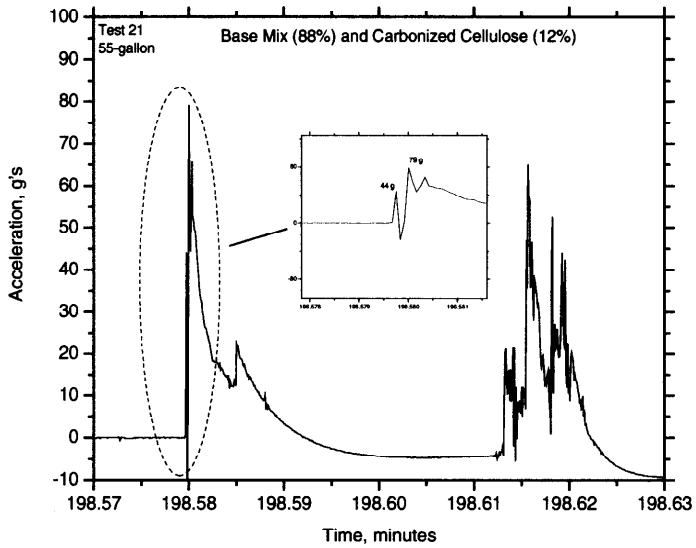

Figure B-38. Test 21: Accelerometer profile.

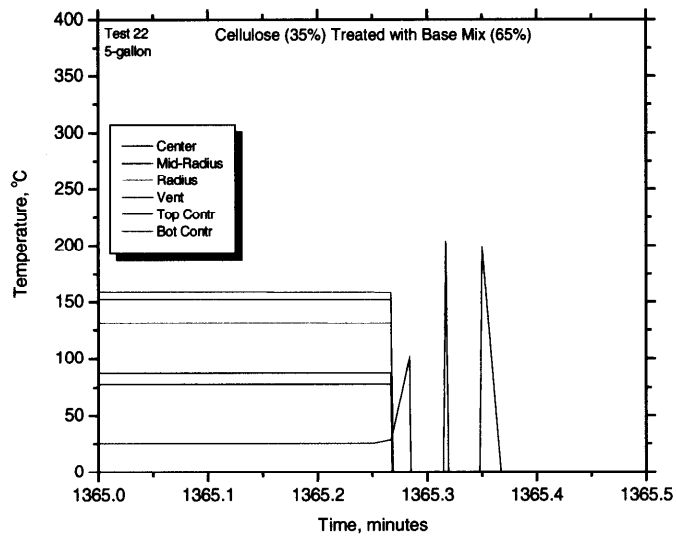

Figure B-39. Test 22: Temperature versus time profile.

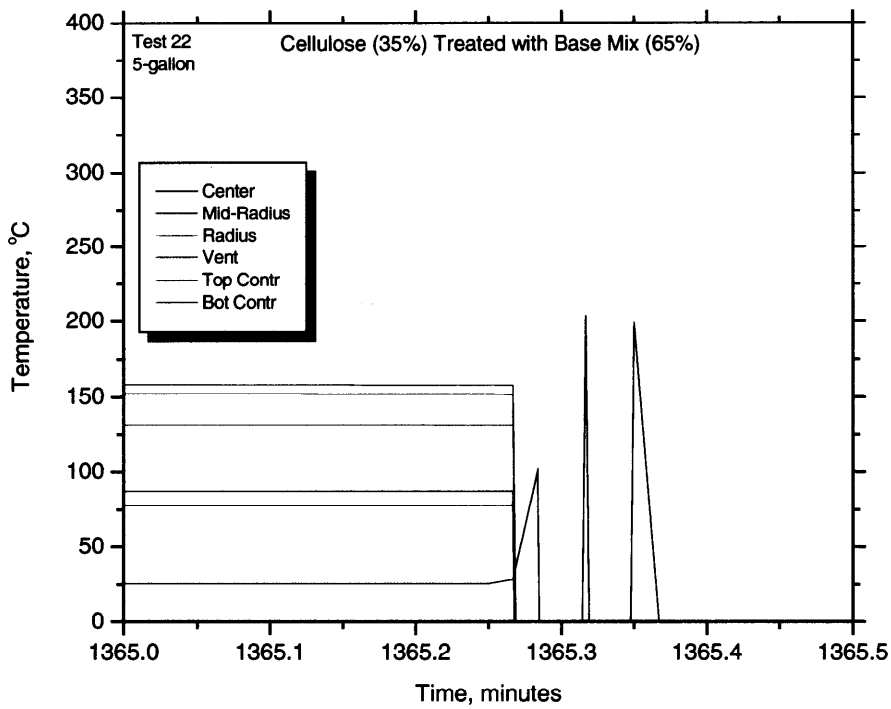

Figure B-40. Test 22: Expanded temperature versus time profile.

