

# NOTICE TO MARINERS

## 12.04.2017

### DUDGEON OFFSHORE WIND FARM CONSTRUCTION WORKS

**NOTICE IS HEREBY GIVEN that construction activities are in progress at the Dudgeon Offshore Wind Farm.**

Wind turbine generators will be installed until Q3 2017. All construction work is planned to be completed late 2017.

#### **Service Operation Vessel**

The ESVAGT NJORD will be performing preparation support for the operation of the wind farm and will be in regular transit between the Dudgeon site and Great Yarmouth.

#### **Wind Turbine Generator Installation**

The SEA CHALLENGER will perform installation of the wind turbine generators (WTG) from January 2017 until Q3-2017. WTG installation and commissioning work will be performed at the following locations in April – May:

<b>Location</b>	<b>Easting</b>	<b>Northing</b>	<b>Lon DD</b>	<b>Lat DD</b>	<b>Depth LAT [m]</b>
Sub-Station	391 870	5 902 955	1,378776	53,264808	-21,1
L01	391 174	5 901 522	1,368835	53,251789	-21,0
L02	391 122	5 900 148	1,368526	53,239433	-19,9
L03	391 760	5 899 631	1,378257	53,234918	-20,2
L04	392 399	5 899 114	1,388002	53,230402	-21,0
L05	393 038	5 898 596	1,397745	53,225877	-20,6
K01	392 045	5 902 246	1,381639	53,258473	-21,5
K02	391 907	5 900 928	1,380019	53,246602	-21,2
K03	392 640	5 900 334	1,391200	53,241413	-20,8
K04	393 373	5 899 739	1,402378	53,236214	-21,0
K05	393 676	5 898 079	1,407470	53,221359	-21,8
T01	392 212	5 903 533	1,383706	53,270071	-21,5
T02	392 948	5 902 936	1,394938	53,264856	-22,1
T03	394 241	5 900 466	1,415137	53,242920	-21,8
T04	394 974	5 899 873	1,426312	53,237737	-22,3
T05	394 840	5 898 551	1,424742	53,225832	-21,2
J01	392 777	5 901 653	1,392808	53,253293	-23,1

Location	Easting	Northing	Lon DD	Lat DD	Depth LAT [m]
J02	393 509	5 901 060	1,403974	53,248112	-22,5
J03	394 107	5 899 145	1,413569	53,231024	-21,7
J04	394 315	5 897 562	1,417208	53,216841	-22,3
J05	394 954	5 897 045	1,426945	53,212322	-21,2
F01	392 353	5 904 837	1,385377	53,281817	-21,7
F02	393 254	5 905 526	1,398654	53,288190	-23,2
F03	392 649	5 906 016	1,389417	53,292470	-22,8
F04	392 044	5 906 506	1,380177	53,296750	-22,4
F05	391 439	5 906 996	1,370936	53,301030	-22,0
F06	390 834	5 907 486	1,361693	53,305308	-22,3
E01	391 477	5 904 129	1,372486	53,275276	-22,2
E02	391 619	5 905 431	1,374170	53,287004	-22,4
E03	390 886	5 906 025	1,362975	53,292191	-20,7
E04	390 153	5 906 619	1,351778	53,297377	-20,6
E05	390 229	5 907 976	1,352448	53,309586	-21,5
E06	389 624	5 908 466	1,343201	53,313863	-21,1
B01	391 313	5 902 840	1,370468	53,263661	-21,5
B02	390 441	5 902 117	1,357649	53,256985	-19,9
B03	389 708	5 902 711	1,346460	53,262170	-20,5
B04	388 975	5 903 306	1,335268	53,267364	-19,3
B05	388 041	5 904 311	1,320916	53,276197	-18,2
B06	387 985	5 903 523	1,320354	53,269105	-18,2
H01	393 086	5 904 243	1,396567	53,276627	-21,4
G01	393 859	5 905 036	1,407890	53,283908	-23,6
G02	394 465	5 904 546	1,417139	53,279626	-23,6
H02	393 820	5 903 649	1,407769	53,271438	-23,5

**COORDINATE REFERENCE SYSTEM:**

Datum: WGS84

Projection: UTM Zone 31N

**Accommodation Vessel**

The VESTLAND CYGNUS will be on location until Q4-2017 as accommodation vessel for Turbine commissioning.

