



Project Name:
N4 Ardloy Road Improvement Scheme

Licence Reference No:
11E380

Townland Names:
Ardloy, Co. Sligo

Site Type:
Ardloy 1, Pits

National Grid Reference:
173640/316835

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Report Reference:

Walsh, F. 2013 Ardloy 1 Final Report 11E380. Unpublished Final Report. National Monuments Service, Department of Arts, Heritage and the Gaeltacht. Dublin.

ABSTRACT

This is the final report for an archaeological excavation of Ardloy 1, which was located within the footprint of the N4 Ardloy Road Improvement Scheme. Ardloy 1 was discovered during advance [Stage (i) and (ii)] archaeological testing carried out by Fintan Walsh of Irish Archaeological Consultancy Ltd along the proposed scheme in September and October 2011 (Licence Ref.: 11E097). The Stage (iii) excavation was carried out by Fintan Walsh of Irish Archaeological Consultancy Ltd on behalf of Sligo County Council and the National Roads Authority. The work was carried out under licence 11E380. The fieldwork took place on 20 June 2012.

The site at Ardloy 1 comprised of four charcoal-rich pits, a curvilinear gully and a linear feature. One of the pits contained pottery sherds, burnt bone, and hazelnut shell. The pottery comprised a sherd, four fragments and five crumbs from an early Neolithic carinated bowl; the charcoal was all oak and the burnt bone comprised a single unidentified item. A hazelnut shell from this pit was chosen for radiocarbon dating and returned a 2 Sigma Calibrated date range of 3766–3643 BC (UBA 22159). While the remaining features excavated at Ardloy are undated it is possible that they relate to small scale early Neolithic domestic activity.

CONTENTS

1	INTRODUCTION	1
1.1	The Development.....	1
1.2	Topography & Site Description.....	1
1.3	Previous Archaeological Work	1
1.4	Excavation Methodology	1
2	EXCAVATION RESULTS	3
2.1	Natural Geology	3
2.2	Archaeological Activity	3
2.2.1	Early Neolithic Pit.....	3
2.2.2	Undated Features	3
2.3	Topsoil	4
3	SYNTHESIS	5
3.1	Landscape Setting	5
3.2	The Neolithic Landscape surrounding Ardloy 1	5
3.3	Summary of the Specialist Analysis	6
4	DISCUSSION AND CONCLUSIONS	7
5	BIBLIOGRAPHY	8
APPENDIX 1	CATALOGUE OF PRIMARY DATA.....	I
Appendix 1.1	Context Register	i
Appendix 1.2	Catalogue of Artefacts	ii
Appendix 1.3	Catalogue of Ecofacts.....	iii
Appendix 1.4	Archive Register	iv
APPENDIX 2	SPECIALIST REPORTS	V
Appendix 2.1	Prehistoric Pottery Report – Eoin Grogan and Helen Roche.....	vii
Appendix 2.2	Burnt Bone Report – Maeve Tobin	viii
Appendix 2.3	Radiocarbon Dating Results – QUB Laboratory.....	ix
APPENDIX 3	RMP SITES WITHIN THE SURROUNDING AREA.....	X

FIGURES

PLATES

List of Figures

- Figure 1 11E380 Ardloy 1: Location on OSI Discovery Series background.
Figure 2 11E380 Ardloy 1: Site location within the scheme.
Figure 3 11E380 Ardloy 1: Plan and sections of site.

List of Plates

- Plate 1: 11E380 Ardloy 1: Site, pre-excavation, facing south-west.
Plate 2: 11E380 Ardloy 1: Pit C19, mid-excavation, facing south-west.
Plate 3: 11E380 Ardloy 1: Pit C11, post-excavation, and gully C14, mid-excavation, facing north-west.
Plate 4: 11E380 Ardloy 1: Pit C6, mid-excavation, facing south-east.
Plate 5: 11E380 Ardloy 1: Pit C17, mid-excavation, facing south.
Plate 6: 11E380 Ardloy 1: Early Neolithic carinated bowl fragment (11E380:20:1).

1 INTRODUCTION

This report presents the results of the Stage (iii) archaeological excavation of Ardloy 1 carried out in the townland of Ardloy, Co. Sligo (Figures 1–3). This work was undertaken as part of an archaeological mitigation program completed under the Archaeological Consultancy Services Contract for the N4 Ardloy Road Improvement Scheme. Archaeological fieldwork was directed by Fintan Walsh of Irish Archaeological Consultancy Ltd (IAC) under Excavation Licence 11E380 as issued by the Department of Arts, Heritage and the Gaeltacht (DoAHG) in consultation with the National Museum of Ireland (NMI). The work was undertaken on behalf the National Roads Authority and it took place on 20 June 2012.

1.1 The Development

The proposed scheme is c. 2km north of Castlebaldwin on the N4 National Primary route, in Co. Sligo. The proposed development involves the realignment by Sligo County Council/National Roads Authority of a series of bends of the existing N4 at Ardloy, Co. Sligo, for a total distance of c. 1.1km. This is a high-accident location. Starting at the south the proposed development stays on-line on the existing N4 for the first 200m, then runs slightly offline for 400m running to the west of the existing road, before coming back online for c. 200m and then going offline to the east of the existing road for the final 300m.

1.2 Topography & Site Description

Ardloy 1 is located in the townland of Ardloy, and lies at c. 60m Ordnance Datum (OD) in the parish of Tawnagh. The site is located c. 3km north-west of Castlebaldwin and 3.2km south of Riverstown. The surrounding topography is characterised by lakes and rivers such as Arloy Lough c. 400m north-west and Loughmeenaghan c. 700m to the south-east. Lough Arrow is located c. 3.5km south-east of the Ardloy 1. The site was located in a field of pasture to the west of the existing N4 road.

