

The Warship Hazardous Project Site Report

November 2014.

Introduction

The very poor weather conditions through the winter months consisting of high winds & a lot of rain meant that an early start to the diving season was not possible & the hoped for early start in March did not materialise. This summer has been generally good with very warm, sunny weather, however the considerable rain through the winter meant a lot of fresh water runoff into the Bay, bringing with it a lot of soft sediment, however the first dive for the year in April recorded good visibility. Although light winds have prevailed for most of the summer, underwater visibility was very poor at less than a metre on most visits to site; this situation prevailed until mid September.

The shingle movement along the coast from an easterly direction throughout the year continues unabated, both the Environment Agency & Bunn Leisure's major sea defence works east of the site completed last year, as yet has not shown a measurable difference in site conditions, although it may have contributed to general removal of beach sand at the low spring tide line witnessed throughout the year. The breach opened in the shingle bank at Medmerry to allow the Environment Agencies "Managed Realignment" of the coast, (*at a cost of many millions of pounds*) has excavated a major trench in the beach between two & three metres deep in some places. It remains to be seen what effects this work will have on the wreck site & its surroundings, as well as the shape of the bay generally. The slipway at Bracklesham remains unusable for long periods during the predominant south-westerly weather patterns. As stated previously, at the end of September (*this year reduced to mid September*) through to the beginning of April, when the district council close their safety boat office & tractor powered launching facility, the public slipway is inoperable for normal boat launching & recovery, severely restricting easy access to the site even if weather conditions are favourable.

Launching from Chichester harbour is neither economical nor practical during "out of hour's times" as it adds another two hours & considerable fuel expense plus harbour dues, to the diving day. However it has already been necessary to launch from Itchenor once in September to make an important recovery from site.

As mentioned in last year's report, the reported removal of excess shingle by the Environment Agency/District Council over winter, was indeed carried out from Bracklesham & transported further west along the coast, it did not unfortunately include clearing the shingle from the ramp. The whole operation was spectacularly unsuccessful, as the shingle removed was replaced by more from Medmerry by the sea within twenty four hours of the heavy machinery leaving site.

In the past various avenues have been explored to see if it was possible to put pressure on the District Council to improve this public access to the sea, however it appears that the council do not see public access as a priority & it seems, there are no funds available for such work.

This year it was decided to use as many weekends as possible when conditions were favourable, to work on the site and to not spend time reinstating the diver trail, if it became uncovered this year.

It was decided to use as many weekends as possible through the year, when not diving & team members were available, to carry out work on the artefact display, continue work on the archive & to further process the wet-stored artefacts towards drying & packaging.

Geophysical survey work was due to be carried out on site early in the season organized by English Heritage, but then cancelled as it was believed that the site was, as at the end of last season still covered in a considerable quantity of sand over burden.

Weather conditions improved after a very stormy winter & a first dive was possible on the 21st of April when underwater visibility proved to be between three & four metres & water temperature was twelve degrees, slightly above average for the time of year (*See "Diver Observations" written by Licensee*). Some damage was observed in & around the site at this time; however the considerable sand movement into the

site noted last season has been completely reversed. Sand movement in the area of the main site has revealed some of the diver trail cable which is in need of some major repair.

Plans for 2014

- Continue monitoring variations in seabed levels, using points remaining from those set up in 2002 plus those set up in 2009/10 & more recently, adding more if required.
- Carry out further planning of areas/artefacts exposed due to continued erosion & sea bed movement.
- Survey and recover artefacts exposed by erosion and under threat of loss or damage.
- Continue with conservation of artefacts in wet storage at present & those in chemicals, under guidance from Paul Simpson.
- Re-open diver trail if conditions allow (*unlikely*).
- Continue developing site exhibit at Earnley Gardens.
- Continue web site development.
- Raise additional funding to continue work on site & artefact conservation.
- Continue metal detector search in area of gullies for further artefacts as conditions allow.
- Carry out further electronic surveys of surrounding area of site as conditions allow.

