

## Port of Barrow Island - Local Knowledge Certificate Examination



### 1.0 Introduction

Safe navigation within the Port of Barrow Island requires significant local knowledge of navigation, communications, pilotage and operational procedures. Relevant information can be found in the references listed below, and Port users are urged to review procedures regularly to ensure that their knowledge of the Port remains current.

### 1.1 Purpose

The purpose of this examination is to assess port users' knowledge regarding the expectations of the WA Department of Transport and Chevron, regarding the various rules, regulations and requirements that apply to vessels transiting or operating within the port limits of the Port of Barrow Island.

### 1.2 Target Audience

Every person whose duties include taking charge of the safe navigation of any vessel operating under a business arrangement with Chevron within the Port of Barrow Island must hold a valid Local Knowledge Certificate (LKC) issued by the Port of Barrow Island.

A valid LKC is also a prerequisite for the award of a Pilot Exemption Certificate (PEC) for Masters of vessels in which a PEC is required under the provisions of the Harbour Masters Port Operating Requirements as reproduced in the Port of Barrow Island – Port Information Guide (PIG).

### 1.3 Instructions to Applicants

Applicants should submit electronic copies of the following documents to the BWI Shipping and Marine Communications Officer at [bwimco@chevron.com](mailto:bwimco@chevron.com), or arrange for paper copies to be delivered to the Port office.

Document ID: GOR-COP-01407 Revision ID: 3.0 Revision Date: 15 August 2018 Information Sensitivity: Public Uncontrolled when printed	<b>Document Approvals</b>	<b>Signature/Date</b>
	<b>Author</b>	*
	<b>Reviewer</b>	*
	<b>Approver</b>	*

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**Table 1: Documents to be submitted**

Document	Comments
Completed examination	Examinations answers are to be hand-written. Only the answer section should be submitted. Applicants should ensure that they are attempting the current examination as found on the Port of Barrow Island website at: <a href="http://www.chevronaustralia.com/our-businesses/barrow-island/barrow-island-port">http://www.chevronaustralia.com/our-businesses/barrow-island/barrow-island-port</a>
Certificate of Competency	Must be valid for area of operation
Certificate of Medical Fitness	Must specify that applicant is fit to perform the duties of a deck officer

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## 2.0 References

All information required in this exam is available in the following documents and the relevant navigation charts.

**Table 2: References**

Ref. No.	Description	Document ID
1	Port of Barrow Island - Port Information Guide, Rev. 4.0	ABU110700304
2	ABU - Port of Barrow Island Cyclone Procedure	ABU-COP-0017
3	Shipping and Pilotage Act 1967	
4	Shipping and Pilotage (Ports and Harbours) Regulations 1966	
5	Submarine Cables and Pipeline Act 1963	
6	Petroleum Submerged Lands Act 1982	
7	AUS charts 65, 66, 67, 742	

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Applicant Name	
Contact email	Date submitted
Vessel name	Position held onboard
LOA (m)	GRT
Certificate of Competency (CoC)	CoC Issuing authority
CoC Number	CoC Expiry Date
Certificate of Medical Fitness expiry date	

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**ALL ANSWERS ARE TO BE HAND WRITTEN**

1. The Port of Barrow Island is a \_\_\_\_\_ under the Shipping and Pilotage Act 1967. The \_\_\_\_\_ Guide shall be read in conjunction with the \_\_\_\_\_ Requirements. These two (2) separate documents shall provide guidance to all port users utilising the port facilities within the port limits, simultaneously or otherwise, to undertake their operations responsibly. All vessels operating within port limits shall adhere to the Port Information Guide and Port Operating Requirements at all times. All mariners are to comply with any instructions / directives that the \_\_\_\_\_ may issue, and to report through the \_\_\_\_\_ any unsafe operations and incidents.
  
