

# PM 2.5 MONITORING ANNUAL SUMMARY

OAKRIDGE - 2002

24 HOUR AVERAGE CONCENTRATION,  $\mu\text{g}/\text{m}^3$ , LTP

| DAY | JAN  | FEB  | MAR  | APR  | MAY  | JUN | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  |
|-----|------|------|------|------|------|-----|------|------|------|------|------|------|
| 1   | 34.8 | 16.1 | 44.1 | 12.8 | 11.2 | 6.2 | 3.5  | 5.4  | 5.2  | 7.1  | 80.3 | 31.9 |
| 2   | 21.0 | 20.0 | 55.4 | 12.6 | 9.7  | 4.2 | 4.4  | 5.0  | 26.5 | 10.4 |      | 31.9 |
| 3   | 15.0 | 32.9 | 63.6 | 16.8 | 6.2  | 4.8 | 5.2  | 5.3  | 6.9  | 12.3 |      | 32.3 |
| 4   | 22.0 | 35.3 | 47.6 | 12.0 | 10.5 | 3.3 | 11.3 | 2.5  | 8.3  | 3.4  |      | 31.3 |
| 5   | 27.5 | 29.5 | 40.9 | 6.2  | 2.8  | 2.1 | 5.9  | 5.8  | 9.1  | 4.9  |      | 15.7 |
| 6   | 24.4 | 14.0 | 12.3 | 6.0  | 3.8  | 2.9 | 6.7  |      | 7.8  | 4.5  | 54.6 | 23.6 |
| 7   | 17.3 | 13.3 | 8.0  | 8.3  | 8.9  | 4.1 | 4.7  | 13.8 | 4.0  | 7.1  | 10.6 | 26.0 |
| 8   | 16.4 | 10.9 | 22.1 | 5.5  | 12.6 | 3.1 | 2.6  | 13.1 | 4.8  | 7.8  | 10.0 | 36.5 |
| 9   | 10.2 | 26.4 | 25.1 | 5.8  | 7.1  | 5.3 |      |      | 7.9  | 9.5  | 11.8 | 62.6 |
| 10  | 19.8 | 24.0 | 20.0 | 3.8  | 7.4  | 6.5 | 10.5 | 16.6 | 7.3  | 6.8  | 13.6 | 19.4 |
| 11  | 51.5 | 16.7 | 16.5 | 4.3  | 14.8 |     | 9.9  | 5.9  | 7.5  | 17.5 | 14.7 | 31.0 |
| 12  | 13.6 | 33.8 | 7.2  | 3.7  | 8.7  | 7.0 | 11.2 | 7.8  | 9.1  | 25.2 | 22.0 | 18.9 |
| 13  | 7.7  | 70.3 | 5.6  | 4.1  | 7.2  | 7.7 | 10.1 | 6.9  | 10.0 | 27.8 | 16.1 | 21.5 |
| 14  | 22.6 | 51.1 | 7.8  | 3.9  | 6.2  | 5.3 | 5.8  | 7.2  | 10.6 | 28.1 | 14.6 | 9.6  |
| 15  | 17.7 | 60.5 | 6.5  | 3.6  | 7.8  | 8.0 | 6.5  | 7.4  | 4.0  | 32.5 | 19.2 | 5.5  |
| 16  | 12.5 | 23.8 | 13.0 | 5.3  | 8.4  | 4.2 | 6.0  | 7.9  | 2.9  | 26.6 | 12.4 | 7.5  |
| 17  | 20.7 | 17.8 | 12.8 | 4.2  | 3.6  | 2.2 | 6.3  | 7.3  | 1.4  | 17.8 | 7.4  | 10.4 |
| 18  | 14.2 | 7.8  | 12.5 | 4.0  | 6.2  | 2.6 | 4.3  | 5.4  | 2.8  | 17.5 | 11.9 | 11.1 |
| 19  | 13.0 | 10.2 | 15.9 | 10.1 | 5.7  | 3.7 | 2.4  | 15.0 | 4.0  | 16.3 | 28.7 | 31.5 |
| 20  | 13.5 | 12.0 | 20.0 | 13.0 | 2.5  | 5.7 | 4.5  | 4.1  | 4.1  | 15.1 | 23.3 | 24.4 |
| 21  | 27.2 | 16.5 | 22.4 | 14.0 | 3.1  | 6.9 | 6.5  | 3.9  | 4.1  | 12.2 | 29.2 | 12.0 |
| 22  | 25.5 | 10.9 | 19.0 | 7.8  | 4.5  | 4.0 | 11.3 | 5.8  | 5.0  | 18.8 | 19.0 | 11.7 |
| 23  | 31.4 | 6.3  | 6.3  | 9.2  | 4.6  | 3.9 | 14.6 |      | 8.2  | 28.6 | 10.9 | 18.3 |
| 24  | 16.3 | 13.2 | 5.2  | 16.0 | 5.6  | 4.4 | 12.8 | 6.3  | 10.2 | 11.5 | 12.3 | 12.5 |
| 25  | 16.3 | 34.0 | 10.8 | 13.5 | 6.2  | 5.2 | 7.9  | 3.1  | 10.6 | 10.6 | 22.2 | 16.7 |
| 26  | 14.5 | 63.8 | 8.5  | 7.5  | 2.8  | 7.2 | 7.2  | 4.0  | 11.5 | 22.4 | 31.8 | 10.6 |
| 27  | 19.8 | 39.9 | 6.6  | 6.3  | 3.0  | 2.8 | 5.2  | 6.2  | 6.5  | 14.8 | 46.9 | 7.9  |
| 28  |      | 46.0 | 10.9 | 9.4  | 2.8  | 3.1 | 3.7  | 7.5  | 5.5  | 16.4 | 35.8 | 13.3 |
| 29  | 17.2 |      | 16.1 | 12.1 | 1.8  | 2.6 | 3.3  | 10.7 | 4.8  | 18.2 | 32.6 | 8.3  |
| 30  | 30.9 |      | 17.8 | 10.1 | 4.3  | 3.0 |      | 6.9  | 2.9  | 68.0 | 33.7 | 6.2  |
| 31  | 42.0 |      | 21.3 |      | 5.7  |     | 7.6  | 6.2  |      |      |      | 17.6 |