Field work

This year has seen very poor visibility in the bay & the whole of the Solent area for most of the diving season, however 10 days of diving have taken place on site this season, one of which was aborted due to zero visibility, at these times visual monitoring of seabed levels within the main wreck area were carried out, this showed a major reduction in sand overburden levels throughout the site over the winter.

A number of loose artefacts were observed some of which have been recovered from the main site area, the gullies north east of the main site appear to have been reburied by sand overburden. The diver trail cables were found to be uncovered to some extent & a number of breaks were noted, some rejoining of cables was carried out. Some datum points around the site have been lost or damaged over time & some re-labelling was carried out to facilitate measuring in of artefacts.

It was originally planned for a multibeam, side scan & magnetometer survey to be carried out by Wessex Archaeology for English Heritage, however this was cancelled in early April, thankfully the work programme was reinstated after our first visit to site.

Results

As previously stated, weather conditions were very poor over winter & through early April, making for a later than hoped for first visit to site on the 21st April this year, although the summer has been very warm, with generally light winds, underwater visibility in the bay after the first visit to site deteriorated rapidly to less than a metre & on some visits to site it was impossible to carry out any meaningful work in the less than half a metre visibility experienced. The conditions this year, we believe, are due to a number of factors added together, i.e. fresh water runoff over winter, the Environment Agency's managed retreat project & Bunn Leisure's foreshore protection works east of site, along with the dumping of thousands of tons of spoil from Southampton water at the Nab tower spoil grounds, sanctioned by the MMO.

All the above added up to the worst underwater conditions experienced in the eastern Solent by the author of this document in thirty-two years diving in the area.

Monitoring points were measured during visits to site & noted in diver logs, comparisons between these measurements & those taken in previous years have yet to be compared fully; however major overwinter changes were noted on the first visit to site (*see Diver observations*). It has been necessary to re-label a number of datum pins around the site & also re-establish some pins in their existing positions. The cannon ball mound & the three large cannon which were almost buried last year, are now completely uncovered along with all the central area of the wreck, conditions in this central area are more uncovered than witnessed in 2008, revealing a number of artefacts. The continued movement of the sand overburden in a northerly direction has now covered the clay fossil beds that were exposed north of site last year, in this area the sand overburden has increased by an estimated half a metre or more.

The Chichester district council planned to collect shingle that has been thrown up on top of the seawall over the last several years, between the ends of East Bracklesham Drive & Shore Road East Wittering (*the area in front of Hazardous*) & transport it further westward along the bay.

According to council figures, this amounts to the movement of some 12000 cubic metres of material, which was moved between December & February, this work seemed to have very little effect in the area, in fact twenty four hours after the heavy machinery left site shingle quantities seemed similar to that prior to works commencing.

The above works did not include clearing the public slipway, which is still only useable with the assistance of the Council tractor between April & Mid September.

Eleven artefacts were recovered from the site this season, plus two artefacts believed to be from the wreck site were recovered from the foreshore on the 20th March, by team member Peter Jolly.

In view of the poor visibility on site for a large part of this season, it was not possible to carry out the wider area searches we had hoped, however due to the reinstatement in July of the geophysical survey commissioned by English Heritage we were able to pin point & ground proof one area approximately eighty metres southwest of the main site, this enabled us to locate, over a number of dives, nine new iron guns in close proximity to each other, a subsequent dive in better visibility produced a single gun some twenty-three metres further to the south west. All the guns although some distance from the main site appear to fall just within the protected area (*See diver Report 13th July*).

A number of hours by team members were devoted to improving the artefact displays, maintenance work on the display building & signage, also work on wet stored artefacts has been progressed, the treatment in PEG of elements of a gun carriage continued, they & some smaller wooden artefacts have now been delivered to Fort Cumberland for continued work by our conservation advisor Paul Simpson & E.H's Angela Middleton prior to eventual freeze drying.

A re-written up dated project design, for the reinstatement of the excavation licence has been submitted to English Heritage for comment. Team member David Johnston has initiated dialogue with the MMO in order to get the necessary permissions in place to secure the MMO licence to operate our PoWA licences; however this process seems unduly difficult to bring to fruition at the present time.

