

Site Code:

BBI07 Highland Housing Fair Client:

Balvonie Braes, Inverness, Highland Council Archaeological Desk-based Assessment and Evaluation

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Contents

- 1. Introduction and Background
- 2. Objectives and Methodology
- 3. Results
- 4. Conclusions and Recommendations
- **5.** Sources
- **6.** Acknowledgements

Illustrations

Figure 1 Site Location

Figure 2 Site Plan of Trenches

Figure 3 Exposed field drains

Figure 4 Feature 59, Trench 17

Figure 5 Feature 61, Trench 19

Figure 6 Feature 41, Trench 28

Appendix I: Trench Register **Appendix II:** Feature Register

Appendix III: Photographic Register **Appendix IV:** Balvonie Braes GPS Data

Summary

In February 2007, Alba Archaeology (Highland) Ltd was commissioned by Fiona Porteous, coordinator, Highland Housing Fair, to undertake an archaeological desk-based assessment and evaluation on the site of a proposed housing development at Balvonie Braes, Milton of Leys, Inverness.

The desk-based assessment revealed no sites of archaeological significance lay within the proposed development area. A 5% trial trenching evaluation of the site was subsequently carried out, which revealed a large number of modern field drains traverse the site illustrating its recent agricultural use. Additionally, one potential feature of archaeological significance at the north-west end of the site in the form of a possible posthole. It was not clear from the evaluation whether this feature was modern in date or of a prehistoric nature.

A recommendation has been made that an archaeological watching brief should be carried out during any further ground works associated with this development in order to establish the extent of any potential archaeology.

1. Introduction and Background

In February 2007, Alba Archaeology (Highland) Ltd was commissioned by Fiona Porteous, coordinator, Highland Housing Fair to undertake an archaeological desk-based assessment and evaluation in response to the Highland Council Archaeology Unit's Brief for archaeological work (06/001135/FULIN) on the site of a proposed housing development at Balvonie Braes, Milton of Leys, Inverness (Figure 1).

The site is centred at Ordnance Survey National Grid Reference NH 702 424, and lies southeast of Balvonie Wood bordered on the northeast by the A9 carriageway (See Figure 1). It is approximately 13.5 acres, and is a well-ploughed livestock-grazed field rising in elevation from 150m to 170m northwest to southeast, with most of the elevation change in the northern corner of the site. To the east-northeast is a tree belt along a northwest-southeast axis which separates the site from an adjacent grazing field, and it is enclosed by drystone walls.

At present, the tall pines of Balvonie Wood block the northern views from the lower (northern) half of the site. However, in the past, the site at Balvonie Braes would have benefited from a superb view shed from the southwest to east, from which one could have surveyed the Moray Firth area, including the eastern entrance of the Great Glen, Craig Phadrig, Ord Fort in North Kessock and the mouth of the River Ness.

2. Objectives and Methodology

The objectives of the evaluation as stipulated by the Highland Council Archaeology Unit are:

- To identify the location, nature and extent of any features or objects of archaeological importance that would be damaged or destroyed by this development.
- To confirm the existence of previously recorded sites, investigate the existence of any previously unrecorded archaeology identified during the desktop survey, and to identify and record any new archaeological sites or finds encountered in the field.
- To propose arrangements for the safeguarding where possible, and recording where necessary of any archaeological features or finds identified. These will need to be agreed with Highland Council Archaeology Unit.
- To make sure that the needs for archaeological conservation and recording are met without causing any unnecessary delay or disturbance to the development project.

To this end:-

- All topsoil will be removed to an archaeological horizon to the satisfaction of the archaeologist on site; this by means of a straight-edged or ditching bucket using a back acting machine. 5% of the development area equates to 1365m of trenching using a 2.0m wide ditching bucket.
- All archaeological features and deposits will be fully excavated by hand and recorded by using *pro forma* recording sheets and a continuous unique numbering system. All plans, sections, profiles and elevations will be drawn at 1:10, 1:20 and 1:50 as appropriate. Drawings will be made in pencil on permanent drafting film. The depth of all principal features and levels will be