2. As part of the Port’s environmental management commitments, all vessel masters must be aware that:
  - a. All vessels entering the Barrow Island Port Area to make best endeavours to reduce \_\_\_\_\_ and direct overboard lighting to the absolute \_\_\_\_\_ level at all times.
  
3. Vessels engaged in a domestic voyage, proceeding to or from the Port of Barrow Island, shall provide the following information via email \_\_\_\_\_ hours prior to arrival. The notification shall contain the following information:

a.	h.
b.	i.
c.	j.
d.	k.
e.	l.
f.	m.
g.	n.

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4. The Port of Barrow Island is a \_\_\_\_\_ pilotage area unless:
- a. The vessel's Master holds a valid \_\_\_\_\_ (PEC) for the Port of Barrow Island issued by the DoT.
  - b. Vessels exempt in accordance with the Western Australian Shipping and Pilotage (Ports and Harbours) Regulations 1966 –
    - (a) a vessel of war
    - (b) a vessel with a length overall and not more than \_\_\_\_ m.
  - c. In accordance with the Harbour Masters Port Operating Requirements, a 25m tug towing a 20m barge with a 10m tow line requires a pilot onboard unless the vessel's Master holds a valid PEC. (TRUE / FALSE)
5. The Port of Barrow Island is located on the \_\_\_\_\_ coast of Barrow Island. Port limits includes the portion of water contained within the arc of a circle having a radius of 7 nautical miles from the intersection of 20°46.8'S 115° 27.9'E and the eastern shoreline of Barrow Island extending from \_\_\_\_\_ at the northern end of the island, to a position midway between \_\_\_\_\_ Point and \_\_\_\_\_ Point in the south.
6. List each VHF radio channels used for operations at the Port of Barrow and describe the use.

VHF	Channel Use in Port of Barrow Island
16	Marine Distress, Safety and Calling

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7. With respect to MARPOL requirements, and the determination of the nearest point of land, the baseline is calculated from the \_\_\_\_\_ side of Barrow Island.
8. a. List the two locations at BWI for which the Australian National Tide Tables provide data:

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- b. Hourly height of tide predictions are available from the \_\_\_\_\_ and \_\_\_\_\_

- c. State the mean tidal ranges (MHWS / MLWS) for the following locations:

Location	MHWS (m)	MLWS (m)
MOF		
Wapet Landing		

9. Prior to each cyclone season, and for its entire duration, all vessels shall ensure that they have onboard a revised cyclone management procedure that aligns with the Port of Barrow Island Cyclone Procedure. The Port of Barrow Island Cyclone Procedure is available on the Port website. Describe the cyclone alert stages.

Stage	Key Action	Description
1		
2		
3		
4		
5	Open Port	TC or threat of cyclone has passed – damage assessment and recovery

10. A restricted zone of \_\_\_\_\_ around vessels moored at the CBM prohibits unauthorised vessels to enter without prior permission for the duration of tanker operations.

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11. The Domestic Gas (DomGas) pipeline, extends nm\_\_\_\_\_of the LNG jetty and then alters to the\_\_\_\_\_towards the Australian mainland. The pipeline passes over seabed undulations and may protrude more than\_\_\_\_m above the seabed.

The DomGas pipeline is protected by the \_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ which includes provision for penalties of up to\_\_\_\_years imprisonment for intentional or reckless damage to a pipeline.

12. Any work to be conducted onboard a vessel shall be done so in accordance with the \_\_\_\_\_ \_\_\_\_\_ permit to work system.

13. The Gorgon Marine Terminal has a\_\_ meter exclusion zone extending from a central point at the manifold and extending to the further outer reaches of any vessels adjoined to the infrastructure.

