

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	06/05/2019
	Ref: 8460001-PC0010-MWE-REP-005	Rev: 01

Work Planned for the Period 06.05.2019 to 12.05.2019

Construction work for Moray East Offshore Wind Farm will commence from the 10th May 2019.

The key aim of the Weekly Notice of Operations is to give a global view of activities and vessels involved. Questions regarding the operations will be welcome preferably well in advance of each construction activity.

Moray East is developing the Moray East Offshore Wind Farm in the Outer Moray Firth on the south eastern area of the Smith Bank located to the north of the Aberdeenshire and Moray coast. The development will consist of 100 offshore wind turbines (WTGs) (with a total capacity of approximately 950 MW) and three Offshore Substation Platforms (OSPs). Water depths in the Moray East site range from approximately 38 m below LAT to 54 m below LAT. The generated power will be transmitted to the grid via three subsea export cable circuits to the landfall location at Inverboyndie bay on the Aberdeenshire coast. The onshore export cables continue underground to the Moray East substation currently under construction near New Deer. The Moray East offshore development boundary is shown in black on Figure 1 below. Details of location of work activities within this area will be provided as work progresses.

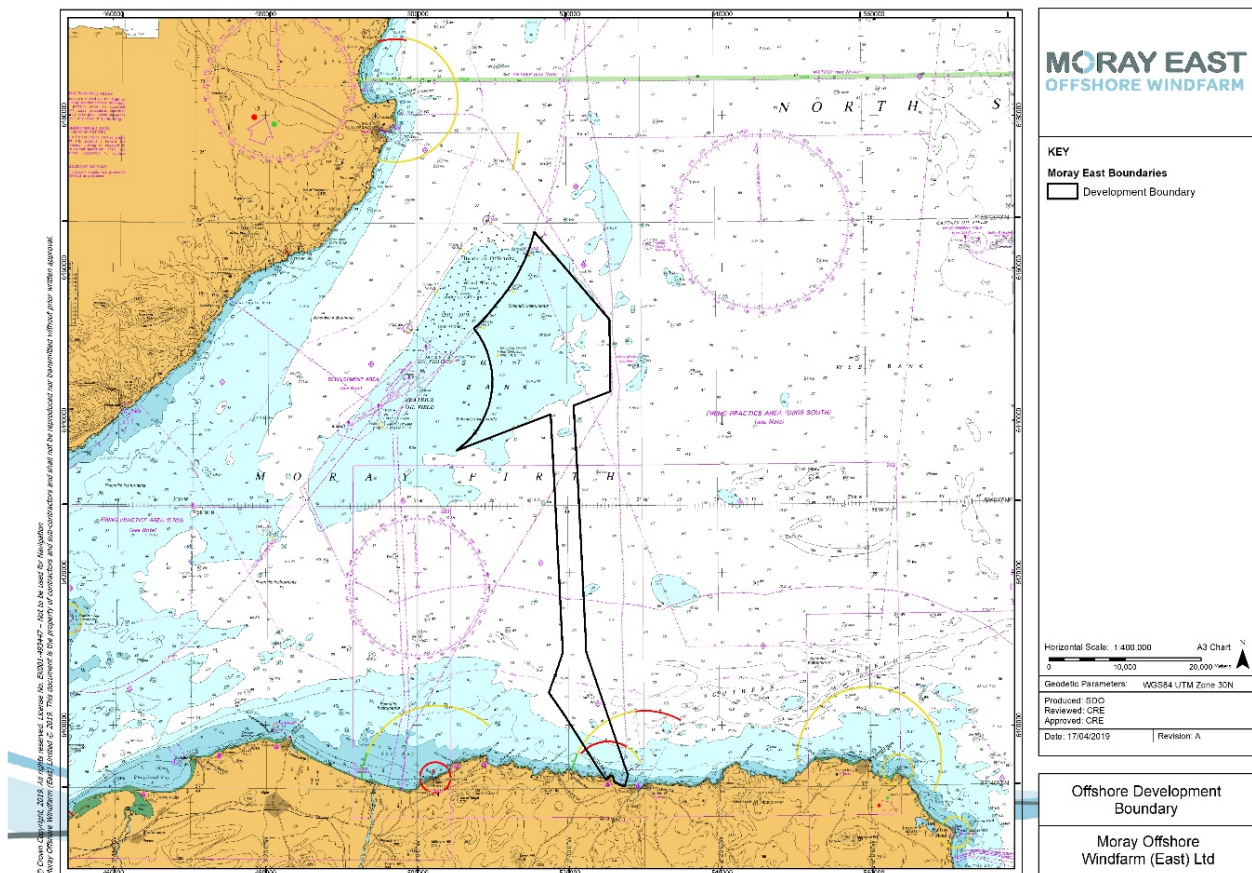


Figure 1: Moray East Offshore Development Boundary

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It is currently anticipated that weather permitting offshore construction works will be carried out year-round and on a continuous basis (i.e. 24 hour working, seven days a week) unless notified otherwise.

Moray East's Marine Coordination Centre in Fraserburgh is manned 24 hours, 7 days per week.

A number of pre-construction activities are continuing offshore, alongside the construction works, which are planned to commence from the 10th May 2019:

- Boulder relocation works (detailed in this notice);
- Subsea debris survey (detailed in this notice);
- Commencement of piling operations (detailed in this notice);
- Guard vessel duties (detailed in this notice).

1 Contact Details for Marine Coordination

The following contact can provide more information if required. Please note that specific queries can also be addressed to the relevant vessel or shore based representative.

Telephone Number (Day Operations)	+44 (0) 778 706 5714
Emergency Contact (24/7)	+44 (0) 1346 511 838
Marine Coordinator Email	MarineCoordination.MORAYEAST@Morayeast.com
