

## WATERFORD - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Ballynamuck Boreholes</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH16 Hydrogeology</b>
<b>TOWNLAND(S)</b>	<b>Ballynamuck West</b>
<b>NEAREST TOWN</b>	<b>Dungarvan</b>
<b>SIX INCH MAP NUMBER</b>	<b>Waterford 31</b>
<b>NATIONAL GRID REFERENCE</b>	<b>223634 94718</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>82                      1/2 inch Sheet No.    22</b>

### **Outline Site Description**

The Ballynamuck Boreholes are the public water supply source for the Dungarvan area. The source consists of four bored wells which together provide approximately 6,000m<sup>3</sup> of water per day.

### **Geological System/Age and Primary Rock Type**

The wells are between 12.7m and 27.5m deep and are bored into a sequence of alluvial clays, glacial till and Waulsortian limestones. The alluvial clays are 6m deep, with the clay underlain by glacial till, and the depth to bedrock at the site approximately 11m-12m.

The lower portion of the boreholes is drilled into Waulsortian limestone bedrock, which is known to be karstified in the Dungarvan area and which has the potential to yield large quantities of groundwater through conduit flow.

### **Main Geological or Geomorphological Interest**

Combined, the four boreholes have been proven to be capable of supplying up to 10,000m<sup>3</sup> per day, or 10 million litres of water. These boreholes comprise therefore potentially some of the best yielding wells in Ireland.

It is considered that the River Colligan, which is only metres from the boreholes laterally, is perched on top of the alluvial clay deposits. Temperature and conductivity readings taken from the well water during a pumping test at Ballynamuck in 1994 suggested that the boreholes were not drawing any water from the river.

### **Site Importance**

These are exceptionally productive bored wells which are among the top-yielding wells in the country. They are of County Geological Site importance.

### **Management/promotion issues**

The boreholes are well protected with secure fencing surrounding and secure concrete, sunken chambers containing their caps.



Two of the four boreholes are underneath the traffic cones.



Four boreholes are contained in the yard at Ballynamuck West, underneath manhole covers.



