

## Supplements

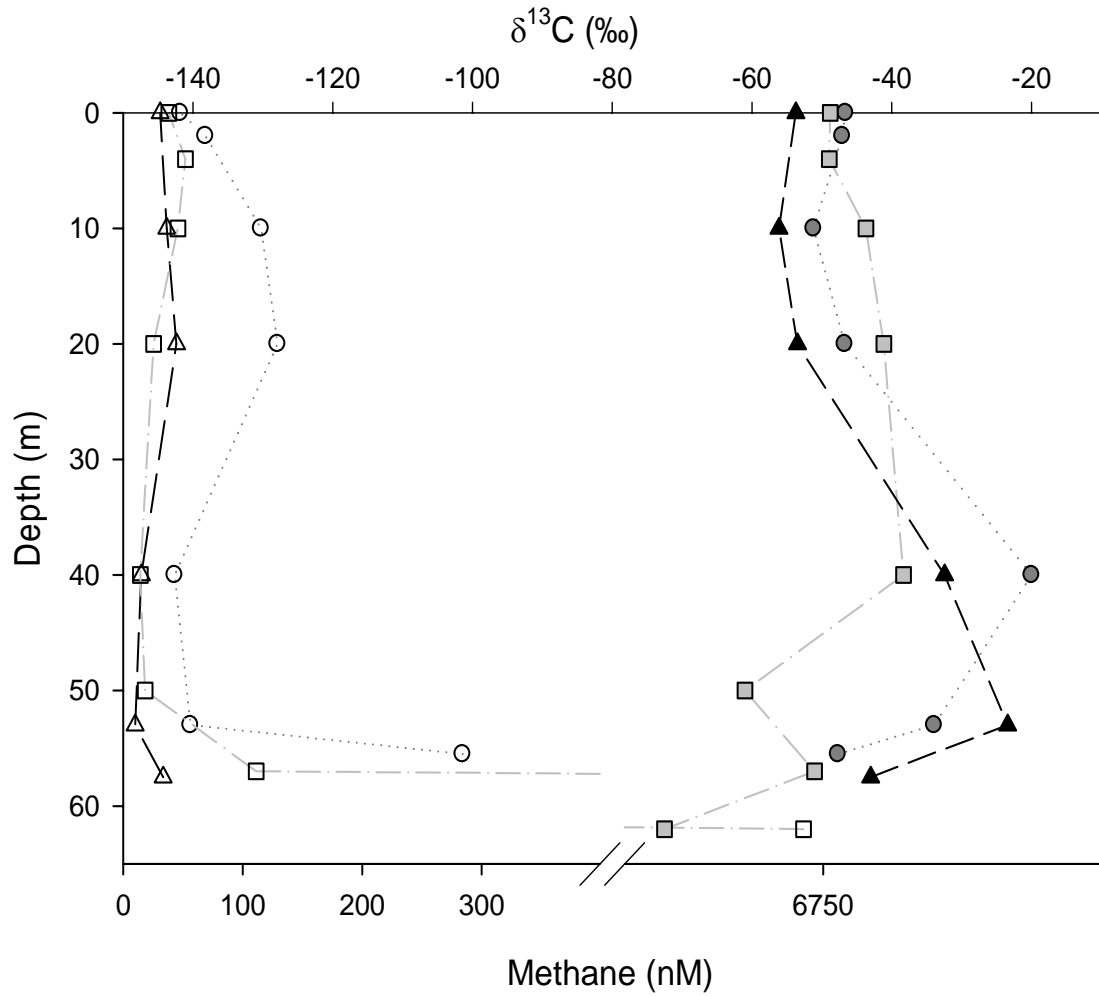


Figure A1: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Gruyère on May 24th (circles), June 15th (triangles), and August 10th 2005 (squares)