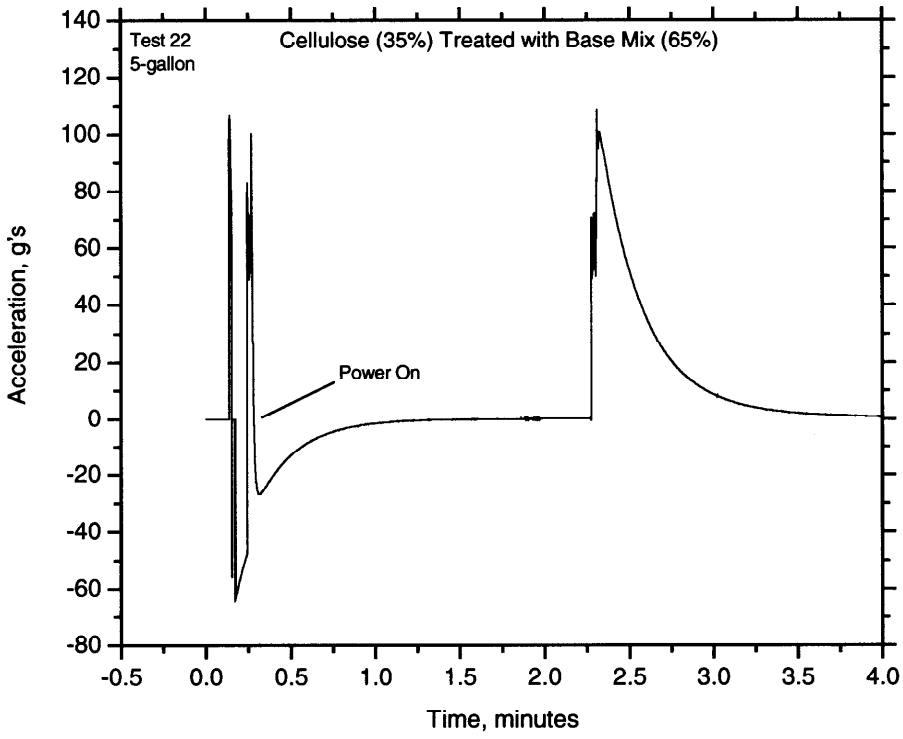

Figure B-41. Test 22: Accelerometer profile.

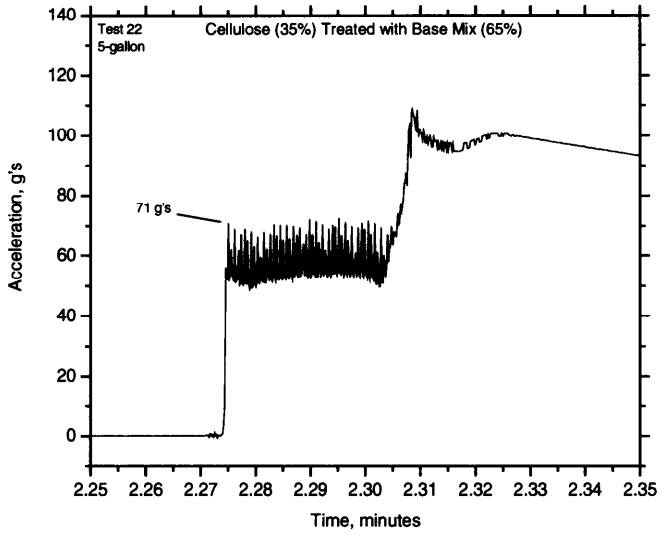

Figure B-42. Test 22: Expanded accelerometer profile.

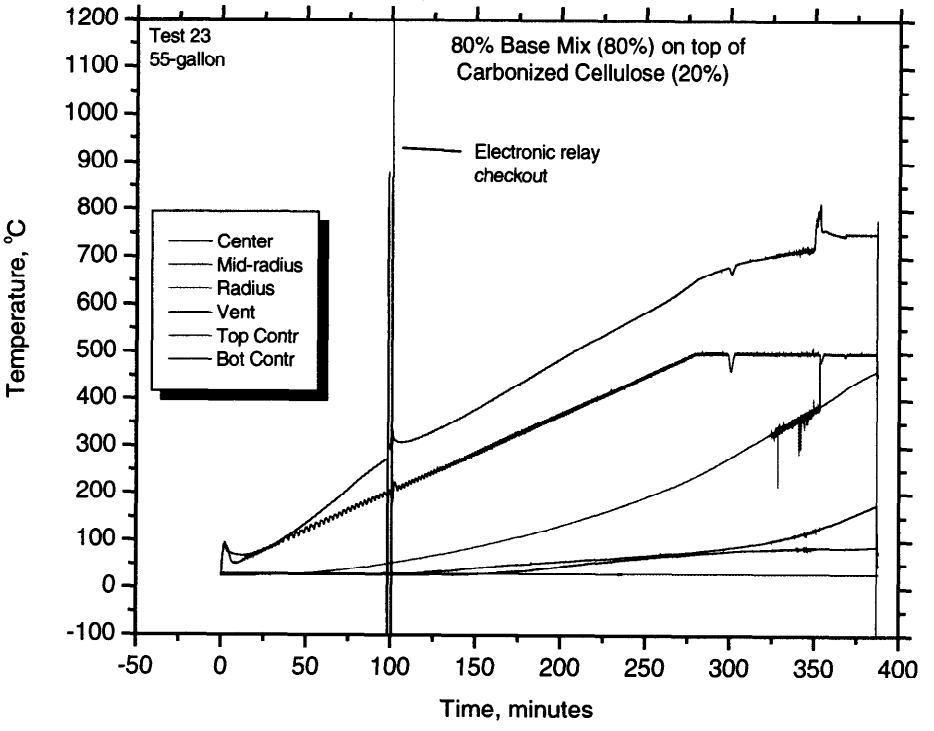

Figure B-43. Test 23: Temperature versus time profile.

