# ABLE Seaton Port (ASP)

Multi-User Port Facility - River Tees, North East Coast, UK





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2020 Edition 10

## Introduction





This document has been developed specifically to provide information on ASP for the Oil & Gas Industry.

ABLE Seaton Port (ASP) is located in the UK on the North East Coast near Hartlepool, and is 4.8 nautical miles from the Tees fairway buoy. The port has some of the strongest quays in Europe which have been constructed particularly to suit the requirements of the oil and gas sector. ASP has the capacity to handle virtually all offshore vessels and offers a wide range of facilities including fabrication halls, internal and external storage, significant crane capacity and SPMTs.

Existing manufacturing and warehouse buildings are available and planning permission is in place to construct new buildings, if required. In this regard, ASP provides the major benefit of being able to manufacture and deploy from the same port.

- ASP is a 51 hectare (126 acre) site and has some of the strongest quays in Europe which have been constructed particularly to suit the requirements of the oil & gas sector.
- ASP has the capacity to handle virtually all vessels that are operating in the North Sea.
- ASP has large mobile harbour and crawler cranes already available along with SPMT's and other plant and equipment to handle oil & gas components.
- ASP is a ISPS Level 3 port.

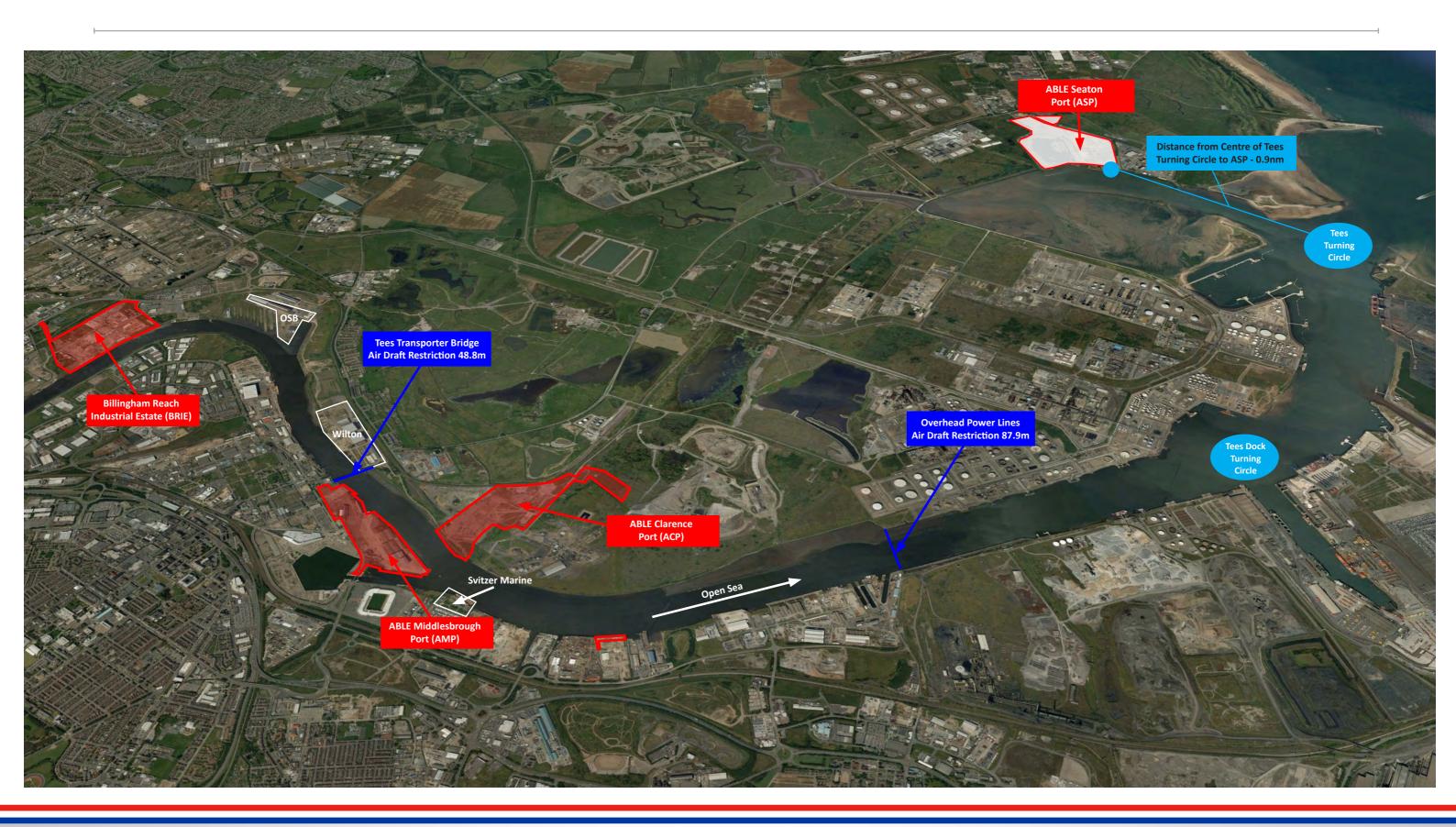
The ASP site provides an exciting option, in so far that it is a fully constructed operational port and one of the most flexible ports on the East Coast of the UK.

Port Area	126 acres (51ha)
Latitude	51°38′04′ N
Longitude	01°11′26′ W

# River Tees - Key Locations







# Location - Proximity to Market

Perfectly placed for servicing oil & gas projects.



ASP is situated in the optimum location for oil, gas and marine decommissioning projects.

Circa. 80% of all North Sea Wind Farms and 60% of the entire European market is within 12 hours steaming time of ASP (see map on the right).

### **AIRPORT ACCESS**

Teesside International Airport is only 16.5 miles (30 mins) away, with 3 daily flights to Aberdeen.

