



FISHERIES RESEARCH SERVICES

Marine Laboratory, Aberdeen

An Agency of the Scottish Government

Soon to be Marine Scotland

Derek Moore

Offshore Energy Environmental Advice



Provision of advice as required by SG-MD and other Government customers

Cradle to grave advisory service of potential impacts on marine environment



**National Contingency Plan for spills
(dispersant use and Environment Group)**



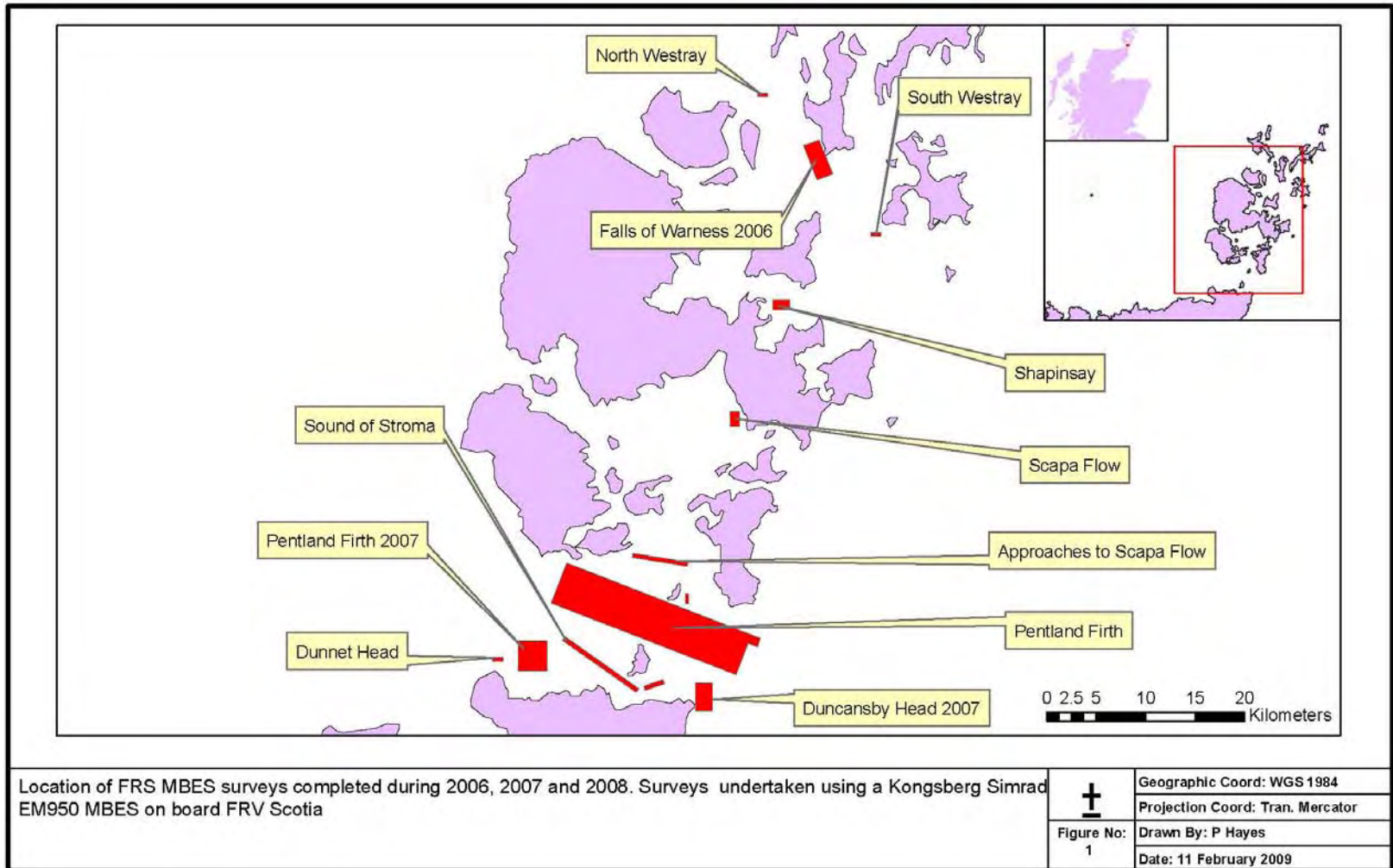
FRS Scotia

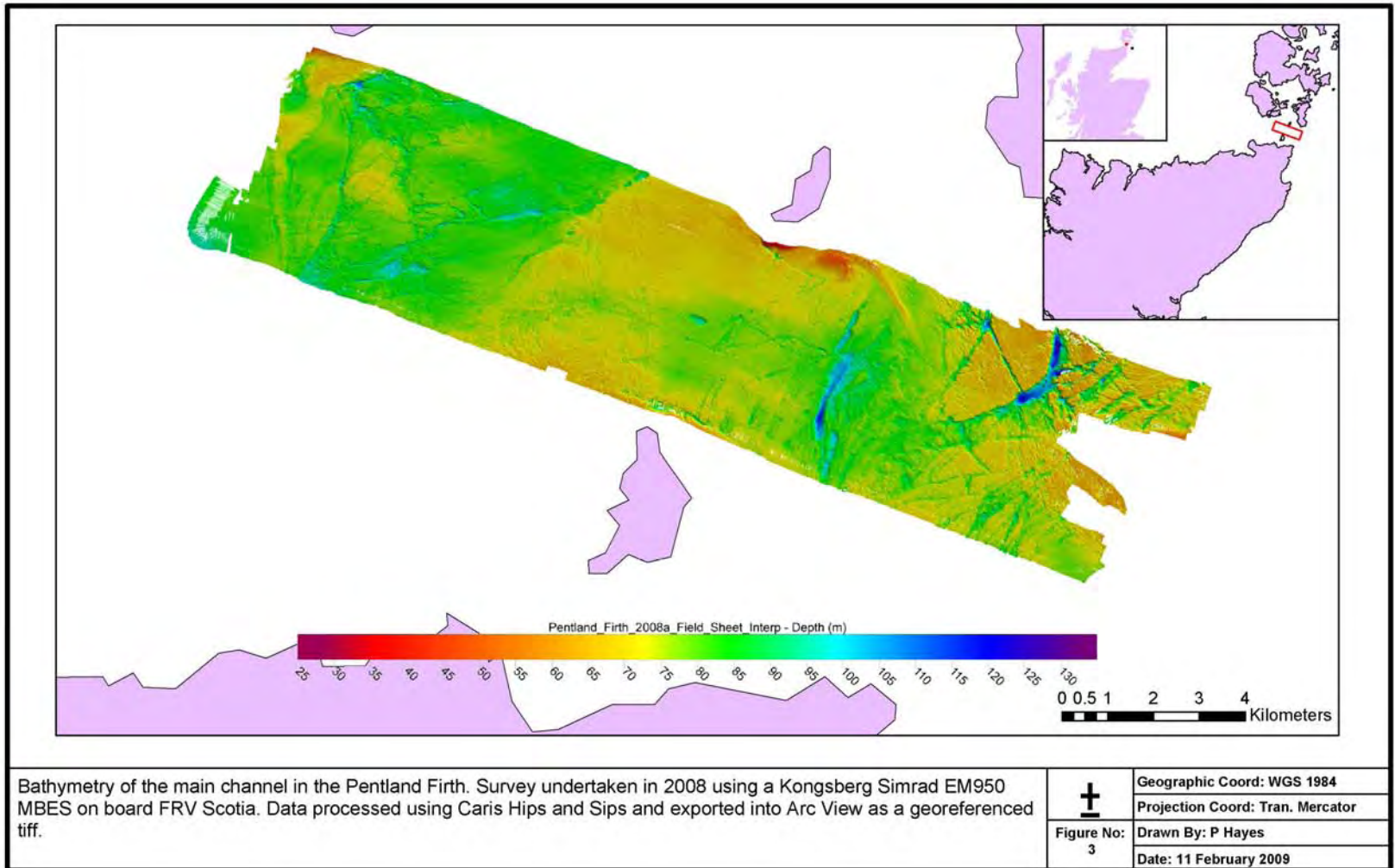
LOA 68.6m

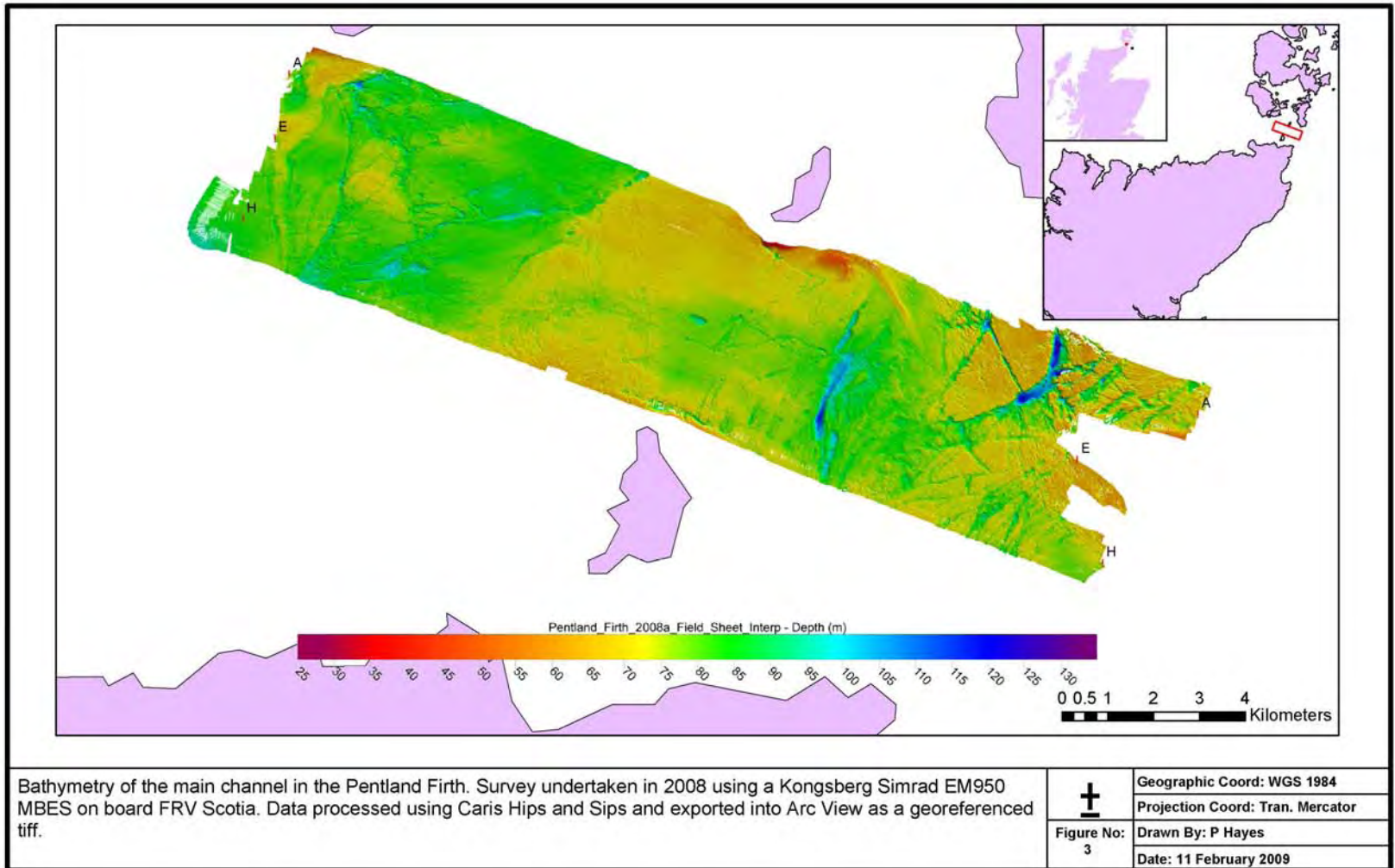
Mid Beam 15m

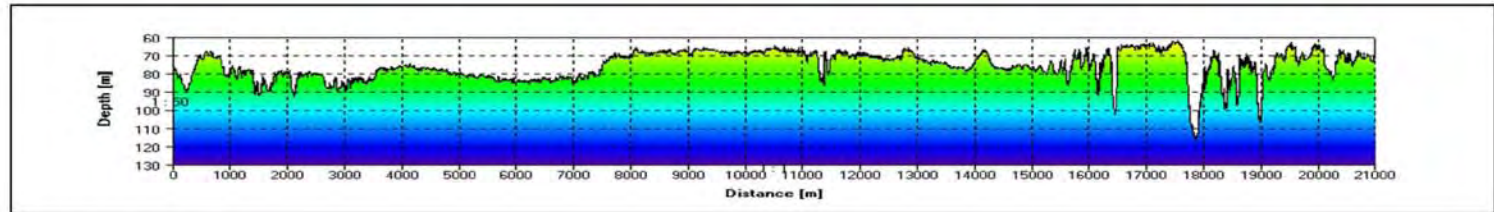
Quiet Run 10-11kts

Service Speed 13kts

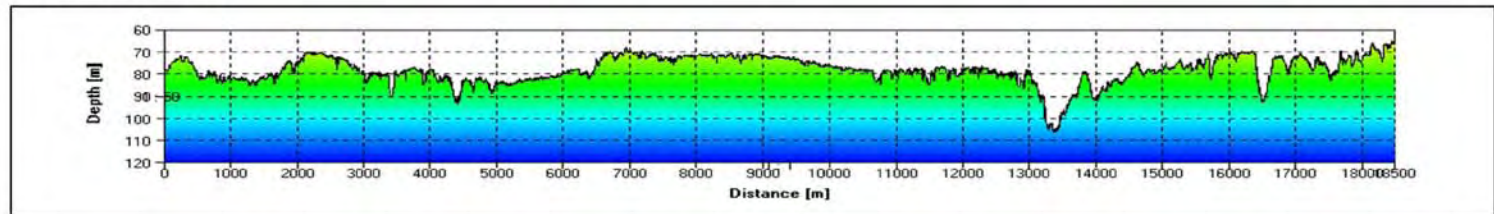




