



Mineral CO₂ water Donje Barice (Živinice Municipality)

Mineral CO₂ water obtained on the well PBS - 2 Barice in Živinice Municipality is one of the numerous spring and wells of CO₂ waters appearing along the large Spreča fault zone (also known as Spreča-Kozara fault). Geomanifestations that occur along this zone are presented in the blog post of the GeoConnect^{3d} project: <https://geoera.eu/blog/significant-geomanifestations-in-bosnia-and-herzegovina/>

In the territory of the Živinice Municipality, mineral CO₂ waters have been proven in several wells and dug wells. The water of well PBS - 2 Barice is cold mineral water (12 °C) with conductivity Ec= 1.788 μS/cm, rich in CO₂ and Fe; the aquifer of mineral waters is fine-grained sand that is drilled in the interval 58-64 m (Nezirovac et al., 2006).

See also

Photos of CO₂ rich mineral waters of Ljubacé, [Kiseljak](#), [Ćelahuša](#) and Sočkovac along the Spreča fault zone.

Generalities

Spreča - Kotara fault zone stretching from Kozara mountain on the northwest to Spreča river valley on the southeast (Hrvatović, 2006) represents border between two geotectonic units - Pannonian basin and Dinaride Ophiolite Zone. The Spreča-Kozara fault zone is one of the most important tectonic zones in South-eastern Europe with regard to finding mineral, thermal and thermomineral waters what is proven by numerous drillholes.

On the Spreča-Kozara fault or smaller faults that intercept it, starting from Mlječanica and Lješljani in the north-west to Zvornik in the southeast, the following hydrogeothermal geomanifestations are appearing:

- Thermomineral hyperalkaline water with hydrocarbons in Lješani,

- Mineral H₂S waters of Jelovac and Mječanica,
- Thermal water of Laktaši,
- Thermomineral water with CO₂ in Banjaluka (Slatina)
- Thermal hyperalkaline waters of Kokori and Kulaši,
- Thermomineral CO₂ waters of Boljanić, Ćelahuša, Kakmuž,
- Natural seepage of CO₂ (moffete) in Sočkovac (Pasje jame=Dog holes),
- Mineral CO₂ waters in Kiseljak, Ljubacé and Živinice,
- Hypothermal hyperalkaline water of Kiseljak, Šerići and Poljice
- Thermal water of Toplica.

Anomalies

Mineral composition - high mineralisation, content of CO₂ and Fe.

Data

FZZG_ factsheetBarice	Temperature of water (°C)	Q (l/s)	Ec (μS/cm)	Specific component	Aquifer
Well PBS - 2 Barice	12	2,3*	1.788	CO ₂ ; Fe	Sand (Pl?)

*artesian outflow

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