PORT OTAGO


# Otago Harbour Pilotage Guide

Revision 7 – September 2022

# Otago Harbour Pilotage Guide

Revision 7- September 2022

The **AIM** of this document is to provide information to the ship's Bridge Team to assist in constructing a **Passage Plan** into Port Otago-Port Chalmers and/or Dunedin.

Once the pilot is on board, he/she will conduct a **BRIEFING** with the Bridge Team. Using the EMPX(Electronic Master Exchange Form) Example overleaf, the pilot will agree the passage plan with the bridge team. The EMPX, will be sent prior to the vessel arriving at the Pilot Station, and the bridge team can make themselves familiar with the plan, prior to Pilots arrival onboard.

Once the briefing is complete, the pilot will **'take the con'** of the vessel. The Vessels bridge team are required to continue their duties:

- Maintain a proper lookout
- Plot Ships positions on the chart
- Assist the pilot by ensuring his helms and engine orders are correctly followed.

All Port Otago pilots are trained in Bridge Resource Management(BRM). Clear communication is vital thus the language on the bridge must be in English using the 'Closed-Loop' system. If the helmsman or any member of the bridge team is unclear about the pilot's orders or intentions, the pilot will welcome such challenge.

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The **helmsman** must be experienced and able to speak and understand English, any change of helmsman throughout passage must be confirmed with Pilot prior to doing so.

Both **anchors** must be available throughout the harbour area. If a ship loses steering or main engines, then every effort should be made to keep the vessel parallel to the channel. Please note that all vessels can experience squat and interaction effects due to the narrow channels and cross currents. If grounding, consider that the bow will suffer less damage than the stern due to rudder and propeller and/or azipods.

A good radar should be designated for the pilot's use: VRM set to 0.07' and a True Vector of 2 minutes. The pilot is also equipped with a PPU(Personal Pilot Unit) as an additional aid to Navigation. The charts used on the PPU, may differ to charts onboard, as the port utilises BENC's which show a higher level of accuracy.

Your vessels ECDIS should be loaded with the Correct Passage Plan, as provided in this document.

**Thankyou Port Otago Marine Services.**

# PORT OTAGO PASSAGE PLAN

## INBOUND PBG to PORT CHALMERS

| WP | REMARK | LATITUDE | LONGITUDE | Co. | DIST | DIST | SPEED | TIME | Tot.TIME | RAD. | ROT | PARALLEL INDEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WP000** | Pilot Boarding Ground ALPHA | **45° 42.83234'S** | **170° 44.80986'E** | | | | | | | | | |
| **WP001** | Pilot Boarding Ground BRAVO | **45° 43.60788'S** | **170° 43.71355'E** | 186° | 1.50 NM | 1.50 NM | 12.0 kn | 0 h 7 m | 0 h 07 m | 1195m | | **FWB** 186° x 0.09' L |
| **WP002** | Fairway Beacon | **45° 45.06463'S** | **170° 43.47662'E** | 181° | 0.54 NM | 2.04 NM | 12.0 kn | 0 h 3 m | 0 h 10 m | 500m | | **FWB** 181° x 0.09' L |
| **WP003** | North Approach | **45° 45.60344'S** | **170° 43.46250'E** | 186° | 1.10 NM | 3.14 NM | 12.0 kn | 0 h 5 m | 0 h 15 m | 500m | | **Howletts point** 186° x 0.13'L |
| **WP004** | Pilots Beach | **45° 46.67528'S** | **170° 43.29670'E** | 181° | 0.32 NM | 3.46 NM | 12.0 kn | 0 h 2 m | 0 h 17 m | 500m | | **Harrington Point** 181° x 0.06'L |
| **WP005** | Harrington Point | **45° 46.99726'S** | **170° 43.28844'E** | 181° | 0.17 NM | 3.59 NM | 12.0 kn | 0 h 1 m | 0 h 18 m | 500m | | **Harrington Point** 181° x 0.06'L |
| **WP006** | Spit Tide Gauge Pile | **45° 47.17063'S** | **170° 43.28311'E** | 193° | 0.60 NM | 4.19 NM | 12.0 kn | 0 h 3 m | 0 h 21 m | 1000m | 20° | |
| **WP007** | Harrington Bend | **45° 47.56904'S** | **170° 43.16427'E** | 268° | 0.80 NM | 4.99 NM | 12.0 kn | 0 h 4 m | 0 h 25 m | 1100m | 20° | |
| **WP008** | Cross Channel East | **45° 47.76073'S** | **170° 42.00155'E** | 283° | 1.40 NM | 6.39 NM | 10.0 kn | 0 h 8 m | 0 h 33 m | 1000m | | **Bcn no. 11** 283° x 0.07'R |
| **WP009** | Cross Channel West | **45° 47.45124'S** | **170° 40.11388'E** | 231° | 0.70 NM | 7.09 NM | 8.0 kn | 0 h 5 m | 0 h 38 m | 1730m | | **Bcn no. 15** 231° x 0.06'R |
| **WP010** | Pulling Point(Tug Meeting Pt) | **45° 47.89481'S** | **170° 39.31109'E** | 263° | 0.60 NM | 7.69 NM | 8.0 kn | 0 h 4 m | 0 h 42 m | 1500m | 10° | **Acheron Point** 263° x 0.07'R |
| **WP011** | Acheron Point | **45° 47.96236'S** | **170° 38.48544'E** | 241° | 0.42 NM | 8.11 NM | 6.0 kn | 0 h 4 m | 0 h 46 m | 1900m | | |
| **WP012** | Deborah Bend | **45° 48.16202'S** | **170° 37.95941'E** | 198° | 0.37 NM | 8.48 NM | 6.0 kn | 0 h 4 m | 0 h 50 m | 1000m | 11° | |
| **WP013** | Multi-Purpose North End | **45° 48.51790'S** | **170° 37.79359'E** | 168° | 0.30 NM | **8.78** NM | 3.0 kn | 0 h 6 m | **0 h 56 m** | 500m | | |
| **WP014** | Beach Street North End | **45° 48.81490'S** | **170° 37.88001'E** | | | | | | | | | |

# PORT OTAGO PASSAGE PLAN

## OUTBOUND PORT CHALMERS to PBG

| WP | REMARK | LATITUDE | LONGITUDE | Co. | DIST | T. | SPEED | TIME | Tot.TIME | RAD | ROT | PARALLEL INDEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WP014** | Beach Street North End | **45° 48.81490'S** | **170° 37.88001'E** | 349° | 0.30 NM | 0.30 NM | 3.0 kn | 0 h 6 m | | | | |
| **WP013** | Multi-Purpose North End | **45° 48.51790'S** | **170° 37.79359'E** | 018° | 0.37 NM | 0.67 NM | 6.0 kn | 0 h 4 m | 0 h 10 m | 500m | | |
| **WP012** | Deborah Bend | **45° 48.16202'S** | **170° 37.95941'E** | 061° | 0.41 NM | 1.08 NM | 6.0 kn | 0 h 4 m | 0 h 14 m | 1000m | 11° | |
| **WP011** | Acheron Point | **45° 47.96236'S** | **170° 38.48544'E** | 083° | 0.60 NM | 1.68 NM | 8.0 kn | 0 h 4 m | 0 h 18 m | 1900m | | **Acheron Point** 083° x 0.07'L |
| **WP010** | Pulling Point(Tug Meeting Pt) | **45° 47.89481'S** | **170° 39.31109'E** | 052° | 0.70 NM | 2.38 NM | 8.0 kn | 0 h 5 m | 0 h 23 m | 1500m | 10° | **Bcn no. 15** 052° x 0.06'L |
| **WP009** | Cross Channel West | **45° 47.45124'S** | **170° 40.11388'E** | 103° | 1.40 NM | 3.78 NM | 10.0 kn | 0 h 8 m | 0 h 31 m | 1730m | | **Bcn no. 11** 103° x 0.07'L |
| **WP008** | Cross Channel East | **45° 47.76073'S** | **170° 42.00155'E** | 088° | 0.80 NM | 4.58 NM | 12.0 kn | 0 h 4 m | 0 h 35 m | 1000m | | |
| **WP007** | Harrington Bend | **45° 47.56904'S** | **170° 43.16427'E** | 013° | 0.60 NM | 5.18 NM | 12.0 kn | 0 h 3 m | 0 h 38 m | 1100m | 20° | |
| **WP006** | Spit Tide Gauge Pile | **45° 47.17063'S** | **170° 43.28311'E** | 001° | 0.17 NM | 5.35 NM | 12.0 kn | 0 h 1 m | 0 h 39 m | 1000m | 20° | **Harrington Point** 001° x 0.06'R |
| **WP005** | Harrington Point | **45° 46.99726'S** | **170° 43.28844'E** | 001° | 0.32 NM | 5.67 NM | 12.0 kn | 0 h 2 m | 0 h 41 m | 500m | | **Harrington Point** 001° x 0.06'R |
| **WP004** | Pilots Beach | **45° 46.67528'S** | **170° 43.29670'E** | 006° | 1.10 NM | 6.77 NM | 12.0 kn | 0 h 5 m | 0 h 46 m | 500m | | **Howletts point** 006° x 0.13'R |
| **WP003** | North Approach | **45° 45.60344'S** | **170° 43.46250'E** | 001° | 0.54 NM | 7.30 NM | 12.0 kn | 0 h 3 m | 0 h 49 m | 500m | | **FWB** 001° x 0.09' R |
| **WP002** | Fairway Beacon | **45° 45.06463'S** | **170° 43.47662'E** | 006° | 1.50 NM | 8.80 NM | 12.0 kn | 0 h 7 m | **0 h 56 m** | 500m | | **FWB** 006° x 0.09' R |
| **WP001** | Pilot Boarding Ground BRAVO | **45° 43.60788'S** | **170° 43.71355'E** | | | | | | | | | |
| **WP000** | Pilot Boarding Ground ALPHA | **45° 42.83234'S** | **170° 44.80986'E** | | | | | | | | | |

# PORT OTAGO PASSAGE PLAN

## INBOUND PBG to DUNEDIN

| WP | REMARK | LATITUDE | LONGITUDE | Co. | DIST | DIST | SPEED | TIME | Tot.TIME | RAD | ROT | PARALLEL INDEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WP000** | Pilot Boarding Ground ALPHA | **45° 42.83234'S** | **170° 44.80986'E** | | | | | | | | | |
| **WP001** | Pilot Boarding Ground BRAVO | **45° 43.60788'S** | **170° 43.71355'E** | 186° | 1.50 NM | 1.50 NM | 12.0 kn | 0 h 7 m | 0 h 07 m | 1195m | | **FWB** 186° x 0.09' L |
| **WP002** | Fairway Beacon | **45° 45.06463'S** | **170° 43.47662'E** | 181° | 0.54 NM | 2.04 NM | 12.0 kn | 0 h 3 m | 0 h 10 m | 500m | | **FWB** 181° x 0.09' L |
| **WP003** | North Approach | **45° 45.60344'S** | **170° 43.46250'E** | 186° | 1.10 NM | 3.14 NM | 12.0 kn | 0 h 5 m | 0 h 15 m | 500m | | **Howletts point** 186° x 0.13'L |
| **WP004** | Pilots Beach | **45° 46.67528'S** | **170° 43.29670'E** | 181° | 0.32 NM | 3.46 NM | 12.0 kn | 0 h 2 m | 0 h 17 m | 500m | | **Harrington Point** 181° x 0.06'L |
| **WP005** | Harrington Point | **45° 46.99726'S** | **170° 43.28844'E** | 181° | 0.17 NM | 3.59 NM | 12.0 kn | 0 h 1 m | 0 h 18 m | 500m | | **Harrington Point** 181° x 0.06'L |
| **WP006** | Spit Tide Gauge Pile | **45° 47.17063'S** | **170° 43.28311'E** | 193° | 0.60 NM | 4.19 NM | 12.0 kn | 0 h 3 m | 0 h 21 m | 1000m | 20° | |
| **WP007** | Harrington Bend | **45° 47.56904'S** | **170° 43.16427'E** | 268° | 0.80 NM | 4.99 NM | 12.0 kn | 0 h 4 m | 0 h 25 m | 1100m | 20° | |
| **WP008** | Cross Channel East | **45° 47.76073'S** | **170° 42.00155'E** | 283° | 1.40 NM | 6.39 NM | 10.0 kn | 0 h 8 m | 0 h 33 m | 1000m | | **Bcn no. 11** 283° x 0.07'R |
| **WP009** | Cross Channel West | **45° 47.45124'S** | **170° 40.11388'E** | 231° | 0.70 NM | 7.09 NM | 8.0 kn | 0 h 5 m | 0 h 38 m | 1730m | | **Bcn no. 15** 231° x 0.06'R |
| **WP010** | Pulling Point(Tug Meeting Pt) | **45° 47.89481'S** | **170° 39.31109'E** | 263° | 0.60 NM | 7.69 NM | 8.0 kn | 0 h 4 m | 0 h 42 m | 1500m | 10° | **Acheron Point** 263° x 0.07'R |
| **WP011** | Acheron Point | **45° 47.96236'S** | **170° 38.48544'E** | 241° | 0.42 NM | 8.11 NM | 6.0 kn | 0 h 4 m | 0 h 46 m | 1900m | | |
| **WP012** | Deborah Bend | **45° 48.16202'S** | **170° 37.95941'E** | 198° | 0.37 NM | 8.48 NM | 6.0 kn | 0 h 4 m | 0 h 50 m | 1000m | 11° | |
| **WP013** | Multi-Purpose North End | **45° 48.51790'S** | **170° 37.79359'E** | 168° | 0.30 NM | 8.78 NM | 6.0 kn | 0 h 3 m | 0 h 53 m | 500m | | **Bcn no. 26** 168° x 0.12' L |
| **WP014** | Beach Street North End | **45° 48.81490'S** | **170° 37.88001'E** | 180° | 0.35 NM | 9.13 NM | 8.0 kn | 0 h 5 m | 0 h 58 m | 500m | | **Bcn no. 28** 180° x 0.08' L |
| **WP015** | Back Beach | **45° 49.16624'S** | **170° 37.88010'E** | 192° | 0.25 NM | 9.38 NM | 8.0 kn | 0 h 2 m | 1 h 00 m | 1800m | 8° | **Bcn no. 32** 192° x 0.04' L |
| **WP016** | Halfway Islands North | **45° 49.41387'S** | **170° 37.80621'E** | 213° | 0.30 NM | 9.68 NM | 8.0 kn | 0 h 2 m | 1 h 02 m | 1000m | 15° | **Qn Is bcn no. 2** 213° x 0.036' L |
| **WP017** | Halfway Islands South | **45° 49.66638'S** | **170° 37.57288'E** | 234° | 0.13 NM | 9.81 NM | 8.0 kn | 0 h 1 m | 1 h 03 m | 500m | | |
| **WP018** | Bcn 2A leading Front light | **45° 49.74593'S** | **170° 37.41666'E** | 264° | 0.70 NM | 10.51 NM | 8.0 kn | 0 h 04 m | 1 h 07 m | 500m | | **Bcn no. 3** 264° x 0.04 R |
| **WP019** | Bcn No. 7 | **45° 49.81210'S** | **170° 36.45827'E** | 242° | 0.21 NM | 10.71 NM | 10.0 kn | 0 h 03 m | 1 h 10 m | 1800m | 10° | **Bcn no. 8A** 242° x 0.03L |
| **WP020** | Kilgours Point | **45° 49.91150'S** | **170° 36.18420'E** | 243° | 0.15 NM | 10.86 NM | 10.0 kn | 0 h 01 m | 1 h 11 m | 500m | 20° | **Bcn no.12** 244° x 0.03L |
| **WP021** | Eastern Channel | **45° 49.97900'S** | **170° 35.99491'E** | 244° | 0.26 NM | 11.12 NM | 10.0 kn | 0 h 02 m | 1 h 13 m | 1800m | 10° | **Bcn no. 12** 244° x 0.03' L |
| **WP022** | Bcn No. 15 | **45° 50.09398'S** | **170° 35.65718'E** | 233° | 0.14 NM | 11.26 NM | 10.0 kn | 0 h 01 m | 1 h 14 m | 500m | 10° | **Bcn no. 15** 233° x 0.03' R |
| **WP023** | Bcn No. 19 | **45° 50.17766'S** | **170° 35.49897'E** | 213° | 0.21 NM | 11.47 NM | 10.0 kn | 0 h 01 m | 1 h 15 m | 500m | | **Bcn no. 19** 213° x 0.03' R |
| **WP024** | Bcn No. 23 | **45° 50.35710'S** | **170° 35.33363'E** | 197° | 0.28 NM | 11.75 NM | 8.0 kn | 0 h 02 m | 1 h 17 m | 1800m | | **Bcn no. 23** 197° x 0.03' R |
| **WP025** | Bcn No. 27 | **45° 50.62775'S** | **170° 35.21381'E** | 199° | 0.14 NM | 11.89 NM | 8.0 kn | 0 h 02 m | 1 h 19 m | 500m | | **Bcn no. 27** 199° x 0.03' R |
| **WP026** | Bcn No. 29 | **45° 50.76165'S** | **170° 35.14688'E** | 203° | 0.17 NM | 12.06 NM | 8.0 kn | 0 h 03 m | 1 h 22 m | 1800m | | **Bcn no. 29** 203° x 0.03' R |
| **WP027** | Bcn No. 30 | **45° 50.92324'S** | **170° 35.04876'E** | 207° | 0.09 NM | 12.15 NM | 8.0 kn | 0 h 01 m | 1 h 23 m | 500m | | **Bcn no. 30** 207° x 0.03' L |
| **WP028** | Bcn No. 31 | **45° 51.00201'S** | **170° 34.99076'E** | 210° | 0.28 NM | 12.43 NM | 8.0 kn | 0 h 02 m | 1 h 25 m | 500m | | **Bcn no. 31** 210° x 0.03' R |
| **WP029** | Bcn No. 35 | **45° 51.24289'S** | **170° 34.79189'E** | 211° | 0.32 NM | 12.75 NM | 8.0 kn | 0 h 02 m | 1 h 27m | 500m | | **Bcn no. 35** 211° x 0.03' R |
| **WP030** | Bcn No. 39 | **45° 51.51521'S** | **170° 34.55555'E** | 213° | 0.11 NM | 12.86 NM | 8.0 kn | 0 h 01 m | 1 h 28 m | 500m | | **Bcn no. 39** 213° x 0.03' R |
| **WP031** | Burkes | **45°51.61184'S** | **170° 34.46511'E** | 219° | 0.09 NM | 12.95 NM | 8.0 kn | 0 h 01 m | 1 h 29 m | 500m | | |
| **WP032** | Bcn No. 41 | **45° 51.67962'S** | **170° 34.38564'E** | 223° | 0.1 NM | 12.96 NM | 8.0 kn | 0 h 01 m | 1 h 30 m | 500m | | **Bcn no. 41** 223° x 0.04' R |
| **WP033** | Midway | **45° 51.75229'S** | **170° 34.28881'E** | 227° | 0.11 NM | 13.07 NM | 8.0 kn | 0 h 02 m | 1 h 32 m | 500m | | |
| **WP034** | Bcn No. 43 | **45° 51.82559'S** | **170° 34.17493'E** | 237° | 0.13 NM | 13.20 NM | 8.0 kn | 0 h 01 m | 1 h 33 m | 500m | | **Bcn no. 43** 237° x 0.04' R |
| **WP035** | Bcn No. 45 | **45° 51.89615'S** | **170° 34.01721'E** | 241° | 0.2 NM | 13.40 NM | 8.0 kn | 0 h 02 m | 1 h 35 m | 500m | | **Bcn no. 45** 241° x 0.04' R |
| **WP036** | Bcn No. 47 | **45° 51.99568'S** | **170° 33.75986'E** | 244° | 0.11 NM | 13.51 NM | 8.0 kn | 0 h 01 m | 1 h 36 m | 500m | | **Bcn no. 47** 244° x 0.04' R |
| **WP037** | Bcn No. 49 | **45° 52.04609'S** | **170° 33.61287'E** | 246° | 0.11 NM | 13.62 NM | 8.0 kn | 0 h 01 m | 1 h 37 m | 500m | | **Bcn no. 49** 246° x 0.04' R |
| **WP038** | Bcn No. 51 | **45° 52.09065'S** | **170° 33.46938'E** | 249° | 0.12 NM | 13.74 NM | 8.0 kn | 0 h 01 m | 1 h 38 m | 500m | | **Bcn no. 51** 249° x 0.04' R |
| **WP039** | Bcn No. 53 | **45° 52.13303'S** | **170° 33.31281'E** | 251° | 0.17 NM | 13.90 NM | 6.0 kn | 0 h 01 m | 1 h 39 m | 500m | | **Bcn no. 53** 251° x 0.03' R |
| **WP040** | Bcn No. 55 | **45° 52. 18591'S** | **170° 33.08601'E** | 253° | 0.48 NM | 14.38 NM | 5.0 kn | 0 h 06 m | 1 h 45 m | 500m | | **Bcn no. 55** 253° x 0.03' R |
| **WP041** | Bcn No. 59 | **45° 52.32574'S** | **170° 32.41957'E** | 251° | 0.16 NM | 14.54 NM | 5.0 kn | 0 h 02 m | 1 h 47 m | 500 m | | **Bcn no. 59** 251° x 0.03' R |
| **WP042** | Bcn No. 61 | **45° 52.37798'S** | **170° 32.19505'E** | 253° | 0.39 NM | 14.93 NM | 5.0 kn | 0 h 05 m | 1h 52 m | 500m | | **Bcn no. 61** 253° x 0.02' R |
| **WP043** | Bcn No. 67 | **45° 52.49330'S** | **170° 31.65496'E** | 260° | 0.36 NM | 15.29 NM | 4.0 kn | 0 h 05 m | **1 h 57 m** | 500 m | | **Bcn no. 67** 260° x 0.03' R |
| **WP044** | Dunedin Swing Basin | **45° 52.55545'S** | **170° 31.14013'E** | | | | | | | | | |