| MONTH |       |        |        |        |        |       |       |       |        |       |       |        |
|-------|-------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|--------|
| NCAP  | 30    | 28     | 31     | 30     | 31     | 29    | 29    | 28    | 30     | 30    | 26    | 31     |
| %CAP  | 96.8% | 100.0% | 100.0% | 100.0% | 100.0% | 96.7% | 93.5% | 90.3% | 100.0% | 96.8% | 86.7% | 100.0% |
| MEAN  | 21.2  | 27.0   | 19.4   | 8.4    | 6.3    | 4.6   | 7.0   | 7.2   | 7.1    | 17.3  | 24.1  | 19.9   |
| MAX   | 51.5  | 70.3   | 63.6   | 16.8   | 14.8   | 8.0   | 14.6  | 16.6  | 26.5   | 68.0  | 80.3  | 62.6   |

| QUARTER | Q1    |  |  | Q2    |  |  | Q3    |  |  | Q4    |  |  |
|---------|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| NCAP    | 89    |  |  | 90    |  |  | 87    |  |  | 87    |  |  |
| %CAP    | 98.9% |  |  | 98.9% |  |  | 94.6% |  |  | 94.6% |  |  |
| MEAN    | 22.4  |  |  | 6.4   |  |  | 7.1   |  |  | 20.2  |  |  |

| ANNUAL   |       |      |      |      |      | Site Statistics |      |      |      |      |      |
|----------|-------|------|------|------|------|-----------------|------|------|------|------|------|
| NCAP     | 353   | HIGH | 80.3 | 6th  | 62.6 | Year            | 1998 | 1999 | 2000 | 2001 | 2002 |
| %NCAP    | 96.7% | 2nd  | 70.3 | 7th  | 60.5 | Annual Mean     |      | 12.8 | 13.1 | 13.8 | 14.0 |
| YMEAN    | 14.04 | 3rd  | 68.0 | 8th  | 55.4 | Annual High     |      | 72.0 | 74.2 | 95.7 | 80.3 |
| QYMEAN   | 14.0  | 4th  | 63.8 | 9th  | 54.6 | Annual 98 %-ile |      | 57.0 | 52.0 | 59.5 | 55.4 |
| 98 %-ile | 55    | 5th  | 63.6 | 10th | 51.5 | 3 Year 98 %-ile |      |      |      | 56   | 56   |