

Archaeological Excavations at the Law Ting Holm, Tingwall, Shetland, 2011

Data Structure Report / Interim Report



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TAP was launched in June 2010 and runs for three years. It is led by the Museum of Cultural History, University of Oslo (Dr Frode Iversen) and consists of individual projects based at the Centre for Nordic Studies (UHI Millennium Institute) at Orkney (Dr Alexandra Sanmark), the Department of Prehistory and Historical Archaeology, University of Vienna (Dr Natascha Mehler) and the Department of Archaeology, University of Durham (Dr Sarah Semple).

website: http://www.khm.uio.no/prosjekter/assembly_project/

cover illustration: view of the Law Ting Holm; photograph by Ronny Weßling.

Project summary sheet

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Project manager	Natascha Mehler
Site assistant	Joris Coolen
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Excavation team	Natascha Mehler, Joris Coolen, Judith Benedix, Philipp Fehringer, Nadine Geigenberger, Patrick Hillebrand, Ronny Weßling (all University of Vienna), Halldis Hobæk (University of Bergen), Martin Vyšohlíd (Archaia Praha).

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Summary

In May 2011 an archaeological research excavation was carried out at the so-called, Law Ting Holm at Tingwall, Shetland Mainland. The excavation was part of "The Assembly Project (TAP) – Meeting places in Northern Europe AD 400-1500" and followed on an extensive geomagnetic survey, carried out by the authors in June 2010. This survey had revealed a number of highly magnetised anomalies of up to 2m diameter in the NW part of the Holm, the nature of which was to be clarified by excavation.

Trench 1 on the Holm did not reveal any clear structures but up to three fire places or hearths which await archaeomagnetic dating. The recovered artefacts from this trench (about 6900 fragments) suggest an Iron Age and / or Pictish date for these features. Trench 2, which cuts through the causeway linking the Holm with the church of Tingwall, has proven that the causeway at this spot is of 18th/19th century date. Trench 2 produced 86 artefacts. Hence, no archaeological evidence for the use of the Ting Holm and the causeway in the Viking period and

the Middle Ages has been found, either in trench 1 or in trench 2.

However, this does not mean that the site was not used for assemblies during those periods. Although one might expect the meeting place to have been marked by certain features, the meetings themselves are not likely to have produced a significant archaeological record. Indeed, research on assembly sites in Scandinavia has shown that all assembly sites were located at prehistoric sites making use of older structures. It is quite likely that the Holm was chosen for an assembly site not only for its natural and topographic setting but also because of its prehistoric remains and history.

The following report presents the interim results of this excavation. At present, archaeomagnetic dating is being undertaken as well as analysis of pottery and other materials. These will hopefully not only provide an accurate dating of the contexts and finds but also allow a better understanding of the biography of the site and its use over time.

1 Introduction

In May 2011, a team of archaeologists from the Department of Prehistory and Historical Archaeology, University of Vienna, assisted by colleagues from the Czech Republic and Norway, carried out a research excavation at the Law Ting Holm in Tingwall on Shetland Mainland. The site is believed to be the place of the main assembly of Shetland, which was in use probably from the Norse period to the second half of the 16th century (Fig. 1). The excavation was part of “The Assembly Project (TAP) – Meeting places in Northern Europe AD 400-1500” (hereafter called TAP), a research project funded by HERA. HERA is a Joint Research Programme (www.heranet.info) by the European Community FP7 2007-2013, under the Socio-Economic Sciences and Humanities Programme. The excavation followed on an extensive geo-magnetic survey, carried out in June 2010 (Coolen & Mehler 2010). Fieldwork was directed by Natascha Mehler and Joris Coolen.

This report presents the preliminary results of the excavation. Not included is the analysis and special reports of prehistoric and post-medieval pottery, faunal and botanical remains, slag and metal objects,

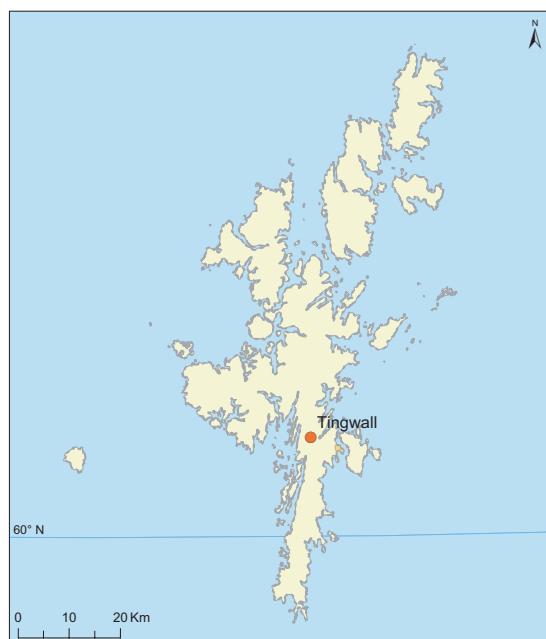


Fig. 1 Location of the site.

stone artefacts, pumice and stone artefacts. These works are currently undertaken and the results will be presented in the forthcoming final report.

2 Background

Numerous assembly sites from the Viking period and the Middle Ages are known throughout Northern Europe but only a few exist where the actual meeting place can be pinpointed as in Tingwall. It is for this reason that the Law Ting Holm is considered a key site for TAP – an international collaborative project on the role of assemblies (things) in the creation of collective identities and emergent kingdoms in medieval Northern Europe.

For many centuries, Tingwall was the main assembly site of Shetland, where the regular meetings of the law thing, the islands' parliament and upper court, took place. The name itself is derived from Old Norse *þing völlr*, meaning the “parliament or court field(s)”. Similar names can be found elsewhere in Scandinavia and the British Islands, the most famous example being the world heritage site Þingvellir in Iceland, and usually refer to the main assembly site in a

legislative area (Fellows-Jensen 1996: 16 ff.). The activities of the law thing at Tingwall are recorded in several historical documents, the oldest of which dates from 1307 (SD I, no. 3). It is assumed that Tingwall hosted Shetland's main assembly at least from the late 13th century onwards, if not earlier (Fellows-Jensen 1996: 22; Smith 2009: 38). The site fell out of use when Lord Robert Stewart moved the assembly from Tingwall to the nearby castle of Scalloway in the 1570s (Smith 2009: 39).

According to the tradition, the assembly met annually at the Law Ting Holm, a former islet at the north side of Loch Tingwall. This is confirmed by a report of 1577 referring to an older document issued by the law thing “in the ting Holm of Tingwale” in 1532 (SD I, no. 237, p. 196). The assembly site was strongly connected to the former St. Magnus Church (now Tingwall Kirk), the main parish church in Shetland and seat of the arch-

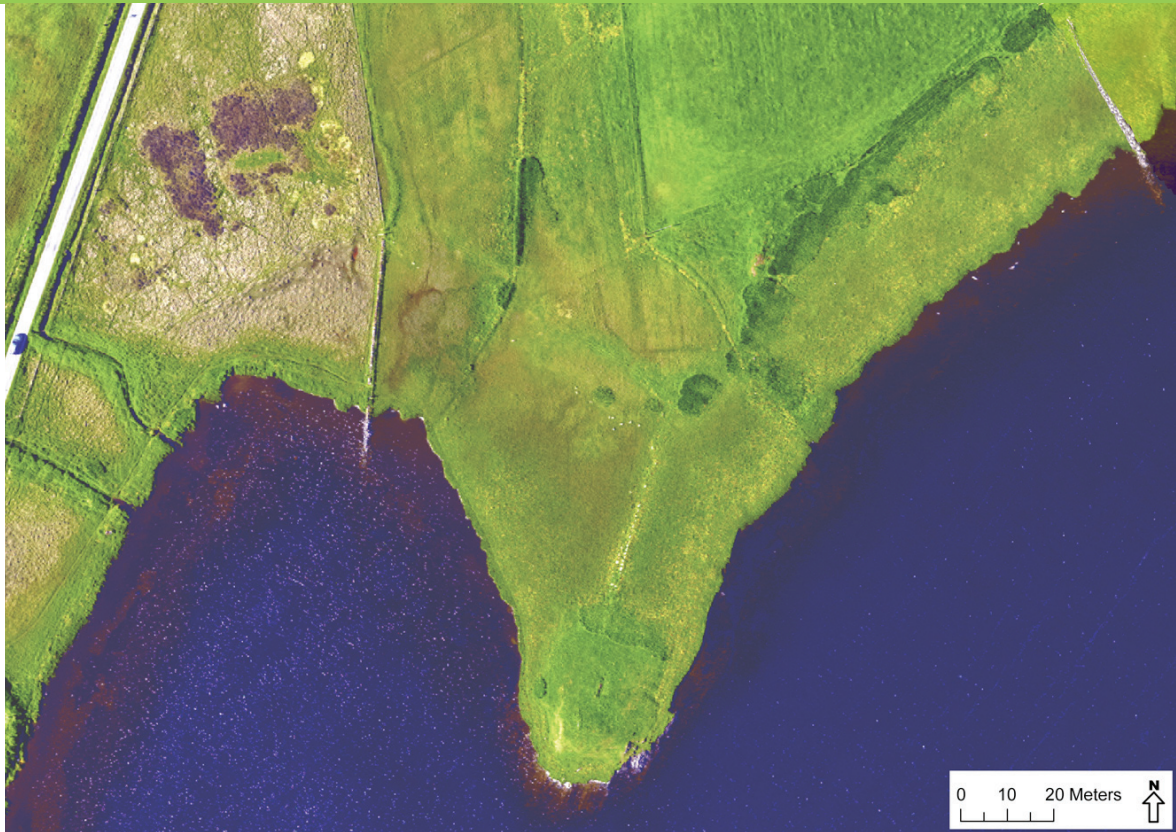


Fig. 2 View of the Law Ting Holm. Georeferenced and color enhanced aerial photograph of the Law Ting Holm, taken by Dave Cowley for the RCAHMS on June 16th 2010. Photo ref.nr. DP082229 and DP082232, copyright RCAHMS.

deacon before the Reformation. Historical sources show that the assembly was occasionally held in the church, possibly due to weather circumstances. Moreover, a causeway leads directly from the Law Ting Holm towards the church.

Nowadays, the Ting Holm constitutes a promontory on the northern lake side (*Fig. 2*). The Holm is formed by an outcrop of local limestone of the Lax Firth formation with large quartz veins. The top of the Holm today rises c. 2.5 metres above the mean water level and is connected to the shore by a marshy area. Previously, the Holm was an island, located 40-50 m from the shore and surrounded by shallow water. In the mid 19th century, a ditch between Tingwall Loch and the lower Loch of Asta was constructed which caused a drop of the water level (Coolen & Mehler 2010, figs. 3 & 23).

Apart from the causeway (*Fig. 3*), there are no visible remains of the alleged assembly site. However, in 1701, John Brand reported that “three or four great Stones are

to be seen, upon which the Judge, Clerk and other Officers of the Court did sit” (Brand 1701: 121). According to George Low, writing in 1774, the stones were later torn up to clear the area for grazing (Low 1879: 77).

In 1946, the Ting Holm was recorded by the RCAHMS, and it was stated that “at the outer end of the causeway, where it reaches the Holm, a wall, apparently of no great thickness or strength seems to have run off at right angles on each side, to enclose the whole island. Traces of another wall of irregular outline appear at the landward end of the causeway” (RCAHMS 1946: 124, No.1522) (RCAHMS site no. HU 44SW 11). However, both statements were revisited after a new survey in 1968, since “no trace of walling at the Holm end of the causeway” could be identified, while “the irregular wall at the landward end” was interpreted as an old field wall, probably not related to the assembly site. Nevertheless, the site was scheduled as “thingstead” by Historic Scotland in 1996 (Index No. 2074).



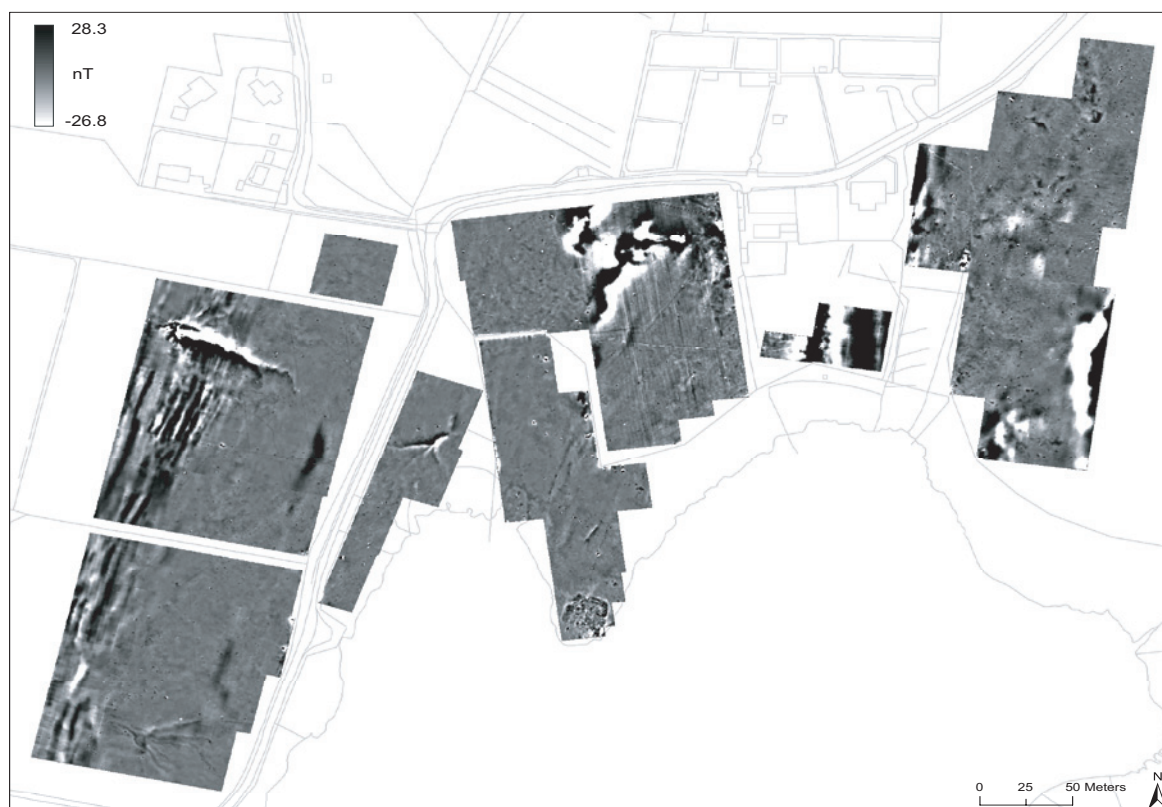
Fig. 3 View of the causeway leading towards the church.

There are some notable lumps and depressions at the surface of the Holm, which in the light of new evidence may indicate buried structures. However, they were obviously not considered of much interest by antiquarians and archaeologists before, since they are not mentioned in any (survey) report. High resolution LiDAR-data, collected for TAP by the Airborne Research and Sur-

vey Facility of the National Environmental Research Council in June 2011, will hopefully help to interpret the surface structure of the Holm. The LiDAR data is currently being processed and the results will be published in the final excavation report.

In 2010, a geomagnetic survey was carried out on the Holm and the surroundings, covering a total area of 9.3 hectares (*Fig. 4*). The survey revealed several large anomalies on the Holm, and the Holm itself appeared as a remarkably square feature (*Fig. 5*). Due to the strong magnetisation of some of the local rocks, the anomalies could not be readily interpreted, since buried rocks and strongly magnetised archaeological features such as hearths seemed to cause similar anomalies. However, the shape of the Holm, as it appeared in the geomagnetic data, seemed rather unnatural. It was suggested that it was artificially modified by quarrying (Coolen & Mehler 2010: 26).

Fig. 4 Overview of the geomagnetic survey data collected in 2010.



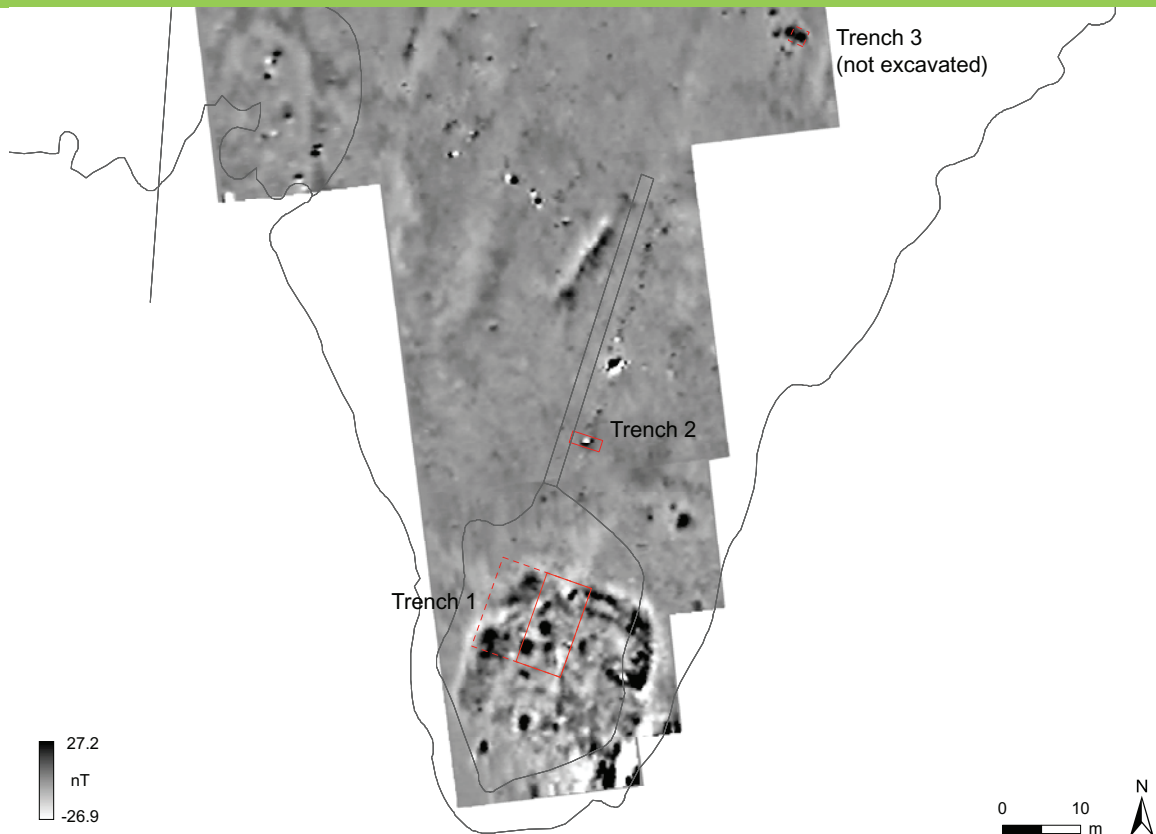


Fig. 5 Detail of the geomagnetic survey data collected at the Law Ting Holm in 2010 with the location of the excavation trenches 2011.

3 Methodology

3.1 Location of trenches

Both the geomagnetic survey and the various historic accounts of the site raised several questions which could only be answered by excavation. However, due to restricted time and the protected state of the scheduled monument excavating the entire Holm, which covers more than 525 m², was not an option. So far, only few excavations have been carried out at North European thing sites, and as far as we know, none of these concerned the actual meeting place. Hence, no other archaeologically investigated site could help us choose the most rewarding spot for an excavation.

Originally, it was planned to open three trenches within the scheduled area (see Fig. 5). The main trench, trench 1, is located on the Holm. In consultation with Historic Scotland, it was agreed to excavate the NW quarter of the Holm, the planned size of the trench being 12 x 12m. The location of the

trench was chosen under the following objectives:

- Although the main focus of the assembly site might rather have been on the highest part of the Holm, the bedrock, which partly protrudes from the surface in this part, suggested a very shallow soil cover and minimal stratigraphy¹. It was hoped that the northern and lower part would offer a thicker soil cover and better preserved stratigraphy.
- The geomagnetic survey had revealed a number of highly magnetised anomalies of up to 2m diameter in the NW part of the Holm, the nature of which was to be clarified by excavation.
- In its originally planned extent, the trench would have included the junc-

¹ This assumption proved to be wrong as a benchmark was put at the top of the Holm during stakeout; the metal rod driven into the ground suggests that the bedrock is buried by at least 40cm of soil in some places.

tion of the causeway and the Holm. The excavation should verify if the entrance of the Holm was marked by any distinct features, as suggested by the original RCAHMS survey record. In the ideal case, it would be possible to link the causeway to the stratigraphic sequence of the Holm, allowing for stratigraphic dating.

- Although not the ideal location to clarify these questions individually, the initially scheduled trench might reveal the nature of both the linear, negative anomaly at the (S) W edge and the double, linear, positive anomaly along its N (E) side. The former was believed to represent the possibly modified bedrock face, while the latter is obviously caused by an accumulation of positively magnetised material and might represent the fill of a double ditch or a wall or bank of igneous rocks or rocks containing a high amount of iron-oxides.
- The trench included a large, heavily weathered quartz outcrop near the centre of the Holm, partly protruding from the surface and visible as a negative anomaly in the geomagnetic data. The excavation should clarify if the rock was artificially modified and if it was fire cracked or naturally weathered.
- Excavating one quarter of the Holm allowed for the study of both the centre and the side of the Holm, both of which may theoretically have played a special role in the assembly practice.

It was decided to start with trench 1 by opening its eastern half (6 x 12m). This turned out to be a fortunate decision, since even this reduced trench could not be fully excavated in four weeks. However, it also meant that some of the research questions addressed above could not be answered, as their focus lay beyond the extent of the actual trench. Unless indicated otherwise, “trench 1” will hereafter refer to the excavated part – the eastern half of the initially planned trench – only.

Trench 2 is located at the causeway, where both faces are well preserved, and

where the geomagnetic survey had revealed a strong, bipolar anomaly caused by a ferrous object. The trench measured 4 x 1.5m and was laid out across the causeway to provide a cross section. Apart from the construction of the causeway and the nature of the ferrous object at its centre, it was hoped that the trench would yield more information on the causeway’s age and the state of the lake at the time of its construction.

Trench 3 was planned about 55m to the northeast of trench 2, on the former lake-shore. Its main aim would have been to clarify the nature of a pit-like, positive anomaly encountered during the geomagnetic survey, which stood out from the rather “quiet” marshland. Similar anomalies were recorded throughout the survey area, and it would have been interesting to study at least one *pars pro toto*. However, due to the unexpected richness of material in trench 1, trench 3 was never opened.

3.2 Excavation and documentation methodology

The excavation was carried out stratigraphically, using single layer documentation. The individual context numbers refer to the respective trench: for trench 1, context numbers start with 1000, while the context numbers for trench 2 started with 2000 (*Appendix 1*).

Survey and photographic documentation were mainly done digitally. Only the trench profiles were drawn manually (*Appendix 2*).

Before backfilling both trenches, the excavated surfaces were covered with geomembrane to protect the remaining stratigraphy and to provide a clear starting point for potential future excavation. Trench 1 was backfilled with a JCB; the grass cover sods were replaced manually. Trench 2 was backfilled manually; special care was taken to reconstruct the parts of the causeway, which had been removed during the excavation. The reconstructed elements were put on top of the geomembrane.

3.2.1 Excavation survey

The excavation survey was carried out using a Leica TCRM 1205 total station. It was tied to the OS national grid using three benchmarks which had been set up by a commercial surveyor prior to the geophysical survey in 2010 (TBM 01-03). For convenience, four additional benchmarks were marked closer to the excavation trenches (TBM 04-07). Since the original benchmarks had no height values, relative heights were measured during the excavation, which were corrected later with the coordinates obtained from DGPS surveying of two of the initial benchmarks after the excavation (Appendix 6).

The total station was attached to a notebook, equipped with AutoCAD® 2009 with the plug-in TachyCAD, developed by the German company Kubit GmbH. The former extension facilitates direct communication between AutoCAD and the total station; stationing and measuring are controlled from the computer. Measured points, lines and polygons are thus directly shown in the AutoCAD drawing and can be grouped into different layers, avoiding the need to encode and export the measurements from the total station. Since an AutoCAD layer can include points, lines, polygons and raster data at the same time, one layer was created for each

archaeological layer interface, including both the outline (measured as polyline) and heights (measured as points). Both the top and the bottom interface of each layer were recorded separately, to allow for their subsequent, three dimensional reconstruction. Since each bottom interface corresponds to (parts of) the upper interface of the layer(s) below, the former is in fact redundant. However, it was found to be more efficient and precise to record it on site than to subsequently extract it from the underlying layer surface.

Unfortunately, AutoCAD offers limited possibilities to assign different attributes to the drawing features. Hence, individually recorded special finds, samples etc. had to be given one layer each, resulting in a rather elaborate layer structure.

Each layer was unambiguously named, the layer's name containing the context number and a specification of the layer's contents: upper interface (if), bottom if, special find (SF), orthophoto reference points, archaeomagnetic dating sample etc. For special finds, the name also included a short description of the find, e.g. pottery, slag, spindle whorl etc.

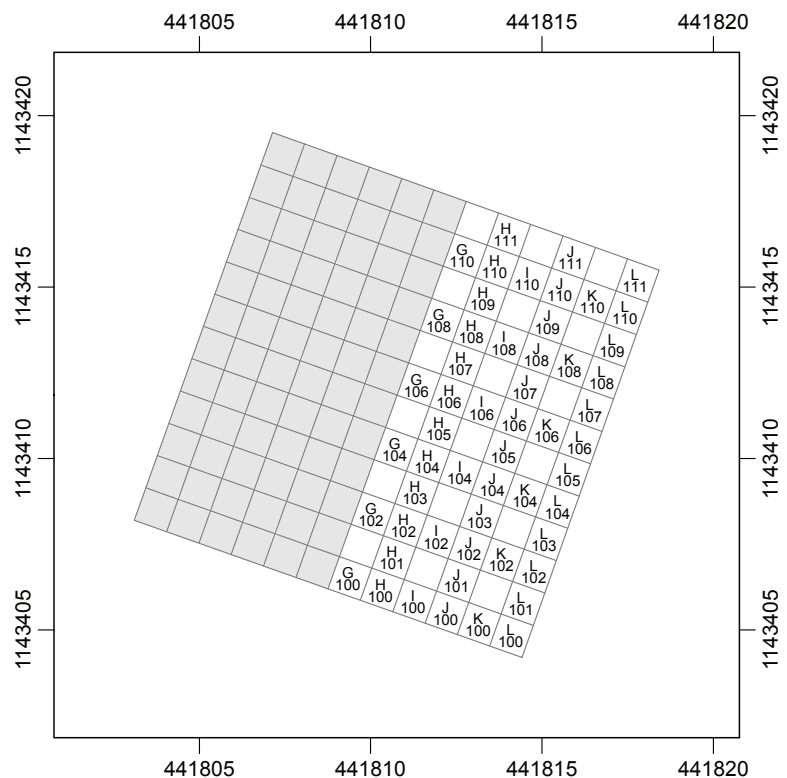


Fig. 6 Overview of the excavation grid of trench 1, illustrating the location of bulk finds, samples and (in text references) certain features.

After each day in the field, a separate back-up of the AutoCAD file was saved both on the notebook's internal hard disk and an external hard drive.

In order to make it easier to describe the location of certain features, finds etc. trench 1 was divided into a 1x1m grid (*Fig. 6*). The grid cells were numbered A-L from W to E and 100-111 from S to N. Due to the reduced size of trench 1 only G-L were excavated. This division did not affect the excavation itself (i.e. excavation did not take place in individual grid units). However, bulk finds as well as flotation samples were collected per grid cell within each stratigraphic context.