# PORT OTAGO PASSAGE PLAN

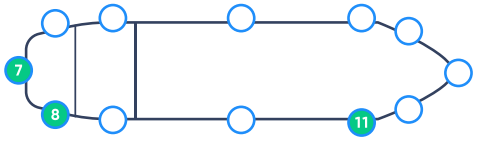
## OUTBOUND DUNEDIN to PBG

| WP | REMARK | LATITUDE | LONGITUDE | Co. | DIST | | DIST | | SPEED | TIME | Tot.TIME | RAD | ROT | PARALLEL INDEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WP044** | Dunedin Swing Basin | **45° 52.55545'S** | **170° 31.14013'E** | 080° | 0.36 | NM | 0.36 | NM | 4.0 kn | 0 h 05 m | 0 h 05 m | 500 m | | |
| **WP043** | Bcn No. 67 | **45° 52.49330'S** | **170° 31.65496'E** | 073° | 0.39 | NM | 0.75 | NM | 5.0 kn | 0 h 05 m | 0 h 10 m | 500m | | **Bcn no. 67** 260° x 0.03' L |
| **WP042** | Bcn No. 61 | **45° 52.37798'S** | **170° 32.19505'E** | 071° | 0.16 | NM | 0.91 | NM | 5.0 kn | 0 h 02 m | 0 h 12 m | 500 m | | **Bcn no. 61** 253° x 0.02' L |
| **WP041** | Bcn No. 59 | **45° 52.32574'S** | **170° 32.41957'E** | 073° | 0.48 | NM | 1.39 | NM | 5.0 kn | 0 h 06 m | 0 h 18 m | 500m | | **Bcn no. 59** 251° x 0.03' L |
| **WP040** | Bcn No. 55 | **45° 52. 18591'S** | **170° 33.08601'E** | 071° | 0.17 | NM | 1.56 | NM | 6.0 kn | 0 h 01 m | 0 h 19 m | 500m | | **Bcn no. 55** 253° x 0.03' L |
| **WP039** | Bcn No. 53 | **45° 52.13303'S** | **170° 33.31281'E** | 069° | 0.12 | NM | 1.68 | NM | 8.0 kn | 0 h 01 m | 0 h 20 m | 500m | | **Bcn no. 53** 251° x 0.03' L |
| **WP038** | Bcn No. 51 | **45° 52.09065'S** | **170° 33.46938'E** | 066° | 0.11 | NM | 1.79 | NM | 8.0 kn | 0 h 01 m | 0 h 21 m | 500m | | **Bcn no. 51** 249° x 0.04' L |
| **WP037** | Bcn No. 49 | **45° 52.04609'S** | **170° 33.61287'E** | 064° | 0.11 | NM | 1.90 | NM | 8.0 kn | 0 h 01 m | 0 h 22 m | 500m | | **Bcn no. 49** 246° x 0.04' L |
| **WP036** | Bcn No. 47 | **45° 51.99568'S** | **170° 33.75986'E** | 061° | 0.2 | NM | 2.10 | NM | 8.0 kn | 0 h 02 m | 0 h 24 m | 500m | | **Bcn no. 47** 244° x 0.04' L |
| **WP035** | Bcn No. 45 | **45° 51.89615'S** | **170° 34.01721'E** | 057° | 0.13 | NM | 2.23 | NM | 8.0 kn | 0 h 01 m | 0 h 25 m | 500m | | **Bcn no. 45** 241° x 0.04' L |
| **WP034** | Bcn No. 43 | **45° 51.82559'S** | **170° 34.17493'E** | 047° | 0.11 | NM | 2.34 | NM | 8.0 kn | 0 h 02 m | 0 h 27 m | 500m | | **Bcn no. 43** 237° x 0.04' L |
| **WP033** | Midway | **45° 51.75229'S** | **170° 34.28881'E** | 043° | 0.1 | NM | 2.44 | NM | 8.0 kn | 0 h 01 m | 0 h 28 m | 500m | | |
| **WP032** | Bcn No. 41 | **45° 51.67962'S** | **170° 34.38564'E** | 039° | 0.09 | NM | 2.53 | NM | 8.0 kn | 0 h 01 m | 0 h 29 m | 500m | | **Bcn no. 41** 223° x 0.04' L |
| **WP031** | Burkes | **45°51.61184'S** | **170° 34.46511'E** | 033° | 0.11 | NM | 2.66 | NM | 8.0 kn | 0 h 01 m | 0 h 30 m | 500m | | |
| **WP030** | Bcn No. 39 | **45° 51.51521'S** | **170° 34.55555'E** | 031° | 0.32 | NM | 2.98 | NM | 8.0 kn | 0 h 02 m | 0 h 32 m | 500m | | **Bcn no. 39** 213° x 0.03' L |
| **WP029** | Bcn No. 35 | **45° 51.24289'S** | **170° 34.79189'E** | 030° | 0.28 | NM | 3.26 | NM | 8.0 kn | 0 h 02 m | 0 h 34 m | 500m | | **Bcn no. 35** 211° x 0.03' L |
| **WP028** | Bcn No. 31 | **45° 51.00201'S** | **170° 34.99076'E** | 027° | 0.09 | NM | 3.35 | NM | 8.0 kn | 0 h 01 m | 0 h 35 m | 500m | | **Bcn no. 31** 210° x 0.03' L |
| **WP027** | Bcn No. 30 | **45° 50.92324'S** | **170° 35.04876'E** | 023° | 0.17 | NM | 3.52 | NM | 8.0 kn | 0 h 03 m | 0 h 38 m | 1800m | | **Bcn no. 30** 207° x 0.03' L |
| **WP026** | Bcn No. 29 | **45° 50.76165'S** | **170° 35.14688'E** | 019° | 0.14 | NM | 3.66 | NM | 8.0 kn | 0 h 02 m | 0 h 40 m | 500m | | **Bcn no. 29** 203° x 0.03' L |
| **WP025** | Bcn No. 27 | **45° 50.62775'S** | **170° 35.21381'E** | 017° | 0.28 | NM | 3.94 | NM | 8.0 kn | 0 h 02 m | 0 h 42 m | 1800m | | **Bcn no. 27** 199° x 0.03' L |
| **WP024** | Bcn No. 23 | **45° 50.35710'S** | **170° 35.33363'E** | 033° | 0.21 | NM | 4.15 | NM | 10.0 kn | 0 h 01 m | 0 h 43 m | 500m | | **Bcn no. 23** 197° x 0.03' L |
| **WP023** | Bcn No. 19 | **45° 50.17766'S** | **170° 35.49897'E** | 053° | 0.14 | NM | 4.29 | NM | 10.0 kn | 0 h 01 m | 0 h 44 m | 500m | | **Bcn no. 19** 213° x 0.03' L |
| **WP022** | Bcn No. 15 | **45° 50.09398'S** | **170° 35.65718'E** | 064° | 0.26 | NM | 4.55 | NM | 10.0 kn | 0 h 02 m | 0 h 46 m | 1800m | 10° | **Bcn no. 15** 233° x 0.03' L |
| **WP021** | Eastern Channel | **45° 49.97900'S** | **170° 35.99491'E** | 063° | 0.15 | NM | 4.70 | NM | 10.0 kn | 0 h 01 m | 0 h 47 m | 500m | 10° | **Bcn no. 12** 244° x 0.03' R |
| **WP020** | Kilgours Point | **45° 49.91150'S** | **170° 36.18420'E** | 062° | 0.21 | NM | 4.91 | NM | 10.0 kn | 0 h 03 m | 0 h 50 m | 1800m | 20° | **Bcn no.12** 244° x 0.03 R |
| **WP019** | Bcn No. 7 | **45° 49.81210'S** | **170° 36.45827'E** | 084° | 0.70 | NM | 5.61 | NM | 8.0 kn | 0 h 04 m | 0 h 54 m | 500m | 10° | **Bcn no. 8A** 242° x 0.03 R |
| **WP018** | Bcn 2A leading Front light | **45° 49.74593'S** | **170° 37.41666'E** | 054° | 0.13 | NM | 5.74 | NM | 8.0 kn | 0 h 1 m | 0 h 55 m | 500m | | **Bcn no. 3** 264° x 0.04 L |
| **WP017** | Halfway Islands South | **45° 49.66638'S** | **170° 37.57288'E** | 033° | 0.30 | NM | 6.04 | NM | 8.0 kn | 0 h 2 m | 0 h 57 m | 1000m | 15° | **Q Is bcn no. 2** 213° x 0.036' L |
| **WP016** | Halfway Islands North | **45° 49.41387'S** | **170° 37.80621'E** | 012° | 0.25 | NM | 6.29 | NM | 8.0 kn | 0 h 2 m | 0 h 59 m | 1800m | 8° | **Bcn no. 32** 192° x 0.04' R |
| **WP015** | Back Beach | **45° 49.16624'S** | **170° 37.88010'E** | 000° | 0.35 | NM | 6.64 | NM | 8.0 kn | 0 h 5 m | 1 h 04 m | 500m | | **Bcn no. 28** 180° x 0.08' R |
| **WP014** | Beach Street North End | **45° 48.81490'S** | **170° 37.88001'E** | 348° | 0.30 | NM | 6.94 | NM | 6.0 kn | 0 h 3 m | 1 h 07 m | 500m | | **Bcn no. 26** 168° x 0.12' R |
| **WP013** | Multi-Purpose North End | **45° 48.51790'S** | **170° 37.79359'E** | 018° | 0.37 | NM | 7.31 | NM | 6.0 kn | 0 h 4 m | 1 h 11 m | 1000m | | |
| **WP012** | Deborah Bend | **45° 48.16202'S** | **170° 37.95941'E** | 061° | 0.42 | NM | 7.73 | NM | 6.0 kn | 0 h 4 m | 1 h 15 m | 1900m | 11° | |
| **WP011** | Acheron Point | **45° 47.96236'S** | **170° 38.48544'E** | 083° | 0.60 | NM | 8.33 | NM | 8.0 kn | 0 h 4 m | 1 h 19 m | 1500m | | **Acheron Point** 083° x 0.07'L |
| **WP010** | Pulling Point(Tug Meeting Pt) | **45° 47.89481'S** | **170° 39.31109'E** | 051° | 0.70 | NM | 9.03 | NM | 8.0 kn | 0 h 5 m | 1 h 24 m | 1730m | 10° | **Bcn no. 15** 052° x 0.06'L |
| **WP009** | Cross Channel West | **45° 47.45124'S** | **170° 40.11388'E** | 103° | 1.40 | NM | 10.43 | NM | 10.0 kn | 0 h 8 m | 1 h 32 m | 1000m | | **Bcn no. 11** 103° x 0.07'L |
| **WP008** | Cross Channel East | **45° 47.76073'S** | **170° 42.00155'E** | 088° | 0.80 | NM | 11.23 | NM | 12.0 kn | 0 h 4 m | 1 h 36 m | 1100m | | |
| **WP007** | Harrington Bend | **45° 47.56904'S** | **170° 43.16427'E** | 013° | 0.60 | NM | 11.83 | NM | 12.0 kn | 0 h 3 m | 1 h 39 m | 1000m | | |
| **WP006** | Spit Tide Gauge Pile | **45° 47.17063'S** | **170° 43.28311'E** | 001° | 0.17 | NM | 12.00 | NM | 12.0 kn | 0 h 1 m | 1 h 40 m | 500m | 20° | **Harrington Point** 001° x 0.06'R |
| **WP005** | Harrington Point | **45° 46.99726'S** | **170° 43.28844'E** | 001° | 0.32 | NM | 12.32 | NM | 12.0 kn | 0 h 2 m | 1 h 42 m | 500m | 20° | **Harrington Point** 001° x 0.06'R |
| **WP004** | Pilots Beach | **45° 46.67528'S** | **170° 43.29670'E** | 006° | 1.10 | NM | 13.42 | NM | 12.0 kn | 0 h 5 m | 0 h 47 m | 500m | | **Howletts point** 006° x 0.13'R |
| **WP003** | North Approach | **45° 45.60344'S** | **170° 43.46250'E** | 001° | 0.54 | NM | 13.96 | NM | 12.0 kn | 0 h 3 m | 1 h 50 m | 500m | | **FWB** 001° x 0.09' R |
| **WP002** | Fairway Beacon | **45° 45.06463'S** | **170° 43.47662'E** | 006° | 1.5 | NM | 15.46 | NM | 12.0 kn | 0 h 7 m | **1 h 57 m** | 500m | | **FWB** 006° x 0.09' R |
| **WP001** | Pilot Boarding Ground BRAVO | **45° 43.60788'S** | **170° 43.71355'E** | | | | | | | | | | | |
| **WP000** | Pilot Boarding Ground ALPHA | **45° 42.83234'S** | **170° 44.80986'E** | | | | | | | | | | | |

## Pilotage

| | |
|---|---|
| DATE | 15 Sep 2022 |
| TIME | 08:01 |
| TIMEZONE | UTC+12:00 |
| MVT | Arrival |
| FROM | PBG Alpha |
| TO | Oil Jetty |
| ROUTE | Oil Tanker - PBG to Oil Jetty - Port Side To |
| SIDE TO | Port |
| MAX. DRAFT | 7.50 m |
| FWD. DRAFT | 6.70 m |
| AFT DRAFT | 7.20 m |
| DISPLACEMENT | -- t |
| PILOTAGE MODE | Direct |

PRIMARY PILOT [redacted]




7: TAIAROA 1 **68t** 8: TAIAROA SHIFTED **68t**
11: OTAGO 1 **58t**

## Vessel

| | |
|---|---|
| NAME | [redacted] |
| IMO | [redacted] |
| MMSI | [redacted] |
| LOA | 183.00 m |
| BEAM | 32.20 m |
| HOA | -- m |
| S. TO BRIDGE | 0.00 m |
| B. TO BRIDGE | 0.00 m |
| GROSS TONNAGE | 30948.00 t |
| CPP/FIXED | -- |
| ROTATION | -- |
| THR. FWD | -- kW |
| THR. AFT | -- kW |
| MAIN ENGINE | -- kW |
| BITTS (SWL) FWD. | -- t |
| BITTS (SWL) AFT | -- t |

## Timestamps (Events)

| | Planned / ETA | Actual Time |
|---|---|---|
| FIRST LINE | | 10:42, 15 Sep 2022 |
| PILOT ON BOARD | | 08:00, 15 Sep 2022 |

## Risk Assessment

### PILOT STATION
Type: Tide_UKC

SPIT WHARF EBB 0.9 - 1.2 kn (SLIGHT TO MODERATE)

| | |
|---|---|
| TIME | 08:01 |
| AVAILABLE DEPTH | 15.21 m |
| REQUIRED DEPTH | 8.30 m |
| STATIC UKC | 7.71 m |
| REMAINING UKC | 6.91 m |

### MOLE END
Type: Tide_UKC

SPIT WHARF EBB 1.2 - 1.5 kn (MODERATE)

| | |
|---|---|
| TIME | 08:21 |
| AVAILABLE DEPTH | 15.12 m |
| REQUIRED DEPTH | 8.30 m |
| STATIC UKC | 7.62 m |
| REMAINING UKC | 6.82 m |

### SPIT WHARF
Type: Tide_UKC

SPIT WHARF EBB 1.2 - 1.5 kn (MODERATE)

| | |
|---|---|
| TIME | 08:31 |
| AVAILABLE DEPTH | 15.07 m |
| REQUIRED DEPTH | 8.30 m |
| STATIC UKC | 7.57 m |
| REMAINING UKC | 6.77 m |

### LOWER HARBOUR CHANNEL
Type: Tide_UKC

PORT CHALMERS EBB 1.3 - 1.6 kn (MODERATE)

| | |
|---|---|
| TIME | 08:51 |
| AVAILABLE DEPTH | 15.13 m |
| REQUIRED DEPTH | 8.30 m |
| STATIC UKC | 7.63 m |
| REMAINING UKC | 6.83 m |

### HALFWAY ISLANDS TANKER
Type: Tide_UKC

PORT CHALMERS EBB 1.3 - 1.6 kn (MODERATE)

| | |
|---|---|
| TIME | 09:16 |
| AVAILABLE DEPTH | 9.98 m |
| REQUIRED DEPTH | 8.75 m |
| STATIC UKC | 2.48 m |
| REMAINING UKC | 1.23 m |

### VICTORIA CHANNEL TANKER
Type: Tide_UKC

DUNEDIN EBB 0 - 0.3 kn (SLACK)

| | |
|---|---|
| TIME | 09:41 |
| AVAILABLE DEPTH | 9.96 m |
| REQUIRED DEPTH | 8.75 m |
| STATIC UKC | 2.46 m |
| REMAINING UKC | 1.21 m |

### OIL JETTY APPROACH TANKERS
Type: Tide_UKC

DUNEDIN EBB 0 - 0.3 kn (SLACK)

| | |
|---|---|
| TIME | 10:06 |
| AVAILABLE DEPTH | 9.02 m |
| REQUIRED DEPTH | 8.75 m |
| STATIC UKC | 1.52 m |
| REMAINING UKC | 0.27 m |

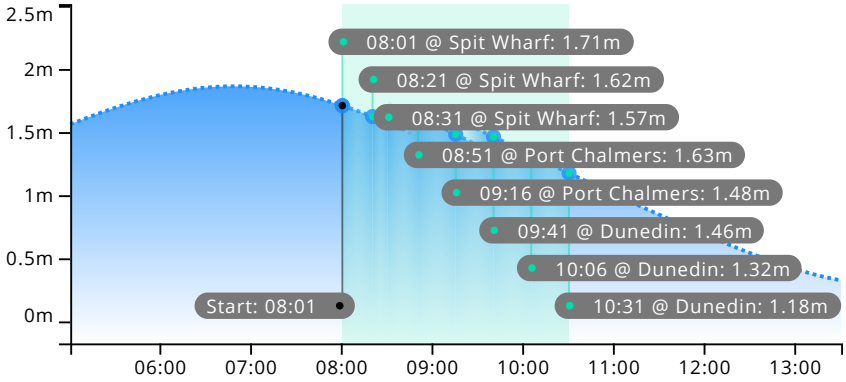
### OIL JETTY
Type: Tide_UKC

DUNEDIN EBB 0 - 0.3 kn (SLACK)

| | |
|---|---|
| TIME | 10:31 |
| AVAILABLE DEPTH | 9.98 m |
| REQUIRED DEPTH | 7.80 m |
| STATIC UKC | 2.48 m |
| REMAINING UKC | 2.18 m |

## Predicted Conditions

Tidal conditions predicted for beginning of pilotage **08:01**




| Spit Wharf | | Range 1.50 m |
|---|---|---|
| ▲ 15 Sep | 06:49 | 1.9m |
| ▼ 15 Sep | 12:52 | 0.4m |
| ▲ 15 Sep | 19:13 | 1.8m |
| ▼ 16 Sep | 01:16 | 0.5m |

| Dunedin | | Range 1.70 m |
|---|---|---|
| ▲ 15 Sep | 07:17 | 2m |
| ▼ 15 Sep | 14:01 | 0.3m |
| ▲ 15 Sep | 19:39 | 1.9m |
| ▼ 16 Sep | 02:24 | 0.3m |

| Port Chalmers | | Range 1.60 m |
|---|---|---|
| ▲ 15 Sep | 07:03 | 2m |
| ▼ 15 Sep | 13:15 | 0.4m |
| ▲ 15 Sep | 19:26 | 1.9m |
| ▼ 16 Sep | 01:38 | 0.4m |

## Weather Information

Sourced from MetOcean

Forecast for **09:00** on **15 Sep 2022** at **Port Chalmers**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE | 7 °C | WIND DIR. | ➤WSW | WIND SPEED | 14 kn | GUST | -- | SWELL DIR. | -- |
| SWELL | -- | VISIBILITY | 24.2 km | PRECIPITATION | 0.0 mm | | | | |

Forecast for **09:00** on **15 Sep 2022** at **Spit Wharf**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE | 9 °C | WIND DIR. | ➤W | WIND SPEED | 19 kn | GUST | -- | SWELL DIR. | ➤ESE |
| SWELL | 1.50 m | VISIBILITY | 24.2 km | PRECIPITATION | 0.0 mm | | | | |

Forecast for **10:00** on **15 Sep 2022** at **Dunedin**

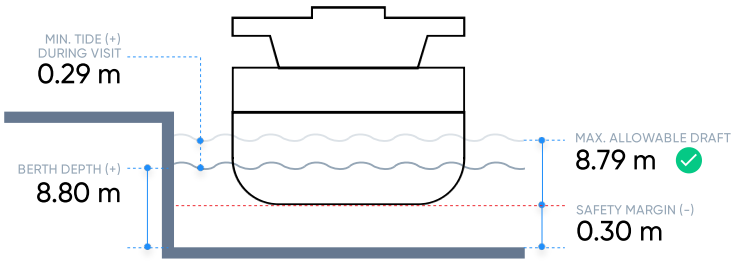
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE | 6 °C | WIND DIR. | ➤WSW | WIND SPEED | 17 kn | GUST | -- | SWELL DIR. | ▲S |
| SWELL | 0.17 m | VISIBILITY | 23.7 km | PRECIPITATION | 0.2 mm | | | | |

Forecast for **11:00** on **15 Sep 2022** at **Dunedin**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE | 6 °C | WIND DIR. | ➤WSW | WIND SPEED | 16 kn | GUST | -- | SWELL DIR. | ▲S |
| SWELL | 0.17 m | VISIBILITY | 11.9 km | PRECIPITATION | 0.5 mm | | | | |

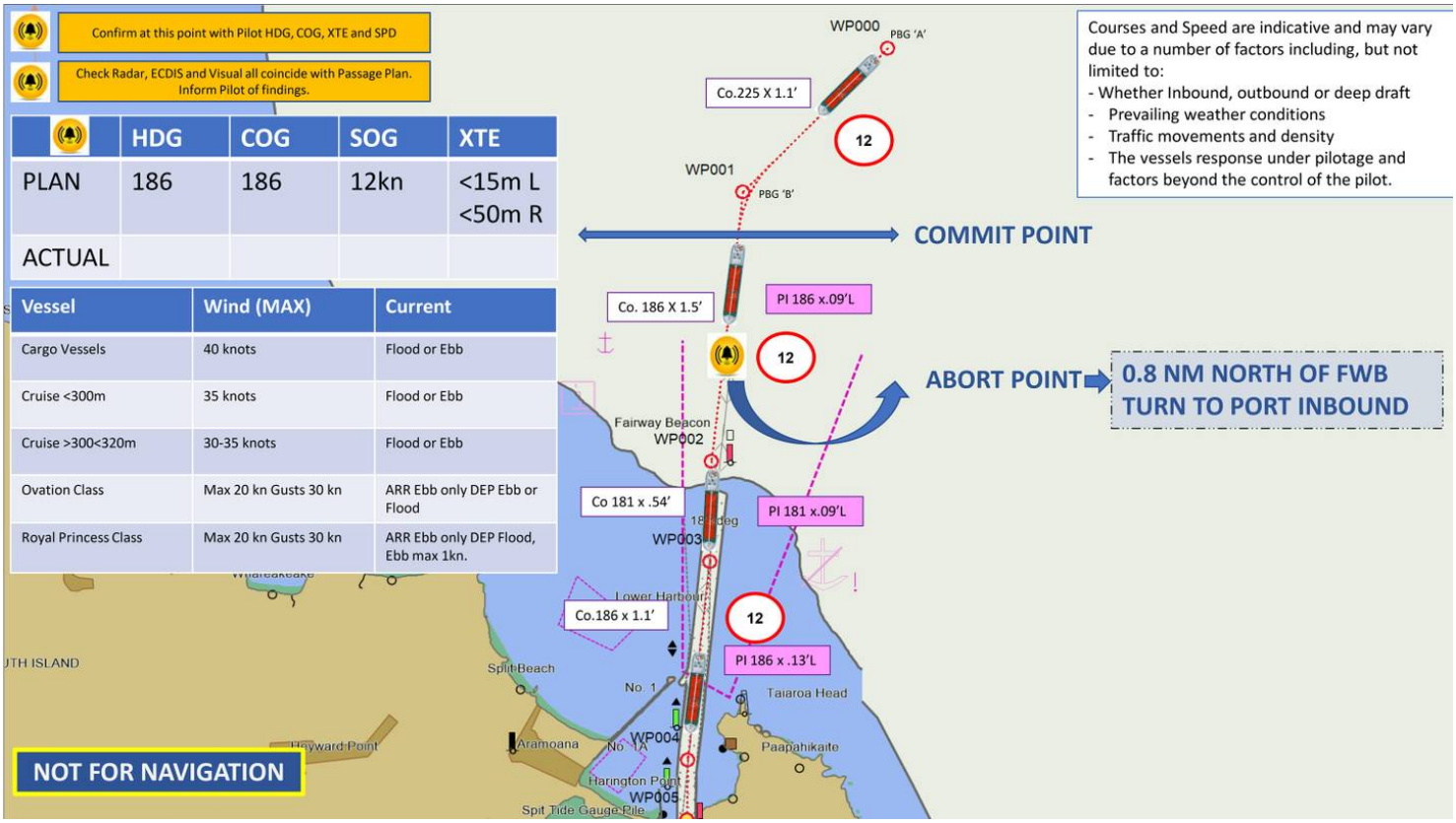
## Berthing Conditions

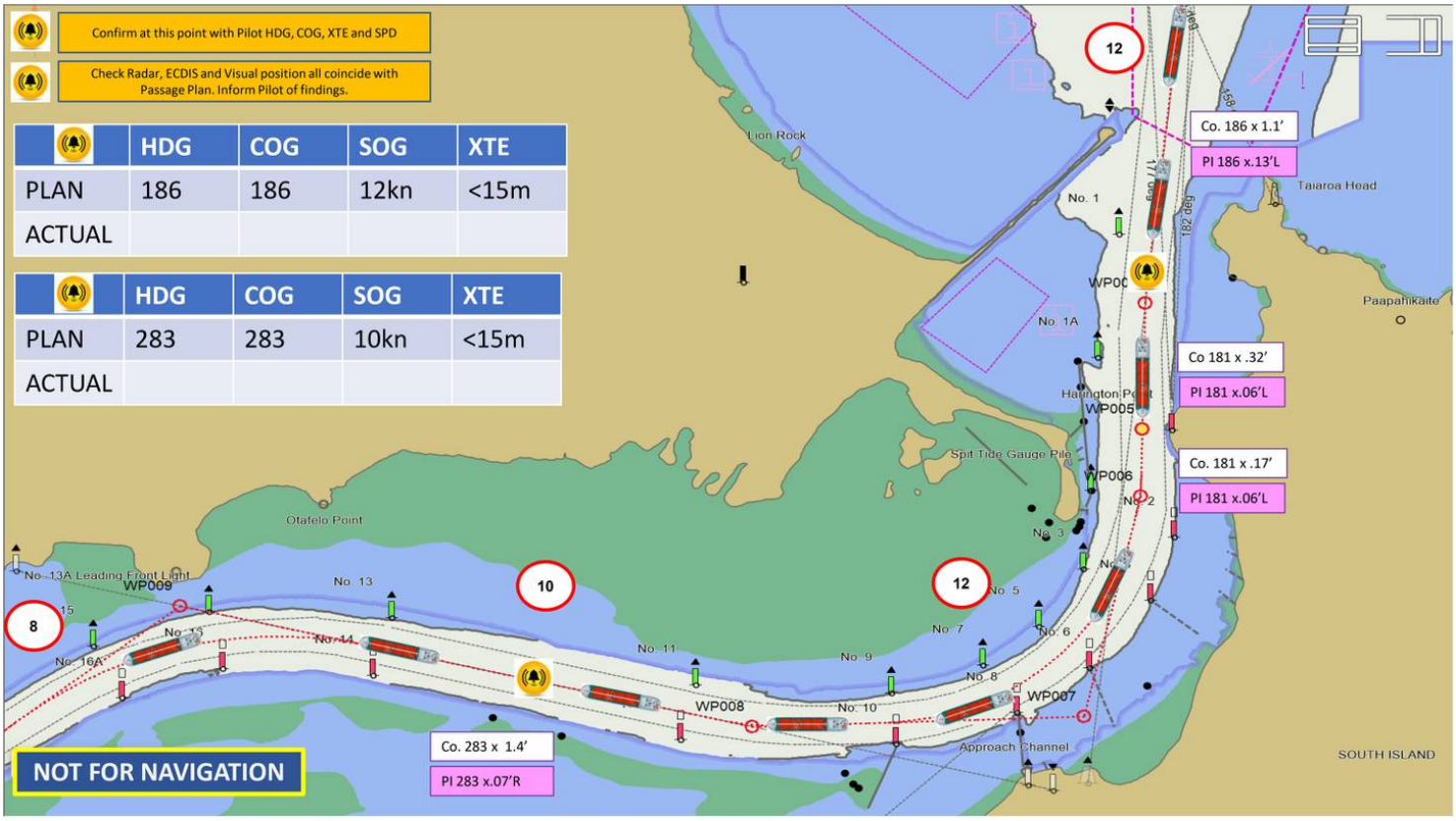
Berthing conditions predicted for ship's visit at the port from arrival at berthing constraint 15/09 10:31 until 48h later (17/09 10:31)

