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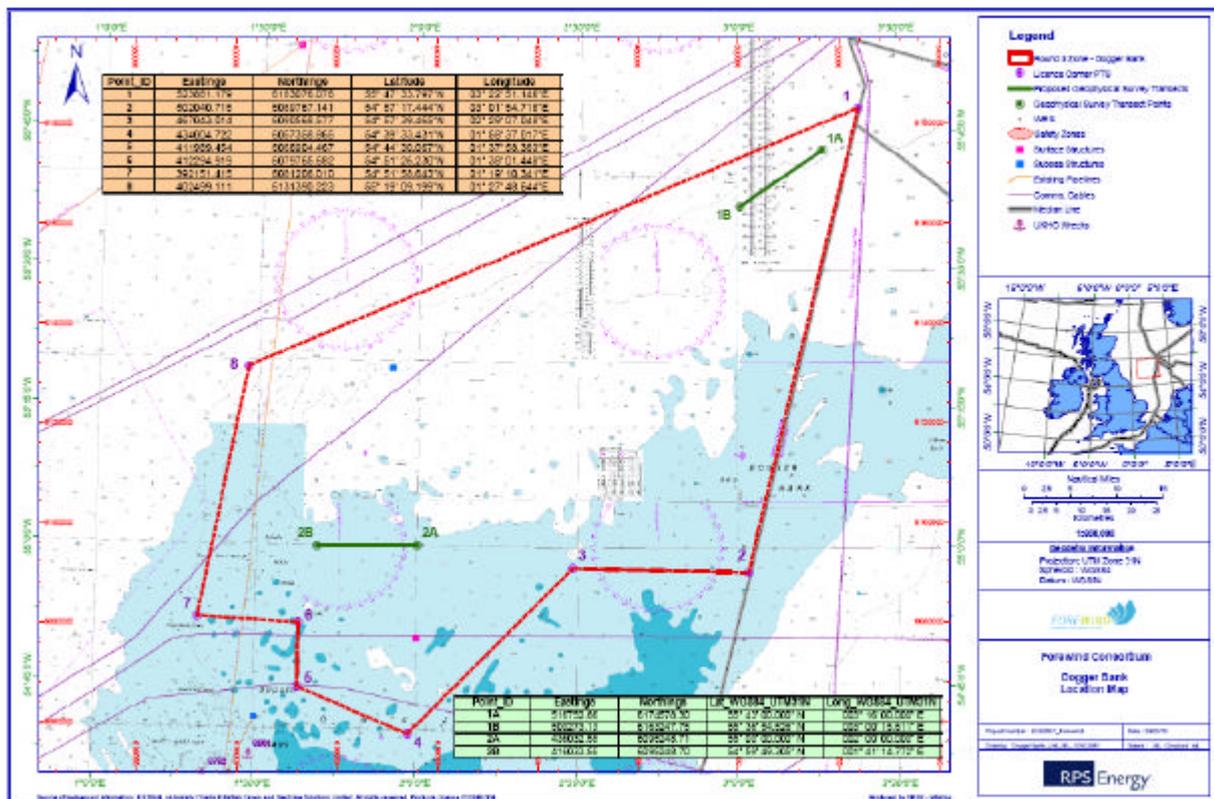
## NOTICE TO MARINERS – Geotechnical Investigations at Dogger Bank (05)

Notice is hereby given that Fugro GeoConsulting Limited (Fugro) will be conducting a Geotechnical Investigation within the UK Sector of the Central North Sea on behalf of Forewind, in the Dogger Bank Wind Farm Zone. Fugro currently estimate that the proposed work will take place from late September 2010 through to early to mid December 2010, and will utilise the Dynamically Positioned Geotechnical Drilling Vessels the MV Fugro Commander, the MV Gargano, the MV Fugro Saltire and the MV Bucentaur. (see attached vessel information, below).