3.2.2 Photographic documentation

Photos were taken with a Canon EOS 450D digital single-lens reflex camera with a Canon 18-55mm zoom lens. The maximum camera resolution is 12.2 megapixels. All photos were stored in .JPG-format.

To provide a better overview, photos were partly taken from a higher position using a monopod, or from even greater height (up to 11 m above ground level) using an extendable camera crane designed and built by Ronny Weßling, one of the team members (*Fig. 7*). At the end of each fieldwork day, the photos were stored in a separate back-up folder and copied into different folders for each context, working shots etc. Within the context folders, the photos were renamed and given an unambiguous name referring to the context number and subject (e.g. c1000_upper if North side (1).JPG). For reference, all original file names and the renamed files are listed in *Appendix 3*.

To save the work of manual drawing of layer surfaces and stone scatters, orthophotos were created instead. For this purpose, vertical photos were taken of each documented surface, showing at least four measured reference points (copper nails, paper targets) along the frame edges. With these, each photo can be geometrically corrected in one horizontal level, resulting in a georeferenced orthophoto with a minimal degree of geometrical distortion. This was done with the plug-in PhoToPlan 5.0.1.6 for AutoCAD. The orthophotos can be used as plans in their own respect, or vectorised by drawing

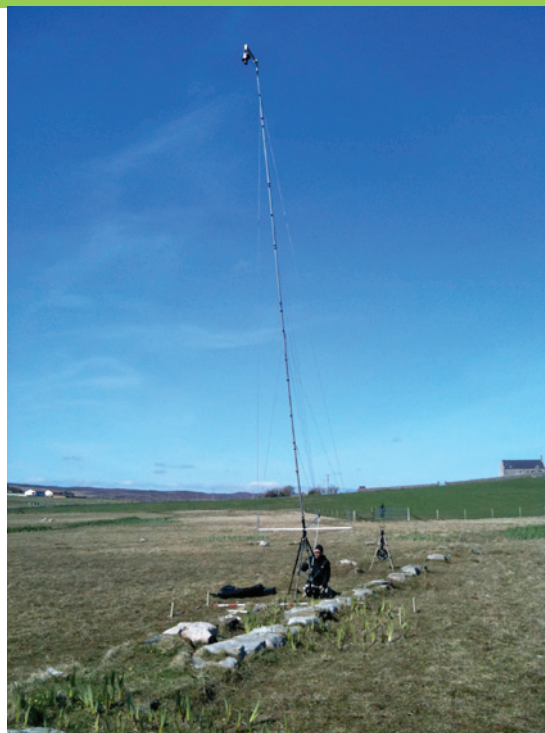


Fig. 7 Camera crane Opterix 2.0 in use during the excavation of trench 2.

manually the outlines in AutoCAD or a GIS. Prior to the geometrical correction and georeferencing, the lens distortion and chromatic aberration was corrected with the software PTLens 8.7.8. In some cases, multiple photos were stitched together, after equalising contrast and brightness in Adobe Photoshop. The files were saved separately after each step in a separate photogrammetry folder, with the following extension to the original file name:

- “_pt” for images after distortion and chromatic aberration correction in PTLens;
- “_pta” for images after distortion and chromatic aberration correction in PTLens and subsequent brightness / colour adjustment in Adobe Photoshop;
- “_rec” for rectified images after processing in Kubit PhoToPlan (saved along with separate rectify log (PRK-file) and world file (PPB-file)).
- “_reca” for mosaiques of multiple rectified images.

3.2.3 Finds

All recovered deposits were dry-sieved using a 2.5 x 1.3cm mesh. Bulk finds (pottery, animal bones, shells, whelks, slag, organic material) were collected per context and grid unit. Each find unit was assigned an individual number and recorded in a find list on site, including the context, grid unit and a short description. Special finds (SF) were measured individually with the total station and given an individual number, yet they were included in the same list as the bulk finds to avoid ambiguity. Decorated or remarkably large sherds, as well as the post-medieval pottery from trench 2 were considered as special finds.

The pottery, bone and stone finds were cleaned at the excavation base and all finds sorted according to category. All finds, except shells and whelks, were counted and recorded in a database (*Appendix 4*). Due to the heavy fragmentation shell and whelk remains were only recorded as “one / few / small bag / medium size bag / large bag”.

The find category “organic matter” comprises a total of 175 small, dried out lumps of a so far unidentified, organic substance. Some of them appear burnt and may in fact be charcoal, others resemble dry peat lumps. Further analysis is needed to identify the substance.

3.2.4 Sampling

During the excavation, 22 soil samples were taken from 7 contexts for palaeobotanical analysis (flotation) (*Appendix 5*). Samples were collected per context and grid unit, and special care was taken to sample different grid units in sequential contexts. As a rule, samples comprised one bucket (c. 10 litres), although the smallest sample comprised only 2.6 litres. The samples were floated at the excavation base, using five sieves of 4, 2, 1, 0.5 and 0.25 mm mesh size. The residues were collected and dried for further analysis.

Two contexts, C1011 and C1012, consisted of large patches of peat ash and seemed to offer good opportunities for archaeomagnetic dating. A total of 44 samples was taken for this purpose by Zoe Outram (University of Bradford). All archaeomagnetic dating sam-

ples were measured in with the total station. Several larger charcoal fragments were recovered, which could be used for radiocarbon dating. They were treated as special finds. However, at the time of writing it is unclear if C14 dating will be carried out, since the archaeomagnetic dating may render it obsolete.

4 Results

4.1 Trench 1

The original surface of trench 1 rose from 9.4m above sea level in the north to 10.3m in the south (*Fig. 8*). All excavated contexts generally followed the same slope direction, which seems to be determined by the surface of the underlying bedrock (although the latter was not fully excavated).

The topsoil layer (C1000) was 8 to 20cm thick and consisted of peat with a high content of sandy loam. It was manually removed in large sods, which were put back after the excavation. Numerous finds were recovered from the topsoil, already indicating the richness of the underlying deposits. Among the finds were a clay pipe fragment (Find no. 008), several pieces of post-medieval pottery (Find nos. 001, 005, 009, 010, 049) and roof slate fragments (Find no. 001), as well as a large number of animal bones, prehistoric pottery, stone artefacts and slag (see *Appendix 4*). Hence, the find assemblage from C1000 already represents the full spectrum of finds recovered during the excavation. Furthermore, C1000 contained only few shells compared to the underlying deposits, which may be due to the worse conditions for their preservation in the topsoil.

With the exception of the SE corner, where an outcrop of weathered quartz protruded from the original grass cover, the underlying layers consisted entirely of anthropogenic deposits. C1001 refers to the fill of a shallow depression in J-K 103-105, which was loamier, slightly lighter in colour and contained fewer stones than the underlying context (*Fig. 9*). It contained charcoal and several finds, including a post-medieval glass fragment (Find no. 111). The depression measured c. 2.5 x 1m and was up to 8 cm deep. However, the interface was not

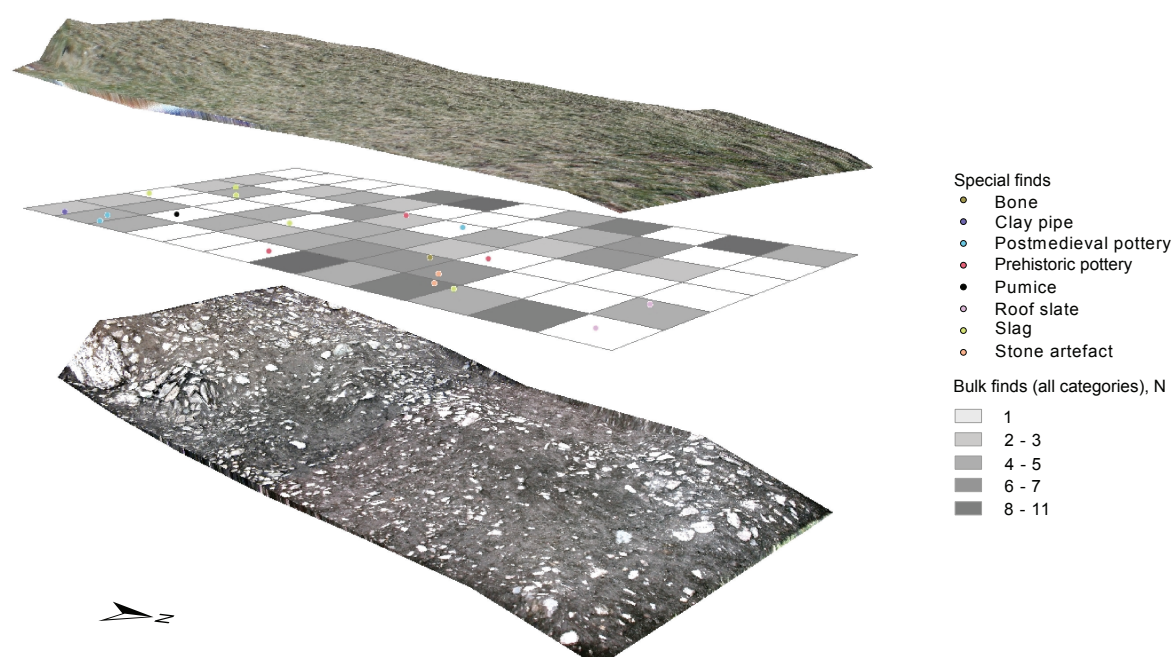


Fig. 8 Exploded view showing the top and bottom surface of the topsoil layer (C1000) in trench 1, with the distribution of finds (sum of all assessed categories, special finds not included) in C1000. The surface models were created by draping rectified orthophotos onto a TIN created from measured interface heights (vertical exaggeration 2x).

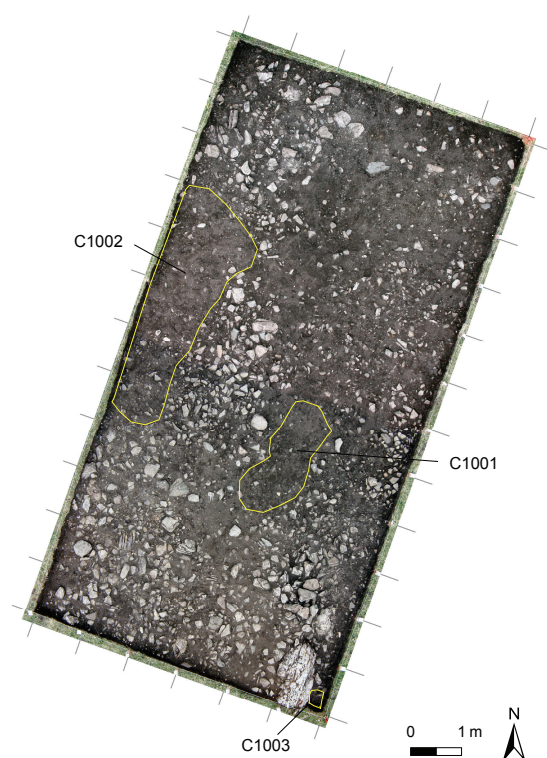


Fig. 9 Outline of C1001, C1002 and C1003 after the removal of the overlying topsoil (C1000).

very clear. C1001 seems closely related with the lower topsoil, and may in fact have represented a zone of mixed material at the interface between the topsoil and the underlying archaeological layer. The same probably applies to C1002, a very shallow humus deposit along the W profile in G104-H108. It appeared as a largely stone-free zone of about 4.8 x 1-1.8m width. However, this context may be the upper part of a poorly recognised, underlying feature; it came off to a layer of fine gravel instead of the expected coarse cobble stones which mark the surrounding area. C1002 yielded a considerable amount of (bulk) finds, which is remarkable given the small volume of the context. The majority of finds is of prehistoric age. A thin layer of gravel (C1003) (Fig. 9) was confined to the small space between the quartz outcrop and the sides in the SE corner of trench 1. Its texture was notably different from the topsoil and the underlying layer, but given its limited extent (an unknown part of the context stretching beyond the excavated trench), it is hard to interpret. C1003 yielded a few post-medieval pottery fragments (Find no. 099).

C1004 was defined as a layer covering the whole trench and as a consequence underlies C1001, C1002 and C1003 in the matrix. It consisted of dark brown, sandy loam with many scattered stones of various sizes (up to 20cm diameter) and generally appeared rather heterogeneous. In general, it was less than 10cm thick. Although differences in texture, density of inclusions and soil colour were noticed within the context, none of these were sufficiently clear to be identified as individual contexts. However, as mentioned above, the area below C1002, which was marked by a high gravel content, may in fact have been part of a separate feature. The area G104-108 formed a clearing in the mostly dense stone scatters of the sequential contexts from the first documentation level down to the bottom of the excavation, and the high gravel content was still observed at the lowest level. The extent of C1002 largely corresponds with the marked contexts C1015, C1016 and C1017, which were observed at the final documentation level (see below). In hindsight, these contexts may be considered as different fills of the same feature, in which case this feature would have a high position in the matrix, directly underlying the topsoil.

C1004 can best be interpreted as a midden deposit. This layer was richest in finds, yielding over 2500 individual pieces. Among the special finds are a perforated stone disk (SF 126), a steatite spindle whorl (SF 181), a bronze (?) ringlet (SF 231), a stone bead (SF 258), several pieces of pumice, various stone artefacts and decorated pottery fragments. Bulk finds mainly comprise animal bones (representing almost two thirds of all finds), followed by pottery and metal slag. The bones were scattered throughout the entire context, as were pottery fragments (*Fig. 10*). However, the latter show a slight concentration in the northern half of the trench. Metal slag was mainly found in the S part of the trench. C1004 also contained a large number of oyster and cockle shells and whelks; interestingly, these were only found in the S part of the trench. The shells and whelks were found in small concentrations and usually embedded between cobbles.

After the removal of C1004, stones appeared in much higher density in most parts

of the trench. Several contexts were distinguished in the underlying surface (*Fig. 11*). C1005 was described as a layer of dark brown, sandy soil containing a large amount of gravel and cobbles, covering the eastern and central part of the trench. Both in the S and NW corner separate concentrations of larger stones were observed, which were recorded as C1006 and C1007 (*Fig. 12*) respectively. C1005 was equally rich in finds as C1004. Both the composition of the assemblage and the distribution of finds were very similar, indicating a close genetic relationship between both contexts. Special finds from C1005 comprise a bronze wire spiral (SF 361), a possibly worked bone (SF 333) and several stone tools including handstones.

C1006 formed an L-shaped concentration of larger boulders of up to 40cm diameter in the SW corner of the trench (see *Fig. 11*). Apart from a small overlap in J-K 102, it was separated from C1005 by a square clearing in I-J 102-104, formed by a protruding low rise in the surface of the underlying layer. Hence, the stratigraphic relationship of C1006 to C1005 was not evident. Finds from C1006 mainly comprised bones and shells and whelks. The latter were already seen to be concentrated in the S part of the trench in C1004. A concentration of metal slag was found in J101 and the neighbouring squares. Again, this corresponds to the spatial distribution observed in C1004.

C1007 had a very similar appearance as C1006 and contained equally large boulders (*Fig. 12*). Although the outline of the interface was originally recorded parallel to the interface of C1005, the later clearly overlay C1007. As the orthophoto shows, C1007 seems to have extended slightly beyond the originally recorded outline to the east. Numerous bones and a few pottery fragments, as well as a handstone (SF 402) were retrieved from this context.

Another remarkable feature appeared in grid square L102 as C1005 was removed, marked after the excavation as feature 2 (*Figs. 13 & 14*). Several stone slabs constituted a circle with an outer diameter of c. 1m and an inner diameter of c. 40cm, set against the limestone bedrock outcrop (the latter representing the continuation of the quartz

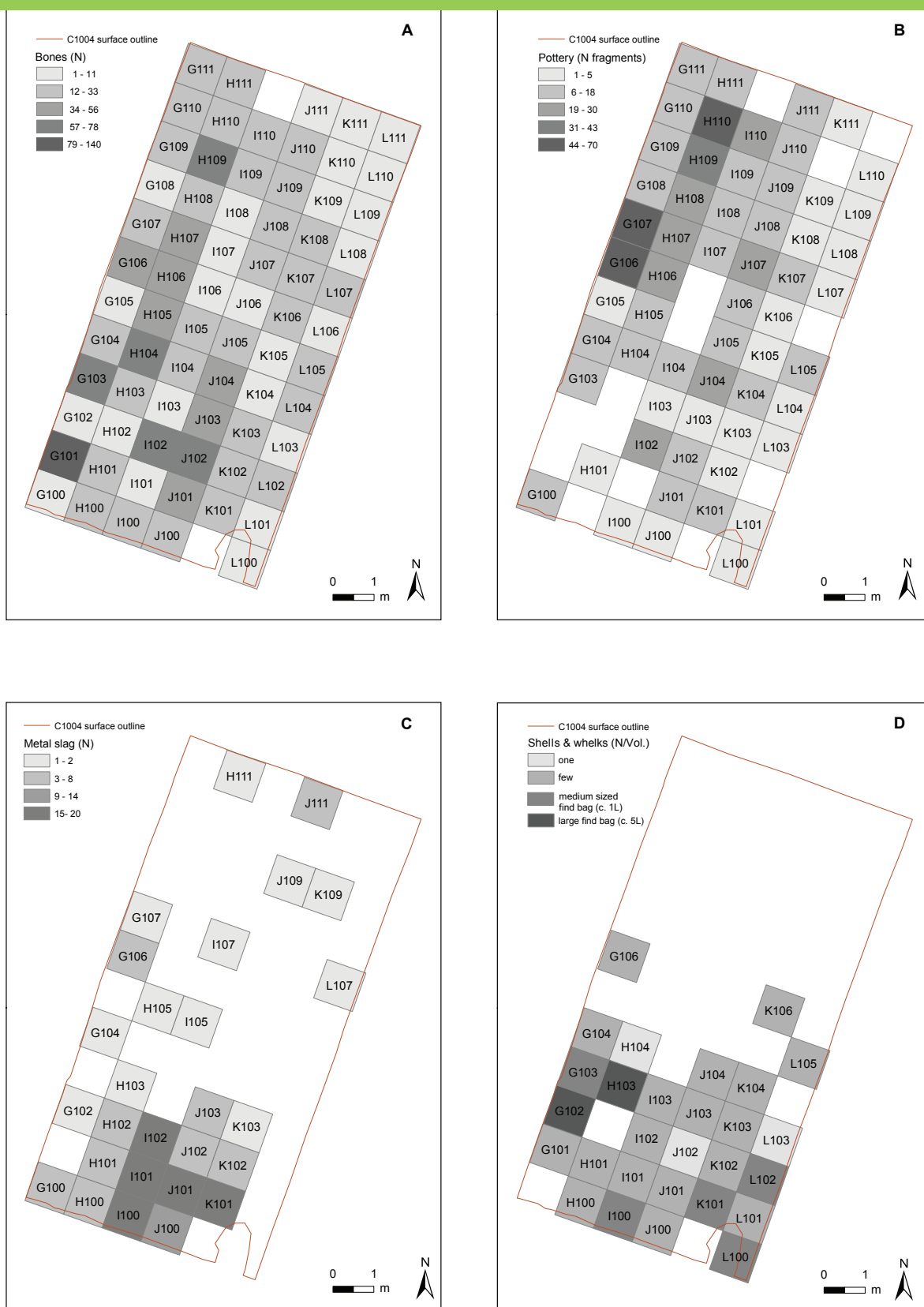


Fig. 10 Distribution of finds from C1004. A – Animal bones; B – Pottery fragments; C – Metal slag; D – Shells and whelks. Classified by standard deviation (except shells and whelks).

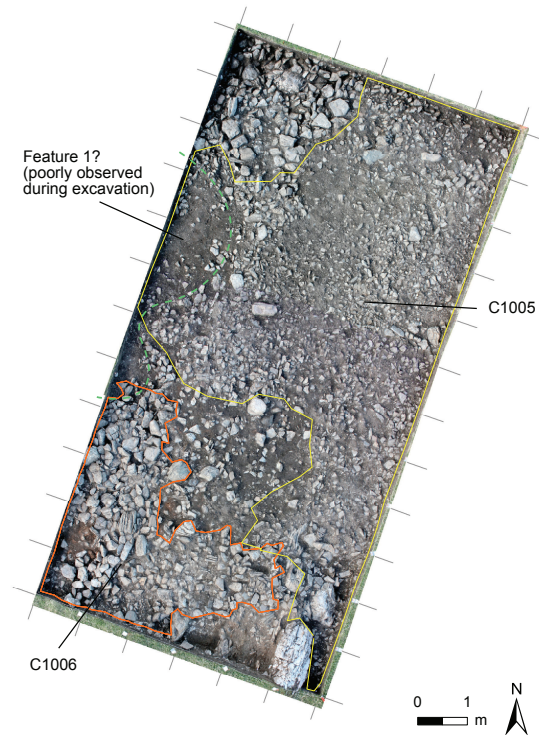


Fig. 11 Outline of C1005 and C1006 after the removal of C1004.

outcrop mentioned before). The slabs were partly put one on top of the other, constituting a low “wall” of c. 30-40cm height (C1009). It was stratigraphically overlain and hence separated from C1005 by a layer of dark brown sandy clay loam with cobbles (C1008) (*Fig. 13*), which covered the space between the stone setting and the bedrock, and filled the cracks in the weathered rock. C1008 could be interpreted as intentional backfill between the stone setting and the rock for greater support, but it needs to be stressed that the material was very similar to C1005. C1008 yielded a few bone fragments, metal slag and one shell.

The stone setting, C1009, was most distinct on the north side, where a flat slab of c. 30 x 20 x 5cm overlay a large, rectangu-

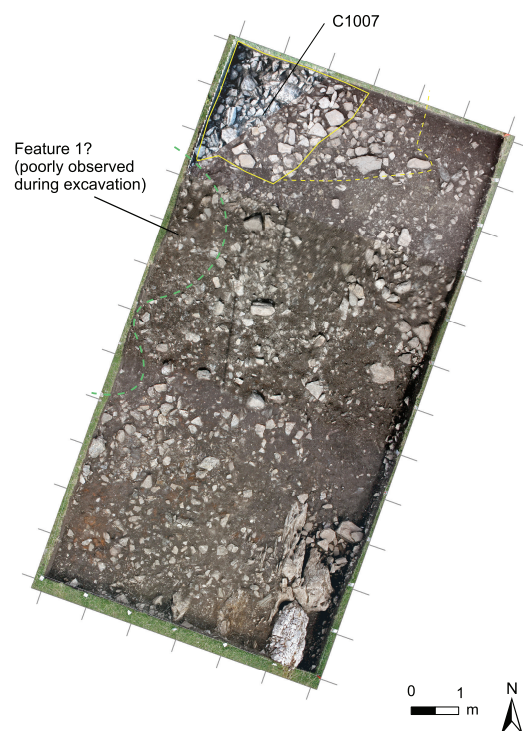


Fig. 12 Outline of C1007 overlain on a photo mosaic of C1007-C1010 (after removal of C1006). The continuous yellow line shows the recorded outline; however, the context seems to have extended slightly further east (dashed line).

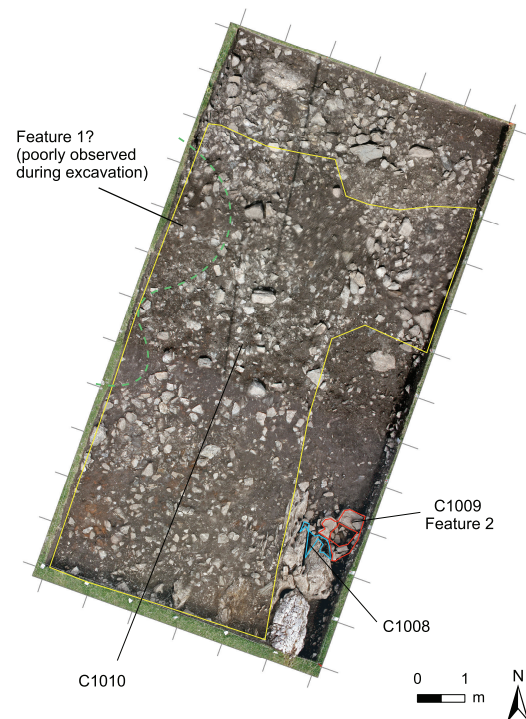


Fig. 13 Outline of C1008, C1009 and C1010 (after removal of C1007).



Fig. 14 Feature 2: stone lined pit in grid square L102.

lar slab of c. 50 x 30 x 20cm (both extending beyond the side of the trench). It consisted of smaller stones in the S which had largely collapsed. The bottom was formed by densely spaced cobbles; since the structure was not dismantled, it is not clear whether these stones constituted an intentional surface to create the bottom of the structure, or whether they were part of the underlying layer. Feature 2 can be interpreted as a stone lined pit, but seems to have been free-standing rather than dug in according to the stratigraphic observations made during the excavation. It could have been constructed to support a (rather massive?) post, as digging a post hole into the rocky ground must have been difficult. However, the feature cannot be seen in context with any other structures as yet.

In the upper part of the trench, C1005 came off to a dark brown layer of sandy loam, C1010, which was distinguished from the latter by red peat ash mottles and a lower content of stones (Fig. 13). The peat ash mottles were most dense in the SW quarter of the trench (where patches of peat ash were first observed during the removal of C1004) and hence seem to be associated with the underlying features 3 and 4 (see below). They were less frequent or clear along the E section and in the N part – hence in the lowest parts – of the trench. Therefore, C1010 was not considered to cover these areas, but the outline was not evident. Some finds from grid squares K-L 105-106 and G-L 110-110, which were recovered during the final cleaning of the trench, were inconsequently

assigned to C1010 (their find spots actually lying outside the recorded outline of C1010). However, hardly any material was removed from these areas, and we prefer to leave this error rather than trying to iron it out by re-drawing the outline of C1010 or assigning the finds to another context *a posteriori*.

Apart from the red mottles, C1010 again appeared similar to the large contexts that overlay it; it contained many mostly sharp-edged stones, including some boulders of up to 50cm diameter. One of them, Find no. 471, a large granite (?) boulder, which was found at the border of grid squares I-J 104-105, had a smooth concave face, which may have been worked. A zone with less dense stones in the area surrounding square J106, was already observed on the upper surface of C1010 and became even more distinct towards the bottom surface of the context. In most places, C1010 was no more than 5cm thick. The find assemblage from this context is quite similar to that of C1004 and C1005, but C1010 didn't yield as many finds. Most notably, C1010 contained significantly fewer pottery fragments than the former contexts. Bones mainly concentrated in the N part of the context, while metal slag was mainly found in the S part (Fig. 15, A and C). The initial find database lists an isolated concentration of 22 pieces of slag from square J107, but this needs to be checked². Shells and whelks appeared in all parts of the context but showed a slight concentration in the S part (Fig. 15, D), whereas pottery fragments did not show any significant concentration at all (Fig. 15, B). Special finds from C1010 include two pieces of perforated and incised bone (or antler?) artefacts (SF 435, SF 446).

At the S edge of the trench, in squares I-L 100-101, C1010 came off to a natural gravel layer, presenting the eroded bedrock surface. However, C1010 overlay several contexts in the lower parts of the trench, including a number of interesting features (Fig. 16). Unfortunately, they were merely uncovered but could not be fully excavated. Hence, the contexts underlying C1010 and their stratigraphic relationships could not be fully studied and it is difficult to interpret the features.

² The double number may well be a typing error; this will have to be checked during the specialist find analysis.