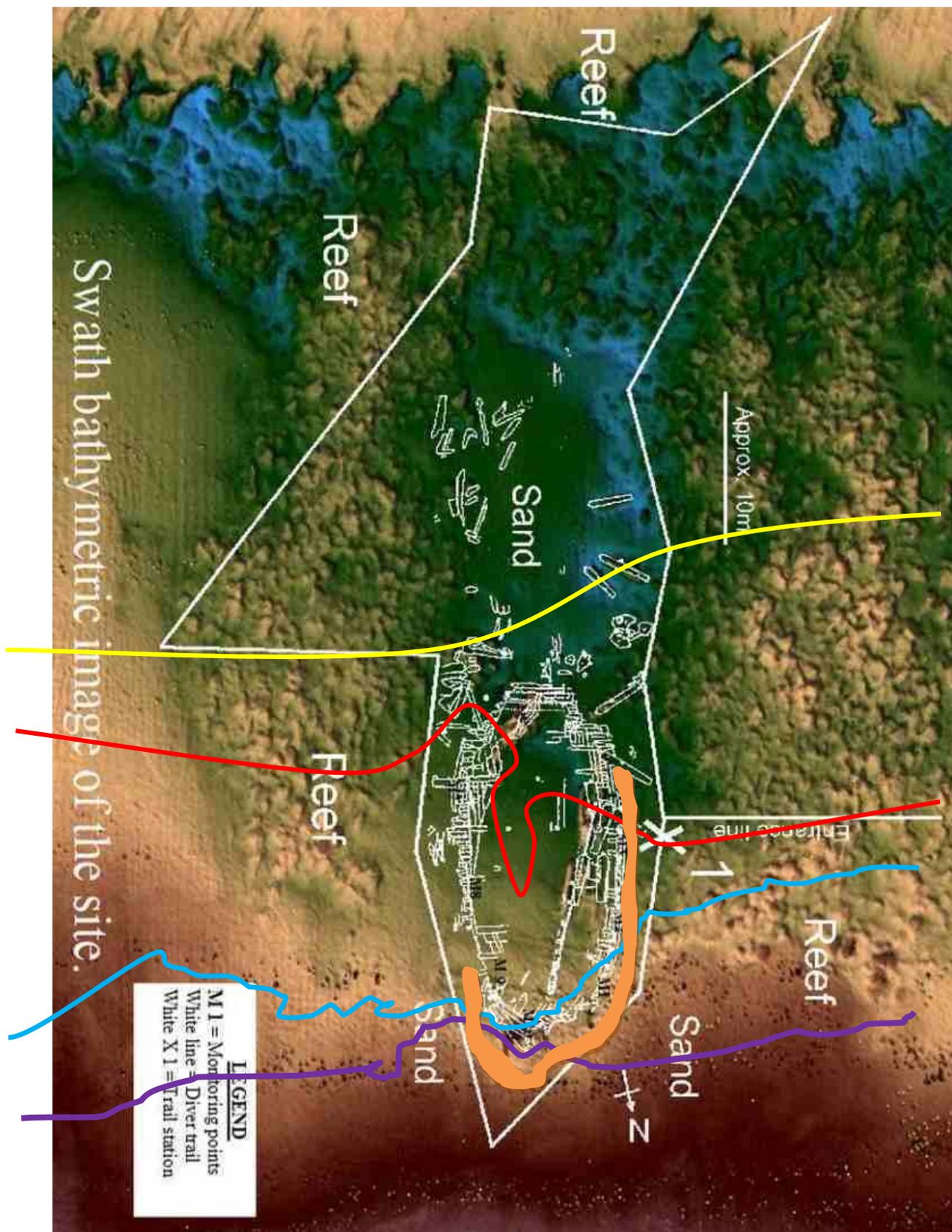
It has however been possible to gain the required permissions from the Crown Estates in a short time frame, it is hoped that all relevant permissions will be in place for the start of next season, so as not to lose any more time.

The site is now in an extremely vulnerable position, & we stand to lose much in the way of information as well as degradation to exposed artefacts.