Address	Dalrymple Hall, Dalrymple St, Fraserburgh, AB43 9BD

2 Completed Operations

2.1 Moray East Construction Markers

Moray East has completed the deployment of nine construction marker buoys around the Moray East site. The marker buoys will remain in place until after construction of the Moray East Offshore Wind Farm is complete. The co-ordinates for the as-built marker buoys are provided in the Table 3 below.

Table 3 – Marker buoy locations

Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 1 - North Cardinal Buoy, Pillar shaped with a north cardinal shaped top mark, exhibiting a Quick (Q) White (W) light character and AIS.	58° 18' 6.600" N	2° 41' 4.800" W	518481.96	6462358.27
Buoy 2 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 16' 48.300" N	2° 37' 55.380" W	521579.08	6459952.33

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Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 3 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 15' 8.460" N	2° 35' 57.300" W	523521.05	6456875.58
Buoy 4 - East Cardinal Buoy, Pillar shaped with an east cardinal shaped top mark, exhibiting a Very (V) Q (3) 5 second (s) W light character and AIS.	58° 10' 44.094" N	2° 32' 45.804" W	526698.14	6448719.47
Buoy 5 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 7' 49.680" N	2° 35' 20.640" W	524201.44	6443309.27
Buoy 6 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 6' 43.980" N	2° 38' 19.860" W	521280.40	6441260.65
Buoy 7 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 4' 57.240" N	2° 47' 9.360" W	512624.16	6437922.64
Buoy 8 – South Cardinal, Pillar shaped with a south cardinal shaped top mark, exhibiting a V Q (6) + L Fl 10s W light character and AIS.	58° 4' 1.140" N	2° 52' 6.660" W	507757.35	6436175.21
Buoy 9 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 8' 37.080" N	2° 50' 37.080" W	509205.67	6444712.15

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Figure 3 - Layout of demarcation buoyage

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3 Boulder Relocation Works

Moray East has contracted Utility ROV Services Limited to carry out boulder relocation work within the Moray East site as detailed within Figure 4 below.

The boulder relocation activities commenced on 4th March 2019, the duration of the campaign is anticipated to last up to 85 days (including weather downtime). The EDT Kennedy will be relocating seabed boulders and debris using an over-the-side Remotely Operated Vehicle (ROV) grab. Vessel details are provided within Section 3.1 below.