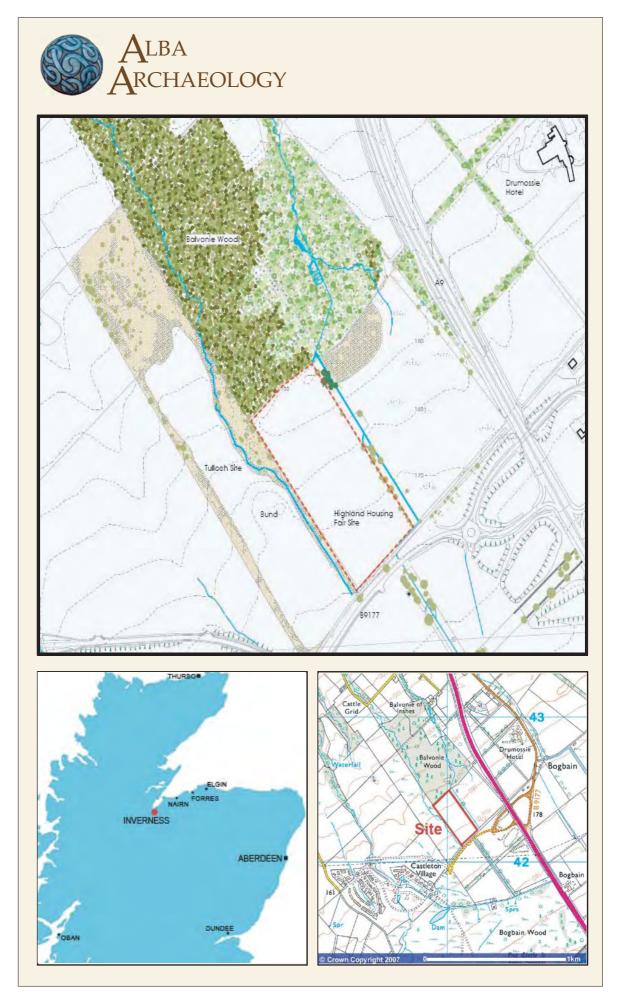


Figure 1: Site location

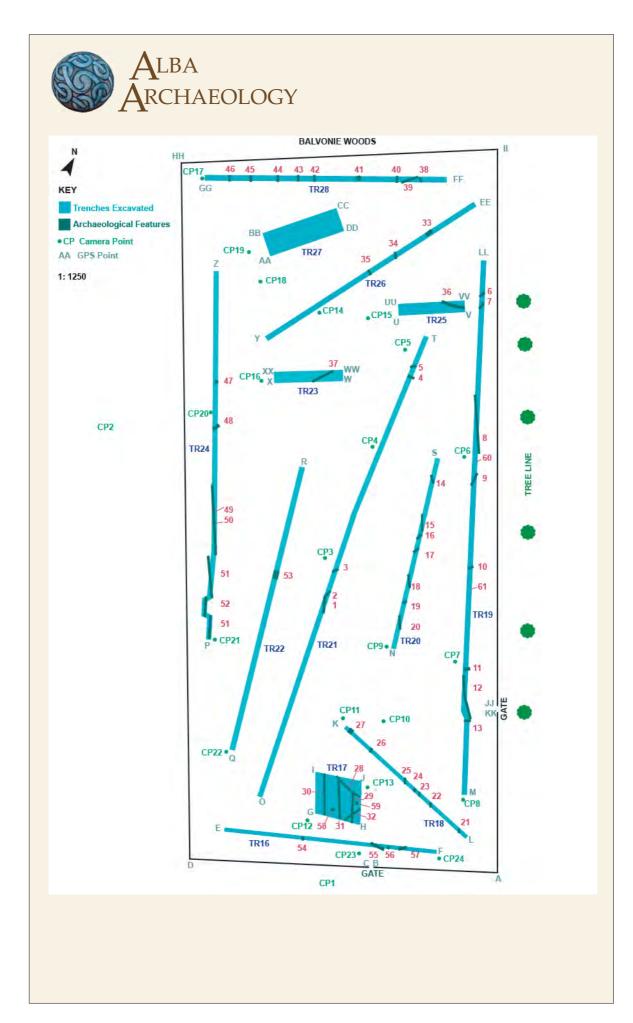


Figure 2: Site plan

calculated in meters relative to Ordnance Datum. Plans, sections and elevations will be annotated with depths as appropriate. All features and sections will have photographs taken to produce a photographic record consisting of digital photographs.

The overall objective is to provide information for the client that will enable them to be aware of, and be sensitive to, the archaeology within the development area, and allow them to make informed decisions about the future of the development.