Other major airports:

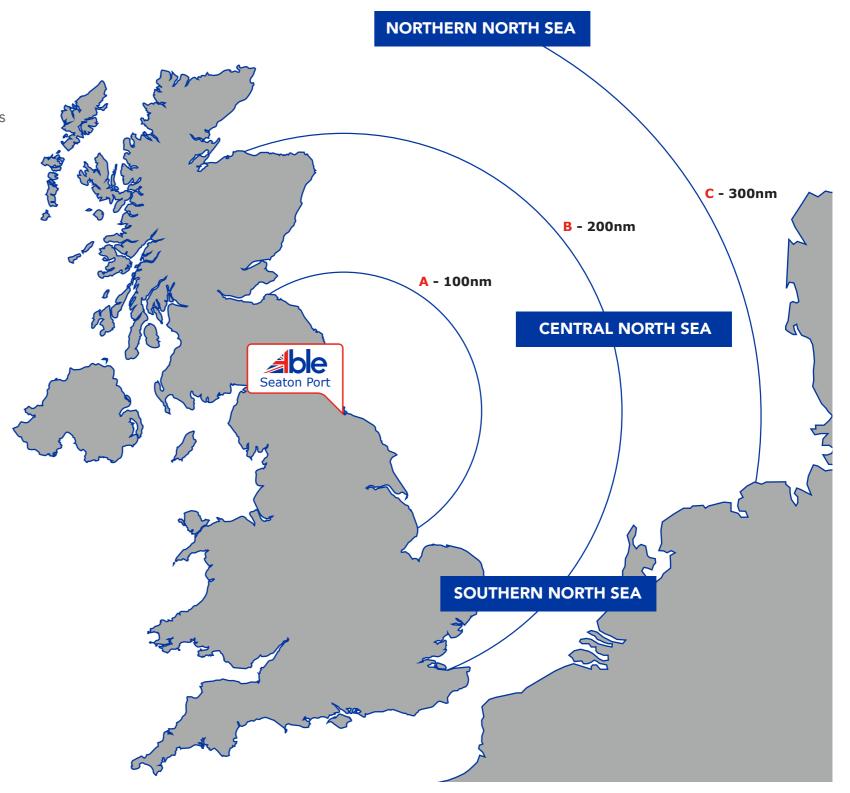
Newcastle Distance: 50 miles (60 mins)
Leeds Bradford Distance: 67 miles (75 mins)
Manchester Distance: 131 miles (140 mins)

### CONNECTIONS TO EUROPEAN PORTS

Regular freight services run to various ports along the Tees.

Distances to major European ports are shown in the table below:

From	<b>Nautical Miles</b>	Hours @ 14 Knots
Rotterdam	260	18.6
Zeebrugge	273	19.5
Vlissingen	275	19.6
Dunkirk	288	20.6
Calais	300	21.4
Ghent	308	22.0
Emden	320	22.9
Esbjerg	330	23.6
Cuxhaven	350	26.1
Bremerhaven	365	26.1
Le Havre	430	30.7
Gothenburg	485	34.6



# Location - Road & Rail

North East UK at the heart of the Northern Powerhouse.



ASP is equipped to facilitate all logistical requirements including materials, labour, plant and equipment which can be delivered or collected from ASP by road, rail and sea. The adjacent rail link and close proximity to the mouth of the River Tees enhance these capabilities.

Furthermore all components for can be handled on the quays and transported to and from the Client's premises using SPMT's without having to go on any public carriageway.



### ROAD

ASP is on a highly accessible from major routes running North to South. Distances to motorways and major cities are shown on the right.



### **RAIL FREIGHT**

ASP has a direct rail connection to the East Coast Line. Clients will be able to access the railway sidings on site for the loading and unloading of freight materials.



### **PASSENGER RAIL**

Northern Rail network – Hartlepool (4.4 miles)

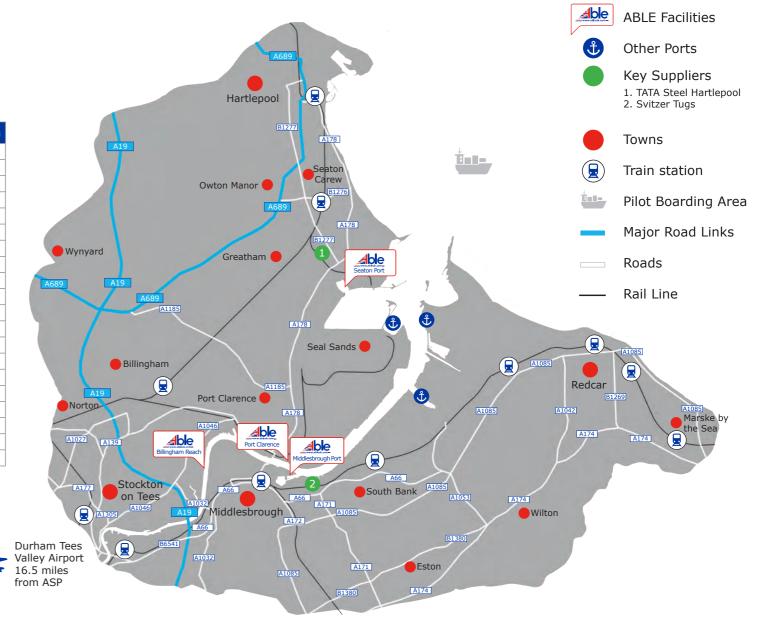
East Coast Line (trains to London / Sunderland every 3 times a day)



RUS

Seaton Port is serviced by a bus route between Hartlepool station and the port.

