

**WRITTEN QUESTION TO THE MINISTER FOR THE ENVIRONMENT
BY SENATOR K.L. MOORE
ANSWER TO BE TABLED ON TUESDAY 30th APRIL 2019**

Question

Will the Minister indicate the number of boreholes which are used for residential water consumption; and publish the results of any water-sampling tests undertaken by the Official Analyst, indicating in particular the number of samples tested per year for the past 5 years and the number of results that showed nitrate levels of below 40 mg/l; below 50 mg/l; above 50mg/l; and above 70 mg/l?

Answer

The Water Resources (Jersey) Law 2007 requires that all boreholes and wells used by homes in the Island are registered with the Government of Jersey Environmental Protection team. There are approximately 3393 homes supplied with drinking water by registered or licenced private water supplies (boreholes, wells and surface water)¹.

The Jersey Official Analyst Laboratory has confirmed that the following number of water sample tests have been submitted by households for nitrate analysis in the past 5 years.

Year	Total Number of Samples ²
2014	235
2015	256
2016	269
2017	206
2018	239
2019	107 (up to April 2019)

The States of Jersey Official Analyst does not compile an annual breakdown of the specific results, as the results are supplied to the individual householders who commissioned the tests. However, for 2018, the Analyst has provided the following additional specific breakdown in relation to boreholes and wells sampled.

Number of samples	Number of samples				Percentage of samples			
	Below		Above		Below		Above	
	40 mg/l	50 mg/l	50 mg/l	70 mg/l	40 mg/l	50 mg/l	50 mg/l	70 mg/l
192 ³	107	123	69	33	56	64	36	17

In addition, the Environmental Protection team has previously compiled results from the Official Analyst records between 2008 and 2014.

Number of samples ^{3 4}	Number of samples				Percentage of samples			
	Below		Above		Below		Above	
	40 mg/l	50 mg/l	50 mg/l	70 mg/l	40 mg/l	50 mg/l	50 mg/l	70 mg/l
491	226	266	225	134	46	54	46	27

Nitrate concentration in groundwater changes gradually over time so the two data sets are broadly comparable.

¹ This figure excludes those registered private water supplies that are not used for drinking water, but used for other uses (such as garden watering).

² These samples are submitted directly to the Analyst by the public or through a water treatment company. The samples also contain repeat samples for the same dwelling and some mains water samples (20% of the sample number for 2018).

³ Often these are submitted in relation to a problem and, it could be argued, represent higher results than the island averages. Both data sets includes a small proportion (~5%) of treated water (for example, water treated through reverse osmosis systems which would reduce nitrate concentrations). No mains water samples are included in the analysis.

⁴ These were mainly for years 2013 and 2014.