14. The Daily Schedule and SIMOPS (DSS) is distributed by the Port daily between the hours of - . Circle the information found on the DSS:

Port status as at 1700 each evening	Dive operations
Next day shipping schedule & forecast	Port contact details in case of emergency
MARSEC level	SIMOPS activities
Marine Notices in force	All of the above

15. All vessels' Masters are obligated to inform and report to the \_\_\_\_\_ \_\_\_\_\_ through the Barrow Island\_\_\_\_\_within hours of any incident, near miss or relevant events. This does not relieve the Master from his obligation to report the same incident, near miss or relevant events as required by any other Australian / International legislation. (TRUE / FALSE)

16. The Barrow Island Port can also be contacted 24/7 via the Shipping and Marine Communications Officer on phone number\_\_\_\_\_. This phone number along with additional contact information can be found at the top of the \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_. This document lists all of the active Port of Barrow Island Marine Notices along with the relevant vessel movements, simultaneous operations and construction/maintenance activities taking place in the Port each day.



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17. List the reporting requirements for vessels transiting into and within the Port of Barrow in the following circumstances:

<b>When crossing port limits inbound vessels shall inform the Port of their:</b>	
a.	
b.	
c.	
d.	
e.	
f.	
<b>When transiting through or within the port, vessels shall inform the Port of their:</b>	
a.	
b.	
<b>When transiting in vicinity of Double Island, vessels shall inform the Port when:</b>	
a.	
b.	
<b>Vessels shall also inform the port:</b>	
a.	
b.	
c.	
d.	

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e.	
f.	Conducting any other activity that might affect other operations in the port, or to report any unusual activities or potential hazards to safe navigation

18. Every vessel shall at all times proceed at a \_\_\_\_\_ in accordance with the ColRegs and shall also take into consideration \_\_\_\_\_. It is a requirement that all vessels within port limits to manage their operational impact on marine fauna by way of \_\_\_\_\_ restrictions, \_\_\_\_\_ and approach \_\_\_\_\_.

19. All vessels operating within the Port of Barrow are required to maintain a static minimum under-keel clearance (UKC) of \_\_\_\_\_% of the maximum vessel(s) draft or \_\_\_\_\_m except for:

- a. Vessels operating west of the \_\_\_\_\_m contour line in the Wapet Landing area, where the static UKC can be reduced to \_\_\_\_\_m;
- b. Small craft and \_\_\_\_\_ are permitted a reduced UKC of \_\_\_\_\_m when operating at \_\_\_\_\_;
- c. \_\_\_\_\_ are exempt while positioning the bow onto or departing from the \_\_\_\_\_.

20. Describe the area of coverage within the Port on the following charts and indicate scale:

Chart	Scale	Description of coverage
AUS 65	1:	<b>Approaches to Barrow Island</b> Description:
AUS 66	1:	<b>Barrow Island – Town Point</b> Description:

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Chart	Scale	Description of coverage
AUS 67	1:	<b>Barrow Island – WAPET Landing</b> Description:
AUS	1:150 000	<b>Rosemary Island to Barrow Island</b> Description: Covers entire Port and approaches

21. With reference to AUS 66, what is the “Zone of Confidence” (ZOC) accuracy from the MOF entrance Channel and MOF area?