**Commissioning activities**

For the commissioning and construction work there are several Crew Transfers Vessels operating in the wind farm area on a daily basis. This activity is ongoing and will continue until commissioning completes in Q4 2017.

## **Rock Installation**

A rock installation campaign for scour protection of foundations will be ongoing in the period early May until mid-June. Vessel spread; Rock installation vessel Van Oord – HAM 602, a survey vessel, and 4 bulk carriers for rock supply.

The three intended anchor locations for the rock transfer from the bulk carriers are identified in the plot later in this notice.

## **Cable Protection Installation**

The vessel Smit Kamara will install cable protection around the OSS, This operation will be performed late April, lasting a few days.

## **Guard Vessel**

The RESOLUTE or the ADVENTURE will be present at the site to safe guard the wind farm area.

## **GENERAL**

**MARINERS ARE HEREBY INFORMED** that a statutory construction Safety Zone (exclusion zone) is in place at the wind farm site. This safety zone is defined by:

- A 500 metres radius around each wind turbine, offshore sub-station and their foundations whilst work is being performed as indicated by the presence of construction vessels; and
- A 50 metres radius around each wind turbine, the offshore sub-station platform and associated foundation structures installed, complete or incomplete but waiting to be commissioned as part of the Dudgeon offshore wind farm where personnel are present on, or are being landed on or being taken from the structures.

**All vessels will exhibit appropriate lights and shapes prescribed by the International Regulations for Preventing Collisions at Sea.**

**ALL VESSELS ARE REQUESTED** to give all construction and support vessels a wide berth.

**MARINERS ARE ADVISED** to navigate with caution and keep continued watch on VHF Ch. 16 when navigating the area.

A further notice to mariners will be issued when these works are completed, expected autumn 2017.

Please direct any enquiries regarding this notice to Statoil Wind Control Centre:  
statoilwindcontrol@statoil.com

A copy of this notice can also be found at:

