

Maritime Heritage Impact Assessment: Expansion of Diamond Coast Aquaculture Farm on Farm 654, Portion 1, Kleinzee, Northern Cape

Report prepared for

ACRM

On behalf of

Diamond Coast Aquaculture

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Executive Summary

ACO Associates cc was appointed by ACRM to undertake an archaeological assessment of the marine elements (i.e. below the high water mark) of the proposed expansion of the Diamond Coast Aquaculture farm at Kleinzee in the Northern Cape Province. This maritime archaeological assessment forms part of a wider Heritage Impact Assessment of the project requested by the South African Heritage Resources Agency which is being managed by ACRM.

The proposed expansion of the Diamond Coast Aquaculture farm facilities and infrastructure includes two marine elements: new seawater intake pipes at a proposed and an existing pump house which will extend approximately 30m seaward of the low water mark, and a new effluent outfall on the northern side of the aquaculture farm.

Findings: The desk-based assessment highlighted the presence of a now submerged Buffels River palaeo-channel on the southern border of the aquaculture farm with the potential for associated submerged prehistoric archaeological resources. Six shipwrecks, five of them historical, within a study area extending 10km along the coast north and south of the aquaculture farm were also assessed, as was the potential, albeit low, for the presence of currently unknown or unrecorded shipwrecks within the study area.

In respect of the submerged prehistoric archaeological potential, the very limited seaward extent of the proposed new intake pipes, and their placement on an exposed rocky point north of the current river mouth, makes the potential for any interaction with or impact on submerged prehistoric archaeological material unlikely.

Similarly, the two wrecks closest to the marine elements of the proposed project activities both are sufficiently far offshore to be unaffected by the proposals. One of these wrecks, the *Poseidon Cape*, is also so recent that it does not fall within the ambit of the National Heritage Resources Act.

Should a previously unknown or unrecorded wreck be encountered during the proposed works, the assessment recommends that all work must cease until the project archaeologist and SAHRA have been notified, the significance of the material has been assessed and a decision has been taken as to how to deal with it.

In maritime archaeological terms the proposed expansion of the aquaculture farm is considered acceptable and there are no objections to the proposed marine elements of the project.

Details of the Heritage Practitioner

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1 Introduction

ACO Associates cc was appointed by ACRM to undertake a maritime archaeological assessment for the proposed expansion of the Diamond Coast Aquaculture farm at Kleinsee in the Northern Cape Province.

This assessment forms part of the wider archaeological assessment being undertaken by ACRM as part of the Basic Assessment process for Environmental Authorization being followed by Diamond Coast Aquaculture.

Diamond Coast Aquaculture currently produces approximately 100 tons of abalone and seaweed per annum. The proposal is to expand the existing facilities in order to both diversify production and significantly increase production volumes. The proposed expansion includes the construction of three new hatcheries, finfish production ponds, the expansion of the existing abalone growing tanks and the construction of buildings to accommodate staff facilities. A second pump house will be built adjacent to the existing one near the beach. Five additional seawater intake pipes will be installed at the existing pump house while the new pump house will be fitted with three seawater intake pipes. A new outfall pipeline will be constructed on the northern side of the aquaculture farm to ensure that effluent is released below the low tide mark on the shore.

2 Terms of Reference

ACO Associates was appointed to conduct a desk-based assessment of the maritime archaeological potential of the marine portion of the area to be affected by the proposed expansion of the Diamond Coast Aquaculture farm.

In line with national legislation and policy regarding the marine environment, this maritime archaeological assessment is thus for the area below the high water mark. The terrestrial archaeological assessment being conducted by ACRM covers the development area above the high water mark.

3 Legislation

The expansion of the Diamond Coast Aquaculture farm triggers a number of Listed Activities in the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended by Government Notice No. 40772 of 7 April 2017), promulgated in terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA).

Diamond Coast Aquaculture is thus undertaking a Basic Assessment, which will form the basis for an application for Environmental Authorisation to the Northern Cape Department of Environment and Nature Conservation.

As a commenting body the South African Heritage Resources Agency (SAHRA) was notified of the proposed expansion of the aquaculture farm and responded in a letter to Diamond Coast Aquaculture, dated 8 December 2017, requesting that a Heritage Impact Assessment (HIA), as per the requirements of sections 38(3) and 38(8) of the National Heritage Resources Act (No. 25 of 1999) (NHRA), is undertaken as part of the Environmental Authorisation application process. SAHRA stipulated that the HIA must include archaeology, maritime archaeology and palaeontology, and any other applicable heritage components.

4 Maritime Assessment Study Area

The study area for this maritime archaeological assessment has been defined as an area below the high water mark and within a radius of 10km of the location of the proposed new coastal pump house on the Diamond Coast Aquaculture farm (see Figure 1).