From	Miles	Hours @ 60mph
A1(M)	32	0.6
M62	92	1.5
M1	105	1.8
M6	119	2.0
Durham	26	0.4
Sunderland	30	0.5
Newcastle	40	0.7
Carlisle	99	1.7
Hull	116	1.9
Manchester	118	2.0
Derby	136	2.3
Liverpool	147	2.5
Edinburgh	147	2.5
Chester	157	2.7
Peterborough	173	2.9
Birmingham	179	3.0
Glasgow	192	3.2
Leeds	245	4.1
London	256	4.3
Cardiff	295	4.9





## **ABLE Seaton Port**

A flexible port at the centre of the UK East Coast.



## Operational Flexibility

ASP is the location of choice for a number of offshore oil and gas related operators, as well as other more traditional maritime engineering projects. ASP is fully licensed to carry out the following:

- Fabrication yard for offshore gas exploration production platforms and accommodation modules
- Berthing facility
- Construction of marine jackets and equipment
- Import and export of general cargos
- Dismantling and refurbishment of redundant marine structures and equipment
- Receiving, storage, processing and disposal of drill cuttings

## Rig Upgrade & Maintenance

A range of mobile jack-up and semi-submersible rigs visit ASP for upgrades, maintenance and warm and cold stacking. Since June 2009 ASP has accommodated 26 individual rig stays which, at 1 December 2017 totalled 5,174 berthing days Operators are free to use their own selected sub-contractors.

Core services on offer at ASP include:

- Accommodation Modifications and Upgrades
- Dive & Spud leg surveys
- Hull replacements
- Internal refits
- Replacement of wind walls
- Pipe work
- Testing

- Crane Line Boring
- Fabrication and repair works
- Handrails and ladders reconfigurations
- Ultrasonic Hull Inspections
- Shot blasting and painting
- Scaffolding
- Tank cleaning and waste removal

### Upgrade & Maintenance Record

Jack-Up Rig	Year
Ensco 70	2009 2010 2013 2014 2015 2017 2018 2019
Ensco 71	2012 2017 2018 2019
Ensco 72	2009 2011 2012 2018 2019
Ensco 80	2010 2011 2014
Ensco 92	2010 2011 2014 2017
Ensco 100	2013
Ensco 101	2009 2010 2013 2016 2018 2019
Ensco 102	2013 2015 2016 2017
Ensco 120	2016 2017

Jack-Up Rig	Year
Energy Endeavour	2013
Transocean Brittania	2009
GSP Brittania	2010 2011 2012
Prospector 5	2019
Semi-Sub Rig	Year
Petrofac FPF1	2011 2012
6 N I	2012

Semi-Sub Rig	Year
Petrofac FPF1	2011 2012
Ocean Nomad	2013
Ocean Princess	2013
Ocean Patriot	2014
Wil Phoenix	2015 2016

# Decommissioning & Recent Use

ASP is a leading port with core demolition and decommissioning capabilities.



The facility, combined with ABLE's core demolition competencies, has seen ABLE establish itself as a market leader in offshore decommissioning. ASP is future-proofed to accommodate the developing trends in offshore decommissioning. A new quay (Quay 6) has been constructed for the offloading of single piece topsides and jackets that will be brought to port via new specialist vessels, including the Allseas Pioneering Spirit.

With the continuing investment strategy ABLE has a strong order book over the next 4-5 years. In addition to the two remaining Shell Brent platforms (Alpha and Charlie) in 2020, 7 platforms will be received from the Exxon/Mobil Sable Island Project (Canada).

Furthermore in the period 2020-2023 a range of platforms from the Conoco/Phillips LOGGS and Murdoch fields will also be processed.

ABLE has undertaken significant marine structure decommisoning, utilising the unique characteristics of one of the worlds largest dry docks, with the rare distinction of being a facility approved to recycle redundant US and French Government Military Vessels.

### Oil & Gas Decommissioning Record

Name	Year
Phillips Albusk Jell	1985
Shell Bravo	1994
Shell Dunlin	1994
Shell Comorant A	1995
Shell Charlie	1996
Shell Leman Topside	1996
BHP Esmond	1996
Shell Delta	1997
Shell Leman Jacket	1997
NAM K11	1998-99
TFE Frigg / Froy 2000-01	
NAM K14 2001-02	
Mobil Camelot CB 2002-03	
Grove Platform 2004	
BP NW Hutton	2008-10
Conocophillips Phoenix Module	2016
Shell Brent Delta	2017-18
Shell Brent Bravo	2019

### Marine Structure Decommissioning Record

Name	Year
Le Clemenceau	2009
USS Caloosahatchee	2009
USS Canisteo	2009
USS Compass Island	2009
USS Canopus	2009
Viking Vulcan	2009
The Clyde	2009
The Tyne	2009