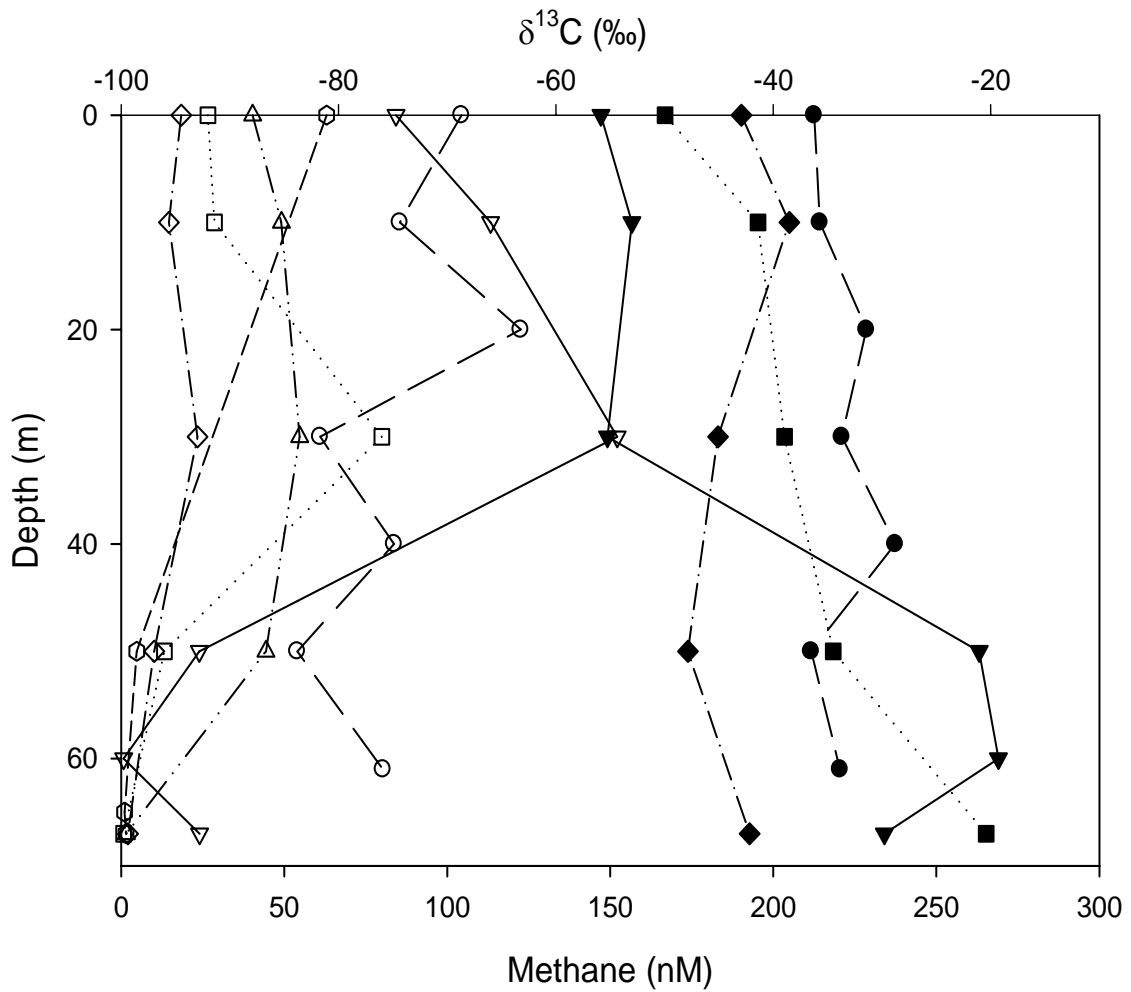


Figure A2a: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Lungern on October 25th 2005(circles), August 1st (triangles down), September 1st (triangles up), September 14th (hexagon), September 21st (diamonds), and October 19th 2006 (squares)

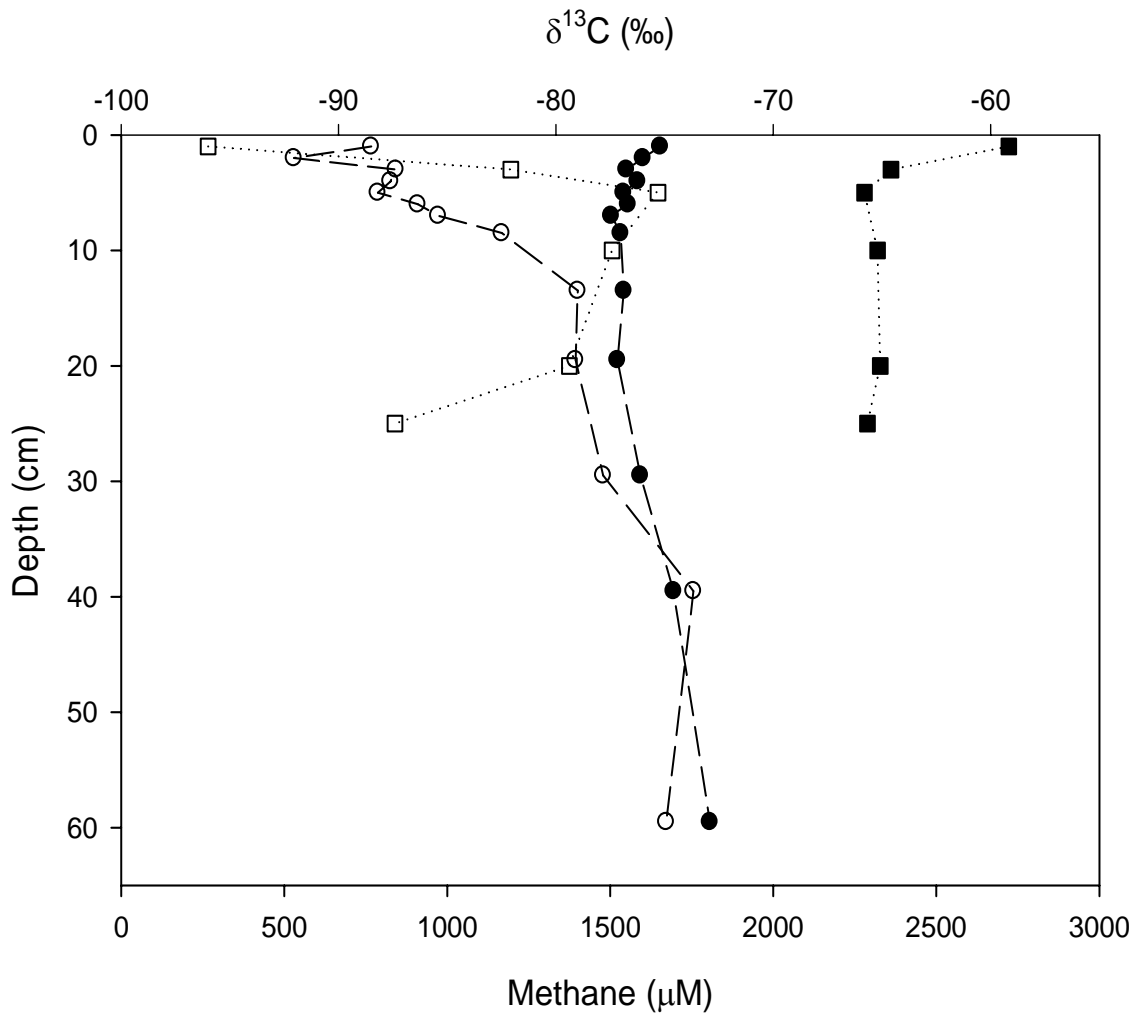


Figure A2b: Sediment methane concentrations (open symbols) and carbon isotopic composition (full symbols) in the middle basin (circles) and in the dam basin (squares) of Lake Lungern on September 21st 2006.