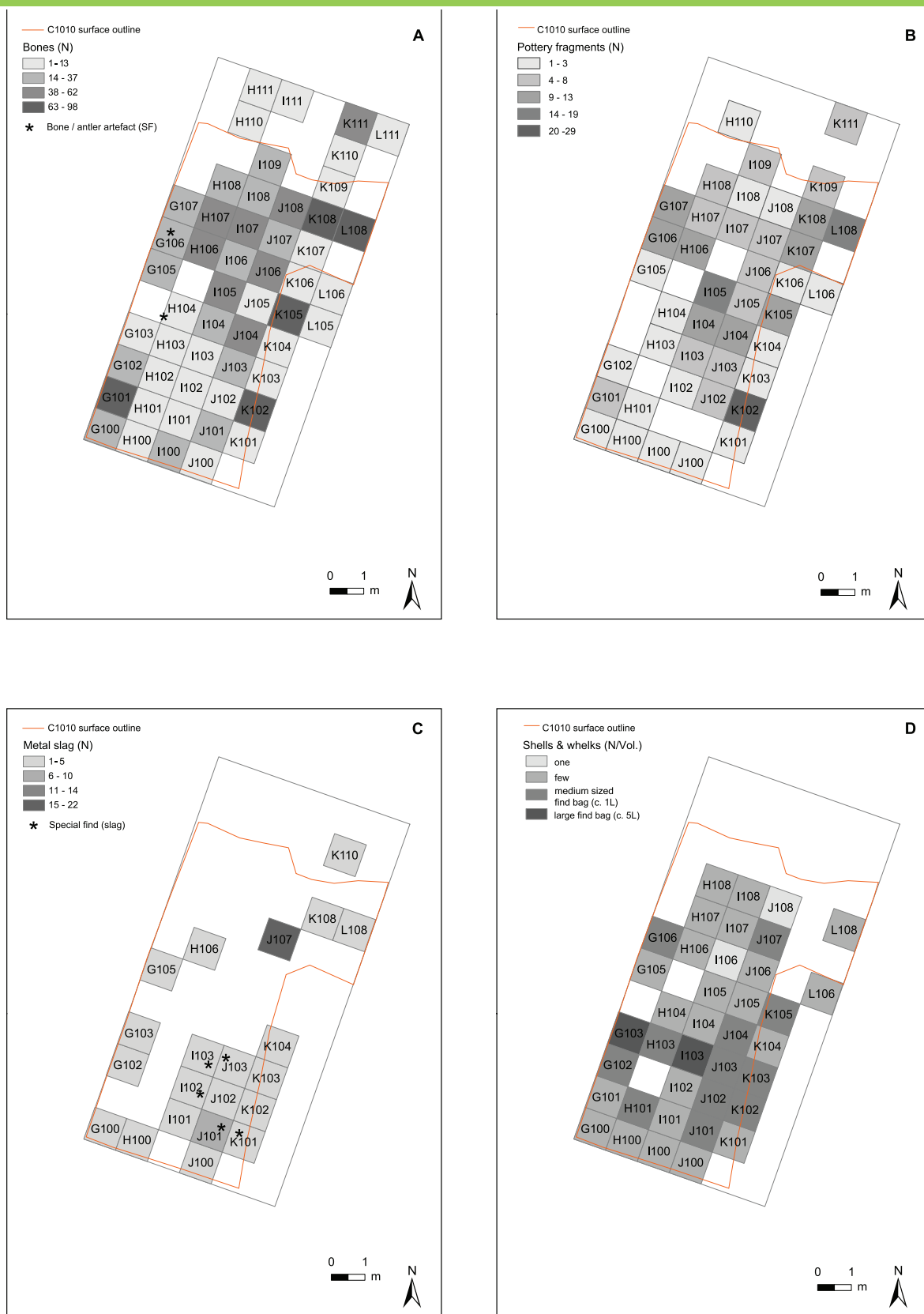


Fig. 15 Distribution of finds attributed to C1010. A – Animal bones; B – Pottery fragments; C – Metal slag; D – Shells and whelks. Classified by standard deviation (except shells and whelks).

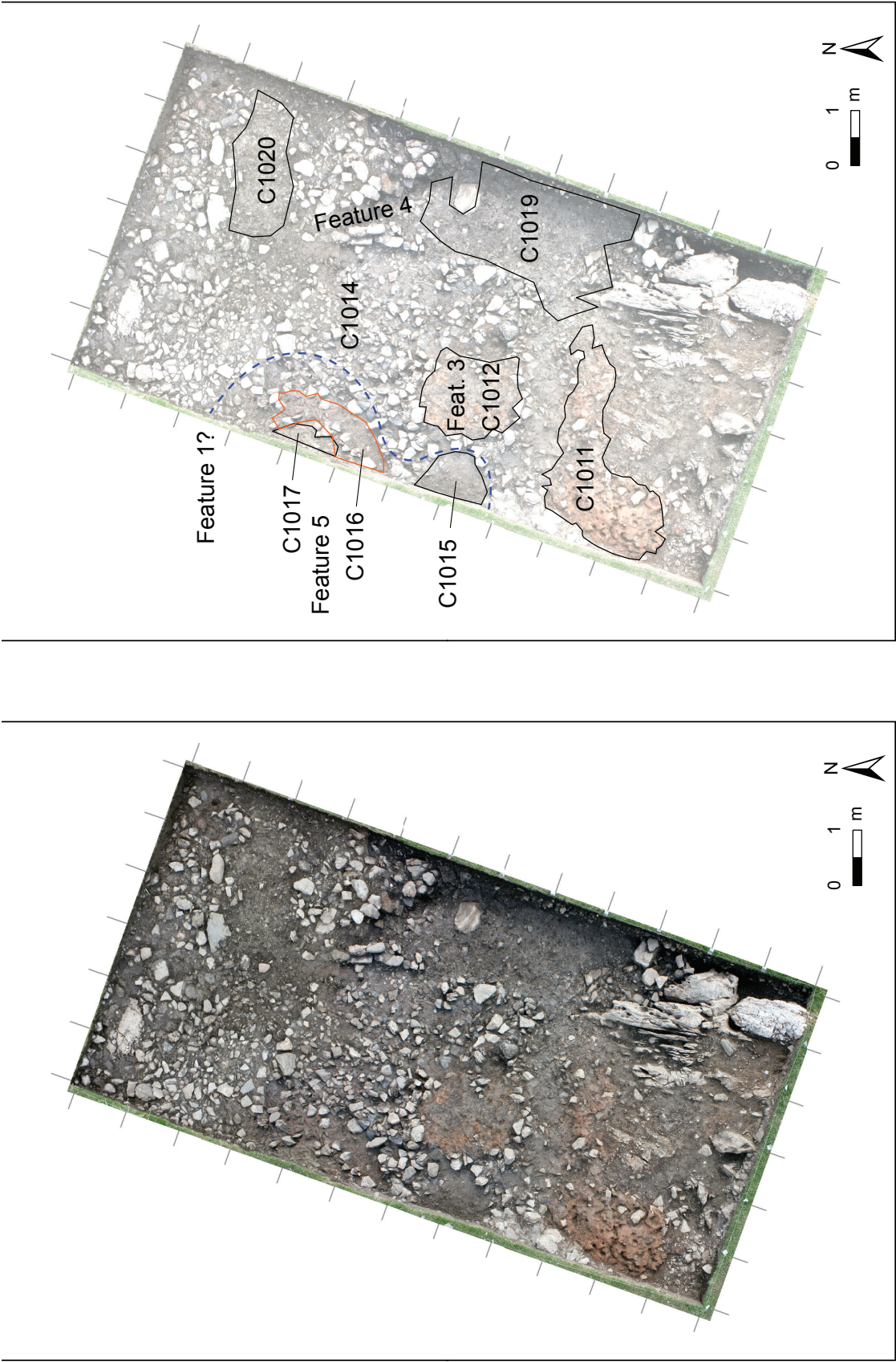


Fig. 16 Final documentation level of trench 1 with the outlines of C1011-C1020 as observed after the removal of C1010.

A large, L-shaped peat ash deposit was encountered in the SW corner of the trench (squares G-H 101-103), measuring c. 2.5 x 3m (C1011) (Fig. 16). Single patches of peat ash, which had been observed at the higher documentation levels and were initially regarded as inclusions in the overlying layers, in fact presented the upper part of C1011. The context corresponds to a large, positive magnetic anomaly encountered during the 2010 survey (Fig. 17). Although the context was not fully excavated, several samples were taken for archaeomagnetic and palaeoenvironmental analysis by Zoe Outram, Bradford University. As the total extent of the deposit wasn't yet clear at the time of the sampling, all samples were taken in square G101 and mistakenly considered to be part of C1010. The first step of the archaeomagnetic analysis will reveal whether the burnt material was *in situ* or has been re-deposited (archaeomagnetic dating of the samples only being possible in the former case). Small pieces of burnt bone as well as charcoal were observed in C1011, a number of bone fragments were lifted. The context had a very uneven surface, with numerous slots and cavities of up to c. 8cm deep. Some of these may have been formed as stones from the overlying deposits were pressed into the soft deposit. However, most of them were filled with dark, sandy deposit from the overlying contexts and may thus have been present before the deposition of the latter.

Another obviously fired deposit was encountered in the central part of the trench (C1012). It covered a rectangular area of c. 1.7 x 1.5 m, surrounded by sharp-edged stones of up to 30cm diameter, which was later termed feature 3 (Fig. 18). C1012 lay slightly higher than the surrounding area and consisted of fine clay and/or peat ash. It had an orange colour at the sides and a rather light brown to greyish centre. The change in colour may be caused by a gradual heat difference from a central fire and indicates that the deposit is *in situ*. Hence, the feature seemed to offer good opportunities for archaeomagnetic dating and 30 samples were taken for this purpose. The burnt material of C1012 caused a strong, positive anomaly in the geomagnetic survey (see Fig. 17). Feature 3 may be interpreted as a

hearth. However, although the rectangular shape is remarkable, it is not clear whether the stones underlying C1012 form a proper stone lining, or are simply part of the underlying stone rumble (C1014). At least the

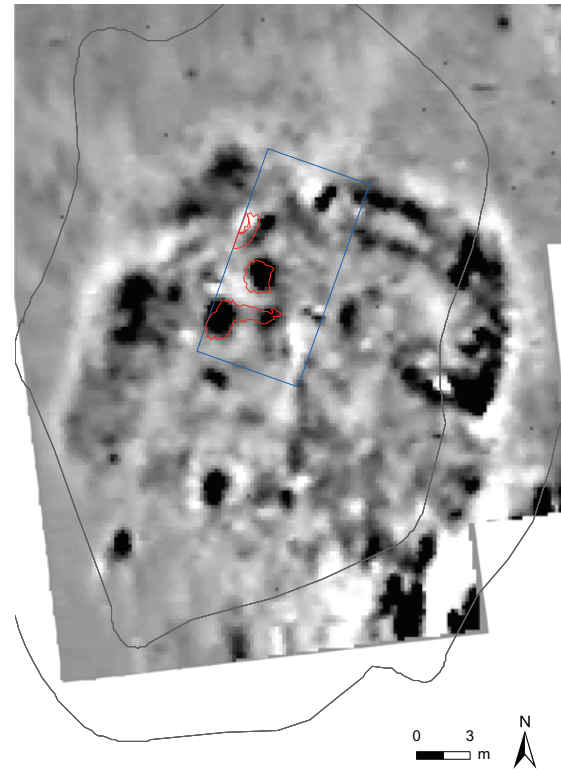


Fig. 17 Extent of trench 1 with the outlines of contexts containing peat ash / burnt material on the final documentation level (C1011-C1012, C1016-C1017) overlain on the geomagnetic survey data recorded in 2010 and OS Master Map data (© Crown Copyright/database right 2010. An Ordnance Survey/EDINA supplied service).



Fig. 18 Feature 3; possible hearth in grid squares H-I 104-105.

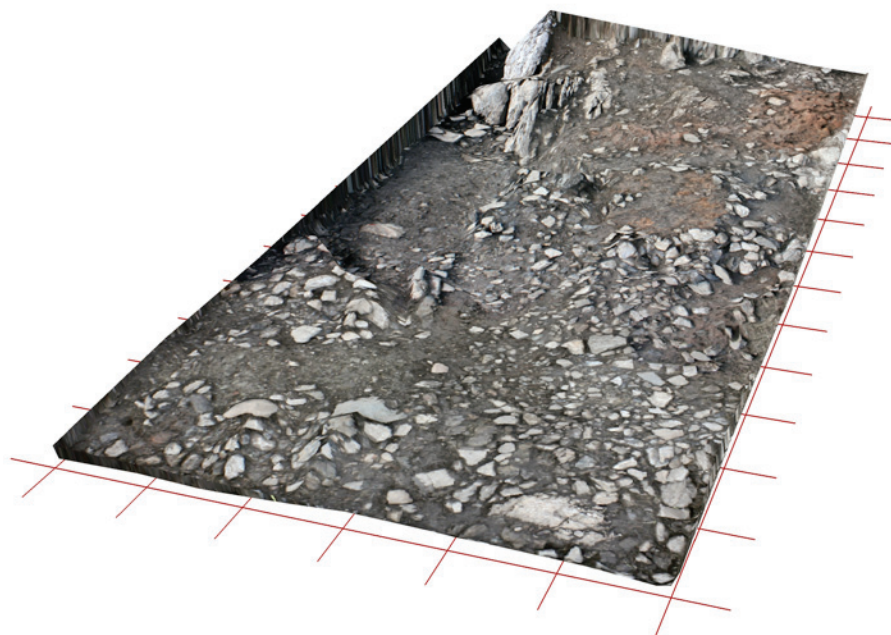


Fig. 19 Digital terrain model (TIN) of the final documentation level of trench 1 with orthophoto draped onto it. View towards the south.

stones were not flat-faced and did not seem to have been placed in a special position to provide a neat lining.

C1013 was originally defined as a layer of reddish to dark brown soil between and under the stones N of feature 3, while the entire stone rumble covering the N half of the trench (possibly underlying all other contexts) was given the number C1014. However, C1013 and C1014 should probably be considered as one context (see *Fig. 16*). On the other hand, it is questionable if the stones visible at the final documentation level in fact all belong to the same context. Indeed, several concentrations and alignments were observed, indicating that C1014 may contain the remains of structures. None of these could be sufficiently distinguished to be termed individual features or contexts. Two converging stone alignments in grids J-L 107-108 were tentatively considered a feature (feature 4), but this could neither be clearly distinguished from the rest of C1014, nor easily interpreted (see *Fig. 16*). The alignments diverged by about 40° from N to S, opening out to a depression in the excavated surface covered by C1019. In the N part, where both alignments converged, they stood out some 25cm from the surface in between. The eastern alignment was

most distinct, presenting a sharp edge, as shown in the digital terrain model (*Fig. 19*). Its documented length covered c. 3m, but it may extend beyond the trench to the E. The W alignment was less distinct and stretched for at least 1.3m.

Although feature 4 seems quite obviously man-made and intentional, we do not know how to interpret it at present. It may well be part of a larger structure, which has not been recognised yet and may in fact extend beyond the trench.

To the west of feature 3, C1010 came off to a layer of medium brown soil with a high gravel content (C1015) (see *Fig. 16*). It presented a semi-circular feature, which probably extends further W beyond the excavated trench. It was framed by dense stone rumble to the S and N. To the E, C1015 was bordered by the stones at the base of feature 3. C1015 may well be part of the poorly recognised feature 1, as its location corresponds to the gravel layer noted already after the removal of C1002. In this case, C1015 would be stratigraphically younger than the surrounding stones and cut through C1014.

The latter also applies to another remarkable feature, which was observed to the north of C1015 in squares G106-108 (feature 5). It consists of two contexts,



Fig. 20 Feature 5 (C1016-C1017).

C1016 and C1017 (*Fig. 20*). Both contexts seem to be part of a circular feature of about 3m diameter, the larger part of which lay beyond the excavated trench. C1016 consisted of a band of dark red peat ash surrounding C1017; C1017 consisted of beige, sandy loam with a high gravel content. The mutual interface of both contexts is marked by a number of stones, again forming a semi-circle. Although C1017 was slightly higher than C1016, the latter seemed to be stratigraphically younger. Since neither of them was excavated, it is not clear to which context the stones between C1016 and C1017 belong – they might as well be part of the underlying deposit (C1014?). The location of C1016 and C1017 is marked by a bipolar, magnetic anomaly in the geomagnetic survey data (see *Fig. 17*), which may have been caused by the positively magnetised peat ash (C1016) and the apparently negatively magnetised material of C1017. The anomaly does not extend to the west of the trench.

Like C1015, C1016 and C1017 may also be part of feature 1 (see *Fig. 16*). It is indeed remarkable that the location of what is termed feature 5 was already marked by a semi-circular clearing (of a somewhat larger diameter) in the first documentation level, i.e. after the removal of the top soil. Hence, C1016 and C1017 may hold the key for the interpretation of feature 1. Since C1016 and C1017 were only partially uncovered, we do not dare give any interpretation of its former function at present.

C1018 was originally described as the continuation of C1010 at the N side of the trench. Its texture was considered similar to C1010, but without the peat ash mottles. However, the distinction from C1010 on the one hand and C1014 on the other hand

seems rather problematic (especially as the context was only partially excavated). For this reason we prefer to treat C1014 and C1018 as one context, acknowledging the fact that C1014 may have to be divided into several contexts upon further excavation.

While the bottom of trench 1 was still largely dominated by stone rumble at the final documentation level, the lowest part of the trench towards the E section was covered by a loamy, medium brown deposit containing fewer and smaller stones (C1019) (see *Fig. 16*). Its stratigraphic relationship to C1014 was not clarified.

Finally, an oval shaped deposit of light, greyish brown silt loam with a high gravel content was observed in squares J-L 109-110 (C1020). It measured c. 2.5 x 1m and seemed to overlie C1014. The context appeared similar to C1017 both with respect to colour and texture. Like the latter, C1020 may be associated with a dark-red peat-ash patch encountered in grid L111. The peat ash actually lies at the W end of one of the positively magnetised, linear anomalies revealed by the geomagnetic survey.

4.2 Trench 2

The top soil layer (C2000), consisting of peat, as well as grass and moss, which grew over the causeway stones, was manually removed (*Fig. 21*). To the west and east of the causeway, the top soil cover was c. 20 cm thick and directly overlay the natural gravel deposits of the former lake bottom. Between the stones that line the causeway the top soil was only about 5cm thick and directly overlaid the gravel fill of the causeway. Several pieces of post-medieval ceramics and one fragment of painted glass were recovered from C2000, all of which were found on the causeway and treated as special finds.

The fill of the causeway consisted of two layers of road metal. The upper layer, C2001, consisted of sharp-edged cobbles of up to 20cm and formed the walking surface of the causeway (*Fig. 21, A and D; Fig. 22*). It overlay a layer of somewhat coarser stones, which provided the base of the latter (C2002) (*Fig. 21, E; Fig. 23*). Apart from the slightly different distribution of the stone

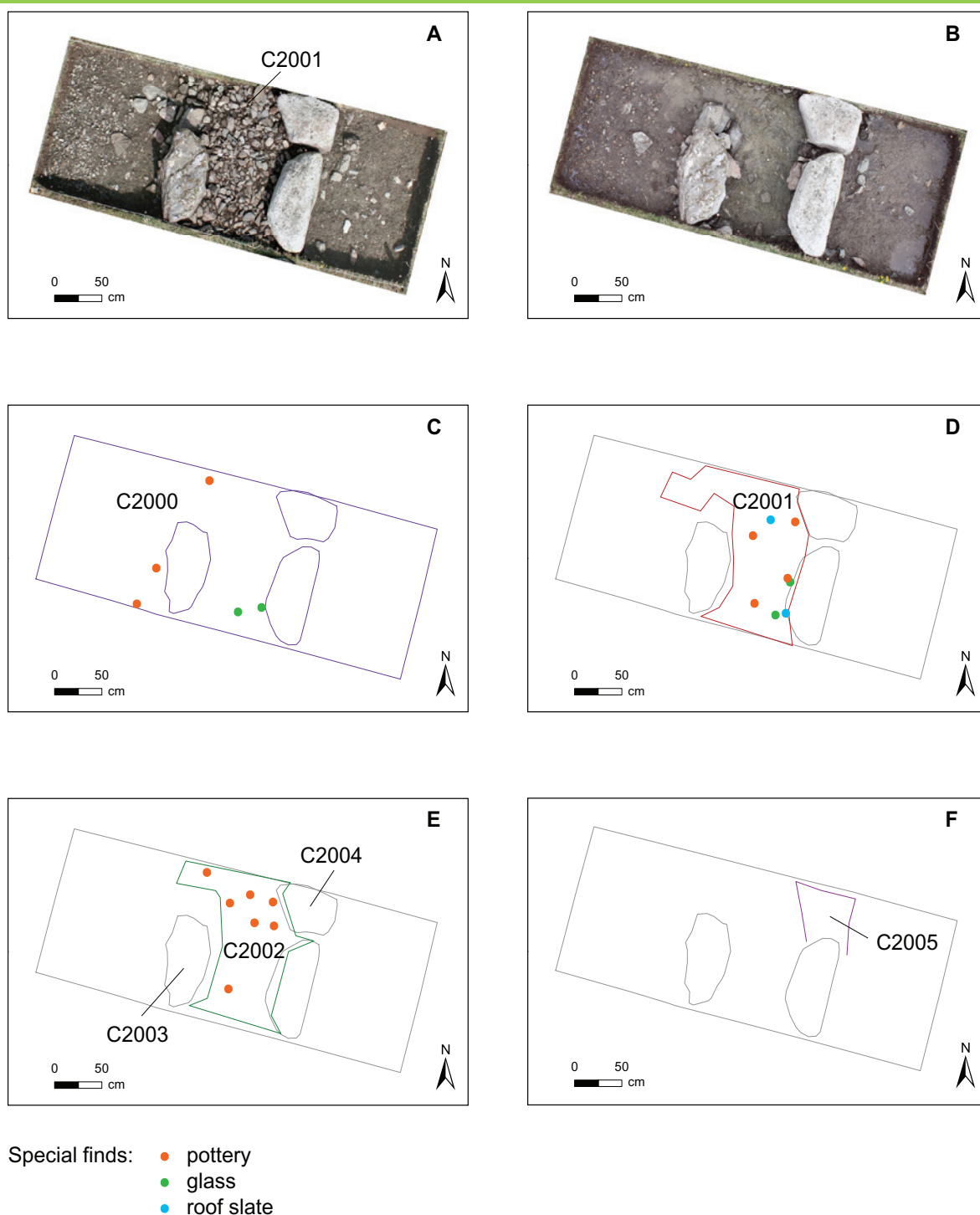


Fig. 21 Overview of the excavated contexts in trench 2. A: Orthophoto of the surface of C2001 after removal of the topsoil (C2000). B: Orthophoto of the causeway after the removal of the inner road metal fill (C2001 and C2002). C: Outline of trench 2 and the causeway stones at the start of the excavation (surface C2000). D: Outline of the top fill layer, C2001. E: Outline of the lower fill layer, C2002. F: Outline of the excavated part of C2005.

size, C2001 and C2002 were very similar, indicating that they may have been deposited during the same building phase. Both layers contained only post-medieval finds,

including glazed redware, stoneware, roof-slate and glass fragments. One pottery fragment (SF 283) was actually found under the stones of C2002, providing a clear *terminus*

postquem. C2002 came off to the natural gravel and stratigraphically overlay the top stones of the causeway (Fig. 21, B; Fig. 24). On the western side of the causeway, the material of C2001 and C 2002 had partly tumbled through a gap in the stone alignment, which probably emerged as one of the causeway stones fell out or was removed. The missing stone was not found on the outside of the causeway. It may either be hidden under the peat outside the trench, or indeed have been intentionally removed and taken away for some reason. It needs to be noted that the layer of footing stones at the base of the causeway (C2006, see below) was also interrupted in this place. The interface of the missing stone and the subsequent tumbling of C2001 and 2002 was included in the site matrix as C2009.

The flanks of the causeway (the large rocks that lined the causeway) again were built up of two construction layers. The upper part consisted of large boulders, which form the most remarkable part of the causeway. They were termed C2003 (west flank) and C2004 (east flank). The boulders were set on a base layer of smaller footing stones, C2006 and C2005 respectively (Fig. 21). The latter directly overlay the natural gravel layer and formed the (stratigraphically) oldest part of the causeway. Since the excavation of these contexts required the dismantling of a part of the causeway and did not promise to be very informative only one large stone from the eastern causeway flank and the underlying footing stones were lifted *pars pro toto* (Fig. 21, F). Surprisingly, a number of post-medieval pottery fragments and bones were found between the footing stones of C2005. This leads to the conclusion that the present causeway (at least at the spot of the trench) is not of medieval, Norse or even prehistoric age but seems to have been (re)constructed in the 18th or 19th century.

In addition to the excavation the remains of the causeway were also surveyed and documented in detail. The plan drawing and the results of this will be presented in the final report.



Fig. 22 Top of the upper road metal fill (C2001) of the causeway after removal of topsoil.



Fig. 23 Top of the lower road metal fill (C2002) of the causeway.



Fig. 24 Causeway in trench 2 after the removal of the road metal fill (C2001 & C2002). Note the gap in the western causeway flank.

5 Preliminary interpretation

The interpretation and discussion of the site depends largely on the results of the archaeomagnetic dating as well as the analysis of the pottery, faunal remains and other materials which is currently being undertaken by various specialists. Hence, the present lines discuss the site on basis of the evidence at hand and the interpretation is only of interim character.

5.1 Trench 1

Although a number of contexts and features were excavated no clear structures were discovered in trench 1. Feature 2, a stone lined pit, overlain by C1005, was the only distinct stone made feature, and the recovered artefacts suggest a prehistoric age. However, its function is unclear and the feature cannot be seen in context with any other structures as yet.

A semicircular feature (feature 1) (the other half probably extending beyond the trench), consisting of a beige, gravelly deposit (C1017) surrounded by a ring of peat ash (C1016), was discovered in the western part of the trench. It possibly presents the remains of a fire place. However, since C1016 and C1017 were only partially uncovered and not excavated we do not dare give any interpretation of the feature's function at present. Upon re-evaluation of the documentation, it was noted that the outline of feature 1 was already vaguely visible in the upper soil levels.

Another possible fireplace or hearth is represented by feature 3 (C1012) just SE of feature 1 (*Figs. 16-18*). The hearth has a size of c. 1.7 x 1.5 m and had already been detected during the geophysical survey as it had caused a strong, positive anomaly. Samples for archaeomagnetic dating were taken and the analysis is currently in process.

C1011 in the SW corner of the trench, a L-shaped peat ash deposit (**Fig. 16**), might also be the remains of another fireplace / hearth or re-deposited peat ash from a fireplace nearby. This feature too was sampled for archaeomagnetic dating.

Hence, up to three possible fireplaces / hearths were discovered in trench 1. It is unclear whether these fireplaces were used

to prepare food or for shaping iron. Most of related contexts revealed a number of both burnt animal bones as well as metal slag (*Fig. 10, C*), the latter especially in the southern part of the trench. A first inspection of the metal slag suggests that all fragments are the remains of smithing prepared iron rather than from smelting ore (preliminary information by Mathias Mehofer, Vienna Institute of Archaeological Sciences).

A first inspection of the artefacts from trench 1 suggests that these date to the Iron Age and / or the Pictish period (with the exception of the few post-medieval artefacts).

5.2 Trench 2

The archaeology within trench 2 is much easier to interpret. It is clear from the stratigraphy and the recovered finds within the contexts that the causeway – at least at the spot of excavation – is of post-medieval date. A preliminary analysis of the post-medieval finds suggests a date of the late 18th and 19th century. It remains, however, unclear whether all of the causeway is a post-medieval structure or whether it was reconstructed in that period, replacing or adding to a older and now lost structure.

