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GOLF COURSE & RESORT DEVELOPMENT, MENIE ESTATE, ABERDEENSHIRE

Report on a walkover survey of known sites affected by earthworks
associated with the construction of the international links golf course

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PROJECT SUMMARY SHEET

<i>Client</i>	IRONSIDE FARRAR
<i>National Grid Reference</i>	NJ 9921
<i>Address</i>	N/A
<i>Parish</i>	BELHELVIE
<i>Council</i>	ABERDEENSHIRE
<i>Planning Application No</i>	F/APP/2006/4605
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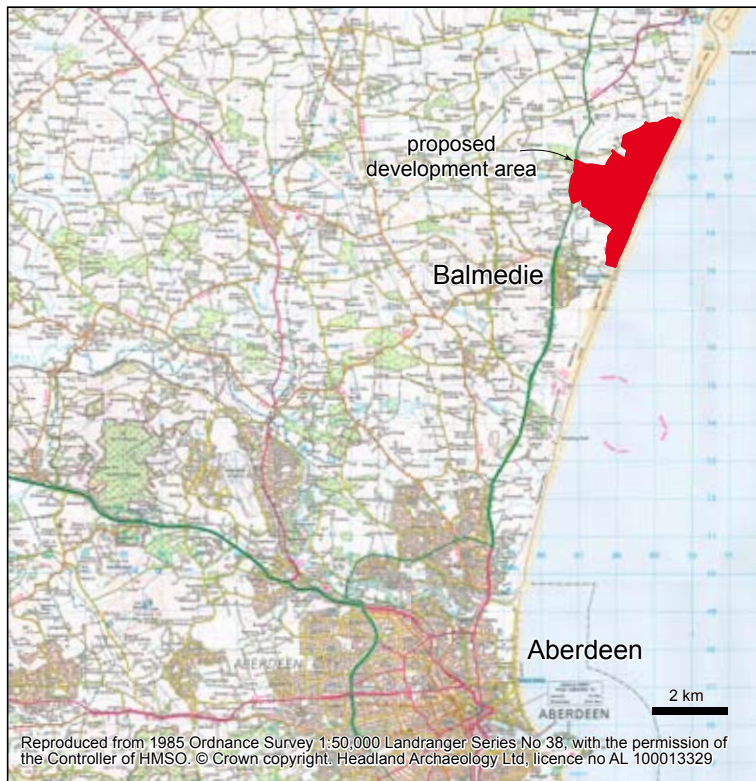
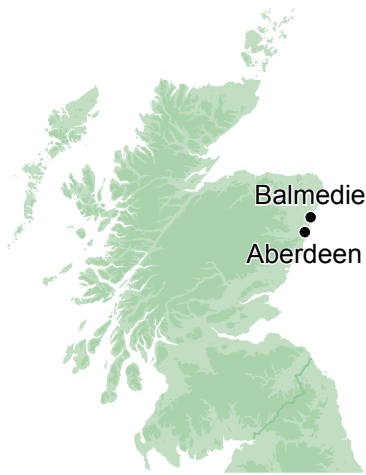
Signed off by:

Mark Roberts BA MJA, Project Manager

Date:.....

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Illus 1
Trump International Links Golf Course - location plan

GOLF COURSE & RESORT DEVELOPMENT, MENIE ESTATE, ABERDEENSHIRE

Report on a walkover survey of known sites affected by earthworks associated with the construction of the international links golf course

by *Magnar Dalland*

An archaeological survey of known sites within or in the immediate vicinity of the 10th and 18th holes of the proposed links golf course at Menie Estate, Aberdeenshire was carried out at the end of June 2009. The survey targeted seven known sites located on Figure 10.2 of the environmental statement. The survey exposed several errors in the previous locations of these sites and reduced the seven sites to two areas of flint scatters, one within the 18th tee area and the other within the 10th green. A cairn recorded during a previous survey turned out to be a probably natural spread of stones on top of a low sandy mound.

1 INTRODUCTION

This is a report on an archaeological survey of seven known sites within or in the immediate vicinity of areas affected by earthworks to form the tees, fairways and green of the 10th and 18th holes of the international championship golf course at the proposed golf and resort development at Menie Estate, Aberdeenshire.