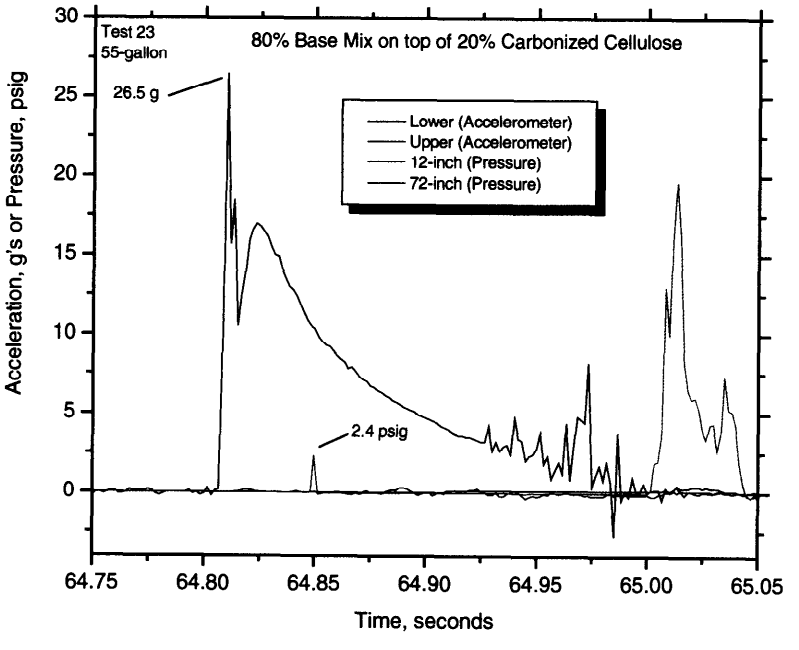

Figure B-44. Test 23: Accelerometer and pressure data.

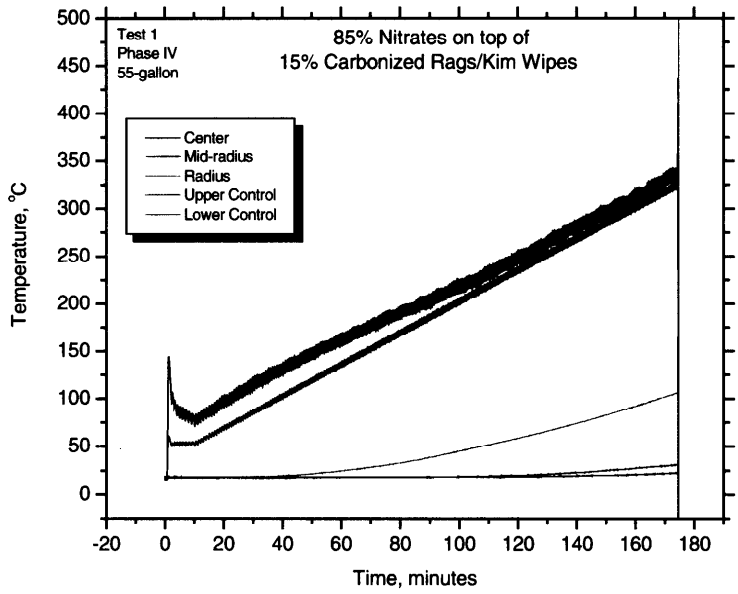

Figure B-45. Test 24: Temperature versus time profile.