### 1. INTRODUCTION (SURVEY LOCATION)

The Dogger Bank Wind Farm Zone is located approximately 70 kilometres from Flamborough Head, in the UK Sector of the Central North Sea. The entire survey area will cover an area of approximately 8656km<sup>2</sup> within water depths of between approximately 20 and 60m. The initial Geotechnical Investigation (Phase 1) is anticipated to comprise of forty Geotechnical Boreholes and one hundred Seabed Cone Penetration Tests (CPT's) with the majority of these works being conducted over the south western third of the Zone.

Figure 1 below shows the extents of the Geotechnical Investigation survey area.



**Figure 1. Outline of Dogger Bank Zone**

The Dogger Bank co-ordinates are summarised as:

**Table 1-1: Dogger Bank Boundary**

Eastings	Northings	Latitude	Longitude
523881.179	6183076.076	55° 47' 33.797"N	03° 22' 51.146"E
502040.715	6089767.141	54° 57' 17.444"N	03° 01' 54.718"E
467043.014	6090568.577	54° 57' 39.465"N	02° 29' 07.048"E
434004.722	6057358.865	54° 39' 33.431"N	01° 58' 37.017"E
411989.454	6066904.467	54° 44' 30.067"N	01° 37' 58.383"E
412294.919	6079765.682	54° 51' 26.230"N	01° 38' 01.448"E
392151.415	6081206.010	54° 51' 58.643"N	01° 19' 10.341"E
402499.111	6131390.223	55° 19' 09.199"N	01° 27' 48.644"E

(Projected coordinate Ref. system WGS 84 UTM zone 31 N)

## 2. VESSELS

Fugro propose to utilise the following four Dynamically Positioned Geotechnical Drilling vessels, the MV Fugro Commander, the MV Bucentaur, the MV Gargano and the MV Fugro Saltire to carry out the required site operations.

*MV Fugro Commander* (Figure 2), a 56m dynamically positioned geotechnical vessel, fitted with a gantry, A frame and marine crane and will be carrying out seabed CPT's through a centrally located moonpool.



**Figure 2. MV Fugro Commander**

Fugro Commander Communications	Details
Call Sign	HO3057
E-Mail	master@fugrocommander.com
SAT M (voice)	00 870 764 667 990
SAT M (fax)	00 870 764 667 992
GSM	00 31 653 635 005
Fleet 77 (Bridge)	00 870 764 821 986

MV Gargano (Figure 3), a 72m geotechnical drill ship fitted with an R50 heave compensated drilling rig, will be drilling geotechnical boreholes, through a centrally located moonpool.



**Figure 3. MV Gargano**

<b>MV Gargano Communications</b>	<b>Details</b>
Call Sign	VSMW5
E-Mail	gargane@gtships.com
SEVSAT-Tel (Bridge)	00 44 20 7858 5704
Inmarsat number V-Sat number SAT-C 1+2 (Bridge)	00 871 323 536 210 / 220
Fax (Bridge)	00 871 323 536 214
Vessel Mobile (Captain)	00 44 7789 178 336

MV Fugro Saltire (Figure 4), a 111m (LOA) purpose built dynamically positioned geotechnical vessel complete fitted with an R100 heave compensated drilling rig, will also be drilling geotechnical boreholes, through a centrally located moonpool.



**Figure 4. MV Fugro Saltire**

<b>Fugro Saltire Communications</b>	<b>Details</b>
Call Sign	LHOD
E-Mail	<a href="mailto:captain@fugrosaltire.fugro.com">captain@fugrosaltire.fugro.com</a>
Telephone (Bridge/Captain)	00 44 8452 419 381
Inmarsat number (fleet 33)	00 87 0764 876 152
Fax (Bridge)	00 44 8452 419 381

*MV Bucentaur* (Figure 5), a 78.1m dynamically positioned drilling vessel capable of operating in up to 2000m of water, will be carrying out seabed CPT's and/or drilling geotechnical boreholes, depending on project requirements.