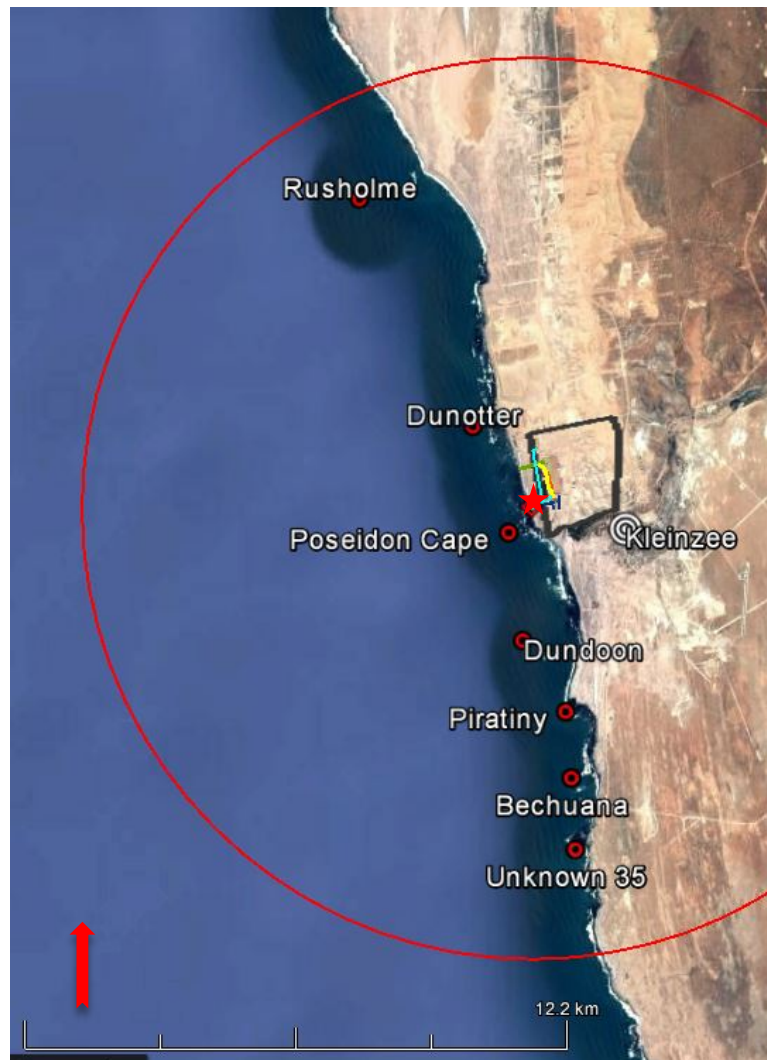


Figure 1: Known shipwrecks within the 10km radius study area around the Diamond Coast Aquaculture farm. The red star at the centre of the study area is the proposed location of the new pump house.

5 Method

This desk-based report provides an assessment of the maritime and underwater cultural heritage potential of the study area defined above. It includes a description of what comprises South Africa's maritime and underwater cultural heritage, a brief maritime history of the West Coast and a discussion of the maritime heritage resources within the study area around Kleinzee and the aquaculture farm. The report draws information from readily available documentary sources and SAHRA's Maritime and Underwater Cultural Heritage database.

The potential impacts of the proposed project on maritime and underwater cultural heritage resources are assessed and, where necessary, recommendations are made to mitigate

possible impacts to maritime and underwater cultural heritage resources arising from the proposed expansion of the aquaculture farm.

5.1 Limitations

South Africa's record of maritime and underwater cultural heritage resources is based on a mix of information derived from historical documents and other secondary sources, and limited primary sources such as geophysical data and other field-based observations and site recordings. Gaps in this record mean that while every effort has been made to ensure the accuracy of the information presented below, the potential exists for currently unknown and/or unrecorded maritime heritage sites to be encountered in the course of the proposed project.

6 Underwater Cultural Heritage

South Africa has a rich and diverse underwater cultural heritage. Strategically located on the historical trade route between Europe and the East, South Africa's rugged and dangerous coastline has witnessed more than its fair share of shipwrecks and maritime dramas in the last 500 years. At least 2400 vessels are known to have sunk, grounded, or been wrecked, abandoned or scuttled in South African waters since the early 1500s. This doesn't include the as yet unproven potential for shipwrecks and other sites that relate to pre-European, Indian Ocean maritime exploration, trade and interactions along the South African east coast.

In addition to historical shipwrecks, the record of South Africa's long association with the sea is much broader and extends far back into prehistory. This element of our maritime and underwater cultural heritage is represented around the coast by thousands of pre-colonial shell middens and large numbers of tidal fish traps, which reflect prehistoric human exploitation of marine resources since the Middle Stone Age more than 150,000 years ago. Another, until recently, largely unacknowledged and unexplored aspect of our maritime and underwater cultural heritage are pre-colonial terrestrial archaeological sites and palaeolandscapes which are now inundated by the sea.

This assessment considers maritime and underwater cultural heritage resources in the vicinity of the Diamond Coast Aquaculture farm which are located below the high water mark, namely submerged prehistoric resources and historical shipwrecks.

6.1 Submerged Prehistory

Global sea levels have fluctuated substantially on at least three occasions during the last 500,000 years. As with modern sea level change, these changes have been the result of increased and decreased polar glaciation tied to global climatic patterns. The dropping of sea levels was caused by the locking up in the polar ice caps of huge quantities of seawater as global temperatures cooled. The most extreme recent sea level drop occurred on between circa 20,000 and 17,000 years ago when at the height of the last, Weichselian glaciation, the sea was more than 120m lower than it is today (Van Andel 1989).