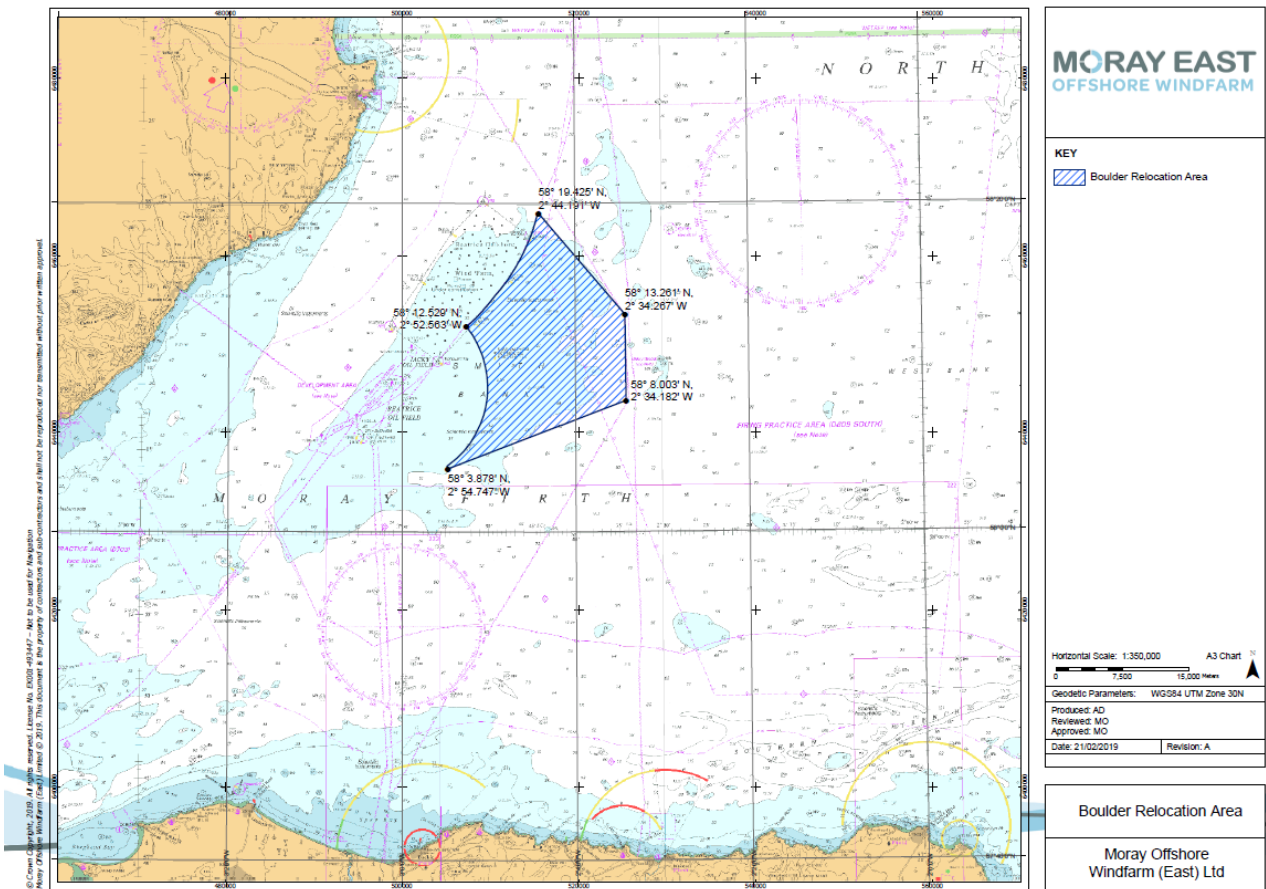


Figure 4 – Boulder relocation works area

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3.1 Vessel associated with the planned works

EDT Kennedy	
General Description and Dimensions:	DP 2 ROV support vessel LOA: 75 m, Beam: 18 m, Draught: 5.6
Call Sign:	5BAJ4
MMSI:	9671400
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	kennedy.captain@edtoffshore.com
Onshore Representative:	Malgorzata Orlowska



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4 Subsea Debris Survey

Moray East has contracted Moray First Marine Limited to carry out subsea debris survey work within the activity area detailed within Figure 4 below.

The MV Coral Wind will be investigating the potential for subsea debris using hull-mounted equipment. If any areas of interest for further inspection are identified, a Remotely Operated Vehicle (ROV) will be deployed to investigate the area further. The earliest commencement date for the works is currently anticipated to be 08th May 2019, and the duration of works will be one day excluding weather downtime. Vessel details are provided within Section 4.1 below.