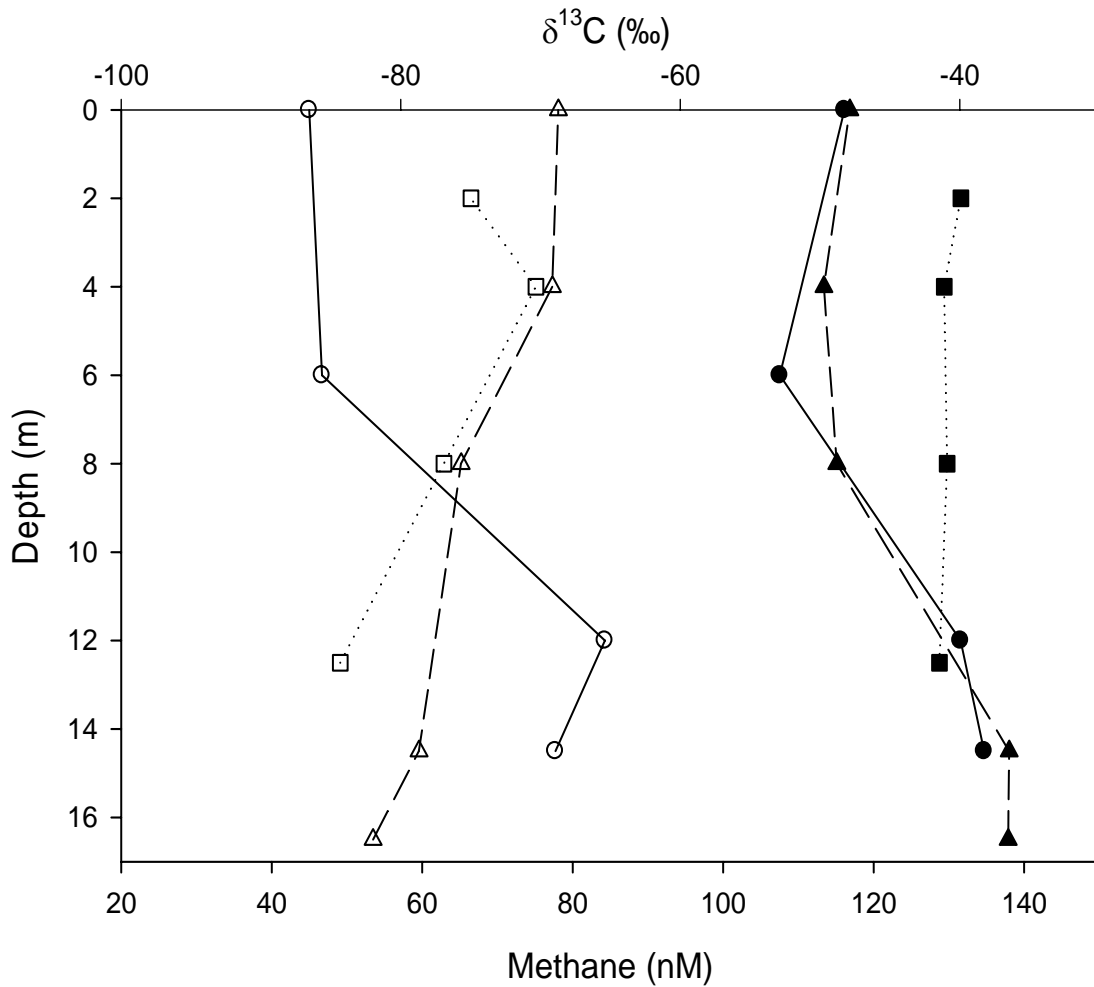


Figure A3a: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Sihl on May 14th (squares), June 17th (circles), and August 9th 2005 (triangles).