<http://dudgeonoffshorewind.co.uk/news/notice-to-mariners>

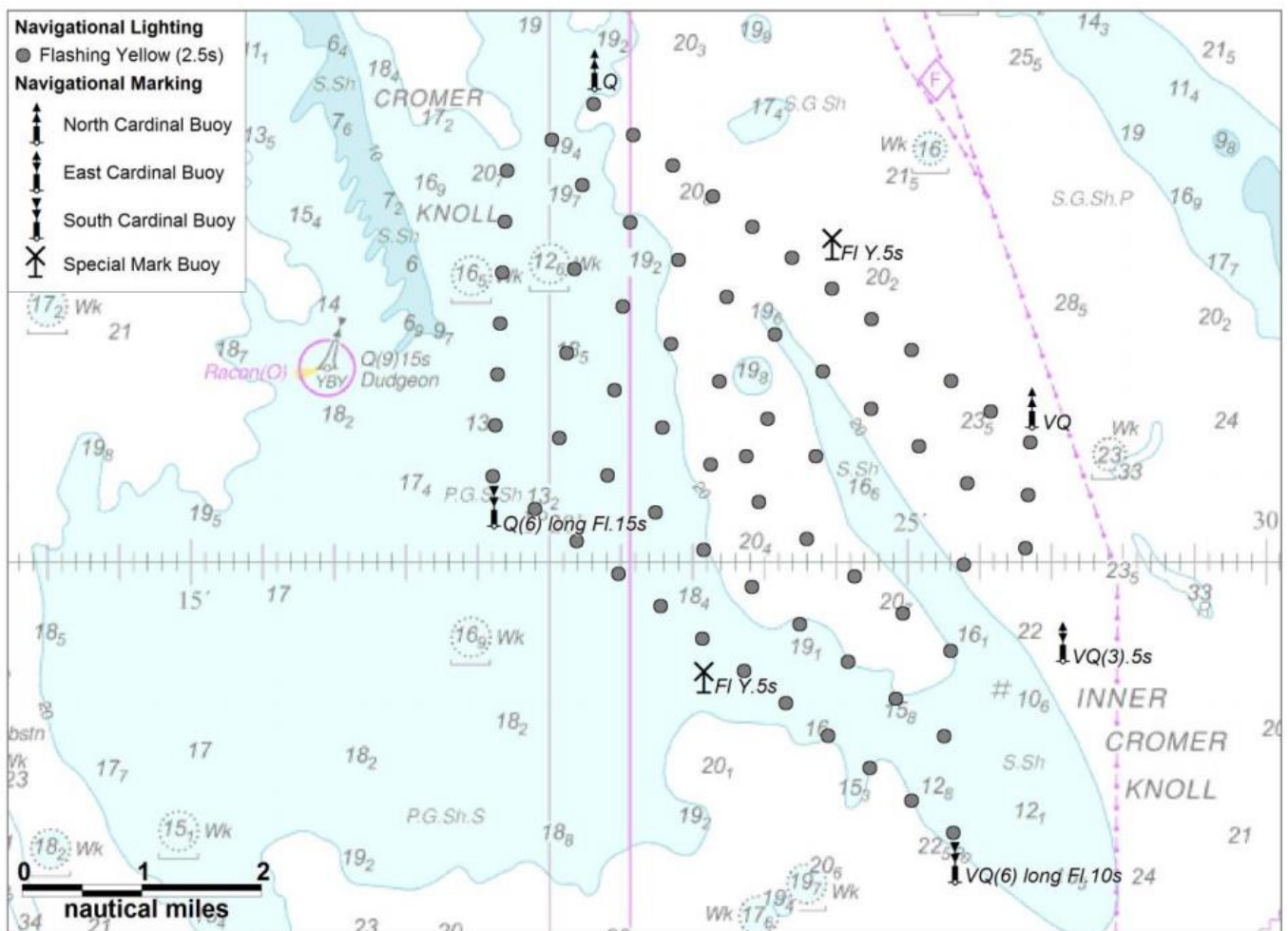
### Fishing

**The Dudgeon Wind Farm area is closed to fishing.