In terms of the Irish National Grid Ardloy 1 was located at 173640/316835.

1.3 Previous Archaeological Work

1.3.1 Cultural Heritage Report

A Cultural Heritage Report was prepared by ADS Ltd (O'Connor, Doyle, and Moraghan, 2010) on behalf of Sligo County Council in 2010.

1.3.2 Testing

Testing was undertaken within three areas along this section of road by IAC Ltd over the course of two days in August and September 2011 (Walsh, 2011; Licence Ref.: 11E097). One archaeological site was discovered during the course of the works (Ardloy 1).

1.4 Excavation Methodology

The methodology adopted was in accordance with the approved Method Statement. The topsoil was removed to the interface between natural and topsoil using a 13 tonne mechanical excavator equipped with a flat toothless bucket under strict archaeological supervision across an area measuring 285m². The remaining topsoil was removed by the archaeological team with the use of shovels, hoes and trowels in order to expose and identify the archaeological remains. A site grid was set up at 10m intervals and was subsequently tied in to the national grid using GPS survey equipment.

All archaeological features were fully excavated by hand and recorded on *pro forma* record sheets using a variant of the single context recording system with plans and sections being recorded at a scale of 1:50, 1:20 or 1:10 as appropriate.

A complete photographic record was maintained throughout the excavation. Digital photographs were taken of all features and of work in progress.

An environmental strategy was devised at the beginning of the excavation which consisted of a combination of targeted and random bulk sampling. This ensured that noticeably rich contexts were sampled, but also allowed for samples where environmental remains may not have been obvious. Features exhibiting large amounts of carbonised material were the primary targets.

All artefacts uncovered on site were dealt with in accordance with the guidelines as issued by the NMI and where warranted in consultation with the relevant specialists. All artefacts, ecofacts and paper archive are currently stored in IAC's facility in Lismore, Co Waterford and will ultimately be deposited with the National Museum of Ireland.

Dating of a sample of hazelnut shell from the site was carried out by means of AMS (Accelerator Mass Spectrometry). All calibrated radiocarbon dates in this report are quoted to two Sigma.

All excavation and post excavation works were carried out in accordance with the relevant approvals and in consultation and agreement with the National Roads Authority (NRA) Project Archaeologist, the National Monuments Section of the DoAHG and the National Museum of Ireland. Where necessary licences to alter and export archaeological objects were sought from the National Museum of Ireland.

Final Report Date Ranges

The following date ranges for Irish prehistory and medieval periods are used for this final report.

Mesolithic: 7000–4000BC

Neolithic: 4000–2500BC

Early Bronze Age: 2500–1700BC

Middle Bronze Age: 1700–1200BC

Late Bronze Age: 1200–800BC

Iron Age: 800BC–AD500

Early medieval period: AD500–1100

Medieval period: AD1100–1600

Post-medieval: AD1600–1800

Source:

Carlin, N., Clarke, L. & Walsh, F. 2008 *The M4 Kinnegad-Enfield-Kilcock Motorway: The Archaeology of Life and Death on the Boyne Floodplain*. NRA Monograph Series No. 2, Wordwell, Bray.

2 EXCAVATION RESULTS

2.1 Natural Geology

The natural subsoil at the site comprised compact yellow to green yellow silty clay (Plate 1).

2.2 Archaeological Activity

2.2.1 Early Neolithic Pit Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C19	N/A	0.5	0.5	0.11	Circular, gradual sides, concave base.	Cut of pit.
C20	C19	0.5	0.5	0.11	Friable grey brown to black silt clay, charcoal rich, moderate pebbles 10–15mm diameter.	Fill of pit.

Finds

Context	Find Number	Material	Period	Description
C20	11E380:20:1–10	Pottery	Early Neolithic	Carinated Bowl sherd/fragment/crumbs

Interpretation

Pit C19 was located towards the east end of the site (Figure 3). It was very shallow, circular in plan, with near vertical sides and a flat base (67.28m OD at base). It was filled by C20, a friable grey brown to black silt clay which was charcoal rich and contained hazelnut shell and some pebbles with diameters of 10–15mm (Plate 2). A rim sherd (Plate 6), four fragments and five crumbs from an early Neolithic Carinated bowl were recovered from the fill of this pit (Grogan and Roche, Appendix 2.1) as well as a single fragment of un-diagnostic white burnt long bone (Tobin, Appendix 2.2). All of the charcoal was identified (specialist identification by Dr Ellen O'Carroll) as oak (*Quercus* sp.).

A single charred hazelnut shell (0.15g) from C20 was chosen for AMS dating. The hazelnut shell returned an AMS result of 4914 ± 34 BP (UBA 22159). The 2 Sigma calibrated result for this was 3766–3643 BC (Appendix 2.3), confirming, in conjunction with the pottery, a date in the early Neolithic period for this feature.

2.2.2 Undated Features Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C3	C6	0.18	0.15	0.07	Black silt, charcoal rich.	Fill of pit.
C4	C6	0.5	0.45	0.18	Light grey gravelly silt clay.	Fill of pit.
C5	C6	0.1	0.08	0.18	Dark grey gravelly silt clay, charcoal.	Fill of pit.
C6	N/A	0.66	0.56	0.18	Circular, gradual sides, irregular base.	Cut of pit.
C7	N/A	extent	0.41	0.19	Linear, gradual sides, pointed base.	Cut of linear.
C8	C7	extent	0.41	0.19	Mid grey silt clay.	Fill of linear.
C11	N/A	0.62	0.53	0.23	Sub circular, sloping sides, uneven base.	Cut of pit.
C12	C11	0.62	0.53	0.23	Charcoal rich silt, decayed stone.	Fill of pit.
C13	C14	3.8	0.33	0.08	Grey brown silt clay, small stones.	Fill of gully.
C14	N/A	3.8	0.33	0.08	Curvilinear, gradual sides, flat base.	Cut of gully.
C17	N/A	0.46	0.4	0.2	Circular, steep sides, flat base.	Cut of pit.
C18	C18	0.46	0.4	0.2	Mid grey brown clay silt.	Fill of pit.