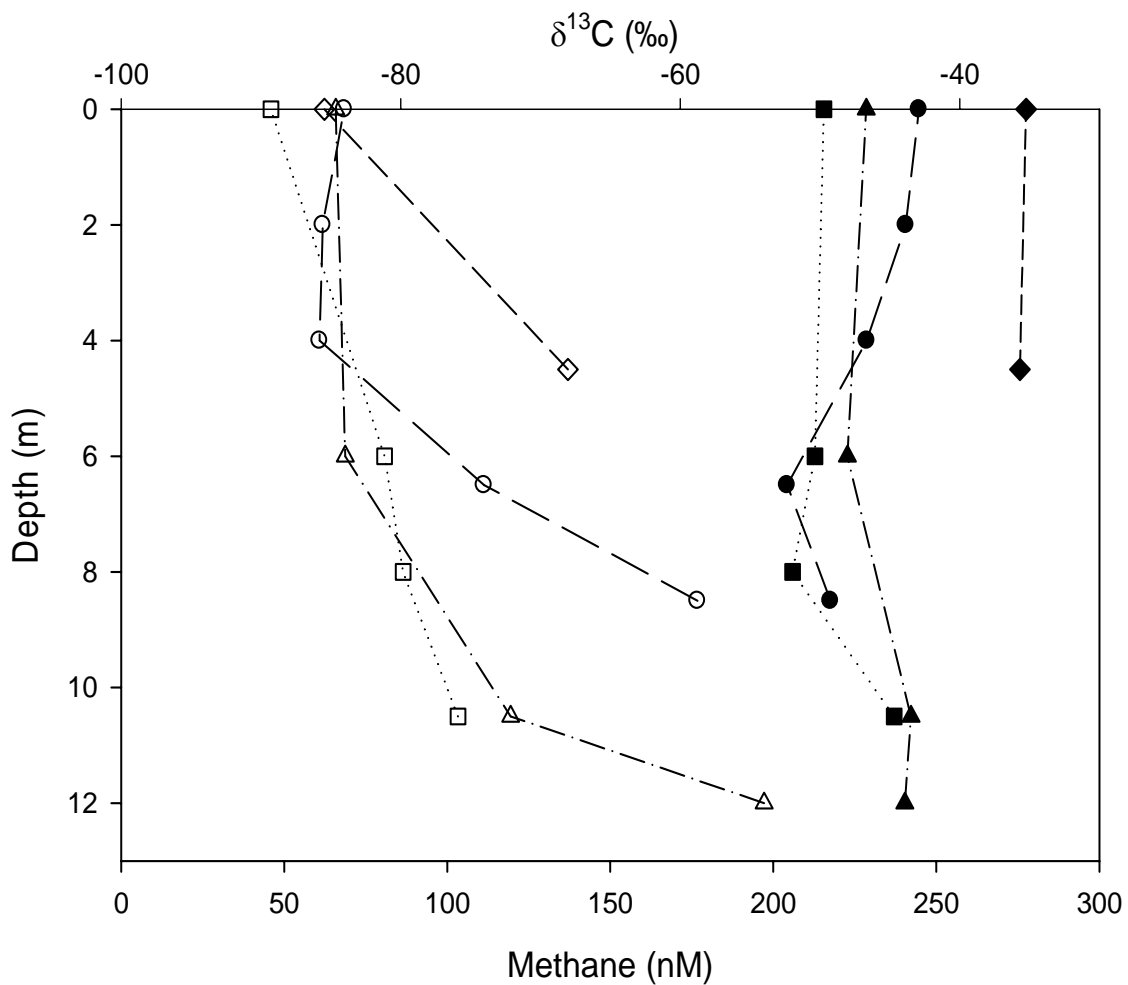


Figure A3b: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Sihl (Viadukt 1) on May 14th (circles), June 17th (squares), and August 9th 2005 (triangles) and Lake Sihl (Viadukt 2) on June 17th 2005 (diamonds).

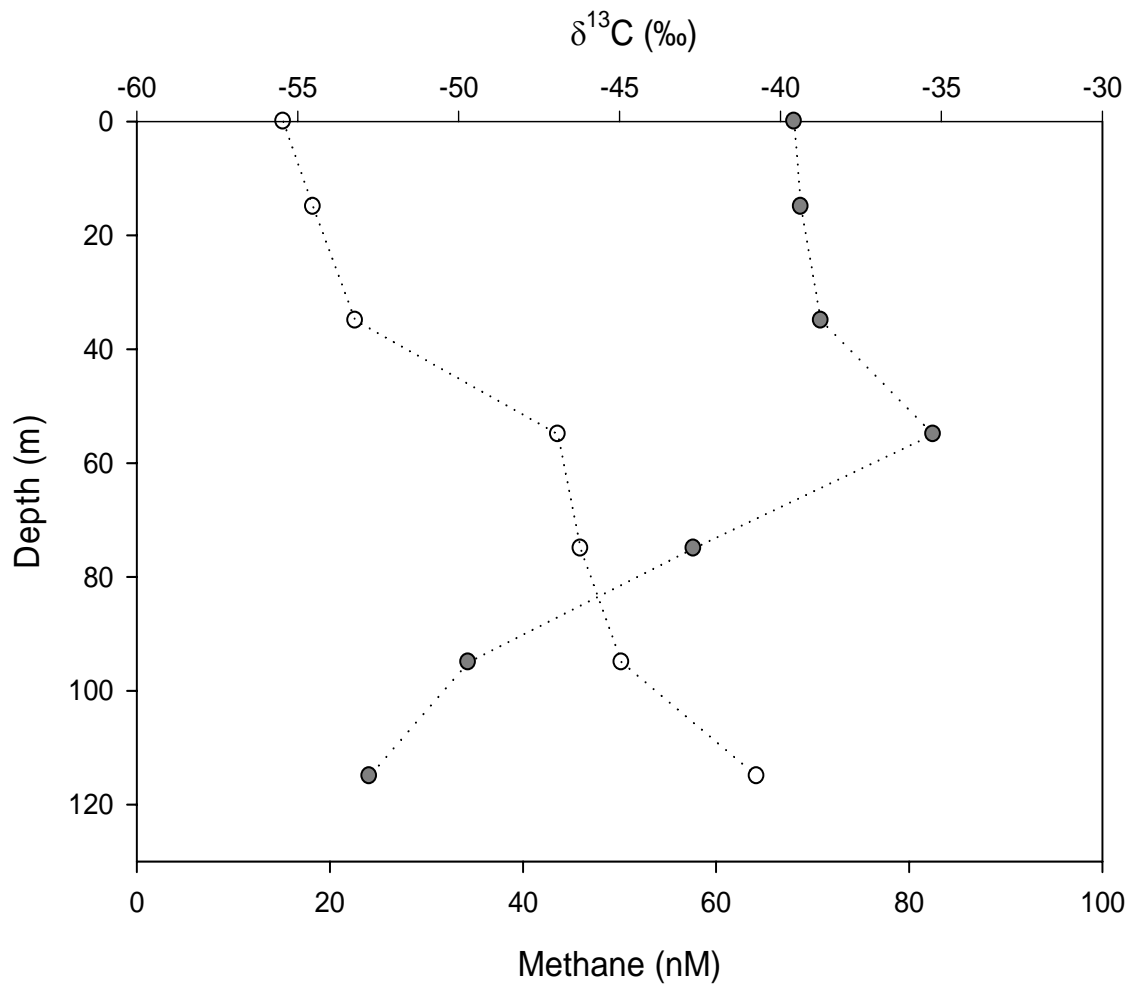


Figure A4: Methane concentrations (open circles) and carbon isotopic composition (full circles) in Lake Zeuzier on September 10th 2003.