** The coordinates for the area of the closed area are included below.

## SITE DETAILS

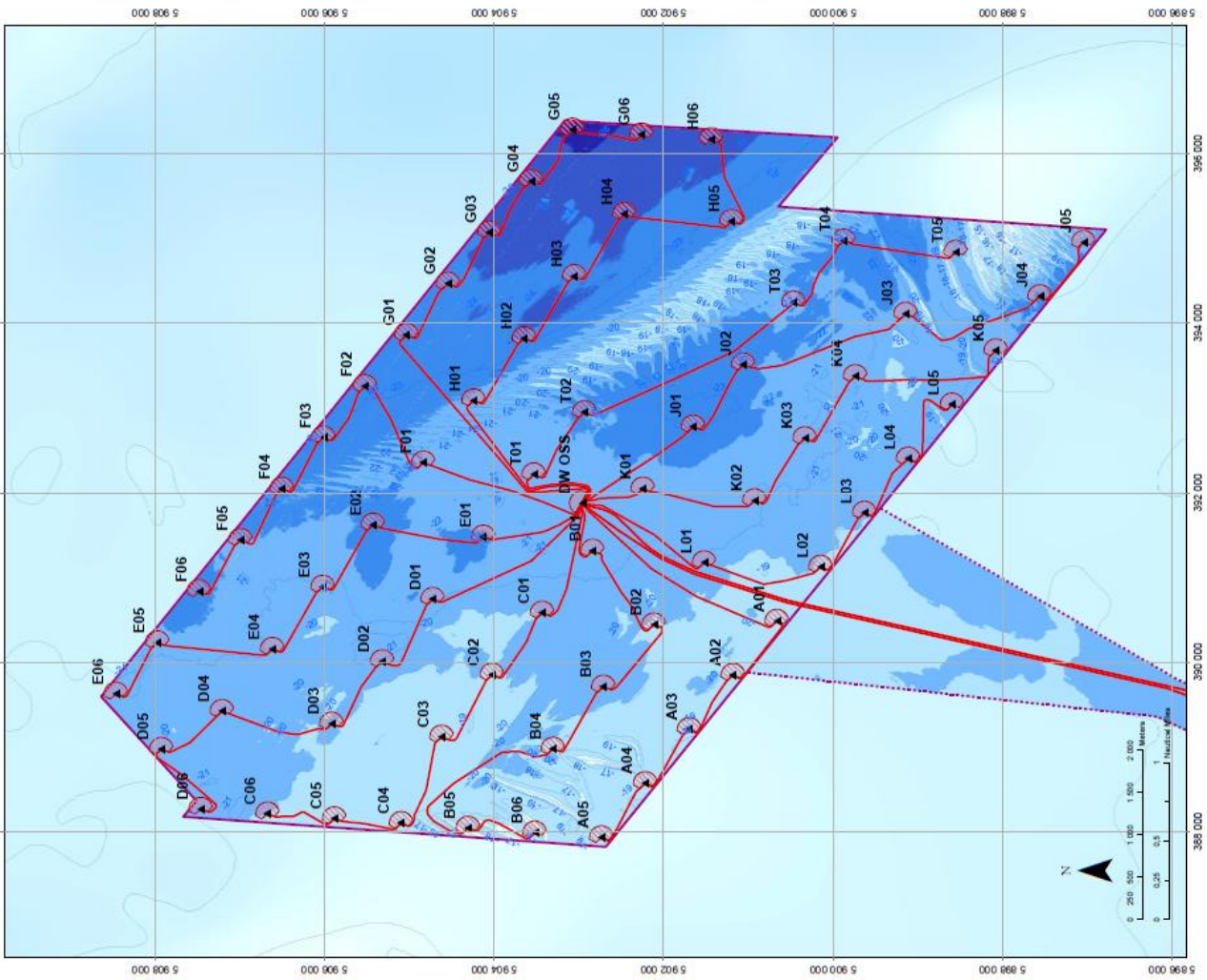
Position of Navigation Buoys demarcating the Dudgeon Offshore Wind Farm site