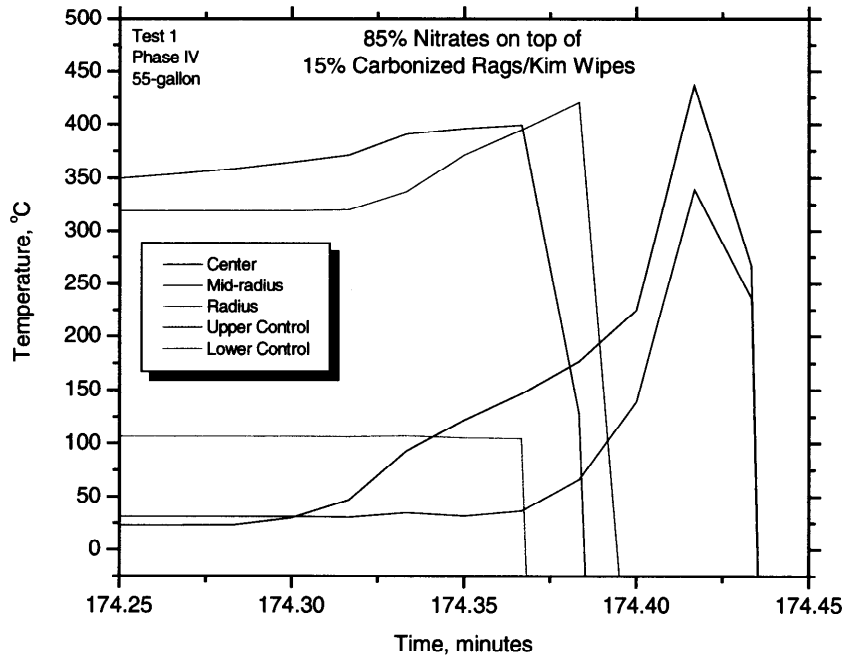

Figure B-46. Test 24: Expanded temperature versus time profile.

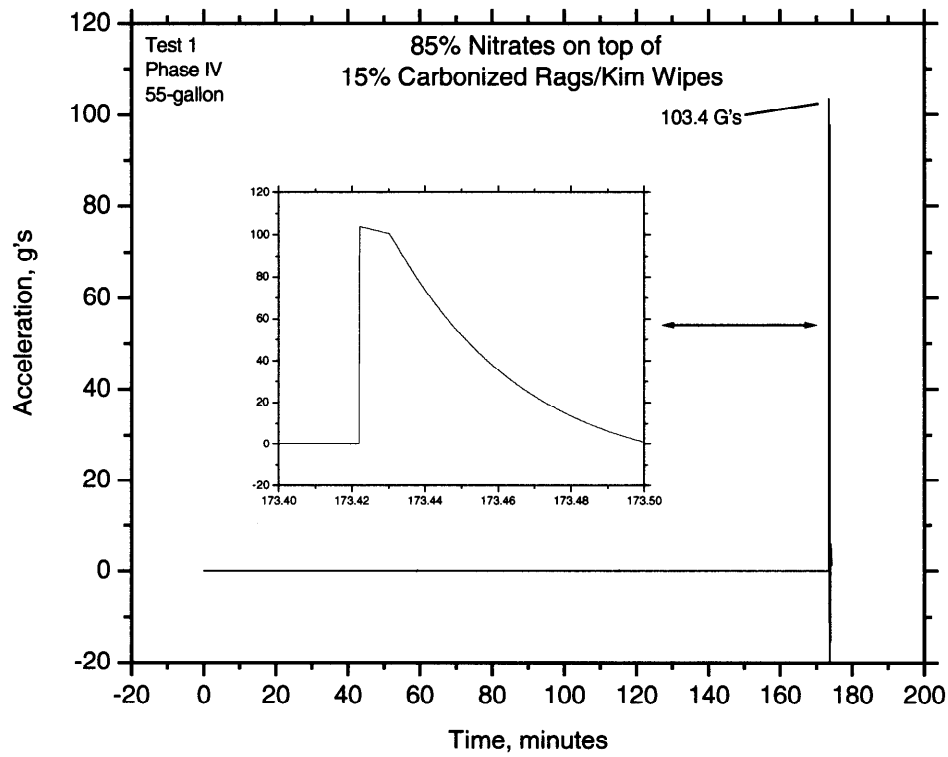

Figure B-47. Test 24: Acceleration profile.

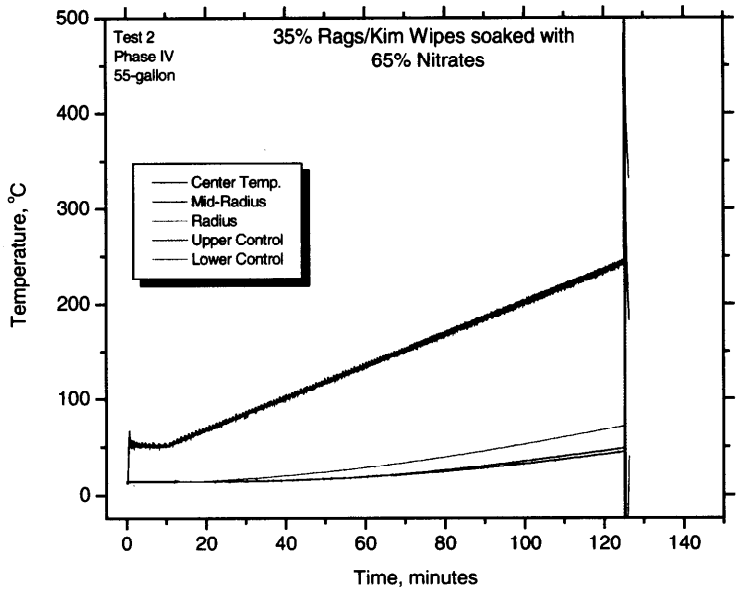

Figure B-48. Test 25: Temperature versus time profile.