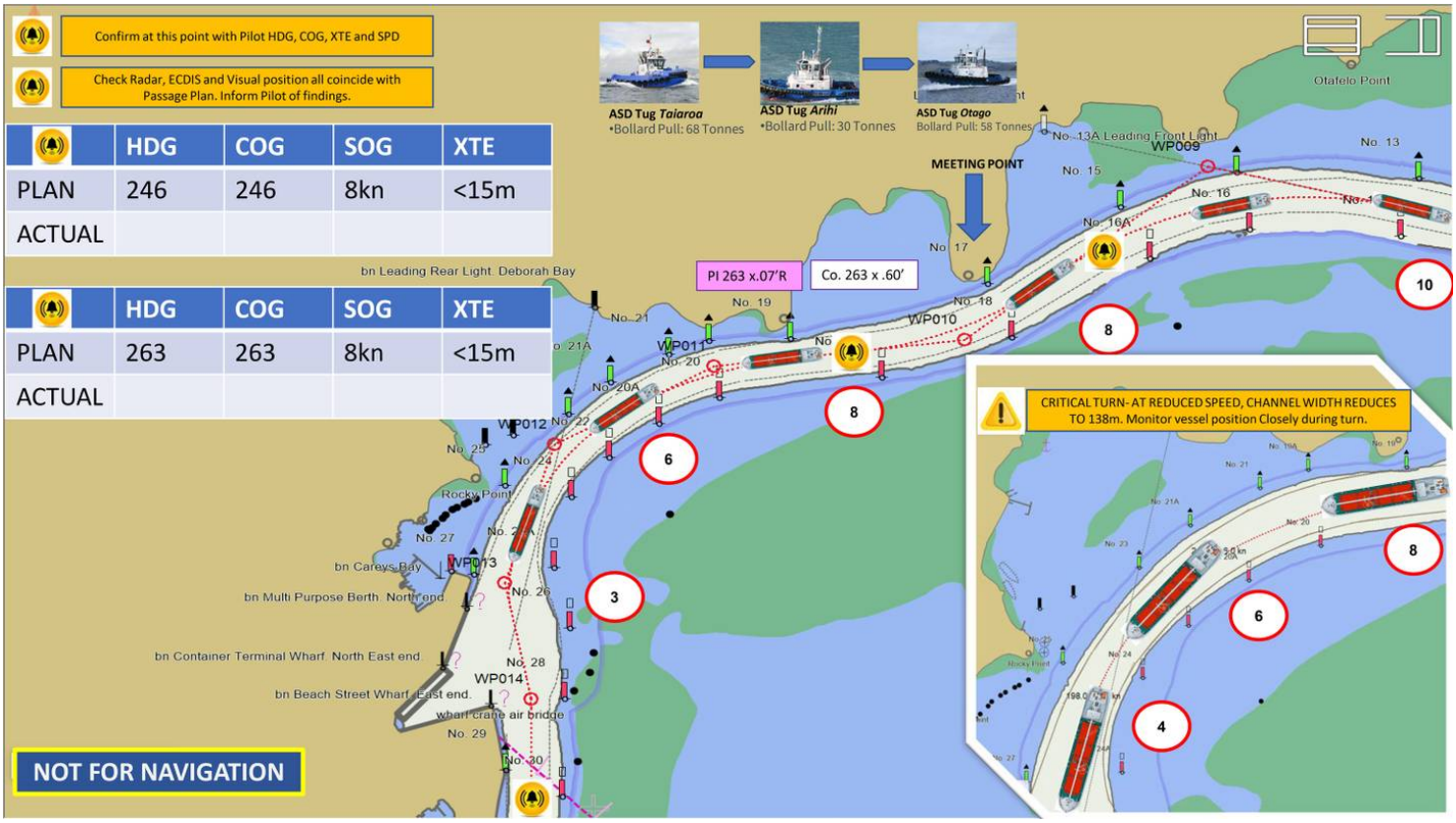



## Pass/Caution Checklist

- ○ ○ Pilot Card Presented
- ○ ○ Engines tested
- ○ ○ Anchors: ready and manned
- ○ ○ Navigation intention: berth, course, speed, W/O pos'n etc
- ○ ○ Other V/L Movements
- ○ ○ Challenge and response; process established
- ○ ○ Ensure Bridge Team familiar with ME and Bowthruster emergency stops
- ○ ○ Contingency planning (discuss hydrodynamic interaction/mitigation)
- ○ ○ Any defects or special characteristics
- ○ ○ Thrusters: available and tested
- ○ ○ Gyro error
- ○ ○ Manoeuvre of V/I & basin dimensions discussed
- ○ ○ Mooring Arrangement
- ○ ○ Critical areas of transit: no-go areas, interaction due to bank effect, squat etc.
- ○ ○ Responsibilities of bridge team defined, OOW, to monitor position, helm, telegraph etc.
- ○ ○ Insure Helmsmen familiar with Steering Gear change over including NFU
- ○ ○ Designate Radar for pilots use
- ○ ○ Portable Pilot Unit (PPU)


Confirm at this point with Pilot HDG, COG, XTE and SPD
Check Radar, ECDIS and Visual all coincide with Passage Plan. Inform Pilot of findings.
HDG COG SOG XTE
PLAN 186 186 12kn <15m L <50m R
ACTUAL
Vessel Wind (MAX) Current
Cargo Vessels 40 knots Flood or Ebb
Cruise <300m 35 knots Flood or Ebb
Cruise >300<320m 30-35 knots Flood or Ebb
Ovation Class Max 20 kn Gusts 30 kn ARR Ebb only DEP Ebb or Flood
Royal Princess Class Max 20 kn Gusts 30 kn ARR Ebb only DEP Flood, Ebb max 1kn.
Courses and Speed are indicative and may vary due to a number of factors including, but not limited to:
- Whether Inbound, outbound or deep draft
- Prevailing weather conditions
- Traffic movements and density
- The vessels response under pilotage and factors beyond the control of the pilot.
WP000
PBG 'A'
Co.225 X 1.1'
12
WP001
PBG 'B'
COMMIT POINT
Co. 186 X 1.5'
PI 186 x.09'L
12
ABORT POINT
0.8 NM NORTH OF FWB TURN TO PORT INBOUND
Fairway Beacon
WP002
Co 181 x .54'
PI 181 x.09'L
WP003
Co.186 x 1.1'
12
PI 186 x .13'L
Lower Harbour
Split Beach
No. 1
Taiaroa Head
WP004
No. 1A
Aramoana
Paapahikaite
Harington Point
WP005
Spit Tide Gauge Pile
NOT FOR NAVIGATION

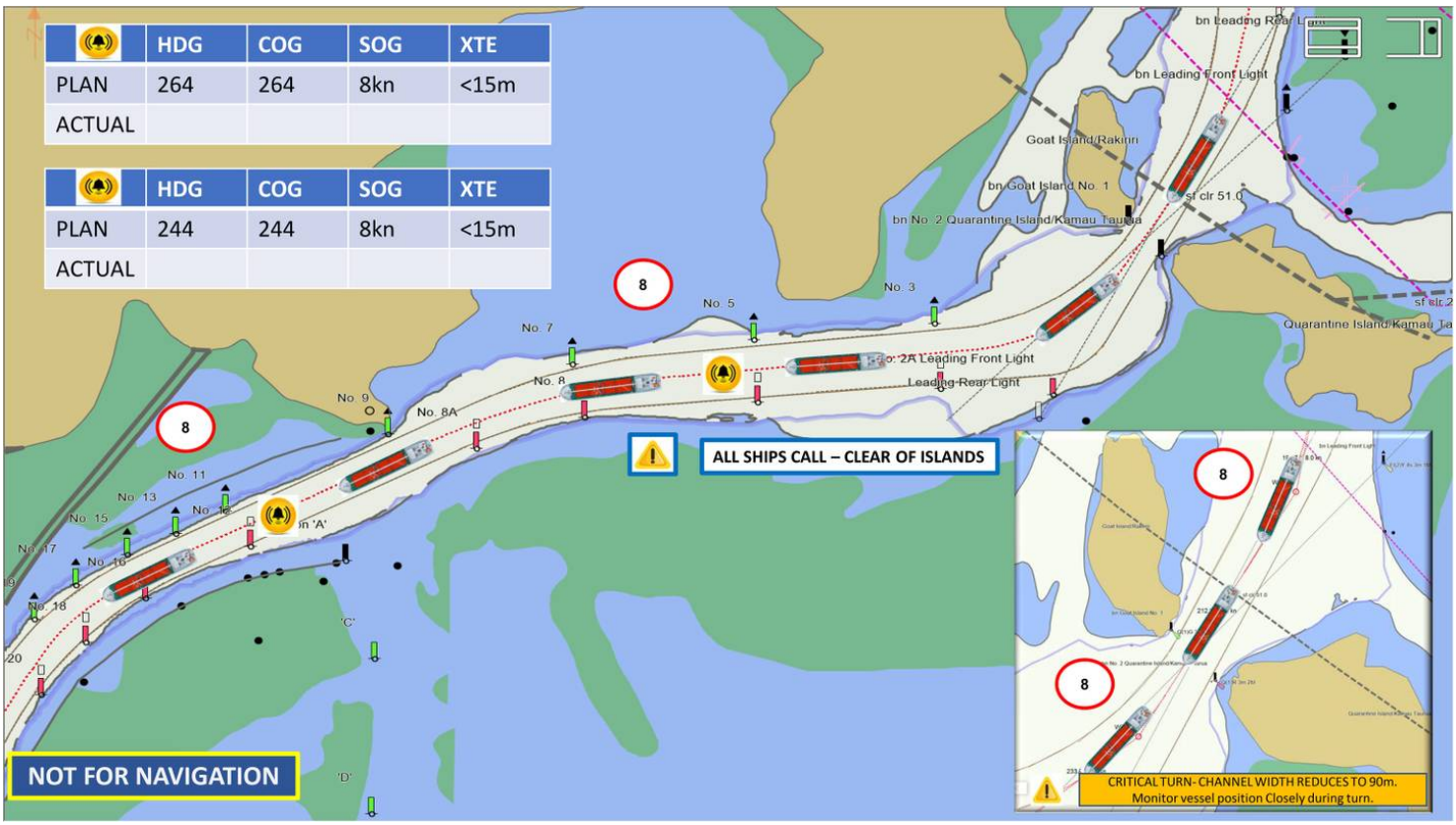

Confirm at this point with Pilot HDG, COG, XTE and SPD
Check Radar, ECDIS and Visual position all coincide with Passage Plan. Inform Pilot of findings.
HDG COG SOG XTE
PLAN 186 186 12kn <15m
ACTUAL
HDG COG SOG XTE
PLAN 283 283 10kn <15m
ACTUAL
12
Lion Rock
Co. 186 x 1.1'
PI 186 x.13'L
Taiaroa Head
No. 1
WP00
No. 1A
Paapahikaite
Co 181 x .32'
PI 181 x.06'L
WP005
Spit Tide Gauge Pile
Co. 181 x .17'
PI 181 x.06'L
WP006
No. 2
No. 3
Otafelo Point
No. 13A Leading Front Light
WP009
No. 13
10
12
8
No. 15
No. 16A
No. 14
No. 11
No. 9
No. 7
No. 6
No. 5
No. 8
WP007
WP008
No. 10
Co. 283 x 1.4'
PI 283 x.07'R
Approach Channel
SOUTH ISLAND
NOT FOR NAVIGATION

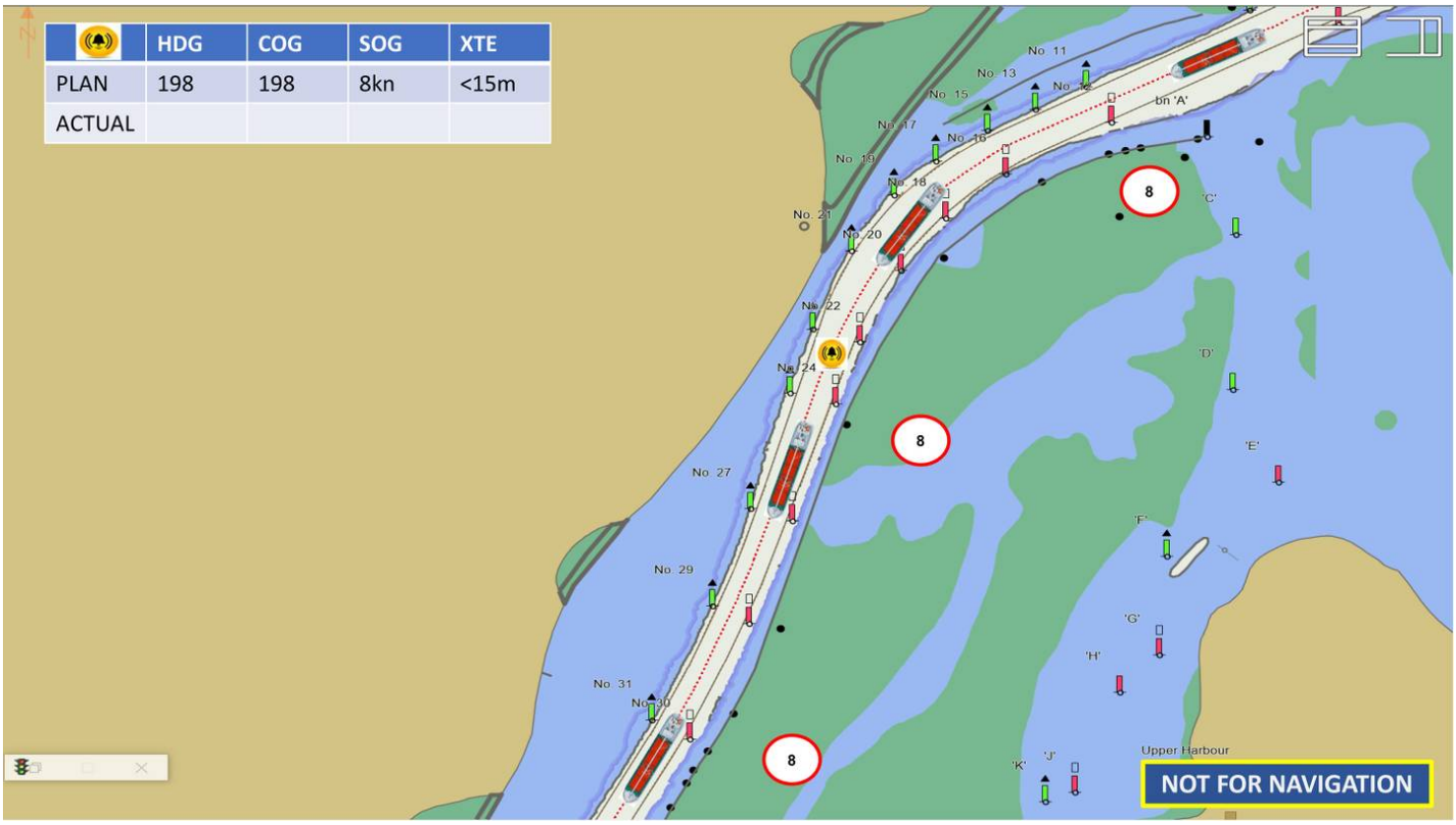



| | HDG | COG | SOG | XTE |
|---|---|---|---|---|
| PLAN | 246 | 246 | 8kn | <15m |
| ACTUAL | | | | |

| | HDG | COG | SOG | XTE |
|---|---|---|---|---|
| PLAN | 263 | 263 | 8kn | <15m |
| ACTUAL | | | | |

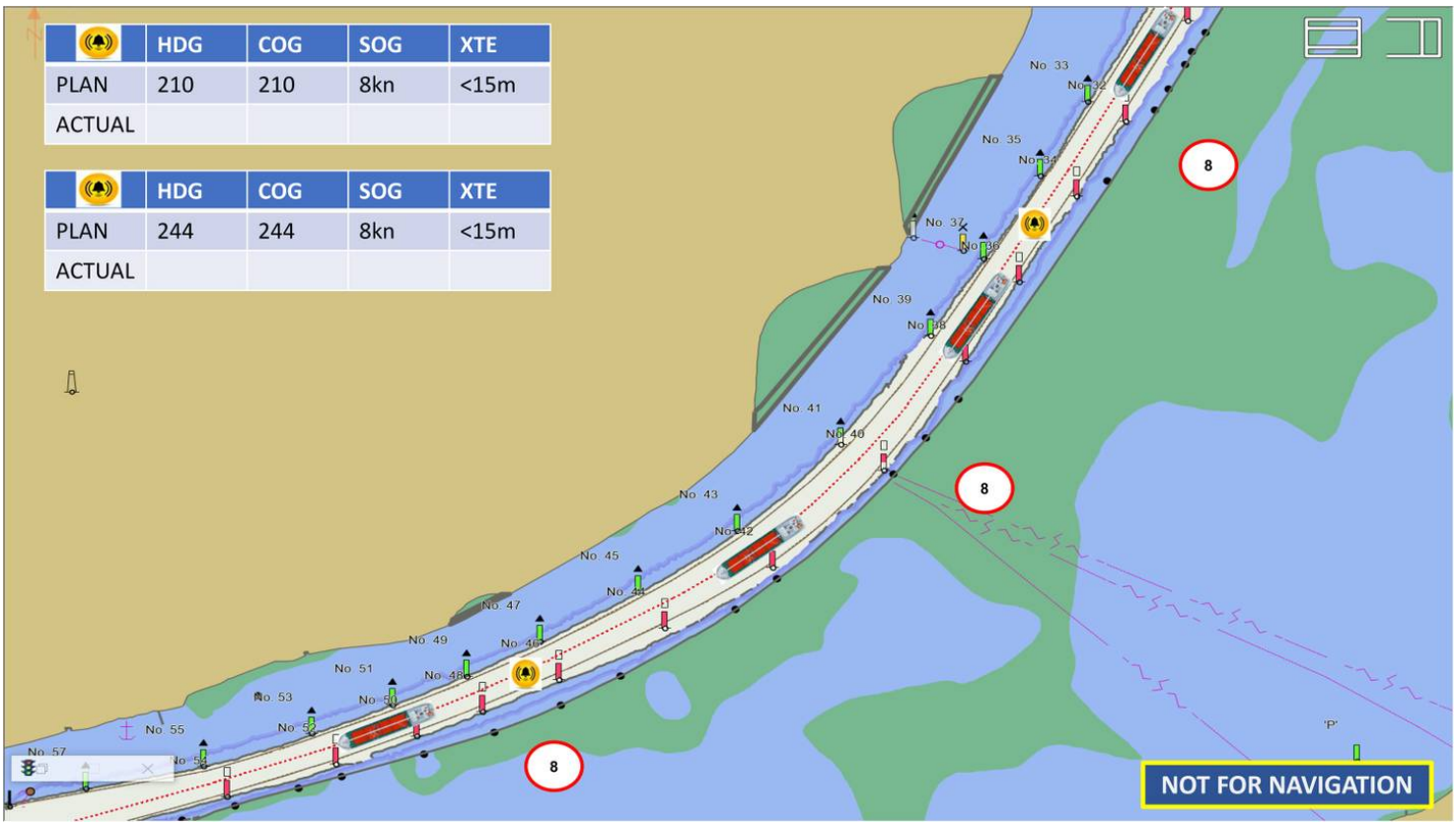

| | HDG | COG | SOG | XTE |
|---|---|---|---|---|
| PLAN | 180 | 180 | 8kn | <15m |
| ACTUAL | | | | |

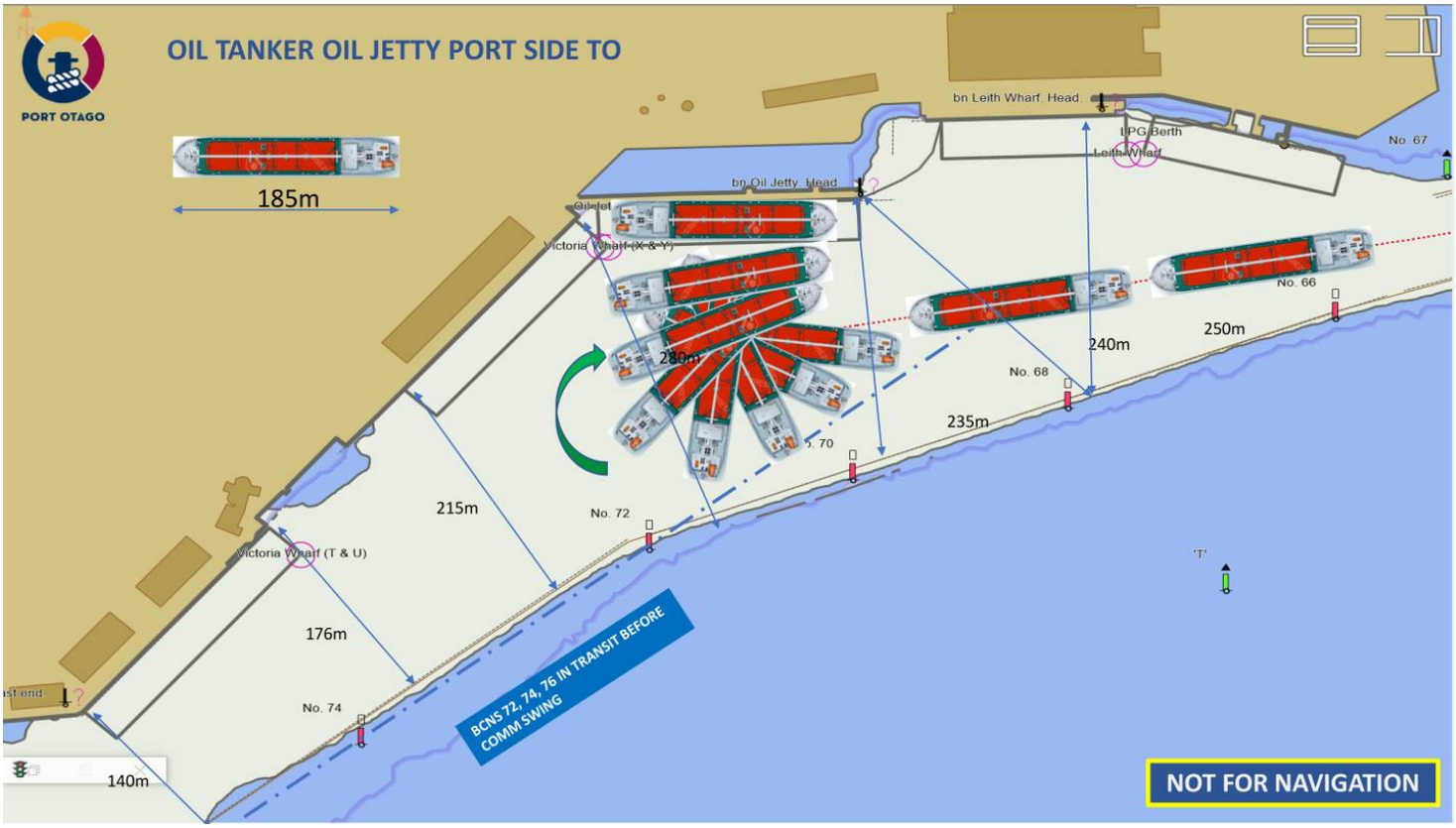

HDG COG SOG XTE
PLAN 264 264 8kn <15m
ACTUAL
HDG COG SOG XTE
PLAN 244 244 8kn <15m
ACTUAL
bn Leading Front Light
Goat Island/Rakiuri
bn Goat Island No. 1
bn No. 2 Quarantine Island/Kamau Taupeka
No. 3
No. 5
No. 7
No. 8
No. 9
No. 8A
No. 11
No. 13
No. 15
No. 17
No. 18
Leading Rear Light
ALL SHIPS CALL – CLEAR OF ISLANDS
NOT FOR NAVIGATION
CRITICAL TURN- CHANNEL WIDTH REDUCES TO 90m.
Monitor vessel position Closely during turn.


HDG COG SOG XTE
PLAN 198 198 8kn <15m
ACTUAL
No. 11
No. 13
No. 15
No. 17
No. 19
No. 18
No. 21
No. 20
No. 22
No. 24
No. 27
No. 29
No. 31
No. 30
bn 'A'
'C'
'D'
'E'
'F'
'G'
'H'
'J'
'K'
Upper Harbour
NOT FOR NAVIGATION

| | HDG | COG | SOG | XTE |
|---|---|---|---|---|
| PLAN | 210 | 210 | 8kn | <15m |
| ACTUAL | | | | |

| | HDG | COG | SOG | XTE |
|---|---|---|---|---|
| PLAN | 244 | 244 | 8kn | <15m |
| ACTUAL | | | | |




## Port Guidelines

Vessel Arrival Information Sheet (VAIS):

All vessels must also complete a Vessel Arrival Information Sheet (below) with arrival and departure data and supply this to Port Otago at least 24 hours before arrival or as soon as possible. Please see the below link:

portotago.co.nz/assets/Uploads/Port-Otago-VAIS-Version-11.docx

Recommended Anchorage Position:

The recommended anchorage position for vessels requiring to anchor prior to proceeding inwards to the berths is:

Anchorage Position: Lat - 45′ 42.89″ South Long - 170′ 41.72″ East

Pilot Boarding Areas:

There are two Pilot boarding areas on the approaches to the entrance to Otago Harbour.