The Shell Brent Bravo topside arriving at ABLE Seaton Port June 2019



BP North West Hutton Jacket SPMT Movement at ABLE Seaton Po



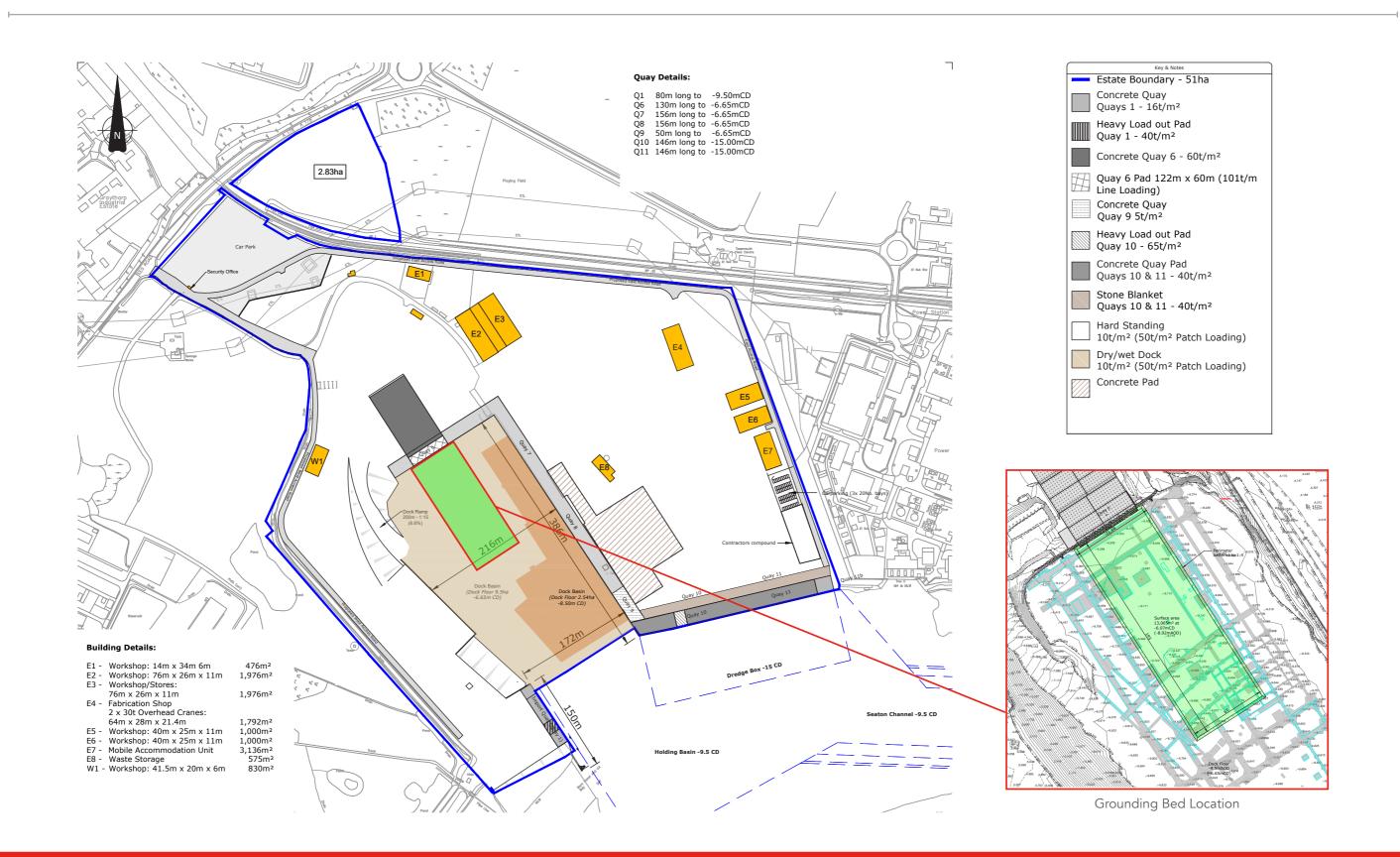
Ship recycling at ABLE Seaton Port (Le Clemenceau)



# ASP - Base Plan



ASP is a flexible site. The plan below illustrates key infrastructure that is available for production facilities.



# ASP - Marine Access



ASP is located in its own private haven, meaning vessels do not compete with general river traffic.



## ASP - Marine Access



Easy marine access for Vessels and Supply Ships ensuring optimum utilisation.

ASP is located in the Seaton Channel approximately 0.8nm from the River Tees Turning Circle, which is 4.8 nautical miles from the Tees Fairway Buoy.

- Fairway Buoy depth -15.4m CD; Turning Circle Depth -14.1m CD; Turning Circle Diameter 520m
- Access from the River Tees turning circle is via a private channel with no other river users.
- Seaton Channel (0.6 nautical miles long) is 160m wide. It has a 142m wide channel dredged to -9.5m CD.
- There are no air draft restrictions from ASP to the North Sea.
- There are no seabed restrictions from ASP to the North Sea.
- ASP is only 1.8 nautical miles from open sea and 0.8 nautical miles from the centre of the Tees Turning Circle. Vessels do not pass any other river users.
- River access to the facility is available 24 hours per day and there is an illuminated navigation channel for manoeuvring during night transits.
- The tidal range between MHWS and MLWS is 4.65m.
- Current minimum channel water depth at MLWS is 10.4m.
- At the western end of the channel the Holding Basin is at -9.5m CD.
- All berths provide 24hr x 7-day access.
- Quays have been used by Jack-Up Rigs and ASP Site investigation data is available.
- On-site, pneumatic fenders and workboats and tug services available on the river at short notice.

Access from Port to Sea	85m Width	120m Width	140m Width
Channel Depth	-9.5m CD -6.5m CD -5.0m (		-5.0m CD
Water Depth at MHWS	15.05m 12.05m 10.55m		10.55m
MLWS	0.90m CD		
MHWS	5.55m CD		
Tidal Range	4.65m		
Current Speed	Less than 0.13m second (0.25 knots)		