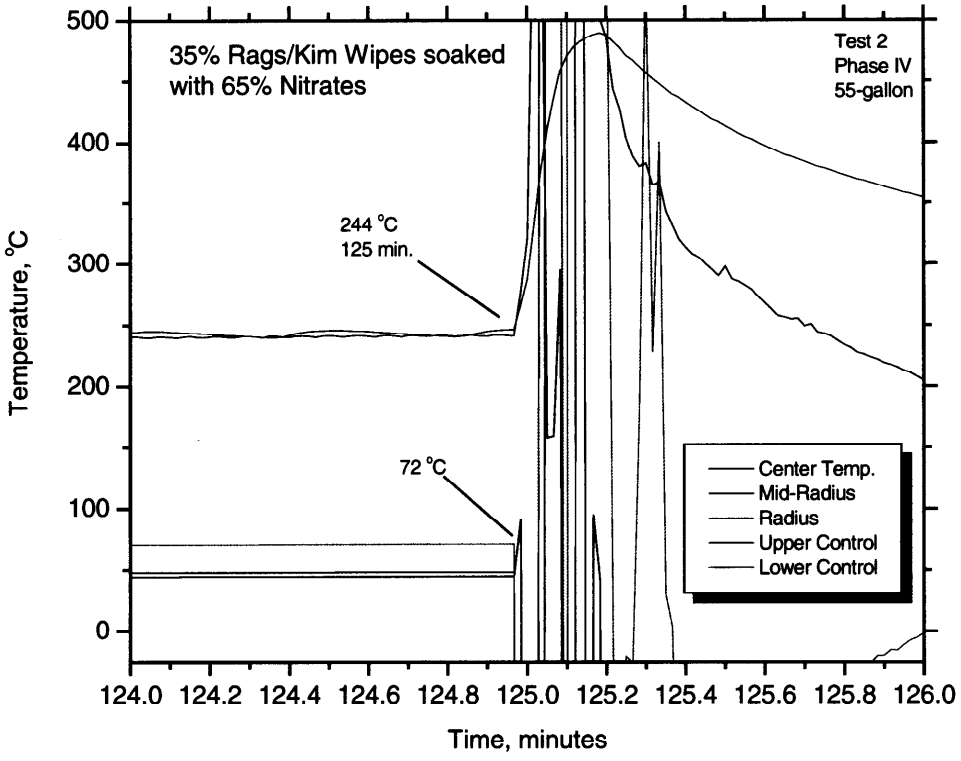

Figure B-49. Test 25: Expanded temperature versus time profile.

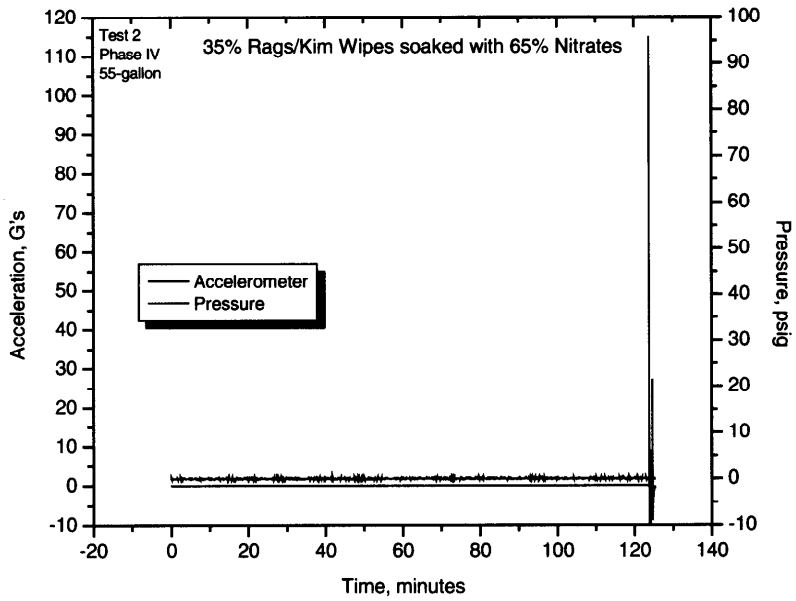

Figure B-50. Test 25: Acceleration and pressure versus time profile.