At present, no archaeological evidence for a use of the Ting Holm and the causeway in the Viking period and the Middle Ages has been found, either in trench 1 or in trench 2. However, this does not mean that the site was not used for assemblies during those periods. Although one might expect the meeting place to have been marked by certain features, the meetings themselves are not likely to have produced a significant archaeological record. Indeed, research on assembly sites in Scandinavia has shown that all assembly sites were located at prehistoric sites making use of older structures (e.g. Sanmark & Semple 2010, 108 f.). It is quite likely that the Holm was chosen for an assembly site not only for its natural and topographic setting but also because of its prehistoric remains and history.

It needs to be stressed again that this is only a first interpretation based on the impressions resulting from our time in the field. We need to wait for the various

specialist's reports which hopefully will not only provide us with an accurate dating of the contexts and finds but also give us a better idea of the biography of the site and its use over time.

6 Acknowledgements

We would like to express our gratitude to the Church of Scotland who owns the land of the Ting Holm and to Cecil Eunson, and Historic Scotland for giving us permission to dig at the Law Ting Holm. Val Turner of Shetland Amenity Trust gave us invaluable support prior to and during the excavation, and we are much obliged to the Shetland Amenity Trust for lending us tools and the excavation cabin. We are also much indebted to Rev. Wilma A. Johnston and the parish community of Tingwall Kirk for letting us use certain facilities.

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Last but not least, the authors would like to thank the excavation team members for their great commitment (even in harsh weather conditions) and the joyful time spent together in Shetland, as well as to the local residents and people who showed interest in our work during the open day or otherwise.

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Appendix 1: context register

Trench 1

<i>context</i>	<i>unit type</i>	<i>description</i>	<i>inclusions</i>	<i>colour</i>	<i>part of feature</i>	<i>interpretation</i>
1000	layer	Topsoil layer, peat with sandy loam and isolated cobbles.	Stones: 10% <20cm, sharp-edged. Organic: grass roots, 20%.	dark brown		Topsoil
1001	layer	Oval-shaped context appearing as a clearing in the underlying stone rumble. Sandy loam, weak, moist, well sorted	Stones: 15%, <10cm, sharp-edged	medium/ light brown		Fill of shallow depression, possibly part of topsoil.
1002	layer	Poorly delimited context along the western profile, appearing as a clearing in the underlying stone rumble. Sandy silt loam with a high organic content.	Stones: 20% <2cm, sharp-edged, 5% 2-10 cm, sharp-edged. Organic: humus, 50%. Grass roots, 5%.	medium brown	1?	Upper fill of feature 1?
1003	layer	Thin horizontal layer of pebbles along large bedrock outcrop in SE corner of trench.	Stones: 70% 1-6 cm, both rounded and sharp-edged. Mottles at the bottom (not specified). Organic: roots	dark brown		No interpretation given at present.
1004	layer	Mixed layer of sandy loam with stones and midden deposit, covering the whole trench. Differences in structure were noticed, but could not be clearly delimited.	Stones: 10% < 1cm, sharp-edged & rounded; 5% 1-5cm, sharp-edged; 5% 5-20cm, sharp-edged. Organic: charcoal, 5%, <1cm. Roots 5%.	dark brown		Midden deposit
1005	layer	Sandy loam, firm, moist, poorly sorted.	Stones: 30% <6cm, sharp-edged; 5% 6-20cm, sharp-edged. Organic: charcoal, 5%, <2cm.	dark brown		Midden deposit
1006	layer	Concentration of larger cobbles and boulders in the SW-corner of trench 1.	Stones: 10% >25cm, sharp-edged; 70 % 6-25cm, sharp-edged and rounded.			Possibly tumble from a structure S of trench 1
1007	layer	Concentration of larger cobbles and boulders in the NW-corner of trench 1.	Stones: 90%, size not specified, both sharp-edged and rounded.			Possibly tumble from a structure beyond the extent of trench 1.
1008	layer	Small context filling the space between C1009 and bedrock. Sandy clay loam with cobbles, very similar to C1005.	Stones: 5% >10cm, sharp-edged.	dark brown	2?	Backfill between C1009 and rock?
1009	stone	Stone structure in SE corner	-		2	Stone lined 'pit'
1010	layer	Large deposit of sandy loam containing midden material and stones, characterised by red (peat ash?) mottles.	Stones: 15% 6-25cm, sharp-edged; 5% >25cm, sharp-edged. Mottles: 30 % 1-10cm, red. Organic: charcoal 1%. Roots 1%.	dark brown		Midden deposit?
1011	layer	Peat ash deposit with jolty surface. Not	Stone: 5 % 6-25cm. Organic: charcoal 1%.	red		Probably redeposited,

		excavated.	Burnt bone fragments 1%.			burnt material
1012	layer	Square peat ash deposit. Not excavated.	Mottles: 40 %, greyish. Organic: charcoal, 1%.	dark orange / beige	3	Fireplace?

Trench 2

<i>context</i>	<i>unit type</i>	<i>description</i>	<i>inclusions</i>	<i>colour</i>		<i>interpretation</i>
2000	layer	Top soil.	Stones: 10% <10cm, sharp-edged. Organic: roots, 20%.	dark brown		Top soil
2001	layer	Cobbles with sandy loam, weak, wet/moist, sorted. Fill of causeway between the large causeway stones.	Stones: 90% 10-20cm, sharp-edged. Organic: roots, 2%.			Layer of gravel and cobbles to provide a walking surface on the causeway
2002	layer	Cobbles with sandy loam. Fill of causeway, coarser than C2001.	Stones: 90% 10-25cm, sharp-edged. Organic: roots, 1%.			Layer of cobbles at the base of the causeway fill
2003	stone	West flank of causeway.	-			Causeway stones
2004	stone	East flank of causeway.	-			Causeway stones
2005	layer	Cobbles with sandy loam. Stone footing of eastern causeway flank.	Stones: 70% 5-30cm, sharp-edged. Organic: roots 5%.	dark brown		Causeway footing
2006	layer	Stone footing of western causeway flank, equivalent of C2005. Not excavated.	Similar to C2005.			Causeway footing
2007	layer	Fine gravel band, upper layer of alluvial deposits below causeway.	Stones: 80% <2cm, rounded.	medium brown?		Geology
2008	layer	Second layer of natural (alluvial) gravel deposit below causeway.	Stones: 10% 6-25cm, sharp-edged and rounded; 20% 2-6cm, sharp-edged and rounded; 20% <2cm, rounded.	light greenish yellow		Geology
2009	feature interface	Interface of removal or falling out of one boulder from western causeway flank, causing the pavement to partly slide down towards the west.	-	-		Destruction interface

Appendix 2: drawing register

drawing no.	trench	subject	scale
1	2	N-profile	1:20
2	1	E-profile	1:20
3	1	S-profile	1:20

Appendix 3: photo register

file name	original file name	image size	date + time	focal length
c1000_top if_North_side (2).JPG	IMG_9190.JPG	7,98MB	02.05.11 14:08	18 mm
c1000_top if_North_side (3).JPG	IMG_9191.JPG	7,85MB	02.05.11 14:08	18 mm
c1000_top if_North_side (4).JPG	IMG_9192.JPG	7,61MB	02.05.11 14:08	18 mm
c1000_top if_North_side (5).JPG	IMG_9193.JPG	7,55MB	02.05.11 14:08	18 mm
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c1000_top if_North_side (7).JPG	IMG_9195.JPG	3,67MB	02.05.11 14:09	18 mm
c1000_top if_North_side (8).JPG	IMG_9196.JPG	3,61MB	02.05.11 14:09	18 mm
c1000_top if_North_side (1).JPG	IMG_9197.JPG	4,21MB	02.05.11 14:09	18 mm
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c1000_top if_NorthWest_side (11).JPG	IMG_9242.JPG	6,22MB	03.05.11 09:38	18 mm
Causeway_general view north.JPG	IMG_9246.JPG	6,56MB	03.05.11 09:38	18 mm

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Causeway_general view south.JPG	IMG_9249.JPG	9,83MB	03.05.11 09:39	18 mm
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C1001-1004_top (61).JPG	IMG_9369.JPG	7,51MB	04.05.11 14:52	42 mm
C1001-1004_top (62).JPG	IMG_9370.JPG	7,74MB	04.05.11 14:52	42 mm

file name	original file name	image size	date + time	focal length
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C2000_working shot (1).JPG	IMG_9377.JPG	7,78MB	04.05.11 16:48	23 mm
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C2001_top if_photogrammetry_east (2).JPG	IMG_9395.JPG	9,40MB	05.05.11 11:41	18 mm
C2001_top if_photogrammetry_east (3).JPG	IMG_9396.JPG	9,24MB	05.05.11 11:41	18 mm
C2001_top if_photogrammetry_east (4).JPG	IMG_9397.JPG	9,35MB	05.05.11 11:41	18 mm
C2001_top if_photogrammetry_east (5).JPG	IMG_9398.JPG	9,34MB	05.05.11 11:41	18 mm
C2001_top if_photogrammetry_east (6).JPG	IMG_9399.JPG	9,29MB	05.05.11 11:41	18 mm
C2001_top if_photogrammetry_east (1).JPG	IMG_9400.JPG	9,00MB	05.05.11 11:41	18 mm
C2001_top if_crane photo (1).JPG	IMG_9401.JPG	9,57MB	05.05.11 11:54	18 mm
C2001_top if_crane photo (2).JPG	IMG_9402.JPG	9,45MB	05.05.11 11:54	18 mm
C2001_top if_crane photo (3).JPG	IMG_9403.JPG	9,42MB	05.05.11 11:54	18 mm
C2001_top if_crane photo (4).JPG	IMG_9404.JPG	9,79MB	05.05.11 11:54	18 mm
C2001_top if_crane photo (5).JPG	IMG_9405.JPG	9,56MB	05.05.11 11:54	18 mm
C2001_top if_crane photo (6).JPG	IMG_9406.JPG	9,45MB	05.05.11 11:55	18 mm
C2001_top if_crane photo (7).JPG	IMG_9407.JPG	9,55MB	05.05.11 11:55	18 mm
C2001_top if (1).JPG	IMG_9408.JPG	7,86MB	05.05.11 12:25	21 mm
C2001_top if (2).JPG	IMG_9409.JPG	6,88MB	05.05.11 12:25	25 mm
C2001_top if (3).JPG	IMG_9410.JPG	7,15MB	05.05.11 12:25	23 mm
C2001_top if (4).JPG	IMG_9411.JPG	7,51MB	05.05.11 12:26	23 mm
C2001_top if (5).JPG	IMG_9412.JPG	7,05MB	05.05.11 12:26	23 mm
C2001_top if (6).JPG	IMG_9413.JPG	7,02MB	05.05.11 12:26	23 mm
C2001_top if (7).JPG	IMG_9414.JPG	8,01MB	05.05.11 12:26	21 mm
C2001_top if (8).JPG	IMG_9415.JPG	7,07MB	05.05.11 12:26	28 mm
C2001_top if (9).JPG	IMG_9416.JPG	6,17MB	05.05.11 12:27	37 mm
C2001_top if (10).JPG	IMG_9417.JPG	6,08MB	05.05.11 12:27	37 mm
C2001_top if (11).JPG	IMG_9418.JPG	7,70MB	05.05.11 12:28	32 mm
C2001_top if (12).JPG	IMG_9419.JPG	8,34MB	05.05.11 12:28	18 mm
C2001_top if (13).JPG	IMG_9420.JPG	6,79MB	05.05.11 12:28	40 mm
C2001_top if (14).JPG	IMG_9421.JPG	6,97MB	05.05.11 12:29	24 mm
C2001_top if (15).JPG	IMG_9422.JPG	7,47MB	05.05.11 12:29	24 mm

file name	original file name	image size	date + time	focal length
Causeway_westprofile (13).JPG	IMG_9423.JPG	5,72MB	05.05.11 13:16	18 mm
Causeway_westprofile (14).JPG	IMG_9424.JPG	4,40MB	05.05.11 13:17	18 mm
Causeway_westprofile (15).JPG	IMG_9425.JPG	4,52MB	05.05.11 13:17	18 mm
Causeway_westprofile (16).JPG	IMG_9426.JPG	4,57MB	05.05.11 13:17	18 mm
Causeway_westprofile (17).JPG	IMG_9427.JPG	3,89MB	05.05.11 13:17	18 mm
Causeway_westprofile (18).JPG	IMG_9428.JPG	4,57MB	05.05.11 13:18	18 mm
Causeway_westprofile (19).JPG	IMG_9429.JPG	7,70MB	05.05.11 13:18	32 mm
Causeway_westprofile (20).JPG	IMG_9430.JPG	7,24MB	05.05.11 13:18	37 mm
Causeway_westprofile (21).JPG	IMG_9431.JPG	7,83MB	05.05.11 13:18	35 mm
Causeway_westprofile (8).JPG	IMG_9432.JPG	7,24MB	05.05.11 13:18	23 mm
Causeway_westprofile (9).JPG	IMG_9433.JPG	6,50MB	05.05.11 13:18	23 mm
Causeway_westprofile (10).JPG	IMG_9434.JPG	5,81MB	05.05.11 13:19	20 mm
Causeway_westprofile (11).JPG	IMG_9435.JPG	4,59MB	05.05.11 13:19	18 mm
Causeway_westprofile (12).JPG	IMG_9436.JPG	6,41MB	05.05.11 13:19	20 mm
Causeway_westprofile (1).JPG	IMG_9437.JPG	6,56MB	05.05.11 13:38	33 mm
Causeway_westprofile (2).JPG	IMG_9438.JPG	7,36MB	05.05.11 13:38	28 mm
Causeway_westprofile (3).JPG	IMG_9439.JPG	6,86MB	05.05.11 13:38	32 mm
Causeway_westprofile (4).JPG	IMG_9440.JPG	8,00MB	05.05.11 13:38	25 mm
Causeway_westprofile (5).JPG	IMG_9441.JPG	8,44MB	05.05.11 13:38	27 mm
Causeway_westprofile (6).JPG	IMG_9442.JPG	6,40MB	05.05.11 13:38	43 mm
Causeway_westprofile (7).JPG	IMG_9443.JPG	7,11MB	05.05.11 13:38	43 mm
Causeway_westprofile (22).JPG	IMG_9444.JPG	6,93MB	05.05.11 13:38	37 mm
C2002_working shot (1).JPG	IMG_9445.JPG	7,36MB	05.05.11 16:10	34 mm
C2002_working shot (2).JPG	IMG_9446.JPG	7,23MB	05.05.11 16:10	34 mm
C2002_working shot (3).JPG	IMG_9447.JPG	7,57MB	05.05.11 16:10	32 mm
C2002_working shot (4).JPG	IMG_9448.JPG	7,85MB	05.05.11 16:10	32 mm
C2002_top if (1).JPG	IMG_9489.JPG	8,31MB	09.05.11 10:19	33 mm
C2002_top if (2).JPG	IMG_9490.JPG	7,73MB	09.05.11 10:19	20 mm
C2002_top if (3).JPG	IMG_9491.JPG	7,41MB	09.05.11 10:19	28 mm
C2002_top if (4).JPG	IMG_9492.JPG	8,19MB	09.05.11 10:20	23 mm
C2002_top if (5).JPG	IMG_9493.JPG	6,15MB	09.05.11 10:20	35 mm
C2002_top if (6).JPG	IMG_9494.JPG	7,31MB	09.05.11 10:20	25 mm
C2002_top if (7).JPG	IMG_9495.JPG	6,87MB	09.05.11 10:21	33 mm
C2002_top if (8).JPG	IMG_9496.JPG	7,91MB	09.05.11 10:21	18 mm
C2002_top if (9).JPG	IMG_9497.JPG	6,90MB	09.05.11 10:21	18 mm
C2002_top if (10).JPG	IMG_9498.JPG	7,25MB	09.05.11 10:21	27 mm
C2002_top if (11).JPG	IMG_9499.JPG	7,12MB	09.05.11 10:21	30 mm
C2002_top if_photogrammetry (2).JPG	IMG_9501.JPG	7,81MB	09.05.11 10:30	18 mm
C2002_top if_photogrammetry (3).JPG	IMG_9502.JPG	7,19MB	09.05.11 10:30	18 mm
C2002_top if_photogrammetry (4).JPG	IMG_9503.JPG	7,52MB	09.05.11 10:30	18 mm
C2002_top if_photogrammetry (5).JPG	IMG_9504.JPG	7,29MB	09.05.11 10:30	18 mm
C2002_top if_photogrammetry (6).JPG	IMG_9505.JPG	7,80MB	09.05.11 10:30	18 mm
C2002_top if_photogrammetry (7).JPG	IMG_9506.JPG	8,16MB	09.05.11 10:31	18 mm
C2002_top if_photogrammetry (8).JPG	IMG_9507.JPG	8,01MB	09.05.11 10:31	18 mm
C2002_top if_photogrammetry (1).JPG	IMG_9508.JPG	7,45MB	09.05.11 10:31	18 mm
C1004_L100_shells.JPG	IMG_9509.JPG	6,71MB	09.05.11 10:46	18 mm
C1004_G-H102_shells (1).JPG	IMG_9512.JPG	6,08MB	09.05.11 11:15	18 mm
C1004_G-H102_shells (3).JPG	IMG_9513.JPG	7,77MB	09.05.11 11:15	21 mm

file name	original file name	image size	date + time	focal length
C1004_G-H102_shells (4).JPG	IMG_9514.JPG	7,78MB	09.05.11 11:15	18 mm
C1004_G-H102_shells (5).JPG	IMG_9515.JPG	8,21MB	09.05.11 11:15	18 mm
C1004_G-H102_shells (6).JPG	IMG_9516.JPG	5,66MB	09.05.11 11:15	47 mm
C1004_G-H102_shells (7).JPG	IMG_9517.JPG	7,14MB	09.05.11 11:15	35 mm
C1004_G-H102_shells (8).JPG	IMG_9518.JPG	7,85MB	09.05.11 11:15	35 mm
C1004_G-H102_shells (9).JPG	IMG_9519.JPG	7,06MB	09.05.11 11:15	43 mm
C1004_G-H102_shells (10).JPG	IMG_9520.JPG	5,85MB	09.05.11 11:16	55 mm
C1004_G-H102_shells (2).JPG	IMG_9524.JPG	6,48MB	09.05.11 11:17	55 mm
C1004_G-H102_shells (11).JPG	IMG_9525.JPG	8,53MB	09.05.11 11:17	30 mm
C2003-2004_top if (2).JPG	IMG_9526.JPG	7,48MB	09.05.11 14:25	23 mm
C2003-2004_top if (3).JPG	IMG_9527.JPG	6,28MB	09.05.11 14:25	35 mm
C2003-2004_top if (4).JPG	IMG_9528.JPG	5,58MB	09.05.11 14:25	37 mm
C2003-2004_top if (5).JPG	IMG_9529.JPG	7,14MB	09.05.11 14:25	18 mm
C2003-2004_top if (6).JPG	IMG_9530.JPG	7,46MB	09.05.11 14:25	18 mm
C2003-2004_top if (7).JPG	IMG_9531.JPG	7,50MB	09.05.11 14:26	25 mm
C2003-2004_top if (8).JPG	IMG_9532.JPG	7,39MB	09.05.11 14:26	25 mm
C2003-2004_top if (9).JPG	IMG_9533.JPG	6,58MB	09.05.11 14:26	29 mm
C2003-2004_top if (10).JPG	IMG_9534.JPG	6,45MB	09.05.11 14:26	40 mm
C2003-2004_top if (11).JPG	IMG_9535.JPG	6,04MB	09.05.11 14:27	55 mm
C2003-2004_top if (12).JPG	IMG_9536.JPG	5,82MB	09.05.11 14:27	18 mm
C2003-2004_top if (1).JPG	IMG_9537.JPG	6,86MB	09.05.11 14:27	24 mm
c1004_SF209_SF211 (1).JPG	IMG_9541.JPG	6,97MB	10.05.11 11:12	21 mm
c1004_SF209_SF211 (2).JPG	IMG_9542.JPG	7,03MB	10.05.11 11:13	21 mm
c1004_SF209_SF211 (3).JPG	IMG_9543.JPG	7,25MB	10.05.11 11:13	23 mm
c1004_SF209_SF211 (4).JPG	IMG_9544.JPG	8,14MB	10.05.11 11:13	21 mm
c1004_SF209_SF211 (5).JPG	IMG_9545.JPG	9,82MB	10.05.11 11:13	30 mm
c1004_SF209_SF211 (6).JPG	IMG_9546.JPG	6,73MB	10.05.11 11:13	50 mm
c1004_SF209_SF211_photogrammetry (9).JPG	IMG_9548.JPG	6,93MB	10.05.11 11:20	18 mm
c1004_SF209_SF211_photogrammetry (10).JPG	IMG_9549.JPG	7,50MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (11).JPG	IMG_9550.JPG	7,35MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (1).JPG	IMG_9551.JPG	7,14MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (2).JPG	IMG_9552.JPG	6,81MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (3).JPG	IMG_9553.JPG	7,25MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (4).JPG	IMG_9554.JPG	7,37MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (5).JPG	IMG_9555.JPG	7,73MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (6).JPG	IMG_9556.JPG	7,87MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (7).JPG	IMG_9557.JPG	7,76MB	10.05.11 11:21	18 mm
c1004_SF209_SF211_photogrammetry (8).JPG	IMG_9558.JPG	8,02MB	10.05.11 11:21	18 mm
C1004_L107-108 (2).JPG	IMG_9559.JPG	8,17MB	10.05.11 13:19	18 mm
C1004_L107-108 (3).JPG	IMG_9560.JPG	8,71MB	10.05.11 13:19	18 mm
C1004_L107-108 (4).JPG	IMG_9561.JPG	8,72MB	10.05.11 13:19	39 mm
C1004_L107-108 (5).JPG	IMG_9562.JPG	6,30MB	10.05.11 13:19	53 mm
C1004_L107-108 (1).JPG	IMG_9563.JPG	8,31MB	10.05.11 13:20	18 mm
C1006_top if (20).JPG	IMG_9564.JPG	7,64MB	10.05.11 16:28	18 mm
C1006_top if (21).JPG	IMG_9565.JPG	7,71MB	10.05.11 16:28	18 mm
C1006_top if (22).JPG	IMG_9566.JPG	7,77MB	10.05.11 16:29	18 mm
C1006_top if (23).JPG	IMG_9567.JPG	7,75MB	10.05.11 16:32	18 mm
C1006_top if (24).JPG	IMG_9568.JPG	7,12MB	10.05.11 16:32	18 mm

file name	original file name	image size	date + time	focal length
C1006_top if (1).JPG	IMG_9569.JPG	7,70MB	10.05.11 16:33	18 mm
C1006_top if (2).JPG	IMG_9570.JPG	7,85MB	10.05.11 16:33	18 mm
C1006_top if (3).JPG	IMG_9571.JPG	7,02MB	10.05.11 16:33	18 mm
C1006_top if (4).JPG	IMG_9572.JPG	8,24MB	10.05.11 16:39	18 mm
C1006_top if (5).JPG	IMG_9573.JPG	7,46MB	10.05.11 16:40	18 mm
C1006_top if (6).JPG	IMG_9574.JPG	7,91MB	10.05.11 16:40	18 mm
C1006_top if (7).JPG	IMG_9575.JPG	7,86MB	10.05.11 16:40	18 mm
C1006_top if (8).JPG	IMG_9576.JPG	7,37MB	10.05.11 16:40	18 mm
C1006_top if (9).JPG	IMG_9577.JPG	7,81MB	10.05.11 16:40	18 mm
C1006_top if (10).JPG	IMG_9578.JPG	7,78MB	10.05.11 16:40	18 mm
C1006_top if (11).JPG	IMG_9579.JPG	7,91MB	10.05.11 16:40	18 mm
C1006_top if (12).JPG	IMG_9580.JPG	7,73MB	10.05.11 16:40	18 mm
C1006_top if (13).JPG	IMG_9581.JPG	7,60MB	10.05.11 16:40	18 mm
C1006_top if (14).JPG	IMG_9582.JPG	7,38MB	10.05.11 16:40	18 mm
C1006_top if (15).JPG	IMG_9583.JPG	7,58MB	10.05.11 16:40	18 mm
C1004_working shot (1).JPG	IMG_9584.JPG	7,45MB	10.05.11 16:41	18 mm
C1004_working shot (2).JPG	IMG_9585.JPG	7,59MB	10.05.11 16:41	18 mm
C1004_working shot (3).JPG	IMG_9586.JPG	7,98MB	10.05.11 16:41	18 mm
C1004_working shot (4).JPG	IMG_9587.JPG	8,29MB	10.05.11 16:41	18 mm
C1005_top_if (2).JPG	IMG_9598.JPG	8,04MB	11.05.11 13:55	18 mm
C1005_top_if (3).JPG	IMG_9599.JPG	8,28MB	11.05.11 13:55	18 mm
C1005_top_if (4).JPG	IMG_9600.JPG	8,39MB	11.05.11 13:55	18 mm
C1005_top_if (5).JPG	IMG_9601.JPG	8,33MB	11.05.11 13:56	18 mm
C1005_top_if (6).JPG	IMG_9602.JPG	8,22MB	11.05.11 13:56	18 mm
C1005_top_if (7).JPG	IMG_9610.JPG	7,76MB	11.05.11 16:20	18 mm
C1005_top_if (8).JPG	IMG_9611.JPG	8,04MB	11.05.11 16:20	18 mm
C1005_top_if (9).JPG	IMG_9612.JPG	8,38MB	11.05.11 16:20	18 mm
C1005_top_if (10).JPG	IMG_9613.JPG	8,25MB	11.05.11 16:23	18 mm
C1005_top_if (11).JPG	IMG_9614.JPG	8,17MB	11.05.11 16:23	18 mm
C1005_top_if (12).JPG	IMG_9615.JPG	7,27MB	11.05.11 16:23	18 mm
C1005_top_if (13).JPG	IMG_9616.JPG	7,74MB	11.05.11 16:24	18 mm
C1005_top_if (14).JPG	IMG_9617.JPG	8,06MB	11.05.11 16:24	18 mm
C1005_top_if (15).JPG	IMG_9618.JPG	8,37MB	11.05.11 16:24	18 mm
C1005_top_if (16).JPG	IMG_9619.JPG	8,33MB	11.05.11 16:24	18 mm
C1005_top_if (17).JPG	IMG_9620.JPG	8,16MB	11.05.11 16:24	18 mm
C1005_top_if (18).JPG	IMG_9621.JPG	8,21MB	11.05.11 16:24	18 mm
C1005_top_if (19).JPG	IMG_9622.JPG	8,20MB	11.05.11 16:24	18 mm
C1005_top_if (20).JPG	IMG_9623.JPG	7,45MB	11.05.11 16:24	18 mm
C1005_top_if (21).JPG	IMG_9624.JPG	8,50MB	11.05.11 16:24	18 mm
C1005_top_if (22).JPG	IMG_9625.JPG	9,23MB	11.05.11 16:37	18 mm
C1005_top_if (23).JPG	IMG_9626.JPG	9,22MB	11.05.11 16:37	18 mm
C1005_top_if (24).JPG	IMG_9627.JPG	9,04MB	11.05.11 16:43	18 mm
C1005_top_if (25).JPG	IMG_9628.JPG	9,11MB	11.05.11 16:43	18 mm
C1005_top_if (26).JPG	IMG_9629.JPG	8,87MB	11.05.11 16:44	18 mm
C1005_top_if (27).JPG	IMG_9630.JPG	9,26MB	11.05.11 16:56	18 mm
C1005_top_if (28).JPG	IMG_9631.JPG	9,22MB	11.05.11 16:56	18 mm
C1005_top_if (29).JPG	IMG_9632.JPG	9,22MB	11.05.11 16:56	18 mm
C1005_top_if (30).JPG	IMG_9633.JPG	9,26MB	11.05.11 16:58	18 mm