# ASP - Quays



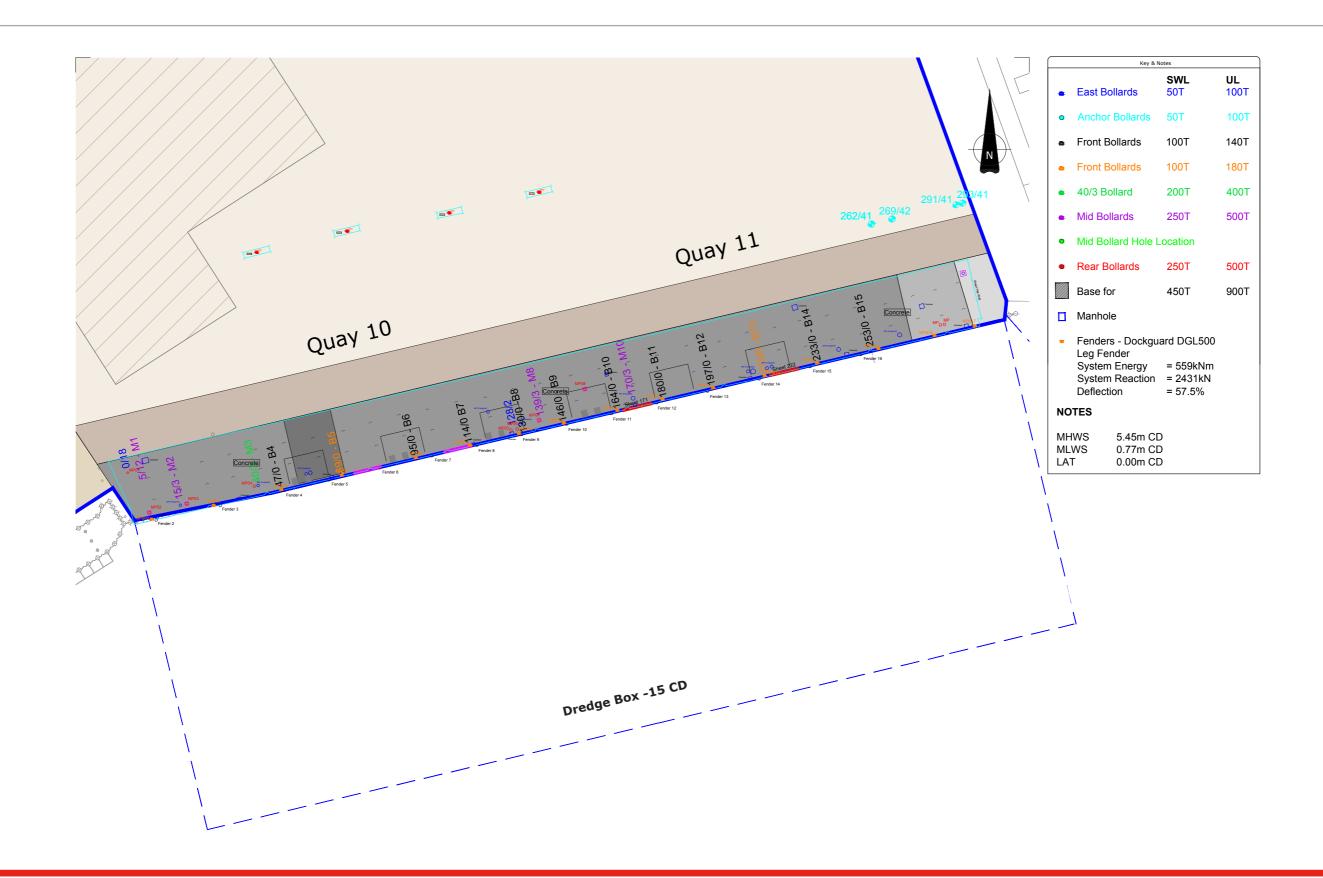


	Quays 10 & 11	Quay 6	Quay 1	Quay 9	Quays 7 & 8
Constructed	2009	2016	2016	2018	In planning to be rebuilt in 2020
Length	306m	130m	80m to be increased to 120m in 2017/18	50m	305
Design Dredge Depth	-15.00m CD	-9.5m CD	-9.5m CD	-9.5m CD	-9.5m CD
Current Dredge Depth	-9.50m CD	-6.65m CD	-9.5m CD	-6.65m CD	-6.65m CD
Load Capacity	38t/m² (23m at 60t/m²) with larger patch loads	Centre 60m x 120m at 45t/m² and concrete width 32 x 16m at c. 45t/m² UDL 110t/m² Line Load with larger patch loads	16t/m2 with a Heavy Duty section 16m wide capable of 38t/m² UDL with larger patch loads	3t/m2 UDL at the quay face; 5t/m2 at 5m from the quay face - can be increaseed to 16t sq m	3t/m2 UDL at the quay face; 5t/m2 at 5m from the quay face - can be increased to 16t sq m
Bollards	150t c. 22m apart with additional 250t and 500t bollards available in various locations	4 x 100t capacity at the quay face. 2 x 100t capacity 117m behind the quay face.			
Fenders	270t fenders c. 22m apart plus 10 x various sized Yokohama fenders	10 x various sized Yokohama fenders	10 x various sized Yokohama fenders	10 x various sized Yokohama fenders	10 x various sized Yokohama fenders
Jack-Up	Available in front of the quay	Available in front of the quay	Available in front of the quay	Will be available in front of the quay	Will be available in front of the quay

# ASP - Quay 10 & 11 Bollard/Fender Location



Quays with a Design Depth of 15m and a Maximum Water Depth of 21m including a dedicated approach channel.



# ASP - Construction of New Quays

www.ableuk.com

Over 1,000m of quays are available to facilitate the activities of ASP clients.

ABLE has the in-house capability to construct its own quays and is doing so at ASP. In preparation for the arrival of the Shell Brent platforms the construction of Quay 6 was completed in 2017. This provides one of the heaviest load-out quays in Europe with the ability to receive the largest offshore structures.

Quay 6: 120m length, 60m @ 45t/m², 60m @ 16t/m² with a pad sized 122m x 60m @ 40t – 140t per linear metre.

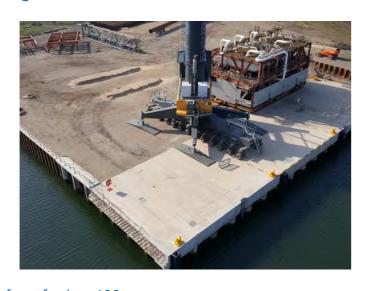






A new quay (Quay 1) has been completed and provides additional capacity to service the landholding to the west of the ASP site.