The development of a digitised site database is continuing & a project proposal is being prepared for submission to English Heritage, whilst team members are looking into the possibilities of mounting small displays at other venues around the locality, along with continuing presentations too interested groups to further public awareness.

Swath bathymetric image of the site.

Figure 1. showing site plan & diver trail overlain on past swath bathymetric survey results.



Yellow line = 2008 sand movement from the south to the north.

Red line = 2009 sand movement from the south to the north.

Blue line = sand movement from the south to the north as at 17th October 2010.

Purple line = sand movement from the south to the north as at 21st August 2011.

Light brown = 2013 localized scour.

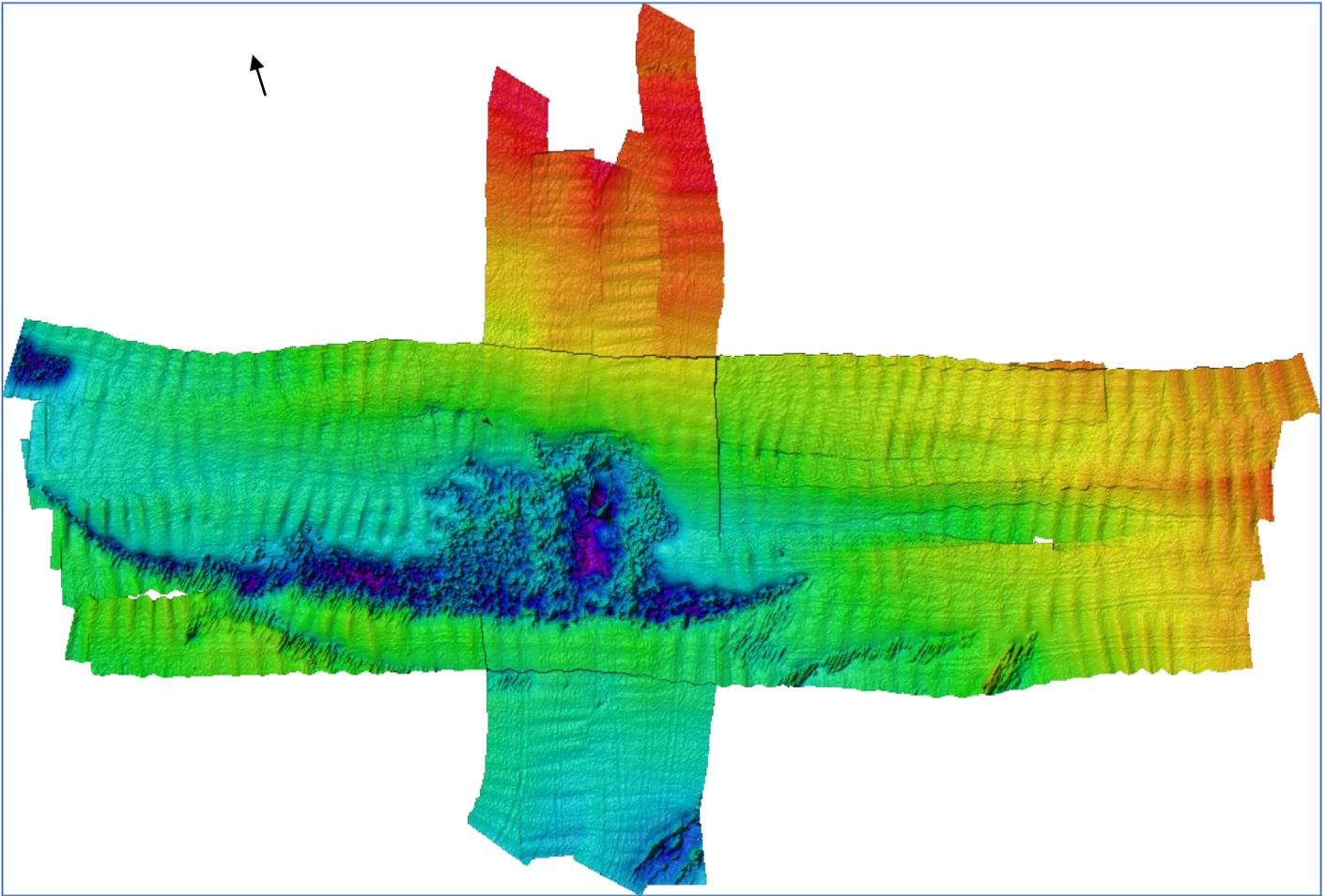


Figure 2. Swath bathymetric survey results July 2014. North up. Showing erosion over the site & out to the west.