Finds: None

Interpretation

Three pits and a curvilinear feature were identified to the north and east of pit C19 (Figure 3). None of these features contained any artifacts, or diagnostic ecofacts and remain undated, however they may, by association, be contemporary with pit C19.

Pit C11 (Plate 3) was sub-circular in plan with sloping sides and an uneven base (67.31m OD at base). It was filled by C12, a charcoal rich black silt that contained frequent decayed stones. The pit was seemingly associated with a 3.8m long curvilinear gully (C14), which curved around the north-western side of the pit (Plate 3). This gully had gradual sloping sides and a flat base. It was very shallow and was filled with grey brown silt clay C13 which contained some small stones.

Pit C17 was located to the north east of pit C11. It was circular in plan with steep sides and a flat base (67.41m OD at base). It was filled by mid grey brown clay silt C18 (Plate 5).

Pit C6 was located to the north-west of the centre of the site. It was sub circular in plan with gradual sloping sides and an irregular base (67.14m OD at base). This pit contained three fills (Plate 4). The primary fill (C5) was a dark grey gravelly silt clay that contained frequent charcoal. This was under C4, a light grey gravelly silt clay which again was under C3, a black charcoal rich silt. The purpose/function of this pit is unclear.

The presence of charcoal rich fills similar to C20, the fill of C19, in pits C6 and C11 suggest that these pits may be contemporary. None, however, had any evidence of *in situ* burning suggesting the fill material accumulated in a domestic context before being deposited into the pits.

To the north-west of pit C6 was a linear gully/furrow (C7) which was orientated north-east–south-west. It had gradual sloping sides and a V shaped base. It was filled by mid grey silt clay C8. It is likely to be a modern furrow.

2.3 Topsoil Contexts

Context	Fill of	L(m)	W(m)	D(m)	Basic Description	Interpretation
C1	N/A	N/A	N/A	0.3	Mid brown clay silt	Topsoil

Finds: None

Interpretation

The topsoil/ploughsoil was a mid brown clay silt that covered the entire site and was on average 0.3m deep.

3 SYNTHESIS

The synthesis presents the combined results of all of the archaeological analysis carried out at Ardloy 1. This includes the analysis of the physical and archaeological landscape, the compilation of information gathered during research into the site type, date, and function, and the results of the excavation and specialist analysis of samples taken during the course of on-site works.

3.1 Landscape Setting

Ardloy 1 is located in the townland of Ardloy, and lies at c. 67m Ordnance Datum (OD) and is located in the parish of Tawnagh. The site is located c. 3km north-west of Castlebaldwin and 3.2km south of Riverstown. The surrounding topography is characterised by lakes and rivers such as Arloy Lough c. 400m north-west and Loughmeenaghan c. 700m to the south-east. Lough Arrow is located c. 3.5km south-east of the Ardloy 1.

3.2 The Neolithic Landscape surrounding Ardloy 1

County Sligo possesses an impressive range of monuments dating to the middle–late Neolithic period. There are two major passage tomb cemeteries in Co. Sligo, Carrowmore and Carrowkeel. Carrowmore Cemetery, located in the Knocknarea Peninsula southwest of Sligo town, contains about thirty recognisable monuments, mostly boulder circles, mainly lying within an area 1000m by 500m. The Carrowkeel Cemetery, located at the northern end of the Bricklieve Mountains overlooking Lough Arrow, approximately 3km to the south of Ardloy, includes over a dozen round cairns some containing passage tombs. A cluster of over 130 circular hut sites dated to the Neolithic period is situated at Mullaghfarna, adjacent to the Carrowkeel Cemetery. These huts are thought to have been seasonal in nature (Danaher 2007, 10).

Pollen diagrams taken from Carrowkeel and Ballygawley show elm decline, which some attribute to the clearing of land during the Neolithic and others attribute to disease, occurred at around 3200 BC in the area. Cereal pollen grains recovered from Ballygawley suggest farming was taking place in the north-east of Ireland from at least 3850 BC (Danaher 2007, 11).

Evidence of further prehistoric occupation of south Sligo can be found atop many of the glacial drumlins and ridges in that part of the county. The above ground evidence of barrows and cairns as well as the below ground evidence of cist, urn and pit burials, especially around Ballymote, 7km to the west of Ardloy, testify to the rich tradition of funerary practices extending from the Neolithic, through the Bronze Age and into the Iron Age period (Egan, Byrne & Sleeman 2005, xi).

County Sligo contains three henges which may date to the later Neolithic period, the closest of these to Ardloy is in the townland of Knocktober, 9km to the north west of Ardloy 1. This henge is 60m in diameter (Danaher 2007, 11).

Local Neolithic Landscape

There are five sites within 2km of Ardloy 1 that may date to the Neolithic period. Court tomb SL034-099 is located 1400m to the south-west in the townland of Cams. Only a poorly defined oval mound survives. Two adjoining side stones and a jamb remain of the most southerly side. Two metres east of the jamb a depression may mark the position of a court.

Monument SL034-109 is located 250m to the south-east of Ardloy 1, in the townland of Ardloy. It is recorded as a passage tomb. It is on the summit of ridge in pasture with a good outlook in all directions. It is a cruciform but disturbed by two raths

(SL034-108001 and SL034-110). It has a retaining kerb and the opening is to the south west. An orthostat at the north east is presumed to be a back stone, another 4.65m to the south-west is a sillstone. The right hand chamber is well preserved with sides made of single stones. It is entered between two jamb like stones. Only the back stone remains of left hand chamber.