The lower sea levels of the Weichselian (c. 115,000 - 11,700 years ago) and earlier Saalian (c. 352,000 - 130,000 years ago) and Mindel (c. 478,000 - 424,000 years ago) glaciations

would at times have “added a large coastal plain to the South African land mass” (Van Andel 1989:133) where parts of the continental shelf were exposed as dry land. This would have been most pronounced on the wide Agulhas Bank off the southern Cape coast, but would also have occurred along the narrow continental shelves on South Africa's west and east coasts. It is estimated that this exposed continental shelf may have represented a new area of land as much as 80,000km² in extent during the successive glacial maxima (Fisher et al 2010). Figure 2 below gives an indication of the extent of the continental shelf exposure during the second to last glaciation.



Figure 2: Possible extent of the South African continental shelf c. 137,000 years ago during the Saalian glaciation. Approximate location of Kleinsee marked by the red star (Source: Franklin et al, 2105)

The exposed continental shelf was quickly populated by terrestrial flora and fauna, and also by our human ancestors who were dependant on these resources. As a result, for periods numbering in the tens of thousands of years on at least three occasions during the last 500,000 years our ancestors inhabited areas of what is now seabed around the South African coast. This means that a large part of the archaeological record of the later Middle and early Late Stone Age is located on the continental shelf and is now “inundated and for all practical purposes absent from [that] record” (Van Andel 1989:133-134).

Until relatively recently there was little or no access to the submerged prehistoric landscapes and sites on the continental shelf, although evidence from various parts of the world of drowned, formerly terrestrial landscapes hinted at the tantalising prospect of prehistoric archaeological sites on and within the current seabed. Perhaps the best-known examples of such evidence is archaeological material and late Pleistocene faunal remains recovered in

fishing nets in the North Sea between the United Kingdom and the Netherlands throughout the 20th century (Peeters et al 2009; Peeters 2011).

Closer to home, there is archaeological evidence for a prehistoric human presence in what is now Table Bay. In 1995 and 1996 during the excavation of two Dutch East India Company shipwrecks, the *Oosterland* and *Waddinxveen*, divers recovered three Early Stone Age handaxes from the seabed under the wrecks. The stone tools, which are between 300,000 and 1.4 million years old, were found at a depth of 7-8m below mean sea level and were associated with Pleistocene sediments associated with an ancient submerged and infilled river channel. Their unrolled and unworn condition indicated that they had not been carried to their current position by the ancient river and suggests that they were found more or less where they were dropped by Early Stone Age hominins at least 300,000 years ago, when the sea level was at least 10m lower than it is today (Werz and Flemming 2001).

Ancient river courses, whose channels are today buried under modern seabed sediment, would have been an important focus for hominin activity in the past and as demonstrated in Table Bay there is the potential for the occurrence of ancient, submerged archaeological material in association with palaeo-river channels.

Where alluvial sediment within these channels has survived post-glacial marine transgressions there is also the potential to recover palaeoenvironmental data which can contribute contextual information to our understanding of the ancient human occupation of South Africa.

6.2 Shipwrecks

The maritime history of the West Coast dates back to almost the first days of the Dutch settlement in Table Bay. The Dutch settlers were quick to recognise and exploit the rich marine resources of the West Coast and fishing and sealing flourished along this coast, with the catches transported down the coast to supply Cape Town. This industry led to the development of fishing villages at Saldanha Bay and Lamberts Bay, the former, together with places like Elands Bay, also becoming ports for the export of grain and other produce from the Swartland (Ingpen 1979).

During the early nineteenth century the West Coast islands became the focus of an international 'white gold' rush to exploit their rich guano resources. The guano was soon depleted but the discovery of rich copper deposits in Namaqualand and the Richtersveld led to the use of Alexander Bay, Robbe Bay (now Port Nolloth) and Hondeklip Bay by the early 1850s and the development of local, coasting shipping services to support this new industry (The Nautical Magazine and Naval Chronicle 1855: 297-303; Ingpen 1979).

With the exception of Saldanha Bay, the West Coast historically lacked good harbours. Combined with the regular coastal fogs, a largely rocky shoreline and dangerous currents this took its toll on shipping over the years. According to SAHRA's Maritime and Underwater Cultural Heritage database, the national record of underwater cultural heritage curated on the South African Heritage Resources Information System (SAHRIS) (<http://www.sahra.org.za/sahris>), there are at least 68 wrecks recorded between the Oliphants and Orange Rivers, many of which were vessels involved in coastal trade and fishing.

Six of these known shipwrecks are within a 10km radius of the Diamond Coast Aquaculture farm (see Figure 1 above): to the north of the farm are the *Dunotter* and *Rusholme*, while to the south are the *Dundoon*, *Piratin* and *Bechuana*. The sixth wreck, the *Poseidon Cape*, lies directly offshore from the aquaculture farm.

A seventh possible wreck, known only as Unknown (see Figure 1) is recorded by Fedde van den Bosch (2014) at Rooiklippias, south of the position of the *Bechuana*. Since no other information about this site is available and it will in no way be affected by the proposed expansion of the aquaculture farm, it has been excluded from this assessment.

The details of each of the six known wrecks are as follows:

6.2.1 *Bechuana*

Bechuana was a small tanker of 401 tons, built in England in 1944 to support the Normandy landings. After World War II she was used as a coastal freighter by a succession of companies and known by a string of names – *Chant 54*, *Steinsfjell*, *General Mitchell Baker* and *Klaver* – before being named *Bechuana* when acquired by Thesens of Kynsna.

She was wrecked approximately 8km south of Kleinzee on the night of 10-11 December 1950 while bound from Port Nolloth to Cape Town with a cargo of canned crayfish. She ran onto the rocks and her engine room and hold quickly flooded.