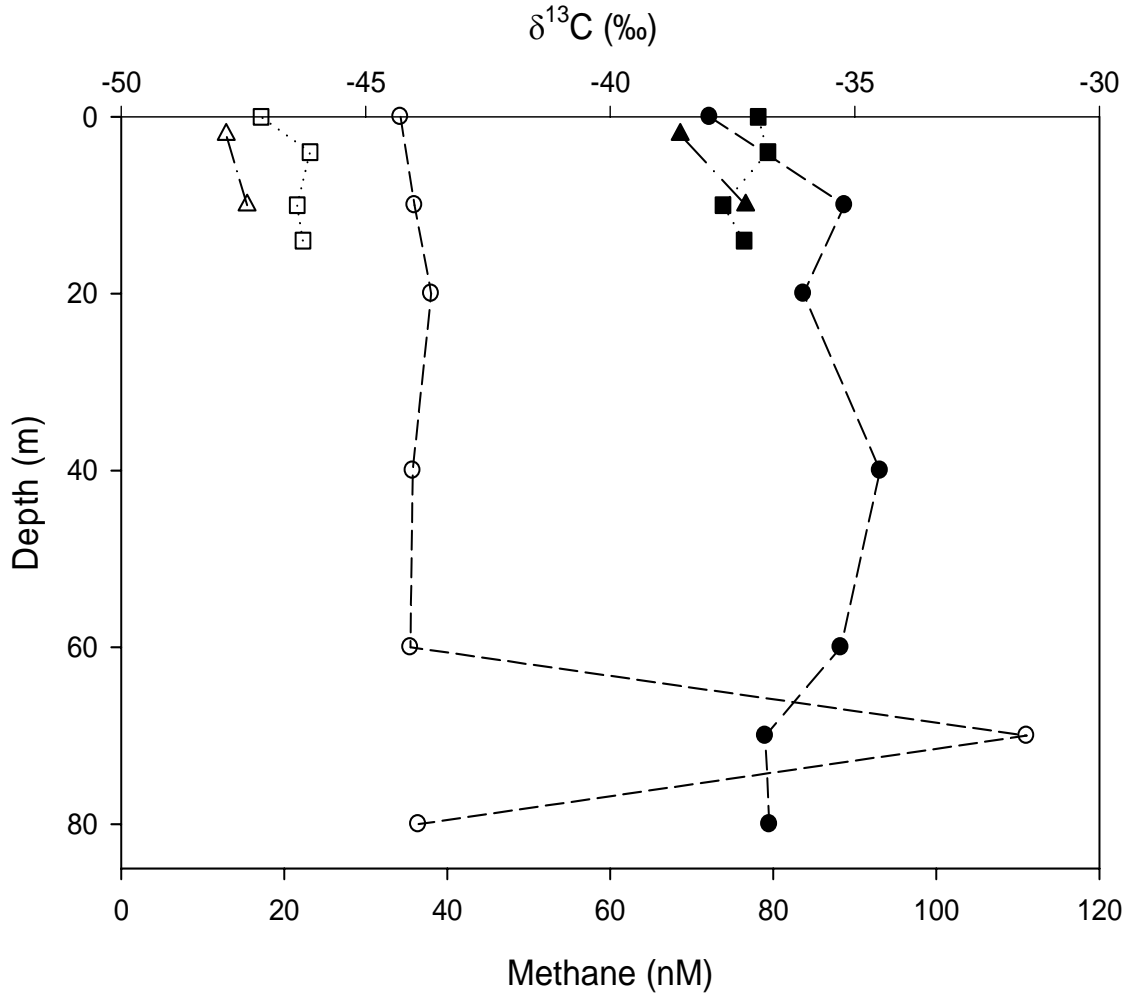


Figure A5: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Grimsel on October 9th 2003 (circles), July 5th (squares), and July 28th 2005 (triangles).