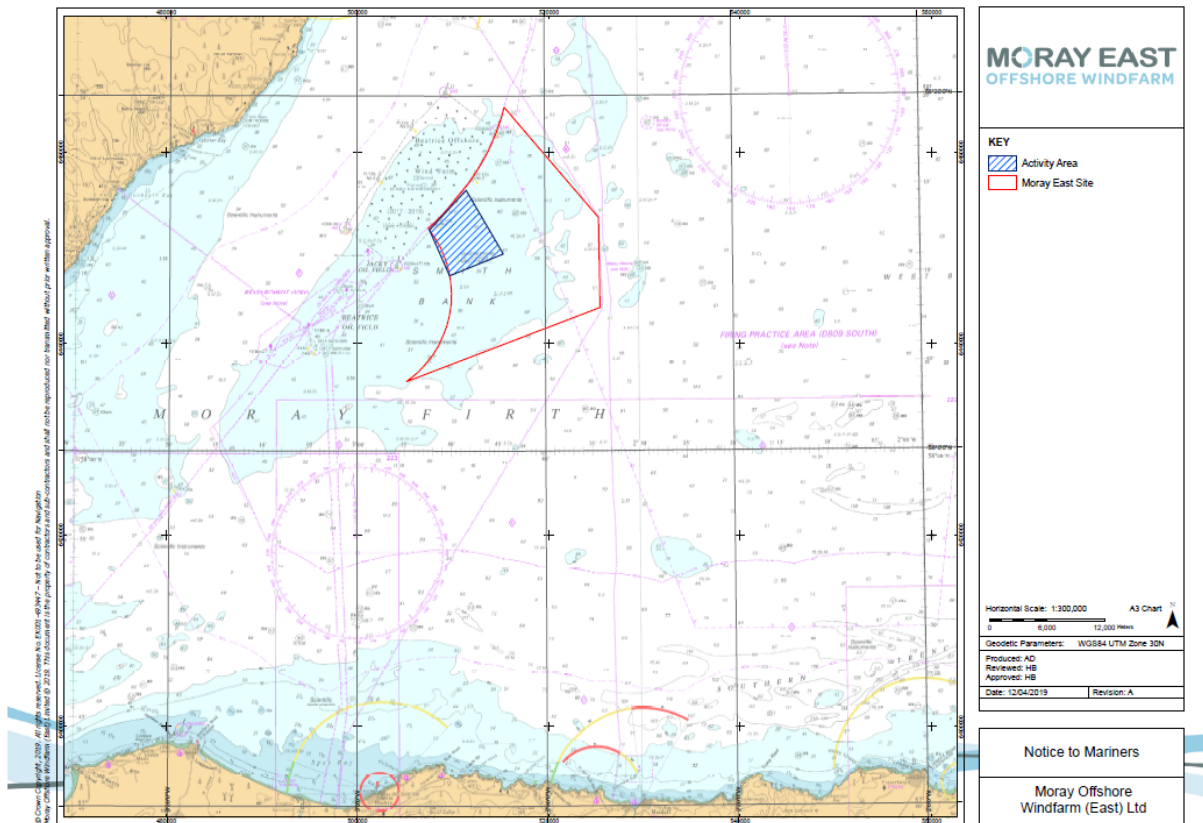


Figure 5 – Subsea debris survey area

Latitude and longitude co-ordinates for the activity area are as follows:

WGS84	
Latitude	Longitude
58° 12.482' N	2° 52.330' W
58° 14.708' N	2° 48.408' W
58° 11.115' N	2° 44.446' W
58° 09.903' N	2° 50.191' W

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4.1 Vessel associated with the planned works

MV Coral Wind	
General Description and Dimensions:	Workboat, UK MCA Cat.2 LOA: 14 m, Beam: 5.1 m, Draught: 1.2 m
Call Sign:	2EMX8
MMSI:	N/A
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	bill@moraymarine.com
Onshore Representative:	Enrique Alvarez



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5 Piling Operations

GeoSea NV Geotechnical & Offshore Solutions have been contracted by Moray East to carry out pile foundation installation at the Moray East site. The vessels associated with the planned works are detailed in Section 4.1 below.