All work will be undertaken by Alba Archaeology (Highland) Ltd and will meet those guidelines stipulated by the Institute of Field Archaeologists (IFA 1999).

Operational Factors

The archaeological contractor will at all times follow and confirm to the Health and Safety at Work Act 1974 and other various regulations and the Codes of Conduct and Approved Practice and Standards of the Institute of Field Archaeologists (IFA 1999).

The Fieldwork was carried out from $12^{th}-23^{rd}$ February 2007 in variable conditions, mainly dry, cloudy and blustery with occasional showers, by Mary Peteranna of Alba Archaeology (Highland) Ltd.

3. Results

Desk-Based Assessment

There were no recorded finds or features of archaeological significance on the development site itself; however numerous noteworthy sites have been recorded in the immediate vicinity of Balvonie Braes.

Archaeological investigations associated with current developments within the Milton of Leys area have produced ample evidence for its occupation since prehistoric times. The archaeological remains that are visible on the surface today are historical farmsteads (Bogbain – NMRS NH74SW46), a mill and lade (Balvonie – NMRS NH64SE351), and other ruined stone structures (Druidtemple Farm – NMRS NH64SE350), while subsurface remains are primarily of prehistoric date and include hut circles, prehistoric pottery, postholes and hearths, a cairn and a burial cist. Most recently, investigations in nearby Culduthel have revealed a significant Iron Age occupation complex.

The desk-based assessment also revealed a number of sites of interest within a 1.5km radius of Balvonie Braes. Less than 1km southwest of the site investigations from 1998-2001, prior to a recent development in Milton of Leys, uncovered numerous probable prehistoric features including postholes, an iron slag dump, hearths, pits and prehistoric pottery (SMR NH64SE0413). To the east in Balloan, a ring ditch enclosure is documented and archaeological investigations here revealed several hut circles and prehistoric pottery (SMR NH64SE0061). Southeast of the site lies the Scheduled Ancient Monument (4698) of Bogbain Wood, consisting of a hut circle and associated field system. The site is also documented as housing two Iron Age hut circles in SMR NH74SW0030. To the north-northeast in Castlehill, two additional hut circles are documented (SMR NH74SW0012), while 1.4km north of the site, an investigation uncovered prehistoric postholes, pits and pottery (SMR NH64SE0246). The presence of these sites on the hillsides of Drumossie provides significant evidence for human occupation since

prehistory and lends great potential for archaeological remains to exist below the fields of Balvonie Braes.

South of the Highland Boundary fault and by the entrance to the Great Glen, the site's Devonian bedrock is overlain by deposits from the last glaciations. The raised situation of Balvonie Braes above the river plain below makes it a natural location from human occupation.

Aerial Photograph and Cartographical Sources

The historical maps and aerial photographs consulted attest to the agricultural history of the site; it is, perhaps, worth noting that *Balvonie* translates from Gaelic as "farm at the hills". The 1st and 2nd edition Ordnance Survey maps serve to illustrate the site's agricultural background, detailing the boundaries of fields, which remain the same today, but no structures are recorded on the site.

The small ridge that presently lies to the west-northwest of the site was the result of modern build-up from local developments. Its absence from 1947 RAF aerial photographs would seem to underline this conjecture, although the site itself appears much as it does today. Aerial photographs also revealed a possible feature of interest in the west-southwest corner of the site, which will be investigated during the evaluation.

Walkover Survey

A walkover survey and photographic record was made of the site prior to the commencement of the trial trenching evaluation. There were no obvious archaeological remains visible on the surface of the site.

Evaluation

An archaeological evaluation of at least 5% of the total site area of the proposed development was also required as part of the Highland Council's Brief. In this instance, 5% of the total site area was equal to 2732m², or 1365m of linear trenching using a 2m straight edged bucket on a back-acting machine.

A total of thirteen trenches were dug (Figure 2), in accordance with the proposal of work agreed with the Highland Council Archaeology Unit. The trenching evaluation consisted of Trenches 16-28. Trenches 1-15 were initially to be excavated in the adjacent field to the northeast, however as this area will no longer be undergoing development their excavation was not required.