Portal tomb SL034-088 is located 450m north east of Ardloy 1 in the townland of Springfield. It is on a small elevation in pasture near a rock outcrop and a stream. It stands at the southern end of an oval mound. It has a portal stone at the west, and a sill-stone and side-stone at the east side which are thought to be *in situ*. The entrance to the tomb is at the south. The eastern portal stone has fallen.

Bowl barrow SL034-124 is located 1.9km south east of Ardloy 1 in the townland of Sheerevagh. It stands in pasture on the ridge of a drumlin. It measures 28m diameter at the base and 5.6m diameter at its flat top and is 6.25m high. It is surrounded by a broad shallow fosse. Barrow SL034-005 was located 1.4km to the north-west in the townland of Knockadoo. It is situated on pasture on the top of a low ridge. It is made up of a slightly curved section of earthen bank 11m long, 1.5m high and 4m wide at the base. A possible fosse is visible at its north side.

3.3 Summary of the Specialist Analysis

A number of specialists provided analysis of samples and artefacts recovered from the site as part of the post-excavation works. This work in part formed the basis for the dating evidence for the site. The detailed reports on the results of all analysis are in Appendix 2.

Prehistoric Pottery Analysis – Eoin Grogan and Helen Roche

Ardloy 1 produced a very small assemblage of pottery consisting of a single rimsherd (plus four fragments and five crumbs) from a single early Neolithic carinated bowl. Although limited this is an important discovery as it extends the distribution of early Neolithic pottery into south-east Sligo.

Burnt Bone Analysis – Maeve Tobin

A single fragment of burnt bone, weighing 0.5g, was retrieved from C20, fill of pit C19. The fragment comprised of a small section of undiagnostic long bone that was white in colour and in moderate condition. It was not possible to determine if this bone was animal or human in nature.

AMS Radiocarbon Dating – Queens University Belfast

A sample of charred hazelnut shell (0.15g) from C20, fill of pit C19, was chosen for AMS dating. This returned an AMS result of 4914 ± 34 BP (UBA 22159). The 2 Sigma calibrated result for this was 3766–3643 BC (Appendix 2.3), indicating a date in the early Neolithic period for this feature.

4 DISCUSSION AND CONCLUSIONS

The excavation at Ardloy 1 comprised four circular/sub-circular pits, a curvilinear gully and a furrow. One of these pits contained early Neolithic pottery, un-identified burnt bone, hazelnut shell and was Radiocarbon dated to the early Neolithic period (3766–3643 BC). The remainder of the pits contained charcoal rich fills but no finds. None of the pits had any evidence of *in-situ* burning suggesting the material had accumulated in a domestic context before being deposited in the pits. The pottery from this site comprised one sherd, four fragments and five crumbs from an early Neolithic Carinated Bowl.

Carinated bowls come from a wide variety of Neolithic domestic sites, but principally they are found in association with early Neolithic rectangular houses. They are also found in association with funerary monuments of the period such as court tombs. There have been occasional discoveries of early Neolithic pottery in county Sligo of which the earliest and most important is the assemblage from Magheraboy, c. 20km NNW of Ardloy. More extensive settlement is clearly indicated by the distribution of court tombs including the site of Cams (SL034:099) 2.5km west of Ardloy.

It is difficult to interpret the remains at Ardloy 1 due to the relatively limited archaeological remains; however there were charcoal-rich soils in the pits with some cultural material (pottery and burnt bone), so it could be the case that this was a small camp site. Alternatively this may be peripheral domestic activity related to a more permanent domestic site that lies in the immediate landscape, outside the landtake of this road project.

The radiocarbon date from pit C19 is important as it is from a ‘high quality’ short-lived sample (hazelnut shell), or as McSparron would class as ‘gold standard’ (McSparron 2008, 18–21), and also provides an additional dating reference for its associated early Neolithic pottery assemblage. This date is within the ‘construction and use’ phase for early Neolithic houses in Ireland which began between 3715 and 3650 cal. BC and ended between 3690 and 3625 cal. BC (*ibid.*) with which this pottery type is most commonly associated. This information is a small but important contribution to Cooney’s call for “extensive dating of occupation and activity contexts rather than houses” (Cooney et al 2011, 668).

The portal tomb SL034-088, positioned only 450m to the north-east of Ardloy 1, is likely to date to the early Neolithic, and may even be contemporary with this newly discovered site. The remains at Ardloy 1 may represent just a fragment of the archaeological footprint left behind by the Neolithic communities that worshiped at this monument.

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Other Sources

Record of Monuments and Places (RMP), National Monuments Service Archive, The Department of the Arts, Heritage and the Gaeltacht, 2nd Floor, Block 6, Irish Life Centre, Abbey Street, Dublin 1.

Topographical Files of the National Museum of Ireland, Kildare Street, Dublin 2.