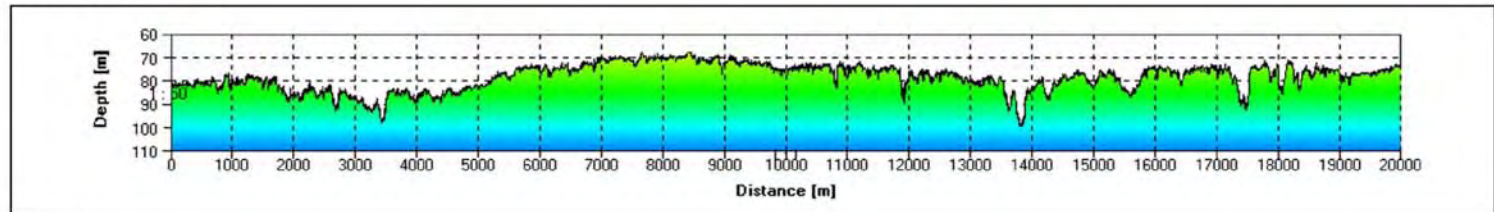




Cross Section: A - A



Cross Section: E - E



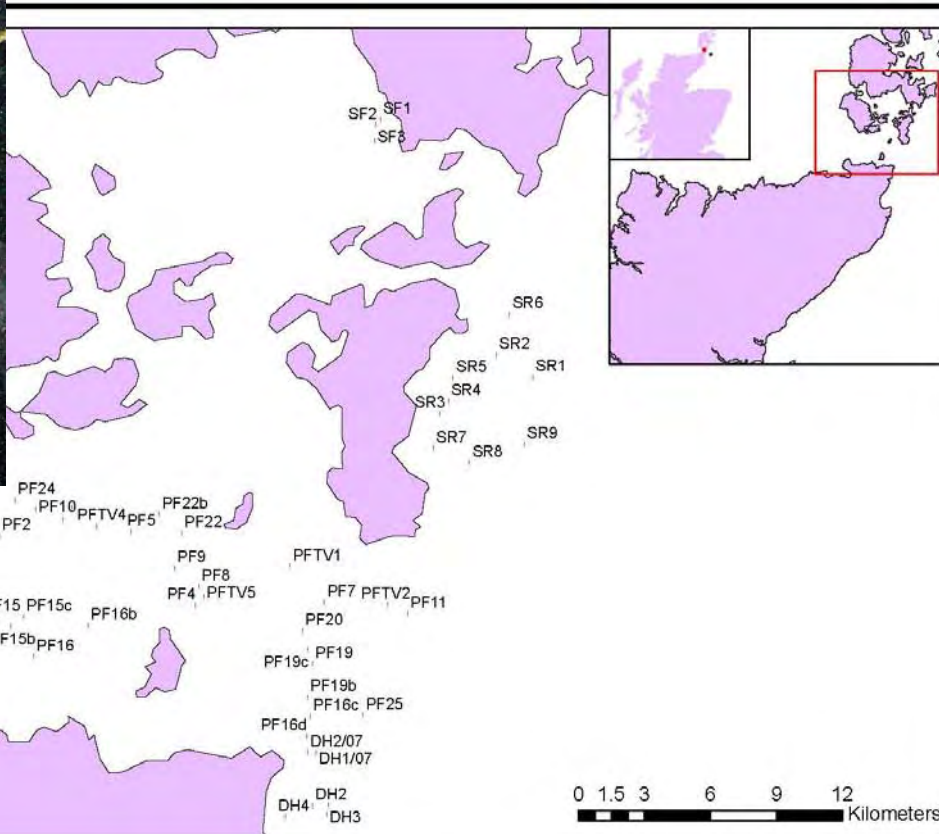
Cross Section: H - H

Cross sections across the bathymetry of the Pentland Firth main channel (see Figure 3). Note the scale differences between the X and Y axis to exaggerate the sea bed profiles.