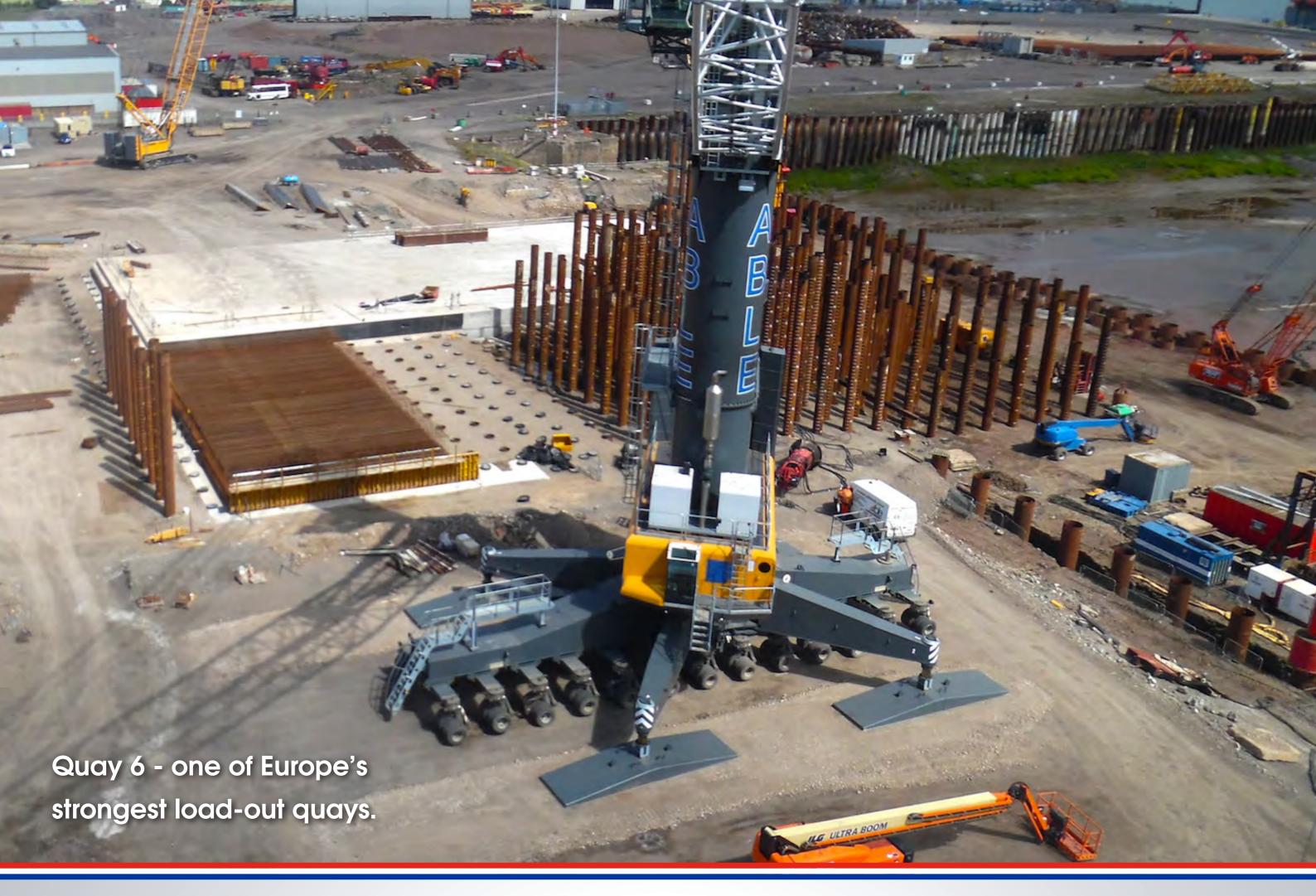
Quay 1: 125m length @16t/m<sup>2</sup>.







Potential exists for a further 488m quays.



# ASP - Land



New production facilities can be constructed providing direct access to the quays.

ASP is suitable for the construction of large scale industrial manufacturing facilities and significant site investigation data already exists.

The full site is suitable for storing and transporting large components and structures. The table below summarises the specification of the ASP land:

ASP Ground Information	
Surface type:	The site has been leveled and stoned, and is designed to a capacity to take the heaviest loads of SPMT's and handle large offshore structures.
Surface suitable for heavy, moving equipment:	Heavy-duty stone surface suitable for SPMT's and the largest mobile harbour cranes to work anywhere on the facility.
Bearing capacity, General:	Overall site is 10t/m² (50t/m² Patch Loading). The full site has been developed to be suitable for moving large offshore structures, utilising large forklift trucks, rough terrain cranes, crawler cranes up to 1,350t and self-propelled mobile trailers (SPMT).
Bearing capacity, Local:	A large concrete pad 30t/m² exists behind Quay 10. Any area can be easily modified to any particular higher loading should it be required.
Allowed axle load:	All of the site can take the heaviest axle load that will be imposed with SPMT trailers loaded to their maximum. All of the site can also take the maximum load in extreme wind conditions of the world's largest mobile harbour crane, which is 27t/m².
No Flood Risk:	The site has been designed for a 1:200 year flood from the sea and 1:100 rainfall event – as per statutory guidance.

# ASP - Buildings

Existing buildings available for use or modification.



ASP offers a wide range of buildings including fabrication halls, warehousing and office and welfare facilities. These are available on flexible lease periods.

For a tower manufacturer the construction of a new bespoke production facility will be required. However, some of the existing buildings are available and could be modified.





### **Building E4**

- Length 64m
- Width 28m
- Height 21.4m (to eaves)
- 15m Tall Span Doors
- Designed & Engineered to take two overhead gantry cranes
- Within 300m of Quayside
- Electrical Supply 7.0 MVA.
- Water Supply 250mm dia. Main.

