

## ALS Landfill Emissions Report

Client: Wollongong City Council

Date: 11/05/2020

Site: Whytes Gully

Sampler(s) Glenn Davies & Robert DaLio

| Transact / Location | Point | GPS North | GPS East | CH4 Conc (ppm) | Comments |
|---------------------|-------|-----------|----------|----------------|----------|
| 1                   | 1     | 6184 326  | 298 217  | 1.9            |          |
| 1                   | 2     | 6184 315  | 298 219  | 2.0            |          |
| 1                   | 3     | 6184 306  | 298 220  | 2.0            |          |
|                     |       |           |          |                |          |
| 2                   | 1     | 6184 304  | 298 236  | 1.7            |          |
| 2                   | 2     | 6184 314  | 298 232  | 1.5            |          |
| 2                   | 3     | 6184 319  | 298 230  | 1.5            |          |
| 2                   | 4     | 6184 325  | 298 229  | 1.4            |          |
| 2                   | 5     | 6184 333  | 298 227  | 1.5            |          |
|                     |       |           |          |                |          |
| 3                   | 1     | 6184 307  | 298 251  | 1.8            |          |
| 3                   | 2     | 6184 319  | 298 245  | 2.1            |          |
| 3                   | 3     | 6184 327  | 298 242  | 1.8            |          |
| 3                   | 4     | 6184 338  | 298 239  | 2.4            |          |
| 3                   | 5     | 6184 343  | 298 238  | 5.2            |          |

|    |   |          |         |      |  |
|----|---|----------|---------|------|--|
| 5  | 1 | 6184 381 | 298 262 | 1.6  |  |
| 5  | 2 | 6184 364 | 298 268 | 2.0  |  |
| 5  | 3 | 6184 350 | 298 273 | 4.7  |  |
| 5  | 4 | 6184 332 | 298 279 | 4.3  |  |
| 5  | 5 | 6184 320 | 298 281 | 4.4  |  |
| 5  | 6 | 6184 311 | 298 279 | 1.8  |  |
|    |   |          |         |      |  |
|    |   |          |         |      |  |
| 7  | 1 | 6184 346 | 298 309 | 2.5  |  |
| 7  | 2 | 6184 367 | 298 300 | 2.4  |  |
| 7  | 3 | 6184 381 | 298 294 | 2.3  |  |
| 7  | 4 | 6184 390 | 298 291 | 3.0  |  |
| 7  | 5 | 6184 398 | 298 287 | 2.0  |  |
| 7  | 6 | 6184 404 | 298 285 | 1.9  |  |
|    |   |          |         |      |  |
|    |   |          |         |      |  |
| 9  | 1 | 6184 418 | 298 304 | 4.8  |  |
| 9  | 2 | 6184 402 | 298 312 | 10.5 |  |
| 9  | 3 | 6184 385 | 298 318 | 9.6  |  |
| 9  | 4 | 6184 375 | 298 321 | 5.6  |  |
| 9  | 5 | 6184 364 | 298 326 | 3.1  |  |
| 9  | 6 | 6184 353 | 298 329 | 2.3  |  |
|    |   |          |         |      |  |
|    |   |          |         |      |  |
| 10 | 1 | 6184 622 | 298 256 | 6.6  |  |

|    |    |          |         |      |  |
|----|----|----------|---------|------|--|
| 10 | 2  | 6184 649 | 298 283 | 8.3  |  |
| 10 | 3  | 6184 678 | 298 313 | 6.2  |  |
| 10 | 4  | 6184 685 | 298 358 | 5.8  |  |
| 10 | 5  | 6184 680 | 298 417 | 7.4  |  |
| 10 | 6  | 6184 651 | 298 452 | 5.3  |  |
| 10 | 7  | 6184 588 | 298 466 | 13.4 |  |
| 10 | 8  | 6184 640 | 298 453 | 9.2  |  |
| 10 | 9  | 6184 479 | 298 430 | 8.2  |  |
| 10 | 10 | 6184 448 | 298 396 | 4.6  |  |
| 10 | 11 | 6184 470 | 298 383 | 8.9  |  |
| 10 | 12 | 6184 501 | 298 376 | 10.1 |  |
| 10 | 13 | 6184 531 | 298 373 | 6.2  |  |
| 10 | 14 | 6184 562 | 298 376 | 5.5  |  |
| 10 | 15 | 6184 543 | 298 389 | 3.9  |  |
| 10 | 16 | 6184 522 | 298 386 | 3.9  |  |
|    |    |          |         |      |  |
| 11 | 1  | 6184 438 | 298 373 | 3.1  |  |
| 11 | 2  | 6184 470 | 298 346 | 4.7  |  |
| 11 | 3  | 6184 495 | 298 328 | 14.0 |  |
| 11 | 4  | 6184 514 | 298 305 | 16.8 |  |
| 11 | 5  | 6184 542 | 298 308 | 8.2  |  |
| 11 | 6  | 6184 556 | 298 327 | 8.0  |  |
| 11 | 7  | 6184 534 | 298 333 | 8.8  |  |