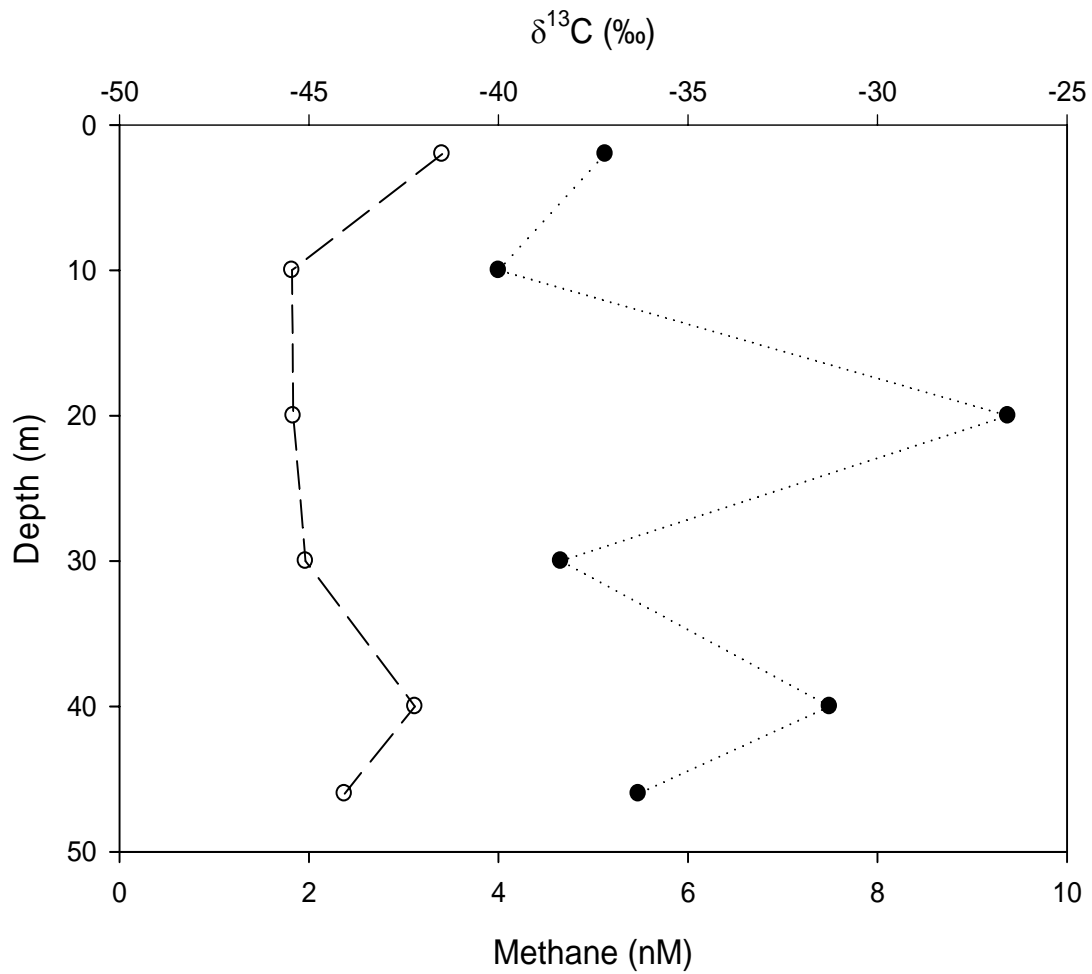


Figure A6: Methane concentrations (open circles) and carbon isotopic composition (full circles) in Lake Bianco on September 28th 2004.



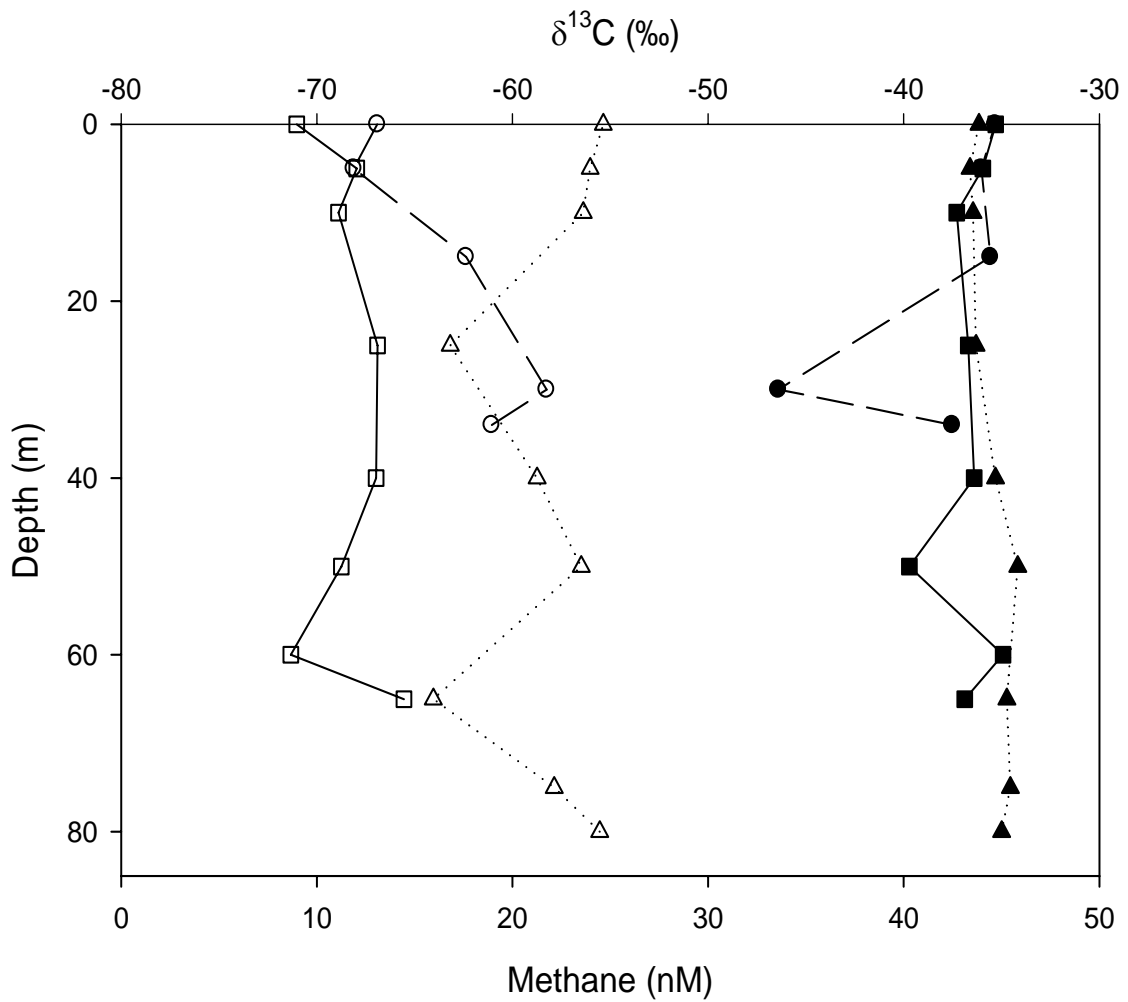


Figure A7: Methane concentrations (open symbols) and carbon isotopic composition (full symbols) in Lake Oberaar on July 5th (circles), July 28th (squares), and August 24th 2005 (triangles).