The work was carried out at the end of June 2009 in accordance with a written scheme that was prepared by Headland and based on requirements outlined by Moira Greig of Aberdeenshire Council Archaeology Service.

2 BACKGROUND

Location

The development area is situated some 8 km to the north of Aberdeen at Menie estate (NGR NJ 98 20) immediately to the north of Balmedie (Illus 1). The area is roughly D-shaped facing the North Sea to the east. The development area covers 452 hectares and extends just less than 4.3 km m along the coast and over 2 km inland to the west.

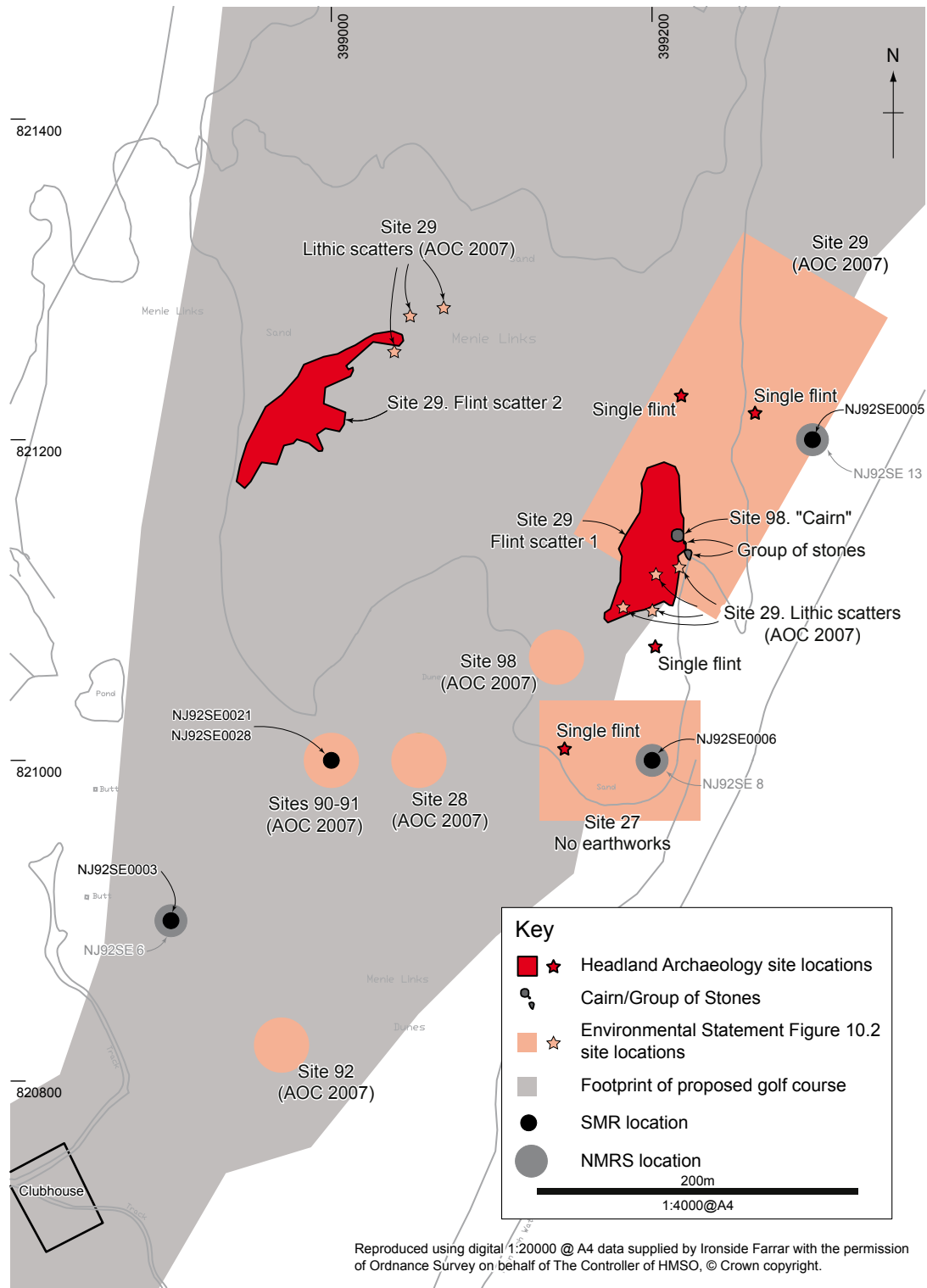
The international championship golf course will be situated in the dune system along the coast to the east. It extends some 3.3 km north to south along the coast. The 10th and 18th tees and fairways are located in the northern half of the golf course. The dunes are located between the beach and a marked platform, a raised beach, that runs parallel with the present shoreline. The dune system comprises active fore-dunes along the beach with more stable and largely vegetated hind-dunes in front of the raised beach some 400 m in from the shore. The fore- and hind-dunes are separated by a largely level and partly vegetated dune-slack.