Electronic Sources

www.archaeology.ie – DoAHG website listing all SMR sites with aerial photographs

www.osi.ie – Ordnance Survey aerial photographs (1995, 2000 & 2005) and historic OS mapping (first edition 6" and 25")

www.excavations.ie – Summary of archaeological excavation from 1970–2009

APPENDIX 1 CATALOGUE OF PRIMARY DATA

Appendix 1.1 Context Register

Context	Fill of	L(m)	W(m)	D(m)	Interpretation	Description
C1	N/A	N/A	N/A	0.3	Topsoil	Mid brown clay silt
C2	N/A	N/A	N/A	N/A	Natural subsoil	Compact green yellow silt clay
C3	C6	0.18	0.15	0.07	Fill of pit	Black silt, charcoal rich
C4	C6	0.5	0.45	0.18	Fill of pit	Light grey gravelly silt clay
C5	C6	0.1	0.08	0.18	Fill of pit	Dark grey gravelly silt clay, frequent charcoal
C6	N/A	0.66	0.56	0.18	Cut of pit	Sub circular, gradual sloping sides, irregular base
C7	N/A	extent	0.41	0.19	Cut of linear	Linear, gradual sloping sides, pointed base
C8	C7	extent	0.41	0.19	Fill of linear	Mid grey silt clay
C9					Non-archaeological	
C10					Non-archaeological	
C11	N/A	0.62	0.53	0.23	Cut of pit	Sub circular, sloping sides, uneven base
C12	C11	0.62	0.53	0.23	Fill of pit	Black silt, charcoal rich, frequent decayed stone
C13	C14	3.8	0.33	0.08	Fill of gully	Grey brown silt clay, small stones
C14	N/A	3.8	0.33	0.08	Cut of gully	Curvilinear, gradual sides, flat base
C15					Non-archaeological	
C16					Non-archaeological	
C17	N/A	0.46	0.4	0.2	Cut of pit	Circular, steep sides, flat base
C18	C18	0.46	0.4	0.2	Fill of pit	Mid grey brown clay silt
C19	N/A	0.5	0.5	0.11	Cut of pit	Circular, gradual sides, concave base.
C20	C19	0.5	0.5	0.11	Fill of pit	Friable grey brown to black silt clay, charcoal rich, moderate pebbles 10–15mm diameter

Appendix 1.2 Catalogue of Artefacts


Context #	Find number	Material	Period	Description	Comments
C20	11E380:20:1	Pottery	Early Neolithic	Carinated bowl sherd	Neck sherd of Neolithic pot
C20	11E380:20:2	Pottery	Early Neolithic	Carinated bowl fragment	Small fragment of pottery
C20	11E380:20:3	Pottery	Early Neolithic	Carinated bowl fragment	Small fragment of pottery
C20	11E380:20:4	Pottery	Early Neolithic	Carinated bowl fragment	Small fragment of pottery
C20	11E380:20:5	Pottery	Early Neolithic	Carinated bowl fragment	Small fragment of pottery
C20	11E380:20:6	Pottery	Early Neolithic	Carinated bowl crumb	Crumb of pottery
C20	11E380:20:7	Pottery	Early Neolithic	Carinated bowl crumb	Crumb of pottery
C20	11E380:20:8	Pottery	Early Neolithic	Carinated bowl crumb	Crumb of pottery
C20	11E380:20:9	Pottery	Early Neolithic	Carinated bowl crumb	Crumb of pottery
C20	11E380:20:10	Pottery	Early Neolithic	Carinated bowl crumb	Crumb of pottery

Appendix 1.3 Catalogue of Ecofacts

During post excavation works specific samples were processed with a view to further analysis. The following are the ecofacts recovered from these samples.

Context #	Sample #	Feature type i.e. Structure A, hearth C45	Charcoal flot	Slag	Burnt Bone	Animal Bone
C12	2	Fill of pit	46.7	-	-	-
C20	4	Fill of pit	41	-	0.5g	-

Appendix 1.4 Archive Register

Project: N4 Ardloy Road Improvement Scheme		
Site Name: Ardloy 1		
Licence Number: 11E097		
Site director: Fintan Walsh		
Date: December 2011		
Field Records	Items (quantity)	Comments
Site drawings (plans)	On GPS	On GPS
Site sections, profiles, elevations	1 sheet	
Other plans, sketches, etc.	0	
Timber drawings	0	
Stone structural drawings	0	
Site diary/note books	0	
Site registers (folders)	1	
Survey/levels data (origin information)	electronic	
Context sheets	20	
Wood Sheets	0	
Skeleton Sheets	0	
Worked stone sheets	0	
Digital photographs	23	
Photographs (print)	0	
Photographs (slide)	0	
Finds and Environ. Archive		
Flint/chert	0	
Stone artefacts	0	
Pottery (specify periods/typology)	1 sherd, 9 crumbs	
Ceramic Building Material (specify types eg daub, tile)	0	
Metal artefacts (specify types - bronze, iron)	0	
Glass	0	
Other find types or special finds (specify)	0	
Human bone (specify type eg cremated, skeleton, disarticulated)	0	
Animal bone	0	
Metallurgical waste	0	
Enviro bulk soil (specify no. of samples)	5 Samples	
Enviro monolith (specify number of samples and number of tins per sample)	0	
Timbers/stakes	0	
Security copy of archive	IAC Ltd	Digital archive

APPENDIX 2 SPECIALIST REPORTS

Appendix 2.1 Prehistoric Pottery Report – Eoin Grogan and Helen Roche

Appendix 2.2 Burnt Bone Report – Maeve Tobin

Appendix 2.3 AMS Radiocarbon Dating Results – QUB Laboratory

Appendix 2.1 Prehistoric Pottery Report – Eoin Grogan and Helen Roche

Summary

The site produced a very small assemblage consisting of a single rimsherd (plus four fragments and five crumbs, total weight: 9g) from a single early Neolithic carinated bowl. Although limited this is an important discovery as it extends the distribution of early Neolithic pottery into south-east Sligo.

Pottery context and general comment

The pottery came from the fill C19 of a single pit (C20). This also produced a small piece of cremated bone (not identified).

The pottery represents a single very fine vessel with a thin, sharply everted, rim with a flattened outer face. The neck is straight to gently concave and the sherds may be from just above the junction with the shoulder. The light brown-buff fabric has a grey core and inner surface with a very low content of sandgrade and occasional quartzite inclusions ($\leq 1.67 \times 1.5\text{mm}$); there are small cavities in the core and surfaces. There may have been horizontal smoothing striations on the outer surface. Neck thickness: 4.91mm (lower) – 6.27mm (upper); the neck mid-section is slightly thickened. Weight: 9g.