Her crew of 14 survived the wrecking and most of the 3000 cases of canned crayfish were subsequently taken ashore by the local canning company. Her equipment, including echosounder, radio equipment, batteries and main engines, were dismantled and saved (Reck 1994) but her hull soon broke up and she became a total loss. Her remains are still visible on the rocks south of Kleinzee.

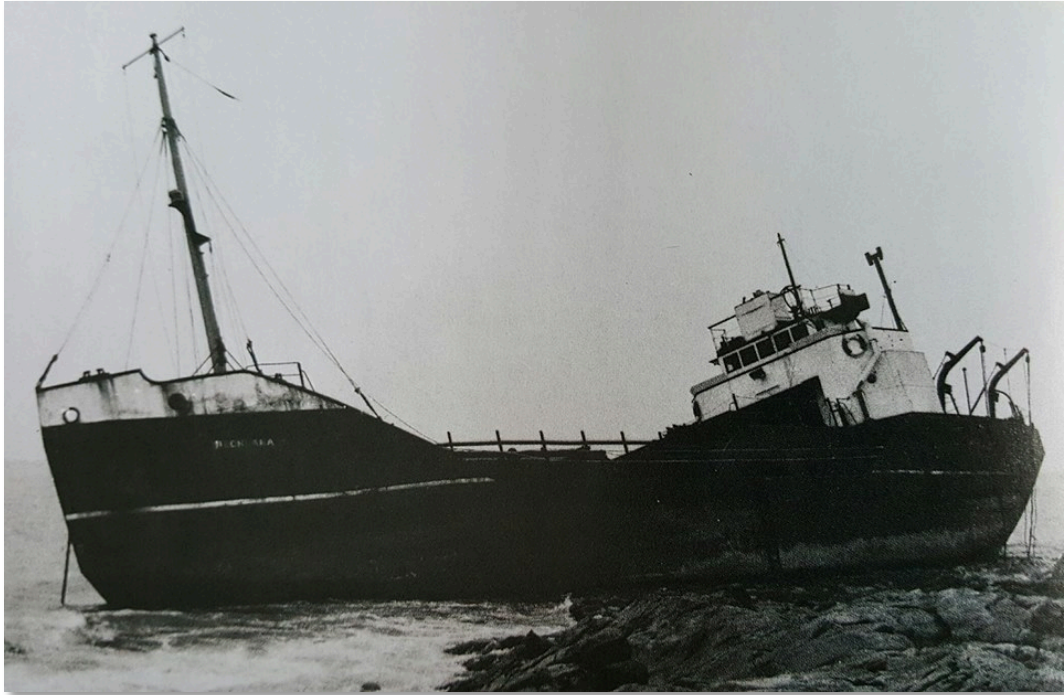


Plate 1: *Bechuana* shortly after running aground in December 1950 (Source: Fedde Van den Bosch).

6.2.2 *Dunotter*

The *Dunotter* (also referred to as the *Dunottar*) was wrecked in fog in 1950, approximately 5km north west of Kleinzee. She was a fishing vessel used in the rock lobster fishery, skippered by Hansie Cloete and owned by John Ovenstone Ltd (Fraser 1958).

Parts of her steel hull and her engine are still occasionally visible on the beach below the high water mark (Reck 1994).

6.2.3 *Dundoon*

Sister ship of the *Dunotter* (and the *Dunkeld*, which was lost on the West Coast in 1952), the wooden hulled motor trawler *Dundoon* was wrecked about 3km south of Kleinzee in 1949.

Like the *Dunotter* she was involved in the rock lobster fishery and owned by John Ovenstone Ltd. Her skipper was Joey Ambrosini (Fraser 1958). Only her engine remains at the wreck site (Reck 1994).

6.2.4 *Piratinny*

The *Piratinny* was a Brazilian registered steel steamship of 5187 gross tons, built in Italy in 1921. She was owned at the time of her loss on 12 May 1943 by Cia Commercio e Nav. and was on a voyage from Rio De Janeiro to Table Bay with general cargo of soft goods (<https://www.wrecksite.eu/wreck.aspx?136103>).

No lives were lost when the vessel ran ashore in bad weather but because of her exposed position her back broke soon after she ran aground. Salvagers reached the wreck from the sea and much of her cargo was subsequently recovered by Globe Engineering Works and the North Bay Canning Company of Hondeklip Bay (Reck 1994).

The remains of the wreck of the *Piratiny* are visible on the rocks approximately 4km south of Kleinzee.



Plate 2: The wreck of the *Piratiny* on the rocks south of Kleinzee (Source: flowcomm (Piratiny 7), via Wikimedia Commons)

6.2.5 Poseidon Cape

The *Poseidon Cape* was a twin screw motor vessel of 1340 tons. Originally named *Tiko 1* when she was built in Bremerhaven in 1967, she was converted to a stern trawler in 1976 and renamed *Seaforth Cape*. She was converted to a diving maintenance support ship in 1984 and named *Shearwater Cape*, before being given her final name – *Poseidon Cape* – in 1985 when bought by Lounis.

She went onto the rocks off Kleinzee early on the morning of 27 July 1985 after dragging her anchors while laying moorings for diamond dredging operations. Her crew was evacuated by helicopter without loss, but the vessel could not be refloated and became a total loss (Reck 1994).