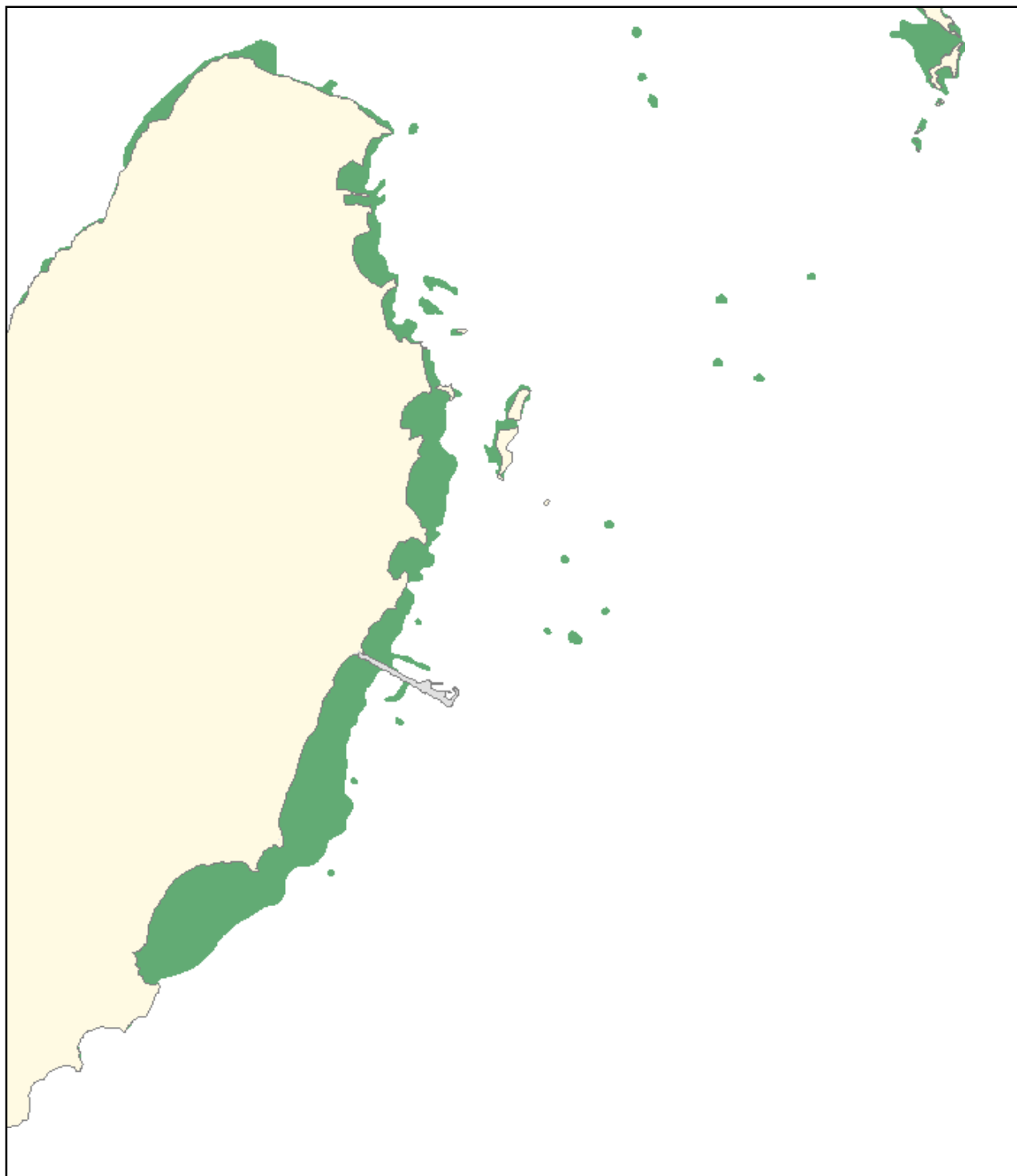
Position accuracy	Depth accuracy

22. Using standard chart symbology indicate, on each of the following chartlets, the position of each feature listed below it (details only need to be accurate enough to provide indicative positions):

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### Port of Barrow Island - Overview