Mark	Location	Name	Latitude	Longitude	Status	Flash Character	Code	Range
North Cardinal	NW Cardinal	N-DOW	53° 19,102' N	1° 20,592' E	Temporary	Q	601	5nm
Special Mark	Special Mark North	DOW - SM - N	53° 17,631' N	1° 23,919' E	Temporary	Fl.Y.5s	328	5nm
North Cardinal	North East Cardinal	NE - DOW	53° 16,277' N	1° 26,691' E	Temporary	VQ	501	5nm
East Cardinal	East Cardinal	E- DOW	53° 14,320' N	1° 27,123' E	Temporary	VQ(3).5s	508	5nm
South Cardinal	SE Cardinal	S - DUDGEON	53° 12,470' N	1° 25,617' E	Permanent	VQ(6) long Fl.10s	516	5nm
Special Mark	Special Mark South	DOW - SM - S	53° 14,012' N	1° 22,132' E	Temporary	Fl.Y.5s	328	5nm
South Cardinal	SW Cardinal	SW - DOW	53° 15,451' N	1° 19,188' E	Temporary	Q(6) long Fl.15s	631	5nm



# WTG ID and locations (coordinates)

WTG and Substation Locations										
WTG	Easting	Northing	Lon DD	Lat DD	Depth LAT	WTG	Easting	Northing	Lon DD	Depth LAT
A01	380483.0	500066.0	1.38777	53.24347	-18.5	F06	380834.0	500748.0	1.381683	53.305308
A02	388945.0	501153.0	1.34842	53.24869	-18.6	G01	388880.0	500350.0	1.407890	53.253008
A03	388206.0	500218.0	1.33629	53.25282	-18.0	G02	384465.0	500650.0	1.417139	53.279028
A04	385588.0	500278.0	1.32849	53.25702	-18.2	G03	385070.0	500450.0	1.426371	53.275343
A05	387628.0	500278.0	1.318782	53.262013	-18.6	G04	386675.0	500350.0	1.426371	53.271063
A06	391131.0	500470.0	1.32756	53.26683	-21.0	G05	388251.0	500251.0	1.444772	53.256023
B01	390709.0	500711.0	1.34648	53.26985	-19.6	H01	390280.0	500430.0	1.396567	53.276937
B02	386075.0	500338.0	1.33628	53.26784	-19.3	H02	393820.0	500340.0	1.407789	53.271438
B03	388941.0	500431.0	1.320918	53.278107	-18.2	H03	394653.0	500365.0	1.418863	53.282448
B04	387685.0	500362.0	1.320354	53.28105	-18.2	H04	395204.0	500180.0	1.428321	53.249688
B05	390580.0	500434.0	1.350278	53.282897	-20.1	H05	395204.0	500180.0	1.428321	53.249688
B06	388948.0	500427.0	1.348102	53.274024	-18.8	H06	391700.0	500144.0	1.443716	53.250063
C01	390117.0	500462.0	1.336837	53.279208	-18.4	T01	392212.0	500363.0	1.383706	53.270071
C02	388907.0	500509.0	1.321478	53.283289	-18.4	T02	392248.0	500350.0	1.394638	53.284669
C03	388163.0	500687.0	1.322802	53.29382	-20.0	T03	394241.0	500460.0	1.416137	53.242920
C04	388206.0	500676.0	1.321247	53.297474	-21.7	T04	394674.0	500673.0	1.428312	53.237737
C05	390741.0	500472.0	1.351247	53.290489	-20.9	T05	394940.0	500653.0	1.362808	53.253393
C06	390006.0	500523.0	1.350222	53.285702	-20.9	J01	392777.0	500165.0	1.403974	53.248112
D01	388271.0	500520.0	1.338783	53.290913	-20.2	J02	393509.0	500100.0	1.403974	53.248112
D02	388420.0	500713.0	1.340577	53.302662	-20.2	J03	394107.0	500145.0	1.413569	53.231024
D03	388871.0	500793.0	1.333591	53.308910	-20.3	J04	394315.0	500750.0	1.417208	53.216941
D04	388265.0	500746.0	1.323165	53.304596	-20.3	J05	394654.0	500704.0	1.420845	53.212322
D05	391477.0	500412.0	1.374170	53.275276	-22.2	K01	392045.0	500246.0	1.381639	53.259473
D06	391610.0	500431.0	1.374170	53.275276	-22.2	K02	391807.0	500092.0	1.380018	53.246002
E01	390889.0	500082.0	1.329275	53.282181	-20.7	K03	392940.0	500034.0	1.381300	53.241413
E02	390153.0	500181.0	1.351778	53.297377	-20.6	K04	393370.0	500075.0	1.402378	53.236214
E03	390220.0	500791.0	1.324448	53.306886	-21.5	K05	393670.0	500070.0	1.404770	53.221369
E04	388254.0	500646.0	1.343201	53.313983	-21.1	L01	381174.0	500152.0	1.388836	53.251789
E05	392353.0	500465.0	1.368377	53.281817	-21.7	L02	381122.0	500146.0	1.388836	53.251789
E06	392353.0	500503.0	1.388047	53.288160	-23.2	L03	381700.0	500150.0	1.392657	53.254618
F01	392324.0	500465.0	1.388047	53.288160	-23.2	L04	381700.0	500150.0	1.392657	53.254618
F02	392324.0	500465.0	1.388047	53.288160	-23.2	L05	381700.0	500150.0	1.392657	53.254618
F03	392324.0	500465.0	1.388047	53.288160	-23.2	L06	381700.0	500150.0	1.392657	53.254618
F04	392324.0	500465.0	1.388047	53.288160	-23.2	L07	381700.0	500150.0	1.392657	53.254618
F05	391430.0	500696.0	1.370638	53.301030	-22.0	Sub St.	381870.0	500265.0	1.378776	53.294808
F06	391430.0	500696.0	1.370638	53.301030	-22.0	(OW COS)				



**Legend Main Map**

- ▲ Evacuation Zone
- Sub Station
- Planned Interarray Cable Route
- Planned Export Cable Route
- Consented Field Outline
- Bathymetry (m rel. to LAT)
- -26
- -24-26
- -22-24
- -20-22
- -18-20
- -16-18
- -14-16
- -12-14

Dudgeon Offshore Windpark

STATIONARY REFERENCE SYSTEM  
Datum: OSN  
Projection: UTM Zone 31N  
Units: METERS