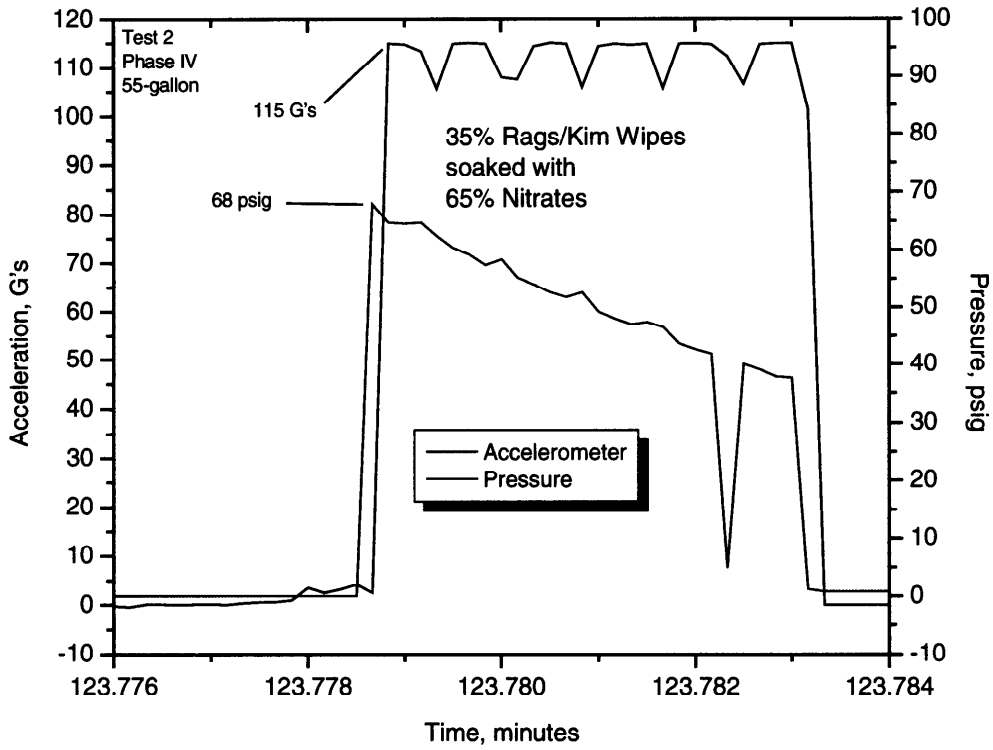

Figure B-51. Test 25: Expanded acceleration and pressure versus time profile.

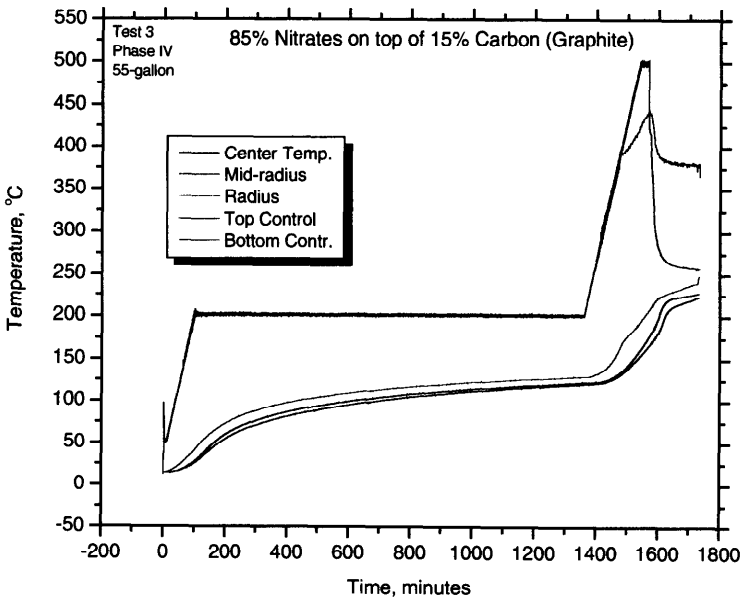

Figure B-52. Test 26: Temperature versus time profile.

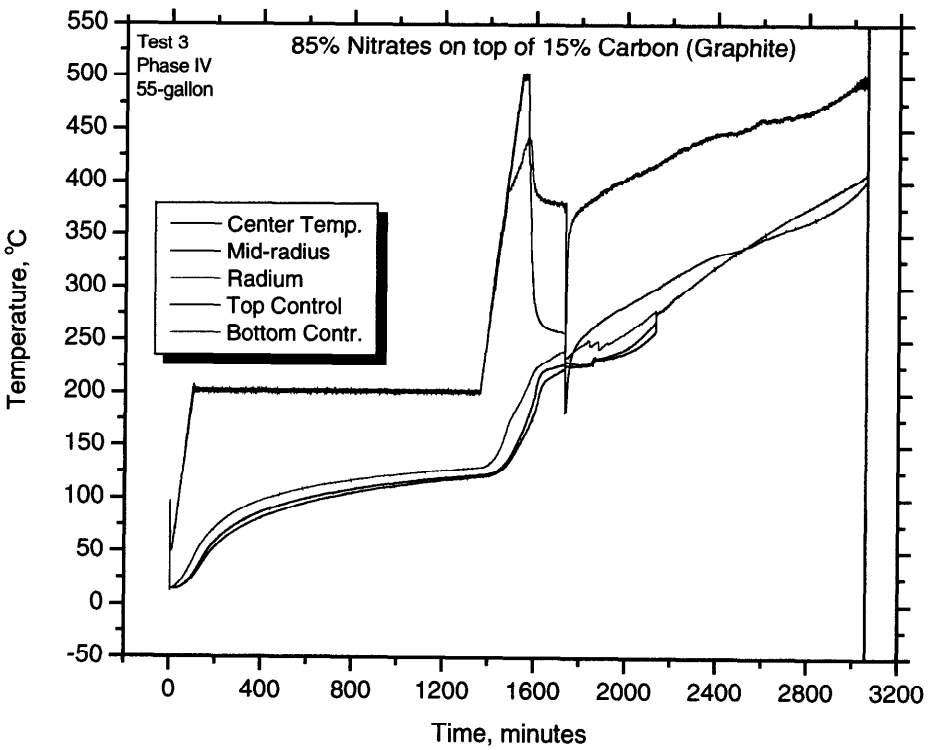

Figure B-53. Test 26: Expanded temperature versus time profile.