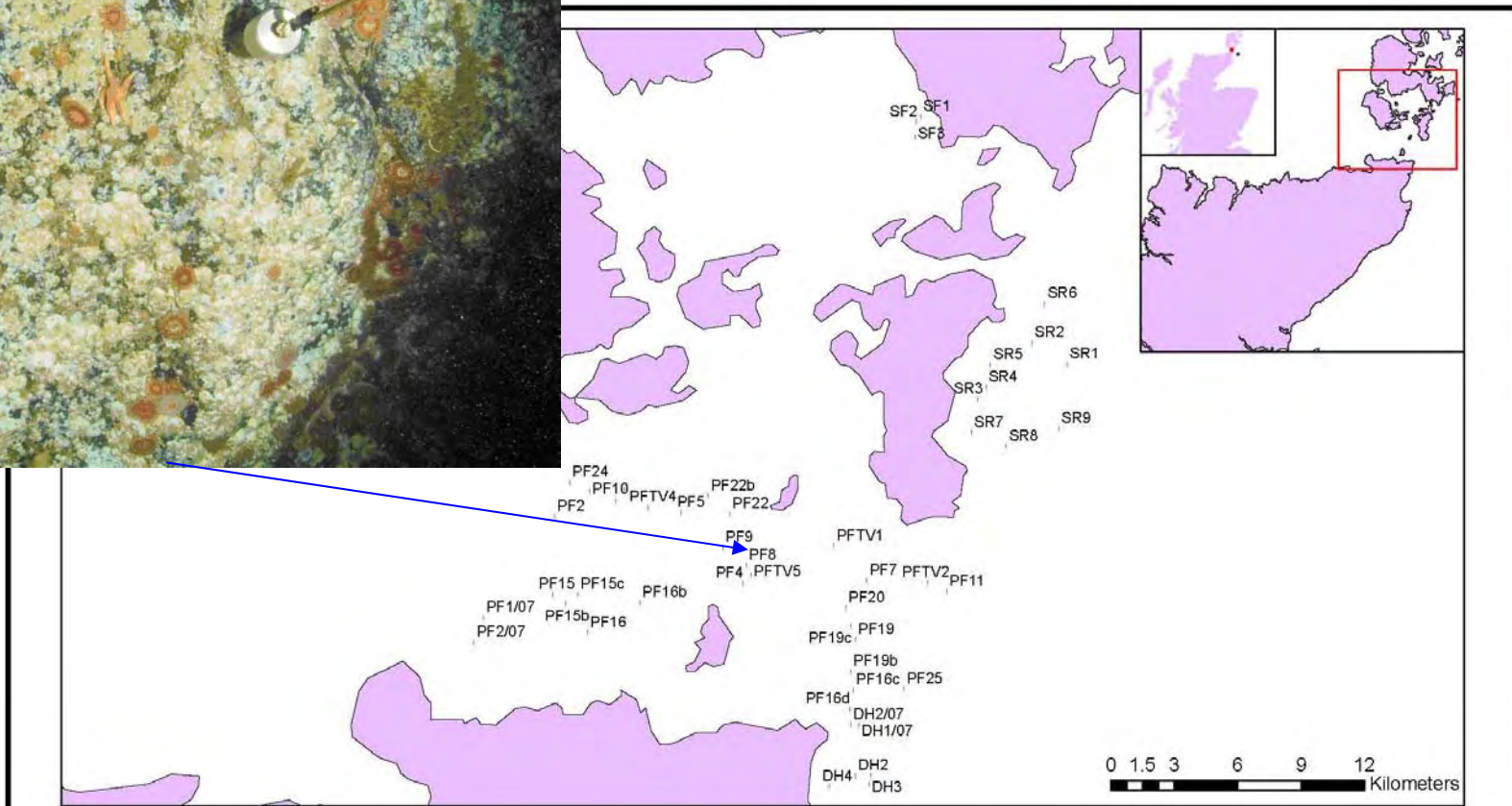
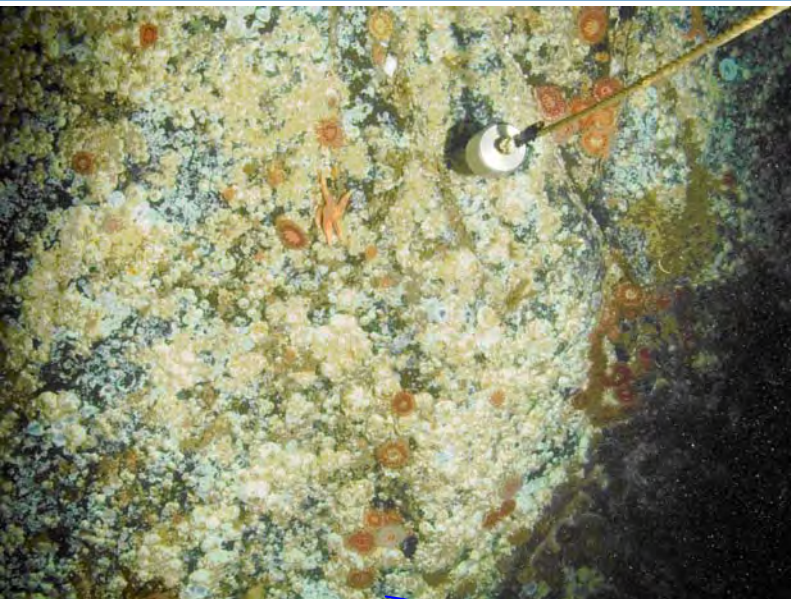
Figure No:
6

Geographic Coord: WGS 1984
Projection Coord: Tran Mercator
Drawn By: P Hayes
Date: 11 February 2008