Alpha – Position: Lat -45′ 42.83″ South Long - 170′ 44.80″ East
Bravo – Position: Lat -45′ 43.58″ South Long – 170′ 43.69″ East

Pilot boarding ground Alpha is the preferred Pilot boarding ground for larger cruise vessels and also for container vessels greater than 225 m LOA and oil tankers. This boarding ground allows sufficient time for the Pilot to move from the top of the Pilot ladder to the Bridge to conduct the Master/Pilot information exchange prior to closing on the Fairway Beacon.

## Port Terms and Conditions

Port Otago has made every effort to ensure that the information provided is accurate. However, Port Otago accepts no responsibility whatsoever for the accuracy or otherwise of any information contained and disclaims all liability to any person in relation to anything done or omitted to be done in reliance, whether whole or in part, upon any information contained here.

Despite the duties and obligations of a pilot, the pilot's present on board does not relieve the Master or Officer in charge of the navigation watch from the duties and obligations for the safety of the vessel. The bridge team duty is to support the pilot and ensure that his or her actions are monitored at all times .

## MPX Acceptance

Signed MPX with the Master and Pilots acceptance.

# Tugs and Launches

## Tugs

ASD Tug **Otago**

Call Sign: ZMQ 4581

Bollard Pull: 58 Tonnes

ASD Tug **Taiaroa**

Call Sign: ZMU 6863

Bollard Pull: 68 Tonnes

ASD Tug **Arihi**

Call Sign: ZMW 7668

Bollard Pull: 30 Tonnes

## Launches

Launch **Aramoana**

Call Sign: ZMT 4828

Boarding Speed: 8 to 10 knots

Launch **Paerata**

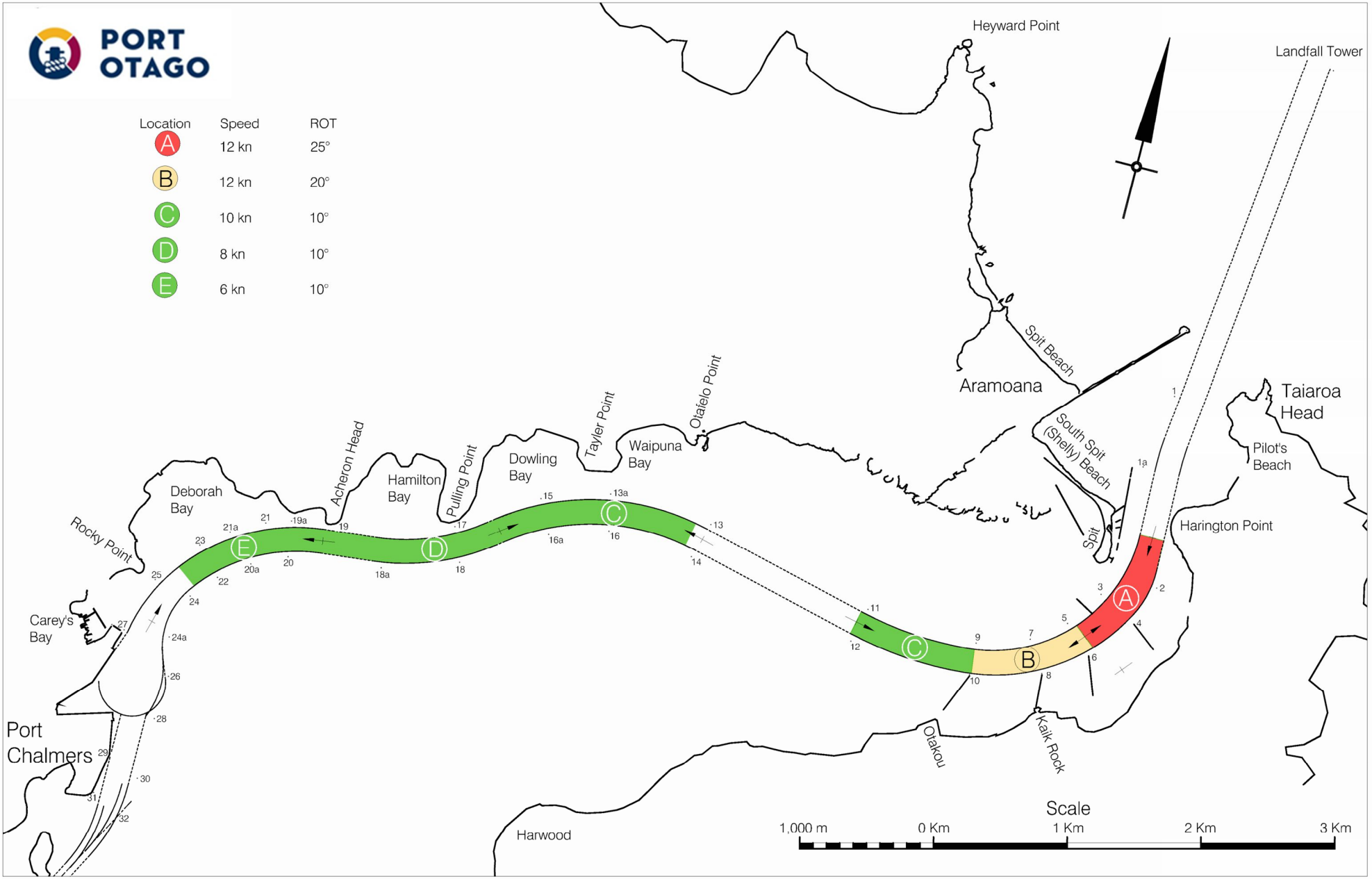
Call Sign: ZMV 8739

Boarding Speed: 8 to 10 knots


Launch **Potiki**

Call Sign: ZMZ 7105

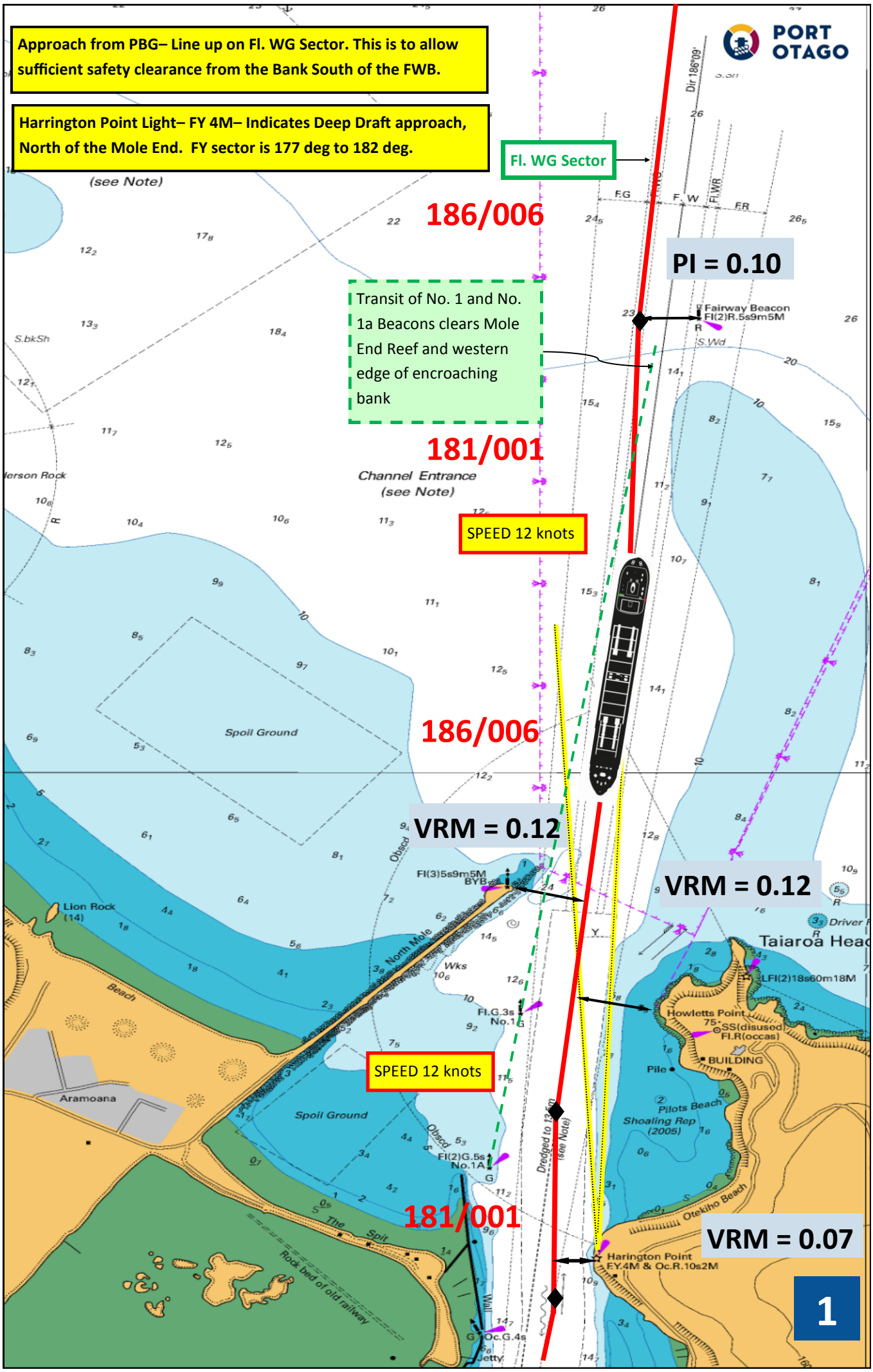
Boarding Speed: 8 to 10 knots

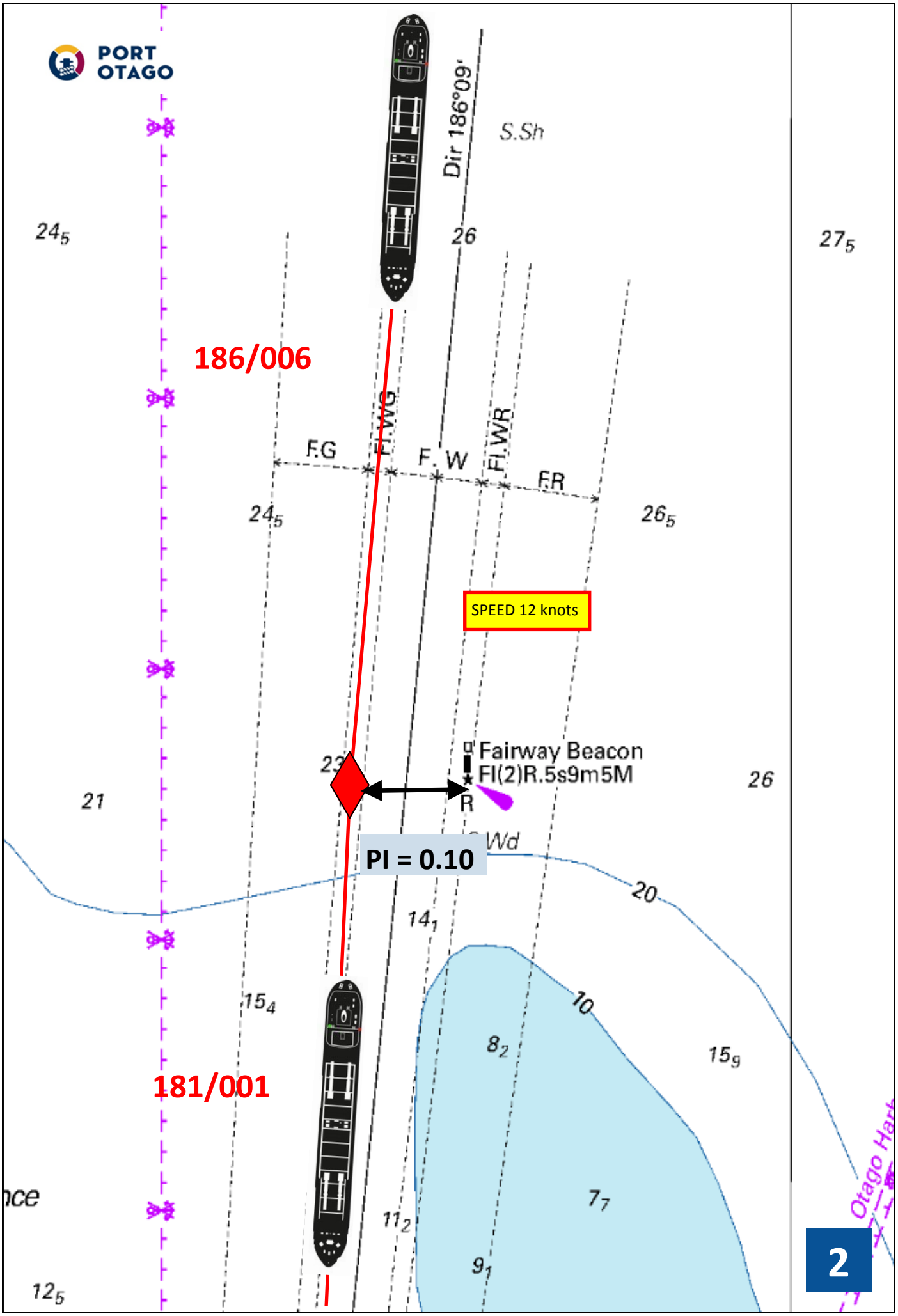


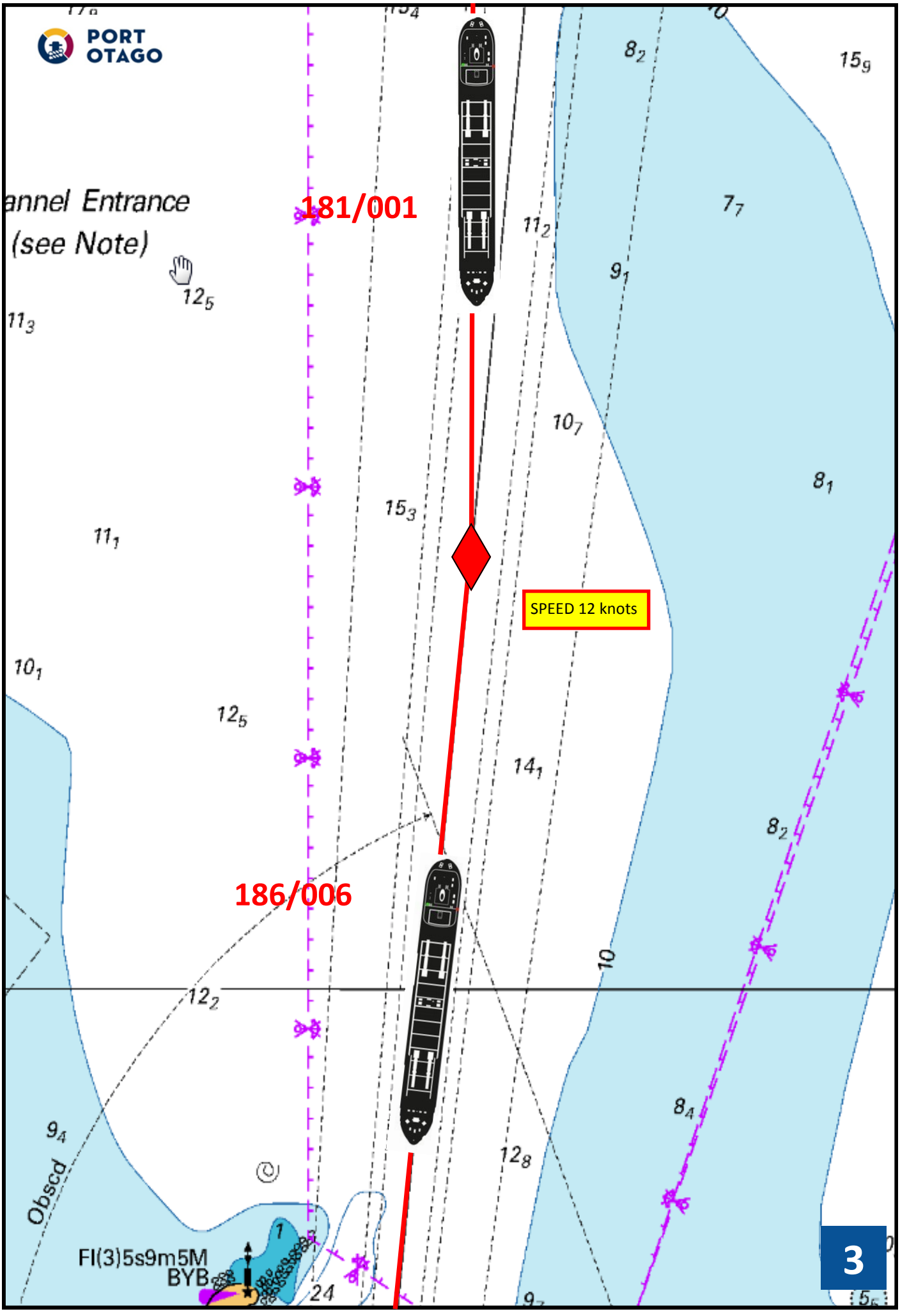

Pilotage Guide - Lower Harbour

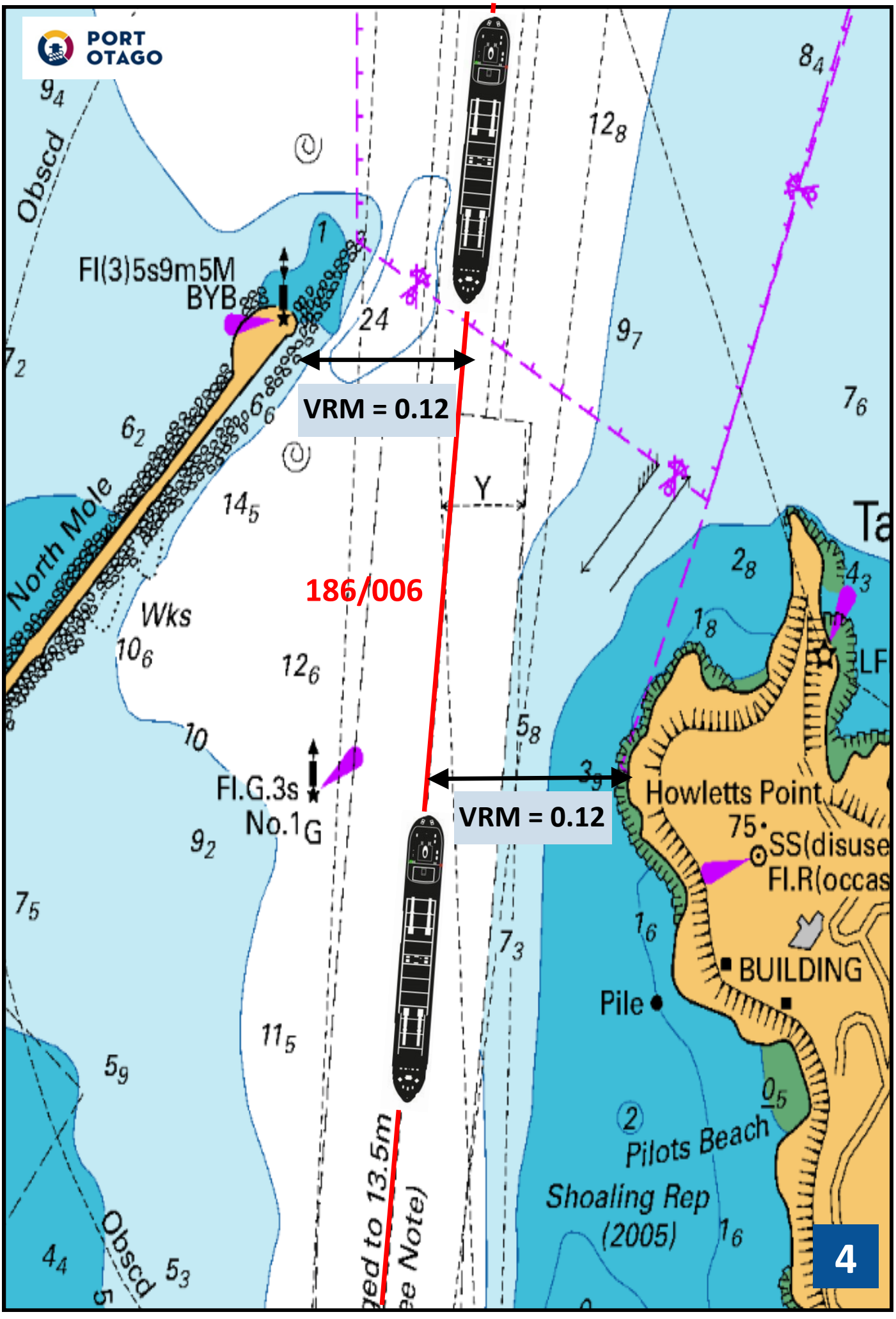
Scale 1:25,000
Revision 3 - April, 2012

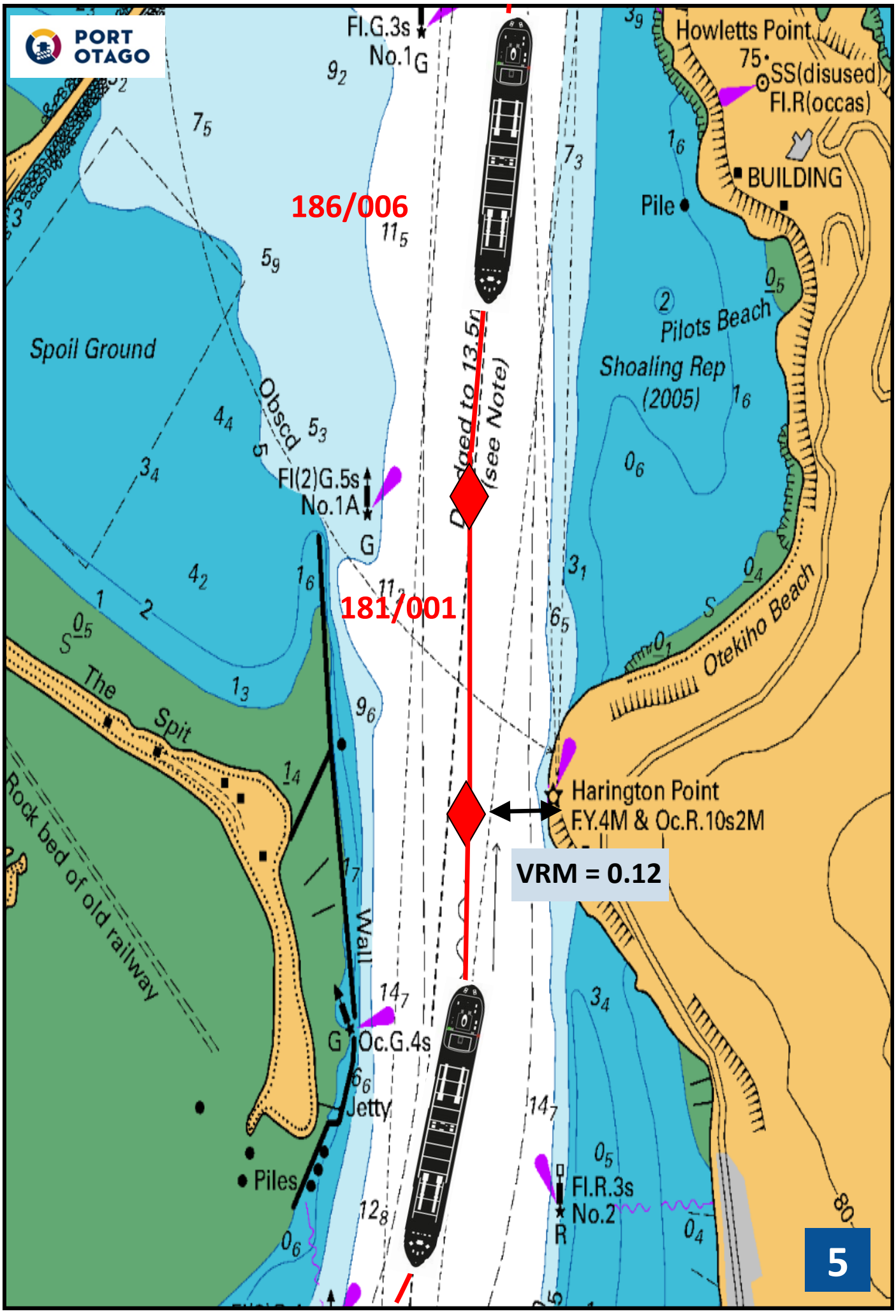
A3 11294/1

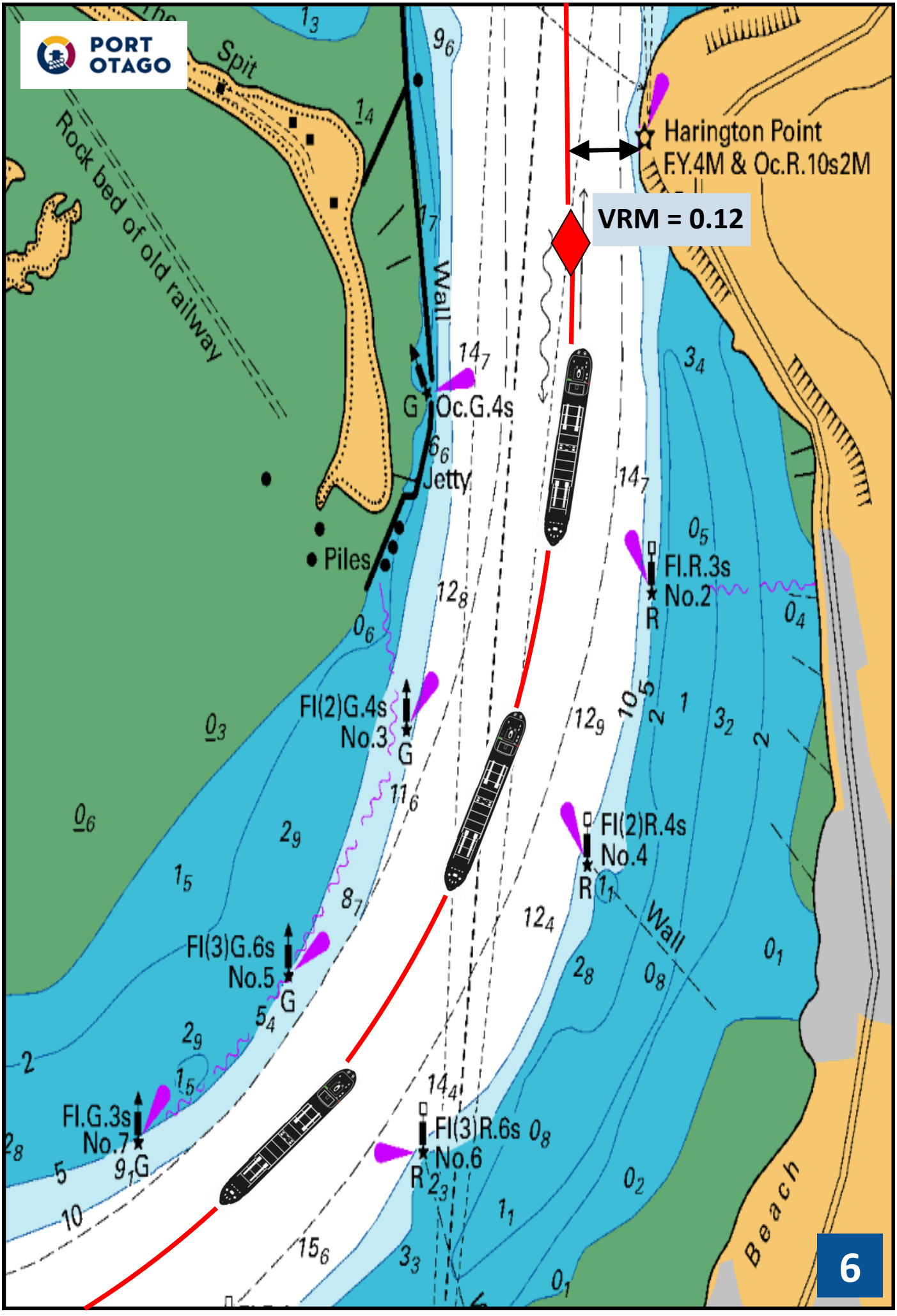