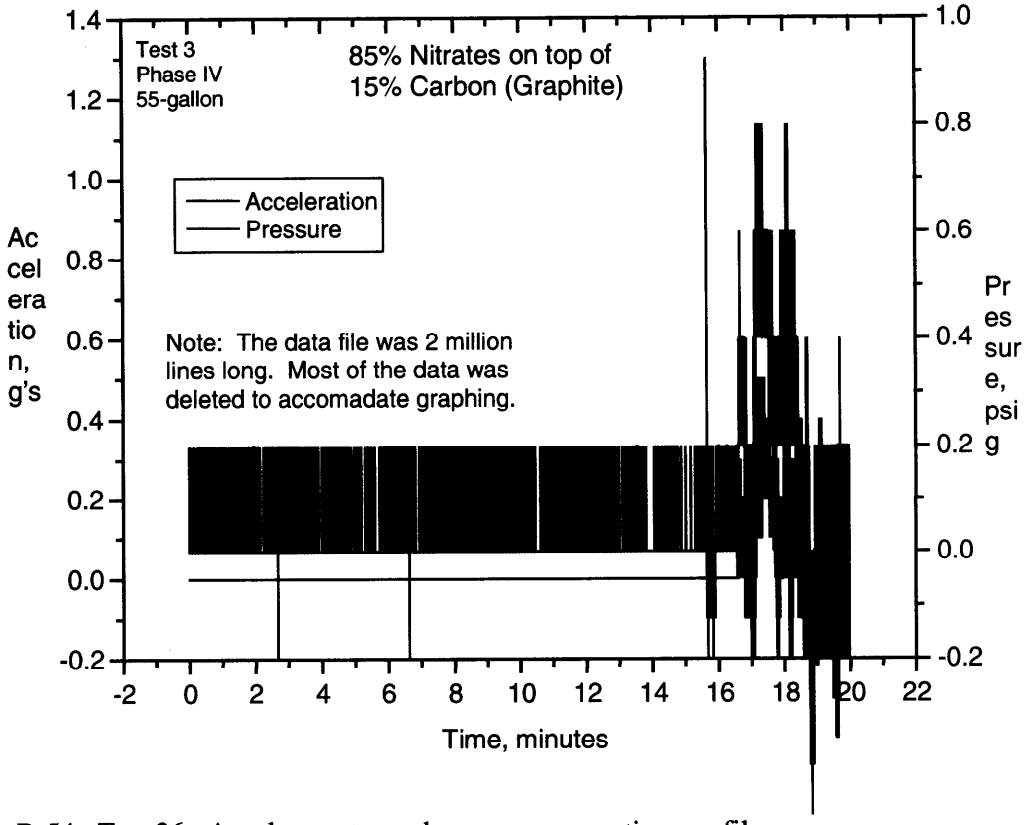

Figure B-54. Test 26: Accelerometer and pressure versus time profile.

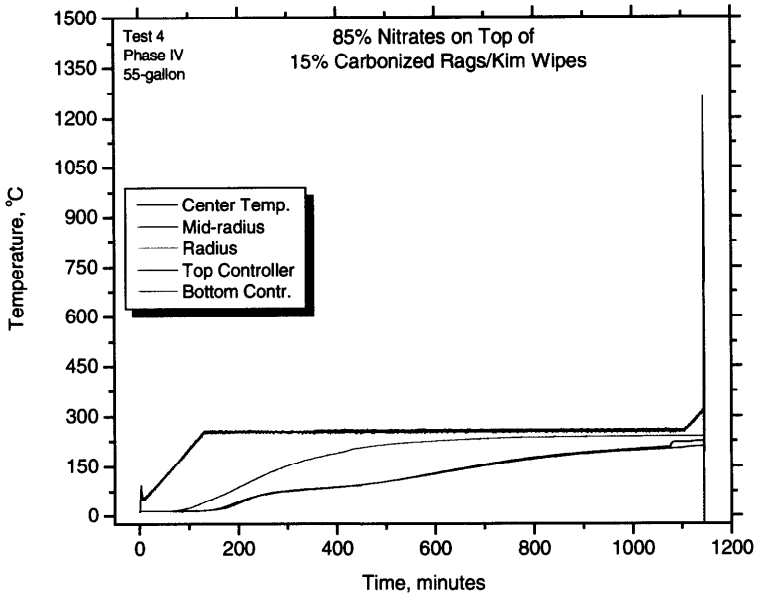

Figure B-55. Test 27: Temperature versus time profile.