Plate 3: *Poseidon Cape* aground off Kleinzee (Photo: Keith Grieve)

6.2.6 *Rusholme*

The *Rusholme* was a small coasting steamer of about 272 tons. Built in Germany in 1904 as a lighter and named *Baggar 1*, she was scuttled at Luderitz at the start of World War I. After being refloated she was renamed *Flora*, before being acquired by Globe Engineering Company who put new boilers and engines into her and renamed her *Rusholme*. In this incarnation she was used as a salvage vessel and recovered much of the timber cargo from the *Losna*, wrecked on the Transkei coast in 1921. For a time before she was wrecked she was involved in the coasting trade between Cape Town and Saldanha Bay (Speight 1956; Reck 1994).

She was lost on the homeward leg of her first trip to Port Nolloth on 24 January 1923. Her crew all survived and reached Port Nolloth in the ship's boats.

6.2.7 *Unknown Shipwrecks in the Study Area*

As stated above, gaps in South Africa's underwater cultural heritage record mean that the potential does exist for currently unknown or unrecorded wrecks to be present within the study area. Although this is unlikely and the potential for such a wreck, should it exist, to be affected by the proposed maritime elements of the aquaculture farm expansion is very low, such an occurrence is possible and is dealt with in the impact assessment and mitigation sections below.

7 Impact Assessment

7.1 *Submerged Prehistory*

Although no recent geophysical data for the seabed adjacent to Kleinzee and the study area were available for this assessment, seabed sediment mapping by O'Shea (1971) indicates that many of the major rivers along the West Coast have submerged palaeo-channels extending offshore. Although O'Shea's seabed seismic data is limited, and in the Kleinzee area only extends to the 80 foot (approximately 25m) depth contour, beyond which a gas

rich layer of sediment reflected and effectively blanked the sonar signal, it does nevertheless confirm that a channel cut by the palaeo-Buffels River extends offshore to the west of Kleinzee (see Figure 3); a channel which has the potential for associated, now submerged, archaeological material and palaeoenvironmental evidence.

The very limited seaward extent of the proposed new intake pipes for the expanded aquaculture farm and their placement on an exposed rocky point north of the current river mouth and palaeo-channel edge, however, makes the potential for any interaction with or impact on submerged prehistoric archaeological material unlikely.

The potential impacts of the expansion of the aquaculture farm on submerged prehistoric archaeological resources can be summarised as follows:

Potential impact on submerged prehistoric archaeology	
Nature of impact	Damage to, or destruction of submerged prehistoric archaeological resources
Extent and duration of impact	Localized and short term
Intensity of impact	Potentially high, but the location and length of the proposed intake pipes mean that impacts on submerged prehistoric archaeology are unlikely
Probability of occurrence	Low
Degree to which impact can be reversed	Irreversible
Irreplaceability of resources	High – submerged prehistoric archaeological resources are non-renewable and cannot be replaced
Cumulative impact prior to mitigation	Low
Significance of impact pre-mitigation	Low
Degree of mitigation possible	Low
Proposed mitigation	None – the location and length of the proposed intake pipes mean that interaction with submerged prehistoric archaeology is highly unlikely
Cumulative impact post mitigation	Low
Significance after mitigation	N/A – no mitigation required

