

Table 1. Infiltration and abstraction of major UK aquifers in million m³ per year (after Downing, 1993)

| | Infiltration | Abstraction in 1977 |
|------------------------|---------------------|----------------------------|
| Chalk | 4631 | 1255 |
| Lower Greensand | 275 | 86 |
| Lincolnshire Limestone | 86 | 43 |
| Triassic sandstone | 1443 | 587 |

Table 2. Statistical summary of methane data from potable groundwaters

| | Chalk | Lower Greensand | Lincolnshire Limestone | Triassic Sandstone |
|--|--------------|------------------------|-------------------------------|---------------------------|
| Samples | 44 | 20 | 9 | 12 |
| Mean ($\mu\text{g/l}$) | 2.81 | 7.89 | 4.42 | 39.5 |
| Median ($\mu\text{g/l}$) | 0.94 | 7.66 | 2.60 | 0.465 |
| Standard deviation ($\mu\text{g/l}$) | 7.17 | 6.27 | 6.50 | 134 |
| Minimum ($\mu\text{g/l}$) | <0.05 | <0.05 | 0.05 | <0.05 |
| Maximum ($\mu\text{g/l}$) | 42.9 | 22.0 | 21.2 | 465 |
| Confidence level (95.0%) | 2.18 | 2.94 | 5.00 | 85.2 |

Table 3. Methane concentrations from crystalline rocks in Scotland

| Site | Rock Type | Methane ($\mu\text{g/l}$) |
|--------------|-------------------------|---|
| Cruachan | Caledonian granodiorite | <0.05 |
| Foyers | Caledonian granodiorite | 0.09 |
| Glenmoriston | Moine metasediments | <0.05 |
| South Lawers | Dalradian metasediments | <0.05 |

Table 4. High methane concentration groundwaters not from public-supply sources

| Site | Rock Type | Methane ($\mu\text{g/l}$) |
|------------------------------|---------------------------------|---|
| Stow 4 ^a | Lincolnshire Limestone | 1700 |
| Stow 6 ^a | Lincolnshire Limestone | 2300 |
| Marchwood geothermal | Sherwood Sandstone, Southampton | 7790 |
| Western Esplanade geothermal | Sherwood Sandstone, Southampton | 5540 |

^aData from Bishop and Lloyd, 1990

Table 5. Atmospheric emissions of methane based on abstractions from potable UK groundwaters

| | Abstraction (m ³ /yr) | Methane (µg/l) | | Emissions (Tg/yr) | |
|------------------------|--|--------------------------|------|-----------------------------|-----------------------|
| | | Median | Max | Median | Max |
| Chalk | 1.26×10^9 | 0.94 | 42.9 | 1.17×10^{-6} | 5.38×10^{-6} |
| Lower Greensand | 8.60×10^7 | 7.66 | 22.0 | 6.59×10^{-7} | 1.89×10^{-6} |
| Lincolnshire Limestone | 4.30×10^7 | 2.6 | 21.2 | 1.12×10^{-7} | 9.12×10^{-7} |
| Triassic sandstone | 5.87×10^8 | 0.47 | 465 | 2.73×10^{-7} | 2.73×10^{-4} |
| SUM | 1.97×10^9 | | | 2.22×10^{-6} | 3.30×10^{-4} |