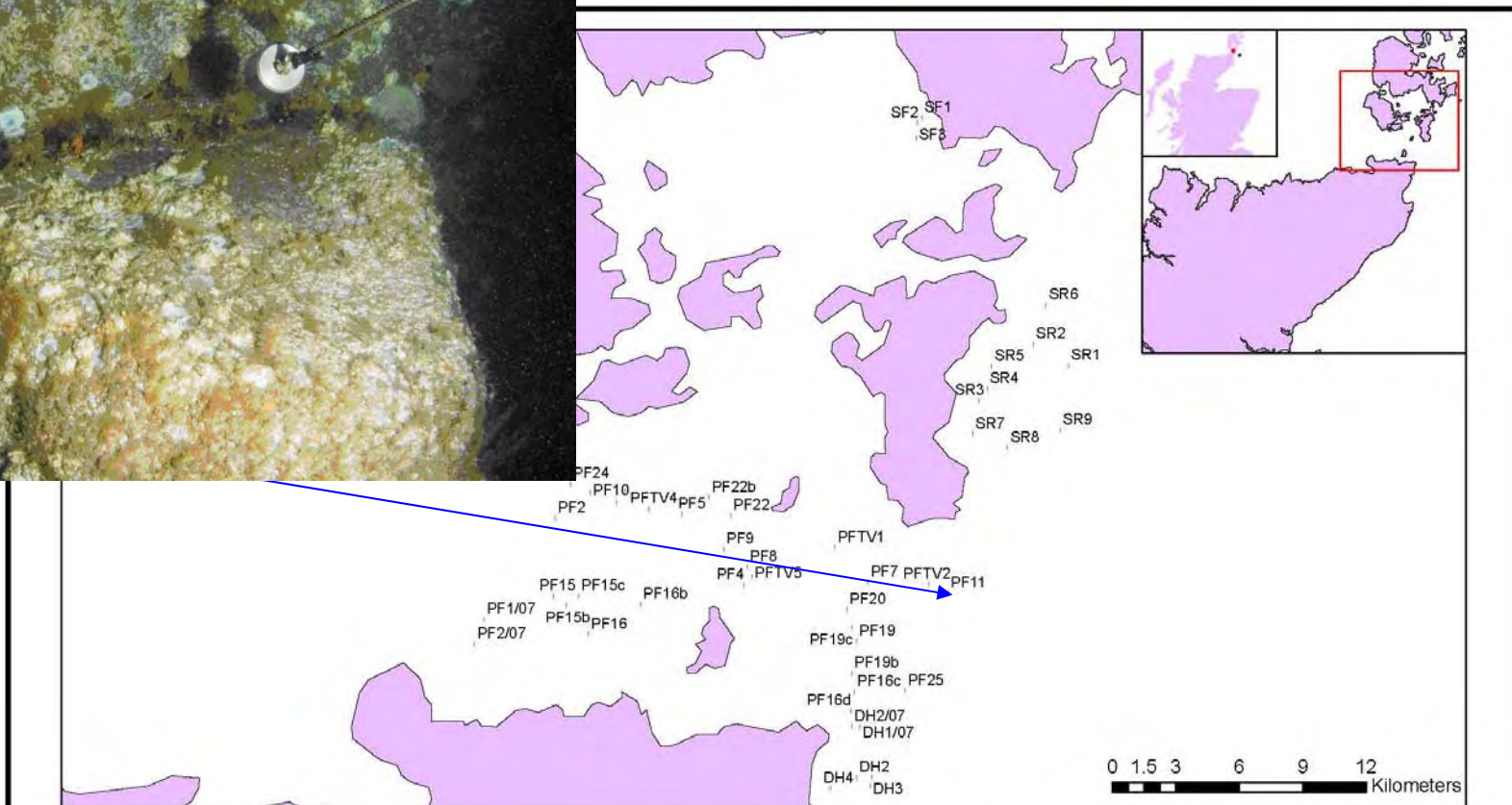
Location of TV tows undertaken during FRV Scotia 2007 and 2008 cruises using a drop frame instrument with video and digital camera capabilities.

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| Figure No: 2a | Geographic Coord: WGS1984 |