This is an early Neolithic carinated bowl. These vessels generally consist of a hemispherical bowl above which there is a distinct shoulder or carination, a generally curved neck and a simple, often slightly out-turned, rounded rim (Case 1961; Sheridan 1995; Grogan and Roche 2010). This pottery has come from a wide variety of other Neolithic domestic sites, including those with characteristic early Neolithic rectangular houses, as well as court tombs. Carinated bowls are well dated from a variety of sites to the period 3900–3600 BC. There have been occasional discoveries of early Neolithic pottery in Sligo of which the earliest and most important is the assemblage from Magheraboy (Danaher 2007). More extensive settlement is clearly indicated by the distribution of court tombs including the site of Cams (SL034:099) immediately to the west of Ardloy, and along the western fringes of Lough Arrow below the Carrowkeel uplands.

Bibliography

Case, H. 1961 Irish Neolithic Pottery: Distribution and Sequence. *Proceedings of the Prehistoric Society* 9, 174–233.

Danaher, E. 2007 *Monumental beginnings. The archaeology of the N4 Sligo Inner Relief Road*. National Roads Authority Scheme Monographs 1, Dublin.

Grogan, E. and Roche, H. 2010 Clay and Fire: the development and distribution of pottery traditions in prehistoric Ireland. In M. Stanley, E. Danaher and J. Eogan (eds), *Creative Minds*, 27–45. Archaeology and the National Roads Authority Monograph Series 7, National Roads Authority, Dublin.

Sheridan, A. 1995 Irish Neolithic pottery: the story in 1995. In I. Kinnes and G. Varndell (eds), *Unbaked Urns of Rudely Shape*, 3–21. Oxbow Monograph 55, Oxford.

Appendix 2.2 Burnt Bone Report – Maeve Tobin

Burnt Bone Analysis

N4 Ardloy 1 - 11E0380 Co. Sligo


A single fragment of burnt bone, weighing 0.5g, was retrieved from C20, fill of a pit C19. The fragment comprised of a small section of undiagnostic long bone that was white in colour and in moderate condition. It was not possible to determine if this bone was animal or human in nature.

Appendix 2.3 Radiocarbon Dating Results – QUB Laboratory

The “Measured radiocarbon age” is quoted in conventional years BP (before AD 1950). The error is expressed at the one-sigma level of confidence.

The “Calibrated date range” is equivalent to the probable calendrical age of the sample material and is expressed at the one Sigma (68.3% probability) and two-Sigma (95.4% probability) level of confidence.

Context	Sample No	Material	Species id/ Weight	Lab	Lab Code	Date Type	Calibrated date ranges	Measured radiocarbon age (BP)	13C/12C Ratio ‰
C20, fill of pit	4	Charred nutshell	(<i>Corylus avellana</i>), 0.15g	QUB	UBA 22159	AMS (Std)	3706–3653BC (1 sigma), 3766–3643BC (2 sigma)	4914 ± 34	-23.1

Colette Rynhart Irish Archaeological Consultancy Ltd 120b Greenpark Road Bray Co. Wicklow, Ireland Rep. of Ireland VAT No. IE8288812U		¹⁴ CHRONO Centre Queens University Belfast 42 Fitzwilliam Street Belfast BT9 6AX Northern Ireland
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Radiocarbon Date Certificate

Laboratory Identification: UBA-22159
 Date of Measurement: 2013-02-01
 Site: 11E380 Ardloy 1
 Sample ID: C20 S4
 Material Dated: charred seed or nutshell
 Pretreatment: Acid Only
 Submitted by: IAC

¹⁴C Date: 4914±34 BP
 AMS δ¹³C: -23.1

Information about radiocarbon calibration

RADIOCARBON CALIBRATION PROGRAM*
 CALIB REV6.0.0
 Copyright 1986-2010 M Stuiver and PJ Reimer
 *To be used in conjunction with:
 Stuiver, M., and Reimer, P.J., 1993, Radiocarbon, 35, 215-230.
 Annotated results (text) - -
 Export file - cl4res.csv

C20 S4 UBA-22159 Radiocarbon Age BP 4914 +/- 34 Calibration data set: intcal09.14c % area enclosed cal AD age ranges	# Reimer et al. 2009 relative area under probability distribution
68.3 (1 sigma) cal BC 3706- 3653	1.000
95.4 (2 sigma) cal BC 3766- 3722	0.164
3718- 3643	0.836

References for calibration datasets:
 PJ Reimer, MGL Baillie, E Bard, A Bayliss, JW Beck, PG Blackwell,
 C Bronk Ramsey, CE Buck, GS Burr, RL Edwards, M Friedrich, PM Grootes,
 TP Guilderson, I Hajdas, TJ Heaton, AG Hogg, KA Hughen, KF Kaiser, B Kromer,
 FG McCormac, SW Manning, RW Reimer, DA Richards, JR Southon, S Talamo,
 CSM Turney, J van der Plicht, CE Weyhenmeyer (2009) Radiocarbon 51:1111-1150.