A summary of the existing buildings at ASP:

ID	Building Type	Length (m)	Width (m)	Eaves (m)	Area (m²)
E1	Workshop	34.0	14.0	6.0	476
E2	Workshop	76.0	26.0	11.0	1976
E3	Workshop / Stores	76.0	26.0	11.0	1976
E4	Fabrication	64.0	28.0	21.4	1792
E5	Workshop	40.0	25.0	11.0	1000
E6	Workshop	40.0	25.0	11.0	1000
E7	Mobile Accommodation Unit (M.A.U)	52.4	24.1	-	3136
E8	Waste Storage	39.4	15.0	-	575
W1	Workshop	41.5	20.0	6.0	830

These workshops are frequently used to undertake project related tasks by ASP clients, including recently the final assembly of large scale carousels for offshore cabling.

### Buildings E5/E6

- Workshop Buildings
- 40m x 25m per building
- 11m Eaves
- 1000m² per building

# ASP - Buildings

On-site provision of office and welfare facilities ensuring a large workforce can maximise its productivity.



A £750,000 renovation of the former BP North West Hutton Living Quarters was undertaken in 2012. This now provides office space, changing facilities (including lockers), sanitary provisions and a large scale canteen for over 300 people. The provision of on-site amenities for up to 1,000 workers provides benefits to our clients such as a reduction in down time and from an economic perspective reduces the hire requirements for Portakabins and mobile office accommodation.

### Building E7 Mobile Accommodation Unit

3000m<sup>2</sup> over 4 floors, transforming the former BP North West Hutton Accommodation Module into office and welfare facilities.

- Industrial kitchen & canteen
- Offices with high speed internet connections
- Changing & locker facilities
- Welfare areas for workers
- Available on a modular or exclusive basis.



2013 International Green Apple Award for the built environment & architectural heritage for the innovative refurbishment of the former BP North West Hutton Accommodation Module.













## ASP - Weather Information





## WINDSPEED DATABASE QUERY RESULTS

#### FOR THE 1KM GRID SQUARE 452 522 (NZ5222)

#### Wind speed at 45m agl (in m/s)

6.6	6.6	6.6	
6.6	6.6	6.6	
6.3	6.3	6.4	

#### Wind speed at 25m agl (in m/s)

6.1	6.1	6	
6	6	6	
5.7	5.7	5.8	

#### Wind speed at 10m agl (in m/s)

5.3	5.3	5.2	
5.2	5.2	5.2	
4.9	4.9	5	

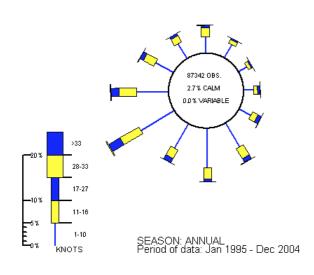
Blank squares indicate areas outside the land area of the UK - i.e. areas at sea or of

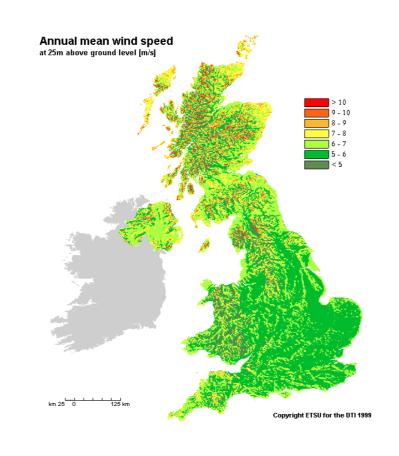
neighbouring countries.

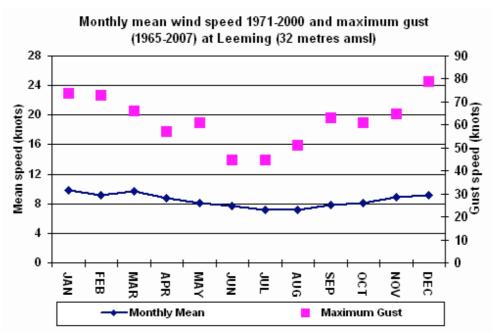
Squares surrounding the central square correspond to wind speeds for surrounding grid squares.







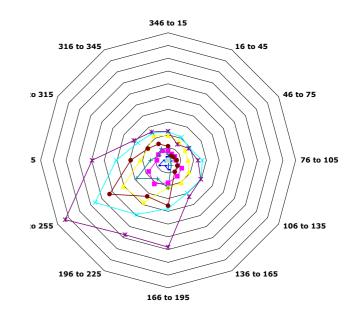




### ABLE Seaton Port is;

- Sheltered from direct wind from the sea.
- Has wind predominately from the SW.
- A monthly mean wind speed of 7 10 knots.

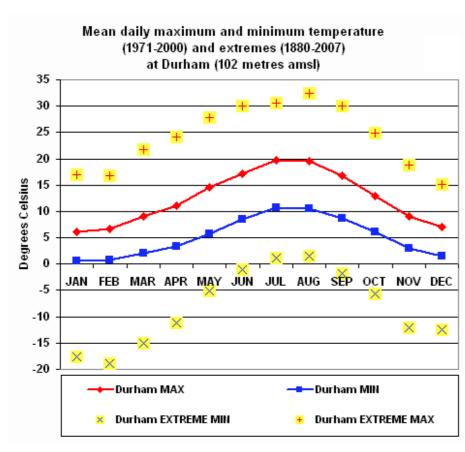
#### Wind Data - Loftus (1998-2007) 12 month average

