

Table I  
SUMMARY OF SHOCK-WAVE EXPERIMENTS

| SRI Shot No. | Initial Conditions |                        |  | Shock Measurements                    |                             | Calculated Shocked States    |                                     |   |
|--------------|--------------------|------------------------|--|---------------------------------------|-----------------------------|------------------------------|-------------------------------------|---|
|              | Initial Temp. (°C) | Specific Volume (cc/g) | Specific Energies (joules/g; ref. 0 at 25°C) | Shock Velocity <sup>a</sup> (mm/μsec) | Particle Velocity (mm/μsec) | Pressure <sup>b</sup> (kbar) | Specific Volume <sup>b</sup> (cc/g) | Specific Energy <sup>b</sup> (joules/g) |
| 12,326       | -32                | 0.983                  | -92  | 6.72 ± 0.02 <sup>c</sup>              | 3.18 ± 0.02                 | 216 ± 2 <sup>c</sup>         | 0.518 ± 0.005 <sup>c</sup>          | 4952 ± 70 <sup>c</sup>                  |
| 11,939       | -20                | 0.994                  | -71  | 6.91 ± 0.07                           | 3.46 ± 0.03                 | 240 ± 5                      | 0.497 ± 0.009                       | 5887 ± 84                               |
| 12,228       | -20                | 0.994                  | -71  | 4.87 ± 0.05                           | 1.87 ± 0.03                 | 91 ± 2                       | 0.611 ± 0.014                       | 1684 ± 44                               |
| 12,496       | -10                | 1.004                  | -55  | 7.11 ± 0.04                           | 3.11 ± 0.01                 | 256 ± 2                      | 0.494 ± 0.004                       | 6474 ± 39                               |
| 11,939       | 158                | 1.178                  | 218  | 6.47 ± 0.06                           | 3.56 ± 0.02                 | 195 ± 3                      | 0.530 ± 0.008                       | 6548 ± 89                               |
| 12,496       | 158                | 1.178                  | 218  | 6.61 ± 0.02                           | 3.72 ± 0.01                 | 208 ± 2                      | 0.516 ± 0.004                       | 7225 ± 55                               |
| 12,326       | 159                | 1.179                  | 220  | 6.16 ± 0.04                           | 3.28 ± 0.03                 | 171 ± 3                      | 0.550 ± 0.008                       | 5607 ± 160                              |
| 12,228       | 256                | 1.299                  | 399  | 4.08 ± 0.02                           | 1.94 ± 0.01                 | 61 ± 1                       | 0.679 ± 0.008                       | 2290 ± 30                               |
| 12,326       | 279                | 1.330                  | 445  | 6.09 ± 0.07                           | 3.31 ± 0.01                 | 152 ± 2 <sup>c</sup>         | 0.606 ± 0.009 <sup>c</sup>          | 5927 ± 40 <sup>c</sup>                  |
| 12,496       | 296                | 1.350                  | 481  | 6.39 ± 0.05                           | 3.91 ± 0.02                 | 184 ± 3 <sup>c</sup>         | 0.526 ± 0.010 <sup>c</sup>          | 8095 ± 74 <sup>c</sup>                  |

- a. Errors in shock velocity calculated by summing estimated errors in length and time measurements.
- b. Errors computed with absolute values of estimated errors; see ref. 9.
- c. Points omitted from analysis.