|    |   |          |         |      |           |
|----|---|----------|---------|------|-----------|
| 11 | 8 | 6184 510 | 298 333 | 13.5 |           |
|    |   |          |         |      |           |
| 12 | 1 | 6184 579 | 298 197 | 8.6  |           |
| 12 | 2 | 6184 543 | 298 219 | 16.1 |           |
| 12 | 3 | 6184 507 | 298 221 | 10.1 |           |
| 12 | 4 | 6184 480 | 298 238 | 11.8 |           |
| 12 | 5 | 6184 473 | 298 275 | 11.8 |           |
| 12 | 6 | 6184 472 | 298 239 | 12.9 |           |
| 12 | 5 | 6184 458 | 298 262 | 10.5 |           |
| 12 | 6 | 6184 459 | 298 290 | 12.8 |           |
|    |   |          |         |      |           |
| A  | 1 | 6184 552 | 297 823 | 1.7  |           |
| A  | 2 | 6184 511 | 297 808 | 1.8  |           |
| A  | 3 | 6184 509 | 297 779 | 1.7  |           |
| A  | 4 | 6184 515 | 297 743 | 1.8  |           |
|    |   |          |         |      |           |
| B  | 1 |          |         |      | No Access |
|    |   |          |         |      |           |
| C  | 1 | 6184 523 | 297 746 | 1.6  |           |
| C  | 2 | 6184 540 | 297 780 | 1.6  |           |
| C  | 3 | 6184 549 | 297 813 | 1.8  |           |
| C  | 4 | 6184 550 | 297 858 | 1.8  |           |
| C  | 5 | 6184 536 | 297 912 | 2.1  |           |

|   |    |          |         |     |              |
|---|----|----------|---------|-----|--------------|
| C | 6  | 6184 529 | 297 964 | 3.9 |              |
| C | 7  | 6184 538 | 298 012 | 2.8 |              |
| C | 8  | 6184 563 | 298 050 | 2.1 |              |
| C | 9  | 6184 583 | 298 107 | 2.6 |              |
| C | 10 | 6184 601 | 298 151 | 5.6 |              |
|   |    |          |         |     |              |
| D | 1  | 6184 579 | 297 981 | 2.1 |              |
| D | 2  | 6184 579 | 297 962 | 2.6 |              |
| D | 3  | 6184 579 | 297 944 | 2.2 |              |
| D | 4  | 6184 572 | 297 904 | 3.5 |              |
| D | 5  | 6184 567 | 297 878 | 3.1 |              |
| D | 6  | 6184 560 | 297 851 | 2.9 |              |
| D | 7  | 6184 555 | 297 826 | 2.8 |              |
|   |    |          |         |     |              |
| E | 1  | 6184 597 | 298 048 | 1.9 |              |
| E | 2  | 6184 594 | 298 025 | 5.2 |              |
| E | 3  | 6184 598 | 297 979 | 3.0 | Methane Cage |
| E | 4  | 6184 597 | 297 953 | 3.1 |              |
| E | 5  | 6184 595 | 297 927 | 3.1 |              |
| E | 6  | 6184 592 | 297 904 | 2.6 |              |
| E | 7  | 6184 592 | 297 886 | 2.6 |              |
|   |    |          |         |     |              |
| F | 1  | 6184 603 | 297 843 | 2.0 | Methane cage |

