



## Radiological Protection Institute of Ireland

An Institiúid Éireannach um Chosaint Raideolaíoch

15<sup>th</sup> January 2004

Mr J.B. Jenkins  
Hydrographic Surveys Ltd.  
The Cobbles  
Crosshaven  
Co Cork

For the Attn. of: Mr J.B. Jenkins

Dear Mr Jenkins

I attach a copy of the result of the radiological analyses of 1 sample from Haulbowline Naval Base, Cork Harbour. I also enclose Invoice No. TG/1/2004.

The results indicate that dumping of these materials at sea will not result in a radiological hazard.

The Department of the Marine (Mr Daniel Shine) has been informed and if you have any queries, please do not hesitate to contact me for assistance.

Yours sincerely

Barbara Rafferty  
Principal Scientific Officer



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### REPORT ON THE ANALYSES OF SEDIMENT SAMPLE FROM HAULBOWLINE CO. CORK DECEMBER 2003

Date: 14<sup>th</sup> January 2004

Client: Mr. J.B. Jenkins  
Hydrographic Surveys Ltd.  
The Cobbles  
Crosshaven  
Co. Cork

Description of Samples: Sample of sediment from proposed dredging area at  
Haulbowline Naval Base.

Date Received: 3<sup>rd</sup> December 2003

Report Prepared by: Mary Fegan M.Sc.  
Scientific Officer

#### Sampling

The Radiological Protection Institute of Ireland received a sample of sediment from Hydrographic Surveys Ltd. taken from the area of the proposed dredging at Haulbowline in Cork Harbour

#### Analysis

On arrival in the RPII's laboratory, the sample was registered in the laboratory management system and issued with an individual bar code.

The sample was prepared for high-resolution gamma spectrometry by placing an aliquot in a well-defined counting geometry. The sample was measured on a high-resolution gamma spectrometer. Appropriate density corrections were applied to the resultant spectra to take account of the differences in sample density. Dry to wet weight ratio was determined for the sample. Results are quoted on a dry weight basis.

Stephanie Long  
Manager, Environmental Laboratory



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### Radionuclides in Sediment Sample from Haulbowline Cork Harbour December 2003

RPII Reference	Easting	Northing	Nuclide	Activity Concentration (Bq/kg, dry) <sup>1</sup>
CT0302567	179445	65438	K-40	631 ± 68
			I-131	Less than 2
			Cs-134	Less than 1
			Cs-137	12.2 ± 1.2
			Ra-226	Less than 75
			U-235	Less than 11
			U-238	42 ± 14

Note:

(1) Quoted uncertainties are ±1 SD counting statistics

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