Approach from PBG– Line up on Fl. WG Sector. This is to allow sufficient safety clearance from the Bank South of the FWB.
Harrington Point Light– FY 4M– Indicates Deep Draft approach, North of the Mole End. FY sector is 177 deg to 182 deg.
PORT OTAGO
Fl. WG Sector
186/006
PI = 0.10
Transit of No. 1 and No. 1a Beacons clears Mole End Reef and western edge of encroaching bank
181/001
Channel Entrance
(see Note)
SPEED 12 knots
186/006
VRM = 0.12
VRM = 0.12
SPEED 12 knots
181/001
VRM = 0.07
Fairway Beacon
Fl(2)R.5s9m5M
Fl(3)5s9m5M BYB
Lion Rock (14)
North Mole
Wks
Fl.G.3s No.1G
Fl(2)G.5s No.1A
Spoil Ground
Aramoana
Beach
The Spit
Rock bed of old railway
Howletts Point
SS(disused) Fl.R(occas)
BUILDING
Pile
Pilots Beach
Shoaling Rep (2005)
Otekiho Beach
Harington Point
FY.4M & Oc.R.10s2M
Oc.G.4s
Jetty
Wall
Dredged to 13.6m (see Note)
Taiaroa Head
LFl(2)18s60m18M
Driver
Dir 186°09'
(see Note)
Obscd
1

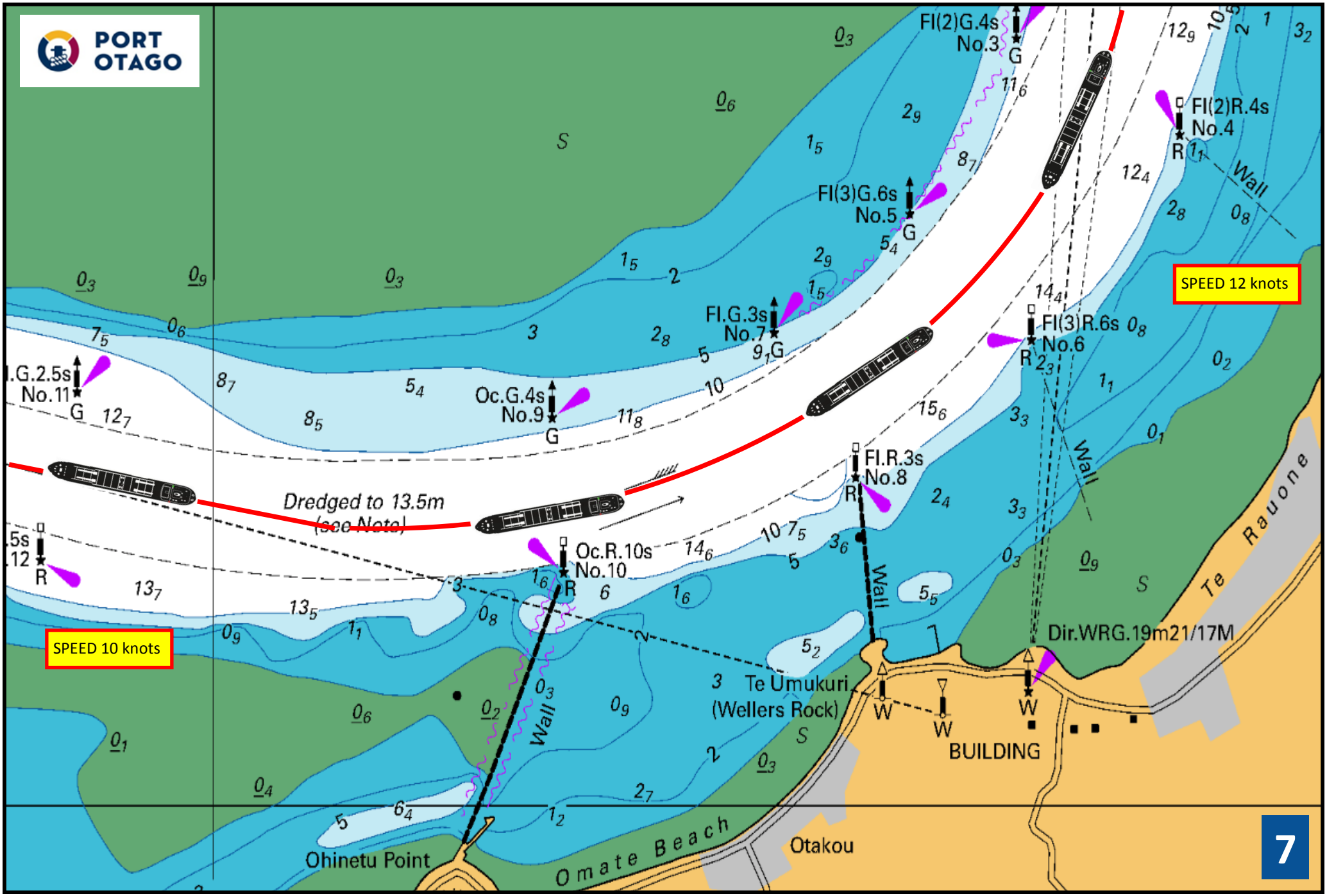

PORT OTAGO
Dir 186°09'
S.Sh
24 5
26
27 5
186/006
F.G
Fl.WG
F. W
Fl.WR
F.R
24 5
26 5
SPEED 12 knots
Fairway Beacon
Fl(2)R.5s9m5M
R
23
21
26
PI = 0.10
Wd
20
14 1
15 4
10
8 2
15 9
181/001
7 7
11 2
9 1
12 5
Otago Harb
2

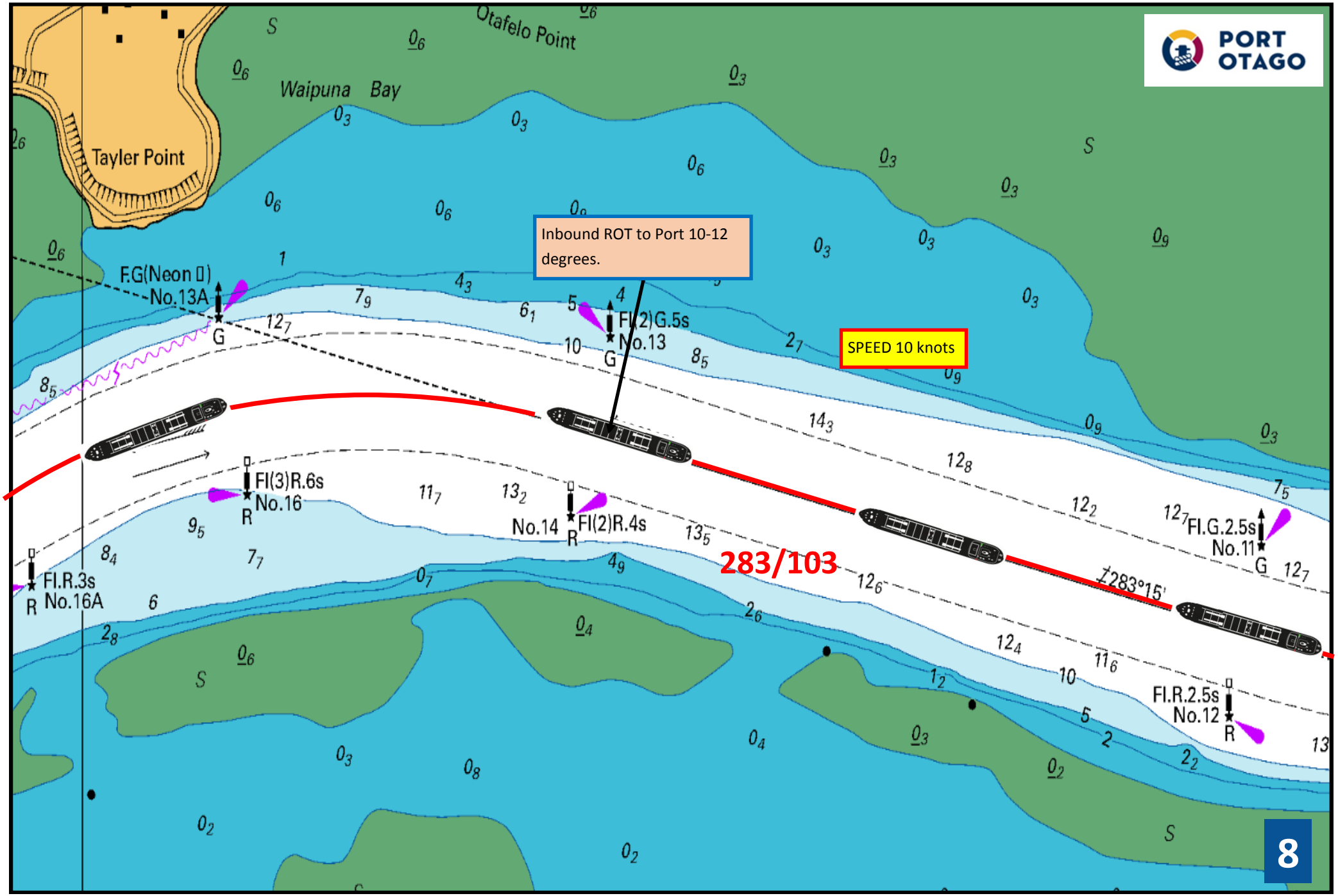

PORT OTAGO
annel Entrance
(see Note)
181/001
186/006
SPEED 12 knots
Obscd
Fl(3)5s9m5M
BYB
3

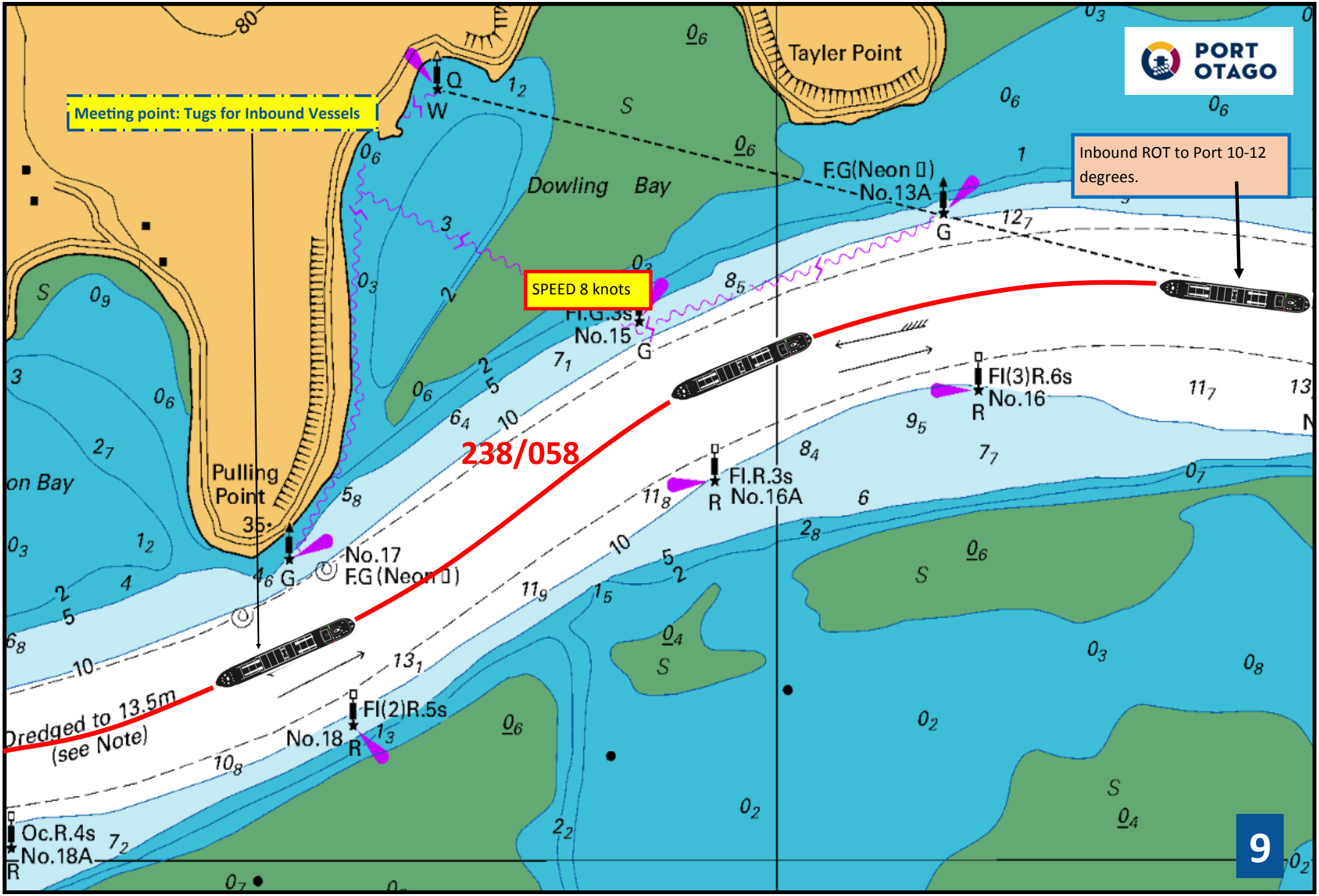

PORT OTAGO
Obscd
Fl(3)5s9m5M
BYB
VRM = 0.12
North Mole
Wks
186/006
Fl.G.3s
No.1G
VRM = 0.12
Howletts Point
SS(disuse
Fl.R(occas
BUILDING
Pile
Pilots Beach
Shoaling Rep
(2005)
Obscd
4

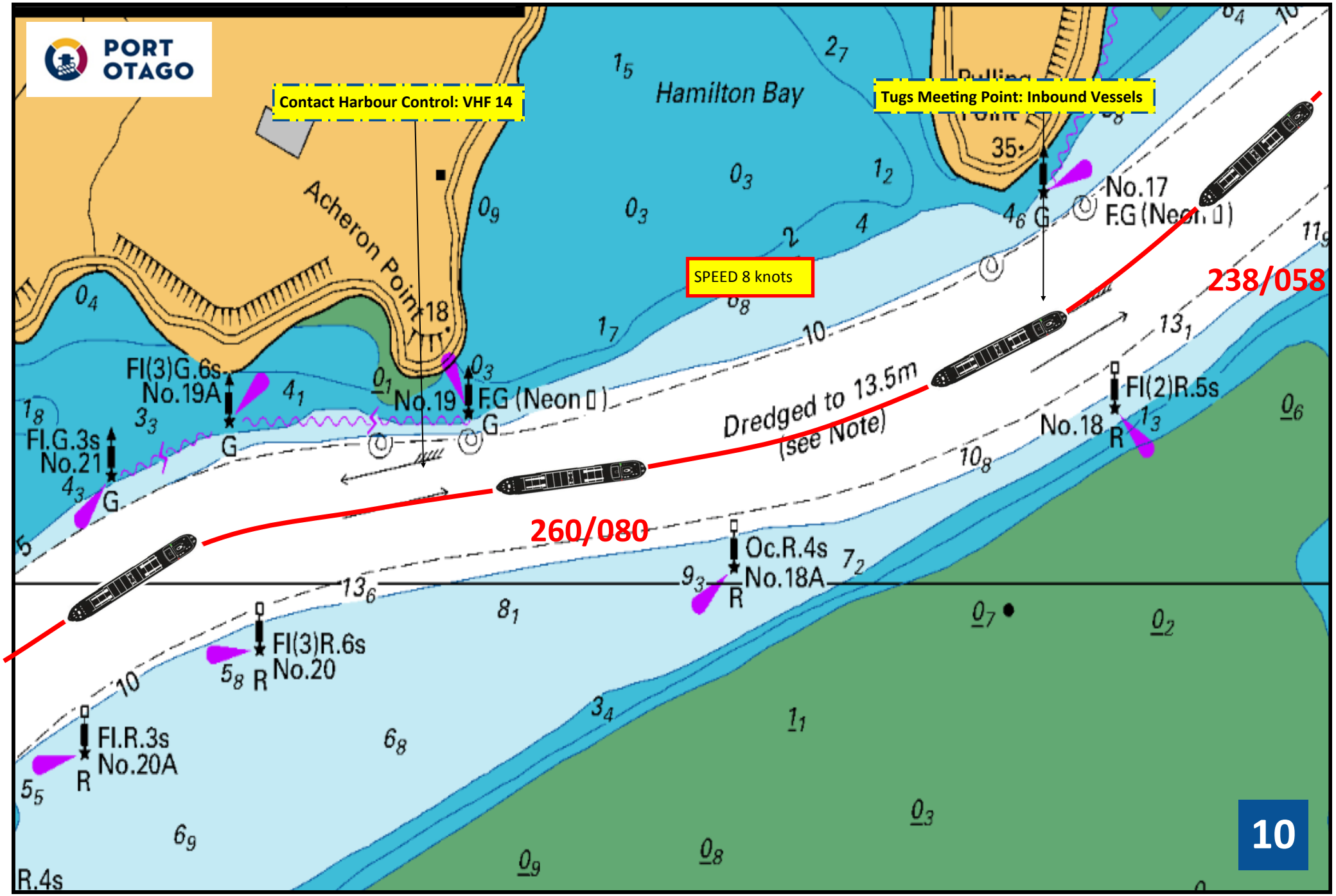

PORT OTAGO
Fl.G.3s
No.1G
Howletts Point
SS(disused)
Fl.R(occas)
BUILDING
Pile
186/006
Spoil Ground
Obscd
Pilots Beach
Shoaling Rep
(2005)
Fl(2)G.5s
No.1A
G
181/001
Dredged to 13.5m
(see Note)
Otekiho Beach
The Spit
Rock bed of old railway
Harington Point
FY.4M & Oc.R.10s2M
VRM = 0.12
Wall
Oc.G.4s
Jetty
Piles
Fl.R.3s
No.2
R
5

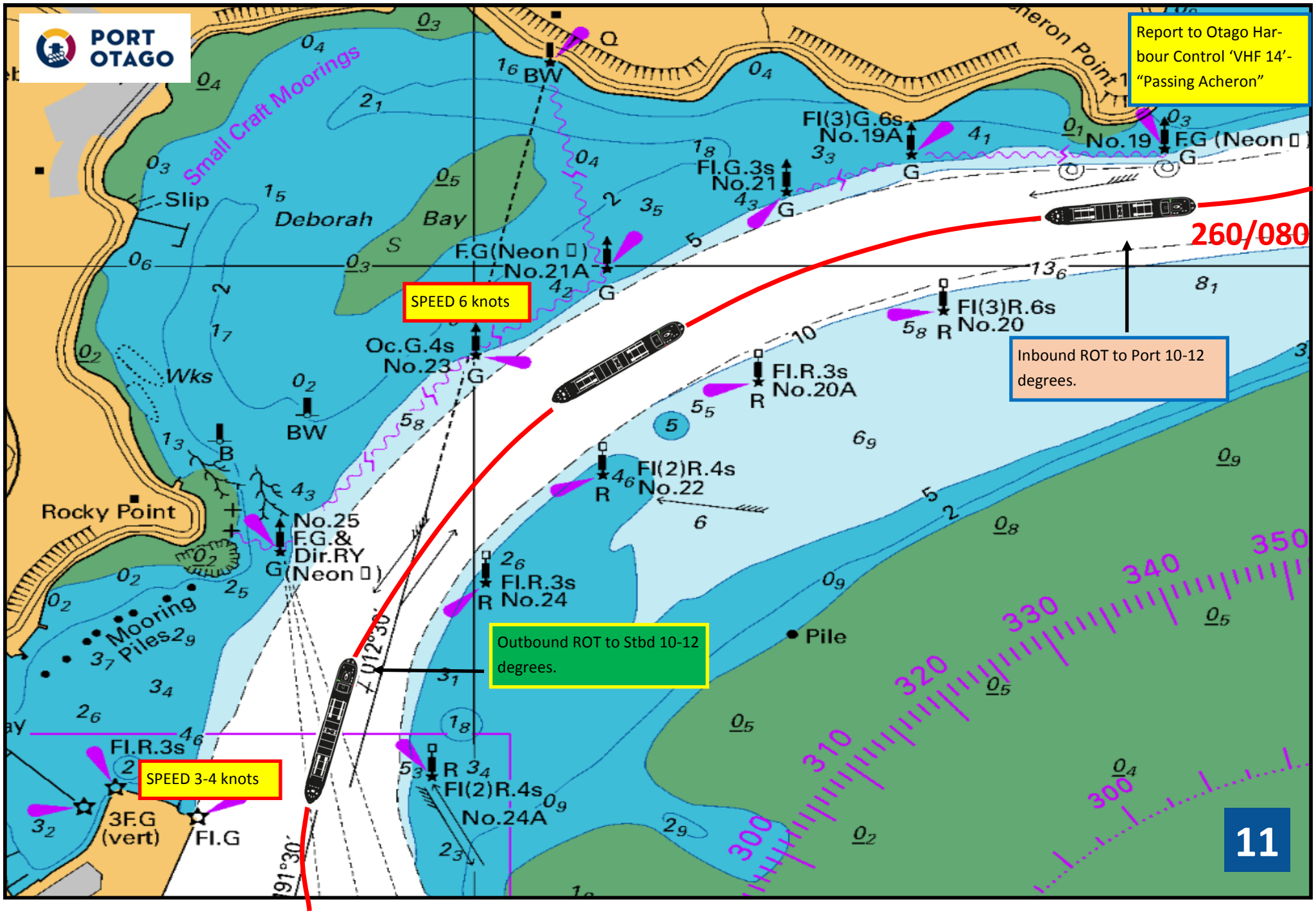

PORT OTAGO
Spit
Rock bed of old railway
Harington Point
Fl.Y.4M & Oc.R.10s2M
VRM = 0.12
Wall
Oc.G.4s
Jetty
Piles
Fl.R.3s
No.2
Fl(2)G.4s
No.3
Fl(2)R.4s
No.4
Fl(3)G.6s
No.5
Fl.G.3s
No.7
Fl(3)R.6s
No.6
Wall
Beach
6