Known sites in the area of the 18th hole

Previous surveys have identified a number of sites in or near the area affected by the construction of the golf course 10th and 18th hole, mainly comprising early prehistoric flint scatters, but also a possible cairn and a stone bank of unknown date (Illus 2). In addition two find spots are believed to lie within the affected area. By overlying the golf course design onto a Figure 10.2 of the Environmental Statement the nature of the impact of the construction on individual sites was estimated (see table below).

Site no	Type of site	Golf course earthworks
27	Flint scatters	No earthworks
28	Stone bank	Cut - lowered 0.5 m
29	Flint scatters	Fill - raised 0.2 -0.4 m
90	Flint find spots	No earthworks
91	Flint find spots	No earthworks
92	Coin find spot	Fill - raised 0.5 m
98	Stone cairn	Fill - raised 2.0 m

As the table indicates the impact on known sites will be minimal and only the stone bank at Site 28 lies within an area where the ground is to be lowered. The other sites either lie outside the area to be landscaped or in areas where the ground will be raised. However, not shown on Figure 10.2 but included in the gazetteer entry for Site 29 are ten-figure grid references of seven smaller flint scatters located outwith the rectangle indicating the extent of Site 29 (Illus 2).



Illus 2

Survey of sites in the area of the 10th and 18th hole

3 METHODS

Walkover survey

The survey was set out using a DGPS. Prior to the fieldwork, a background map was prepared containing the location of the sites to be visited; this included the seven smaller flint scatters referred to in the gazetteer entry for Site 29. This map was uploaded to the GPS controller to allow easy location of the sites on the ground. The

background map also contained the location of survey stations used during previous survey work at the site.

The base station was placed over Station 1, from a previous survey located on Blairton Links at the south end of the development area, ensuring the survey was carried out within the same coordinate system (National Grid). Using the background map on the rover unit it was possible to accurately locate the sites on the ground.

The extents of flint scatter sites were located by careful walk over noting the presence or absence of struck flints



Illus 3

Deflation hollow within Site 27. Single struck flint found next to scale.
From SW

on the surface. Once an area was defined, the extent of the scatter was surveyed in using the DGPS. The focus was on recording broad areas of flint artefacts rather than looking at individual concentrations.

This survey focussed on the areas of known sites set out in the WSI. It is likely that a general walkover survey would locate further flint scatters in other locations along the coast but that was not within the remits of this investigation.

4 RESULTS

Site 27

NMRS number:	NJ92SE 6
SMR number:	NJ92SE0003
SMR grid ref:	NJ 989 209
Fig. 10.2 environmental Statement:	NJ 99130 20960 to NJ 99230 21030 (diagonal of rectangle)
Headland grid ref:	NJ 99145 21006
Site type:	Flint scatters
Impact:	No earthworks

The location of this site is represented by a rectangular box measuring some 100 m east to west by 75 m in Figure 10.2 of the Environmental Statement (Illus 2). Its gazetteer entry refers to a 3750 m long section of coast defined by two six-figure grid references stretching from the 10th hole tees to the Foveran Links some 2.5 km beyond the north site boundary. In accordance with WSI the survey was limited to the rectangular area depicted on Figure 10.2. A single struck flint flake was found within this area. The flint was found in a deflation hollow with large dunes to the east and south (Illus 3). However, it is clear from the gazetteer entry referring to existing NMRS and SMR numbers that this site entry refers to worked flints recovered over the years from the area stretching from the Menie Links to the Foveran Links on the south side of the Ythan estuary.

