

**Desktop Study for De Beers Marine assessing the
significance of Maritime Heritage in concession areas
12(c), 14(c), 15(c), 16(c), 17(c), 18(c) and 20(c)**

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Introduction

This desktop study was commissioned by De Beers Marine to assess the significance of the Maritime Heritage i.e. shipwrecks, in the concession areas 12(c), 14(c), 15(c), 16(c), 17(c), 18(c) and 20(c). The relevant legislation that applies is the Act no. 25 of 1999: The National Heritage Resources Act. The act defines wrecks older than 60 years in the waters of South Africa, as defined in the Maritime Zones Act of 1994, as “archaeological” (Section 2.ii.c). Archaeological remains are defined as part of the National Estate (Section 3.2.f) and are therefore protected under this act. As such De Beers Marine is compelled to report any discovery of Archaeological remains (in this case shipwreck remains) under Section 35.3. This desktop study then is part of the process to identify the possibility of finding remains.

The Resource

Although the concession area extend from a boundary 5km from the high water mark to the 200m depth contour and therefore does not include the shoreline or inter tidal zone, one cannot assess the significance of the Maritime Heritage without looking at the area as a whole.

It is unlikely however to find pre-colonial remains in the concession area as the distance from the shore (ca. 5km) is too far away for sea level changes to be significant. In fact from about 2000 years before the present the coastline conditions have remained relatively stable (Heydorn & Tinley 1980). Although this period of 2000 years encompasses mainly the Later Stone Age there is no likelihood of artefacts from the Early or Middle Stone Age to be found in the concession areas mainly due to the location of the boundaries as mentioned above. What could be significant is the Fossil Record. This is however the precept of Palaeontology and the author is not qualified to comment on this matter. I do however suggest that a separate impact assessment is done by a qualified Palaeontologist to assess this significance.

The greatest potential impact for Maritime Heritage comes therefore from the colonial period or period of European expansion that dates from the 15th century to the first half of the 20th century. As can be seen from Table 1 (SAHRA National Shipwreck Database) the known wrecks in the area dates from 1693. Table 2 (SAHRA National Shipwreck Database) is a list of wrecks not impacted by the National Heritage resources Act and is included for the sake of being comprehensive as possible.

| Name | Location | Type | Date |
|----------------|---|-----------------------|-------------|
| Bantam | Paternoster | Wooden Sailing Vessel | 1693/02/08 |
| De Gouden Buys | 8 km (miles?) north of Berg River Mouth | Wooden Sailing Vessel | 1693/10/19 |
| Meteren | North of (30km north of) | Wooden Sailing Vessel | 1723/11/07 |

| | | | |
|---------------------|---|-------------------------------|------------|
| Huis te Vlotter | St Helena Bay | Wooden Sailing Vessel | 1731/02/01 |
| Elizabeth | Mietjie Frans se Baai | Wooden Sailing Vessel | 1818/01/01 |
| Britannia | Surf at eastern end of Britannia Bay | Wooden Sailing Vessel | 1826/10/22 |
| Columbine | Lighthouse (1.5km north of) | Wooden Sailing Vessel | 1829/03/31 |
| Friends Goodwill | Paternoster (?) | Wooden Sailing Vessel | 1840/02/06 |
| Australia | 17.7 km north of Oliphant's River Mouth | Wooden Sailing Vessel | 1840/12/27 |
| Alicia Jane | Paternoster Island | Wooden Sailing Vessel | 1845/05/16 |
| Eve | Paternoster Island | Wooden Sailing Vessel | 1845/05/17 |
| Reflector | St Helena Bay (on reef) | Wooden Sailing Vessel | 1851/04/17 |
| Antoinette | Lamberts Bay | | 1854/07/01 |
| Lamberts Bay Packet | Lamberts Bay | Sailing Vessel | 1859/03/01 |
| Rosebud | Lamberts Bay | Wooden Sailing Vessel | 1859/06/25 |
| Perimede | Dwarskersbos - 11km north of Berg River | Wooden Sailing Vessel | 1860/08/04 |
| Barbara | Berg River Mouth | Sailing Vessel | 1868/06/16 |
| St Lawrence | Groot Paternoster Point / Soldiers Reef | Iron Sail Steamship | 1876/11/08 |
| Bulli | Seal Island (most westerly point) | Steel Screw Steamship | 1884/05/05 |
| Columbus | Berg River Mouth (near) | Sailing Vessel | 1885/06/19 |
| Hopefield Packet | Paternoster Bay | Sailing Vessel | 1888/09/05 |
| Lingfield | Groot Paternoster | Steel Steamship | 1891/12/05 |
| Resolution | Jacobs Bay (off) / Hoedjies Bay? | Steamship | 1898/12/18 |
| Sybille | Grootrif near Steenbokfontein | Twin Screw Steel Motor Vessel | 1901/01/16 |
| King Cerrig | Cape Columbine Lighthouse (north of) | | 1903/01/01 |
| Good Hope | St Helena Bay | Sailing Vessel | 1910/01/01 |
| Lisboa | Soldiers Reef | Twin Screw Steel Steamship | 1910/10/23 |
| Eros | Near | Steamship | 1918/05/26 |
| Malmesbury | Jacobs Reef | Steel Steamship | 1930/09/09 |