file name	original file name	image size	date + time	focal length
C1005_top_if (31).JPG	IMG_9634.JPG	8,95MB	11.05.11 16:59	18 mm
C1005_top_if (32).JPG	IMG_9635.JPG	9,18MB	11.05.11 17:03	18 mm
C1005_top_if (33).JPG	IMG_9636.JPG	8,54MB	11.05.11 17:06	18 mm
C1005_top_if (34).JPG	IMG_9637.JPG	8,40MB	11.05.11 17:07	18 mm
C1005_top_if (35).JPG	IMG_9638.JPG	8,45MB	11.05.11 17:07	18 mm
C1005_top_if (36).JPG	IMG_9639.JPG	6,89MB	11.05.11 17:07	18 mm
C1005_top_if (37).JPG	IMG_9640.JPG	8,52MB	11.05.11 17:07	18 mm
C1005_top_if (38).JPG	IMG_9641.JPG	7,10MB	11.05.11 17:07	18 mm
C1005_top_if (39).JPG	IMG_9642.JPG	8,32MB	11.05.11 17:07	18 mm
C1005_top_if (40).JPG	IMG_9643.JPG	8,42MB	11.05.11 17:07	18 mm
C1005_top_if (41).JPG	IMG_9644.JPG	8,45MB	11.05.11 17:07	18 mm
C1005_top_if (42).JPG	IMG_9645.JPG	8,38MB	11.05.11 17:07	18 mm
C1005_top_if (43).JPG	IMG_9646.JPG	7,60MB	11.05.11 17:07	18 mm
C1005_top_if (44).JPG	IMG_9647.JPG	8,32MB	11.05.11 17:07	18 mm
C1005_top_if (45).JPG	IMG_9648.JPG	8,09MB	11.05.11 17:07	18 mm
C1005_top_if (46).JPG	IMG_9649.JPG	8,11MB	11.05.11 17:07	18 mm
C1005_top_if (47).JPG	IMG_9650.JPG	8,17MB	11.05.11 17:07	18 mm
C1005_top_if (48).JPG	IMG_9651.JPG	8,41MB	11.05.11 17:08	18 mm
C1005_top_if (49).JPG	IMG_9652.JPG	8,42MB	11.05.11 17:08	18 mm
C1005_top_if (50).JPG	IMG_9653.JPG	3,95MB	11.05.11 17:24	18 mm
C1005_top_if (51).JPG	IMG_9654.JPG	3,91MB	11.05.11 17:24	18 mm
C1005_top_if (52).JPG	IMG_9655.JPG	4,71MB	11.05.11 17:25	18 mm
C1005_top_if (53).JPG	IMG_9656.JPG	4,68MB	11.05.11 17:25	18 mm
C1005_top_if (54).JPG	IMG_9657.JPG	4,18MB	11.05.11 17:25	18 mm
C1005_top_if (55).JPG	IMG_9658.JPG	5,66MB	11.05.11 17:27	18 mm
C1005_top_if (56).JPG	IMG_9659.JPG	5,66MB	11.05.11 17:27	18 mm
C1005_top_if (57).JPG	IMG_9660.JPG	5,59MB	11.05.11 17:27	18 mm
C1005_top_if (58).JPG	IMG_9661.JPG	7,30MB	11.05.11 17:27	48 mm
C1005_top_if (59).JPG	IMG_9662.JPG	8,20MB	11.05.11 17:27	34 mm
C1005_top_if (60).JPG	IMG_9663.JPG	6,17MB	11.05.11 17:27	24 mm
C1005_top_if (61).JPG	IMG_9664.JPG	6,67MB	11.05.11 17:27	23 mm
C1005_top_if (62).JPG	IMG_9665.JPG	6,89MB	11.05.11 17:27	23 mm
C1005_top_if (63).JPG	IMG_9666.JPG	5,55MB	11.05.11 17:29	18 mm
C1005_top_if (64).JPG	IMG_9667.JPG	6,53MB	11.05.11 17:29	23 mm
C1005_top_if (65).JPG	IMG_9668.JPG	7,27MB	11.05.11 17:29	25 mm
C1005_top_if (66).JPG	IMG_9669.JPG	7,41MB	11.05.11 17:29	27 mm
C1005_top_if (67).JPG	IMG_9670.JPG	7,93MB	11.05.11 17:29	33 mm
C1005_top_if (68).JPG	IMG_9671.JPG	6,94MB	11.05.11 17:30	23 mm
C1005_top_if (69).JPG	IMG_9672.JPG	6,26MB	11.05.11 17:30	28 mm
C1005_top_if (70).JPG	IMG_9673.JPG	6,48MB	11.05.11 17:30	27 mm
C1005_top_if (71).JPG	IMG_9674.JPG	4,66MB	11.05.11 17:31	25 mm
C1005_top_if (72).JPG	IMG_9675.JPG	4,70MB	11.05.11 17:32	24 mm
C1005_top_if (73).JPG	IMG_9676.JPG	6,44MB	11.05.11 17:32	20 mm
C1005_top_if (74).JPG	IMG_9677.JPG	6,60MB	11.05.11 17:32	21 mm
C1005_top_if (75).JPG	IMG_9678.JPG	7,00MB	11.05.11 17:32	32 mm
C1005_top_if (76).JPG	IMG_9679.JPG	4,99MB	11.05.11 17:32	18 mm
C1005_top_if (77).JPG	IMG_9680.JPG	5,12MB	11.05.11 17:32	23 mm
C1005_top_if (78).JPG	IMG_9681.JPG	5,20MB	11.05.11 17:33	20 mm

file name	original file name	image size	date + time	focal length
C1005_top_if (79).JPG	IMG_9682.JPG	4,99MB	11.05.11 17:33	42 mm
C1005_top_if (80).JPG	IMG_9683.JPG	4,62MB	11.05.11 17:33	55 mm
C1005_top_if (81).JPG	IMG_9684.JPG	7,29MB	11.05.11 17:36	24 mm
C1005_top_if (82).JPG	IMG_9685.JPG	7,27MB	11.05.11 17:36	24 mm
C1005_top_if (83).JPG	IMG_9686.JPG	7,67MB	11.05.11 17:36	24 mm
C1005_top_if (84).JPG	IMG_9687.JPG	8,57MB	11.05.11 17:36	24 mm
C1005_top_if (85).JPG	IMG_9688.JPG	7,22MB	11.05.11 17:36	24 mm
C1005_top_if (86).JPG	IMG_9689.JPG	8,28MB	11.05.11 17:37	24 mm
C1005_top_if (1).JPG	IMG_9690.JPG	5,88MB	11.05.11 17:37	24 mm
C2002_SF283 (5).JPG	IMG_9691.JPG	7,43MB	12.05.11 09:06	18 mm
C2002_SF283 (1).JPG	IMG_9692.JPG	6,77MB	12.05.11 09:06	25 mm
C2002_SF283 (2).JPG	IMG_9693.JPG	6,57MB	12.05.11 09:07	30 mm
C2002_SF283 (3).JPG	IMG_9694.JPG	7,48MB	12.05.11 09:07	30 mm
C2002_SF283 (4).JPG	IMG_9695.JPG	7,14MB	12.05.11 09:07	33 mm
C2003-2004_top if (13).JPG	IMG_9696.JPG	7,60MB	12.05.11 09:49	24 mm
C2003-2004_top if (14).JPG	IMG_9697.JPG	7,84MB	12.05.11 09:49	24 mm
C2003-2004_top if (15).JPG	IMG_9698.JPG	7,28MB	12.05.11 09:49	18 mm
C2003-2004_top if (16).JPG	IMG_9699.JPG	7,34MB	12.05.11 09:49	18 mm
C2003-2004_top if (17).JPG	IMG_9700.JPG	7,60MB	12.05.11 09:49	18 mm
C2003-2004_top if (18).JPG	IMG_9701.JPG	7,91MB	12.05.11 09:49	18 mm
C2003-2004_top if (19).JPG	IMG_9702.JPG	7,76MB	12.05.11 10:01	18 mm
C2003-2004_top if (20).JPG	IMG_9703.JPG	7,69MB	12.05.11 10:01	18 mm
C2003-2004_top if (21).JPG	IMG_9704.JPG	7,63MB	12.05.11 10:01	23 mm
C2003-2004_top if (22).JPG	IMG_9705.JPG	7,87MB	12.05.11 10:01	23 mm
C2003-2004_top if_photogrammetry (2).JPG	IMG_9706.JPG	8,89MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (3).JPG	IMG_9707.JPG	8,84MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (4).JPG	IMG_9708.JPG	8,56MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (5).JPG	IMG_9709.JPG	8,68MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (6).JPG	IMG_9710.JPG	8,67MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (7).JPG	IMG_9711.JPG	8,91MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (8).JPG	IMG_9712.JPG	8,73MB	12.05.11 10:32	28 mm
C2003-2004_top if_photogrammetry (1).JPG	IMG_9713.JPG	8,75MB	12.05.11 10:32	28 mm
Causeway_eastprofile (1).JPG	IMG_9714.JPG	7,75MB	12.05.11 11:19	29 mm
Causeway_eastprofile (2).JPG	IMG_9715.JPG	6,50MB	12.05.11 11:20	28 mm
Causeway_eastprofile (3).JPG	IMG_9716.JPG	6,54MB	12.05.11 11:20	28 mm
Causeway_eastprofile (4).JPG	IMG_9717.JPG	6,43MB	12.05.11 11:20	25 mm
Causeway_eastprofile (5).JPG	IMG_9718.JPG	7,52MB	12.05.11 11:20	18 mm
Causeway_eastprofile (6).JPG	IMG_9719.JPG	7,56MB	12.05.11 11:20	28 mm
Causeway_eastprofile (7).JPG	IMG_9720.JPG	7,55MB	12.05.11 11:21	28 mm
Causeway_eastprofile (8).JPG	IMG_9721.JPG	6,65MB	12.05.11 11:21	28 mm
Causeway_eastprofile (9).JPG	IMG_9722.JPG	6,61MB	12.05.11 11:21	28 mm
Causeway_eastprofile (10).JPG	IMG_9723.JPG	6,68MB	12.05.11 11:21	28 mm
Causeway_eastprofile (11).JPG	IMG_9724.JPG	6,83MB	12.05.11 11:21	28 mm
Causeway_eastprofile (12).JPG	IMG_9725.JPG	6,74MB	12.05.11 11:21	34 mm
Causeway_eastprofile (13).JPG	IMG_9726.JPG	7,40MB	12.05.11 11:21	24 mm
Causeway_eastprofile (14).JPG	IMG_9727.JPG	7,13MB	12.05.11 11:25	32 mm
Causeway_eastprofile (15).JPG	IMG_9728.JPG	6,70MB	12.05.11 11:25	32 mm
Causeway_eastprofile (16).JPG	IMG_9729.JPG	6,25MB	12.05.11 11:28	30 mm

file name	original file name	image size	date + time	focal length
Causeway_eastprofile (17).JPG	IMG_9730.JPG	6,41MB	12.05.11 11:28	30 mm
Causeway_eastprofile (18).JPG	IMG_9731.JPG	6,55MB	12.05.11 11:28	25 mm
Causeway_eastprofile (19).JPG	IMG_9732.JPG	5,39MB	12.05.11 11:28	32 mm
Causeway_eastprofile (20).JPG	IMG_9733.JPG	7,29MB	12.05.11 11:28	37 mm
Causeway_eastprofile (21).JPG	IMG_9734.JPG	6,74MB	12.05.11 11:28	42 mm
C2005_after_removing_stone_C2003 (1).JPG	IMG_9735.JPG	8,05MB	12.05.11 11:51	24 mm
C2005_after_removing_stone_C2003 (2).JPG	IMG_9736.JPG	7,25MB	12.05.11 11:51	33 mm
C2005_after_removing_stone_C2003 (3).JPG	IMG_9737.JPG	6,69MB	12.05.11 11:51	49 mm
C2005_after_removing_stone_C2003 (4).JPG	IMG_9738.JPG	7,35MB	12.05.11 11:51	27 mm
C2005_top if (1).JPG	IMG_9739.JPG	7,08MB	12.05.11 12:19	33 mm
C2005_top if (2).JPG	IMG_9740.JPG	7,52MB	12.05.11 12:19	23 mm
C2005_top if (3).JPG	IMG_9741.JPG	7,01MB	12.05.11 12:19	18 mm
C2005_top if (4).JPG	IMG_9742.JPG	6,89MB	12.05.11 12:19	28 mm
C2005_top if (5).JPG	IMG_9743.JPG	7,65MB	12.05.11 14:04	29 mm
C2005_top if (6).JPG	IMG_9744.JPG	7,61MB	12.05.11 14:04	29 mm
C2005_top if (7).JPG	IMG_9745.JPG	7,31MB	12.05.11 14:04	29 mm
C2005_top if (8).JPG	IMG_9746.JPG	8,13MB	12.05.11 14:04	25 mm
C2005_top if (9).JPG	IMG_9747.JPG	8,08MB	12.05.11 14:04	25 mm
C1006_working shot (1).JPG	IMG_9787.JPG	7,71MB	17.05.11 10:48	18 mm
C1006_working shot (2).JPG	IMG_9788.JPG	7,84MB	17.05.11 10:48	18 mm
C1006_working shot (3).JPG	IMG_9789.JPG	7,76MB	17.05.11 10:48	18 mm
C1006_working shot (4).JPG	IMG_9790.JPG	7,72MB	17.05.11 10:48	18 mm
C1006_working shot (5).JPG	IMG_9791.JPG	7,70MB	17.05.11 10:48	18 mm
C1006_working shot (6).JPG	IMG_9792.JPG	7,50MB	17.05.11 10:48	18 mm
C1006_working shot (7).JPG	IMG_9793.JPG	7,83MB	17.05.11 10:48	18 mm
C1005_working shot (1).JPG	IMG_9794.JPG	7,49MB	17.05.11 10:49	18 mm
C1005_working shot (2).JPG	IMG_9795.JPG	7,84MB	17.05.11 10:49	18 mm
C1005_working shot (3).JPG	IMG_9796.JPG	7,82MB	17.05.11 10:49	18 mm
C1005_working shot (4).JPG	IMG_9797.JPG	7,86MB	17.05.11 10:49	18 mm
C1005_working shot (5).JPG	IMG_9798.JPG	7,47MB	17.05.11 10:49	18 mm
C1005_working shot (6).JPG	IMG_9799.JPG	7,68MB	17.05.11 10:49	18 mm
C1005_working shot (7).JPG	IMG_9800.JPG	7,66MB	17.05.11 10:49	18 mm
C1005_working shot (8).JPG	IMG_9801.JPG	7,63MB	17.05.11 10:49	18 mm
C1005_working shot (9).JPG	IMG_9802.JPG	7,93MB	17.05.11 10:49	18 mm
C1005_working shot (10).JPG	IMG_9803.JPG	8,00MB	17.05.11 10:50	18 mm
C1005_working shot (11).JPG	IMG_9804.JPG	8,19MB	17.05.11 10:50	18 mm
C1005_working shot (12).JPG	IMG_9805.JPG	8,12MB	17.05.11 10:50	18 mm
C1005_working shot (13).JPG	IMG_9806.JPG	8,21MB	17.05.11 10:50	18 mm
C1005_working shot (14).JPG	IMG_9807.JPG	8,23MB	17.05.11 10:50	18 mm
C1010_top if (66).JPG	IMG_9808.JPG	7,73MB	17.05.11 13:07	18 mm
C1010_top if (67).JPG	IMG_9809.JPG	7,58MB	17.05.11 13:11	18 mm
C1010_top if (68).JPG	IMG_9810.JPG	8,18MB	17.05.11 13:11	18 mm
C1010_top if (69).JPG	IMG_9811.JPG	8,17MB	17.05.11 13:11	18 mm
C1010_top if (70).JPG	IMG_9812.JPG	8,01MB	17.05.11 13:11	18 mm
C1010_top if (71).JPG	IMG_9813.JPG	7,86MB	17.05.11 13:11	18 mm
C1010_top if (72).JPG	IMG_9814.JPG	7,81MB	17.05.11 13:11	18 mm
C1010_top if (73).JPG	IMG_9815.JPG	7,93MB	17.05.11 13:11	18 mm
C1010_top if (74).JPG	IMG_9816.JPG	8,02MB	17.05.11 13:12	18 mm

file name	original file name	image size	date + time	focal length
C1010_top if (75).JPG	IMG_9817.JPG	7,82MB	17.05.11 13:14	18 mm
C1010_top if (76).JPG	IMG_9818.JPG	7,87MB	17.05.11 13:14	18 mm
C1010_top if (77).JPG	IMG_9819.JPG	7,57MB	17.05.11 13:15	18 mm
C1010_top if (78).JPG	IMG_9820.JPG	7,42MB	17.05.11 13:15	18 mm
C1010_top if (79).JPG	IMG_9821.JPG	7,84MB	17.05.11 13:15	18 mm
C1010_top if (80).JPG	IMG_9822.JPG	7,66MB	17.05.11 13:15	18 mm
C1010_top if (81).JPG	IMG_9823.JPG	7,52MB	17.05.11 13:15	18 mm
C1010_top if (82).JPG	IMG_9824.JPG	7,92MB	17.05.11 13:15	18 mm
C1010_top if (83).JPG	IMG_9825.JPG	7,91MB	17.05.11 13:15	18 mm
C1010_top if (84).JPG	IMG_9826.JPG	8,13MB	17.05.11 13:15	18 mm
C1010_top if (85).JPG	IMG_9827.JPG	8,14MB	17.05.11 13:15	18 mm
C1010_top if (86).JPG	IMG_9828.JPG	7,88MB	17.05.11 13:16	18 mm
C1010_top if (87).JPG	IMG_9829.JPG	7,85MB	17.05.11 13:16	18 mm
C1010_top if (88).JPG	IMG_9830.JPG	8,04MB	17.05.11 13:16	18 mm
C1010_top if (89).JPG	IMG_9831.JPG	7,95MB	17.05.11 13:16	18 mm
C1010_top if (90).JPG	IMG_9832.JPG	7,95MB	17.05.11 13:16	18 mm
C1010_top if (91).JPG	IMG_9833.JPG	7,80MB	17.05.11 13:16	18 mm
C1010_top if (92).JPG	IMG_9834.JPG	7,94MB	17.05.11 13:16	18 mm
C1010_top if (93).JPG	IMG_9835.JPG	6,71MB	17.05.11 13:16	18 mm
C1010_top if (94).JPG	IMG_9836.JPG	7,94MB	17.05.11 13:16	18 mm
C1010_top if (95).JPG	IMG_9845.JPG	7,62MB	17.05.11 16:39	18 mm
C1010_top if (96).JPG	IMG_9846.JPG	7,53MB	17.05.11 16:40	18 mm
C1010_top if (97).JPG	IMG_9847.JPG	7,11MB	17.05.11 16:40	18 mm
C1010_top if (98).JPG	IMG_9848.JPG	7,14MB	17.05.11 16:40	18 mm
C1010_top if (99).JPG	IMG_9849.JPG	6,91MB	17.05.11 16:40	18 mm
C1010_top if (100).JPG	IMG_9850.JPG	7,45MB	17.05.11 16:40	18 mm
C1010_top if (101).JPG	IMG_9851.JPG	6,99MB	17.05.11 16:40	18 mm
C1010_top if (102).JPG	IMG_9852.JPG	7,44MB	17.05.11 16:40	18 mm
C1010_top if (103).JPG	IMG_9853.JPG	7,40MB	17.05.11 16:40	18 mm
C1010_top if (104).JPG	IMG_9854.JPG	7,64MB	17.05.11 16:40	18 mm
C1010_top if (105).JPG	IMG_9855.JPG	7,32MB	17.05.11 16:40	18 mm
C1010_top if (106).JPG	IMG_9856.JPG	7,52MB	17.05.11 16:40	18 mm
C1010_top if (107).JPG	IMG_9857.JPG	7,50MB	17.05.11 16:40	18 mm
C1010_top if (108).JPG	IMG_9858.JPG	7,37MB	17.05.11 16:41	18 mm
C1010_top if (109).JPG	IMG_9859.JPG	7,52MB	17.05.11 16:41	18 mm
C1010_top if (110).JPG	IMG_9860.JPG	7,52MB	17.05.11 16:41	18 mm
C1009 (1).JPG	IMG_9861.JPG	6,12MB	18.05.11 10:50	33 mm
C1009 (2).JPG	IMG_9862.JPG	6,61MB	18.05.11 10:51	34 mm
C1009 (3).JPG	IMG_9863.JPG	6,56MB	18.05.11 10:51	35 mm
C1009 (4).JPG	IMG_9864.JPG	7,45MB	18.05.11 10:51	18 mm
C1009 (5).JPG	IMG_9865.JPG	7,59MB	18.05.11 10:52	21 mm
C1009 (6).JPG	IMG_9866.JPG	7,35MB	18.05.11 10:52	21 mm
C1009 (7).JPG	IMG_9867.JPG	6,65MB	18.05.11 10:55	27 mm
C1009 (8).JPG	IMG_9868.JPG	6,76MB	18.05.11 10:55	18 mm
C1009 (9).JPG	IMG_9869.JPG	7,23MB	18.05.11 10:57	23 mm
C1009 (10).JPG	IMG_9870.JPG	7,35MB	18.05.11 10:57	24 mm
C1009 (11).JPG	IMG_9871.JPG	6,77MB	18.05.11 10:57	18 mm
C1009 (12).JPG	IMG_9872.JPG	6,72MB	18.05.11 11:15	18 mm

file name	original file name	image size	date + time	focal length
C1009 (13).JPG	IMG_9873.JPG	6,95MB	18.05.11 11:15	18 mm
C1009 (14).JPG	IMG_9874.JPG	6,96MB	18.05.11 11:15	18 mm
C1009 (15).JPG	IMG_9875.JPG	7,02MB	18.05.11 11:15	18 mm
C1009 (16).JPG	IMG_9876.JPG	6,64MB	18.05.11 11:15	18 mm
C1009 (17).JPG	IMG_9877.JPG	7,05MB	18.05.11 11:15	18 mm
C1009 (18).JPG	IMG_9878.JPG	7,12MB	18.05.11 11:15	18 mm
C1009 (19).JPG	IMG_9879.JPG	7,04MB	18.05.11 11:15	18 mm
C1009 (20).JPG	IMG_9880.JPG	7,04MB	18.05.11 11:15	18 mm
C1009 (21).JPG	IMG_9881.JPG	7,10MB	18.05.11 11:15	18 mm
c1010_G100-101 (2).JPG	IMG_9882.JPG	8,25MB	18.05.11 11:17	18 mm
c1010_G100-101 (3).JPG	IMG_9883.JPG	7,94MB	18.05.11 11:17	18 mm
c1010_G100-101 (1).JPG	IMG_9884.JPG	8,19MB	18.05.11 11:17	18 mm
C1010_top if (1).JPG	IMG_9888.JPG	6,51MB	18.05.11 12:39	18 mm
C1010_top if (2).JPG	IMG_9889.JPG	6,55MB	18.05.11 12:39	18 mm
C1010_top if (3).JPG	IMG_9890.JPG	6,37MB	18.05.11 12:39	18 mm
C1010_top if (4).JPG	IMG_9891.JPG	5,86MB	18.05.11 12:39	18 mm
C1010_top if (5).JPG	IMG_9892.JPG	6,76MB	18.05.11 12:39	18 mm
C1010_top if (6).JPG	IMG_9893.JPG	6,83MB	18.05.11 12:39	18 mm
C1010_top if (7).JPG	IMG_9894.JPG	6,07MB	18.05.11 12:39	18 mm
C1010_top if (8).JPG	IMG_9895.JPG	7,96MB	18.05.11 12:39	18 mm
C1010_top if (9).JPG	IMG_9896.JPG	7,49MB	18.05.11 12:39	18 mm
C1010_top if (10).JPG	IMG_9897.JPG	7,53MB	18.05.11 12:39	18 mm
C1010_top if (11).JPG	IMG_9898.JPG	7,68MB	18.05.11 12:39	18 mm
C1010_top if (12).JPG	IMG_9899.JPG	7,45MB	18.05.11 12:39	18 mm
C1010_top if (13).JPG	IMG_9900.JPG	7,20MB	18.05.11 12:39	18 mm
C1010_top if (14).JPG	IMG_9901.JPG	6,84MB	18.05.11 12:39	18 mm
C1010_top if (15).JPG	IMG_9902.JPG	6,92MB	18.05.11 12:39	18 mm
C1010_top if (16).JPG	IMG_9903.JPG	7,61MB	18.05.11 12:39	18 mm
C1010_top if (17).JPG	IMG_9904.JPG	8,03MB	18.05.11 12:39	18 mm
C1010_top if (18).JPG	IMG_9905.JPG	7,46MB	18.05.11 12:40	18 mm
C1010_top if (19).JPG	IMG_9906.JPG	7,89MB	18.05.11 12:40	18 mm
C1010_top if (20).JPG	IMG_9907.JPG	7,39MB	18.05.11 12:40	18 mm
C1010_top if (21).JPG	IMG_9908.JPG	7,87MB	18.05.11 12:40	18 mm
C1010_top if (22).JPG	IMG_9909.JPG	7,00MB	18.05.11 12:40	18 mm
C1010_top if (23).JPG	IMG_9910.JPG	7,78MB	18.05.11 12:40	18 mm
C1010_top if (24).JPG	IMG_9911.JPG	7,68MB	18.05.11 12:40	18 mm
C1010_top if (25).JPG	IMG_9912.JPG	7,66MB	18.05.11 12:40	18 mm
C1010_top if (26).JPG	IMG_9913.JPG	6,87MB	18.05.11 12:40	18 mm
C1010_top if (27).JPG	IMG_9914.JPG	6,59MB	18.05.11 12:40	18 mm
C1010_top if (28).JPG	IMG_9915.JPG	6,77MB	18.05.11 12:40	18 mm
C1010_top if (29).JPG	IMG_9916.JPG	7,33MB	18.05.11 12:40	18 mm
C1010_top if (30).JPG	IMG_9917.JPG	7,57MB	18.05.11 12:40	18 mm
C1010_top if (31).JPG	IMG_9918.JPG	8,23MB	18.05.11 12:47	21 mm
C1010_top if (32).JPG	IMG_9919.JPG	8,34MB	18.05.11 12:47	21 mm
C1010_top if (33).JPG	IMG_9920.JPG	7,94MB	18.05.11 12:47	28 mm
C1010_top if (34).JPG	IMG_9921.JPG	7,59MB	18.05.11 12:47	23 mm
C1010_top if (35).JPG	IMG_9922.JPG	8,02MB	18.05.11 12:48	24 mm
C1010_top if (36).JPG	IMG_9923.JPG	8,00MB	18.05.11 12:48	27 mm