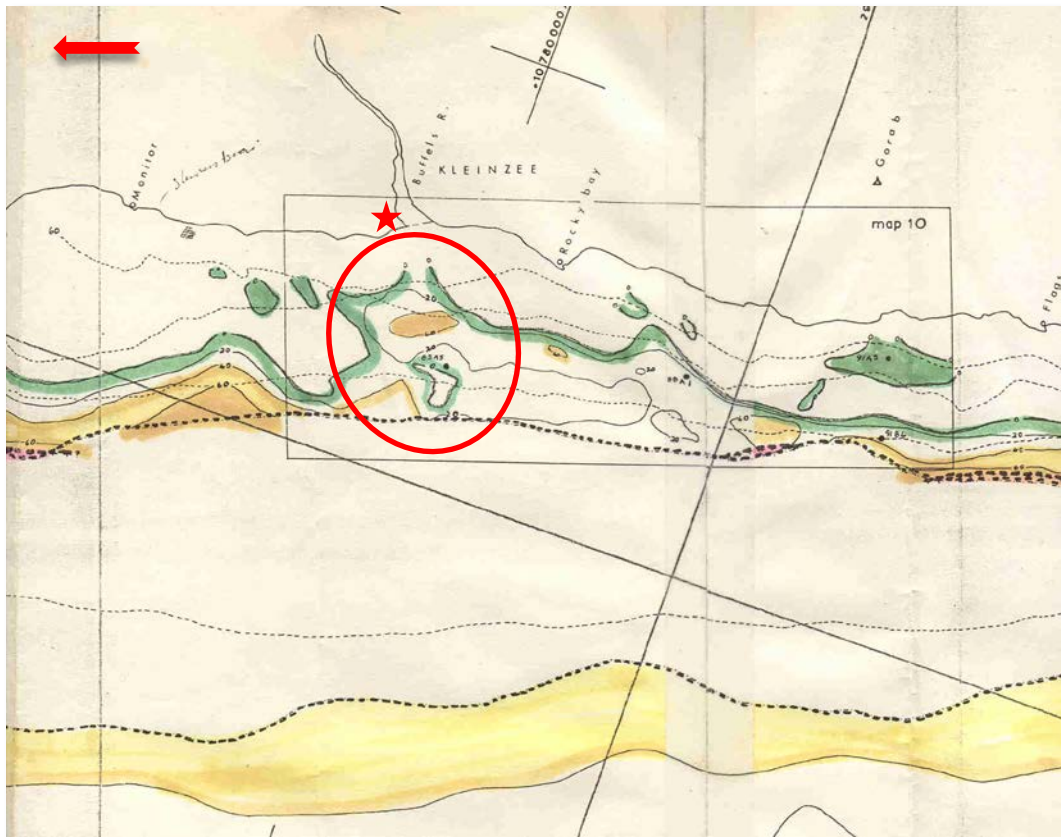


Figure 3: A sediment map of the seabed off of Kleinzee. The area circled in red shows the nearshore expression of the Buffels River palaeo-channel. The area between the dark hatched lines in the lower half of the image which truncates the palaeo-channel is the extent of the gas rich sediment which reflected the seismic signal and for which no sub-bottom data is thus available. The red star marks the location of the Diamond Coast Aquaculture farm (Source: O'Shea 1971)

7.2 Shipwrecks

All of the known wrecks within the study area are modern, dating from the 20th century. The *Bechuana*, *Dunotter*, *Dundoon*, *Piratin* and *Rusholme* are, however, older than 60 years and are thus protected by the NHRA. The *Poseidon Cape* was wrecked in 1985 and is thus not covered by the heritage legislation. Given their recent date and history, the archaeological significance of all the known wrecks in the study area is low.

In terms of potential impacts on any of these sites from the proposed expansion of the aquaculture farm, the *Poseidon Cape* and *Dunotter* are the only wrecks in the study area which lie in the immediate vicinity of the farm and could thus be affected.

The *Poseidon Cape* is approximately 670m offshore and 850m south west of the existing and proposed pump houses (see Figure 3). It is understood that the new seawater intake pipes will extend approximately 30m seaward of the low water mark. There is thus no likelihood of any impact from these pipes on the wreck of the *Poseidon Cape*.

The *Dunotter* lies approximately 780m offshore and roughly 1.6km north west of the proposed new effluent outfall to the north of the aquaculture farm (see Figure 3). There will be no impact on the wreck from this expansion of aquaculture farm infrastructure.

With respect to the potential for encountering an unknown shipwreck during the marine-based activities associated with the aquaculture farm expansion, this is assessed to be

extremely unlikely. In the area of the proposed new intake pipes, any shipwreck material would have been reported and noted at the time of the installation of the existing intake pipes. The proposed effluent outfall feeds into the sea from above the beach and from available information will not require to installation of infrastructure on the beach itself so there is no chance of interaction with any potential, unknown wreck in this vicinity.

The potential impacts of the expansion of the aquaculture farm on historical shipwrecks can be summarised as follows:

Potential impact on historical shipwrecks	
Nature of impact	Damage to, or destruction of historical shipwrecks
Extent and duration of impact	Localized, short term
Intensity of impact	Low
Probability of occurrence	Improbable
Degree to which impact can be reversed	Irreversible
Irreplaceability of resources	High – historical shipwrecks are non-renewable and cannot be replaced
Cumulative impact prior to mitigation	Low
Significance of impact pre-mitigation	Low
Degree of mitigation possible	High
Proposed mitigation	Known Wrecks – None, as the location and lengths of the proposed intake pipes and effluent outfall mean that there will be no interaction with known historical shipwrecks in the vicinity
	Unknown / Unrecorded Wrecks – Should shipwreck material be encountered, all work must cease until the archaeologist and SAHRA have been notified and the material assessed
Cumulative impact post mitigation	Low
Significance after mitigation	N/A – no mitigation required