Diver Observations.

21st April 2014.

Compiled & written by Iain Grant.

A clear bright morning with very light airs & water temperature of 12 degrees c, the underwater visibility was a surprising three metres plus.

After Dave Johnston set the mooring, Andy & I joined him & had a general look around the site, initial inspection showed a huge reduction in sand overburden along the west side frames & under the guns. The gun & carriage which was sheeted down & buried a number of years ago, is now uncovered completely, the top edge of the gun carriage which when discovered during a trench excavation in the early 1990's was in pristine condition, has now been severely degraded by Gribble worm. The wheels that were in place on the axles may still be covered to some degree affording them some protection, at least for the time being. There are some new features now visible in the internal hull timbers not seen before: *See image below for one example.*



Figure 3. *New feature seen in ships timber, portside near beak.*

The beak area shows marked overburden removal & some major under cutting of the bow timbers has taken place on the outside from there along towards the port side frames, the ferocity of the over winter storms are most probably the cause of this change, however the costal works by the Environment Agency in the bay over the last twelve months may have contributed to the present situation, continued monitoring will be carried out over the season to see if the depletion of seabed material continues.

Heading down the east side frames, monitoring point M9 shows a reduction in levels of 70mm since last measured on 25th August 13, however in the general area there has been a reduction of up to half a metre in places, uncovering timbers in pristine condition not seen by the author in thirty years diving on the site. There are also a number of artefacts now visible, such as a turned wooden object, small concretions, bone, small lead tangles & a large section of lead sheeting along with concreted iron: *See figures 4-6 below.*



Figure 4. Carved wooden object.



Figure 5. Large section of lead.



Figure 6. Concreted iron between frames.



Figure 6. Animal bone in between frames.

The hull structure supporting the cannonball mound, that has been under sand overburden for the last two seasons is now fully visible again, the monitoring point here shows a seabed drop of 430mm since August last year.

Three copper alloy artefacts were also measured in & recovered on the east side of the cannonball mound. The three barrels in the middle of the site, between the cannon ball mound & the three big guns are exposed as they were in 2008.

The pile of three big guns perched on the port side frame ends; now stand proud of the seabed & the monitoring point at their top shows a sand reduction of 150mm since last measured in August 2013, however there is a general drop in sediment of up to 500mm in places around this area.

Some datum's around the middle of the site are bent & a small amount of fishing net & cordage is tangled around the base of the cannon ball mound, which suggests something has been dragged through the wreck over the winter months. A number of datum tags around the site generally are in need of replacement due to fading & in some cases complete loss, these will need to be replaced & some new ones established to enable effective planning of exposed timbers.

The ends of the barrel staves between guns J & L have reappeared, indicating an estimated seabed drop of 300 to 500mm in this area of the site.

Generally seabed material previously covering the wreck seems to have dropped by up to half a metre, however it was not possible to ascertain at this time, how far this situation extends beyond the hull timbers proper. The next visit to site will be used to establish conditions in the outer reaches of the site.

Although some sections of the old diver trail cable are visible, it would require a considerable amount of work to re-establish & so should be left as is, in favour of the more vital work of planning & recording new visible structure & surface artefact recording & recovery.

Diver Report.

13th July 2014.

By Iain Grant.

Having been on the survey boat with Wessex Archaeology on the 2nd of July & observed what looked to be four or maybe five cannon on the side scan sonar image, in the south west of the site just within the protected area, I decided to try & get a small team out to the site as soon as possible to ground prove what I had observed.