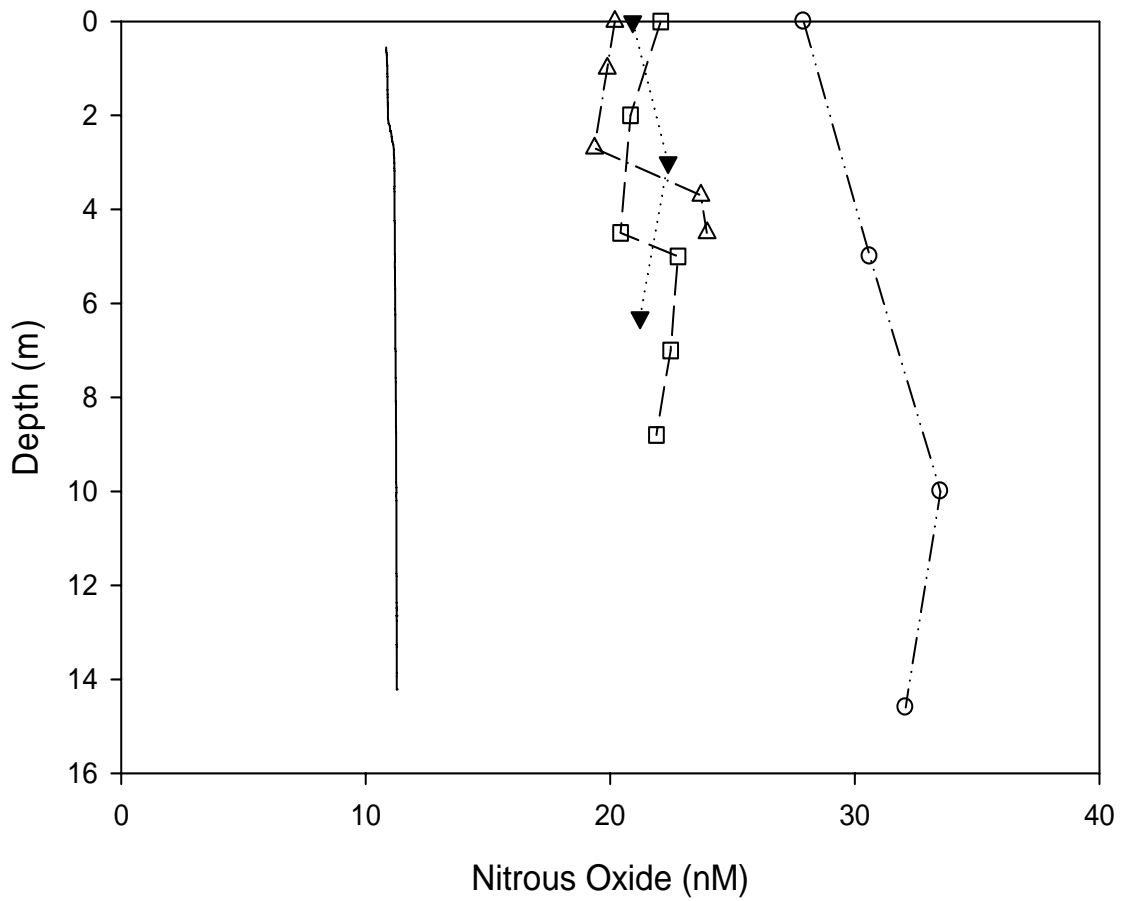


Figure B1: Nitrous oxide concentrations in Lake Wohlen at Station 1 (squares), Station 2 (triangles up), Station 4 (triangles down) and the dam basin (circles) on September 28th 2006 and atmospheric equilibrium concentration (solid line) for the dam basin.