The piling operations are due to commence from the 10th May 2019 and are scheduled to take place over a period of approximately 11 months. Information on the piling operations is provided in Section 4.2 and 4.3 below.

5.1 Vessels associated with the planned works

5.1.1 Pin Pile Support Vessel

MV Normand Service	
General Description and Dimensions:	DP 2 PSV vessel LOA: 88.0 m, Beam: 18.0 m, Draught: 4.5 m
Call Sign:	LAFR8
MMSI:	257062690
On Board Contact:	Mob: +32 486 36 42 31
Offshore Manager / Party Chief:	Tobe Possimiers/Hans Miedema
E-mail:	possemiers.tobe@deme-group.com
Onshore Representative:	Edward Maycock



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5.1.2 Pin Pile Installation Vessel

MV Apollo	
General Description and Dimensions:	Offshore Heavy Lift DP2 jack up vessel LOA: 89 m, Beam: 45 m, Draught: 15 m
Call Sign:	LXBP
MMSI:	253586000
On Board Contact:	Mob: +32 486 36 42 31
Offshore Manager / Party Chief:	Tobe Possimiers/Hans Miedema
E-mail:	possemiers.tobe@deme-group.com
Onshore Representative:	Edward Maycock



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5.2 Foundation Locations

Foundation locations for piling operations are shown in Table 4 below. Further information on piling sequencing will be made available in future notices relevant to works.

Table 4 – WTG locations

Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)
ME-A01	58° 4.550' N	2° 52.147' W
ME-A02	58° 5.158' N	2° 52.144' W
ME-B02	58° 5.147' N	2° 50.570' W
ME-B03	58° 5.755' N	2° 50.567' W
ME-B04	58° 6.364' N	2° 50.564' W
ME-B05-OFF	58° 6.967' N	2° 50.544' W
ME-B13	58° 11.838' N	2° 50.540' W
ME-B14	58° 12.446' N	2° 50.538' W
ME-C05	58° 6.961' N	2° 48.986' W
ME-C07	58° 8.177' N	2° 48.980' W
ME-C08	58° 8.785' N	2° 48.977' W
ME-C09	58° 9.394' N	2° 48.973' W
ME-C10	58° 10.002' N	2° 48.970' W
ME-C11	58° 10.610' N	2° 48.967' W
ME-C12	58° 11.218' N	2° 48.964' W
ME-C13	58° 11.826' N	2° 48.961' W
ME-C14	58° 12.435' N	2° 48.958' W
ME-C15	58° 13.043' N	2° 48.955' W
ME-C16	58° 13.651' N	2° 48.951' W
ME-D04	58° 6.341' N	2° 47.414' W
ME-D05	58° 6.949' N	2° 47.410' W
ME-D07	58° 8.166' N	2° 47.403' W
ME-D08	58° 8.774' N	2° 47.399' W
ME-D09	58° 9.382' N	2° 47.396' W
ME-D10	58° 9.990' N	2° 47.392' W
ME-D11	58° 10.598' N	2° 47.389' W
ME-D12	58° 11.207' N	2° 47.385' W
ME-D13	58° 11.815' N	2° 47.381' W
ME-D14	58° 12.423' N	2° 47.378' W
ME-D15	58° 13.031' N	2° 47.374' W
ME-D16	58° 13.639' N	2° 47.371' W
ME-D17	58° 14.248' N	2° 47.367' W
ME-E04	58° 6.329' N	2° 45.838' W
ME-E05	58° 6.937' N	2° 45.834' W
ME-E19	58° 15.452' N	2° 45.778' W
ME-F04	58° 6.317' N	2° 44.263' W
ME-F21	58° 16.656' N	2° 44.187' W