Comments:
 * This standard deviation (error) includes a lab error multiplier.
 ** 1 sigma = square root of (sample std. dev.^2 + curve std. dev.^2)
 ** 2 sigma = 2 x square root of (sample std. dev.^2 + curve std. dev.^2)
 where ^2 = quantity squared.
 [] = calibrated range impinges on end of calibration data set
 0* represents a "negative" age BP
 1955* or 1960* denote influence of nuclear testing C-14

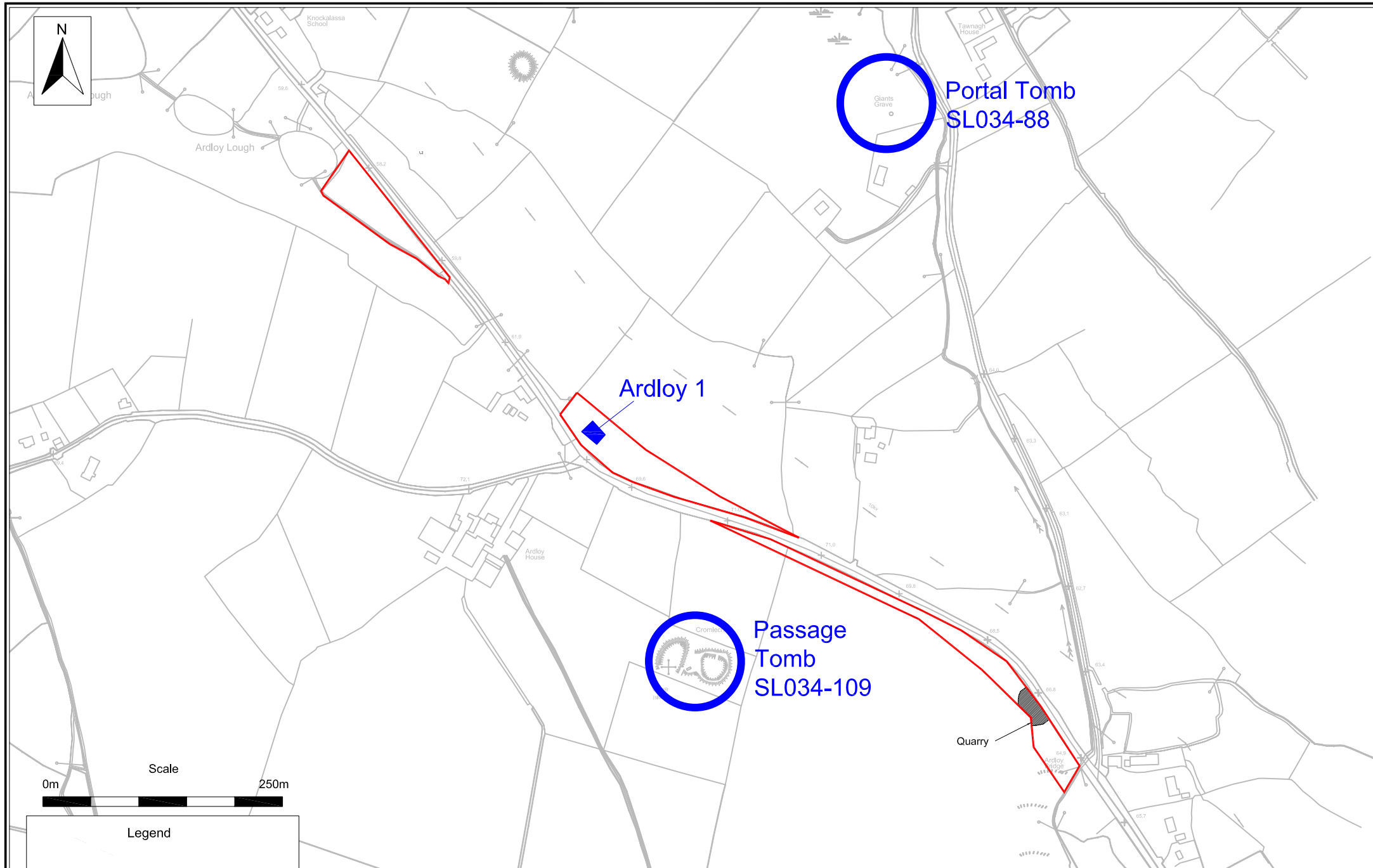
NOTE: Cal ages and ranges are rounded to the nearest year which may be too precise in many instances. Users are advised to round results to the nearest 10 yr for samples with standard deviation in the radiocarbon age greater than 50 yr.

APPENDIX 3 RMP SITES WITHIN THE SURROUNDING AREA

RMP No.:	SL034-109
Townland:	Ardloy
NGR:	173743/316605
Parish:	Tawnagh
Barony:	Tirerrill
Distance from proposed development:	250m to south-east
Classification:	Megalithic Tomb – passage tomb
Description:	On summit of ridge in pasture with outlook in all directions. Cruciform passage tomb as base of a cairn. Disturbed by two raths (SL034-108001 and SL034-110). Retaining kerb, opened to south west. Orthostat at north east presumed back stone, another 4.65m to south west sillstone. Right hand chamber of chamber well preserved. Sides made of single stones, entered between two jamb like stones. Only back stone remains of left hand chamber.
Reference:	RMP Files

RMP No.:	SL034-088
Townland:	Springfield
NGR:	173952/317181
Parish:	Tawnagh
Barony:	Tirerrill
Distance from proposed development:	450m to north-east
Classification:	Megalithic Tomb – portal tomb
Description:	On small elevation in pasture near rock outcrop and stream. Stands at southern end of oval mound. Portal stone at west, sillstone and side-stone of east side <i>in situ</i> , entrance to tomb at south. Eastern portal stone fallen.
Reference:	RMP Files