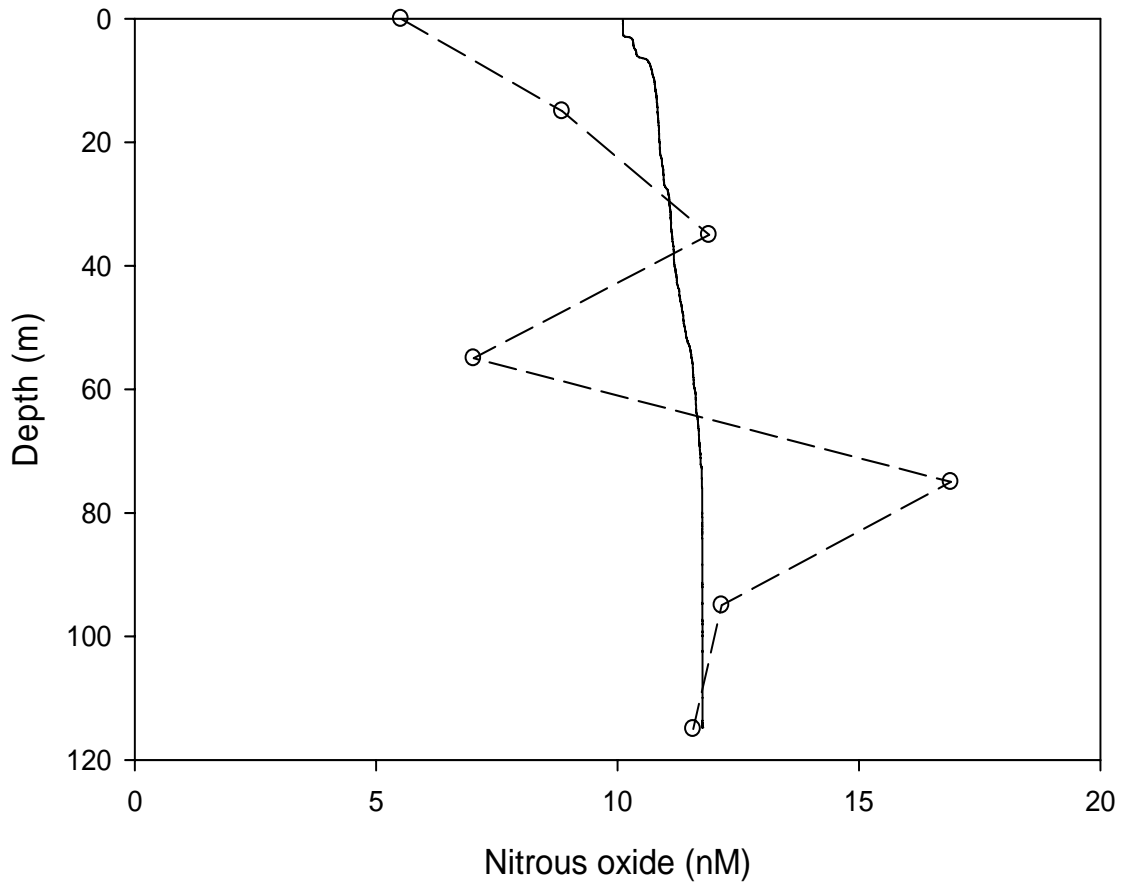


Figure B2: Nitrous oxide concentrations (circles) and atmospheric equilibrium concentration (solid line) in Lake Zeuzier on September 10th 2003.

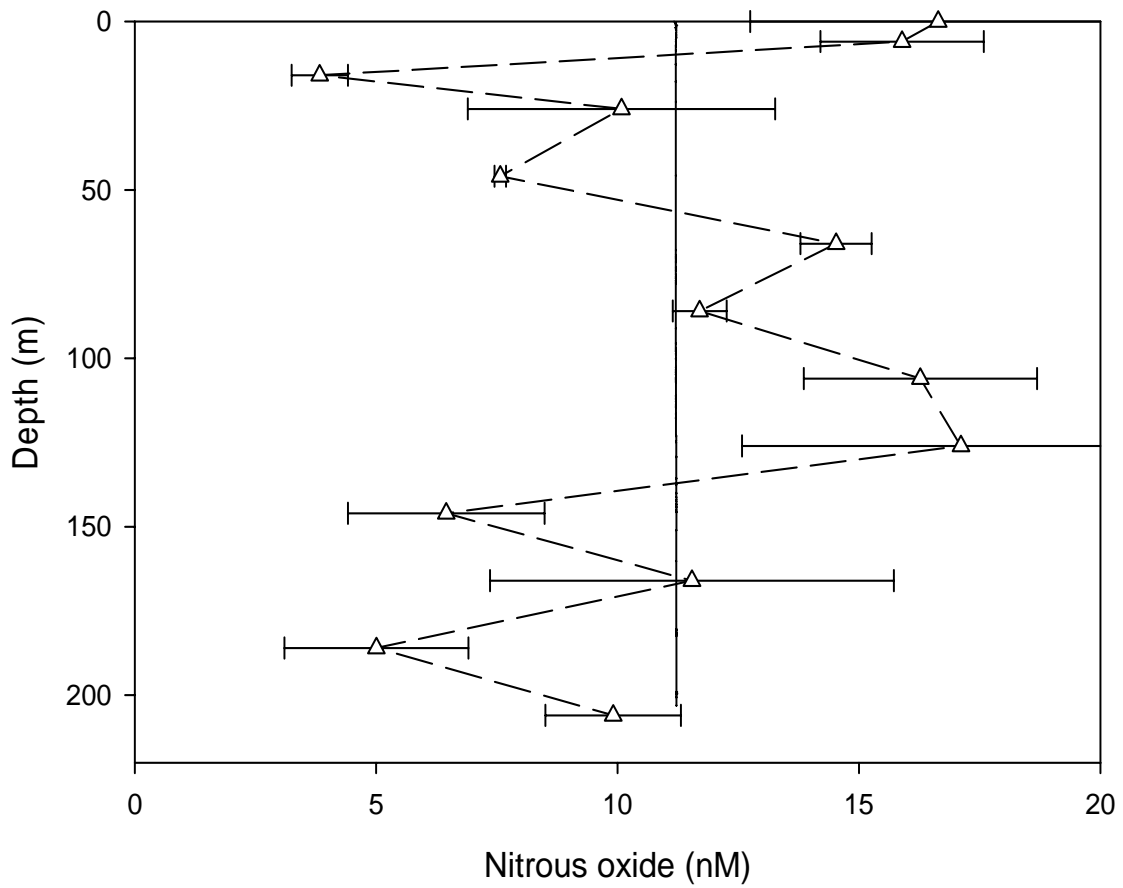


Figure B3: Nitrous oxide concentrations (circles) and atmospheric equilibrium concentration (solid line) in Lake Dix on September 10th 2003.

Table C1: Ebullition fluxes from Lake Wohlen on September 28th 2006.

	<b>Gas Flux</b>	<b>Fraction</b>	<b>Methane Flux</b>
Funnel	dm <sup>3</sup> m <sup>-2</sup> d <sup>-1</sup>	% CH <sub>4</sub>	g CH <sub>4</sub> m <sup>-2</sup> d <sup>-1</sup>
1	0.76	49.00	0.24
2	4.25	70.25	1.95
3	2.37	48.95	0.76
4	3.08	28.45	0.57
<b>Average</b>	<b>2.62</b>	<b>49.16</b>	<b>0.88</b>