|   |   |          |         |     |              |
|---|---|----------|---------|-----|--------------|
| F | 2 | 6184 615 | 297 869 | 1.9 |              |
| F | 3 | 6184 624 | 297 910 | 1.8 |              |
| F | 4 | 6184 629 | 297 950 | 2.1 |              |
| F | 5 | 6184 631 | 297 976 | 2.0 |              |
| F | 6 | 6184 631 | 298 009 | 2.1 |              |
| F | 7 | 6184 629 | 297 018 | 2.2 |              |
| F | 8 | 6184 615 | 298 069 | 2.6 |              |
|   |   |          |         |     |              |
| G | 1 | 6184 648 | 297 896 | 2.2 |              |
| G | 2 | 6184 660 | 297 840 | 2.0 |              |
| G | 3 | 6184 662 | 297 968 | 1.9 |              |
| G | 4 | 6184 661 | 297 989 | 2.3 | Methane Cage |
| G | 5 | 6184 653 | 298 020 | 2.3 |              |
| G | 6 | 6184 648 | 298 056 | 2.6 |              |
| G | 7 | 6184 639 | 298 103 | 3.2 |              |
|   |   |          |         |     |              |
| H | 1 | 6184 640 | 298 126 | 2.7 |              |
| H | 2 | 6184 650 | 298 096 | 2.8 |              |
| H | 3 | 6184 663 | 298 053 | 2.2 | Methane Cage |
| H | 4 | 6184 670 | 298 014 | 2.4 |              |
| H | 5 | 6184 677 | 297 966 | 2.6 |              |
| H | 6 | 6184 679 | 297 948 | 2.7 | Methane Cage |
|   |   |          |         |     |              |

|   |   |          |         |     |
|---|---|----------|---------|-----|
| I | 1 | 6184 655 | 298 115 | 3.2 |
| I | 2 | 6184 663 | 298 085 | 3.6 |
| I | 3 | 6184 673 | 298 043 | 2.8 |
| I | 4 | 6184 680 | 297 997 | 2.3 |
| I | 5 | 6184 683 | 297 947 | 2.7 |
| I | 6 | 6184 688 | 298 900 | 5.6 |
|   |   |          |         |     |
| J | 1 | 6184 696 | 298 136 | 2.3 |
| J | 2 | 6184 717 | 298 133 | 3.0 |
| J | 3 | 6184 737 | 298 128 | 3.3 |
| J | 4 | 6184 761 | 298 129 | 3.1 |
| J | 5 | 6184 775 | 298 138 | 2.9 |
| J | 6 | 6184 787 | 298 142 | 4.2 |
|   |   |          |         |     |
| K | 1 | 6184 713 | 297 956 | 2.4 |
| K | 2 | 6184 708 | 297 991 | 2.6 |
| K | 3 | 6184 704 | 298 016 | 2.5 |
| K | 4 | 6184 702 | 298 045 | 2.2 |
| K | 5 | 6184 697 | 298 079 | 2.3 |
| K | 6 | 6184 693 | 298 122 | 2.1 |
|   |   |          |         |     |
| L | 1 | 6184 737 | 298 097 | 2.7 |

|   |    |          |         |     |  |
|---|----|----------|---------|-----|--|
| L | 2  | 6184 734 | 298 069 | 2.8 |  |
| L | 3  | 6184 734 | 298 048 | 2.5 |  |
| L | 4  | 6184 728 | 298 026 | 2.3 |  |
| L | 5  | 6184 729 | 298 006 | 2.5 |  |
| L | 6  | 6184 727 | 297 997 | 2.1 |  |
|   |    |          |         |     |  |
| M | 1  | 6184 729 | 297 959 | 2.3 |  |
| M | 2  | 6184 743 | 297 976 | 2.5 |  |
| M | 3  | 6184 762 | 298 000 | 2.7 |  |
| M | 4  | 6184 764 | 298 033 | 2.1 |  |
| M | 5  | 6184 767 | 298 057 | 2.3 |  |
| M | 6  | 6184 743 | 297 976 | 2.5 |  |
| M | 7  | 6184 762 | 298 000 | 2.7 |  |
| M | 8  | 6184 764 | 298 033 | 2.1 |  |
| M | 9  | 6184 767 | 298 057 | 2.3 |  |
| N | 10 | 6184 812 | 297 102 | 2.5 |  |
| N | 11 | 6184 808 | 298 083 | 2.0 |  |
| N | 12 | 6184 799 | 298 059 | 2.7 |  |
| N | 13 | 6184 789 | 298 033 | 2.6 |  |



