

# NOTICE TO MARINERS

## 17<sup>th</sup> of May 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:

Location	Easting	Northing	Lon DD	Lat DD	Depth LAT [m]
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
D01	390 741	5 904 726	1,361247	53,280489	-21,7
D02	390 006	5 905 323	1,350022	53,285702	-20,9
D03	389 271	5 905 920	1,338793	53,290913	-20,1
D04	389 420	5 907 213	1,340577	53,302562	-20,2
D05	388 971	5 907 930	1,333591	53,308910	-20,3
D06	388 265	5 907 463	1,323165	53,304566	-20,3
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 – around WTG Turbine Foundation**

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.

Plots for rock installation sequence and the three intended anchor locations for the rock transfer from the bulk carriers are included later in this notice.

No fishing activities allowed near rock installation vessels.

### **Rock Installation – around OSS**

The vessel Smit Kamara will install/adjust the rock armour layer around the OSS. This operation will be performed in May, 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](mailto:statoilwindcontrol@statoil.com)

A copy of this notice can also be found at:

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

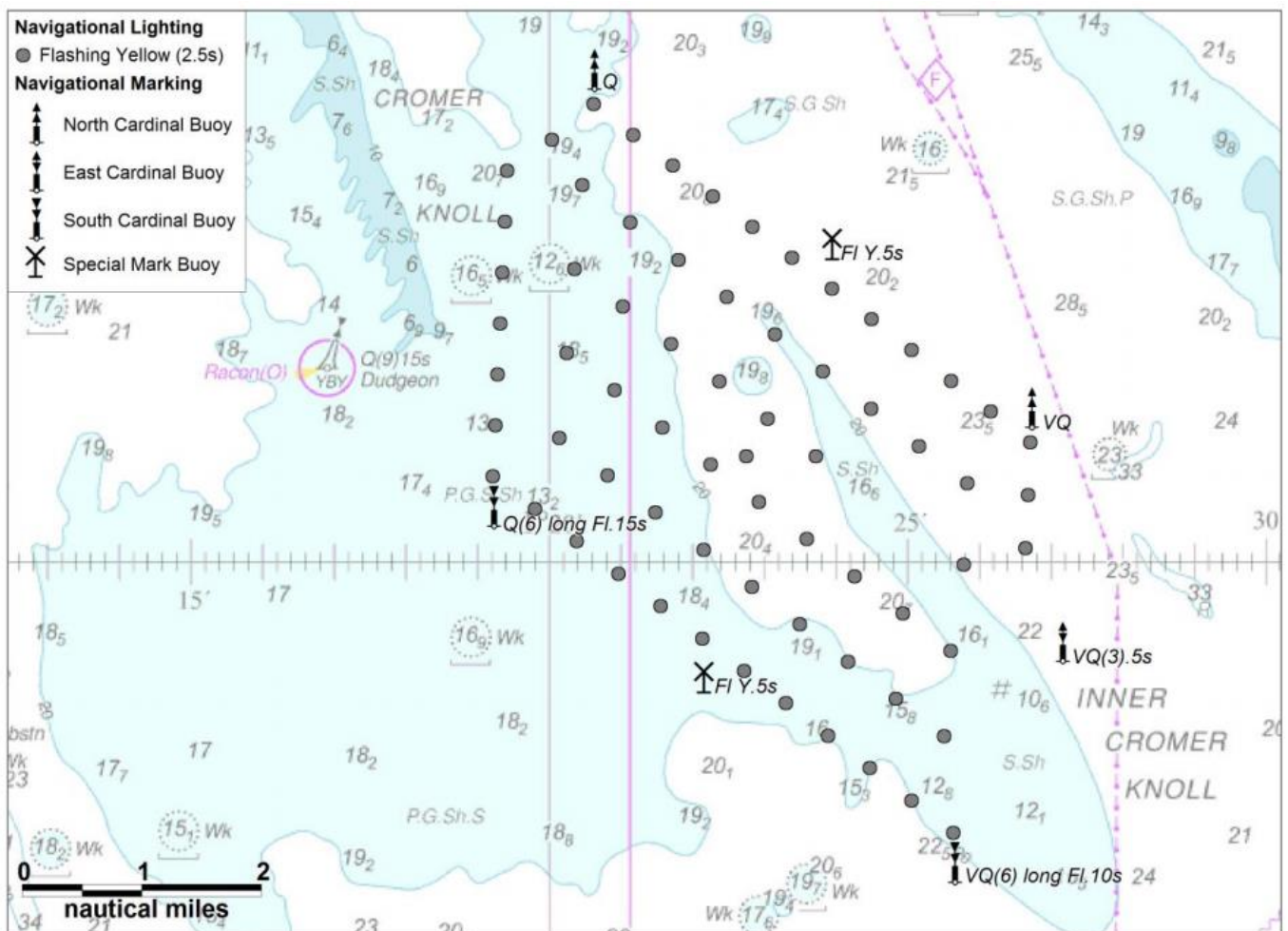
### Fishing

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

## SITE DETAILS

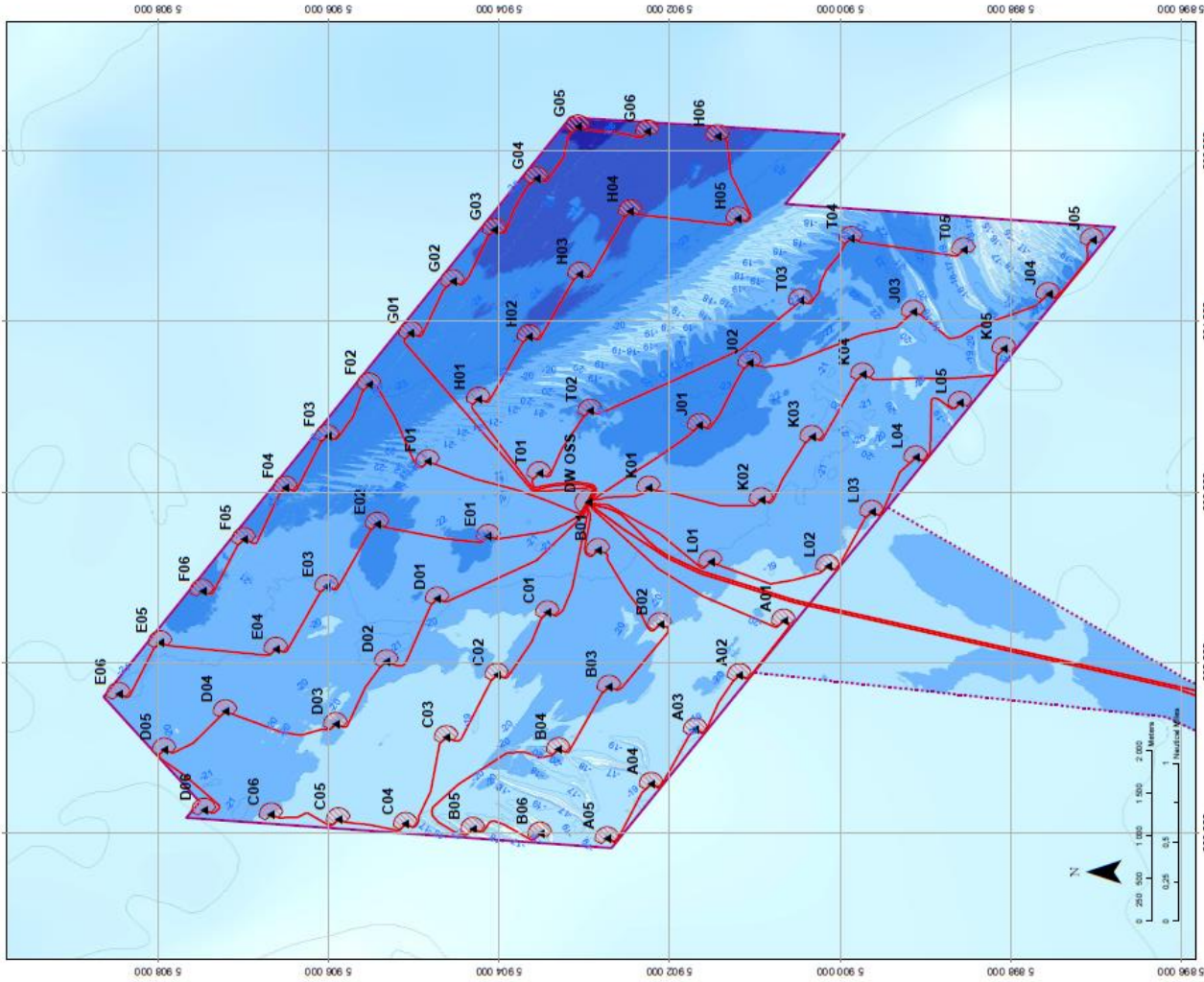
### Position of Navigation Buoys demarcating the Dudgeon Offshore Wind Farm site

