

Table S2: Emission rates depending on background determination and the kriging method

| (a) CO ₂ (mol/s) | | | | |
|-----------------------------|--------------------------|--------------|--------------------------|--------------|
| Date (mm/dd/yy) | BG _{linReg} | | BG _{avg} | |
| | kriging_F _{ijk} | kriging_CTPU | kriging_F _{ijk} | kriging_CTPU |
| 11/13/14 | 13573 | 15492 | 7903 | 15799 |
| 11/14/14 | 11734 | 10525 | 10774 | 9589 |
| 11/17/14 | 19491 | 20061 | 102 | 18421 |
| 11/19/14 | 20178 | 10581 | 2785 | 97 |
| 11/20/14 | 13846 | 15926 | 14561 | 15587 |
| 11/21/14 | 14036 | 9965 | 14203 | 10216 |
| 11/25/14 | 14576 | 9940 | 19133 | 9441 |
| 12/01/14 | 14006 | 13045 | 13652 | 13401 |
| 12/03/14 | 10227 | 6447 | 10107 | 6665 |
| average | 14630 | 12443 | 10358 | 11024 |
| precision | 2500 | 3161 | 4621 | 3161 |
| (b) CH ₄ (mol/s) | | | | |
| Date (mm/dd/yy) | BG _{linReg} | | BG _{avg} | |
| | kriging_F _{ijk} | kriging_CTPU | kriging_F _{ijk} | kriging_CTPU |
| 11/13/14 | 101 | 82 | 95 | 81 |
| 11/14/14 | 54 | 61 | 48 | 56 |
| 11/17/14 | 74 | 91 | 85 | 114 |
| 11/19/14 | 189 | 104 | 226 | 92 |
| 11/20/14 | 22 | 21 | 35 | 18 |
| 11/21/14 | 50 | 46 | 40 | 42 |
| 11/25/14 | 56 | 38 | 47 | 35 |
| 12/01/14 | 45 | 36 | 41 | 39 |
| 12/03/14 | 16 | 24 | 111 | 108 |
| average | 67 | 56 | 81 | 65 |
| precision | 40 | 23 | 47 | 27 |
| (c) CO (mol/s) | | | | |
| Date (mm/dd/yy) | BG _{linReg} | | BG _{avg} | |
| | kriging_F _{ijk} | kriging_CTPU | kriging_F _{ijk} | kriging_CTPU |
| 11/13/14 | 111 | 119 | 110 | 123 |
| 11/14/14 | 119 | 108 | 130 | 116 |
| 11/17/14 | 139 | 82 | 107 | 87 |
| 11/19/14 | 96 | 81 | 67 | 64 |
| 11/20/14 | 111 | 85 | 100 | 76 |
| 11/21/14 | 101 | 98 | 79 | 94 |
| 11/25/14 | 129 | 65 | 127 | 66 |
| 12/01/14 | 100 | 106 | 101 | 101 |
| 12/03/14 | 62 | 81 | 61 | 95 |
| average | 108 | 92 | 98 | 91 |
| precision | 17 | 13 | 19 | 16 |