Across the site, a total of fifty-six field drains were recorded. They were photographed and their positions recorded with GPS and plotted on the overall site plan. As far as possible, the field drains were identified as close to the surface as possible in order to avoid their disturbance. In many cases, the field drains ran parallel to the trench, in which case the trench was moved to avoid it. Most of the drains were clearly visible with dark soil fill in contrast to the surrounding subsoil (Figure 3), and, within this, large gravel and small stones. It was recognized that the more modern field drains with orange ceramic pipes were less visible due to a lighter, mixed fill with less gravel and stones. In many cases, they were not identified until the pipe was visible. The wide drains, varying from 0.6 - 0.9 m wide, were planned as the main drains, off which narrow drains, varying from 0.2 - 0.4 m wide, were dug. The exact dimensions of each field drain uncovered, the depths at which they were recorded and their locations are listed in Appendix II.





FIGURE 3: During the trial trenching evaluation, it became clear that the site had been much disturbed in the past with numerous field having been laid across the area. (L) AAB51 – field drain 19, trench 17; (R) AAB91 – field drain 53, trench 22.

One possible feature of archaeological interest, Feature 41, was uncovered in Trench 28 (Figure 6). Based on its size and shape, it would appear to be a posthole of unknown date. There was no further evidence about the structure to which this possible posthole belonged. A light manuring scatter of ceramic and glass fragments was noted on the surface and through the topsoil of several of the trenches excavated.

Full details of all trenches and features can be found in Appendices I and II.

Trench 16

Topsoil was a mid brown gravelly soil with 10% small stones. The natural subsoil was a dry, pale orangey-brown gravelly clay with some orange-red iron patching through it. Four field drains were recorded.

Trench 17

Topsoil was a mid brown gravelly soil with 10% small stones. The natural subsoil was a dry, pale orangey-brown gravelly clay with some orange-red iron patching through it. Several fragments of undecorated and decorated ceramics and one coal fragment, not associated with any features, were collected from the trench. Five field drains were recorded. Additionally, two sub-circular features were recorded in Trench 17 (Figure 4). Both features were orangey-black gritty, clayey sand (granite origin) deposits. They were recognized to be natural deposits—destroyed rock, probably evidence of glacial forces.

Trench 18

Topsoil was a mid brown soil with 5% medium gravel and 1% small red sandstone fragments. The natural subsoil was pale grey-brown clayey silt with 10% gravel and sandstone slabs throughout it. Seven field drains were identified and recorded in Trench 18.



FIGURE 4: Feature 59, trench 17. One of two sub-circular features noted in trench 17, Feature 59 was half sectioned to a depth of 0.15m. It was recognised to be a natural deposit. (AAB102).

Trench 19

Topsoil was a mid brown soil with 5% small-medium gravel and <2% small sandstone slabs throughout. The natural subsoil was light brown-grey gravelly clay with orangey-red patches (iron pan) and 10% scattered sandstone slabs. In several areas, the subsoil would transition from the gravelly clay to a mostly gravel deposit and back to the gravelly clay. This was seen elsewhere in the site and is most likely evidence of forces of glacial deposition. Many scattered fragments of decorated and undecorated ceramic and glass fragments, two charcoal pieces and one iron nail. None of these were associated with any features. Eight field drains were recorded within the trench. Features 60 and 61 were also recorded in the central portion of the trench. Feature 60 appeared to be a scatter of subcircular burnt patches, measuring approximately 0.3m x 0.15m. It was hand excavated and sectioned to a depth of 0.05m and subsequently determined to be burnt roots. Feature 61 was a subcircular patch of dark soil, measuring 0.30 x 0.35m (Figure 5). It was hand excavated and sectioned to a depth of 0.15m and determined to be a natural deposit.

Trench 20

Topsoil was a mid brown soil with <5% small-medium gravel and <2% small sandstone slabs throughout it. The natural subsoil was light brown-grey gravelly clay with orangey-red patches (iron pan) and 10% scattered small stones. Several scatters of mostly gravel deposits within the normal gravelly clay subsoil. Six field drains were recorded in the trench.

Trench 21

Topsoil was a mid brown gravelly soil with 10% small stones. The natural subsoil was light orangey-brown gravelly clay with some orange-red iron patching. Scattered large schist slabs

occurred between the topsoil and subsoil in addition to consistent evidence of the natural sandstone bedrock. Pocket of blue clay, c.1m wide, deposited within the gravelly subsoil. Smaller deposits of the same clay were identified in other various and random locations on the site. Five field drains were recorded within the trench.