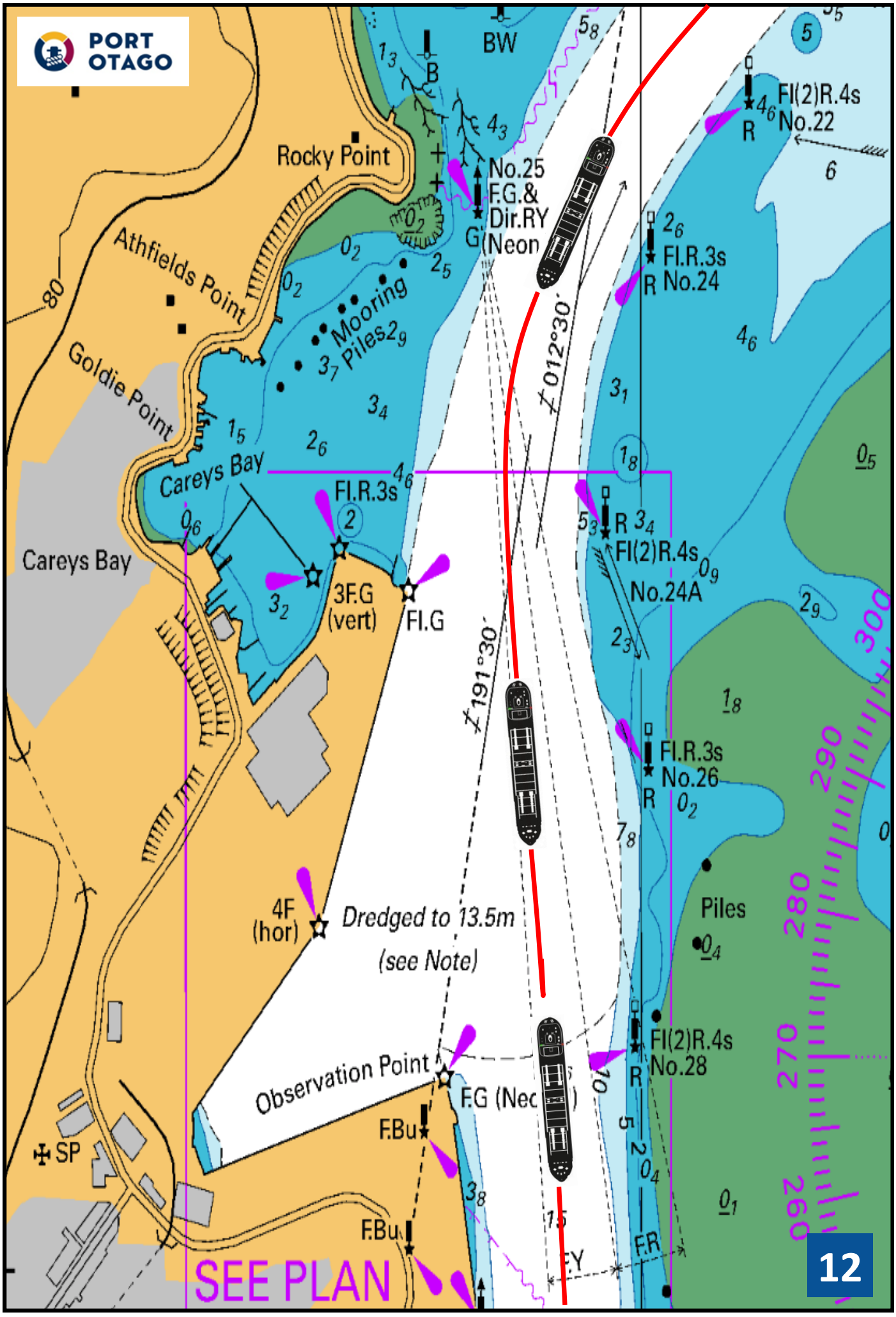

PORT OTAGO
Fl(2)G.4s
No.3
G
Fl(2)R.4s
No.4
R
Fl(3)G.6s
No.5
G
Fl.G.3s
No.7
G
Oc.G.4s
No.9
G
Fl(3)R.6s
No.6
R
Fl.R.3s
No.8
R
Oc.R.10s
No.10
R
Fl.G.2.5s
No.11
G
Wall
Dredged to 13.5m
(see Note)
SPEED 12 knots
SPEED 10 knots
Dir.WRG.19m21/17M
Te Umukuri
(Wellers Rock)
BUILDING
Ohinetu Point
Omate Beach
Otakou
Te Rauone
7

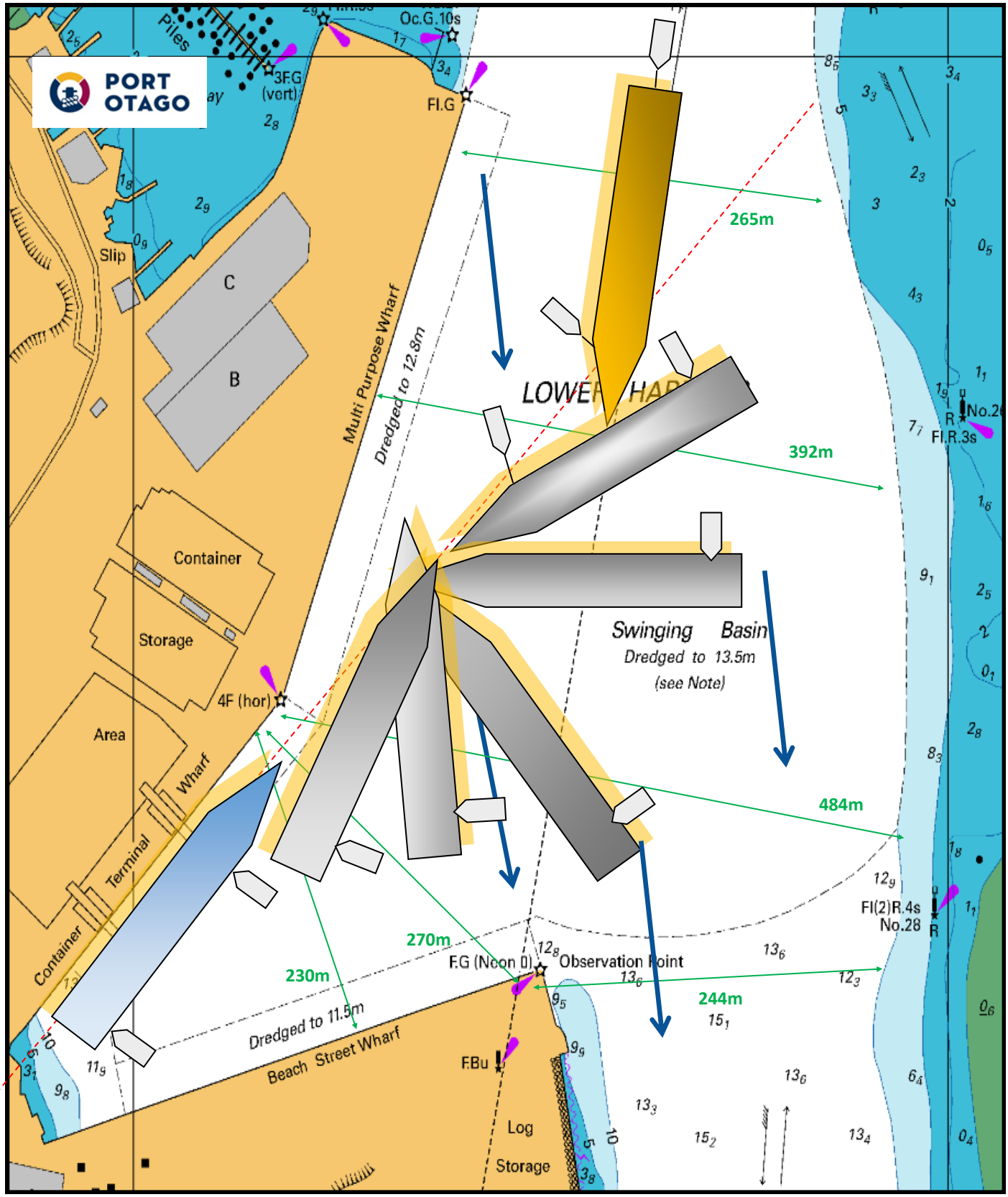

Otafelo Point
Waipuna Bay
Tayler Point
F.G(Neon )
No.13A
G
Inbound ROT to Port 10-12 degrees.
Fl(2)G.5s
No.13
G
SPEED 10 knots
Fl(3)R.6s
No.16
R
No.14
Fl(2)R.4s
R
283/103
283°15'
Fl.G.2.5s
No.11
G
Fl.R.3s
No.16A
R
Fl.R.2.5s
No.12
R
PORT OTAGO
8


Meeting point: Tugs for Inbound Vessels
Tayler Point
Dowling Bay
Pulling Point
35
SPEED 8 knots
Inbound ROT to Port 10-12 degrees.
238/058
Dredged to 13.5m (see Note)
Q
W
F.G(Neon )
No.13A
G
Fl.G.3s
No.15
G
Fl(3)R.6s
No.16
R
Fl.R.3s
No.16A
R
No.17
F.G(Neon )
G
Fl(2)R.5s
No.18
R
Oc.R.4s
No.18A
R
PORT OTAGO
9


PORT OTAGO
Contact Harbour Control: VHF 14
Tugs Meeting Point: Inbound Vessels
Hamilton Bay
Acheron Point
SPEED 8 knots
238/058
260/080
Dredged to 13.5m
(see Note)
Fl(3)G.6s
No.19A
Fl.G.3s
No.21
No.19
F.G (Neon )
No.17
F.G (Neon )
Fl(2)R.5s
No.18
Oc.R.4s
No.18A
Fl(3)R.6s
No.20
Fl.R.3s
No.20A
R.4s
10


PORT OTAGO
Report to Otago Harbour Control 'VHF 14'- "Passing Acheron"
Small Craft Moorings
Slip
Deborah Bay
Wks
Rocky Point
Mooring Piles
Fl(3)G.6s No.19A
No.19 F.G (Neon)
Fl.G.3s No.21
F.G(Neon) No.21A
Oc.G.4s No.23
BW
B
No.25 F.G.& Dir.RY G(Neon)
Fl.R.3s No.24
Fl(2)R.4s No.22
Fl.R.3s No.20A
Fl(3)R.6s No.20
Fl(2)R.4s No.24A
3F.G (vert)
Fl.G
Pile
260/080
SPEED 6 knots
Inbound ROT to Port 10-12 degrees.
Outbound ROT to Stbd 10-12 degrees.
SPEED 3-4 knots
112°30'
091°30'
11

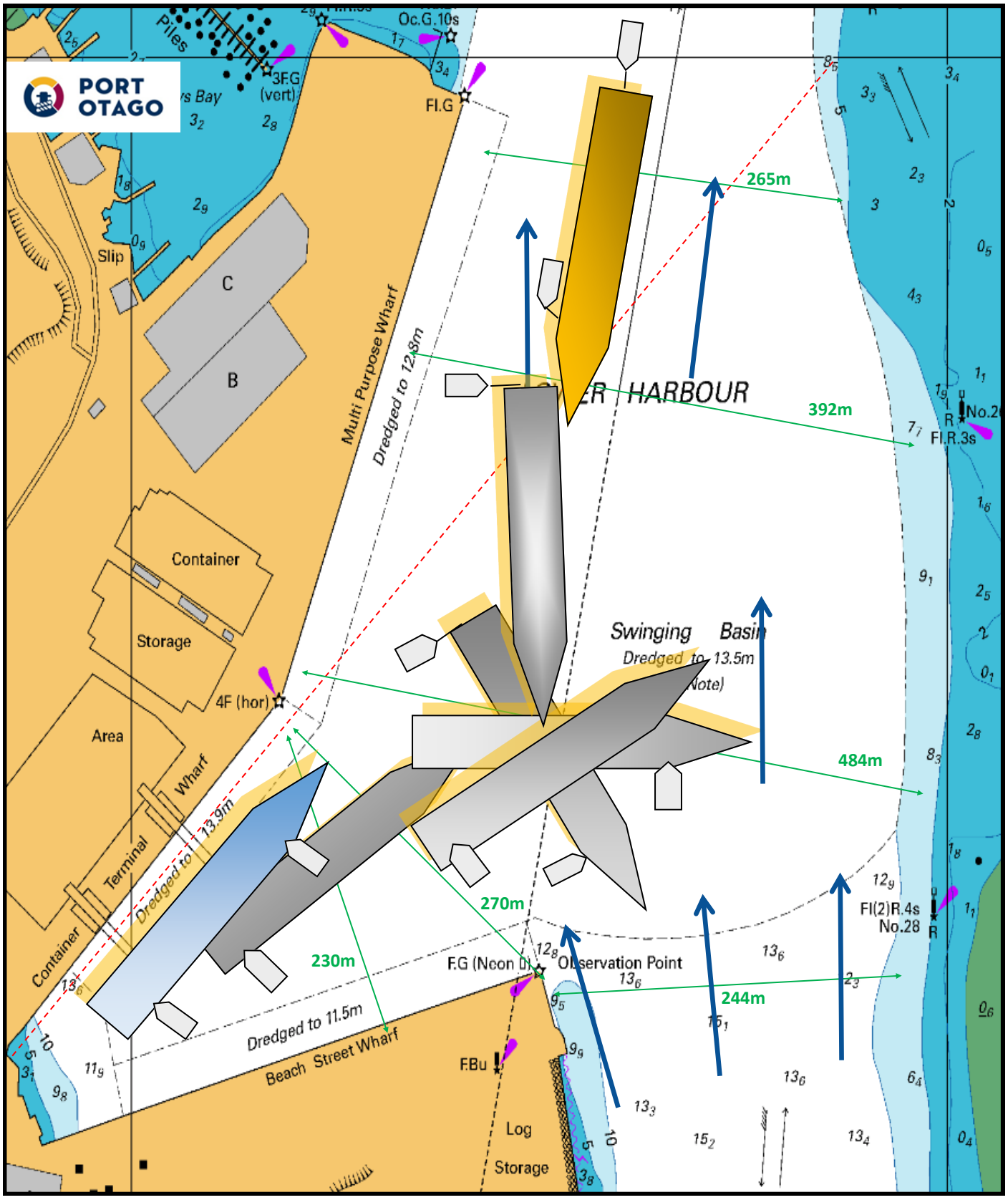

PORT OTAGO
Rocky Point
Athfields Point
Goldie Point
Careys Bay
Careys Bay
Mooring Piles
No.25 F.G.& Dir.RY (Neon
Fl(2)R.4s No.22
Fl.R.3s No.24
012°30'
191°30'
Fl.R.3s
R 3 4
Fl(2)R.4s No.24A
Fl.R.3s No.26
Fl(2)R.4s No.28
3F.G (vert)
Fl.G
4F (hor)
Dredged to 13.5m
(see Note)
Observation Point
F.G (Nec
F.Bu
F.Bu
SP
Piles
SEE PLAN
12




