

| Time | Coolant<br>Temperature (F) | Engine<br>Load<br>(RAM)<br>(g/rev) | Engine<br>Speed<br>(rpm) | IAM (IAM) | Ignition<br>Timing<br>(degrees) | Intake Air<br>Temperature (F) | Intake<br>VVT<br>Advance<br>Angle<br>Right<br>(degrees) | Knock<br>Correction<br>(degrees) | Manifold<br>Relative<br>Pressure<br>(Corrected<br>) (psi) | Mass Air<br>Flow (g/s) | Mass Air<br>Flow<br>Sensor<br>Voltage<br>(V) | Primary<br>Wastegate<br>Duty<br>Cycle (%) | Throttle<br>Opening<br>Angle (%) | Vehicle<br>Speed<br>(mph) |
|------|----------------------------|------------------------------------|--------------------------|-----------|---------------------------------|-------------------------------|---------------------------------------------------------|----------------------------------|-----------------------------------------------------------|------------------------|----------------------------------------------|-------------------------------------------|----------------------------------|---------------------------|
| 0    | 189                        | 0.85                               | 2346                     | 0.5       | 41                              | 32                            | 0                                                       | 1                                | -3.77                                                     | 32.95                  | 2.44                                         | 51.37                                     | 16.08                            | 57                        |
| 280  | 189                        | 0.84                               | 2352                     | 0.5       | 41                              | 32                            | 0                                                       | 1                                | -3.77                                                     | 30.94                  | 2.42                                         | 50.59                                     | 16.08                            | 57                        |
| 531  | 189                        | 0.84                               | 2352                     | 0.5       | 41                              | 32                            | 0                                                       | 1                                | -3.77                                                     | 32.84                  | 2.44                                         | 50.59                                     | 16.08                            | 57                        |
| 781  | 189                        | 0.84                               | 2362                     | 0.5       | 41                              | 32                            | 0                                                       | 1                                | -3.77                                                     | 33.17                  | 2.44                                         | 50.98                                     | 16.08                            | 57                        |
| 1061 | 189                        | 1.02                               | 2391                     | 0.5       | 38.5                            | 32                            | 0                                                       | 2                                | -2.03                                                     | 44.35                  | 2.68                                         | 51.37                                     | 21.18                            | 57                        |
| 1312 | 189                        | 1.25                               | 2398                     | 0.5       | 30                              | 32                            | 0                                                       | 2.5                              | 0                                                         | 55.93                  | 2.88                                         | 62.35                                     | 27.06                            | 57                        |
| 1572 | 189                        | 1.58                               | 2411                     | 0.5       | 20                              | 32                            | 0                                                       | 3                                | 3.77                                                      | 68.16                  | 3.04                                         | 61.57                                     | 40.78                            | 58                        |
| 1822 | 189                        | 1.84                               | 2449                     | 0.5       | 18                              | 32                            | 0                                                       | 3                                | 6.53                                                      | 78.87                  | 3.18                                         | 51.76                                     | 53.33                            | 58                        |
| 2093 | 189                        | 2.04                               | 2452                     | 0.5       | 15.5                            | 32                            | 0                                                       | 3                                | 8.85                                                      | 86.07                  | 3.26                                         | 42.35                                     | 58.82                            | 59                        |
| 2353 | 189                        | 2.18                               | 2480                     | 0.5       | 15                              | 32                            | 0                                                       | 3                                | 10.59                                                     | 88.27                  | 3.32                                         | 30.2                                      | 60.39                            | 59                        |
| 2614 | 189                        | 2.22                               | 2510                     | 0.5       | 16                              | 32                            | 0                                                       | 3                                | 11.32                                                     | 91.47                  | 3.32                                         | 30.2                                      | 61.18                            | 60                        |
| 2864 | 189                        | 2.24                               | 2551                     | 0.5       | 17                              | 32                            | 0                                                       | 3                                | 11.61                                                     | 94.43                  | 3.36                                         | 30.2                                      | 61.18                            | 61                        |
| 3124 | 189                        | 2.24                               | 2568                     | 0.5       | 17                              | 32                            | 0                                                       | 3                                | 11.75                                                     | 92.48                  | 3.44                                         | 30.2                                      | 61.96                            | 62                        |
| 3395 | 189                        | 2.25                               | 2588                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.61                                                     | 95.06                  | 3.46                                         | 30.2                                      | 61.96                            | 62                        |
| 3635 | 189                        | 2.26                               | 2628                     | 0.5       | 17.5                            | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 94.93                  | 3.4                                          | 30.2                                      | 62.35                            | 63                        |
| 3915 | 189                        | 2.26                               | 2644                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 99.19                  | 3.52                                         | 30.2                                      | 62.35                            | 64                        |