| | Projection Coord: Tran. Mercator |
| | Drawn By: P Hayes |
| | Date: 11 February 2009 |



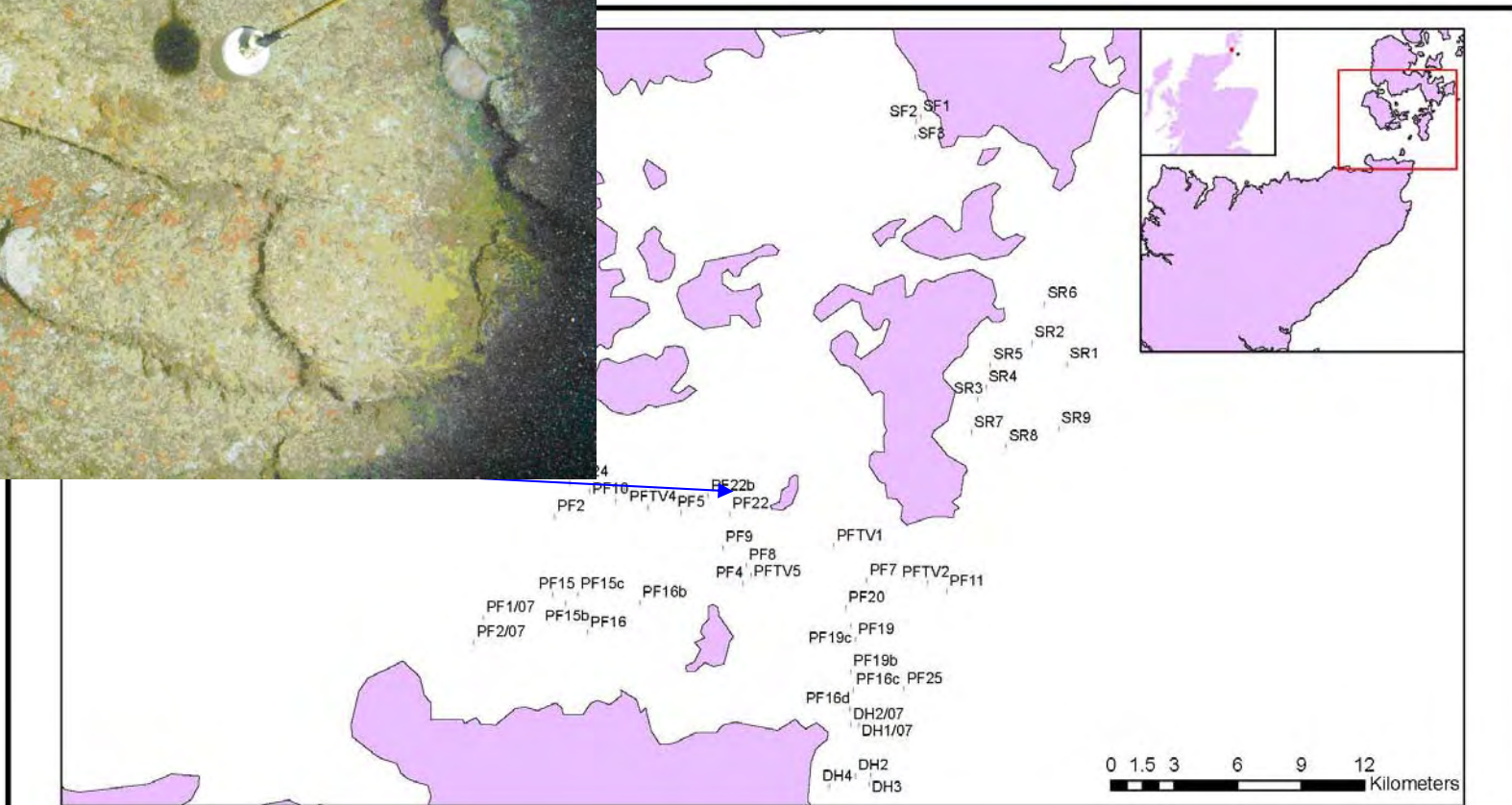
Location of TV tows undertaken during FRV Scotia 2007 and 2008 cruises using a drop frame instrument with video and digital camera capabilities.