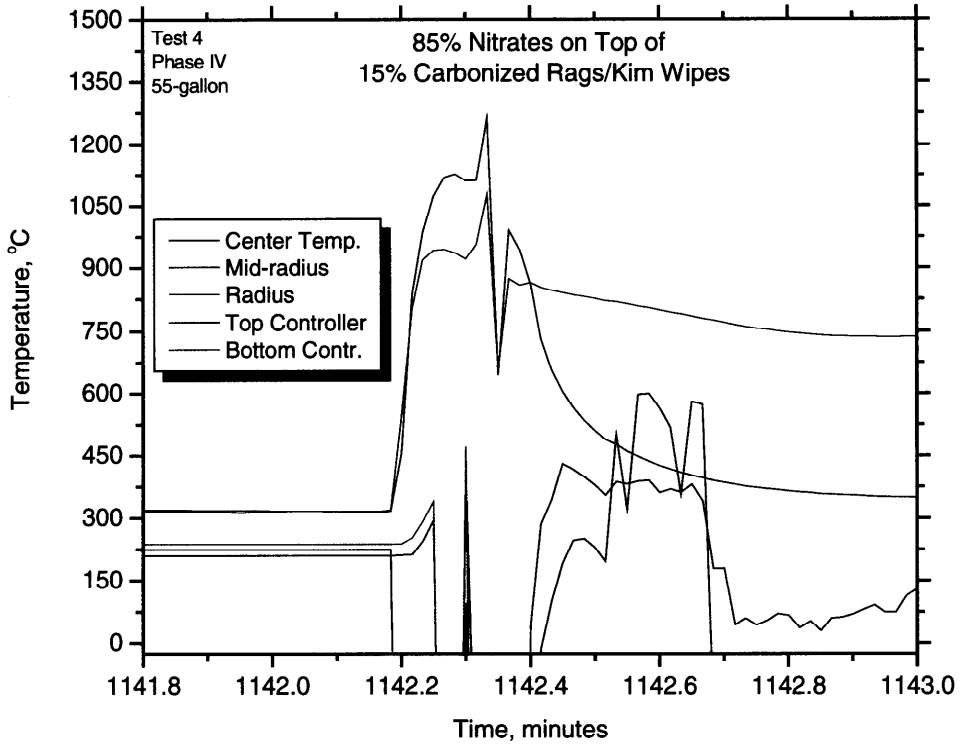

Figure B-56. Test 27: Expanded temperature versus time profile.

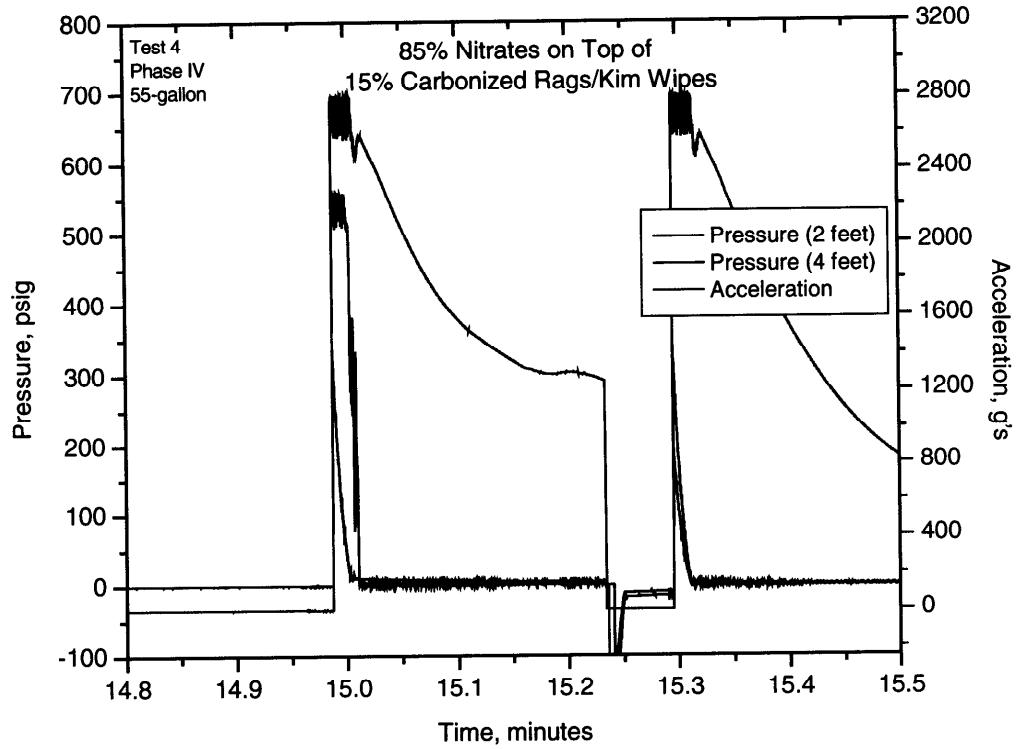

Figure B-57. Test 27: Expanded pressure and accelerometer versus time profile.