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	380634.0	500749.0	1.381683	53.305308	-22.3
A02	388945.0	501153.0	1.34842	53.24869	-18.6	G01	388890.0	500350.0	1.407890	53.253008	-23.6
A03	388206.0	500218.0	1.33629	53.25282	-18.2	G02	384465.0	500656.0	1.417139	53.279238	-23.6
A04	387626.0	500278.0	1.32849	53.25702	-18.2	G03	386070.0	500405.0	1.426871	53.275343	-24.3
A05	387433.0	500247.0	1.318782	53.262013	-18.6	G04	386676.0	500356.0	1.436801	53.271063	-25.1
A06	387113.0	500240.0	1.307596	53.26688	-21.5	G05	386251.0	500257.0	1.444272	53.266103	-20.4
B01	386709.0	500271.0	1.346480	53.25918	-19.6	H01	388280.0	500434.0	1.386567	53.276937	-23.0
B02	386785.0	500339.0	1.336288	53.26370	-19.3	H02	388320.0	500384.0	1.407789	53.271438	-23.5
B03	386924.0	500431.0	1.320918	53.278107	-18.2	H03	384453.0	500395.0	1.418863	53.282448	-23.9
B04	387685.0	500362.0	1.320354	53.28105	-18.2	H04	385287.0	500461.0	1.430149	53.281054	-24.4
B05	388580.0	500434.0	1.350278	53.289105	-18.2	H05	385204.0	500189.0	1.428321	53.246988	-22.5
B06	388548.0	500427.0	1.348102	53.274024	-18.8	H06	386170.0	500144.0	1.443716	53.250063	-24.5
C01	388117.0	500462.0	1.336837	53.279208	-18.4	T01	382212.0	500363.0	1.383706	53.270071	-21.5
C02	388007.0	500509.0	1.321478	53.283289	-18.4	T02	382443.0	500390.0	1.384638	53.284669	-22.1
C03	388163.0	500587.0	1.322802	53.290382	-18.4	T03	384241.0	500460.0	1.416137	53.242920	-21.8
C04	388206.0	500676.0	1.329202	53.297474	-20.0	T04	384674.0	500673.0	1.428312	53.237737	-22.3
C05	388271.0	500726.0	1.345127	53.304489	-21.7	T05	384940.0	500855.0	1.424742	53.225632	-21.2
C06	388200.0	500823.0	1.350022	53.285702	-20.9	J01	382777.0	500165.0	1.362808	53.253393	-23.1
D01	388006.0	500520.0	1.338783	53.280913	-20.2	J02	383509.0	500100.0	1.403974	53.248112	-22.5
D02	388420.0	500713.0	1.340577	53.302662	-20.2	J03	384107.0	500145.0	1.413569	53.231024	-21.7
D03	388871.0	500793.0	1.333591	53.308910	-20.3	J04	384315.0	500762.0	1.417208	53.216941	-22.3
D04	388265.0	500746.0	1.323166	53.304566	-20.3	J05	384654.0	500704.0	1.420846	53.212322	-21.2
D05	381477.0	500412.0	1.324488	53.275276	-22.2	K01	382045.0	500246.0	1.381639	53.258473	-21.5
D06	381610.0	500451.0	1.324170	53.287004	-22.4	K02	381807.0	500092.0	1.380018	53.246002	-21.2
E01	380889.0	500082.0	1.329275	53.262181	-20.7	K03	382940.0	500334.0	1.381300	53.241413	-20.8
E02	380153.0	500181.0	1.351778	53.267377	-20.6	K04	383373.0	500730.0	1.402378	53.236214	-21.0
E03	380220.0	500791.0	1.324448	53.306886	-21.5	K05	383676.0	500870.0	1.404770	53.221389	-21.8
E04	388254.0	500946.0	1.343201	53.313883	-21.1	L01	381174.0	500152.0	1.388836	53.251789	-21.0
E05	382353.0	500465.0	1.366377	53.281817	-21.7	L02	381122.0	500146.0	1.388836	53.239433	-18.9
E06	382326.0	500520.0	1.388917	53.288160	-23.2	L03	381700.0	500661.0	1.382657	53.254618	-20.2
F01	382326.0	500520.0	1.388917	53.288160	-23.2	L04	381700.0	500661.0	1.382657	53.254618	-20.2
F02	382326.0	500520.0	1.388917	53.288160	-23.2	L05	382039.0	500629.0	1.387345	53.235737	-21.0
F03	382326.0	500520.0	1.388917	53.288160	-23.2	L06	381870.0	500265.0	1.378776	53.234608	-21.1
F04	382326.0	500520.0	1.388917	53.288160	-23.2	(OW 035)					
F05	381430.0	500696.0	1.370638	53.301030	-22.0						