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| Figure No: 2a | Geographic Coord: WGS 1984 |
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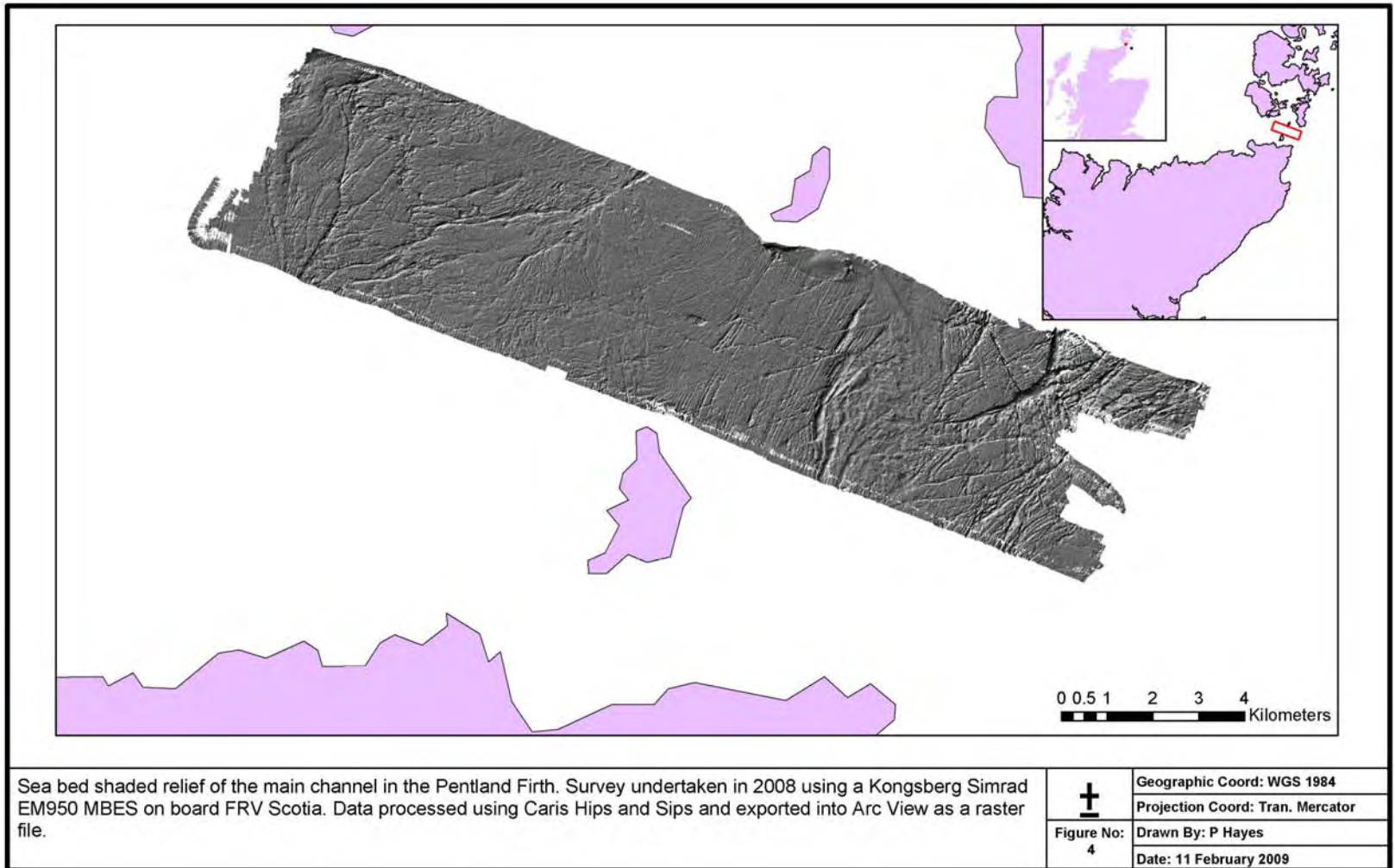
Location of TV tows undertaken during FRV Scotia 2007 and 2008 cruises using a drop frame instrument with video and digital camera capabilities.