file name	original file name	image size	date + time	focal length
C1010_top if (37).JPG	IMG_9924.JPG	8,29MB	18.05.11 12:48	18 mm
C1010_top if (38).JPG	IMG_9925.JPG	8,67MB	18.05.11 12:57	18 mm
C1010_top if (39).JPG	IMG_9926.JPG	8,98MB	18.05.11 12:57	18 mm
C1010_top if (40).JPG	IMG_9927.JPG	8,73MB	18.05.11 12:57	18 mm
C1010_top if (41).JPG	IMG_9928.JPG	8,47MB	18.05.11 12:57	18 mm
C1010_top if (42).JPG	IMG_9929.JPG	8,63MB	18.05.11 12:58	18 mm
C1010_top if (43).JPG	IMG_9930.JPG	6,69MB	18.05.11 12:58	20 mm
C1010_top if (44).JPG	IMG_9931.JPG	7,20MB	18.05.11 12:59	20 mm
C1010_top if (45).JPG	IMG_9932.JPG	7,99MB	18.05.11 13:08	18 mm
C1010_top if (46).JPG	IMG_9933.JPG	7,57MB	18.05.11 13:13	18 mm
C1010_top if (47).JPG	IMG_9934.JPG	5,87MB	18.05.11 13:13	18 mm
C1010_top if (48).JPG	IMG_9935.JPG	7,09MB	18.05.11 13:14	18 mm
C1010_top if (49).JPG	IMG_9936.JPG	7,27MB	18.05.11 13:14	18 mm
C1010_top if (50).JPG	IMG_9937.JPG	8,12MB	18.05.11 13:14	18 mm
C1010_top if (51).JPG	IMG_9938.JPG	7,76MB	18.05.11 13:14	18 mm
C1010_top if (52).JPG	IMG_9939.JPG	6,28MB	18.05.11 13:14	18 mm
C1010_top if (53).JPG	IMG_9940.JPG	8,00MB	18.05.11 13:14	18 mm
C1007-1010_top if (1).JPG	IMG_9941.JPG	8,31MB	18.05.11 13:20	18 mm
C1007-1010_top if (2).JPG	IMG_9942.JPG	7,24MB	18.05.11 13:20	18 mm
C1007-1010_top if (3).JPG	IMG_9943.JPG	6,33MB	18.05.11 13:20	18 mm
C1007-1010_top if (4).JPG	IMG_9944.JPG	7,45MB	18.05.11 13:20	18 mm
C1007-1010_top if (5).JPG	IMG_9945.JPG	7,79MB	18.05.11 13:20	18 mm
C1007-1010_top if (6).JPG	IMG_9946.JPG	8,16MB	18.05.11 13:20	18 mm
C1007-1010_top if (7).JPG	IMG_9947.JPG	8,25MB	18.05.11 13:20	18 mm
C1007-1010_top if (8).JPG	IMG_9948.JPG	8,00MB	18.05.11 13:20	18 mm
C1007-1010_top if (9).JPG	IMG_9949.JPG	8,69MB	18.05.11 13:20	18 mm
C1007-1010_top if (10).JPG	IMG_9950.JPG	7,86MB	18.05.11 13:20	18 mm
C1007-1010_top if (11).JPG	IMG_9951.JPG	6,38MB	18.05.11 13:21	18 mm
C1007-1010_top if (12).JPG	IMG_9952.JPG	7,83MB	18.05.11 13:21	18 mm
c1010_G100 (2).JPG	IMG_9983.JPG	9,75MB	22.05.11 10:06	18 mm
c1010_G100 (3).JPG	IMG_9984.JPG	9,37MB	22.05.11 10:07	18 mm
c1010_G100 (4).JPG	IMG_9985.JPG	8,18MB	22.05.11 10:08	18 mm
c1010_G100 (5).JPG	IMG_9986.JPG	7,61MB	22.05.11 10:08	18 mm
c1010_G100 (6).JPG	IMG_9987.JPG	7,23MB	22.05.11 10:08	18 mm
c1010_G100 (7).JPG	IMG_9988.JPG	6,83MB	22.05.11 10:08	18 mm
c1010_G100 (8).JPG	IMG_9989.JPG	7,90MB	22.05.11 10:09	24 mm
c1010_G100 (9).JPG	IMG_9990.JPG	7,73MB	22.05.11 10:09	18 mm
c1010_G100 (10).JPG	IMG_9991.JPG	6,82MB	22.05.11 10:09	18 mm
c1010_G100 (1).JPG	IMG_9992.JPG	7,60MB	22.05.11 10:10	20 mm
c1011_top if (12).JPG	IMG_0007.JPG	8,04MB	22.05.11 15:37	18 mm
c1011_top if (13).JPG	IMG_0008.JPG	7,31MB	22.05.11 15:37	18 mm
c1011_top if (14).JPG	IMG_0012.JPG	8,43MB	22.05.11 15:59	18 mm
c1011_top if (15).JPG	IMG_0014.JPG	8,05MB	22.05.11 16:00	18 mm
c1011_top if (16).JPG	IMG_0015.JPG	7,56MB	22.05.11 16:00	18 mm
c1011_top if (17).JPG	IMG_0016.JPG	7,72MB	22.05.11 16:00	18 mm
c1011_top if (18).JPG	IMG_0017.JPG	7,93MB	22.05.11 16:01	18 mm
c1011_top if (19).JPG	IMG_0018.JPG	8,19MB	22.05.11 16:01	18 mm
c1011_top if (20).JPG	IMG_0019.JPG	8,11MB	22.05.11 16:02	18 mm

file name	original file name	image size	date + time	focal length
c1011_top if (21).JPG	IMG_0020.JPG	8,06MB	22.05.11 16:03	18 mm
c1011_top if (22).JPG	IMG_0021.JPG	8,28MB	22.05.11 16:03	18 mm
c1011_top if (23).JPG	IMG_0022.JPG	8,42MB	22.05.11 16:04	18 mm
c1011_top if (24).JPG	IMG_0023.JPG	8,04MB	22.05.11 16:04	18 mm
c1011_top if (25).JPG	IMG_0024.JPG	8,00MB	22.05.11 16:12	18 mm
c1011_top if (26).JPG	IMG_0025.JPG	8,35MB	22.05.11 16:12	18 mm
c1011_top if (27).JPG	IMG_0028.JPG	8,75MB	22.05.11 16:40	18 mm
c1011_top if (28).JPG	IMG_0029.JPG	8,47MB	22.05.11 16:41	18 mm
c1011_top if (29).JPG	IMG_0030.JPG	8,10MB	22.05.11 16:41	18 mm
c1011_top if (30).JPG	IMG_0031.JPG	8,53MB	22.05.11 16:41	18 mm
c1011_top if (31).JPG	IMG_0032.JPG	9,16MB	22.05.11 16:41	18 mm
c1011_top if (32).JPG	IMG_0033.JPG	8,16MB	22.05.11 16:44	18 mm
c1011_top if (33).JPG	IMG_0034.JPG	7,53MB	22.05.11 16:44	18 mm
c1011_top if (34).JPG	IMG_0035.JPG	7,54MB	22.05.11 16:44	18 mm
c1011_top if (35).JPG	IMG_0036.JPG	8,27MB	22.05.11 16:44	18 mm
c1011_top if (36).JPG	IMG_0037.JPG	7,71MB	22.05.11 16:44	18 mm
c1011_top if (37).JPG	IMG_0038.JPG	7,76MB	22.05.11 16:44	18 mm
c1011_top if (38).JPG	IMG_0039.JPG	7,89MB	22.05.11 16:44	18 mm
c1011_top if (39).JPG	IMG_0040.JPG	7,92MB	22.05.11 16:44	18 mm
c1011_top if (40).JPG	IMG_0041.JPG	7,32MB	22.05.11 16:44	18 mm
c1011_top if (1).JPG	IMG_0042.JPG	7,06MB	22.05.11 16:44	18 mm
c1011_top if (2).JPG	IMG_0043.JPG	7,85MB	22.05.11 16:44	18 mm
c1011_top if (3).JPG	IMG_0044.JPG	8,00MB	22.05.11 16:44	18 mm
c1011_top if (4).JPG	IMG_0045.JPG	8,01MB	22.05.11 16:44	18 mm
c1011_top if (5).JPG	IMG_0046.JPG	7,77MB	22.05.11 16:44	18 mm
c1011_top if (6).JPG	IMG_0047.JPG	8,42MB	22.05.11 16:44	18 mm
c1011_top if (7).JPG	IMG_0048.JPG	6,92MB	22.05.11 16:45	18 mm
c1011_top if (8).JPG	IMG_0049.JPG	7,54MB	22.05.11 16:45	18 mm
c1011_top if (9).JPG	IMG_0050.JPG	8,03MB	22.05.11 16:45	18 mm
c1011_top if (10).JPG	IMG_0051.JPG	7,91MB	22.05.11 16:45	18 mm
c1011_top if (11).JPG	IMG_0052.JPG	8,18MB	22.05.11 16:45	18 mm
c1011_top if_Orthophoto ref pt (1).JPG	IMG_0053.JPG	7,51MB	22.05.11 16:59	24 mm
c1011_top if_Orthophoto ref pt (2).JPG	IMG_0054.JPG	6,26MB	22.05.11 16:59	55 mm
c1011_top if_Orthophoto ref pt (3).JPG	IMG_0055.JPG	5,11MB	22.05.11 16:59	55 mm
c1010_K108 (1).JPG	IMG_0056.JPG	7,50MB	23.05.11 10:33	37 mm
c1010_K108 (2).JPG	IMG_0057.JPG	6,73MB	23.05.11 10:33	55 mm
c1010_K108 (3).JPG	IMG_0058.JPG	5,38MB	23.05.11 10:33	55 mm
C1012_top if_photogram (1).JPG	IMG_0079.JPG	5,84MB	24.05.11 09:18	25 mm
C1012_top if_photogram (2).JPG	IMG_0080.JPG	8,42MB	24.05.11 09:21	18 mm
C1012_top if_photogram (3).JPG	IMG_0081.JPG	8,17MB	24.05.11 09:22	18 mm
C1012_top if_photogram (4).JPG	IMG_0082.JPG	8,17MB	24.05.11 09:23	18 mm
C1012_top if_photogram (5).JPG	IMG_0083.JPG	7,93MB	24.05.11 09:23	18 mm
C1012_top if_photogram (6).JPG	IMG_0084.JPG	8,13MB	24.05.11 09:24	18 mm
C1012_top if_photogram (7).JPG	IMG_0085.JPG	8,21MB	24.05.11 09:24	18 mm
C1012_top if_photogram (8).JPG	IMG_0086.JPG	7,94MB	24.05.11 09:24	18 mm
C1012_top if_photogram (9).JPG	IMG_0087.JPG	8,37MB	24.05.11 09:25	18 mm
C1012_top if_photogram (10).JPG	IMG_0088.JPG	7,65MB	24.05.11 09:25	18 mm
C1012_top if_photogram (11).JPG	IMG_0089.JPG	8,02MB	24.05.11 09:26	18 mm

file name	original file name	image size	date + time	focal length
C1012_top if_photogram (12).JPG	IMG_0090.JPG	7,84MB	24.05.11 09:26	18 mm
C1012_top if_photogram (13).JPG	IMG_0091.JPG	7,89MB	24.05.11 09:27	18 mm
C1012_top if_photogram (14).JPG	IMG_0092.JPG	7,98MB	24.05.11 09:27	18 mm
C1012_top if_photogram (15).JPG	IMG_0093.JPG	7,87MB	24.05.11 09:27	18 mm
C1012_top if_photogram (16).JPG	IMG_0094.JPG	7,79MB	24.05.11 09:27	18 mm
C1012_top if_photogram (17).JPG	IMG_0095.JPG	7,87MB	24.05.11 09:28	18 mm
C1012_top if_photogram (18).JPG	IMG_0096.JPG	8,12MB	24.05.11 09:28	18 mm
C1012_top if_photogram (19).JPG	IMG_0097.JPG	7,92MB	24.05.11 09:28	18 mm
C1012_top if_photogram (20).JPG	IMG_0098.JPG	7,03MB	24.05.11 09:28	18 mm
C1012_top if_photogram (21).JPG	IMG_0099.JPG	6,88MB	24.05.11 09:28	18 mm
C1012_top if_photogram (22).JPG	IMG_0100.JPG	7,51MB	24.05.11 09:28	18 mm
C1012_top if_photogram (23).JPG	IMG_0101.JPG	7,72MB	24.05.11 09:29	18 mm
C1012_top if_photogram (24).JPG	IMG_0102.JPG	7,78MB	24.05.11 09:29	18 mm
C1012_top if_photogram (25).JPG	IMG_0103.JPG	7,39MB	24.05.11 09:29	18 mm
C1012_top if_photogram (26).JPG	IMG_0104.JPG	6,97MB	24.05.11 09:29	18 mm
C1012_top if_photogram (27).JPG	IMG_0105.JPG	6,59MB	24.05.11 09:29	18 mm
C1012_top if_photogram (28).JPG	IMG_0106.JPG	6,47MB	24.05.11 09:29	18 mm
C1012_top if_photogram (29).JPG	IMG_0107.JPG	7,46MB	24.05.11 09:29	18 mm
C1012_top if_photogram (30).JPG	IMG_0108.JPG	6,45MB	24.05.11 09:29	18 mm
C1012_top if_photogram (31).JPG	IMG_0109.JPG	6,83MB	24.05.11 09:30	18 mm
C1012_top if_photogram (32).JPG	IMG_0110.JPG	6,96MB	24.05.11 09:30	18 mm
C1012_top if_photogram (33).JPG	IMG_0111.JPG	7,98MB	24.05.11 09:30	18 mm
C1012_top if_photogram (34).JPG	IMG_0112.JPG	6,51MB	24.05.11 09:30	18 mm
C1012_top if_photogram (35).JPG	IMG_0113.JPG	7,50MB	24.05.11 09:30	18 mm
C1012_top if_photogram (36).JPG	IMG_0114.JPG	6,55MB	24.05.11 09:30	18 mm
C1012_top if_photogram (37).JPG	IMG_0115.JPG	7,53MB	24.05.11 09:30	18 mm
C1012_top if_photogram (38).JPG	IMG_0116.JPG	7,33MB	24.05.11 09:30	18 mm
C1012_top if_photogram (39).JPG	IMG_0117.JPG	6,73MB	24.05.11 09:30	18 mm
C1012_top if_photogram (40).JPG	IMG_0118.JPG	6,76MB	24.05.11 09:30	18 mm
C1012_top if_photogram (41).JPG	IMG_0119.JPG	7,47MB	24.05.11 09:30	18 mm
C1012_top if_photogram (42).JPG	IMG_0120.JPG	7,25MB	24.05.11 09:30	18 mm
C1012_top if_photogram (43).JPG	IMG_0121.JPG	5,75MB	24.05.11 09:30	18 mm
C1012_top if_photogram (44).JPG	IMG_0122.JPG	6,54MB	24.05.11 09:30	18 mm
C1012_top if_photogram (45).JPG	IMG_0123.JPG	7,26MB	24.05.11 09:31	18 mm
C1012_top if_photogram (46).JPG	IMG_0124.JPG	7,80MB	24.05.11 09:31	18 mm
C1012_top if_photogram (47).JPG	IMG_0125.JPG	7,36MB	24.05.11 09:31	18 mm
C1012_top if_photogram (48).JPG	IMG_0126.JPG	6,04MB	24.05.11 09:31	18 mm
C1012_top if_photogram (49).JPG	IMG_0127.JPG	7,86MB	24.05.11 09:31	18 mm
C1012_top if_photogram (50).JPG	IMG_0128.JPG	6,65MB	24.05.11 09:32	18 mm
C1012_top if_photogram (51).JPG	IMG_0129.JPG	6,76MB	24.05.11 09:32	18 mm
C1012_top if_photogram (52).JPG	IMG_0130.JPG	7,73MB	24.05.11 09:32	18 mm
C1012_top if_photogram (53).JPG	IMG_0131.JPG	7,65MB	24.05.11 09:32	18 mm
C1012_top if_photogram (54).JPG	IMG_0132.JPG	7,11MB	24.05.11 09:32	18 mm
C1012_top if_photogram (55).JPG	IMG_0133.JPG	6,16MB	24.05.11 09:32	18 mm
C1012_top if_photogram (56).JPG	IMG_0134.JPG	6,47MB	24.05.11 09:32	18 mm
C1012_top if_photogram (57).JPG	IMG_0135.JPG	7,40MB	24.05.11 09:32	18 mm
C1012_top if_photogram (58).JPG	IMG_0136.JPG	7,48MB	24.05.11 09:32	18 mm
C1012_top if_photogram (59).JPG	IMG_0137.JPG	6,03MB	24.05.11 09:32	18 mm

file name	original file name	image size	date + time	focal length
C1012_top if_photogram (60).JPG	IMG_0138.JPG	6,84MB	24.05.11 09:32	18 mm
C1012_top if_photogram (61).JPG	IMG_0139.JPG	7,41MB	24.05.11 09:32	18 mm
C1012_top if (1).JPG	IMG_0145.JPG	7,07MB	24.05.11 09:46	18 mm
C1012_top if (2).JPG	IMG_0146.JPG	7,41MB	24.05.11 09:46	18 mm
C1012_top if (3).JPG	IMG_0147.JPG	5,23MB	24.05.11 09:46	18 mm
C1012_top if (4).JPG	IMG_0148.JPG	7,65MB	24.05.11 09:46	18 mm
C1012_top if (5).JPG	IMG_0149.JPG	7,68MB	24.05.11 09:46	18 mm
C1012_top if (6).JPG	IMG_0150.JPG	4,91MB	24.05.11 09:46	30 mm
C1012_top if (7).JPG	IMG_0151.JPG	6,95MB	24.05.11 09:46	33 mm
C1012_top if (8).JPG	IMG_0152.JPG	7,83MB	24.05.11 09:47	24 mm
C1012_top if (9).JPG	IMG_0153.JPG	6,80MB	24.05.11 09:47	36 mm
C1012_top if (10).JPG	IMG_0154.JPG	7,12MB	24.05.11 09:47	36 mm
C1012_top if (11).JPG	IMG_0155.JPG	6,19MB	24.05.11 09:47	39 mm
C1012_top if (12).JPG	IMG_0156.JPG	6,23MB	24.05.11 09:47	49 mm
C1012_top if (13).JPG	IMG_0157.JPG	5,97MB	24.05.11 09:47	49 mm
C1012_top if (14).JPG	IMG_0158.JPG	6,93MB	24.05.11 09:48	29 mm
C1012_top if (15).JPG	IMG_0159.JPG	7,40MB	24.05.11 09:48	34 mm
C1012_top if (16).JPG	IMG_0160.JPG	6,47MB	24.05.11 09:48	37 mm
C1012_top if (17).JPG	IMG_0161.JPG	5,65MB	24.05.11 09:48	37 mm
C1012_top if (18).JPG	IMG_0162.JPG	7,12MB	24.05.11 09:48	29 mm
C1012_top if (19).JPG	IMG_0163.JPG	7,54MB	24.05.11 09:48	25 mm
C1012_top if (20).JPG	IMG_0164.JPG	7,72MB	24.05.11 09:48	29 mm
c1010_bottom_if (1).JPG	IMG_0169.JPG	8,11MB	24.05.11 13:42	25 mm
c1010_bottom_if (2).JPG	IMG_0170.JPG	8,34MB	24.05.11 13:42	25 mm
c1010_bottom_if (3).JPG	IMG_0171.JPG	8,33MB	24.05.11 13:42	24 mm
c1010_bottom_if (4).JPG	IMG_0172.JPG	7,03MB	24.05.11 13:43	53 mm
c1010_bottom_if (5).JPG	IMG_0173.JPG	6,32MB	24.05.11 13:43	53 mm
c1010_bottom_if (6).JPG	IMG_0174.JPG	7,44MB	24.05.11 13:44	45 mm
c1010_bottom_if (7).JPG	IMG_0175.JPG	7,74MB	24.05.11 13:44	43 mm
c1010_bottom_if (8).JPG	IMG_0176.JPG	8,04MB	24.05.11 13:44	37 mm
c1010_bottom_if (9).JPG	IMG_0177.JPG	7,79MB	24.05.11 13:44	44 mm
c1010_bottom_if (10).JPG	IMG_0178.JPG	7,41MB	24.05.11 13:46	32 mm
c1010_bottom_if (11).JPG	IMG_0179.JPG	8,56MB	24.05.11 13:46	36 mm
c1010_bottom_if (12).JPG	IMG_0180.JPG	8,51MB	24.05.11 13:46	37 mm
c1010_bottom_if (13).JPG	IMG_0181.JPG	8,39MB	24.05.11 13:46	25 mm
c1010_bottom_if (14).JPG	IMG_0182.JPG	6,16MB	24.05.11 13:46	55 mm
c1010_bottom_if (15).JPG	IMG_0183.JPG	6,55MB	24.05.11 13:46	55 mm
c1010_bottom_if (16).JPG	IMG_0184.JPG	6,26MB	24.05.11 13:49	23 mm
c1010_bottom_if (17).JPG	IMG_0185.JPG	7,27MB	24.05.11 13:49	55 mm
c1010_bottom_if (18).JPG	IMG_0186.JPG	8,71MB	24.05.11 13:49	33 mm
c1010_bottom_if (19).JPG	IMG_0187.JPG	7,64MB	24.05.11 13:52	27 mm
c1010_bottom_if (20).JPG	IMG_0188.JPG	8,36MB	24.05.11 13:52	28 mm
c1010_bottom_if (21).JPG	IMG_0189.JPG	7,27MB	24.05.11 13:52	42 mm
c1010_bottom_if (22).JPG	IMG_0190.JPG	8,24MB	24.05.11 13:52	42 mm
c1010_bottom_if (23).JPG	IMG_0191.JPG	7,61MB	24.05.11 13:53	29 mm
c1010_bottom_if (24).JPG	IMG_0192.JPG	8,71MB	24.05.11 13:53	28 mm
c1010_bottom_if (25).JPG	IMG_0193.JPG	7,25MB	24.05.11 13:53	28 mm
c1010_bottom_if (26).JPG	IMG_0194.JPG	6,81MB	24.05.11 13:53	46 mm

file name	original file name	image size	date + time	focal length
c1010_bottom_if (27).JPG	IMG_0195.JPG	7,69MB	24.05.11 13:53	46 mm
c1010_bottom_if (28).JPG	IMG_0196.JPG	7,55MB	24.05.11 13:55	32 mm
c1010_bottom_if (29).JPG	IMG_0197.JPG	6,97MB	24.05.11 13:55	34 mm
c1010_bottom_if (30).JPG	IMG_0198.JPG	7,03MB	24.05.11 13:55	48 mm
c1010_bottom_if (31).JPG	IMG_0199.JPG	6,87MB	24.05.11 13:55	48 mm
c1010_bottom_if (32).JPG	IMG_0200.JPG	8,41MB	24.05.11 13:55	18 mm
c1010_bottom_if (33).JPG	IMG_0201.JPG	6,49MB	24.05.11 13:58	18 mm
c1010_bottom_if (34).JPG	IMG_0202.JPG	6,07MB	24.05.11 13:58	18 mm
c1010_bottom_if (35).JPG	IMG_0203.JPG	7,01MB	24.05.11 13:59	36 mm
c1010_bottom_if (36).JPG	IMG_0204.JPG	7,06MB	24.05.11 13:59	37 mm
c1010_bottom_if (37).JPG	IMG_0206.JPG	6,45MB	24.05.11 14:07	23 mm
c1010_bottom_if (38).JPG	IMG_0207.JPG	7,59MB	24.05.11 14:08	18 mm
c1010_bottom_if (39).JPG	IMG_0214.JPG	8,07MB	24.05.11 15:00	18 mm
c1010_bottom_if (40).JPG	IMG_0215.JPG	8,25MB	24.05.11 15:00	18 mm
c1010_bottom_if (41).JPG	IMG_0216.JPG	8,06MB	24.05.11 15:00	18 mm
c1010_bottom_if (42).JPG	IMG_0217.JPG	7,94MB	24.05.11 15:02	18 mm
c1010_bottom_if (43).JPG	IMG_0218.JPG	8,01MB	24.05.11 15:02	18 mm
c1010_bottom_if (44).JPG	IMG_0219.JPG	7,89MB	24.05.11 15:02	18 mm
c1010_bottom_if (45).JPG	IMG_0220.JPG	7,85MB	24.05.11 15:03	18 mm
c1010_bottom_if (46).JPG	IMG_0221.JPG	8,36MB	24.05.11 15:03	18 mm
c1010_bottom_if (47).JPG	IMG_0222.JPG	8,21MB	24.05.11 15:03	18 mm
c1010_bottom_if (48).JPG	IMG_0223.JPG	7,98MB	24.05.11 15:03	18 mm
c1010_bottom_if (49).JPG	IMG_0224.JPG	7,00MB	24.05.11 15:04	18 mm
c1010_bottom_if (50).JPG	IMG_0225.JPG	6,69MB	24.05.11 15:04	18 mm
c1010_bottom_if (51).JPG	IMG_0226.JPG	7,95MB	24.05.11 15:05	18 mm
c1010_bottom_if (52).JPG	IMG_0227.JPG	8,08MB	24.05.11 15:05	18 mm
c1010_bottom_if (53).JPG	IMG_0228.JPG	6,82MB	24.05.11 15:08	18 mm
c1010_bottom_if (54).JPG	IMG_0229.JPG	7,18MB	24.05.11 15:08	18 mm
c1010_bottom_if (55).JPG	IMG_0230.JPG	8,02MB	24.05.11 15:10	18 mm
c1010_bottom_if (56).JPG	IMG_0231.JPG	7,68MB	24.05.11 15:10	18 mm
c1010_bottom_if (57).JPG	IMG_0232.JPG	8,10MB	24.05.11 15:12	18 mm
c1010_bottom_if (58).JPG	IMG_0233.JPG	7,98MB	24.05.11 15:12	18 mm
c1010_bottom_if (59).JPG	IMG_0234.JPG	8,06MB	24.05.11 15:12	18 mm
c1010_bottom_if (60).JPG	IMG_0235.JPG	8,12MB	24.05.11 15:14	18 mm
c1010_bottom_if (61).JPG	IMG_0236.JPG	8,24MB	24.05.11 15:14	18 mm
c1010_bottom_if (62).JPG	IMG_0237.JPG	7,85MB	24.05.11 15:15	18 mm
c1010_bottom_if (63).JPG	IMG_0238.JPG	8,00MB	24.05.11 15:15	18 mm
c1010_bottom_if (64).JPG	IMG_0239.JPG	7,79MB	24.05.11 15:15	18 mm
c1010_bottom_if (65).JPG	IMG_0240.JPG	8,45MB	24.05.11 15:17	18 mm
c1010_bottom_if (66).JPG	IMG_0241.JPG	8,55MB	24.05.11 15:17	18 mm
c1010_bottom_if (67).JPG	IMG_0242.JPG	8,52MB	24.05.11 15:17	18 mm
c1010_bottom_if (68).JPG	IMG_0243.JPG	8,61MB	24.05.11 15:20	18 mm
c1010_bottom_if (69).JPG	IMG_0244.JPG	8,36MB	24.05.11 15:20	18 mm
c1010_bottom_if (70).JPG	IMG_0245.JPG	7,83MB	24.05.11 15:20	18 mm
c1010_bottom_if (71).JPG	IMG_0246.JPG	8,38MB	24.05.11 15:20	18 mm
c1010_bottom_if (72).JPG	IMG_0247.JPG	8,30MB	24.05.11 15:23	18 mm
c1010_bottom_if (73).JPG	IMG_0248.JPG	8,38MB	24.05.11 15:23	18 mm