This Sunday was the first passable weather window to visit the site, so with an approximate GPS fix to work with, we dropped a marker & Andy went down to check the seabed & set the anchor on some clay gullies. He surfaced to report that after a short search he counted eight iron guns in a rough line on clay gullies with sand to the west of them.

HAZARDOUS SUNDAY 13th JULY 2014.

CANNON No.	Length Over All.	LOA.	Trunnion	Length to Trunnion	Trunnion to Muzzle	CANNON	BREECH DIA.
1	0.950	150	0.920	0.300 (burned)	280	0.500	
2	2.920	150	1.000	1.740	180	0.500	
3	3.080	110	0.900	2.290 1.900	0.280	0.500	
4	3.000	110	N/A	1.320 + 1.500	0.300 0.300	0.500	
5	2.880	110	0.920	1.660	0.300	0.500	
6	2.790	130	0.940	1.460	0.330	0.500	
7	2.050 1.800 2.050	120	0.760	1.040	0.250	0.400	
8	2.00 1.750	110	0.750	1.000	0.250	0.400	
9	2.800	120	0.920	1.580	0.300	0.500	

D. McEwan

Artefacts

Eleven artefacts were recovered from site this season, as follows:

1. HZA003.14 copper alloy buckle.
2. HZA004.14 Copper alloy dividers.
3. HZA005.14 Copper alloy pin.
4. HZA006.14 Gun carriage wheel.
5. HZA007.14 Section pewter plate.
6. HZA008.14 Bone.
7. HZA009.14 Section onion bottle.
8. HZA010.14 Musket ball.
9. HZA011.14 Small section lead.
10. HZA012.14 Gun carriage axle.
11. HZA013.14 Gun carriage axle.

The two artefacts recover by Peter Jolly from the beach were designated as follows:

1. HZA001.14 Pulley sheave.
2. HZA002.14 Section of timber.

All artefacts have been reported to the Receiver of Wreck & are stored in water at our wet store.

Diver Trail

The diver trail, although more uncovered than last season is in poor condition & would require some major repair to make it viable. It was decided this year to not spend time on it as the team felt there was more pressing work required on site.

Website

It is hoped to make further improvements to the website at <http://hazardousproject.info>
We will continue to add material as time allows.

Looking to the Future.

As mentioned earlier in this document, major works now completed along the coast to the east of the *Hazardous* wreck site, by the Environment Agency & others, could have considerable side effects in the area as a whole & in particular on the wreck site.

This year has seen major seabed movement, mainly over winter in & around the site to the point that it is now uncovered in some areas to a greater extent than in 2008, the new guns to the south west of the main site have not been seen before in the life of this project, demonstrating there is potential for much more material to become uncovered if this trend continues.

Therefore we believe the reinstatement of the Hazardous Wreck site to the English Heritage at risk register this year is timely; however this move alone will not record & protect the sea bed archive for future generations, this we believe can only be achieved by excavation within the hull as laid out in the project design, recording & recovering artefacts at risk before everything is lost forever.

Diving Schedule

Diving operations were carried out on ten separate days. This resulted in 3188 working minutes underwater by seven divers plus boatman.

Plans for 2015

- Continue monitoring variations in seabed levels, using points remaining from those set up in 2002 plus those set up in 2009/10 & more recently, adding more if required.
- Carry out further planning of areas/artefacts exposed due to continued erosion & sea bed movement.
- Survey and recover artefacts exposed by erosion and under threat of loss or damage.
- Continue with conservation of artefacts in wet storage at present & those in chemicals, under guidance from Paul Simpson.
- Continue developing site exhibit at Earnley Gardens.
- Continue web site development.
- Raise additional funding to continue work on site & artefact conservation.
- Continue metal detector search in new areas of gullies in the southwest for further artefacts as conditions allow.
- Carry out further geophysical surveys of surrounding area of site as conditions allow.
- Commence excavation as laid out in submitted project design.
- Continue raising public awareness of Hazardous & the project with presentations etc.

Licensee

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Archaeological Adviser.

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