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Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)
ME-G05	58° 6.913' N	2° 42.683' W
ME-G06	58° 7.521' N	2° 42.678' W
ME-G07	58° 8.129' N	2° 42.673' W
ME-G09	58° 9.345' N	2° 42.663' W
ME-G10	58° 9.954' N	2° 42.658' W
ME-G11	58° 10.562' N	2° 42.653' W
ME-G13	58° 11.778' N	2° 42.643' W
ME-G15	58° 12.995' N	2° 42.633' W
ME-G16	58° 13.603' N	2° 42.629' W
ME-G17	58° 14.211' N	2° 42.624' W
ME-G18	58° 14.819' N	2° 42.619' W
ME-G19	58° 15.428' N	2° 42.614' W
ME-G20	58° 16.036' N	2° 42.609' W
ME-G21	58° 16.644' N	2° 42.604' W
ME-G22	58° 17.252' N	2° 42.599' W
ME-H05	58° 6.900' N	2° 41.107' W
ME-H06	58° 7.508' N	2° 41.102' W
ME-H07	58° 8.116' N	2° 41.096' W
ME-H08	58° 8.724' N	2° 41.091' W
ME-H09	58° 9.333' N	2° 41.086' W
ME-H10	58° 9.941' N	2° 41.080' W
ME-H13	58° 11.765' N	2° 41.064' W
ME-H14	58° 12.374' N	2° 41.059' W
ME-H16	58° 13.590' N	2° 41.048' W
ME-H17	58° 14.198' N	2° 41.042' W
ME-H18	58° 14.806' N	2° 41.037' W
ME-H19	58° 15.415' N	2° 41.032' W
ME-H20	58° 16.023' N	2° 41.026' W
ME-H21	58° 16.631' N	2° 41.021' W
ME-H22	58° 17.239' N	2° 41.015' W
ME-I06	58° 7.495' N	2° 39.526' W
ME-I07	58° 8.103' N	2° 39.520' W
ME-I19	58° 15.401' N	2° 39.450' W
ME-I20	58° 16.010' N	2° 39.444' W
ME-J07	58° 8.090' N	2° 37.943' W
ME-J08	58° 8.698' N	2° 37.937' W
ME-J09	58° 9.306' N	2° 37.930' W
ME-J10	58° 9.914' N	2° 37.924' W
ME-J12	58° 11.131' N	2° 37.912' W
ME-J13	58° 11.739' N	2° 37.905' W
ME-J14	58° 12.347' N	2° 37.899' W
ME-J16	58° 13.563' N	2° 37.886' W
ME-J17	58° 14.172' N	2° 37.880' W

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Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)
ME-J18	58° 14.780' N	2° 37.874' W
ME-J19-OFF	58° 15.383' N	2° 37.887' W
ME-K09	58° 9.292' N	2° 36.353' W
ME-K10	58° 9.900' N	2° 36.346' W
ME-K11	58° 10.509' N	2° 36.339' W
ME-K16	58° 13.550' N	2° 36.306' W
ME-K17-OFF	58° 14.189' N	2° 36.133' W
ME-L09	58° 9.278' N	2° 34.775' W
ME-L11	58° 10.494' N	2° 34.761' W
ME-L12	58° 11.103' N	2° 34.754' W
ME-L13	58° 11.711' N	2° 34.747' W
ME-E18	58° 14.844' N	2° 45.782' W
ME-E14	58° 12.411' N	2° 45.798' W
ME-I18	58° 14.793' N	2° 39.455' W
ME-F08	58° 8.750' N	2° 44.245' W
ME-G08	58° 8.737' N	2° 42.668' W
ME-H11	58° 10.549' N	2° 41.075' W
ME-C04	58° 6.353' N	2° 48.989' W
ME-C02	58° 5.136' N	2° 48.995' W
ME-D06	58° 7.557' N	2° 47.407' W
ME-OSP1	58° 7.546' N	2° 45.830' W
ME-OSP2	58° 13.007' N	2° 44.214' W
ME-OSP3	58° 9.928' N	2° 39.502' W