| 4166 | 189                        | 2.26                               | 2686                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 101.34                 | 3.54                                         | 30.2                                      | 61.18                            | 65                        |
| 4416 | 189                        | 2.28                               | 2697                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 105.23                 | 3.54                                         | 30.2                                      | 59.61                            | 65                        |
| 4697 | 187                        | 2.28                               | 2725                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 105.94                 | 3.6                                          | 30.2                                      | 59.61                            | 66                        |
| 4967 | 187                        | 2.28                               | 2796                     | 0.5       | 17.5                            | 32                            | 0                                                       | 2.5                              | 11.9                                                      | 100.95                 | 3.44                                         | 30.2                                      | 59.22                            | 66                        |
| 5227 | 187                        | 2.29                               | 2828                     | 0.5       | 17.5                            | 32                            | 0                                                       | 2.5                              | 11.9                                                      | 104.4                  | 3.58                                         | 30.2                                      | 58.43                            | 68                        |
| 5478 | 187                        | 2.29                               | 2828                     | 0.5       | 17.5                            | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 101.44                 | 3.54                                         | 30.2                                      | 58.43                            | 68                        |
| 5728 | 187                        | 2.32                               | 2869                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.75                                                     | 115.58                 | 3.6                                          | 30.2                                      | 58.82                            | 69                        |
| 5998 | 187                        | 2.31                               | 2872                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 11.61                                                     | 116.08                 | 3.68                                         | 30.2                                      | 58.82                            | 70                        |
| 6249 | 187                        | 2.37                               | 2934                     | 0.5       | 16                              | 32                            | 0                                                       | 2.5                              | 12.33                                                     | 111.26                 | 3.62                                         | 30.2                                      | 70.98                            | 70                        |
| 6539 | 187                        | 2.37                               | 2962                     | 0.5       | 17                              | 32                            | 0                                                       | 2.5                              | 12.33                                                     | 107.41                 | 3.48                                         | 30.2                                      | 65.88                            | 71                        |
| 6780 | 187                        | 0.7                                | 2942                     | 0.5       | 48                              | 32                            | 0                                                       | 0                                | -3.05                                                     | 17.56                  | 1.96                                         | 30.98                                     | 9.02                             | 71                        |
| 7030 | 187                        | 0.21                               | 2940                     | 0.5       | 39.5                            | 32                            | 0                                                       | 0                                | -8.71                                                     | 7.1                    | 1.56                                         | 36.08                                     | 5.88                             | 71                        |
| 7340 | 187                        | 0.14                               | 2912                     | 0.5       | 29                              | 32                            | 0                                                       | 0                                | -10.74                                                    | 6.88                   | 1.52                                         | 38.82                                     | 5.49                             | 70                        |
| 7561 | 187                        | 0.15                               | 2880                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.17                                                    | 7.52                   | 1.56                                         | 0                                         | 5.49                             | 70                        |
| 7831 | 187                        | 0.16                               | 2878                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.03                                                    | 7.73                   | 1.58                                         | 0                                         | 5.49                             | 69                        |
| 8071 | 187                        | 0.16                               | 2842                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.03                                                    | 7.48                   | 1.58                                         | 0                                         | 5.49                             | 69                        |
| 8362 | 187                        | 0.16                               | 2836                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.03                                                    | 7.25                   | 1.56                                         | 0                                         | 5.49                             | 68                        |
| 8602 | 187                        | 0.16                               | 2806                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.17                                                    | 7.33                   | 1.56                                         | 0                                         | 5.49                             | 68                        |
| 8863 | 187                        | 0.16                               | 2785                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.03                                                    | 7.25                   | 1.54                                         | 0                                         | 5.49                             | 67                        |
| 9123 | 187                        | 0.16                               | 2756                     | 0.5       | 19                              | 32                            | 0                                                       | 0                                | -11.03                                                    | 7.06                   | 1.54                                         | 0                                         | 5.49                             | 66                        |
| 9373 | 187                        | 0.16                               | 2711                     | 0.5       | 19                              | 34                            | 0                                                       | 0                                | -11.03                                                    | 7.14                   | 1.54                                         | 0                                         | 5.49                             | 65                        |