# PORT CHALMERS ARRIVAL

# FLOOD TIDE - SLEW

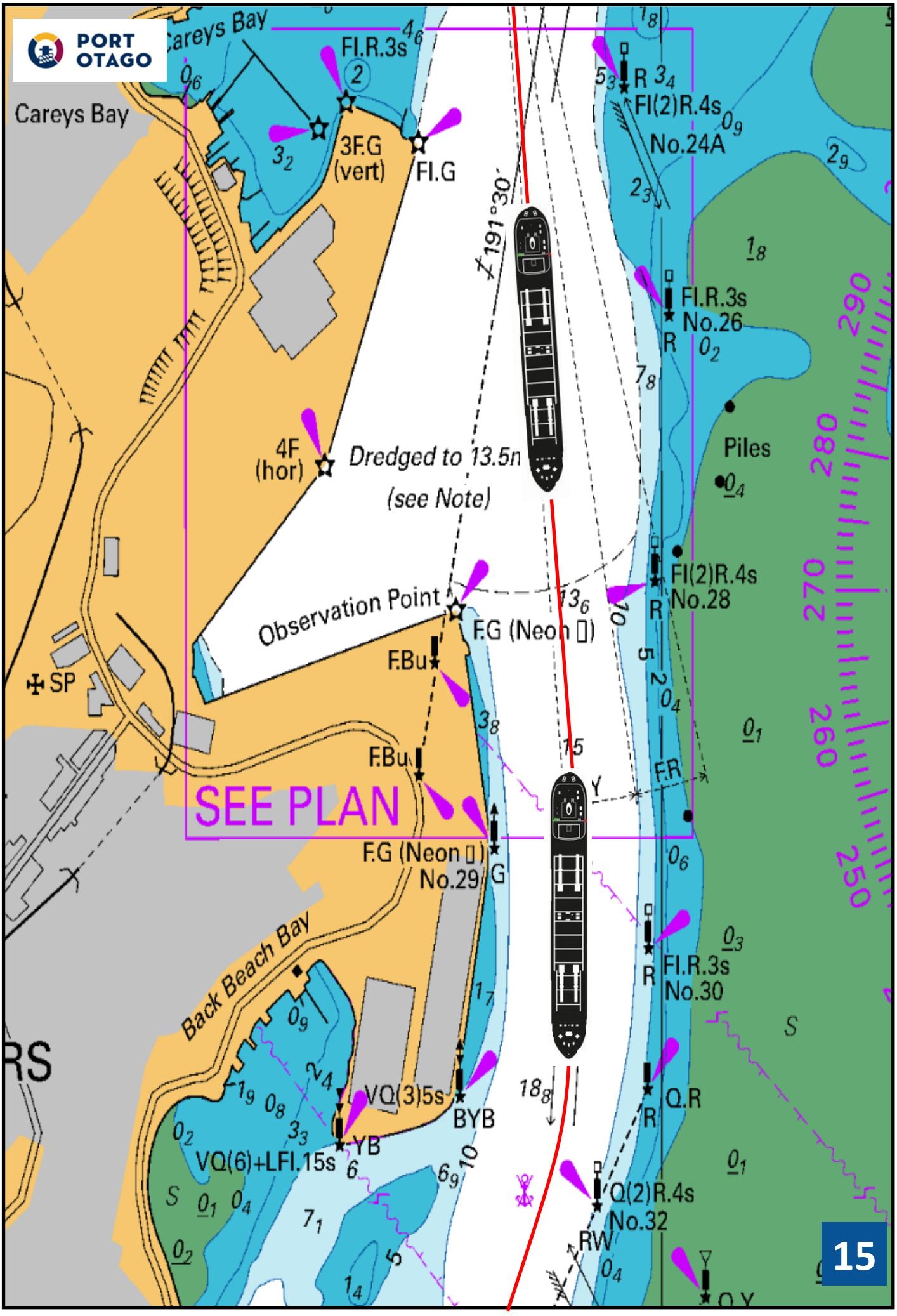
**MAX RATE 2.1 kts, HW –3**

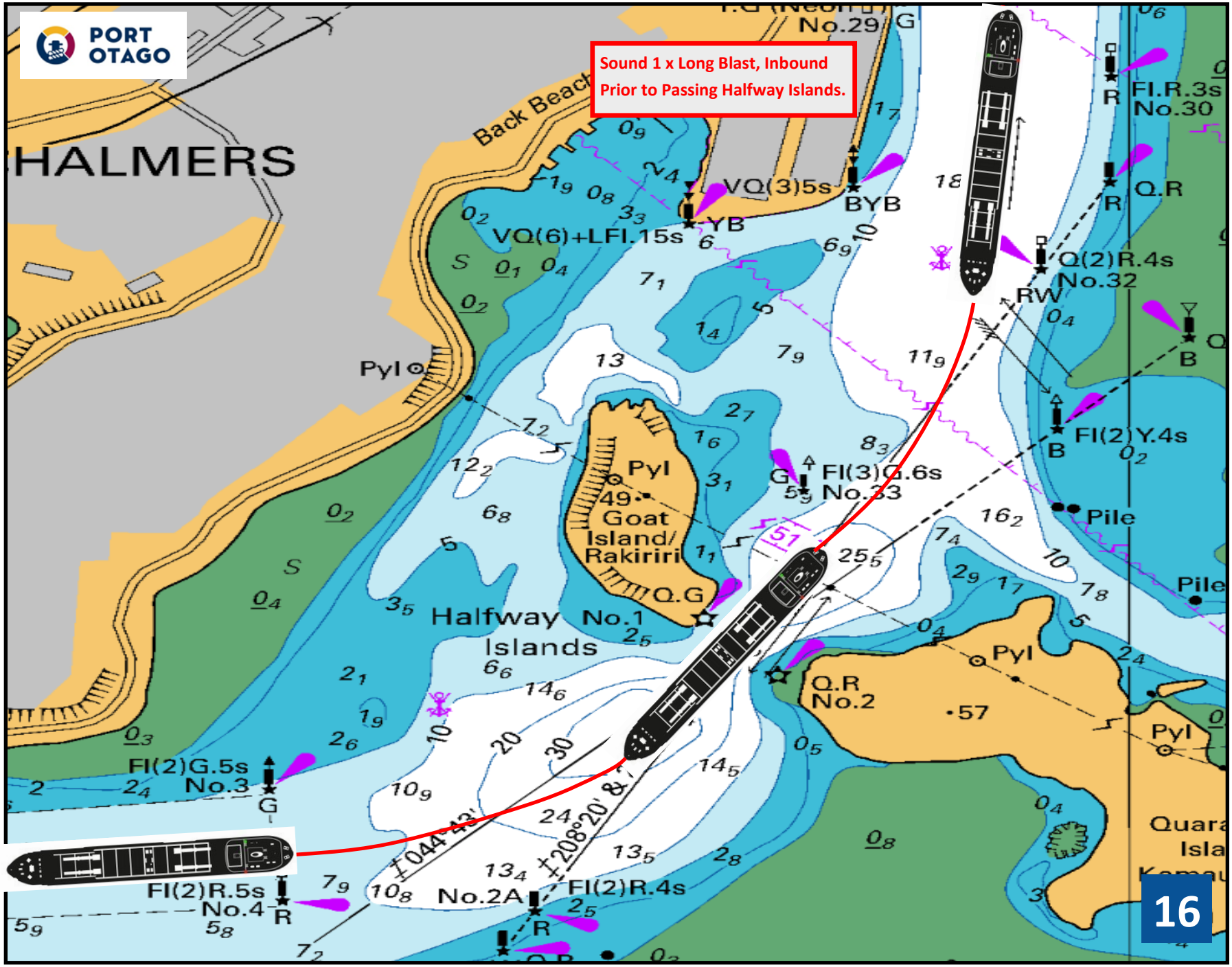


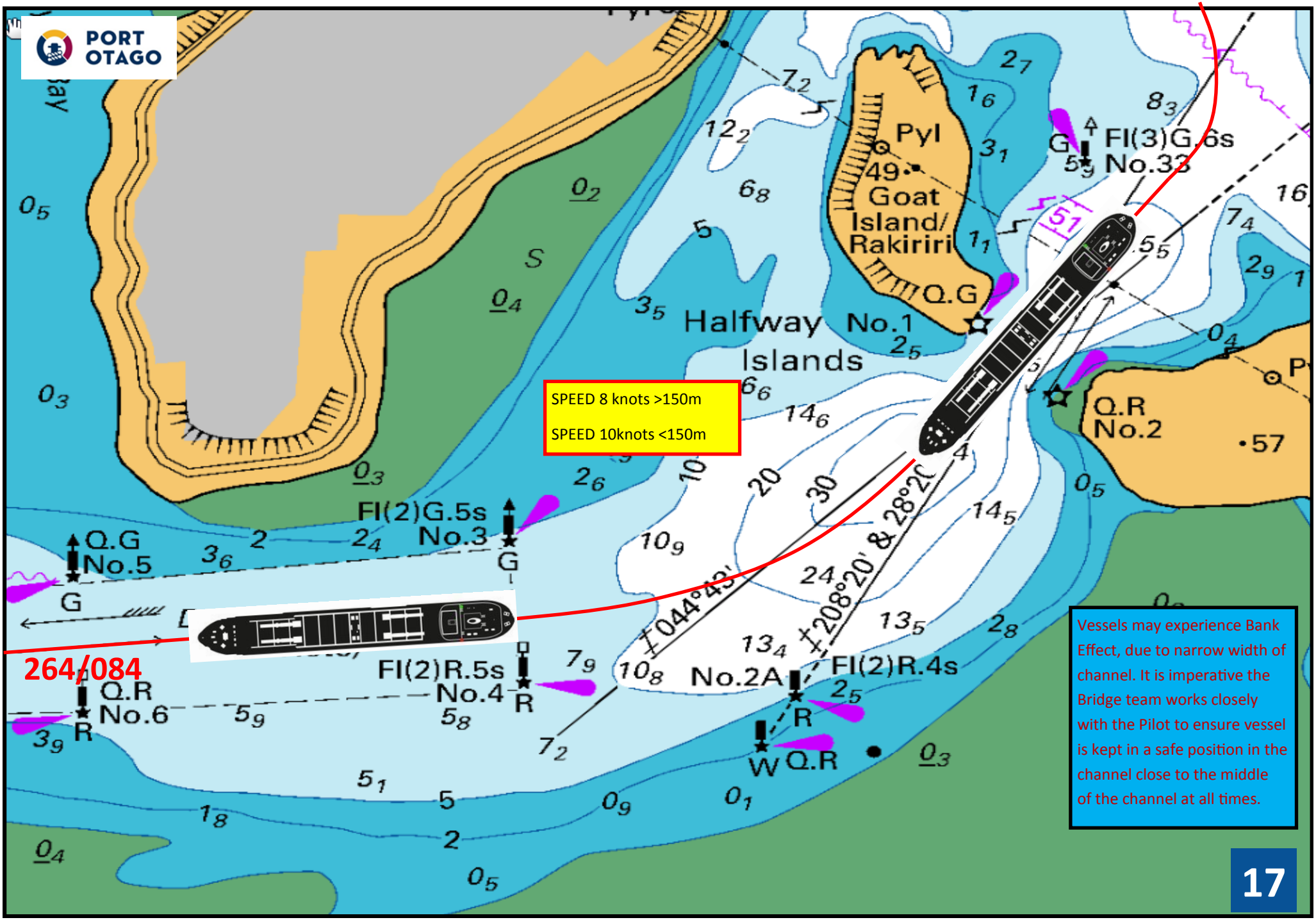

# PORT CHALMERS ARRIVAL

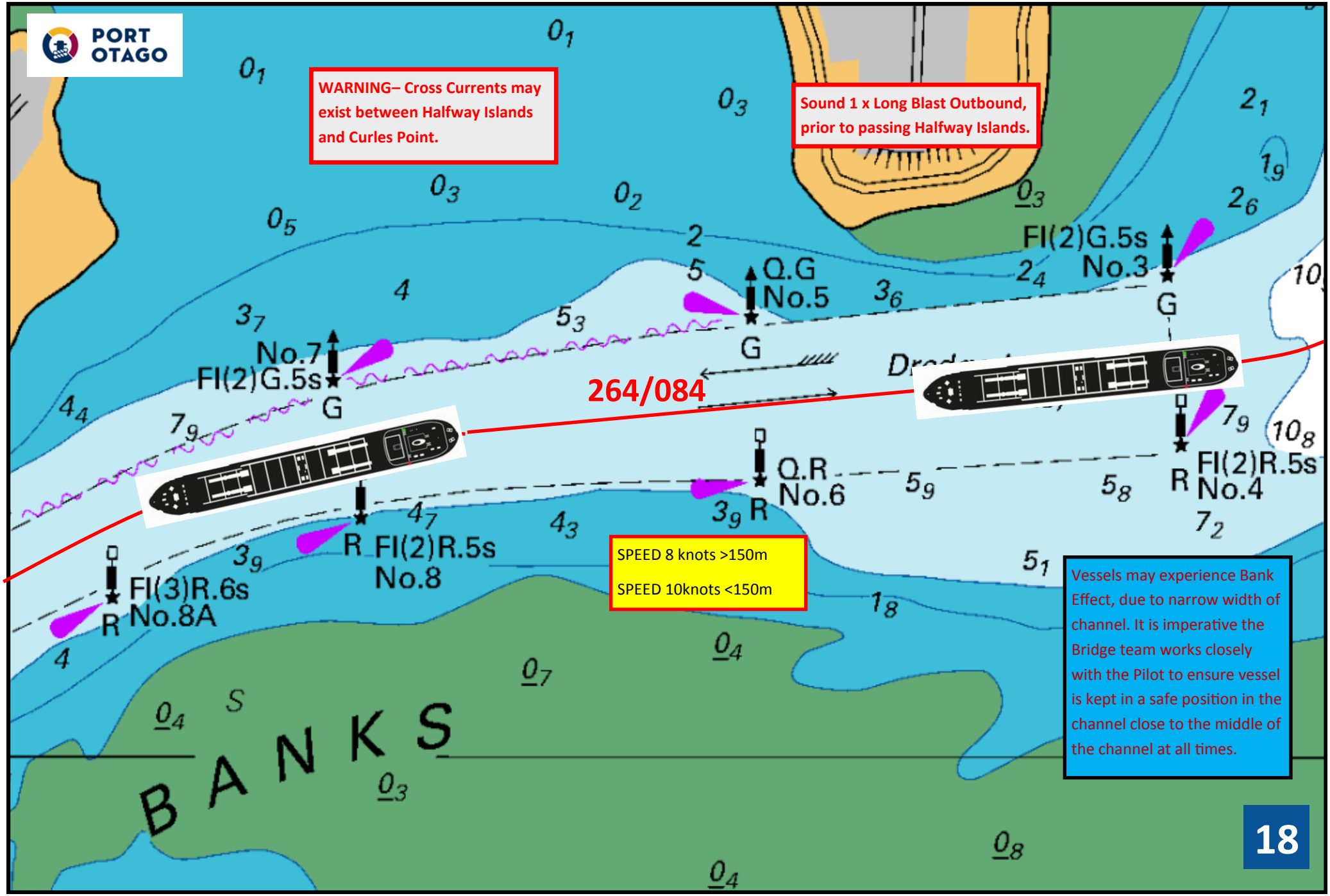
# EBB TIDE - SLEW

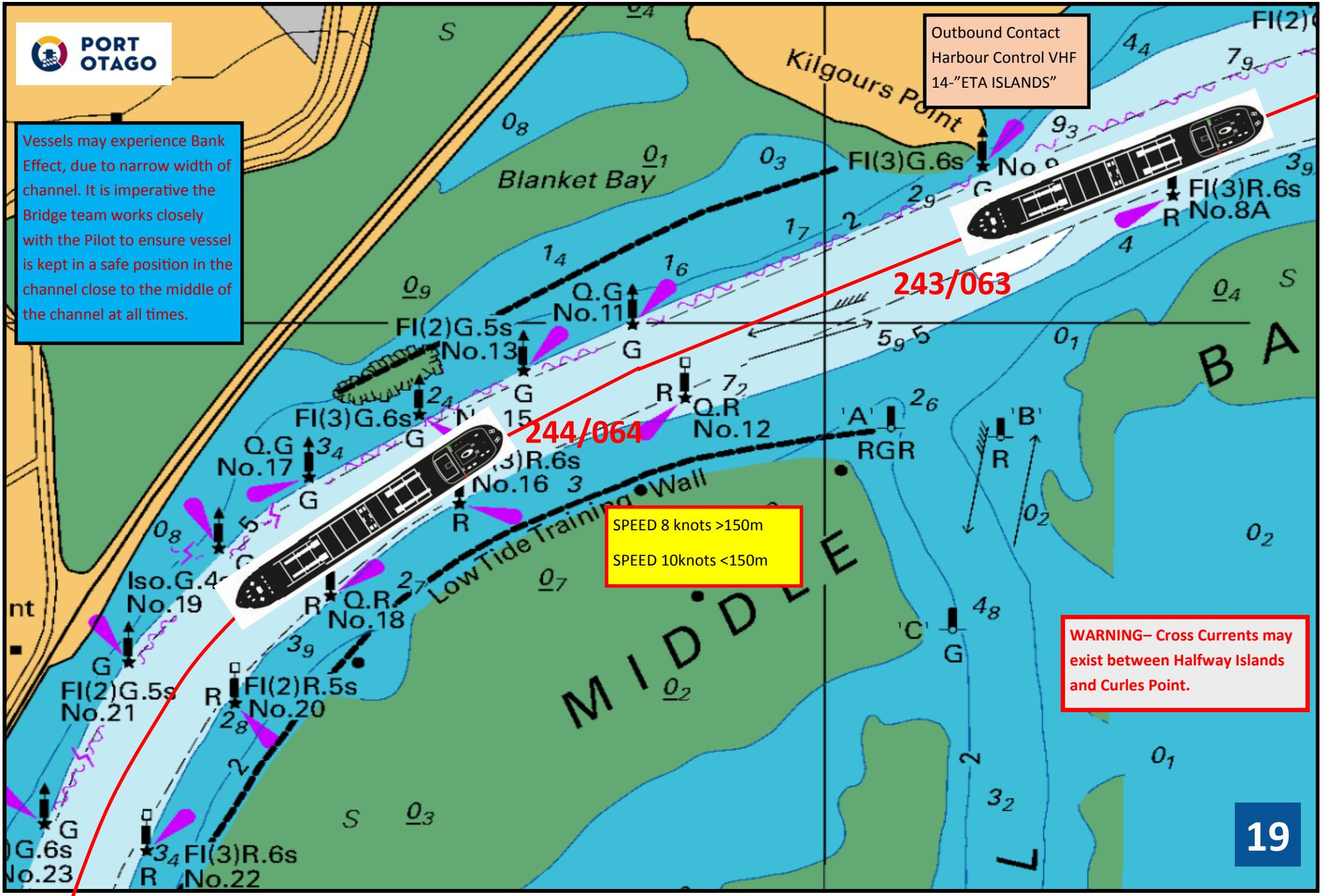
**MAX RATE 1.9 kts, HW + 5**

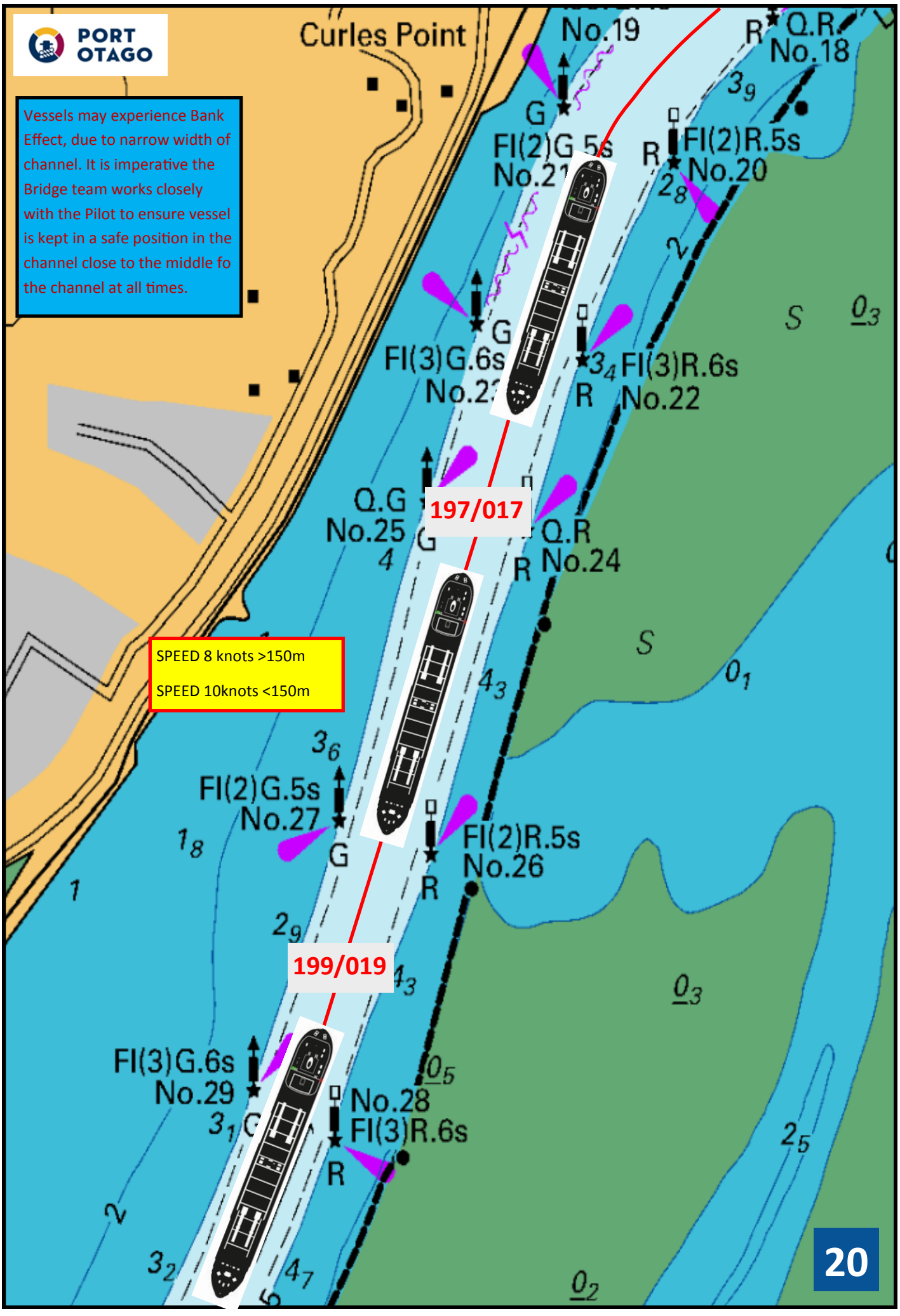

PORT OTAGO
Careys Bay
Careys Bay
Fl.R.3s
2
3F.G
(vert)
Fl.G
191°30'
R
Fl(2)R.4s
No.24A
Fl.R.3s
No.26
4F
(hor)
Dredged to 13.5m
(see Note)
Piles
Observation Point
F.G (Neon )
Fl(2)R.4s
No.28
F.Bu
F.Bu
SEE PLAN
F.R
F.G (Neon )
No.29
G
Back Beach Bay
Fl.R.3s
No.30
VQ(3)5s
BYB
Q.R
YB
VQ(6)+LFl.15s
Q(2)R.4s
No.32
RW
SP
RS
290
280
270
260
250
15

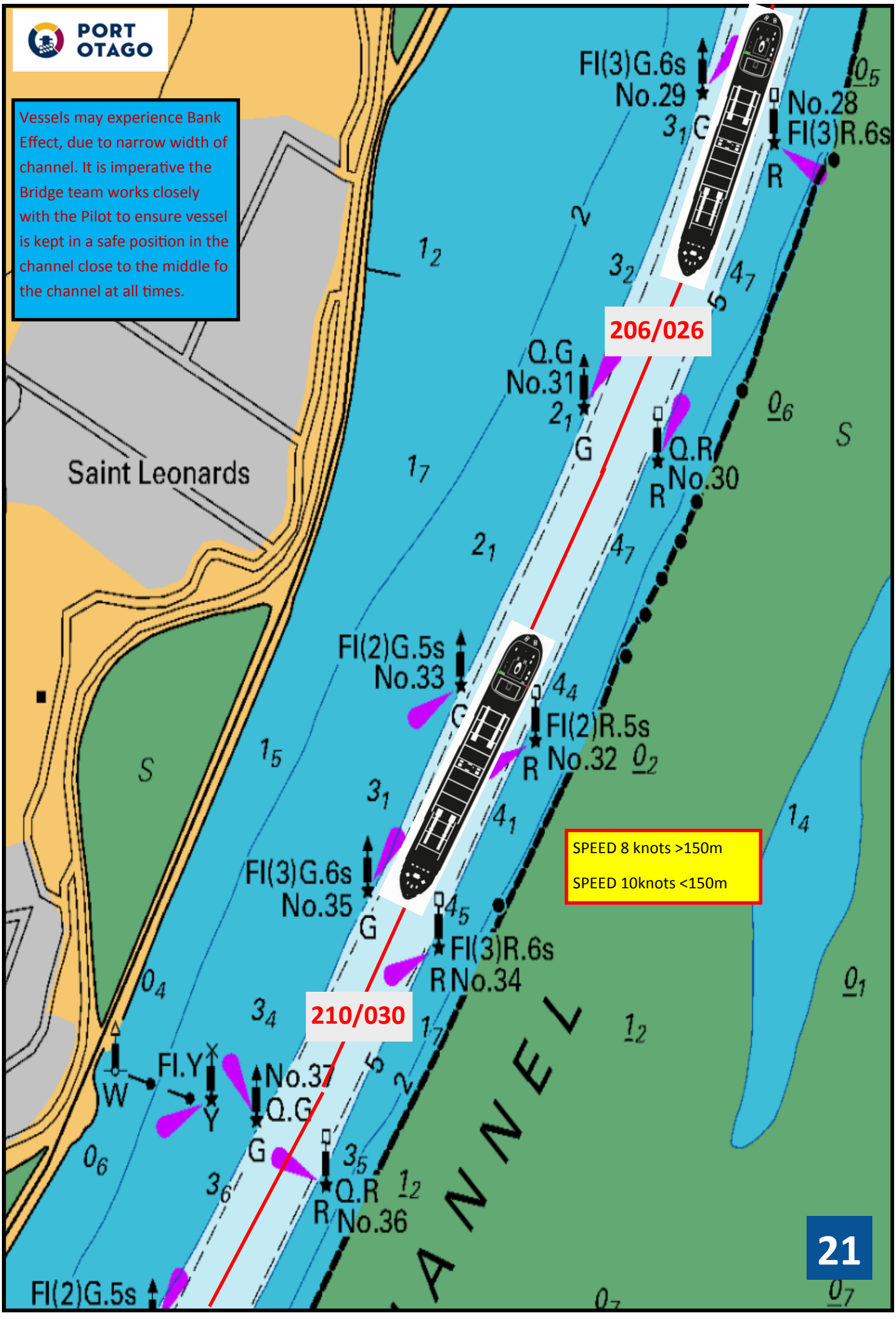

PORT OTAGO
Sound 1 x Long Blast, Inbound
Prior to Passing Halfway Islands.
HALMERS
Back Beach
No.29 G
VQ(3)5s
BYB
YB
VQ(6)+LFl.15s
Fl.R.3s
No.30
R
Q.R
Q(2)R.4s
No.32
RW
B
Fl(2)Y.4s
Pyl
Pile
Fl(3)G.6s
No.33
Goat
Island/
Rakiriri
49
Q.G
Halfway
Islands
No.1
Q.R
No.2
·57
Fl(2)G.5s
No.3
G
Fl(2)R.5s
No.4
R
No.2A
Fl(2)R.4s
044° 43'
208° 20'
Quara
Isla

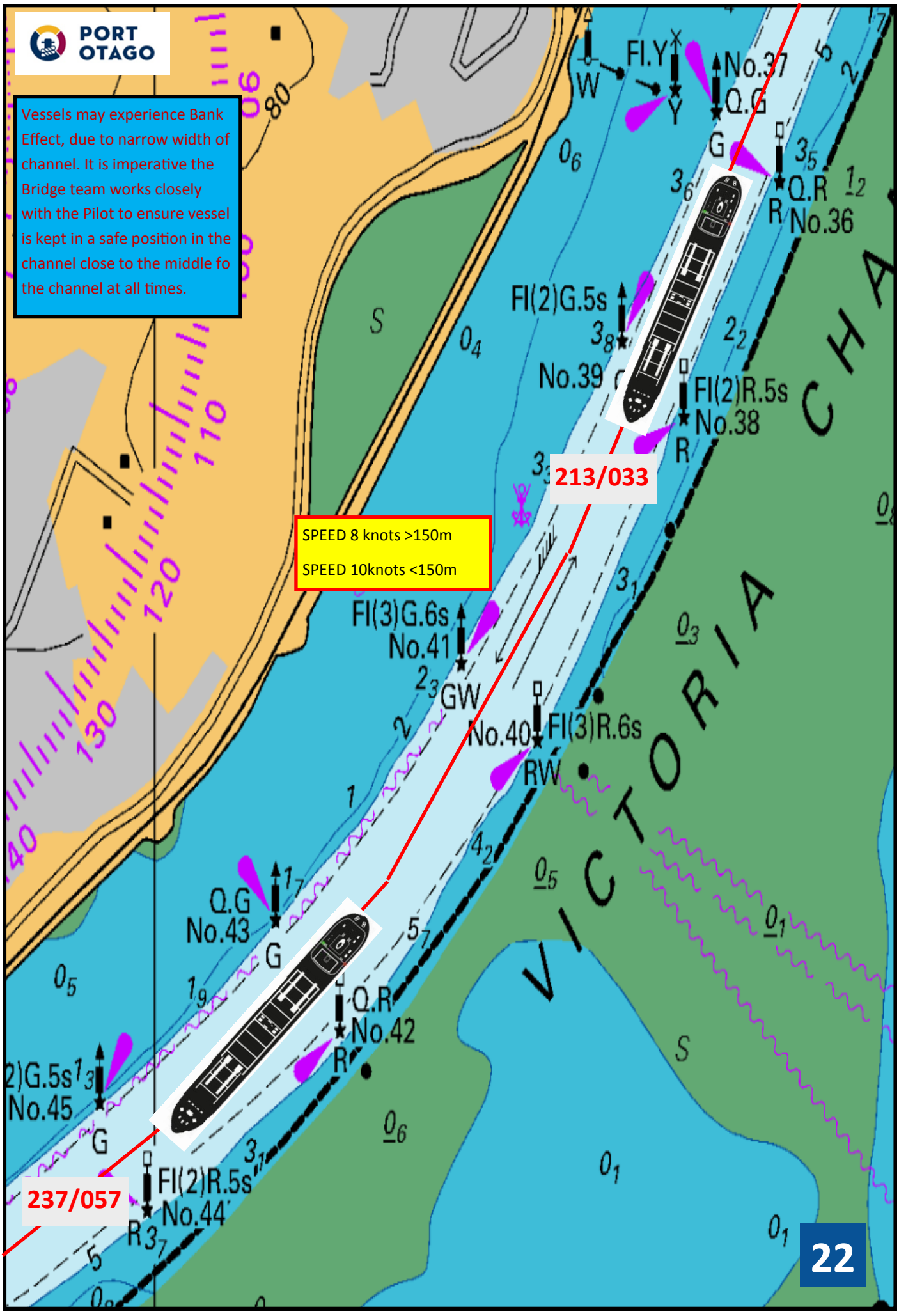

PORT OTAGO
Pyl
49
Goat Island/ Rakiriri
Q.G
Fl(3)G.6s No.33
Halfway Islands No.1
Q.R No.2
SPEED 8 knots >150m
SPEED 10knots <150m
Fl(2)G.5s No.3
Q.G No.5
Fl(2)R.5s No.4
Q.R No.6
Fl(2)R.4s No.2A
Q.R
264/084
044°43'
208°20' & 28°2
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
17

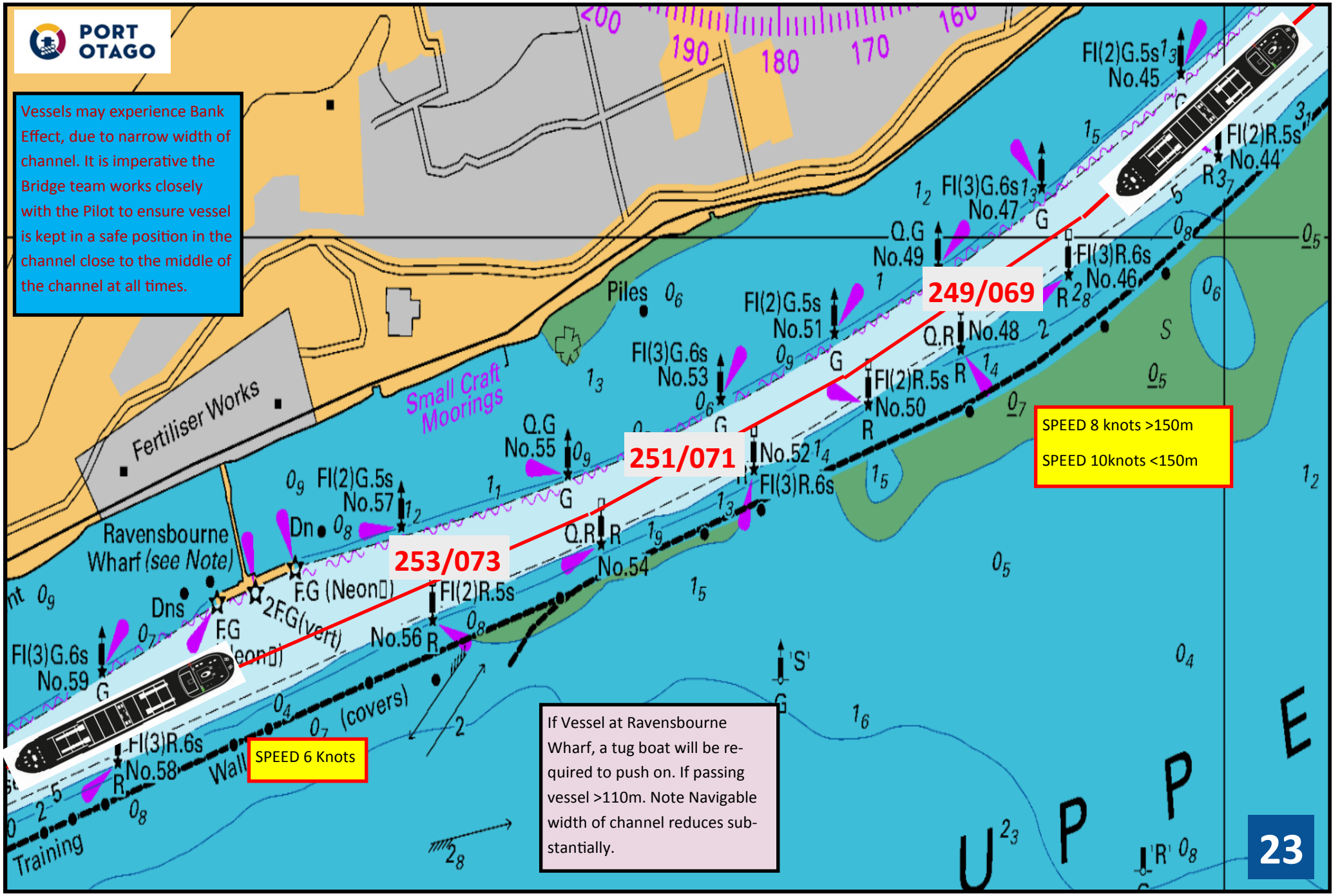

PORT OTAGO
WARNING– Cross Currents may exist between Halfway Islands and Curles Point.
Sound 1 x Long Blast Outbound, prior to passing Halfway Islands.
Fl(2)G.5s
No.3
G
Q.G
No.5
G
No.7
Fl(2)G.5s
G
264/084
Q.R
No.6
R
Fl(2)R.5s
No.4
R
Fl(2)R.5s
No.8
R
Fl(3)R.6s
No.8A
R
SPEED 8 knots >150m
SPEED 10knots <150m
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
BANKS
18