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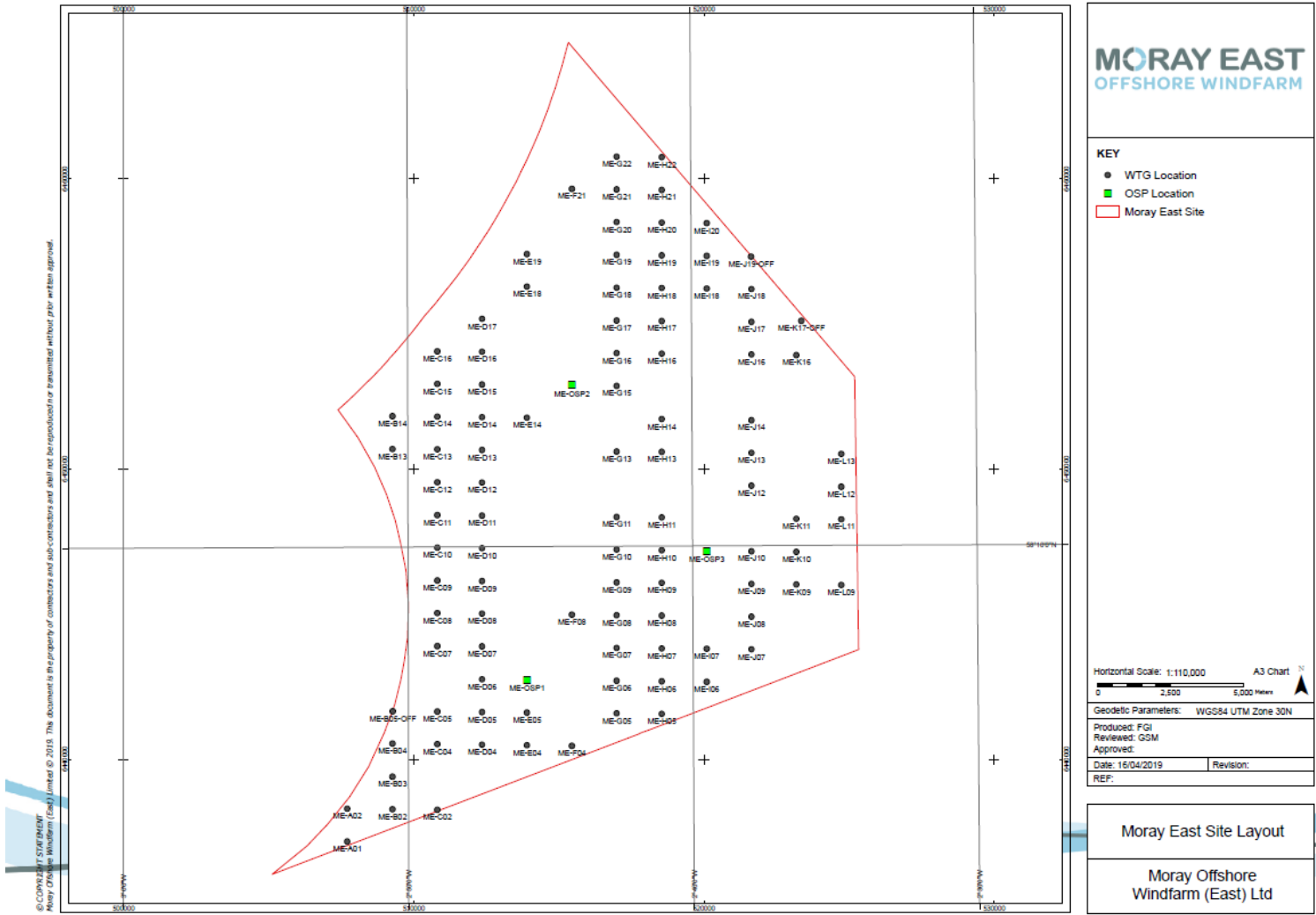


Figure 6 – Turbine location map

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5.3 Piling Operations

Pile foundations will be installed by the Heavy Lift Vessel (HLV) Apollo which will arrive at the proposed foundation installation location and will be positioned in readiness for the foundation installation works. This will involve the vessel entering DP2 and then jacking up to operational draft.

Pile foundations will be installed by the use of a Pile Installation template (see Figure 7 below), where 3 pin piles will be stabbed into the seabed through the piling template then driven to target depth in readiness for the Jacket installation.

The Piling Template will then be recovered to deck and vessel relocate to the next location for installation.