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|--|---|-----------------------|------------|
| Haleric | Paternoster Point Reef | Steel Screw Steamship | 1933/04/04 |
| Langebaan | Stompneus Point | Motor Vessel | 9/11/1933 |
| Columbine | Lighthouse (40.2km / 25 miles from) | Steamship | 1944/06/16 |
| Chub | 3 km south of Cape St Martin / Kalkoond | Steamship | 1945/11/02 |
| <i>The highlighted rows indicate shipwrecks with an uncertain location</i> | | | |

| Name | Location | Type | Date |
|---------------|---------------------------------------|----------------|------------|
| Shamrock | Lamberts Bay | Motor Vessel | 1958/01/01 |
| Blue Bird | Elands Bay | Motor Vessel | 1960/11/01 |
| Pilar Cousido | Stumpnose Bay | Motor Vessel | 1/1/1966 |
| Dorita | Paternoster (off) | Motor Vessel | 1970/02/03 |
| Girl Devon | Doring Bay | Sailing Vessel | 1971/01/14 |
| Seatrader | Cape St Martin Lighthouse (north of) | Motor Vessel | 1971/06/03 |
| Zulu Coast II | 11,3 km south of | Motor Vessel | 1971/07/07 |
| Breerivier | Cape St Martin | Motor Vessel | 1972/03/15 |
| Oceana Point | St Helena Bay | Motor Vessel | 1974/01/01 |
| Boy Francis | St Helena Bay | Motor Vessel | 1974/01/01 |
| Bella Theresa | 28.8 km west of St Helena Bay | Motor Vessel | 1977/02/01 |
| Boy Donald | Lamberts Bay (off) | Motor Vessel | 1983/03/22 |
| St Gerard | off Columbine / 48.3km west of Dassen | Motor Vessel | 1983/11/26 |
| Stormgans | Laaipek | Motor Vessel | 1987/08/19 |

In Table 1 above there are only two 17th and two 18th Century shipwrecks with the bulk in the 19th Century (19 shipwrecks) and some in the first half of the 20th Century. As recording of shipwrecks were better in the 19th Century and later, it gives us a more accurate view of where the different from this period wrecks are positioned. Of the earlier shipwrecks the *Meteren's* (1707) position is known as material was recovered from the site as late as 2001 (SAHRA National Shipwreck Database). Of the other earlier wrecks the *Bantam* (1693) is listed as being grounded as was the *Huis te Vlotter* (1731) and *De Gouden Buys* (1693).

Some of the other wrecks in Table 1 has been located and include the *Britannia* (1822), *St Lawrence* (1879), *Sybille* (1901) and the *Lisboa* (1910). If we plot the positions and

supposed positions of the wrecks in Table 1 we see that none of the fall within the concession area (Figure 1).



Figure 1. Shipwrecks older than 60 years plotted. Concession area marked in yellow

This however does not preclude the possibility of unknown shipwrecks being in the area. The region has seen quite a lot of maritime activity over the years especially ship based whaling probably from the early 17th century onwards as it is known that whale ships frequented the Cape. This activity has not been well recorded and it is possible that ships were lost further out at sea and consequently in the concession area. From 1734 at different times the Dutch East India Company had an outpost in St Helena Bay (Sleigh 1993) mainly due to threats of war with other European powers. The Dutch reported an increase in activity of American, British and French whale ships in the bay in the late 18th Century and it seems that this was probably the heyday of ship based whaling in the area. The only other records we have of whaling activity is in surviving ships logs of some of the whale ships (Best 2006). As not all the logs have been preserved and we do not know how many whaling voyages were undertaken to this area, we cannot say with certainty that there are no whale ship wrecks in the concession area especially in the Northern section where the concession area comes sometimes within 3km of the coastline.

Other periods likely to produce shipwrecks are during war times for example during the First and Second World wars. The only wreck that seemed to have been produced during

both World Wars in this area was the *Columbine* (1944) that was sunk by the German U-boat *U-198* (Gordon-Cumming et al, 1961). The official coordinates for this tragedy puts the vessel outside of the concession area in fact about 27km East of the closest point in the concession area.

It would therefore seem that there is a low probability for shipwreck remains in the concession area but as stated above not all shipwrecks have been recorded. To mitigate this situation it is important that the results from the standard geophysical survey proposed by De Beers Marine be scrutinised especially the side scan sonar and magnetometer readings.

Geophysical Survey

According to the background document for the Prospecting Right Application, De Beers will be deploying a full array of geophysical instrumentation including Swath bathymetry, Shallow (2 to 10 KHz) and medium penetration (0.5 to 2Khz) “Chirp” seismic systems, 100Khz side scan sonar, and a magnetometer. Of these the side scan sonar and magnetometer will be of most use in detecting shipwrecks. As the side scan sonar projects a sonar image a shipwreck will be easily recognisable. With the magnetometer it is more a matter of correct interpretation. A typical shipwreck, even a wooden one with iron fittings, will give a di-pole signature more or less aligned with the earths’ magnetic field (Gearheart 2004). What is critical is the lane spacing of the magnetometer surveys. This should ideally be 20m or less although this might not be possible as the concession area is quite large. De Beers should however endeavour to make the lane spacing as narrow as possible.

Conclusion

This desktop study indicates that there is a low probability of finding historical shipwrecks in the concession area. This does not rule out the possibility of unknown wrecks in the area. The existence of unknown wrecks should be brought to light by the geophysical survey. The author of this report does however request that the results of especially the side scan sonar and magnetometer surveys be made available for his perusal before the sampling and coring of the area commence in order to rule out any possible occurrence of cultural material.

References

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