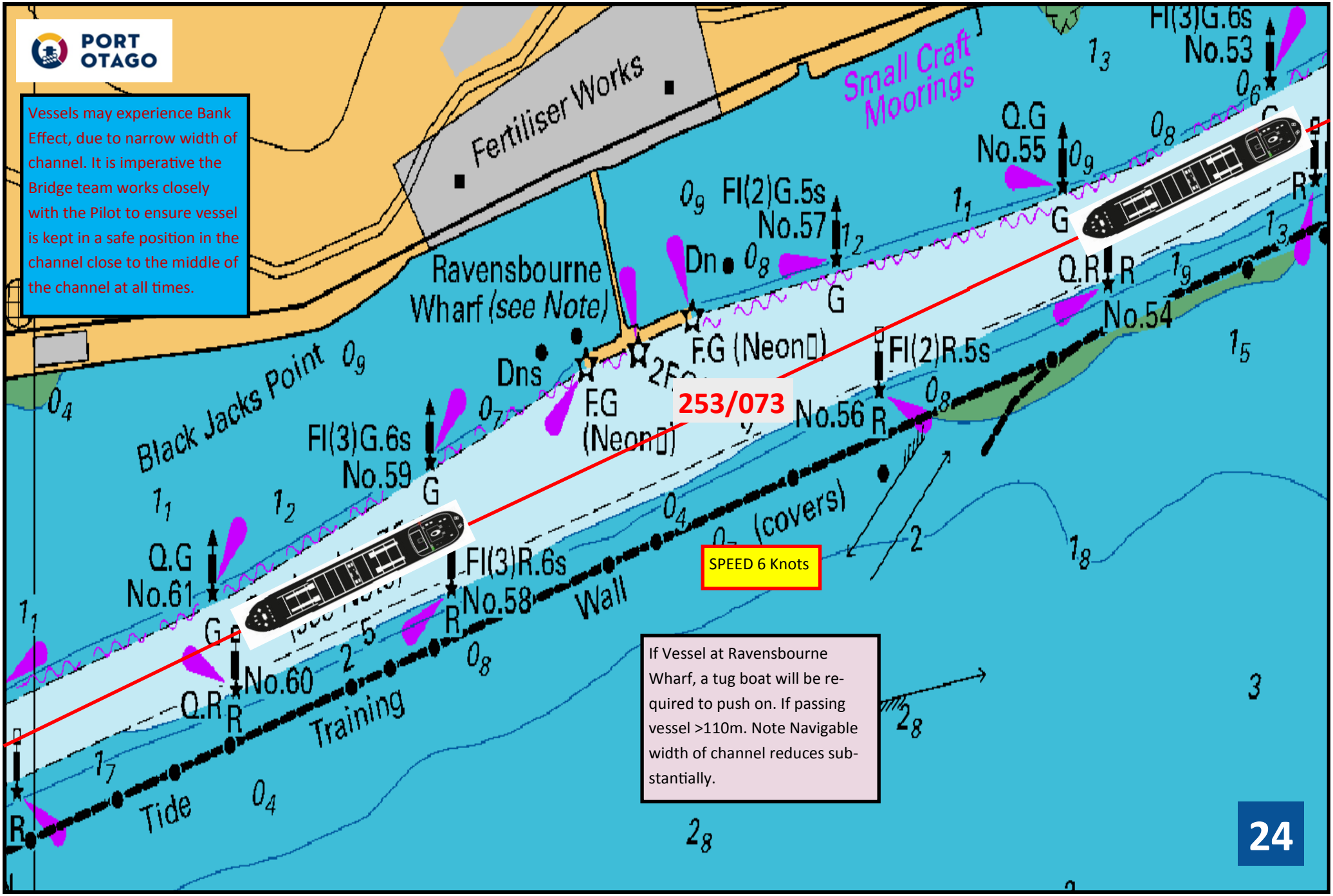

PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
Outbound Contact Harbour Control VHF 14-"ETA ISLANDS"
Kilgours Point
Blanket Bay
Fl(3)G.6s
No.9
Fl(3)R.6s
No.8A
243/063
244/064
Fl(2)G.5s
No.13
Q.G
No.11
Fl(3)G.6s
No.15
Q.R
No.12
Q.G
No.17
Fl(3)R.6s
No.16
Iso.G.4s
No.19
Q.R
No.18
Low Tide Training Wall
'A'
RGR
'B'
R
'C'
G
SPEED 8 knots >150m
SPEED 10knots <150m
WARNING– Cross Currents may exist between Halfway Islands and Curles Point.
Fl(2)G.5s
No.21
Fl(2)R.5s
No.20
Fl(3)R.6s
No.22
G.6s
No.23
MIDDLE
BA
19

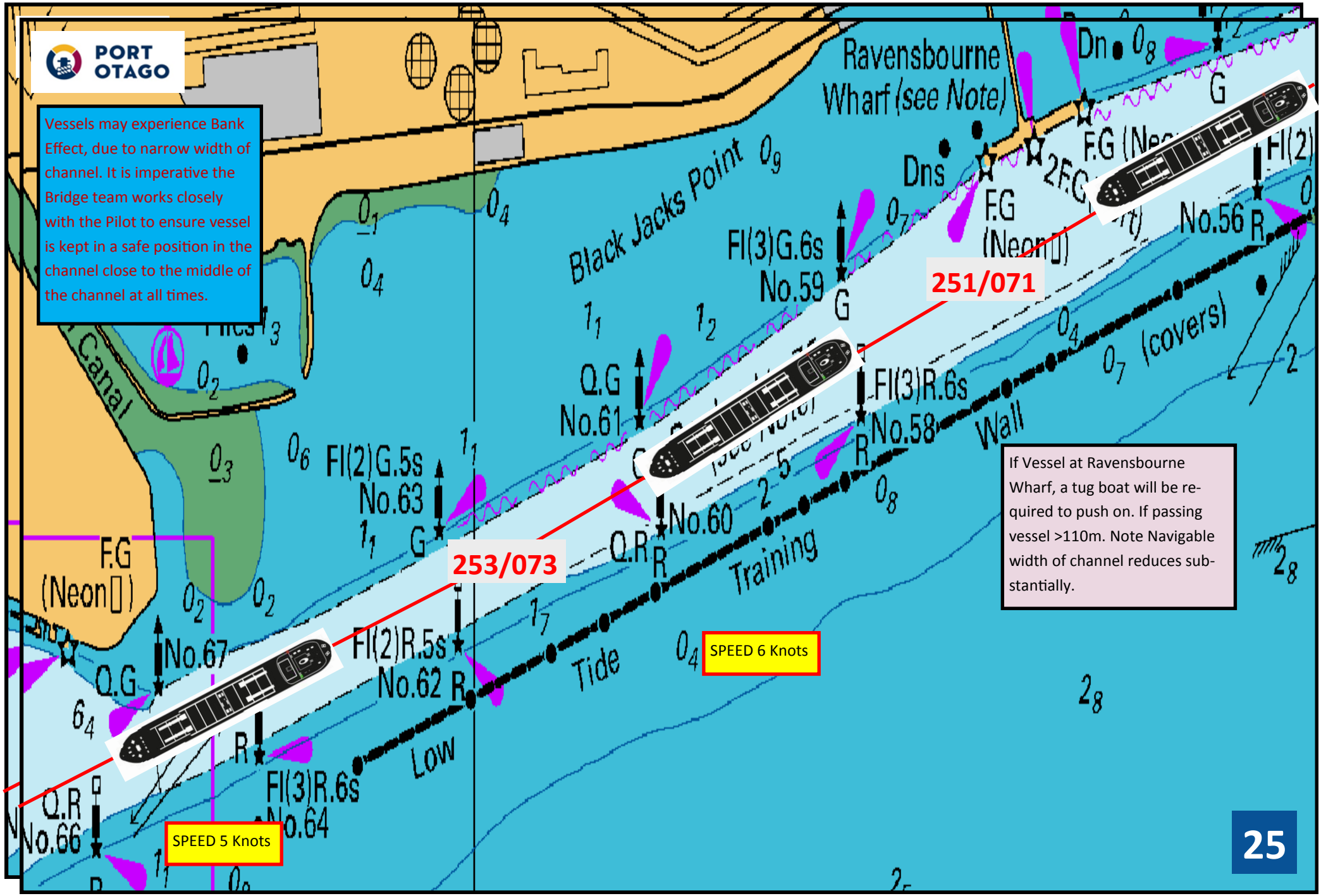

PORT OTAGO
Curles Point
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle fo the channel at all times.
No.19
G
Fl(2)G.5s
No.21
R
Q.R
No.18
Fl(2)R.5s
No.20
Fl(3)G.6s
No.23
Fl(3)R.6s
No.22
197/017
Q.G
No.25
Q.R
No.24
SPEED 8 knots >150m
SPEED 10knots <150m
Fl(2)G.5s
No.27
Fl(2)R.5s
No.26
199/019
Fl(3)G.6s
No.29
No.28
Fl(3)R.6s
20

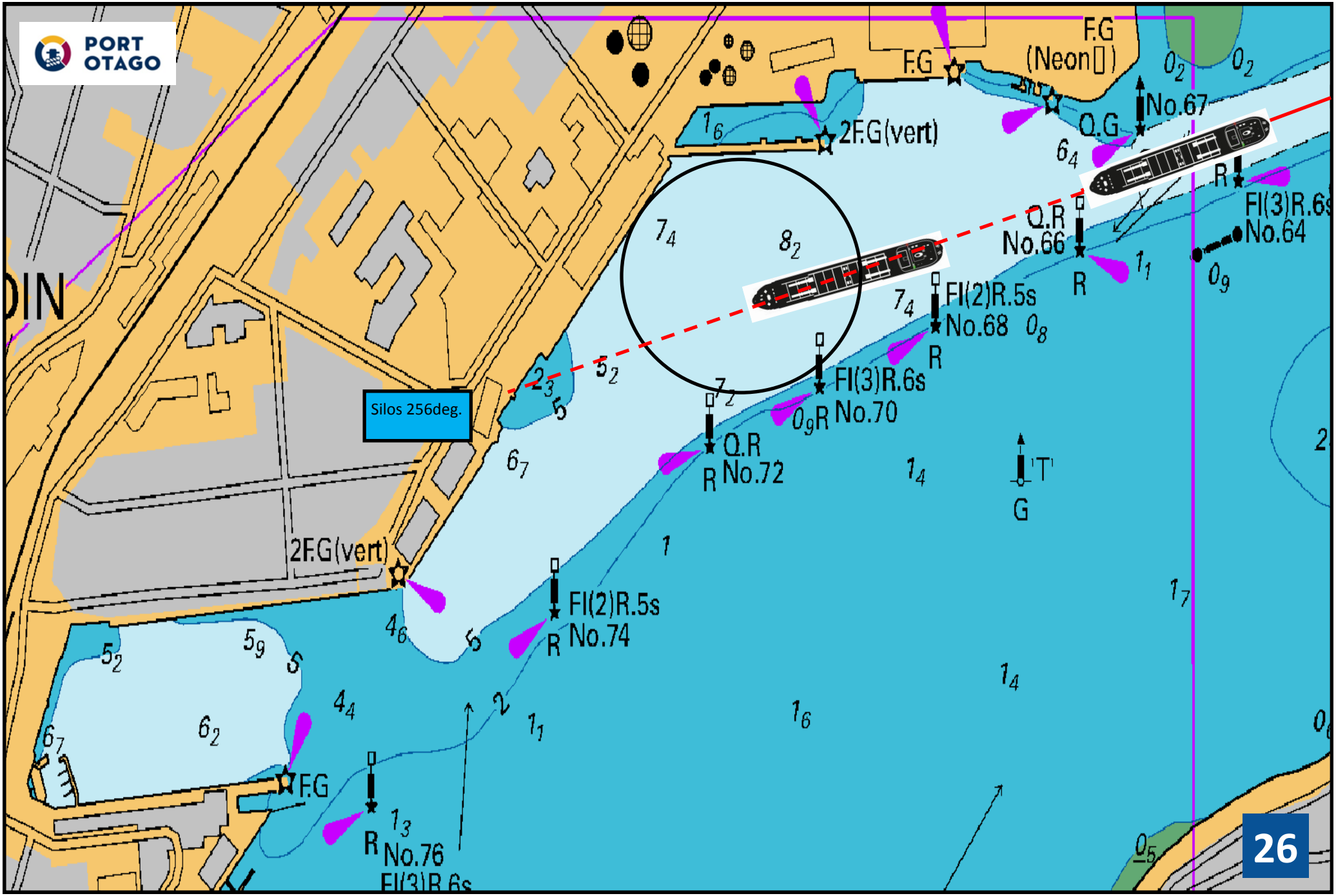

PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle fo the channel at all times.
Saint Leonards
Fl(3)G.6s
No.29
Fl(3)R.6s
No.28
206/026
Q.G
No.31
Q.R
No.30
Fl(2)G.5s
No.33
Fl(2)R.5s
No.32
Fl(3)G.6s
No.35
Fl(3)R.6s
No.34
210/030
Fl.Y
No.37
Q.G
Q.R
No.36
Fl(2)G.5s
SPEED 8 knots >150m
SPEED 10knots <150m
CHANNEL
21

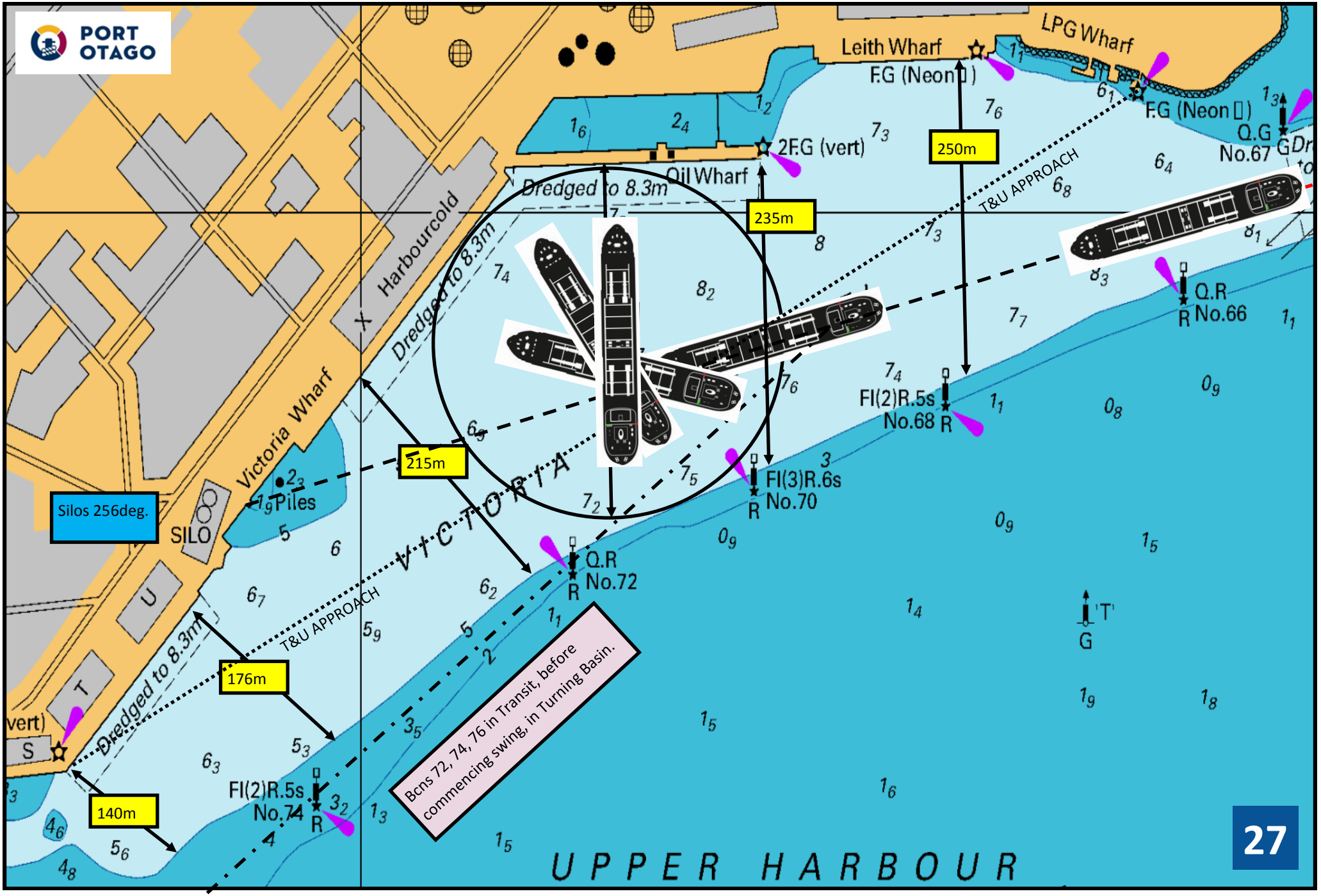

PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle fo the channel at all times.
SPEED 8 knots >150m
SPEED 10knots <150m
213/033
237/057
VICTORIA CHA
W
Fl.Y
Y
No.37
Q.G
G
Q.R
No.36
R
Fl(2)G.5s
No.39
Fl(2)R.5s
No.38
Fl(3)G.6s
No.41
GW
No.40
Fl(3)R.6s
RW
Q.G
No.43
G
Q.R
No.42
R
Fl(2)G.5s
No.45
G
Fl(2)R.5s
No.44
R
22

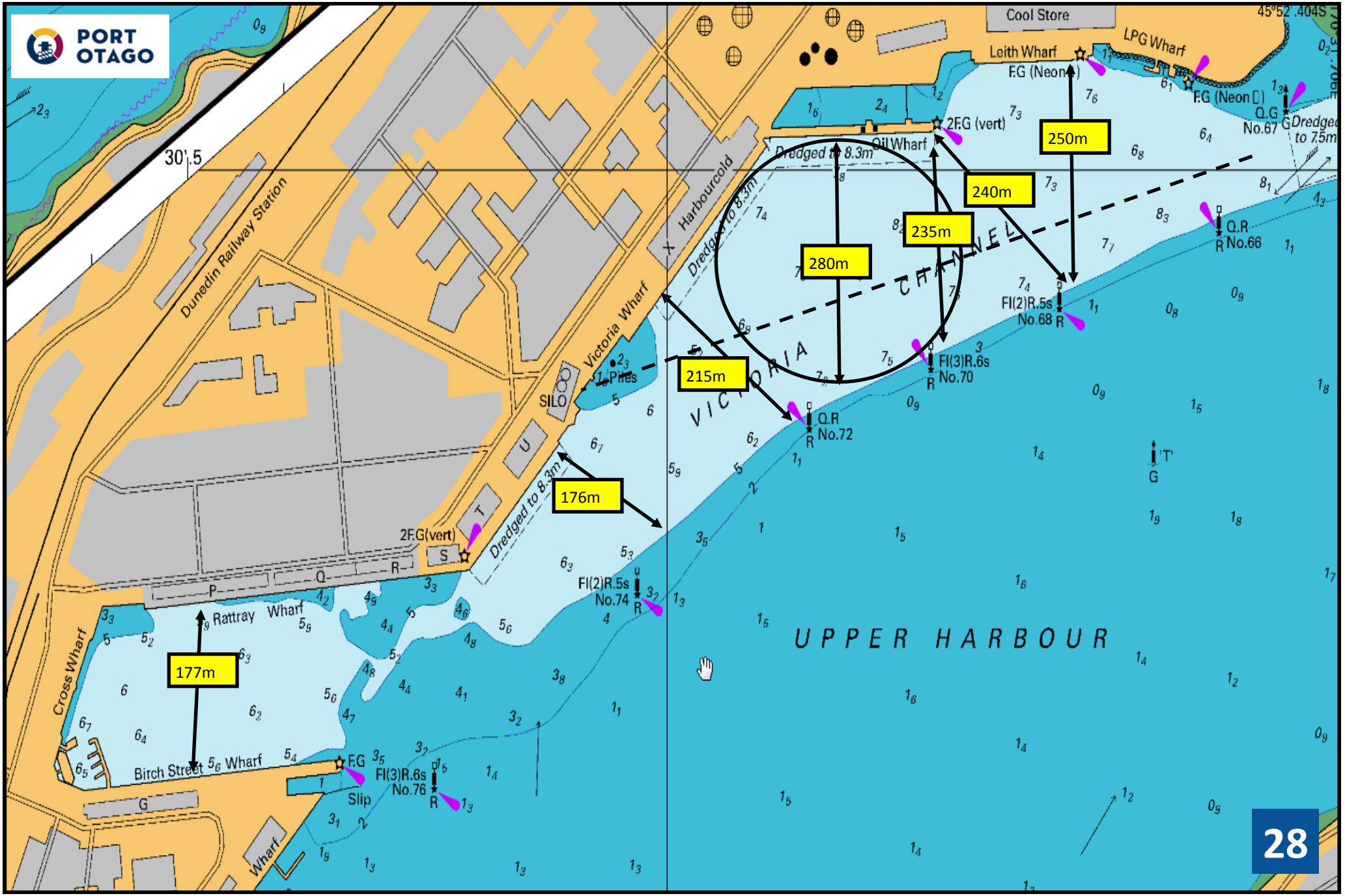

PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
Fertiliser Works
Small Craft Moorings
Piles
Ravensbourne Wharf (see Note)
Dns
Dn
F.G (Neon)
2F.G (vert)
F.G
Fl(2)G.5s No.57
Fl(2)R.5s No.56
Fl(3)G.6s No.59
Fl(3)R.6s No.58
Wall
(covers)
Training
Q.G No.55
Fl(3)G.6s No.53
Fl(2)G.5s No.51
Q.G No.49
Fl(3)G.6s No.47
Fl(2)G.5s No.45
Fl(2)R.5s No.44
Fl(3)R.6s No.46
Q.R No.48
Fl(2)R.5s No.50
Q.R No.54
Fl(3)R.6s No.52
249/069
251/071
253/073
SPEED 8 knots >150m
SPEED 10knots <150m
SPEED 6 Knots
If Vessel at Ravensbourne Wharf, a tug boat will be required to push on. If passing vessel >110m. Note Navigable width of channel reduces substantially.
U P P E
23


PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
Fertiliser Works
Small Craft Moorings
Fl(3)G.6s
No.53
Q.G
No.55
Fl(2)G.5s
No.57
Ravensbourne
Wharf (see Note)
Dn
Dns
F.G (Neon)
Q.R
No.54
Fl(2)R.5s
No.56
253/073
Black Jacks Point
Fl(3)G.6s
No.59
Q.G
No.61
Fl(3)R.6s
No.58
(covers)
Wall
SPEED 6 Knots
No.60
Q.R
Training
Tide
If Vessel at Ravensbourne Wharf, a tug boat will be required to push on. If passing vessel >110m. Note Navigable width of channel reduces substantially.
24


PORT OTAGO
Vessels may experience Bank Effect, due to narrow width of channel. It is imperative the Bridge team works closely with the Pilot to ensure vessel is kept in a safe position in the channel close to the middle of the channel at all times.
Ravensbourne Wharf (see Note)
Black Jacks Point
Canal
Dns
Dn
F.G (Neon)
2F.G
Fl(3)G.6s
No.59
G
Q.G
No.61
Fl(3)R.6s
No.58
R
No.56
Fl(2)
251/071
Wall
(covers)
Fl(2)G.5s
No.63
No.60
Q.R
Training
253/073
F.G
(Neon)
No.67
Fl(2)R.5s
No.62
Tide
SPEED 6 Knots
If Vessel at Ravensbourne Wharf, a tug boat will be required to push on. If passing vessel >110m. Note Navigable width of channel reduces substantially.
Q.R
No.66
Fl(3)R.6s
No.64
Low
SPEED 5 Knots
25


PORT OTAGO
F.G
(Neon)
2F.G(vert)
Q.G
No.67
R
Fl(3)R.6s
No.64
Q.R
No.66
R
Fl(2)R.5s
No.68
R
Fl(3)R.6s
No.70
Q.R
No.72
R
T
G
Silos 256deg.
2F.G(vert)
Fl(2)R.5s
No.74
R
F.G
R
No.76
Fl(3)R.6s
26


PORT OTAGO
Leith Wharf
F.G (Neon )
LPG Wharf
F.G (Neon )
Q.G
No.67
2F.G (vert)
Oil Wharf
Dredged to 8.3m
250m
235m
T&U APPROACH
Harbourcold
Victoria Wharf
Dredged to 8.3m
Q.R
No.66
Fl(2)R.5s
No.68
Fl(3)R.6s
No.70
215m
Silos 256deg.
SILO
Piles
VICTORIA
Q.R
No.72
T&U APPROACH
Dredged to 8.3m
176m
'T'
G
Bcns 72, 74, 76 in Transit, before commencing swing, in Turning Basin.
Fl(2)R.5s
No.74
140m
UPPER HARBOUR
27


PORT OTAGO
Cool Store
LPG Wharf
Leith Wharf
F.G (Neon)
F.G (Neon)
Q.G
No.67 G
Dredged to 7.5m
45°52'.404S
2F.G (vert)
Oil Wharf
Dredged to 8.3m
250m
240m
235m
280m
215m
176m
177m
Dunedin Railway Station
30'.5
Harbourcold
Victoria Wharf
SILO
Pipes
CHANNEL
VICTORIA
Q.R
No.66
Fl(2)R.5s
No.68
Fl(3)R.6s
No.70
Q.R
No.72
'T'
G
Fl(2)R.5s
No.74
UPPER HARBOUR
2F.G(vert)
Dredged to 8.3m
Rattray Wharf
Cross Wharf
Birch Street
Wharf
F.G
Fl(3)R.6s
No.76
Slip
Wharf
P
Q
R
S
T
U
G