Site 28

NMRS number:	NJ92SE 8
SMR number:	NJ92SE0006
SMR grid ref:	NJ 992 210
Fig. 10.2 environmental Statement:	NJ 9905 2100
Headland grid ref:	Not seen at NJ 9905 2100
Site type:	Stone Bank
Impact:	Cut - lowered 0.5 m

The stone bank was initially spotted on an aerial photograph. It was aligned roughly parallel with the coastline and was 1.5 m wide. The wall was exposed over a length of 8 m and situated next to a dune. Our survey targeted the location given in Figure 10.2 of the environmental statement. Despite extending the search for the wall up to a radius of some 80 m from that location it was not possible to re-locate the wall.

However, the location of the structure given in the site gazetteer places the wall some 150 m to the east and well beyond the area of this survey. If it is at this location, it will not be affected by the current layout of the golf course as it is 70 m to the south-east of the 18th fairway..

Site 29

NMRS number:	NJ92SE 13
SMR number:	NJ92SE0005
SMR grid ref:	NJ 993 212
Fig. 10.2 environmental Statement:	NJ 99150 21140 to NJ 99347 21276 (diagonal of rectangle)
Headland grid ref:	NJ 9920 2113 (centre of Flint scatterer 1) NJ 9898 2122 (centre of Flint scatterer 2)
Site type:	Flint scatters
Impact:	Fill - raised 0.2 -0.4 m

The location of this site is represented in the environmental statement Figure 10.2 by a rectangular box measuring some 100 m wide and 200 m long aligned parallel with the shore. The corresponding NMRS and SMR entries refer to three areas centred on NJ 993 212 some 50 m to the east of the rectangular box. The entries also refer to a number of collections of microliths and other flints from



Illus 4

View towards north end of mapped area defining Site 29. From S



Illus 5

View towards south end of mapped area defining Site 29. From N

the Menie Links area. In addition to the NMRS and SMR descriptions, the environmental statement gazetteer describes seven discrete flint scatters located by 10 figure grid references not depicted on figure 10.2. These scatters form two groups, one situated immediately to the south of, and the other some 150 m to the west of the rectangle defining Site 29.

Having reviewed the local topography, the walk-over survey was concentrated in the areas of the two groups of flint scatters. The rectangle defining Site 29 largely covered an area of tall sand dunes that appeared to have formed fairly recently and did not look to be a likely location for flint scatters (Illus 4 and 5). However, two isolated thin flint flakes were located high up in the sand dunes, one within and the other just to the east of the Site 29 rectangle (Illus 2).

The group of four discrete flint scatters to the south of the rectangle turned out to lie within an elongated area (Flint scatter 1, centred at NJ 9920 2113) measuring some 100 m north to south and from 25 m to 35 m wide containing worked flints (Illus 2, 6). The flints were lying on a deflation surface amongst numerous pebbles of varying size. The extents of this area may partly reflect the distribution of flint artefacts but it is likely that vegetation cover to the west and recent windblown sand deposits at the foot of the sand dunes to the east obscured the full



Illus 6

View towards Flint scatter 1 (Site 29). The 'cairn' (Site 98) at left of picture. From N

extent of the flint deposits. Amongst the numerous worked flint objects seen on the surface were two microliths.

The second group of discrete flint scatters were situated to the north-west some 200 m inland towards at the foot of large dunes. No flints were found at the location given in the gazetteer, but an irregular deflation surface immediately to the south-west contained worked flints (Flint scatter 2, centred at NJ 9898 2122). Struck flints were found over an area extending up to 140 m north-east to south-west and up to 40 m wide (Illus 2, 7). A buried ground surface was exposed in a section cut by wheel ruts at the base of tall grass-covered sand dunes (Illus 8). According to the current golf course design this second flint scatter falls largely within the area of the 10th fairway.

Site 90

NMRS number:	N/A
SMR number:	NJ92SE0021
SMR grid ref:	'Data not stored' (NJ 990 210 on Pastmap)
Fig. 10.2 environmental Statement:	NJ 990 210
Headland grid ref:	NA
Site type:	Flints
Impact:	No earthworks

The location of this site is at a six figure grid intersection in an area covered in thick grassy vegetation and refers to an imprecise location of flints found on Menie links.

Site 91

NMRS number:	N/A
SMR number:	NJ92SE0028
SMR grid ref:	'Data not stored' (NJ 990 210 on Pastmap)
Fig. 10.2 environmental Statement:	NJ 990 210
Headland grid ref:	NA
Site type:	Flints; Microliths
Impact:	No earthworks

The location of this site is at the same six figure grid intersection Site 90. Again it refers to an imprecise location of flints found on Menie links.