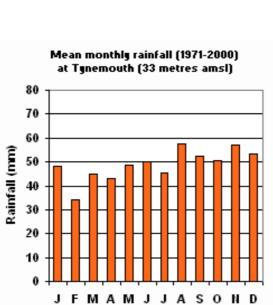


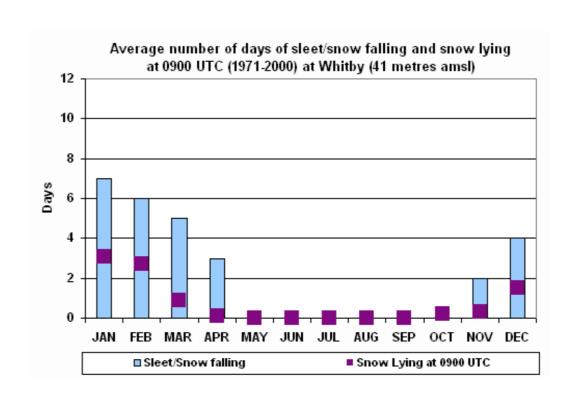
# ASP - Weather Data

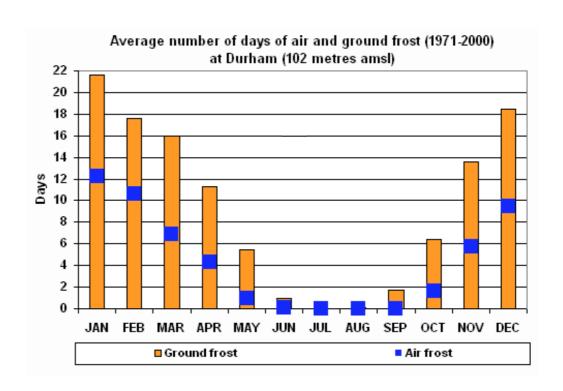


The River Tees is synonymous with the routine execution of large scale port related engineering projects.











# Heavy Lift & Transport Services

The largest mobile harbour crane in Europe along with crawler cranes and SPMT's are on-site and can be used to lift and transport oil & gas components.



ABLE has undertaken a multi-million pound investment plan to purchase new heavy lift and transportation equipment. ABLE Seaton Port's hard standing area, deep water, large guays with heavy lift crane pads make it an ideal location for challenging projects to be completed. ABLE own and operate a range of plant and equipment which includes:

#### Liebherr LHM 600 SHL Mobile Harbour Crane

SWL of 208t at 24 metres radius and capable of lifting 53.7 ton at 58 metres radius. Can be used for handling containers with Bromma container handler attachment. Maximum hoisting height above quay of 59 metres. Also available with a 28t; 16m³ dredging grab.

#### Liebherr LR1300 Crawler Crane with Luffer

300.5 ton lift capacity and can be configured to a maximum radius of 80 metres. Also available with a 50m leader rig attachment and Bruce 16 ton piling hammer.

#### **Liebherr 934 Material Handler**

Ideally suited for handling scrap, bulk materials, feedstocks and grain.

#### Sennebogen 6130 Crawler Crane

Can be configured to lift 136 ton and has a maximum radius of 42 metres.

### **RT55 Rough Terrain Crane**

SWL of 54.88 ton and a maximum working radius radius of 41 metres. A main jib head height of 34 metres but also comes complete with a telescopic fly jib that can increase the head height up to a height of 54 metres and can be offset from 0 to 40 degrees.

### Scheuerle 4 and 6 axle SPMTs with 5 x Z350 power pack units

The individual trailers can be linked together mechanically in any combination using coupling elements or in loose-coupling mode using a data line.

#### **Forklifts**

ABLE has various sizes of forklifts available from 3Te up to 50Te and a 45Te Reach Truck.









# Workforce - Availability

Over 2,000 have previously been employed on ASP.



ABLE Seaton Port has frequently has c. 1,000 employees working on-site and with a working age population of 668,300 within 30 minutes, it is possible to mobilise a large workforce quickly. Tees Valley has an abundant supply of skilled workers at rates often considerably lower than the national average

- Pay of full-time Tees Valley workers is 91% of the GB average.
- Employees work on average more hours than those in the rest of the UK.
- Over 400,000 people of working age live within Tees Valley.1.7million workers live within easy commuting distance of less than an hour.
- Staff turnover in the North East is lower than any other region in the UK.
- Employment in the Tees Valley remains below the North East and national averages.
- Tees Valley's unemployment rate has increased from 3.9% in 2008 to 6.4% today, demonstrating the spare skilled capacity in the labour market today.

Previously c. 2,000 people have been employed on the ASP site. It is renowned as a major employment site within the Tees Valley. If required, our extensive knowledge of the area's labour market means ABLE can provide all labour types including stevedores, riggers, welders, engineers, electricians and operators.



## Incentives - to Secure Investment



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The ASP site is in an Assisted Area and large scale inward investments attract public sector funding on a regular basis.

ABLE and the local economic development organisation Tees Valley Unlimited (TVU) can assist with applications for funding support to the public sector.

- Assisted Area Status (15%) including Investment Aid to SME's
- Regional Growth Fund (extraordinary and routine calls)
- European Social Fund (ESF)
- European Regional Development Fund (ERDF)
- Lets Grow Fund (LGF)

Tees Valley Unlimited will help clients and any members of their supply chain to maximise financial support. Contact details for Tees Valley Unlimited are below, ABLE is happy to broker an introduction if required:

#### John Lear

Business Investment
Tees Valley Combined Authority
Cavendish House
Teesdale Business Park
Stockton-on-Tees
Tees Valley
TS17 6QY

Tel: 01642 524400

Email: John.Lear@TeesValley-ca.gov.uk



## Other ABLE Facilities

### **ABLE Middlesbrough Port**

Location: River Tees

Grid Reference: 54° 34′ 50.75″ N

1° 13′ 03.76″ W

Quays: Up to 1,220m inc. 3

heavy load out quays

Max Water: 12.5m MHWS



### **ABLE Humber Port**

Location: River Humber Grid Reference: 53° 39′ 20″ N

00° 14′ 15″ W

Quays: Potential length

1,340m

Max Water: 24.8m MHWS



## Contacts

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