file name	original file name	image size	date + time	focal length
c1010_bottom_if (74).JPG	IMG_0249.JPG	8,21MB	24.05.11 15:23	18 mm
c1010_bottom_if (75).JPG	IMG_0250.JPG	8,03MB	24.05.11 15:26	18 mm
c1010_bottom_if (76).JPG	IMG_0251.JPG	8,22MB	24.05.11 15:26	18 mm
c1010_bottom_if (77).JPG	IMG_0252.JPG	8,13MB	24.05.11 15:26	18 mm
c1010_bottom_if (78).JPG	IMG_0253.JPG	8,28MB	24.05.11 15:28	18 mm
c1010_bottom_if (79).JPG	IMG_0254.JPG	8,09MB	24.05.11 15:28	18 mm
c1010_bottom_if (80).JPG	IMG_0255.JPG	7,16MB	24.05.11 15:28	18 mm
c1010_bottom_if (81).JPG	IMG_0256.JPG	8,04MB	24.05.11 15:30	18 mm
c1010_bottom_if (82).JPG	IMG_0257.JPG	8,30MB	24.05.11 15:30	18 mm
c1010_bottom_if (83).JPG	IMG_0258.JPG	8,22MB	24.05.11 15:30	18 mm
c1010_bottom_if (84).JPG	IMG_0259.JPG	7,99MB	24.05.11 15:34	18 mm
c1010_bottom_if (85).JPG	IMG_0260.JPG	8,33MB	24.05.11 15:35	18 mm
c1010_bottom_if (86).JPG	IMG_0261.JPG	7,15MB	24.05.11 15:36	18 mm
c1010_bottom_if (87).JPG	IMG_0262.JPG	8,26MB	24.05.11 15:36	18 mm
c1010_bottom_if (88).JPG	IMG_0263.JPG	8,29MB	24.05.11 15:36	18 mm
c1010_bottom_if (89).JPG	IMG_0264.JPG	5,68MB	24.05.11 15:37	18 mm
c1010_bottom_if (90).JPG	IMG_0265.JPG	6,61MB	24.05.11 15:37	18 mm
c1010_bottom_if (91).JPG	IMG_0266.JPG	6,93MB	24.05.11 15:37	18 mm
c1010_bottom_if (92).JPG	IMG_0267.JPG	7,78MB	24.05.11 15:38	18 mm
c1010_bottom_if (93).JPG	IMG_0268.JPG	7,78MB	24.05.11 15:38	18 mm
c1010_bottom_if (94).JPG	IMG_0269.JPG	7,52MB	24.05.11 15:38	18 mm
c1010_bottom_if (95).JPG	IMG_0270.JPG	7,73MB	24.05.11 15:41	18 mm
c1010_bottom_if (96).JPG	IMG_0271.JPG	7,48MB	24.05.11 15:41	18 mm
c1010_bottom_if (97).JPG	IMG_0272.JPG	7,95MB	24.05.11 15:41	18 mm
c1010_bottom_if (98).JPG	IMG_0273.JPG	7,70MB	24.05.11 15:44	18 mm
c1010_bottom_if (99).JPG	IMG_0274.JPG	8,04MB	24.05.11 15:44	18 mm
c1010_bottom_if (100).JPG	IMG_0275.JPG	7,99MB	24.05.11 15:44	18 mm
c1010_bottom_if (101).JPG	IMG_0276.JPG	8,12MB	24.05.11 15:46	18 mm
c1010_bottom_if (102).JPG	IMG_0277.JPG	8,55MB	24.05.11 15:53	18 mm
c1010_bottom_if (103).JPG	IMG_0278.JPG	8,72MB	24.05.11 15:53	18 mm
c1010_bottom_if (104).JPG	IMG_0279.JPG	8,43MB	24.05.11 15:53	18 mm
c1010_bottom_if (105).JPG	IMG_0280.JPG	8,14MB	24.05.11 15:54	18 mm
c1010_bottom_if (106).JPG	IMG_0281.JPG	7,71MB	24.05.11 15:54	18 mm
c1010_bottom_if (107).JPG	IMG_0282.JPG	8,21MB	24.05.11 15:54	18 mm
c1010_bottom_if (108).JPG	IMG_0283.JPG	7,23MB	24.05.11 15:56	18 mm
c1010_bottom_if (109).JPG	IMG_0284.JPG	7,21MB	24.05.11 15:56	18 mm
c1010_bottom_if (110).JPG	IMG_0285.JPG	6,74MB	24.05.11 15:56	18 mm
c1010_bottom_if (111).JPG	IMG_0286.JPG	7,39MB	24.05.11 15:56	18 mm
c1010_bottom_if (112).JPG	IMG_0287.JPG	7,82MB	24.05.11 15:58	18 mm
c1010_bottom_if (113).JPG	IMG_0288.JPG	8,13MB	24.05.11 15:58	18 mm
c1010_bottom_if (114).JPG	IMG_0289.JPG	8,11MB	24.05.11 15:58	18 mm
c1010_bottom_if (115).JPG	IMG_0290.JPG	9,09MB	24.05.11 16:00	18 mm
c1010_bottom_if (116).JPG	IMG_0291.JPG	8,72MB	24.05.11 16:00	18 mm
c1010_bottom_if (117).JPG	IMG_0292.JPG	8,67MB	24.05.11 16:00	18 mm
c1010_bottom_if (118).JPG	IMG_0293.JPG	7,66MB	24.05.11 16:02	18 mm
c1010_bottom_if (119).JPG	IMG_0294.JPG	7,90MB	24.05.11 16:02	18 mm
c1010_bottom_if (120).JPG	IMG_0295.JPG	7,88MB	24.05.11 16:02	18 mm
c1010_bottom_if (121).JPG	IMG_0296.JPG	8,33MB	24.05.11 16:02	18 mm

file name	original file name	image size	date + time	focal length
c1010_bottom_if (122).JPG	IMG_0297.JPG	8,19MB	24.05.11 16:02	18 mm
c1010_bottom_if (123).JPG	IMG_0298.JPG	8,34MB	24.05.11 16:02	18 mm
c1010_bottom_if (124).JPG	IMG_0299.JPG	8,59MB	24.05.11 16:03	18 mm
c1010_bottom_if (125).JPG	IMG_0300.JPG	8,12MB	24.05.11 16:03	18 mm
c1010_bottom_if (126).JPG	IMG_0301.JPG	8,54MB	24.05.11 16:03	18 mm
c1010_bottom_if (127).JPG	IMG_0302.JPG	8,70MB	24.05.11 16:03	18 mm
c1010_bottom_if (128).JPG	IMG_0303.JPG	8,65MB	24.05.11 16:03	18 mm
c1010_bottom_if (129).JPG	IMG_0310.JPG	7,93MB	25.05.11 08:59	18 mm
c1010_bottom_if (130).JPG	IMG_0311.JPG	7,97MB	25.05.11 08:59	18 mm
c1010_bottom_if (131).JPG	IMG_0312.JPG	7,71MB	25.05.11 09:00	18 mm
c1010_bottom_if (132).JPG	IMG_0313.JPG	8,19MB	25.05.11 09:00	18 mm
c1010_bottom_if (133).JPG	IMG_0314.JPG	7,74MB	25.05.11 09:00	18 mm
c1010_bottom_if (134).JPG	IMG_0315.JPG	8,04MB	25.05.11 09:01	18 mm
c1010_bottom_if (135).JPG	IMG_0316.JPG	7,95MB	25.05.11 09:01	18 mm
c1010_bottom_if (136).JPG	IMG_0317.JPG	7,55MB	25.05.11 09:01	18 mm
c1010_bottom_if (137).JPG	IMG_0318.JPG	7,17MB	25.05.11 09:02	18 mm
c1010_bottom_if (138).JPG	IMG_0319.JPG	7,66MB	25.05.11 09:02	18 mm
c1010_bottom_if (139).JPG	IMG_0320.JPG	7,83MB	25.05.11 09:02	18 mm
c1010_bottom_if (140).JPG	IMG_0321.JPG	8,04MB	25.05.11 09:02	18 mm
c1010_bottom_if (141).JPG	IMG_0322.JPG	8,06MB	25.05.11 09:02	18 mm
c1010_bottom_if (142).JPG	IMG_0323.JPG	7,85MB	25.05.11 09:03	18 mm
c1010_bottom_if (143).JPG	IMG_0324.JPG	7,98MB	25.05.11 09:03	18 mm
c1010_bottom_if (144).JPG	IMG_0325.JPG	7,92MB	25.05.11 09:03	18 mm
c1010_bottom_if (145).JPG	IMG_0326.JPG	7,51MB	25.05.11 09:03	18 mm
c1010_bottom_if (146).JPG	IMG_0327.JPG	8,38MB	25.05.11 09:06	18 mm
c1010_bottom_if (147).JPG	IMG_0328.JPG	7,96MB	25.05.11 09:09	18 mm
c1010_bottom_if (148).JPG	IMG_0329.JPG	7,67MB	25.05.11 09:09	18 mm
c1010_bottom_if (149).JPG	IMG_0330.JPG	7,72MB	25.05.11 09:09	18 mm
c1010_bottom_if (150).JPG	IMG_0331.JPG	7,82MB	25.05.11 09:09	18 mm
c1010_bottom_if (151).JPG	IMG_0332.JPG	7,66MB	25.05.11 09:09	18 mm
c1010_bottom_if (152).JPG	IMG_0333.JPG	8,01MB	25.05.11 09:09	18 mm
c1010_bottom_if (153).JPG	IMG_0334.JPG	7,75MB	25.05.11 09:10	18 mm
c1010_bottom_if (154).JPG	IMG_0335.JPG	7,28MB	25.05.11 09:10	18 mm
c1010_bottom_if (155).JPG	IMG_0336.JPG	7,88MB	25.05.11 09:10	18 mm
c1010_bottom_if (156).JPG	IMG_0337.JPG	7,60MB	25.05.11 09:10	18 mm
c1010_bottom_if (157).JPG	IMG_0338.JPG	7,86MB	25.05.11 09:10	18 mm
c1010_bottom_if (158).JPG	IMG_0339.JPG	7,85MB	25.05.11 09:10	18 mm
c1010_bottom_if (159).JPG	IMG_0340.JPG	7,98MB	25.05.11 09:10	18 mm
c1010_bottom_if (160).JPG	IMG_0341.JPG	7,34MB	25.05.11 09:11	18 mm
c1010_bottom_if (161).JPG	IMG_0342.JPG	7,75MB	25.05.11 09:11	18 mm
c1010_bottom_if (162).JPG	IMG_0343.JPG	7,74MB	25.05.11 09:11	18 mm
c1010_bottom_if (163).JPG	IMG_0344.JPG	7,81MB	25.05.11 09:11	18 mm
c1010_bottom_if (164).JPG	IMG_0345.JPG	7,81MB	25.05.11 09:11	18 mm
c1010_bottom_if (165).JPG	IMG_0346.JPG	7,82MB	25.05.11 09:11	18 mm
c1010_bottom_if (166).JPG	IMG_0347.JPG	7,66MB	25.05.11 09:11	18 mm
c1010_bottom_if (167).JPG	IMG_0348.JPG	7,85MB	25.05.11 09:12	18 mm
c1010_bottom_if (168).JPG	IMG_0349.JPG	7,71MB	25.05.11 09:12	18 mm
c1010_bottom_if (169).JPG	IMG_0350.JPG	7,05MB	25.05.11 09:12	18 mm

file name	original file name	image size	date + time	focal length
c1010_bottom_if (170).JPG	IMG_0351.JPG	7,54MB	25.05.11 09:12	18 mm
c1010_bottom_if (171).JPG	IMG_0352.JPG	7,83MB	25.05.11 09:13	18 mm
c1010_bottom_if (172).JPG	IMG_0353.JPG	7,55MB	25.05.11 09:13	18 mm
c1010_bottom_if (173).JPG	IMG_0354.JPG	7,67MB	25.05.11 09:13	18 mm
c1010_bottom_if (174).JPG	IMG_0355.JPG	7,70MB	25.05.11 09:13	18 mm
c1010_bottom_if (175).JPG	IMG_0356.JPG	7,72MB	25.05.11 09:13	18 mm
c1010_bottom_if (176).JPG	IMG_0357.JPG	7,95MB	25.05.11 09:19	18 mm
c1010_bottom_if (177).JPG	IMG_0358.JPG	7,82MB	25.05.11 09:19	18 mm
c1010_bottom_if (178).JPG	IMG_0359.JPG	7,40MB	25.05.11 09:20	18 mm
c1010_bottom_if (179).JPG	IMG_0360.JPG	6,69MB	25.05.11 09:20	18 mm
c1010_bottom_if (180).JPG	IMG_0361.JPG	7,68MB	25.05.11 09:20	18 mm
c1010_bottom_if (181).JPG	IMG_0362.JPG	6,54MB	25.05.11 09:21	18 mm
c1010_bottom_if (182).JPG	IMG_0363.JPG	7,65MB	25.05.11 09:23	18 mm
c1010_bottom_if (183).JPG	IMG_0364.JPG	7,51MB	25.05.11 09:23	18 mm
c1010_bottom_if (184).JPG	IMG_0365.JPG	7,78MB	25.05.11 09:24	18 mm
c1010_bottom_if (185).JPG	IMG_0366.JPG	7,44MB	25.05.11 09:24	18 mm
c1010_bottom_if (186).JPG	IMG_0367.JPG	8,12MB	25.05.11 09:24	18 mm
c1010_bottom_if (187).JPG	IMG_0368.JPG	7,96MB	25.05.11 09:24	18 mm
c1010_bottom_if (188).JPG	IMG_0369.JPG	8,19MB	25.05.11 09:24	18 mm
c1010_bottom_if (189).JPG	IMG_0370.JPG	7,93MB	25.05.11 09:24	18 mm
c1010_bottom_if (190).JPG	IMG_0371.JPG	7,98MB	25.05.11 09:24	18 mm
c1010_bottom_if (191).JPG	IMG_0372.JPG	7,45MB	25.05.11 09:24	18 mm
c1010_bottom_if (192).JPG	IMG_0373.JPG	7,66MB	25.05.11 09:24	18 mm
c1010_bottom_if (193).JPG	IMG_0374.JPG	7,27MB	25.05.11 09:45	18 mm
c1010_bottom_if (194).JPG	IMG_0375.JPG	6,87MB	25.05.11 09:45	18 mm
c1010_bottom_if (195).JPG	IMG_0376.JPG	7,37MB	25.05.11 09:45	18 mm
Causeway_excavated (1).JPG	IMG_0377.JPG	7,91MB	25.05.11 09:45	18 mm
Causeway_excavated (2).JPG	IMG_0378.JPG	7,77MB	25.05.11 09:46	18 mm
Causeway_excavated (3).JPG	IMG_0379.JPG	7,37MB	25.05.11 09:47	20 mm
Causeway_excavated (4).JPG	IMG_0380.JPG	7,73MB	25.05.11 09:47	20 mm
Causeway_excavated (5).JPG	IMG_0381.JPG	7,38MB	25.05.11 09:47	20 mm
c1010_bottom_if (196).JPG	IMG_0383.JPG	7,38MB	25.05.11 09:55	20 mm
c1010_bottom_if (197).JPG	IMG_0384.JPG	7,27MB	25.05.11 09:56	20 mm
c1010_bottom_if (198).JPG	IMG_0385.JPG	6,64MB	25.05.11 10:02	20 mm
c1010_bottom_if (199).JPG	IMG_0386.JPG	7,32MB	25.05.11 10:03	20 mm
c1010_bottom_if (200).JPG	IMG_0387.JPG	7,53MB	25.05.11 10:03	20 mm
c1010_bottom_if (201).JPG	IMG_0388.JPG	7,57MB	25.05.11 10:03	20 mm
c1010_bottom_if (202).JPG	IMG_0389.JPG	7,26MB	25.05.11 10:03	20 mm
c1010_bottom_if (203).JPG	IMG_0390.JPG	6,75MB	25.05.11 10:03	20 mm
c1010_bottom_if (204).JPG	IMG_0391.JPG	7,55MB	25.05.11 10:03	20 mm
c1010_bottom_if (205).JPG	IMG_0392.JPG	7,31MB	25.05.11 10:07	20 mm
c1010_bottom_if (206).JPG	IMG_0393.JPG	7,20MB	25.05.11 10:07	20 mm
c1010_bottom_if (207).JPG	IMG_0394.JPG	7,48MB	25.05.11 10:07	20 mm
c1010_bottom_if (208).JPG	IMG_0395.JPG	6,87MB	25.05.11 10:07	20 mm
c1010_bottom_if (209).JPG	IMG_0396.JPG	7,42MB	25.05.11 10:07	20 mm
c1010_bottom_if (210).JPG	IMG_0397.JPG	7,47MB	25.05.11 10:07	20 mm
c1010_bottom_if (211).JPG	IMG_0398.JPG	7,68MB	25.05.11 10:07	20 mm
c1010_bottom_if (212).JPG	IMG_0399.JPG	7,34MB	25.05.11 10:08	20 mm

file name	original file name	image size	date + time	focal length
c1010_bottom_if (213).JPG	IMG_0400.JPG	7,02MB	25.05.11 10:08	20 mm
c1010_bottom_if (214).JPG	IMG_0401.JPG	7,52MB	25.05.11 10:08	20 mm
c1010_bottom_if (215).JPG	IMG_0402.JPG	7,34MB	25.05.11 10:11	20 mm
c1010_bottom_if (216).JPG	IMG_0403.JPG	7,59MB	25.05.11 10:11	20 mm
c1010_bottom_if (217).JPG	IMG_0404.JPG	7,37MB	25.05.11 10:11	20 mm
c1010_bottom_if (218).JPG	IMG_0405.JPG	7,49MB	25.05.11 10:11	20 mm
c1010_bottom_if (219).JPG	IMG_0406.JPG	7,49MB	25.05.11 10:11	20 mm
c1010_bottom_if (220).JPG	IMG_0407.JPG	7,56MB	25.05.11 10:11	20 mm
c1010_bottom_if (221).JPG	IMG_0408.JPG	7,53MB	25.05.11 10:11	20 mm
c1010_bottom_if (222).JPG	IMG_0409.JPG	7,49MB	25.05.11 10:11	20 mm
c1010_bottom_if (223).JPG	IMG_0410.JPG	7,50MB	25.05.11 10:11	20 mm
c1016_c1017 (1).JPG	IMG_0411.JPG	7,12MB	25.05.11 10:45	18 mm
c1016_c1017 (2).JPG	IMG_0412.JPG	6,31MB	25.05.11 10:45	18 mm
c1016_c1017 (3).JPG	IMG_0414.JPG	6,62MB	25.05.11 10:46	18 mm
c1016_c1017 (4).JPG	IMG_0415.JPG	6,64MB	25.05.11 10:46	18 mm
c1016_c1017 (5).JPG	IMG_0416.JPG	7,07MB	25.05.11 10:46	18 mm
c1016_c1017 (6).JPG	IMG_0417.JPG	7,30MB	25.05.11 10:47	18 mm
c1016_c1017 (7).JPG	IMG_0419.JPG	7,33MB	25.05.11 10:48	18 mm
trench1_west_profile (1).JPG	IMG_0423.JPG	7,04MB	25.05.11 13:15	18 mm
trench1_west_profile (2).JPG	IMG_0424.JPG	5,67MB	25.05.11 13:15	18 mm
trench1_west_profile (3).JPG	IMG_0427.JPG	6,15MB	25.05.11 13:19	18 mm
trench1_west_profile (4).JPG	IMG_0428.JPG	5,65MB	25.05.11 13:19	18 mm
trench1_west_profile (5).JPG	IMG_0429.JPG	6,74MB	25.05.11 13:21	18 mm
trench1_west_profile (6).JPG	IMG_0431.JPG	5,34MB	25.05.11 13:22	18 mm
trench1_west_profile (7).JPG	IMG_0432.JPG	7,27MB	25.05.11 13:25	18 mm
trench1_west_profile (8).JPG	IMG_0433.JPG	6,71MB	25.05.11 13:25	18 mm
trench1_east_profile (1).JPG	IMG_0434.JPG	7,73MB	25.05.11 13:27	18 mm
trench1_east_profile (2).JPG	IMG_0435.JPG	6,09MB	25.05.11 13:28	18 mm
trench1_east_profile (3).JPG	IMG_0436.JPG	6,39MB	25.05.11 13:30	21 mm
trench1_east_profile (4).JPG	IMG_0437.JPG	7,19MB	25.05.11 13:30	21 mm
trench1_east_profile (5).JPG	IMG_0438.JPG	6,57MB	25.05.11 13:33	18 mm
trench1_east_profile (6).JPG	IMG_0439.JPG	7,56MB	25.05.11 13:33	18 mm
trench1_east_profile (7).JPG	IMG_0440.JPG	7,31MB	25.05.11 13:34	18 mm
trench1_east_profile (8).JPG	IMG_0441.JPG	7,03MB	25.05.11 13:34	18 mm
trench1_east_profile (9).JPG	IMG_0442.JPG	7,02MB	25.05.11 13:35	18 mm
trench1_south_profile (1).JPG	IMG_0443.JPG	7,10MB	25.05.11 13:40	18 mm
trench1_south_profile (2).JPG	IMG_0444.JPG	6,83MB	25.05.11 13:40	18 mm
trench1_south_profile (3).JPG	IMG_0445.JPG	6,63MB	25.05.11 13:42	18 mm
trench1_south_profile (4).JPG	IMG_0446.JPG	7,08MB	25.05.11 13:42	18 mm
trench1_south_profile (5).JPG	IMG_0447.JPG	5,29MB	25.05.11 13:42	18 mm
trench1_north_profile (1).JPG	IMG_0448.JPG	7,16MB	25.05.11 13:44	20 mm
trench1_north_profile (2).JPG	IMG_0449.JPG	6,34MB	25.05.11 13:45	20 mm
trench1_north_profile (3).JPG	IMG_0450.JPG	7,20MB	25.05.11 13:48	21 mm
trench1_north_profile (4).JPG	IMG_0451.JPG	6,60MB	25.05.11 13:48	21 mm
trench1_west_profile_photogrammetry (1).JPG	IMG_0452.JPG	5,57MB	25.05.11 14:13	23 mm
trench1_west_profile_photogrammetry (2).JPG	IMG_0453.JPG	6,11MB	25.05.11 14:13	21 mm
trench1_west_profile_photogrammetry (3).JPG	IMG_0454.JPG	6,08MB	25.05.11 14:13	21 mm
trench1_west_profile_photogrammetry (4).JPG	IMG_0455.JPG	5,05MB	25.05.11 14:14	24 mm

file name	original file name	image size	date + time	focal length
trench1_west_profile_photogrammetry (5).JPG	IMG_0456.JPG	5,02MB	25.05.11 14:14	24 mm
trench1_west_profile_photogrammetry (6).JPG	IMG_0457.JPG	5,13MB	25.05.11 14:14	23 mm
trench1_west_profile_photogrammetry (7).JPG	IMG_0458.JPG	5,22MB	25.05.11 14:14	24 mm
trench1_west_profile_photogrammetry (8).JPG	IMG_0459.JPG	5,38MB	25.05.11 14:15	24 mm
trench1_west_profile_photogrammetry (9).JPG	IMG_0460.JPG	5,28MB	25.05.11 14:15	24 mm
trench1_west_profile_photogrammetry (10).JPG	IMG_0461.JPG	5,06MB	25.05.11 14:15	24 mm
trench1_west_profile_photogrammetry (11).JPG	IMG_0462.JPG	7,50MB	25.05.11 14:15	25 mm
trench1_west_profile_photogrammetry (12).JPG	IMG_0463.JPG	6,00MB	25.05.11 14:15	25 mm
trench1_west_profile_photogrammetry (13).JPG	IMG_0464.JPG	5,98MB	25.05.11 14:15	25 mm
trench1_west_profile_photogrammetry (14).JPG	IMG_0465.JPG	5,61MB	25.05.11 14:16	29 mm
trench1_west_profile_photogrammetry (15).JPG	IMG_0466.JPG	5,71MB	25.05.11 14:16	29 mm
trench1_west_profile_photogrammetry (16).JPG	IMG_0467.JPG	7,33MB	25.05.11 14:17	29 mm
trench1_west_profile_photogrammetry (17).JPG	IMG_0468.JPG	7,78MB	25.05.11 14:17	29 mm
trench1_west_profile_photogrammetry (18).JPG	IMG_0469.JPG	7,82MB	25.05.11 14:17	29 mm
trench1_west_profile_photogrammetry (19).JPG	IMG_0470.JPG	7,79MB	25.05.11 14:17	29 mm
Causeway_orthophoto 1.JPG	IMG_0502.JPG	8,71MB	27.05.11 09:13	18 mm
Causeway_orthophoto 2.JPG	IMG_0503.JPG	8,68MB	27.05.11 09:13	18 mm
Causeway_orthophoto 3.JPG	IMG_0504.JPG	8,74MB	27.05.11 09:13	18 mm
Causeway_orthophoto 4.JPG	IMG_0505.JPG	8,69MB	27.05.11 09:13	18 mm
Causeway_orthophoto 5.JPG	IMG_0506.JPG	8,84MB	27.05.11 09:13	18 mm
Causeway_orthophoto 6.JPG	IMG_0507.JPG	8,59MB	27.05.11 09:18	18 mm
Causeway_orthophoto 7.JPG	IMG_0508.JPG	8,57MB	27.05.11 09:18	18 mm
Causeway_orthophoto 8.JPG	IMG_0509.JPG	8,51MB	27.05.11 09:18	18 mm
Causeway_orthophoto 9.JPG	IMG_0510.JPG	8,71MB	27.05.11 09:18	18 mm
Causeway_orthophoto 10.JPG	IMG_0511.JPG	8,75MB	27.05.11 09:18	18 mm
Causeway_orthophoto 11.JPG	IMG_0512.JPG	8,71MB	27.05.11 09:18	18 mm
Causeway_orthophoto 12.JPG	IMG_0513.JPG	8,71MB	27.05.11 09:18	18 mm
Causeway_orthophoto 13.JPG	IMG_0514.JPG	8,57MB	27.05.11 09:19	18 mm
Causeway_orthophoto 14.JPG	IMG_0515.JPG	8,40MB	27.05.11 09:19	18 mm
Causeway_orthophoto 15.JPG	IMG_0521.JPG	9,36MB	27.05.11 09:30	18 mm
Causeway_orthophoto 16.JPG	IMG_0522.JPG	9,37MB	27.05.11 09:30	18 mm
Causeway_orthophoto 17.JPG	IMG_0523.JPG	9,51MB	27.05.11 09:30	18 mm
Causeway_orthophoto 18.JPG	IMG_0524.JPG	9,61MB	27.05.11 09:30	18 mm
Causeway_orthophoto 19.JPG	IMG_0525.JPG	9,61MB	27.05.11 09:30	18 mm
Causeway_orthophoto 20.JPG	IMG_0526.JPG	9,83MB	27.05.11 09:34	18 mm
Causeway_orthophoto 21.JPG	IMG_0527.JPG	9,64MB	27.05.11 09:34	18 mm
Causeway_orthophoto 22.JPG	IMG_0528.JPG	9,87MB	27.05.11 09:34	18 mm
Causeway_orthophoto 23.JPG	IMG_0529.JPG	9,86MB	27.05.11 09:34	18 mm
Causeway_orthophoto 24.JPG	IMG_0530.JPG	8,53MB	27.05.11 09:34	18 mm
Causeway_orthophoto 25.JPG	IMG_0559.JPG	10,20MB	27.05.11 09:58	18 mm
Causeway_orthophoto 26.JPG	IMG_0560.JPG	9,03MB	27.05.11 09:58	18 mm
Causeway_orthophoto 27.JPG	IMG_0561.JPG	9,01MB	27.05.11 09:58	18 mm
Causeway_orthophoto 28.JPG	IMG_0562.JPG	9,03MB	27.05.11 09:59	18 mm
Causeway_orthophoto 29.JPG	IMG_0563.JPG	9,30MB	27.05.11 10:06	18 mm
Causeway_orthophoto 30.JPG	IMG_0564.JPG	7,87MB	27.05.11 10:06	18 mm