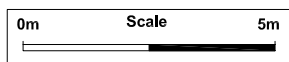
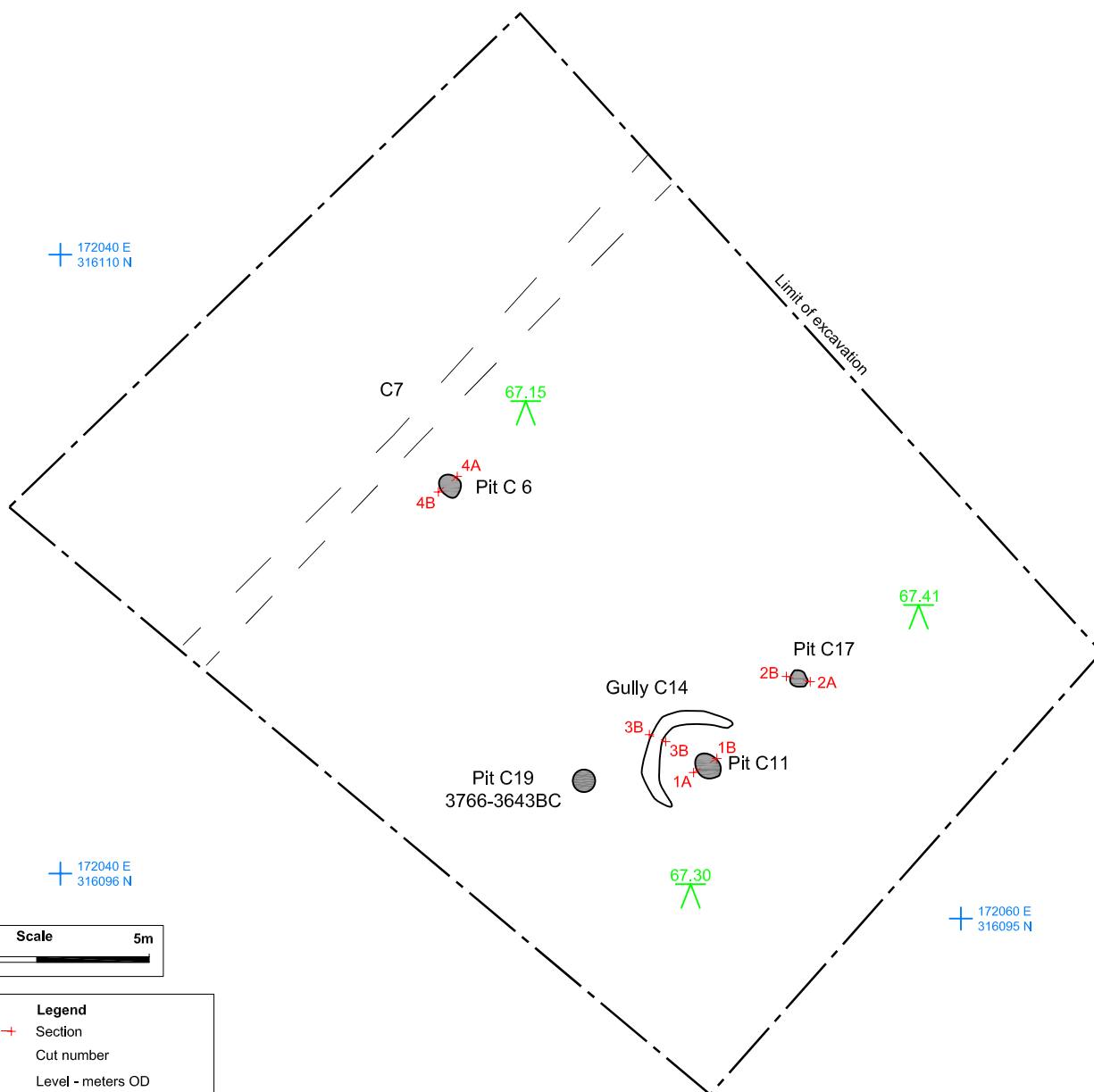
Legend

- Foot print of proposed scheme
- Excavation Area

IAC Irish Archaeological Consultancy

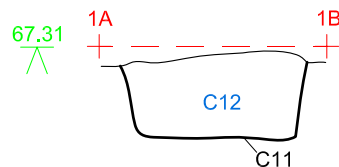
Title: 11E380 Ardloy 1: Site location within the scheme
Project: N4 Ardloy Road Improvement Scheme, Co. Sligo
Client: Sligo County Council

Scale: 1:5000@ A4
Date: 26/02/13
Produced by: K Long
Job No: J2646
Figure No: 2

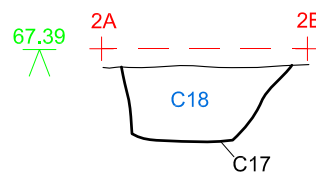


Legend	
---+	Section
CXX	Cut number
xxx	Level - meters OD
xxxxxx E xxxxxx N	National Grid Reference
●	Pit

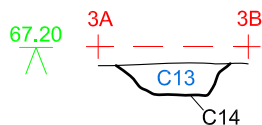
South east facing section of pit C7



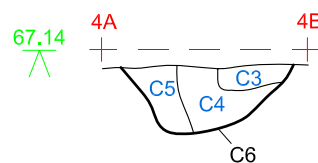
North facing section of pit C17



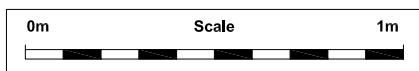
North east facing section of gully C14



North west facing section of pit C6



Legend	
---+	Section
CXX	Cut number
CXX	Fill number
xxx	Level - meters OD



Plates



Plate 1: 11E380 Ardloy 1: Site, pre-excavation, facing south-west.



Plate 2: 11E380 Ardloy 1: Pit C19, mid-excavation, facing south-west.



Plate 3: 11E380 Ardloy 1: Pit C11, post excavation, and gully C14, mid-excitation, facing north-west.



Plate 4: 11E380 Ardloy 1: Pit C6, mid-excitation, facing south-east.



Plate 5: 11E380 Ardloy 1: Pit C17, mid-excavation, facing south.



Plate 6: 11E380 Ardloy 1: Early Neolithic carinated bowl fragment (11E380:20:1).