|                               |                 |   |          |         |     |   |
|-------------------------------|-----------------|---|----------|---------|-----|---|
| SWERF                         |                 | 1 | 6183 995 | 297 994 |     | No access   |
| SWERF                         |                 | 2 | 6184 011 | 297 961 |     | No access   |
|                               |                 |   |          |         |     |   |
| Weighbridge                   |                 | 1 | 6184 042 | 297 748 | 1.6 |   |
|                               |                 |   |          |         |     |   |
| Crib Room                     |                 | 1 | 6184 168 | 297 974 | 1.8 |   |
| Ops Office                    |                 | 1 | 6184 168 | 297 974 | 1.8 |   |
|                               |                 |   |          |         |     |   |
| Recycle Centre                | Eastern Area    |   |          |         | 1.6 |   |
| Recycle Centre                | Western Area    |   |          |         | 1.6 |   |
|                               |                 |   |          |         |     |   |
| Methane Blank (Pre testing )  |                 | 1 |          |         | 1.5 | Taken at entrance to Whytes Gully site before main gate |
| Methane Blank (Post testing ) |                 | 1 |          |         | 1.6 | Taken at entrance to Whytes Gully site before main gate |
|                               |                 |   |          |         |     |   |
| GlennGary Cottage             | Managers Office |   | 6183 896 | 297 954 | 3.6 |   |
| GlennGary Cottage             | Front Office    |   | 6183 896 | 297 954 | 3.6 |   |
| GlennGary Cottage             | Meeting Room    |   | 6183 896 | 297 954 | 3.9 |   |

|   |                     |          |         |     |  |
|---|---------------------|----------|---------|-----|--|
| GlennGary Cottage                                 | Operations Room     | 6183 896 | 297 954 | 3.1 |  |
| GlennGary Cottage                                 | Kitchen             | 6183 896 | 297 954 | 3.1 |  |
| GlennGary Cottage                                 | Hallway             | 6183 896 | 297 954 | 3.3 |  |
| GlennGary Cottage                                 | Store               | 6183 896 | 297 954 | 3.5 |  |
| GlennGary Cottage                                 | Max reading gardens |          |         |     |  |
|   |                     |          |         |     |  |
| 181 Reddalls Rd, fenceline adjoining landfill     | 1                   | 6184 607 | 297846  | 2.3 |  |
| 181 Reddalls Rd, Immediate gardens max value      | 2                   | 6184 600 | 297800  | 2.5 |  |
| 181 Reddalls Rd, fenceline adjoining landfill     | 3                   | 6184 580 | 297760  | 2.3 |  |
| 181 Reddalls Rd, Immediate gardens max value      | 4                   | 6184 764 | 297735  | 2.2 |  |
| 181 Reddalls Rd, fenceline adjoining landfill     | 5                   | 6184 520 | 297698  | 2.3 |  |
| 181 Reddalls Rd, Immediate gardens max value      | 6                   | 6184 529 | 297650  | 2.3 |  |
| 181 Reddalls Rd, fenceline adjoining landfill     | 7                   | 6184 500 | 297640  | 2.3 |  |
| 181 Reddalls Rd, fenceline adjoining landfill     | 8                   | 6184 500 | 297600  | 2.3 |  |
| 181 Reddalls Rd, Immediate gardens max value      | 1                   |          |         |     |  |
|   |                     |          |         |     |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 1                   | 6184 554 | 298 380 | 2.7 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 2                   | 6184 544 | 298 337 | 2.3 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 3                   | 6184 552 | 298 284 | 1.8 |  |

|   |   |          |         |     |  |
|---|---|----------|---------|-----|--|
| Lot 1 Farborough Rd, fenceline adjoining landfill | 4 | 6184 591 | 298 231 | 1.8 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 5 | 6184 613 | 298 178 | 1.8 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 6 | 6184 634 | 298 138 | 1.7 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 7 | 6184 647 | 298 107 | 1.9 |  |
| Lot 1 Farborough Rd, fenceline adjoining landfill | 8 | 6184 666 | 298 61  | 1.9 |  |
| Lot 1 Farborough Rd, Immediate gardens max value  | 1 |          |         |     |  |

Comments:

Sampling performed in accordance to EPA Environmental Guidelines Solid Waste Landfills, Second Edition, 2016  
Gas concentrations are reported as raw values without correction for background concentration.