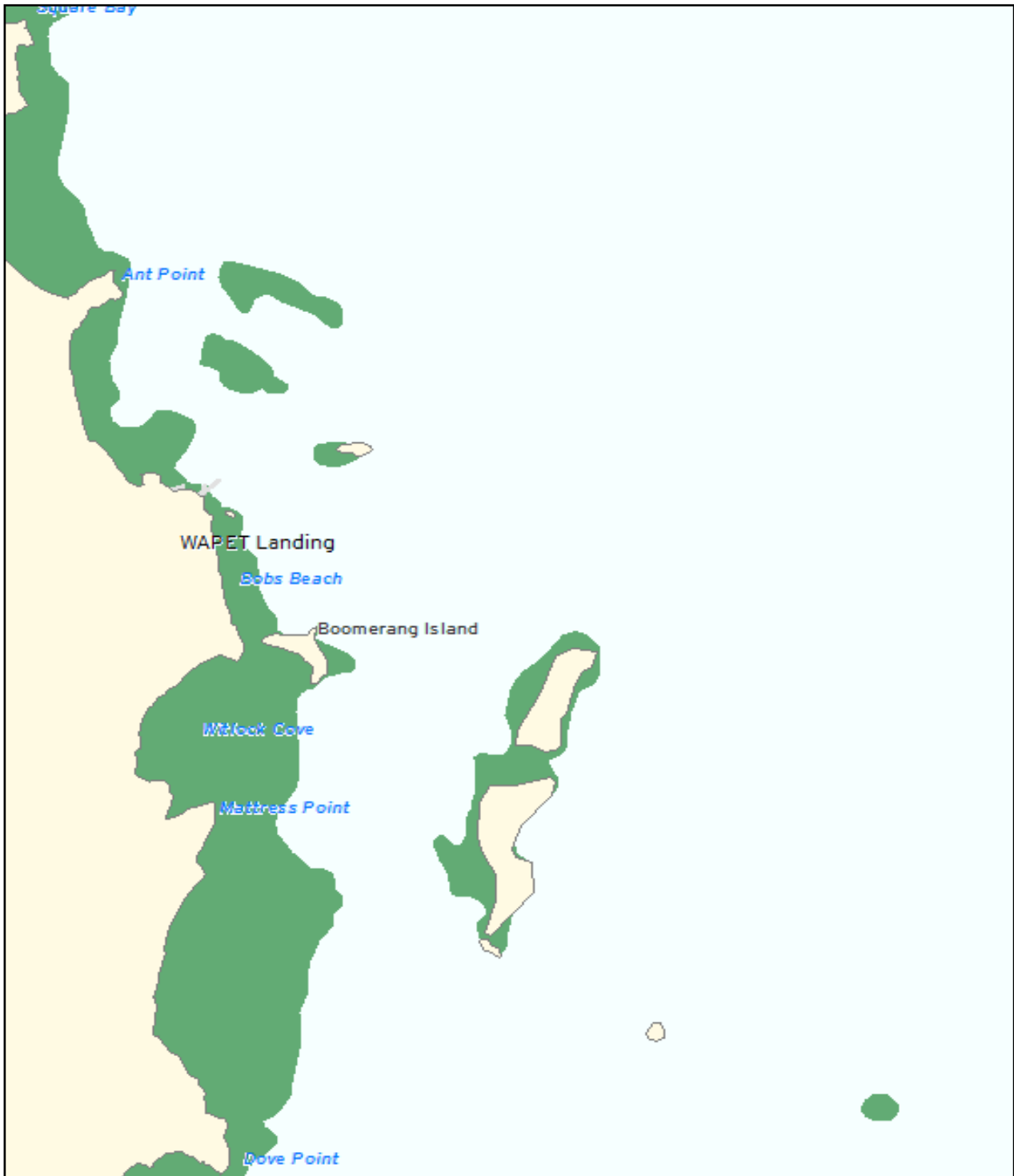


BWI Port Limits	LNG Jetty	Offshore platforms
CBM and CBM pipeline	B1 anchorage	10m contour on eastern approach
DomGas pipeline	5m contour	

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### Port of Barrow Island – Approaches to WAPET Landing