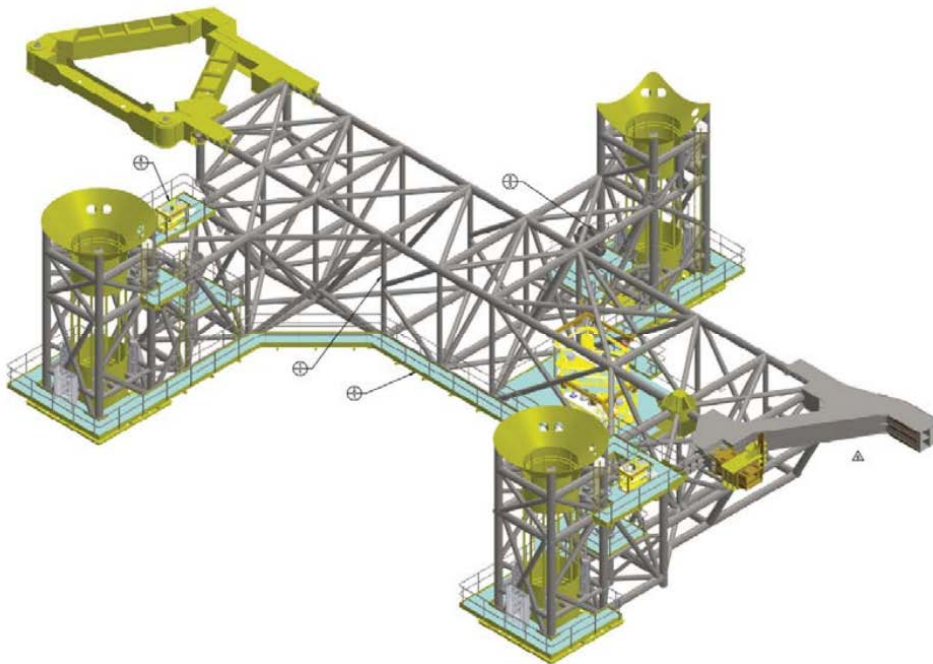


Figure 7 – Piling Template

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6 Guard Vessels

6.1 Guard Vessel – GV Replenish

GV Replenish	
General Description and Dimensions:	Guard Vessel LOA: 24.36 m, Beam: 7.17 m, Draught 3.48 m
Call Sign:	MASY7
MMSI:	235055180
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	gvreplenish@gmail.com
Onshore Representative:	Enrique Alvarez



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6.2 Guard Vessel – KMS Ability N294

KMS Ability N294	
General Description and Dimensions:	Guard Vessel LOA: 23.14 m, Beam: 6.63 m, Draught: 3.20 m
Call Sign:	MDFW3
MMSI:	235014666
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	gvability@gmail.com
Onshore Representative:	Enrique Alvarez



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7 General Safety Advice

Please be aware that by virtue of its mode of operation and the equipment deployed, the EDT Kennedy (boulder relocation works), the Coral Wind (subsea debris survey work), the MV Apollo and the MV Normand Service (piling operations) will be Restricted in its Ability to Manoeuvre as defined under COLREGS (International Regulations for Preventing Collisions at Sea 1972, Rule 3). Masters of vessels are therefore requested to maintain their vessels and gears at a minimum safe distance from these vessels of 500 metres when it is undertaking its work and showing the appropriate shapes and lights.

In order to not compromise the safety of the EDT Kennedy, the Coral Wind, the MV Apollo and the MV Normand Service, the crew of each, and each vessel's ability to undertake its contracted works, fishermen who have static fishing gears deployed within the defined Moray East site (see Figure 4) are requested to provide the coordinates of such deployed gears and details of whether the surface markers used are visible at all states of visibility to Jen Miller using the below contact information (Section 58 of the Merchant Shipping Act 1995).

8 Fisheries Liaison

Fisheries liaison associated with the activity will be co-ordinated by Brown and May Marine. For any commercial fishery queries please contact:

Jen Miller - Brown and May Marine Ltd.

Email: jen.miller@brownmay.com

Tel: +44 1379 872148 / + 44 7519 106002

Fisheries liaison support is also available through the Fisheries Liaison Officer onboard of the MV Apollo. Contacts provided below:

Name: William Spence

Email: williamspence14@yahoo.co.uk

Mobile: +44 7773 880 786

9 Distribution List

The distribution of this notice is as per email recipient's header. A central list of recipients is maintained by the Marine Coordinator; if you are not the appropriate recipient of these notices, or do not wish to receive the notices in the future, please contact us at the address included in Section 1 of this notice.

10 Website

The official website of Moray Offshore Windfarm (East) Limited can be found at:

<http://www.morayoffshore.com/moray-east/the-project/>

This website will contain all Notices to Mariners (NtMs) published by Moray East during the construction phase of the project, Weekly Notices of Operations and general information about the project.