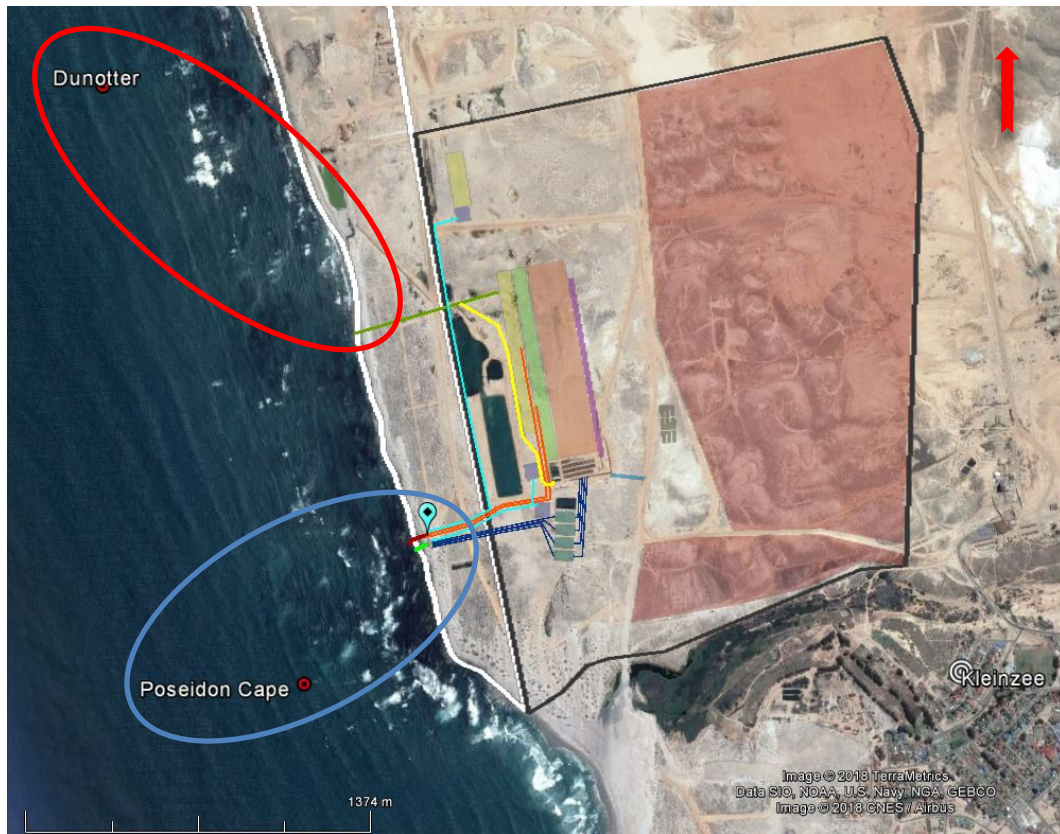


Figure 4: Proposed new Diamond Coast Aquaculture farm infrastructure in relation to nearest shipwreck sites. The blue circle in the south encloses the proposed new pump house and seawater intake pipes and the wreck of the *Poseidon Cape*. The red circle encloses the route of the proposed new effluent pipeline and the wreck of the *Dunotter*. (Source: Google Maps)

8 Mitigation

No mitigation is required or proposed in respect of potential submerged prehistoric archaeology and known shipwrecks in the study area.

Should a previously unknown or unrecorded shipwreck material be encountered during the installation of the new intake pipes or effluent outfall, all work must cease until the project archaeologist and SAHRA have been notified, the significance of the material has been assessed and a decision has been taken as to how to deal with it.

9 Conclusion

The maritime elements of the proposed expansion of the Diamond Coast Aquaculture farm are highly unlikely to have any impact on known or unknown maritime and underwater cultural heritage resources and are considered archaeologically acceptable.

The impact of the project on any previously unknown shipwreck or other maritime archaeological material encountered during the work can be dealt with through the implementation of the mitigation measure proposed in this report.

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Appendix A: Specialist's CV

Name: John Gribble
Profession: Archaeologist
Date of Birth: 15 November 1965
Parent Firm: ACO Associates cc
Position in Firm: Senior Archaeologist
Years with Firm: <1
Years of experience: 27
Nationality: South African
HDI Status: n/a

Education:

1979-1983 Wynberg Boys' High School (1979-1983)
1986 BA (Archaeology), University of Cape Town
1987 BA (Hons) (Archaeology), University of Cape Town
1990 Master of Arts, (Archaeology) University of Cape Town

Employment:

- ACO Associates, Senior Archaeologist and Consultant, September 2017 – present
- South African Heritage Resources Agency, Manager: Maritime and Underwater Cultural Heritage Unit, 2014 – 2017 / Acting Manager: Archaeology, Palaeontology and Meteorites Unit, 2016-2017
- Sea Change Heritage Consultants Limited, Director, 2012 – present
- TUV SUD PMSS (Romsey, United Kingdom), Principal Consultant: Maritime Archaeology, 2011-2012
- EMU Limited (Southampton, United Kingdom), Principal Consultant: Maritime Archaeology, 2009-2011
- Wessex Archaeology (Salisbury, United Kingdom), Project Manager: Coastal and Marine, 2005-2009
- National Monuments Council / South African Heritage Resources Agency, Maritime Archaeologist, 1996-2005
- National Monuments Council, Professional Officer: Boland and West Coast, Western Cape Office, 1994-1996

Professional Qualifications and Accreditation:

- Member: Association of Southern African Professional Archaeologists (No. 043)
- Principal Investigator: Maritime and Colonial Archaeology, ASAPA CRM Section
- Field Director: Stone Age Archaeology, ASAPA CRM Section
- Member: Chartered Institute for Archaeologists (CIfA), United Kingdom
- Class III Diver (Surface Supply), Department of Labour (South Africa) / UK (HSE III)

Experience:

I have nearly 30 years of combined archaeological and heritage management experience. After completing my postgraduate studies, which were focussed on the vernacular architecture of the West Coast, and a period of freelance archaeological work in South Africa and abroad, I joined the National Monuments Council (NMC) (now the South African Heritage Resources Agency (SAHRA)) in 1994. As the Heritage Officer: the Boland I was involved in day to day historical building control and heritage resources management across the region. In 1996 I become the NMC's first full-time maritime archaeologist in which role was responsible for the management and protection of underwater cultural heritage in South Africa under the National Monuments Act, and subsequently under the National Heritage Resources Act.

In 2005 I moved to the UK to join Wessex Archaeology, one of the UK's biggest archaeological consultancies, as a project manager in its Coastal and Marine Section. In 2009 I joined Fugro EMU Limited, a marine geosurvey company based in Southampton to set up their maritime archaeological section. I then spent a year at TUV SUD PMSS, an international renewable energy consultancy based in Romsey, where I again provided maritime archaeological consultancy services to principally the offshore renewable and marine aggregate industries.