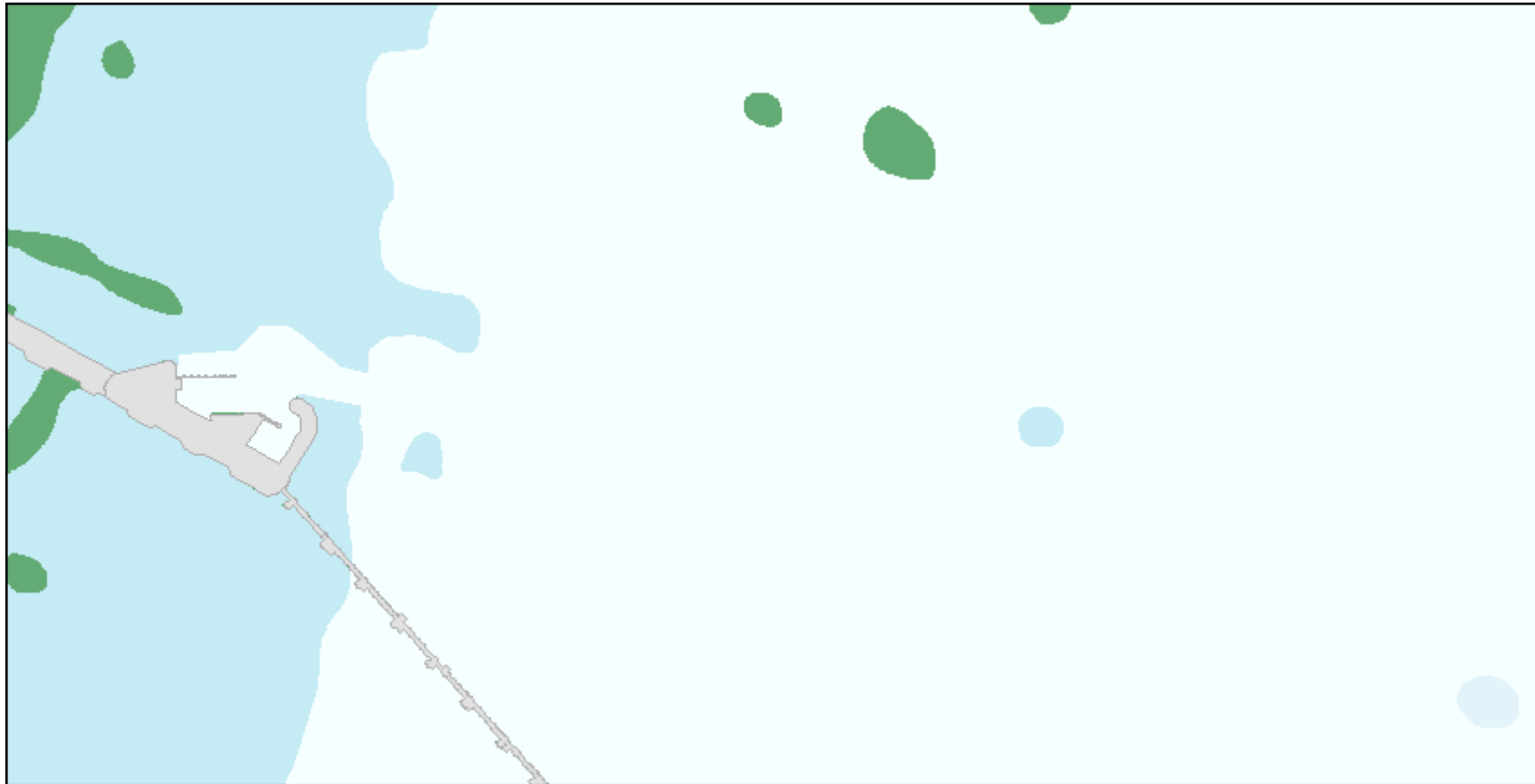


B2 anchorage	Aids to navigation as detailed on AUS 65
Southbound reporting point	5m and 10 contours
Tidal stream direction and maximum rates	Channel Rock

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**Port of Barrow Island – Approaches to Materials Offloading Facility (MOF)**



MOF channel markers	MOF lead lights and arcs	Tidal stream direction and maximum rates
CBM pipeline	5m contours	Minimum Maintained depth in MOF
10m contours		

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### Port of Barrow Island – Approaches to LNG Terminal



LNG channel markers	LNG channel lead lights	Maintained depth in LNG Basin
CBM mooring buoys	Recommended track (LNG and MOF)	