

LAOIS - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Kyle Spring
Other names used for site	Toberading
IGH THEME	IGH16 Hydrogeology
TOWNLAND(S)	Moyadd
NEAREST TOWN/VILLAGE	Wolfhill
SIX INCH MAP NUMBER	31
ITM CO-ORDINATES	656310E 682460N
1:50,000 O.S. SHEET NUMBER	61
GSI BEDROCK 1:100,000 SHEET NO.	19

Outline Site Description

A natural freshwater spring that is a source of water for the local public water supply system.

Geological System/Age and Primary Rock Type

The spring issues from alluvial gravels underlain by the generally karstified Upper Carboniferous (Pennsylvanian) Ballyadams Limestone Formation. The gravels are alluvial, and Holocene in age, but also overlie glaciofluvial sands and gravels of Pleistocene age.

Main Geological or Geomorphological Interest

Located approximately 2.5km northeast of Timahoe, Kyle Spring is a high yielding spring issuing from a regionally important karstified limestone aquifer, overlain by a locally important gravel aquifer. The Ballyadams Limestone Formation is generally karstified, and therefore Kyle Spring can be classed as a karst spring. The relatively consistent flow rate and hydrochemistry however are more characteristic of a gravel spring than of a karst spring, suggesting that the groundwater flows up from the limestone, through the gravel, before emerging at the spring.

At an elevation of 9mOD, the spring operates at a pumping rate of 2,182m³ per day (480,000 gallons per day) and provides an abstraction rate of 1,591m³ per day (35,000 gallons per day). The spring-water is categorised as 'hard', falling within a range of 251-350 milligrams per litre CaCO₃.

Situated in a broad alluvial flat, Kyle Spring discharges eastwards into a small stream which runs into the Crooked River (Timogue River) about 1 km north of the spring. Kyle Spring is classed as a tepid spring. Water temperature values (recorded in 1983) were 11.45°C.

Site Importance – County Geological Site

This is a very important County Geological Site considering it is used as a public water supply, supplying Stradbally, Ballylunan and Timahoe. It is a high yielding spring issuing from a regionally important karstified limestone aquifer, overlain by a locally important gravel aquifer.

Management/promotion issues

The well is owned by Laois County Council (GSI Number 23/19SE W146). The spring and overflow area is fenced off. As a public water supply and a site accessed through private property, the site is not suitable for promotion. Kyle Spring has a Zone of Contribution of 4.75km². The Zone of Contribution is deemed 'highly' vulnerable to contamination.



View of the spring and overflow, looking west towards Timahoe-Stradbally road.



Kyle Spring overflow (all fenced off).



Entrance gate to Kyle Spring pump house and works, looking east.

