US to Ireland Subsea Fibre Optic Cable

APPLICATION FOR MARITIME USAGE LICENCE

FOR MARINE SURVEY & SITE INVESTIGATION WORKS AT CASTLEFREKE, LONG STRAND, CO. CORK & GLANDORE BAY

REF: LIC230031

SCHEDULE OF WORKS

MDM
McMahon Design & Management Ltd
- Consulting Engineers - Project Managers -
15 The Seapoint Building, Clontarf Rd., Dublin 3
Tel: +353-1-8536500 Fax: +353-1-8536800
E-mail: info@mdmeng.ie www.mdmeng.ie

Marine Survey and Site Investigation Schedule of Works

A: Geophysical Survey.

Side Scan Sonar.
Method: Vessel towing a submerged sonar towbody or fish.
Line spacing: The sonar range is dependent on sonar frequency and is expected to vary between 50 - 75m with a 100% overlap between each swath and 100% ensonfication in both directions.
Location: Survey Area as shown on 1355-A-101 Licence Map

Sub-Bottom Profiler.
Method: Hull mounted or Vessel towing a submerged SBP towbody or fish.
Line spacing: The sub bottom profiler data will be collected concurrently with the sidescan sonar and magnetometer, therefore line spacing is expected to vary between 50 - 75m.
Location: Survey Area as shown on 1355-A-101 Licence Map

Marine Magnetometer.
Method: Vessel towing a submerged magnetometer towbody or fish.
Line spacing: The magnetometer data will be collected concurrently with the sidescan sonar and sub bottom profiler, therefore line spacing is expected to vary between 50 - 75m.
Location; Survey Area as shown on 1355-A-101 Licence Map

Multibeam Echosounder.
Method: Hull mounted
Line spacing: The swath width for multibeam can vary between 3-6 times the water depth depending on the required bathymetry resolution. The estimated water depth in the survey area is between 4m and 4000m, therefore the expected narrowest swath width is 12 to 18m.
Location: Survey Area as shown on 1355-A-101 Licence Map

USBL (Ultra Short Baseline) Subsea Positioning.
Method: Transceiver on vessel, beacon attached to submerged survey towbody or fish, towed behind vessel.
Line spacing: The USBL subsea positioning will be collected concurrently with the sidescan sonar and magnetometer, therefore line spacing is expected to vary between 50 - 75m.
Location; Survey Area as shown on 1355-A-101 Licence Map

B: Geotechnical and Sediment Sampling.

48 no. Gravity cores or Vibrocores, each core up to 3m depth, diameter 90 – 120mm.
Location: Locations as indicated on 1355-A-102 Site Layout Map. Locations shown are indicative only, locations may vary at an average of 1 per 10km.

26 no. Surface grab sample by day grab or similar;
Location: Locations as indicated on 1355-A-102 Site Layout Map, Locations shown are indicative only, locations may vary.

96 no. In situ Cone Penetration Test on sea bed frame;
Location: Locations as indicated on 1355-A-102 Site Layout Map, Locations shown are indicative only, locations may vary at an average of 1 per 4 km.

12 - 16 no. Bar probes, 2m depth.
Location: Between HWM and 3m water depth at Long Strand / Ownahincha / Little Island Glandore Bay.

3 No trial pits, 2.5m depth.
Location: Between LWM and upper beach at Long Strand / Ownahincha / Little Island Glandore Bay.
Location: Locations as indicated on 1355-A-104 Site Layout Map. Locations shown are indicative only, locations may vary.

For detailed specifications, method statements, survey methods, equipment and vessels etc. see Works Methodology Report.