Site 92

NMRS number:	NA
SMR number:	NK02SW0001
SMR grid ref:	NK 00 23
Fig. 10.2 environmental Statement:	NJ 9897 2082
Headland grid ref:	NA
Site type:	Coin find spot
Impact:	Fill – raised 0.5 m

The environmental statement gazetteer demonstrates that the site is incorrectly plotted on Figure 10.2. The SMR record indicates that the find spot lies some 2.4 km to the N.



Illus 7

View towards Flint scatter 2 at the foot of hind-dunes in front of possible raised beach. From NE picture. From N

Site 98

NMRS number:	NA
SMR number:	NA
SMR grid ref:	NA
Fig. 10.2 environmental Statement:	NJ 99140 21064
Headland grid ref:	NJ 99215 21140
Site type:	Cairn
Impact:	Fill – raised 2.0 m

The ten figure grid reference given for this structure in the environmental statement gazetteer locates it near its correct location some 100 m to the north-east of its position on Figure 10.2. The structure appeared to be a low cairn just over 8 m in diameter. It comprised well rounded stones fairly uniform in size between 0.1 m to 0.2 m across (Illus 9). However by probing the gaps between the stones in the ‘cairn’ it became apparent that the feature was just a single layer of stone upon a slightly domed sandy surface. There are two smaller and more irregular shaped areas of stones situated just to the south of the ‘cairn’ (Illus 9). The circular stony area lies within Flint Scatter 1 with several struck flints situated close



Illus 8

Exposed old ground surface visible in section within Flint scatter 2 (Site 29). From E

to the edge of feature, but no flint artefacts were visible amongst the stones of the ‘cairn’.

5 DISCUSSION

The object of this survey was to investigate seven known sites within or in the immediate vicinity of areas affected by earthworks to form the 18th hole of the golf course. The nature of the impact on individual sites was evaluated by overlying the golf course design onto a Figure 10.2 of the Environmental Statement showing the location of these sites. However, it soon became apparent that the location of the sites on Figure 10.2 was not sufficiently precise for this purpose. By using DGPS with sub-decimetre accuracy it was possible to rectify this and produce a more precise survey of the location and extent of the sites.



Illus 9

‘Cairn’ at Site 98. Smaller irregular stony spreads in the background. From NW

By looking at the gazetteer entries for the sites it became apparent that four (Site 27, 29, 90 and 91) all refer to the presence of flint scatters on Menie, Drums and Foveran Links that have been noted and collected over the last five decades. The locations of these flint scatters are fairly imprecise due to their location within sand dunes with few mapped reference points nearby.

The survey identified two areas (Flint scatters 1 and 2) where worked flint could be seen on the surface at or in the vicinity of previously identified locations. However, it must be stressed that the survey focussed on these previously known locations and that flint scatters are likely to be found in other areas nearby. It is also likely that the flint scatters extend beyond the areas where flints were seen on the surface and that their true extent is obscured by vegetation or buried by recent deposits of windblown sand.

No flint was collected and no attempt was made to record the nature of the individual worked flints within the scatters. However two microliths were noted within Flint Scatter 1, indicating that at least some of the flint debris dates to the Mesolithic Period.

Site 92 is clearly a mistake as the gazetteer entry refers to SMR number NK02SW0001 which lies on the next 10

000 map sheet to the north-east. The gazetteer entry also states that the site is located on Foveran Links to the north of the development area.

The stone bank at Site 28 will not be affected by the current design of the golf course. It was not seen during the survey as the corresponding SMR and NMRS entries put the bank some 150 m to the east of its mapped position. If it is at this location, it lies some 80 m to the east of the nearest area affected by the golf course landscaping.

The cairn at Site 98 looked very plausible at first sight. However careful probing between the stones suggested that it was merely a single layer of stones on a domed sandy surface. There were also two smaller but less well defined areas of evenly sized stones nearby, which may suggest that these features were formed by some natural deflation process.