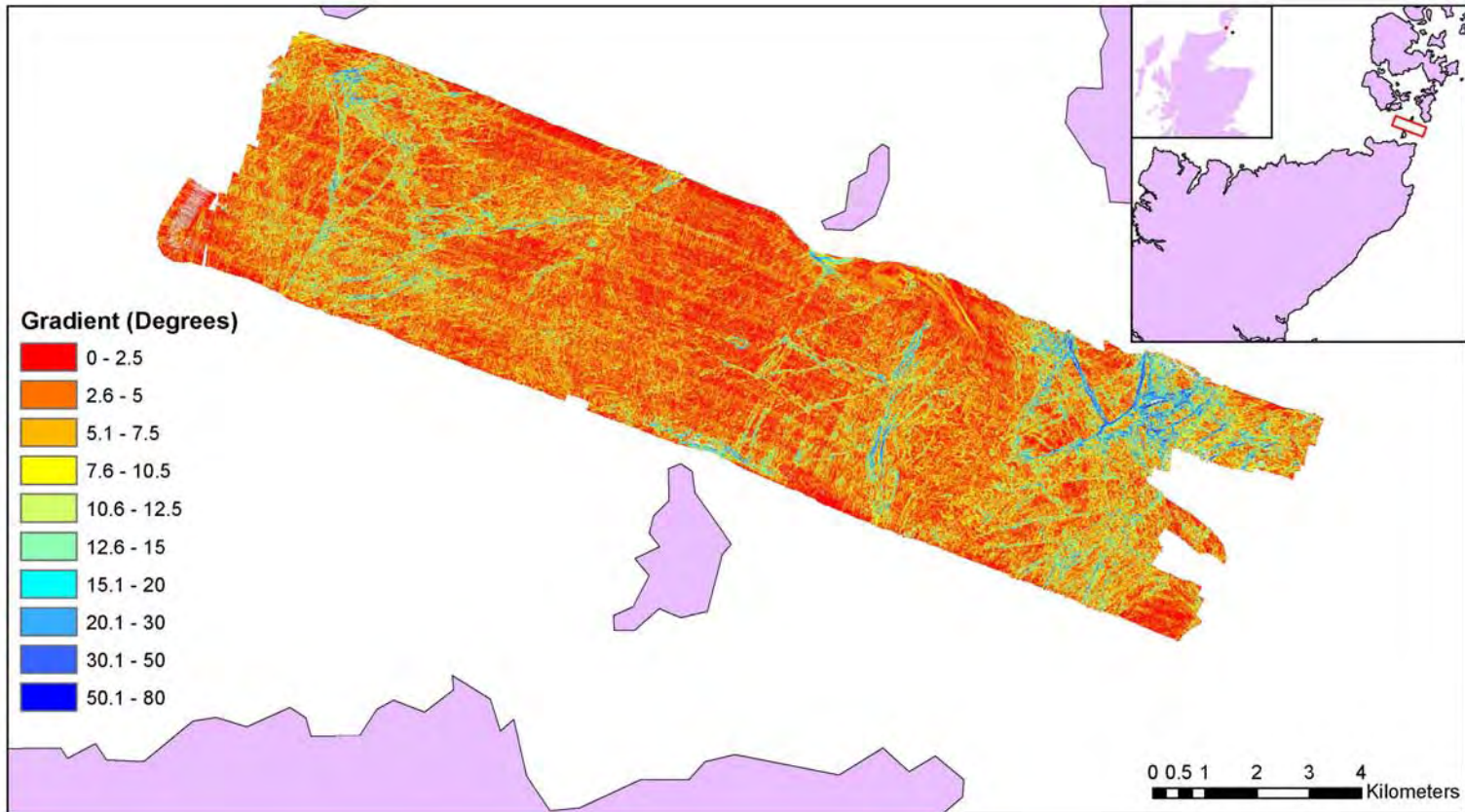
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| Figure No: 2a | Geographic Coord: WGS 1984 |
| | Projection Coord: Tran. Mercator |
| | Drawn By: P Hayes |
| | Date: 11 February 2009 |



Location of TV tows undertaken during FRV Scotia 2007 and 2008 cruises using a drop frame instrument with video and digital camera capabilities.

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| Figure No: 2a | Geographic Coord: WGS 1984 |
| | Projection Coord: Tran. Mercator |
| | Drawn By: P Hayes |
| | Date: 11 February 2009 |





Sea bed gradient of the main channel in the Pentland Firth. Survey undertaken in 2008 using a Kongsberg Simrad EM950 MBES on board FRV Scotia. Data processed using Caris Hips and Sips and exported into Arc View as a raster file.

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|---|----------------------------------|
| + | Geographic Coord: WGS 1984 |
| | Projection Coord: Tran. Mercator |
| | Figure No: 5 |
| | Drawn By: P Hayes |
| | Date: 11 February 2009 |



- **Future work will include**
 - Expansion of the Pentland Firth Survey work
- **Contingency Locations**
 - Orkney Islands
 - South West Islay
 - West coast of Lewis