UK / North Norfolk

Scale: 1:50000

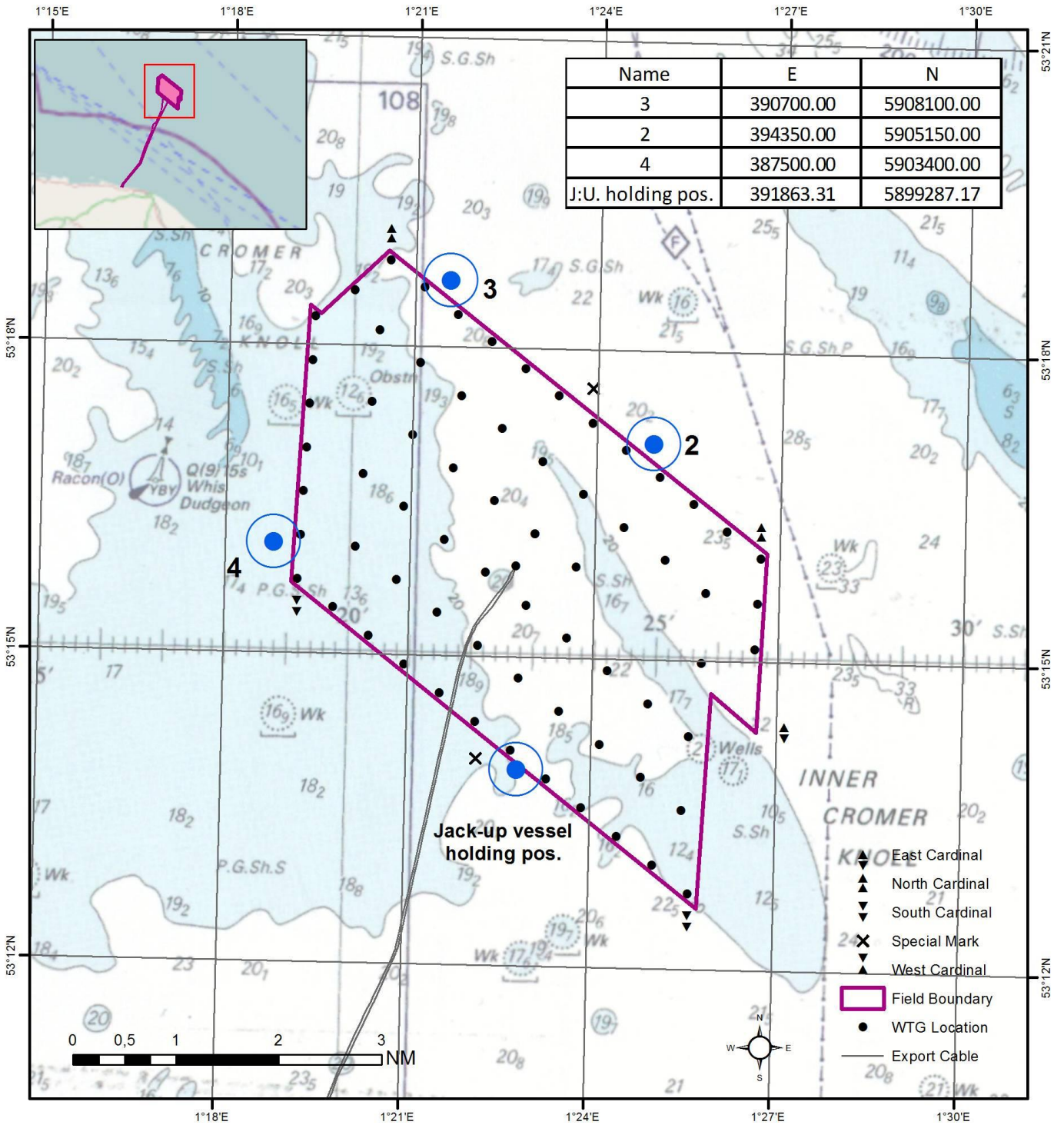
Map ID: C177-DOW-N-XE-0001-01

Map Date: 15/08/2013

Map Author: Statoil

This map features bathymetry from seabed survey: ST13504 DOWF Sub and Seabed Mapping (2013). According to the subcontractor's error budget for this survey the accuracy is as follows:  
The (horizontal) accuracy for navigation is +/- 20 cm (horizontal determined by the dynamic position calibration for primary and secondary navigation system)  
The vertical accuracy bathymetry: At 20m water depth the Total Vertical Uncertainty is +/- 27cm. At 50m water depth the Total Vertical Uncertainty is +/- 33 cm.

## Rock Installation Campaign. Anchor locations for rock transfer



## KEY CONSTRUCTION VESSEL CONTACT DETAILS

### ESVAGT NJORD



**Call sign:** OWZN2

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**E-mail:** njord@esvagtvesel.com

### SEA CHALLENGER



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**Master phone:** vsat +45 89 88 90 11 / GSM +45 52 13 95 80

**E-mail:** seachallenger@a2sea.com / Master mast\_sc@a2sea.com



## VESTLAND CYGNUS



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## Van Oord – HAM 602



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## ADVENTURE



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## Resolute



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## Advance WY77



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## Smit Kamara



**Callsign:** ORLB

**Bridge Phone:**

**E-mail:**