



## CO<sub>2</sub>-rich springs in Dreis-Brück

At the beginning of the 20<sup>th</sup> century, the Dreiser Weiher maar was dried to exploit mineral water with high natural CO<sub>2</sub>-concentrations from the Nürburg- and Vulkaniaquellen. Their water has been validated as 'Heilwasser' (Hänel, 2020; van Overmeeren, 2014).

See also

[Volcanism in the Eifel](#)

### Anomalies

Water at the Dreiser Weiher in Dreis-Brück exhibits highly anomalous CO<sub>2</sub>-contents of ~2500 mg/l, up to 10 times the value required to be classified as Säuerling (Weertz and Weertz, 2007). These CO<sub>2</sub>-seeps show a close spatial association with volcanic activity such as expressed by the Dreiser Weiher maar, Arensberg, ... (van Overmeeren, 2014) and as evidenced by the high flux density of mantle carbon in the this region (May, 2005). To our knowledge, the exact factors responsible for channeling the migration of CO<sub>2</sub> to the surface remain to be unraveled.

In addition, the Vulkaniaquelle in Dreis-Brück is one of the few thermal, strongly mineralized springs in the Eifel. Its water has a temperature of 17.6 to 19 °C (Hänel, 2020), significantly higher than the normally expected temperature of surface water (max. 12 °C). This spring is located in the center of an extinct volcano, which does not only give it its name, but also explains its unique characteristics: migration through the porous, solidified lava allows easy uptake of elements such as Ca and Mg, and the magma-chamber, even though extinct, provides a source of heat and CO<sub>2</sub> (Hänel, 2020).

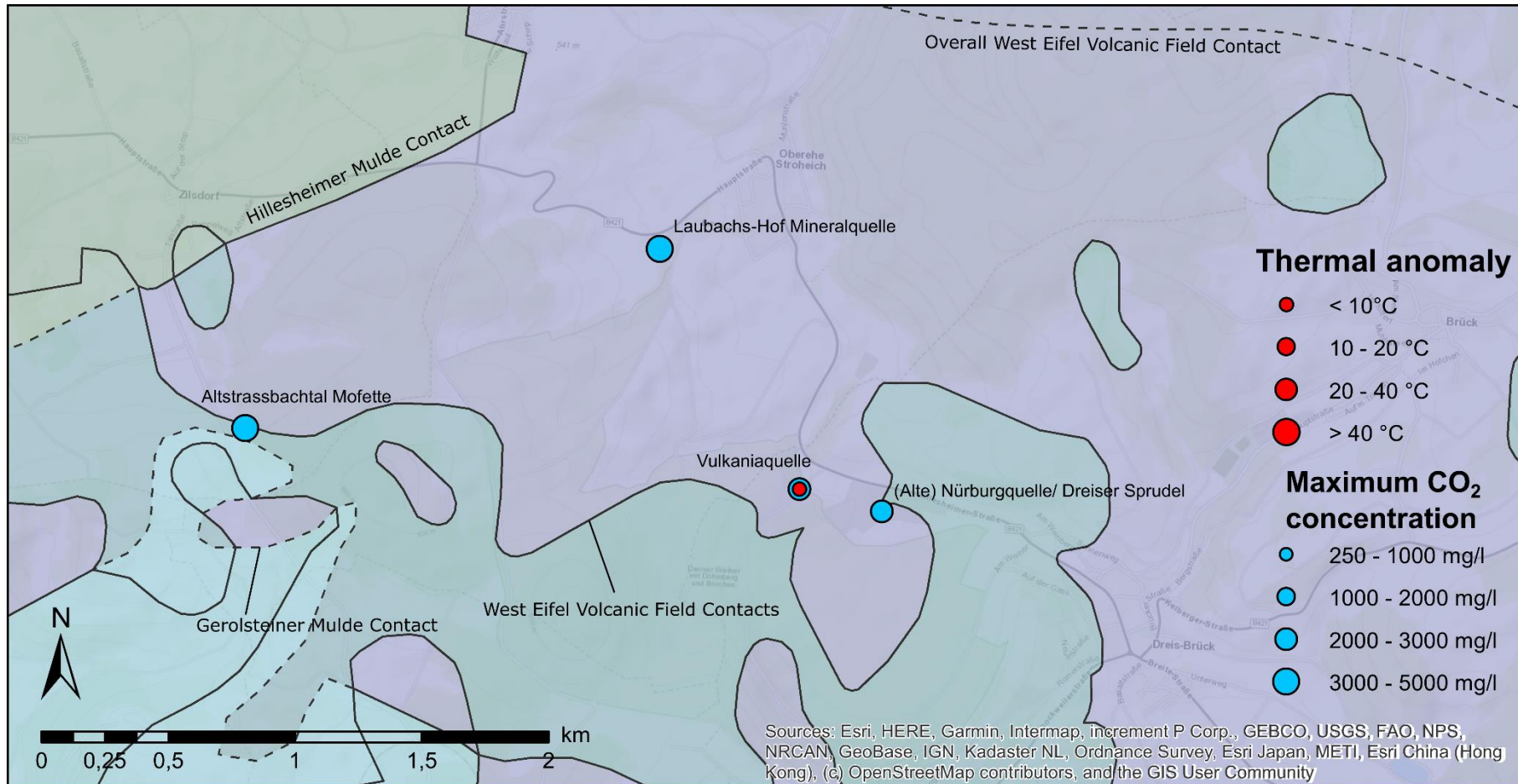


Figure 1: CO<sub>2</sub>-rich springs in Dreis-Brück



## Data

ID	Coordinates	T	Depth	TDS°	Cl	Na	SO <sub>4</sub>	Free CO <sub>2</sub>	He	<sup>3</sup> He/ <sup>4</sup> He	Analysis year	References
		°C	m	g/l	mg/l	mg/l	mg/l	mg/l	ppmv			
Vulkaniaquelle = Nürburgquelle = Quiriniusquelle	50°16'06" North 06°46'23" East	17.6 – 19			14.9	328	19	2440			<2020	Hänel (2020) Datenbank der Kulturgüter in der Region Trier (2020)
Alte Nürburgquelle = Dreiser Sprudel	50°16'03" North 06°46'39" East	10.7			8.8	8.4	17.9	2466			<1984	Langguth and Plum (1984) Weertz and Weertz (2018)
Altstrassbachtal Mofette	50°16'11" North 06°44'27" East	7		0.33				2700 – 3500			<2020	Hänel (2020) Datenbank der Kulturgüter in der Region Trier (2020)
Laubachs-Hof Mineralquelle	50°16'37" North 06°45'51" East	7 – 11.5		1.01				3300			<2020	Hänel (2020)

\* TDS = Total Dissolved Solids

## References

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