Legend Main Map

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

Dudgeon Offshore Windpark

STATIONARY REFERENCE SYSTEM  
Prime Meridian: 07W Zone 31N  
Datum: ED50  
Units: METERS

UK / North Norfolk

Scale: 1:50000

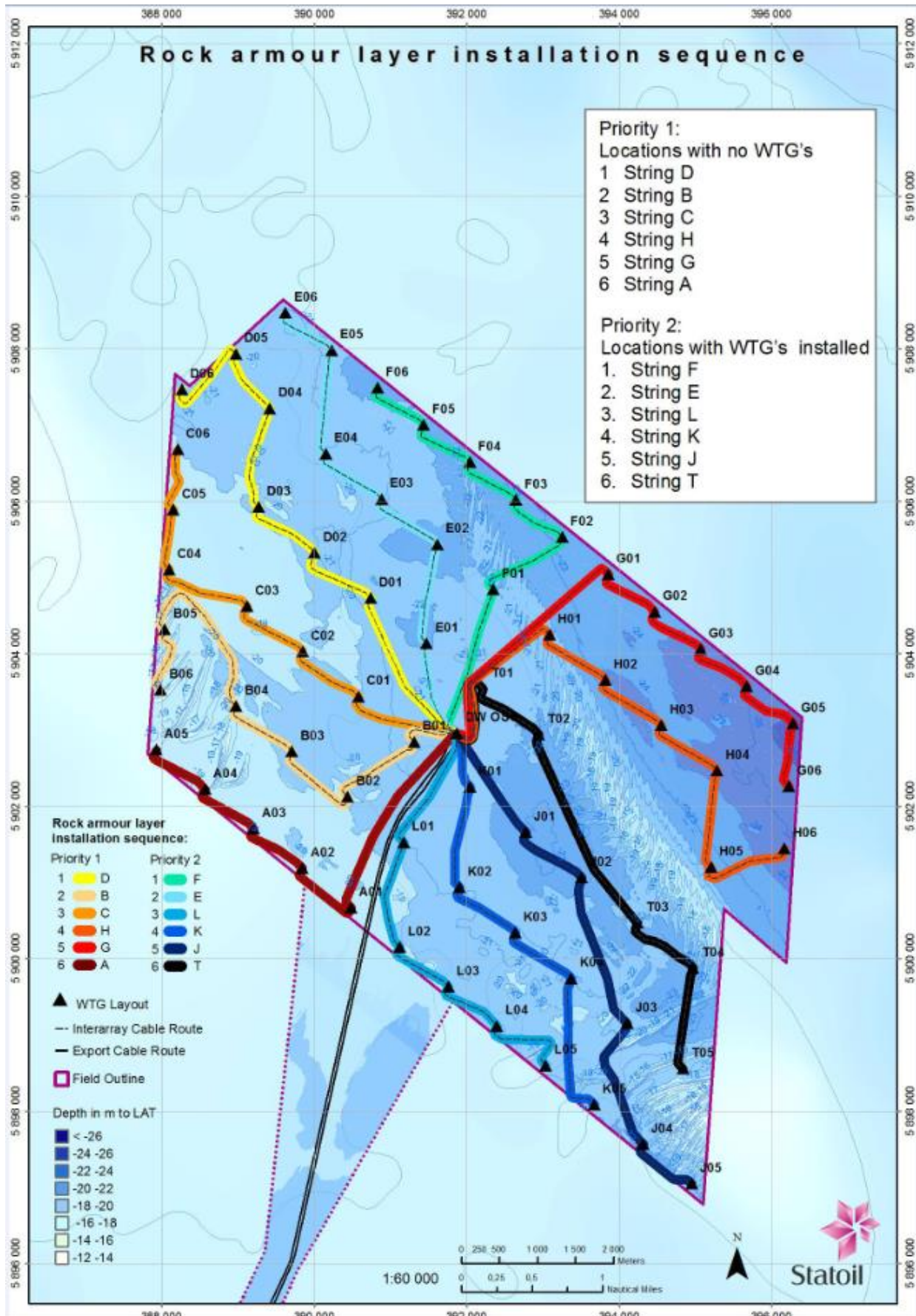
Map ID: C177-DOW-N-XE-0001-01

Map Date: 15/03/2014

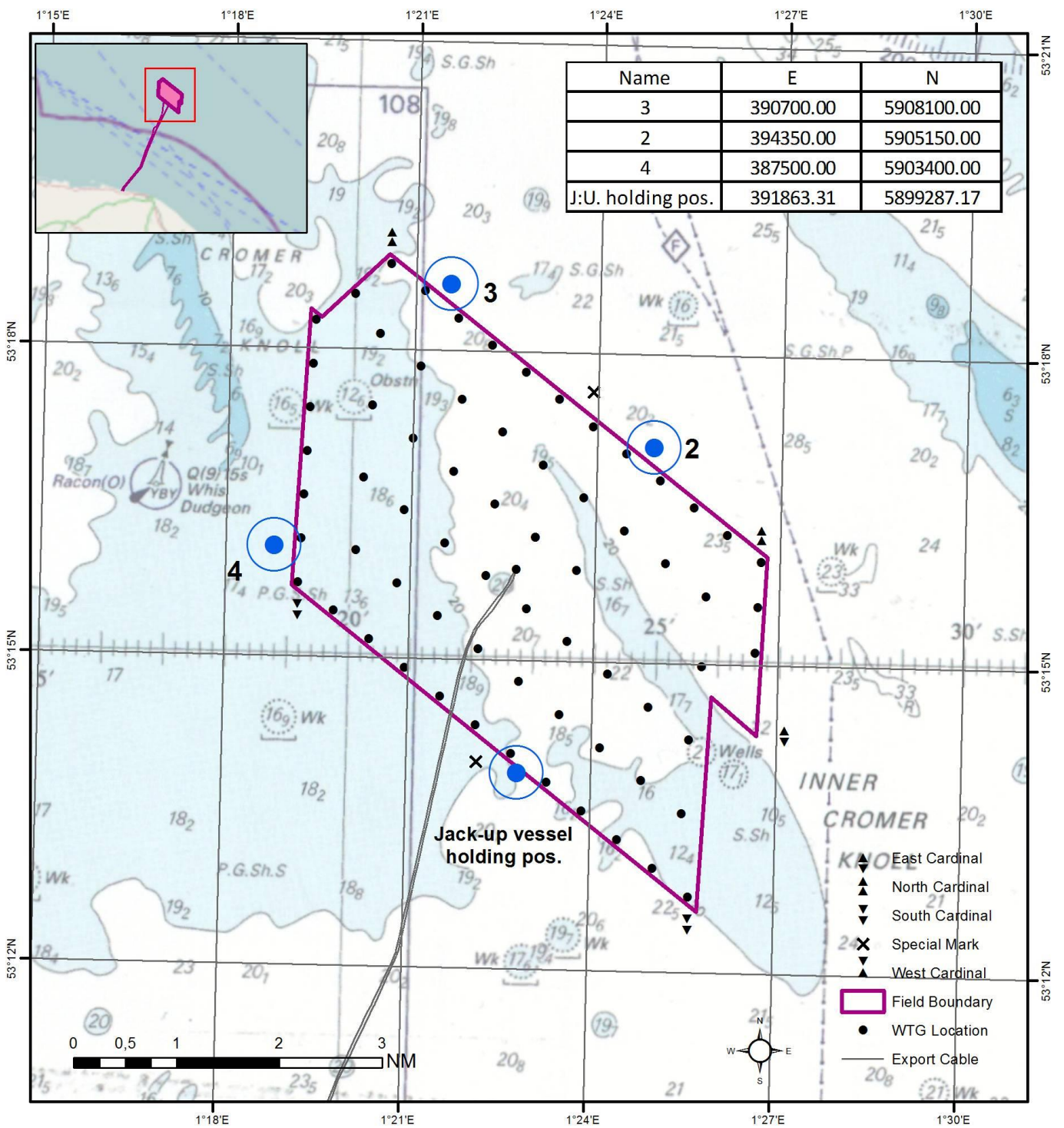
Map Author: Statoil

This map features bathymetry from seabed survey: ST-13504 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. Installation sequence



# Rock Installation Campaign. Anchor locations for rock transfer





## KEY CONSTRUCTION VESSEL CONTACT DETAILS

### ESVAGT NJORD



**Call sign:** OWZN2

**Bridge Phone:** VSAT.TEL: +45 32 71 26 89; / GSM: +45 32 71 26 85

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