**Figure 5. *MV Bucentaur***

<b>MV Bucentaur Communications</b>	<b>Details</b>
Call Sign	C6SU4
E-Mail	<a href="mailto:master@bucentaur.com">master@bucentaur.com</a>
Telephone (Bridge)	00 47 51 40 76 36
Telephone (Captain)	00 47 51 40 76 34
Inmarsat number (fleet 33)	0087 076 111 5243

Each of the four geotechnical vessels will be operating on a 24 hour basis (weather permitting). Throughout survey operations, the vessels will be displaying the appropriate lights and shapes as required under the COLREGS Rule 27 (b) and requests other vessels maintain a wide berth and pass at slow speed.

### 3. WORK SCHEDULE

The proposed work schedule for the Geotechnical survey is shown below in Table 2.

Vessel	Anticipated number of days on site	Estimated start date (week commencing)	Estimated completion date (week commencing)
<b>MV Fugro Commander</b>	35	20 <sup>th</sup> October 2010 (Actual date)	22 <sup>nd</sup> November 2010 (week 47)
<b>MV Gargano</b>	28	3 <sup>rd</sup> October 2010 (Actual date)	1 <sup>st</sup> November 2010 (Actual date)
<b>MV Fugro Saltire</b>	56	19 <sup>th</sup> October 2010 (Actual date)	13 <sup>th</sup> December 2010 (week 50)
<b>MV Bucentaur</b>	21	22 <sup>nd</sup> November 2010 (week 47)	13 <sup>th</sup> December 2010 (week 50)

**Table 2. Proposed work schedule**

*Please note that the dates specified above are based upon our current vessel planning and is therefore subject to change. if appropriate an updated NTM will be submitted with as much notice as possible.*

### 4. DISTRIBUTION LIST

DISTRIBUTION		
Contact	Name	Email
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ABP Ports	B Guyton	bguyton@abports.co.uk
Humber Maritime Rescue Sub-Centre	n/a	wm.humber@mcga.gov.uk
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Kings Lynn Port Authority	n/a	harbourmaster@portauthoritykingslynn.fsnet.co.uk
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Port of Wisbech	C Dorrington	cdorrington@fenland.gov.uk
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Trinity House	n/a	Navigation.Director@thls.org
Wells Harbour	n/a	harbouoffice@wellsharbour.co.uk
Wells Life boat	n/a	coxswain@wellslifeboat.org
Yarmouth Coastguard	n/a	yarmouthcoastguard@mcga.gov.uk
Yarmouth Coastguard	n/a	Wm.yarmouth@mcga.gov.uk
CEFAS	n/a	jon.rees@cefas.co.uk
DEFRA (Eastern Fisheries Inspectorate Lowestoft)	n/a	lowestoft@mfa.gsi.gov.uk
Eastern Sea Fisheries Joint Committee	n/a	mail@esfjc.co.uk
Gt Yarmouth Port Authority	Harbour Master - Pat McNamara	pmcnamara@eastportuk.co.uk and info@eastportuk.co.uk
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Lowestoft Harbour Master	R Musgrove	Rmusgrove@abports.co.uk
National Federation of Fishermen's Organisations	n/a	nffo@nffo.org.uk
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Scarborough Lifeboat	n/a	scarborough@rnli.org.uk
Flamborough Lifeboat	n/a	flamborough@rnli.org.uk
Spurn Head Lifeboat	n/a	humber@rnli.org.uk
Lowestoft Lifeboat	n/a	lowestoft@rnli.org.uk
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Fugro GeoConsulting Limited - Associate Director, Commercial	David Williams	d.williams@fugro.co.uk

## 5. SUMMARY

The contents of this notice are based upon our current understanding of Forewind's project requirements and upon Fugro's planning at the time of submission. It should be noted that Fugro will endeavour to update this notice as required.

Enquiries regarding the contents of this NTM or any other matter should be directed to Fugro GeoConsulting Limited:

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