Appendix 4: finds register

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
1		1000	2	L102?		1			1				Post-medieval pottery
2		1000	1	L100		1							
3		1000	1	K105		1							
4		1000	1	G-H 111		1							
5		1000	1	I109		1							Post-medieval pottery
6		1000	1	L109		1							
7		1000	2	G107	1	1							
8	X	1000	1	L100							1		Clay pipe stem
9	X	1000	3	L101		3							Post-medieval pottery
10	X	1000	2	L101		2							Post-medieval pottery
11		1000	1	I100	1								
12		1000	1	H100	1								
13	X	1000	1	J100				1					
14		1000	1	I101	1								
15		1000	?	G100	?								Finds missing?
16		1000	2	K101	2								
17		1000	1	H102	1								
18	X	1000	1	I101				1					
19		1000		H102								few	
20		1000	1	H103	1								
21		1000	1	H103	1								
22	X	1000	1	L105		1							
23		1000	2	I104	2								
24		1000	1	H104					1				
25	X	1000	1	J104				1					
26		1000		G103								?	Shell
27		1000	?	G104		?							Finds missing?
28		1000	1	G104	1								
29		1000		G105								one	
30		1000	2	K105		2							
31		1000	1	L106	1								
32		1000	1	K100		1							
33		1000	1	G104	1								
34		1000	1	I101	1								
35		1000	2	J105	2								
36		1000	1	I105	?	1							
37	X	1000	1	I105		1							
38		1000	2	L101	2								
39	X	1000	17	J101	15			2					
40		1000	1	K106		1							
41	X	1000	1	K102					1				Stone?
42		1000	?	L102	?								Finds missing?
43	X	1000	1	I106		1							
44	X	1000		H102-103									Shell and bone, very soft deposit
45		1000	1	K101				1					
46		1000	2	J106		2							

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
47		1000		K101								one	
48		1000	2	K103	2								
49		1000	2	I107		2							1 prehistoric, 1 post-medieval pottery fragment
50		1000	1	J107		1							
51		1000	2	L107	2								
52		1000	3	J103		1		1			1		Window pane fragment
53		1000		G104								?	Finds missing?
54		1000	1	G108	1								
55		1000	3	K107		3							
56	X	1000	1	J108		1							
57		1000	4	G104	4								
58		1000	1	L107	1								
59		1000	2	I104		2							
60		1000	7	-	2	4		1					Sieve finds
61		1000	1	H108	1								
62		1000	10	G105	10							one	
63		1000	1	L108	1								
64		1000	1	I108							1		Glass fragment
65		1000	1	K104		1							
66		1000	1	K103		1							
67		1000	7	L106	7								
68		1000	3	K106		3							
69		1000	11	G110	11								
70		1000	1	L109		1							
71	X	1000	1	L109				1					Iron object
72	X	1000	1	K107	1?								Find missing?
73		1000	?	H108		?							Finds missing?
74		1000	1	G108		1							
75		1000	3	L110	3								
76		1000	4	G108	1	3							
77		1000	3	L106	?	3							
78		1000	2	K107	2								
79		1000	4	L108	3	1							
80	X	1000	1	K108					1				Handstone
81		1000	?	G110	?	?							Finds missing?
82	X	1000	1	L108					1				Handstone
83		1000	2	H108	1	1							
84		1000	1	G111		1							
85		1000	4	K108	2	1		1					
86		1000	4	H109		4							
87		1000	3	I109	3								
88		1000	1	I110			1						Iron object?
89		1000	2	K111	1	1							
90	X	1000	1	K111					1				
91	X	1000	1	L111					1				
92		1000	1	L108	1								
93		1000	1	L109	1								
94		1000	4	L110	3	1							
95		1000	2	G111		2							
96	X	2000	1			1							Post-medieval pottery
97		1002	2	H107		2							

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & wheels	Description & comments
98		1002	1	G103	1								
99		1003	1	L100		1							Post-medieval pottery
100	X	1001	1	J104				1					
101	X	1001	1	K104		1							
102		1002	1	G105	1								
103		1002	4	G105		3		1					
104		1002	19	G107	1	18							
105		1002	14	G106	9	5							
106	X	2000	1								1		Painted glass
107	X	2000	1			1							Post-medieval pottery
108	X	2000	3			3							Post-medieval pottery
109		1002	1	G103-107		1							Flotation sample
110	X	1002	1	G106			1						Iron object
111	X	1001	1	J105							1		Glass
112		1002	2	H102	1	1							
113		1002	8	G-H 106	3	5							
114		1002	13	?	3	10							
115	X	1004	1	G100		1							
116		1001	106	?	61	35		7	3				2 pumice fragments
117		1001	2	J-K104		1			1				Flotation sample
118	X	2001	2						2				Roof slate fragments
119	X	2001	1								1		Glass
120	X	2001	4								4		Brick fragments
121	X	2001	16			16							Several pottery fragments (Post-medieval) from one vessel
122	X	2001	2			1					1		Post-medieval pottery, glass fragment
123	X	2001	1			1							Post-medieval pottery
124	X	1004		J100								small bag	
125		1004	13	J100	12			1					Pottery, bone
126	X	1004	1	J100					1				Perforated stone disk
127		1004	?	J100							?		Fired clay
128		1004	70	I-H 100	61	3		5		1		medium size bag	
129		1004	1	J101					1				
130		1004		K100									Flotation sample
131	X	1004	1	K101					1				
132		1004	24	K101	7	4		13				few	
133		1004		I100									Flotation sample
134		1004	3	G100				3					Pottery, bone
135		1004	16	G101	15				1				Pottery, bone
136		1004	13	G-L 100	4	7		2				small bag	Sieve finds
137		1004	1	I-H 101	1								
138		1004	7	G101	7							one	
139		1004	2	I107	1	1							
140		1004	4	G107		4							Pottery, bone
141		1004		I100								one	
142		1004	6	H101	6							few	Shells, bone, pottery
143		1004		L102								few	

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
144		1004	1	H104		1							
145		1004	41	J100	15	2		9	1		14		Daub fragments
146		1004	1	J105		1							
147		1004	1	L106	1								
148		1004	1	L111	1								
149		1004	6	H111		6							
150		2001	2	?		2							
151		1004	1	G106		1							
152	X	1004	1	J100							1		Burnt clay/stone?
153		1004	8	-	5	3							Stray finds
154	X	1004	1	L100						1			Charcoal
155		1004	11	H102	8			3				small bag	
156		1003	4	L100		3					1		Post-medieval pottery, daub fragment
157		1004	19	J101	3			15		1		few	
158		1004	13	K101	4	3		6				few	
159		1004	10	L100	9	1						medium size bag	
160		1004	108	I102	60	19		14	1	14		few	
161		1004	13	H101	5	4		4				few	
162		1004	9	G102	8			1				large bag	
163		1004	1	H102				1					
164		1004	46	I100	20	1		20		1	4	medium size bag	Daub fragment
165	X	1004	38	J101	38								
166	X	1004	4	K101						4			Slag or burnt organic matter?
167		1004	12	G100	5	7						few	
168		1004	2	J101	1			1					Flotation sample
169		1004	12	L101	8	3					1	few	Daub fragment
170		1004	31	K102	27	1		3				few	
171		2002	6	-	6								
172	X	2002	35	-		35							Post-medieval pottery
173	X	2002	2	-		2							Post-medieval pottery
174		1004	19	I101	2			15	2			few	
175		1004	17	H100	11			4		2		small bag	
176		1004	13	L102	13							medium size bag	
177		1004		L102									Flotation sample
178		1004	21	K103	18	1		1		1		few	
179		1004	67	J102	60	3		3	1			one	
180		1004	120	G101	118					2		few	
181	X	1004	1	K103					1				Steatite spindle whorl
182	X	1004	4	J102		4							
183	X	1004	1	J102					1				
184		1004	18	H103	12			1		5		large bag	
185		1004	19	K104	6	13						few	
186	X	1004	1	L103		1							
187		1004	69	G103	60	9						medium size bag	
188		1004	5	L103	2	3						one	
189	X	1004	8	I102		8							
190	X	1004	1	G103					1				

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
191	X	1004	1	H103					1				
192		1004	53	J103	42	3		2	1	5		few	
193		1004	17	L104	15	2							
194		1004	8	K105	3	4			1				
195		1004	27	L105	20	7						few	
196		1004	7	I103	6	1						few	
197		1004	79	H104	65	10				4		one	
198		1004	19	K106	15	4						few	
199	X	1004	1	G103					1				
200		1004	37	L106	19	18							
201		1004	79	J104	39	22			1	17		few	
202		1004	40	G104	32	6		1	1			few	
203		1004	32	I104	20	11				1			
204		1004	44	H105	38	5		1					
205		1004	16	I105	14			1		1			
206	X	1004	1	H105					1				
207		1004	25	K107	18	7							
208		1004	26	L107	22	3		1					
209	X	1004	1	G101							1		Fired clay
210	X	1004	1	J104 (?)		1							Decorated pottery fragment
211	X	1004	1	G101							1		Fired clay
212	X	1004	1	G105		1							
214		1004	32	J105	17	12				3			
215		1004	27	K108	23	4							
216		1004	72	H106	55	17							
217		1004	20	J106	9	11							
218	X	1004	1	J105 (?)					1				
219		1004	6	L108	4	2							
220	X	1004	1	L108		1							
221	X	1004	1	J107		1							
222		1004	47	H107	33	12				2			
223	X	1004	1	H106		1							
224		1004	29	J107	18	11							
225		1004	1	K108	1								Flotation sample
226		1004	14	K109	8	4		1			1		Daub fragment
227		1004	4	G105	3	1							
228		1004	17	J108	12	5							
229		1004	3	I106	3								
230		1004	35	G106	27	8						few	
231	X	1004	5	I107		4	1						Bronze ring
232		1004	4	L109	3	1							
233		1004	9	L110	5	4							
234		1004	20	J109	15	5							
235		1004	3	K110	2				1				Pottery
236		1004	4	J110	2	2							
237		1004	5	K111	3	2							
238	X	1004	1	I107 (?)				1					
239	X	1004	2	G106		2							
240		1004	39	H107	20	16			1	2			„Steatite“ = phyllite?
241		1004	4	J105	4								
242		1004	74	G106	17	54		3					
243		1004	9	I107	3	6							
244	X	1004	2	H108	1	1							

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
245	X	1004	2	G106		2							Decorated pottery fragment
246		1004	50	H108	31	17			1	1			Steatite piece?
247		1004	19	J111	9	6		2	2				
248		1004	11	I108	5	6							
249		1004	4	J107	2	2							
250	X	1004	1	G106			1						Iron object
252		1004	107	H109	70	35			1	1			
253	X	1004	1	G107					1				Pumice
254	X	1004	1	I111 (?)					1				Handstone
255	X	1004	1	H109		1							
256		1004	69	G107	27	41		1					
257	X	1004	1	H109-110					1				
258	X	1004	1	H109-110					1				Stone bead
259		1004	3	L111	3								
260		1004	?	K111	?								Finds missing?
261		1004	4	G106	1	3							
262		1004	82	H110	32	50							
263		1004	2	J109	1	1							
264	X	1004	7	J101	1	6							
265	X	1004	1	H109-110		1							
266	X	1004	1	H109-110					1				Pumice
267		1004	18	J110	13	5							
268		1004	?	-									Various stray finds. Finds missing?
269	X	1004	1	G108					1				Stone vessel fragment
270		1004	30	G110	17	12			1				
271		1004	14	G108	3	11							
272		1004	38	G109	26	11				1			
273	X	1004	1	I109					1				Stone disk
274		1004	45	I109	32	11				2			
275		1004	29	H111	21	7		1					
276	X	1004	1	G109		1							
277		1004	40	I110	19	19			2				
278		1004	22	G111	11	11							
279	X	1004	1	H110					1				Handstone
280		1004	1	-					1				Stone artefact, stray find
281		1004	2	-					2				Stone artefacts, stray finds
282		2002	1	-	1								
283	X	2002	1	-		1							Post-medieval pottery
284		1005	2	L103	2							few	
285		1005	1	K103	1							one	
286		1005	67	K104	34	33						few	
287		1005	56	J105	36	17				3		few	
288	X	1005	1	L107					1				Stone tool
289	X	1005	1	L108					1				Stone tool
290		1005	15	K107	14	1							
291	X	1005	1	K107				1					
292		1005	19	I105	15	4							
293		1005	40	H105	37	1			1	1		few	
294		1005	30	I106	27	1		1		1		one	

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
295		1005	80	J106	59	19				2		few	
296		1005	74	K106	57	16				1		few	
297		1005	33	H106	33								
298		1005	25	H107	16	4		1		4			
299		1005		J106									Flotation sample
300		1005	85	J107	69	15				1			
301	X	1005	1	H107					1				Stone artefact
302	X	1005	1	K105					1				Pebble, possibly painted?
303		1005	70	K105	40	25			2	3		few	Pebble
304	X	1005	1	K106		1							
305		2005	7	-	3	4							
306		1005	125	I107	97	23		2	1	2		few	
307		1005	59	L106	53	5			1			few	
308	X	1005	1	J107		1							
309		1005	6	L104	5	1							
310		1005	4	L105	3	1							
311		1005	11	K104	11							few	
312		1005	24	L107	19	4			1				
313		1004		H111									Flotation sample
314		1004		G110									Flotation sample
315		1004	2	J109		1		1					Flotation sample
316		1005	36	G107	17	15				4			
317		1005	36	K103	28	4		4				few	
318		1005	66	G105	48	17				1		medium size bag	
319		1005	18	J105	16	1				1			
320		1005		L104									Flotation sample
321		1005	37	L104	34	2				1		few	
322		1005	2	K102	2							one	
323	X	1005	1	K106		1							Perforated pottery fragment
324		1005	14	K102	12				1		1	small bag	Daub fragment
325		1005	32	L102	29			1	2			medium size bag	
326		1005	3	L101	3							few	
327		1005	57	K107	37	17				3		few	
328		1005	118	L105	88	28				2			
329		1005	13	K101	9			4					
330	X	1005	1	K107					1				Pebble
331		1005	82	H108	60	15		1		6		few	
332	X	1005	1	L104		1							
333	X	1005	1	K102	1								Bone artefact?
334		1005	88	J108	62	23		2	1			few	
335		1005	57	G108	42	15							
336		1005	151	K108	114	30		1		6			
337		1005	10	I110	10								
338	X	1005	1	K108		1							
339		1005	16	H109	15	1						few	
340		1005	19	G109	14	5						few	
341		1005	63	L106	49	14						few	
342		1005	57	I108	50	6		1					
343		1005	15	L103	15							medium size bag	
344	X	1005	1	L104			1						Iron object

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
345		1005		I108									Flotation sample
346	X	1005	1	I108					1				
347		1005	51	I109	39	7				5			
348		1005	6	I109	2	2				1	1		Daub fragment
349	X	1005	2	K109		2							
350	X	1005	1	L102				1					
351	X	1005	1	L102				1					
352		1010	35	I107	31	4							
353		1005	17	K110	10	7							
354		1005	22	J110	16	6							
355		1005	5	L100	5							medium size bag	
356		1005	4	L101	3				1			medium size bag	
357	X	1005	1	L101				1					
358		1005		J111									Flotation sample
359		1005	12	L108	9	2					1		
360		1004	12	-	11	1							Stray finds
361	X	1005	1	K111			1						Bronze wire spiral
362		1005		L100								few	
363		1005		L109									Flotation sample
364		1005	1	L110	1								
365		1005	7	L111	3	3		1					
366		1005	10	I110	9	1							
367		1005	19	J111	15	3		1				one	
368		1005		L104								one	
369		1005	5	K104	5								
370		1006	8	I100	5					3		small bag	
371		1006	2	I100	2							one	
372		1005	18	L108	16	1				1		one	
373		1005	7	J-K101-102	7								
374		1006		G102								few	
375		1006	9	G103	7			1	1			large bag	
376		1006	?	G104	?								Finds missing?
377	X	1006	1	J100					1				Handstone
378		1005	4	K106	4							few	
379		1006	10	I101	5			4		1		few	
380		1005	6	L107	6								
381	X	1006	1	J102					1				
382		1006		H102								medium size bag	
383		1005	11	L108	10			1					
384		1005	12	L109	10	2							
385		1005	4	L110	3	1							
386		1006		G102								medium size bag	
387		1005	5	G106	3	2						one	
388		1006	5	H103	2	2		1				medium size bag	
389		1005	1	I111	1								
390		1006	2	J100	1				1				
391		1006	28	J101	18			10				few	
392		1006	3	J102	3							small bag	
393		1006	11	H100	8	1		1		1		few	
394		1006		I100								few	

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
395		1006	13	K101	8	1		4				few	
396		1004	14	-	13					1		one	Stray finds
397		1006	13	K102	9	3			1			few	
398		1006	5	K-L101	1			4					
399		1007	18	G110	14	4							
400		1007	28	H110	27	1							
401		1008	7	L102	5			2				one	
402	X	1007	2	G111	1				1				Handstone
403		1010	22	G100	17	1		1	1	1	1	few	Daub fragment
404		1010	109	G101	98	6				5		few	
405		1010	7	H100	4	2		1				few	
406		1010	14	H101	10	2				2		medium size bag	;
407	X	1010	1	J100					1				
408		1010	13	J100	7	1		5				few	
409		1010	15	I100	14	1						few	
410		1010	39	J101	29			5		5		medium size bag	
411		1010	7	I101	6			1				small bag	
412	X	1010	1	K101						1			Charcoal?
413	X	1010	1	K110				1					
414	X	1010	1	J101				1					
415	X	1010	1	J101					1				Handstone
416		1010	11	K101	8	1		2				few	
417		1010	22	J102	13	7				2		medium size bag	
418		1010	112	K102	79	29		1		3		medium size bag	
419		1010	6	I102	2	1		3				small bag	
420	X	1010	3	J102				3					
421		1010	25	G102	23	1		1				medium size bag	
422		1010	7	H102	6					1			
423		1010	12	G103	11			1				large bag	
424		1010	11	H103	10	1						medium size bag	
425		1010	17	I103	13	3		1				large bag	
426		1010	31	j103	22	6		1		1	1	medium size bag	Daub fragment
427		1010	18	K103	12	2		3	1			medium size bag	
428	X	1010	1	H102					1				
429		1010		H102									Flotation sample
430	X	1010	1	J103				1					
431	X	1010	1	G103				1					
432		1010	?	G104									Finds missing?
433		1010	15	H104	12	2			1			few	
434		1010	37	I104	29	8						small bag	
435	X	1010	1	H104	1								Bone artefact
436		1010	51	J104	41	9				1		medium size bag	
437	X	1010	1	J103				1					
438		1010	22	G105	20	1		1				small bag	
439		1010	73	K105	63	9				1		few	
440		1010		I104									Flotation sample

Find no.	SF	Context	Sum	Grid square	N bone	N pottery	N metall	N slag	N stone artef.	N organic	N other	N/Volume shells & whelks	Description & comments
441		1010	73	I105	56	15				2		few	
442		1010		G101									Flotation sample
443		1010	31	G106	23	8						medium size bag	
444		-	1						1				Stone tool, stray find from spoilheap
445		1010	11	J105	6	5						small bag	
446	X	1010	1	G106	1								Bone artefact
447		1010	53	H106	42	8		1		2		few	
448		1010	18	I106	17				1			one	
449		1010		I-J106									Flotation sample
450		1010	37	G107	23	13			1				
451		1011	6	G101	6								
452		1010	30	I107	26	2			1	1		few	
453		1010	61	H107	54	4				3		few	
454		1010	51	J106	44	3				4		few	
455		1010	8	K104	5	2		1				few	
456		1010	3	K105	3							few	
457		1010	62	J107	36	4		22				medium size bag	
458		1010	7	K106	6	1							
459		1010	1	L105	1								
460		1010	7	L106	5	2						few	
461		1010	45	J108	43	2						one	
462	X	1010	1	J107					1				
463		1010		K108									Flotation sample
464		1010	60	K108	55	5							
465		1010	36	L108	35					1		one	
466		1010	69	L108	49	16		1	2	1		few	
467		1010	30	K108	25	4		1					
468		1010	27	H108	22	4			1			few	
469		1010	36	I108	34	2						few	
470		1010	23	K107	12	8				3			
471		1010	1	J104?					1				Large stone, possibly worked? Left at the site due to its weight.
472	X	1010	1	H110					1				
473		1010	27	I109	20	7							
474		1010	12	H110	9	1				2			
475		1010	?	J109									Finds missing?
476		1010	14	K109	10	3				1			
477		1012	7	?	7							few	
478		1010	4	K110	4								
479		1010	67	K111	60	4			1	2			
480		1010	4	H111	4								
481		1010	5	I111	2				3				
482		1010	34	K-L107	26	2			4	2		medium size bag	
483		1010	8	K-L105-106	8							few	
484		1010	1	J106					1				
485		1010	8	L111	7					1			
486		1011		?									Flotation sample
487		-	43	-	41	2							Stray finds from profile
488		2005		-									Flotation sample

Sum of finds

Trench 1

	Bone	Pottery	Metal	Slag	Stone	Organic	Other	Sum
C1000	98	61	1	8	7		3	178
C1001	61	37		8	4		1	111
C1002	19	45	1	1				66
C1003		4					1	5
C1004	1638	668	2	141	40	73	23	2585
C1005	1560	407	2	25	17	49	3	2063
C1006	69	7		25	5	5		111
C1007	42	5			1			48
C1008	5			2				7
C1010	1354	222		61	24	48	2	1711
C1011	6							6
C1012	7							7
Profiles		41	2					43
Spoil heap					1			1
Sum	4859	1497	8	271	99	175	33	6942

Trench 2

	Bone	Pottery	Metal	Slag	Stone	Organic	Other	Sum
C2000		5					1	6
C2001		20			2		6	28
C2002	7	38						45
C2005	3	4						7
Sum	10	67			2		7	86

Appendix 5: sample register

Flotation samples

find no.	context	grid square	date	vol. (L)
109	1002	G103-107	5.5	9.6
117	1001	J-K 104	5.5	10.8
130	1004	K100	5.5	4.7
133	1004	I100	5.5	2.6
168	1004	J101	10.5	8.9
177	1004	L102	10.5	10.3
225	1004	K108	10-5?	9.0
299	1005	J106	10-5?	13.8
313	1004	H111	11.5	9.1
314	1004	G110	11.5	10.7
315	1004	J109	11.5	9.0
320	1005	L104	13-5?	10.8
345	1005	I108	16-5?	10.1
358	1005	J111	16.5	8.6
363	1005	L109	23.5	9.8
429	1010	H102	19-5?	10.4
440	1010	I104	19.5	8.7
442	1010	G101	19-5?	10.8
449	1010	I-J106	19.5	9.8
463	1010	K108	22.5	9.3
486	1011	G101?	24.5	7.8
488	2005	-	25.5	2.3

Archaeomagnetic dating samples

no.	context	grid square	date	no.	context	grid square	date
<i>T1</i>	1011	G101	19.5	<i>T23</i>	1012	H104	24.5
<i>T2</i>	1011	G101	19.5	<i>T24</i>	1012	H104	24.5
<i>T3</i>	1011	G101	19.5	<i>T25</i>	1012	H104	24.5
<i>T4</i>	1011	G101	19.5	<i>T26</i>	1012	H104	24.5
<i>T5</i>	1011	G101	19.5	<i>T27</i>	1012	H104	24.5
<i>T6</i>	1011	G101	19.5	<i>T28</i>	1012	H104	24.5
<i>T7</i>	1011	G101	19.5	<i>T29</i>	1012	H104	24.5
<i>T8</i>	1011	G101	19.5	<i>T30</i>	1012	H104	24.5
<i>T9</i>	1011	G101	19.5	<i>T31</i>	1012	H104	24.5
<i>T10</i>	1011	G101	19.5	<i>T32</i>	1012	I104	24.5
<i>T11</i>	1011	G101	19.5	<i>T33</i>	1012	I104	24.5
<i>T12</i>	1011	G101	19.5	<i>T34</i>	1012	I104	24.5
<i>T13</i>	1011	G101	19.5	<i>T35</i>	1012	I104	24.5
<i>T14</i>	1011	G101	19.5	<i>T36</i>	1012	I104	24.5
<i>T15</i>	1012	H105	24.5	<i>T37</i>	1012	I104	24.5
<i>T16</i>	1012	H105	24.5	<i>T38</i>	1012	I104	24.5
<i>T17</i>	1012	H105	24.5	<i>T39</i>	1012	H104	24.5
<i>T18</i>	1012	H105	24.5	<i>T40</i>	1012	H104	24.5
<i>T19</i>	1012	H105	24.5	<i>T41</i>	1012	I104	24.5
<i>T20</i>	1012	H105	24.5	<i>T42</i>	1012	H105	24.5
<i>T21</i>	1012	H104	24.5	<i>T43</i>	1012	H105	24.5
<i>T22</i>	1012	H104	24.5	<i>T44</i>	1012	H105	24.5

Appendix 6: benchmarks

The following benchmarks / coordinates were used to tie the excavation survey to the OS National Grid and put up the total station. Since the original benchmarks (TBM 01-03) had no height values, they were assigned relative heights. The relative height values were deliberately set rather high, so that they would be clearly distinguishable from the corrected, real heights.

no.	benchmark	easting	northing	relative Z
TBM01	Nail on roadside (2010)	441668.301	1143407.823	50.011
TBM02	Nail on roadside (2010)	441708.123	1143542.808	50.238
TBM03	Nail in fence post (2010)	441766.410	1143501.964	50.503
TBM04	Metal rod in soil (2011)	441809.059	1143398.135	50.573
TBM05	Marking on stone (2011)	441845.579	1143474.931	49.564
TBM06	Marking on stone (2011)	441794.053	1143478.837	49.247
TBM07	Marking on stone (2011)	441822.716	1143447.683	49.187

After the excavation, TBM 01 and 02 were surveyed by Marianne Okal of the Shetland Islands Climate and Settlement Project using a Trimble differential GPS. This resulted in the following coordinates.

	WGS84 Coordinates	easting	height	Estimated error (cm)	
	northing			horizontal	vertical
TBM01	60°10'22.80695"N	1°15'03.10136"W	59.438	0.025	0.048
TBM02	60°10'27.15127"N	1°15'00.39854"W	59.687	0.021	0.039

These coordinates were converted to OS National Grid with the online Coordinate Transformer provided by Ordnance Survey (<http://gps.ordnancesurvey.co.uk/convert.asp>):

	northing	easting	height
TBM01	1143408.029	441668.196	10.106
TBM02	1143542.893	441708.328	10.355

The horizontal deviation of the original coordinates from the above coordinates is larger than the estimated error of the GPS survey, namely 0.231m for TBM01 and 0.222m for TBM02. Since the deviation is not uniform (neither with respect to distance, nor the directional error), it cannot be easily corrected. The error probably results from a projection error at the set-up of the total station used for putting up the benchmarks in 2010; for this purpose, an unprojected local grid was pasted on projected OS Master Map data.

As to the vertical distance, the GPS coordinates largely correspond to the original, relative values: according to the GPS survey, the vertical distance between TBM01 and TBM02 is 0.249m, while the original, relative heights differ by 0.227m. Thus, the error is smaller than the estimated vertical precision of the GPS measurements. The mean offset of both relative heights from the measured GPS values is 39.894m. This value was used to correct all heights measured during the excavation.

Summarizing the above, the maximum error of the coordinates measured during the excavation compared to the true National Grid and ODN values is 0.23m in horizontal and 0.05m in vertical direction.