In August 2012 I set up Sea Change Heritage Consultants Limited, a maritime archaeological consultancy. Sea Change provides archaeological services to a range of UK maritime sectors, including marine aggregates and offshore renewable energy. It also actively pursues opportunities to raise public awareness and understanding of underwater cultural heritage through educational and research projects and programmes, including some projects being developed in South Africa.

Projects include specialist archaeological consultancy for more than 15 offshore renewable energy projects and more than a dozen offshore aggregate extraction licence areas.

In addition to managing numerous UK development-driven archaeological projects, I have also been involved in important strategic work which developed guidance and best practice for the offshore industry with respect to the marine historic environment. This has included the principal authorship of two historic environment guidance documents for COWRIE and the UK renewable energy sector, and the development of the archaeological elements of the first Regional Environmental Assessments for the UK marine aggregates industry. In 2013-14 I was lead author and project co-ordinator on the Impact Review for the United Kingdom of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage. In 2016 I was co-author of a Historic England / Crown Estate / British Marine Aggregate Producers Association funded review of marine historic environment best practice guidance for the UK offshore aggregate industry (.

I returned to South African in mid-2014 where I was re-appointed to my earlier post at SAHRA: Manager of the Maritime and Underwater Cultural Heritage Unit. In July 2016 I was also appointed Acting Manager of SAHRA's Archaeology, Palaeontology and Meteorites Unit.

I left SAHRA in September 2017 to join ACO Associates as Senior Archaeologist and Consultant.

I have been a member of the ICOMOS International Committee for Underwater Cultural Heritage since 2000 and have served as a member of its Bureau since 2009. I am currently the secretary of the Committee.

I have been a member of the Association of Southern African Professional Archaeologists for more than twenty years and am accredited by ASAPA's CRM section. I have been a member of the UK's Chartered Institute for Archaeologists (CIfA) since 2005, and served on the committee of its Maritime Affairs Group between 2008 and 2010. Since 2010 I have been a member of the UK's Joint Nautical Archaeology Policy Committee.

I am currently a member of the Advisory Board of the George Washington University / Iziko Museums of South Africa / South African Heritage Resources Agency / Smithsonian Institution 'Southern African Slave Wrecks Project' and serve on the Heritage Western Cape Archaeology, Palaeontology and Meteorites Committee.

Books and Publications:

Gribble, J. and Scott, G., 2017, *We Die Like Brothers: The sinking of the SS Mendi*, Historic England, Swindon

Lloyd Jones, D., Langman, R., Reach, I., Gribble, J., and Griffiths, N., 2016, Using Multibeam and Sidescan Sonar to Monitor Aggregate Dredging, in C.W. Finkl and C. Makowski (eds) *Seafloor Mapping along Continental Shelves: Research and Techniques for Visualizing Benthic Environments*, Coastal Research Library 13, Springer International Publishing, Switzerland, pp 245-259.

Athiros, G. and Gribble, J., 2015, *Wrecked at the Cape Part 2*, The Cape Odyssey 105, Historical Media, Cape Town.

Gribble, J. and Sharfman, J., 2015, The wreck of SS Mendi (1917) as an example of the potential trans-national significance of World War I underwater cultural heritage, *Proceedings of the UNESCO Scientific Conference on the Underwater Cultural Heritage from World War I*, Bruges, 26-28 June 2014.

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Sadr, K., Gribble, J. and Euston-Brown, G, 2013, Archaeological survey on the Vredenburg Peninsula, in Jerardino et al. (eds), *The Archaeology of the West Coast of South Africa*, BAR International Series 2526, pp 50-67

Gribble, J. and Sharfman, J, 2013, Maritime Legal Management in South Africa, *Online Encyclopaedia of Global Archaeology*, pp 6802-6810.

Gribble, J., 2011, The UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001, *Journal of Maritime Archaeology* 6:1 77-86.

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Gribble, J., 2011, Competence and Qualifications, in Guérin, U., Egger, B. and Maarleveld, T. (eds) *UNESCO Manual for Activities directed at Underwater Cultural Heritage*, UNESCO - Secretariat of the 2001 Convention, Paris.

Gribble, J. and Leather, S. for EMU Ltd., 2010, *Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector*. Commissioned by COWRIE Ltd (project reference GEOARCH-09).

Sadr, K and Gribble, J., 2010, The stone artefacts from the Vredenburg Peninsula archaeological survey, west coast of South Africa, *Southern African Humanities* 22: 19–88.

Gribble, J., 2009, HMS Birkenhead and the British warship wrecks in South African waters in *Proceedings of the Shared Heritage Seminar*, University of Wolverhampton, 8 July 2008

Gribble, J., Parham, D. and Scott-Ireton, D., 2009, Historic Wrecks: Risks or Resources? In *Conservation and Management of Archaeological Sites*, Vol. 11 No. 1, March, 2009, 16–28.

Gribble, J. and Athiros, G., 2008, *Tales of Shipwrecks at the Cape of Storms*, Historical Media, Cape Town.

Gribble, J., 2008, The shocking story of the ss Mendi, in *British Archaeology*, March/April 2008.

Gribble, J., 2007, The Protection of the Underwater Cultural Heritage: National Perspectives in light of the UNESCO Convention 2001 by Sarah Dromgoole, in *The International Journal of Nautical Archaeology*, 36, 1, pp 195-6.

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Appendix B: Declaration Of Independence

I, John Gribble, declare that:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- There are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24(F) of the Act.



Signature of the specialist

ACO Associates cc

Name of company (if applicable):

25 January 2018

Date