### SEA CHALLENGER



**Call sign:** OWLQ2

**Bridge Phone:** V-sat: +45 89 88 90 10

**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



**Callsign:** C6BW7

**Bridge Phone:** VSAT.TEL: +4723677230; +4723677230 / GSM: +47 41 43 02 07

**E-mail :** [captain.cygnus@vestlandoffshore.no](mailto:captain.cygnus@vestlandoffshore.no) ; [bridge.cygnus@vestlandoffshore.no](mailto:bridge.cygnus@vestlandoffshore.no)

## Van Oord – HAM 602



**Callsign:** PENF

**Bridge Phone:** +31 888 26 3946

**E-mail:** [0602.bdg@vanoord.com](mailto:0602.bdg@vanoord.com)

## ADVENTURE



**Callsign:** 2IFE4

**Bridge Phone:** V-sat 01947750717

**E-mail:** [adventureGS@gmail.com](mailto:adventureGS@gmail.com) / [adventure.guard1@gmail.com](mailto:adventure.guard1@gmail.com)

## Resolute



**Callsign:** MLPD5

**Bridge Phone:** +44 284 179 8209

**E-mail:** [resolute.guard1@gmail.com](mailto:resolute.guard1@gmail.com)

## Advance WY77



**Callsign:** MZNA6

**Bridge Phone:** Sat. Phone: 00870773231090/01947 240024

**E-mail:** [adventureGS@gmail.com](mailto:adventureGS@gmail.com)

## Smit Kamara



**Callsign:** ORLB

**Bridge Phone:**

**E-mail:**



## **AASLI**

**Call Sign: ZDKD7**  
**Bridge: +47 45 96 07 98**  
**IMO Number: 9060778**  
**Email Bridge: mvaasli@outlook**

### **Vessel Master**

**Tel: +47 97 76 99 97**  
**E-mail: mvaasli@outlook.com**

 M/V Norbris



## Norbris

Call Sign: LAXQ7  
Bridge: +47 940 26 991  
IMO Number: 9247132  
Email Bridge: [norbris@arrivashipping.no](mailto:norbris@arrivashipping.no)

Vessel Master

Tel: +47 940 26 991

E-mail: [norbris@arrivashipping.no](mailto:norbris@arrivashipping.no)



## Liamare

Call Sign: PBBH  
Bridge: +31 6 27 872 686  
IMO Number: 9166481  
Email Bridge: [liamare@liamareshipping.nl](mailto:liamare@liamareshipping.nl)

### Vessel Master

Tel: +31 6 22 701 989  
E-mail: [liamare@liamareshipping.nl](mailto:liamare@liamareshipping.nl)