FIGURE 5: Feature 61, trench 19. One of two sub-circular features noted in trench 19, feature 61 was excavated to a depth of 0.15m and determined to be a natural deposit. (AAB106)

Trench 22

Topsoil was a mid brown soil with <5% gravel. The natural subsoil was pale yellow-brown, dry gravelly clay and some areas of gravel deposits. One field drain was recorded in Trench 22.

Trench 23

Topsoil was a mid brown soil with 5% small-medium gravel and <2% small sandstone slabs throughout. The natural subsoil was light brown-grey gravelly clay with orangey-red patches (iron pan) and 10% scattered sandstone slabs. Several ceramic and glass fragments, not associated with any features, were noted in the trench. One field drain was identified in Trench 25.

Trench 24

Topsoil was very red and iron-rich in the lowest portion of the trench, to the northerly end. Above this by 20m, the topsoil was a mid brown soil with <5% gravel. The natural subsoil was pale yellow-brown, dry gravelly clay with some areas of gravel deposits. Five field drains were recorded in the trench.

Trench 25

Topsoil was a mid brown soil with 5% small-medium gravel and <2% small sandstone slabs throughout it. The natural subsoil was light brown-grey gravelly clay with orangey-red patches (iron pan) and 10% scattered sandstone slabs. One field drain was identified in Trench 25.

Trench 26

Topsoil was a mid brown gravelly soil with many large boulders and sandstone slabs scattered throughout it. The natural subsoil was pale grey-brown gravelly clay with several deposits of blue clay and a few scatters of gravel deposits. Several fragments of decorated and undecorated ceramics and glass bottle fragments noted. Three field drains were recorded.

Trench 27

Topsoil was a mid brown soil with 5% small-medium gravel and <2% small sandstone slabs throughout. The natural subsoil was light brown-grey gravelly clay with many gravel deposits and 10% scattered schist boulders and sandstone slabs. No finds or features noted.

Trench 28

Topsoil was a wet, light brown soil with few boulders and some gravel. The natural subsoil was pale yellow-brown gravelly clay with several orange-black gritty granite patches, and several gravel deposits throughout it. Eight field drains were documented in Trench 28.

Feature 41 was a sub-circular, dark deposit, measuring 0.75m x 0.6m (Figure 6). It was hand-excavated and sectioned to a depth of 0.3m. The fill was a compact, dark brown soil with few medium stones and several charcoal fragments and one small fragment of burnt wood. Possible posthole, of unknown date or function.



FIGURE 6: Feature 41, trench 28. A sub-circular feature, excavated to a depth of 0.3m. This feature may be a posthole, but it is unclear at this time whether it is an isolated feature; its date is unknown. (AAB71)

4. Conclusions and Recommendations

The archaeological information recovered from the trial trenching evaluation shows evidence of a long history of utilisation of the field for agricultural purposes. The large number of field drains and manuring scatter of glass and ceramic finds throughout the topsoil all serve to illustrate this. They also indicate that the topsoil and much of the natural subsoil has been disturbed in the recent past. Nonetheless, the location of the site remains in a prime area of known archaeological importance.

Based on the archaeologically rich nature of the surrounding area, and the findings from this evaluation, the potential for buried archaeology remains on this site persists. It is recommended, therefore, that an archaeological watching brief be issued for any further ground breaking works to be carried out on this site as part of the Highland Housing Fair project. Additionally, a recommendation is made that archaeological evaluations are undertaken on any future developments in this area.

5. Sources

Institute of Field Archaeologists

1999 By-laws, Standards and Policy Statements of the Institute of Field Archaeologists. Reading.

Highland Council Sites and Monuments Record, Inverness Royal Commission on the Ancient and Historical Monuments of Scotland, Edinburgh

Internet Resources

http://jura.rcahms.gov.uk/PASTMAP

http://jura.rcahms.gov.uk/APF

http://www.ordnancesurvey.co.uk/oswebsite/getamap

http://www.nls.uk/digitallibrary/map/index.html

http://www.bgs.ac.uk/programmes/landres/glnb/gramp.html

Acknowledgements

Fiona Porteous, Highland Housing Fair Co-ordinator.

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D. H. Johnstone, Invergarry.