6 CONCLUSIONS

The survey has reduced the previously seven sites to two deflation areas where flint artefacts are visible on the surface (Illus 2). Flint Scatter 1 lies partly within the southern part of the 18th tees area but appear not to stray into the 18th fairway area to the south. However, due to the vegetation cover it is still possible that the flint scatters continue into the fairway to the south. The same caveat applies to the extent of the second flint scatter as this lies largely within the area that will be affected by the construction of the 10th fairway.

APPENDIX 1

Photograph register

Picture no.	Exposures	Direction facing	Description
1	1	SE	View towards the fore-dunes and Site 27, Flint scatter 1 (Site 29) and Site 98
2	1	ESE	View towards the fore-dunes and Flint scatter 1 (Site 29) and Site 98
3	1	E	View towards the fore-dunes, north of Flint scatter 1 (Site 29)
4	1	NE	View towards the fore-dunes to the north-east
5	1	NE	The mapped location of Site 92
6	1	N	The mapped location of Sites 90 and 91
7	1	NE	Deflation hollow within Site 27. Single struck flint found next to scale
8	1	ENE	Deflation hollow within Site 27. Single struck flint found next to scale
9	1	NNE	View towards north end of mapped area defining Site 29
10	1	S	View towards south end of mapped area defining Site 29
11	3	S	View towards Flint scatter 1 (Site 29). The 'cairn' (Site 98) at left of picture
12	1	–	Microlith found in west part of Flint scatter 1, Site 29
13	1	–	Microlith found in east part of Flint scatter 1, Site 29
14	1	SW	View towards Flint scatter 2 at the foot of hind-dunes in front of possible raised beach
15	1	W	View towards Flint scatter 2 at the foot of hind-dunes in front of possible raised beach
16	1	S	View towards south half of Flint scatter 2 (Site 29) from hind-dune
17	1	SE	View towards middle part of Flint scatter 2 (Site 29) from hind-dune
18	1	E	View towards north end of Flint scatter 2 (Site 29) from hind-dune
19	1	NE	View towards area to the north of Flint scatter 2 (Site 29) from hind-dune
20	1	SW	View towards north end of Flint scatter 2 (Site 29) from hind-dune
21	1	NE	View towards Flint scatter 2 (Site 29) from the south-west
22	1	W	View of area within Flint scatter 2 (Site 29) with exposed old ground surface
23	1	W	Detail shot showing exposed old ground surface within Flint scatter 2 (Site 29)
24	1	SE	View towards Site 98 in front of fore-dunes
25	2	NNW	'Cairn' at Site 98. Smaller irregular stony spreads in the foreground.
26	1	SE	'Cairn' at Site 98. Smaller irregular stony spreads in the background.

∞ APPENDIX 2

Site concordance list

Site no	Site type	SMR no	NMR no	Co-ordinates			
				Environmental statement Fig 10.2	Headland	SMR	NMRS
27	Flint scatters	NJ92SE0003	NJ92SE 6	NJ 99130 20960 - NJ 99230 21030 ¹	NJ 99145 21006	NJ 989 209	NJ 989 209
28	Stone Bank	NJ92SE0006	NJ92SE 8	NJ 9905 2100	Not seen at NJ 9905 2100	NJ 992 210	NJ 992 210
29	Flint scatters	NJ92SE0005	NJ92SE 13	NJ 99150 21140 - NJ 99347 21276 ²	NJ 9920 2113 ³ NJ 9898 2122 ⁴	NJ 993 212	NJ 993 212
90	Flints	NJ92SE0021	NA	NJ 990 210	NA	NJ 990 210 ⁵	NA
91	Flints; Microliths	NJ92SE0028	NA	NJ 990 210	NA	NJ 990 210 ⁵	NA
92	Coin find spot	NK02SW0001	NA	NJ 9897 2082	NA	NK 00 23	NA
98	Cairn	NA	NA	NJ 99140 21064	NJ 99215 21140	NA	NA

¹ Co-ordinates of southwest and northeast corner of rectangular box measuring some 100 m east to west by 75 m

² Co-ordinates of west and east corner of rectangular box measuring some 100 m wide and 200 m long aligned parallel with the shore

³ Centre of Flint scatter 1, an irregular area extending some 100 n north to south and 40 m east to west

⁴ Centre of Flint scatter 2, an irregular elongated area aligned southwest to northeast some 130 m long by 40 m wide

⁵ Location as shown on Pastmap. Map reference shown as 'Data not stored' on Aberdeenshire SMR database