
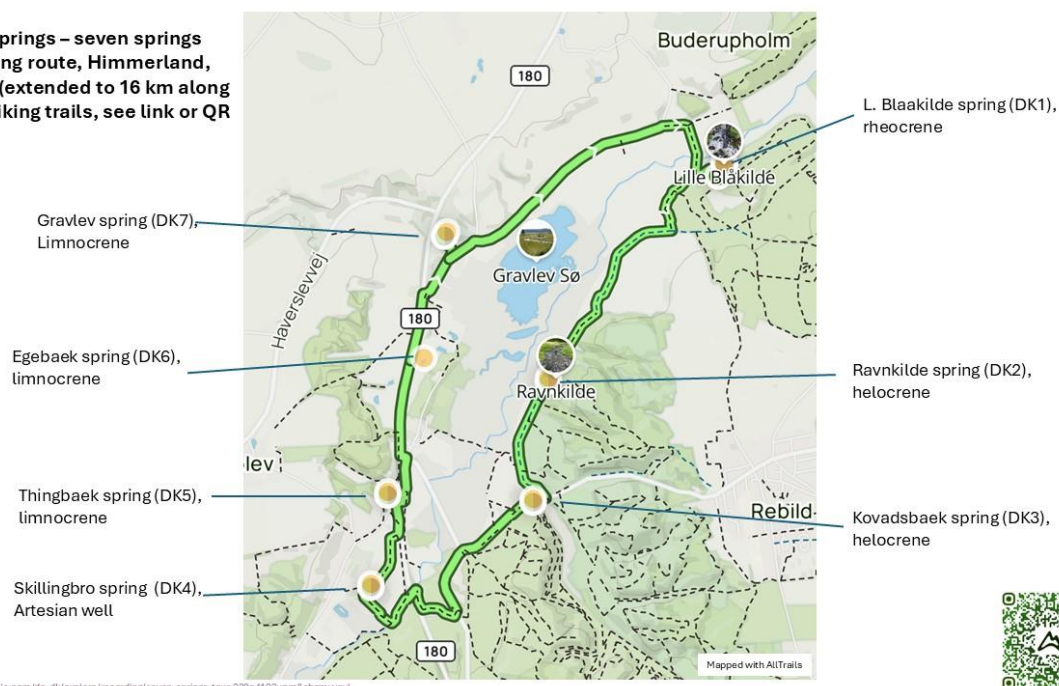




Country	MIKAS springs	Coordinates / Nearby City	Spring discharge (Q in l/s,min/av/max) / tapped or not	Criteria* in order / Main justification */ H-historic, A-aesthetic, S-scientific, E-Economic, Ec-ecologic	Data collected by
Denmark 	1. Group of springs in Rold Skov, Gravlev valley, Himmerland – most prominent are Lille Blaakilde, store Blaakilde, Ravnkilde and Gravlev kilde	56°50'39.22"N 9°49'28.11"E Z = 5-30 m asl Himmerland, Gravlev valley, Lindenborg stream	30 / 90 / 150 Not tapped	<i>Ec, A, H, E, S</i> Group of springs (DK1-DK7), which is draining fractured Cretaceous Chalk, locally with sinkholes. The springs have a long history - the Gravlev spring was previously considered a Holy Well/Spring, and the reason for the location of the nearby Gravlev Church, built around 1100 AD. Some of the springs also had economic importance until recently, for example, producing power by water mills and supporting aquaculture. Today, the springs are primarily of aesthetic and ecological value as they are located in beautiful, protected areas where, for example, large sea trout spawn and provide food for birds like the Kingfisher. They also support ecosystems like rich fens and peat bogs that locally host exotic orchids. The springs are in an area with many hiking trails. The major part of the area surrounding the springs are protected by local authorities and the Danish Nature Agency as national and EU Natura 2000 sites	Klaus Hinsby, Bertel Nilsson

MIKAS – Rold Skov, Gravlev group of springs

SentinelSprings – seven springs
10 km hiking route, Himmerland, Denmark (extended to 16 km along Existing hiking trails, see link or QR Code)



Hiking trail around seven of the springs (DK1 – DK7) discharging from karstic Cretaceous Chalk in Himmerland Denmark.



Gravlev kilde (DK7) – limnocrene spring considered a Holy Well before 1100 AD. Most probably the reason for the construction of Gravlev Church very close to the spring around 1100 AD. Today the spring contains nitrate, pesticides and most probably other agricultural contaminants, electrical conductivity (EC) around 450 $\mu\text{S}/\text{cm}$ (July 2025)



Lille Blaakilde (DK1), rheocrene spring without or very low nitrate content, EC around 490 $\mu\text{S}/\text{cm}$ (July 2025)



Kovadsbaek (DK3) – helocrene spring with no or very little nitrate and an electrical conductivity of around 400 $\mu\text{S}/\text{cm}$ (July 2025)



Store Blaakilde (DK8), "big blue spring", limnocrene spring discharging from Cretaceous Chalk.