Appendix I Trench Register

Trench No.	Dimensions	Description
16	100 x 2m	Topsoil, 0.25 – 0.35m deep, mid brown gravelly soil with 10% small stones. Natural subsoil dry, pale orangey-brown gravelly clay with some orange-red iron patching through it. 4 field drains, Features 54-57, recorded.
17	20 x 20m	Topsoil, 0.30m deep, mid brown gravelly soil, 10% small stones. Natural subsoil dry, pale orangey-brown gravelly clay with some orange-red iron patching. Several fragments undecorated and decorated ceramics, 1 coal fragment recovered. 5 field drains, Features 28-32, recorded. 2 sub-circular features recorded; recognized to be natural deposits.
18	80 x 2m	Topsoil, 0.25 – 0.3m deep, mid brown soil, 5% medium gravel, 1% small red sandstone fragments. Natural subsoil pale grey-brown clayey silt with 10% gravel and sandstone slabs. 7 field drains, Features 21-27, recorded.
19	220 x 2m	Topsoil, 0.25 – 0.3m deep, mid brown soil, 5% small-medium gravel, <2% small sandstone slabs. Natural subsoil light brown-grey gravelly clay with orangey-red patches (iron pan), 10% scattered sandstone slabs. Several fragments decorated and undecorated ceramic and glass fragments, two charcoal pieces and one iron nail recovered. 8 field drains, Features 6-13, recorded. Features 60 and 61 noted in central portion of the trench, detailed in features register.
20	80 x 2m	Topsoil, 0.2 – 0.3m deep, mid brown soil, <5% small-medium gravel, <2% small sandstone slabs. Natural subsoil light brown-grey gravelly clay with orangey-red patches (iron pan),10% scattered small stones. Scattered gravel deposits. 6 field drains, Features 14-20, recorded.
21	230 x 2m	Topsoil, 0.3 – 0.35m deep, mid brown gravelly soil, 10% small stones. Natural subsoil light orangey-brown gravelly clay with some orange-red iron patching. Scattered large schist slabs between topsoil and subsoil in addition to consistent evidence of the natural sandstone bedrock. Pocket of blue clay, c.1m wide, deposited within the gravelly subsoil. 5 field drains, Features 1-5, recorded.
22	140 x 2m	Topsoil, 0.25m deep, mid brown soil, <5% gravel. Natural subsoil pale yellow-brown, dry gravelly clay, some areas of gravel deposits. 1 field drain, Feature 53, recorded.
23	30 x 5m	Topsoil, 0.3m deep, mid brown soil, 5% small-medium gravel, <2% small sandstone slabs. Natural subsoil light brown-grey gravelly clay with orangey-red patches, 10% scattered sandstone slabs. Several ceramic and glass fragments recovered. 1 field drain, Feature 37, recorded.
24	180 x 2m	Topsoil, 0.3m deep, red, iron-rich in N end; remaining topsoil was mid brown soil with <5% gravel. Natural subsoil pale yellow-brown, dry gravelly clay with some areas of gravel deposits. Few fragments decorated and undecorated ceramics recovered. 5 field drains, Features 48-52, recorded.
25	30 x 5m	Topsoil, 0.25m deep, mid brown soil, 5% small-medium gravel, <2% small sandstone slabs. Natural subsoil light brown-grey gravelly clay with orangey-red patches, 10% scattered sandstone slabs. 1 field drain, Feature 36, recorded.

Trench No.	Dimensions	Description
26	120 x 2m	Topsoil, 0.25m deep, mid brown gravelly soil with many large boulders and sandstone slabs. Natural subsoil pale grey-brown gravelly clay with several deposits of blue clay, few scatters of gravel deposits. Several fragments decorated and undecorated ceramics and glass bottle fragments recovered. 3 field drains, Features 33-35, recorded.
27	40 x 10m	Topsoil, 0.3 – 0.4m deep, mid brown soil, 5% small-medium gravel, <2% small sandstone slabs. Natural subsoil light brown-grey gravelly clay with many gravel deposits,10% scattered schist boulders and sandstone slabs. No finds or features.
28	115 x 2m	Topsoil, 0.25m deep, wet, light brown soil with few boulders and some gravel. Natural subsoil pale yellow-brown gravelly clay with several orange-black gritty granite patches, several gravel deposits. 8 field drains, Features 38-40, 42-46, recorded. Feature 41, subcircular, dark deposit, measuring 0.75m x 0.6m; fill was compact, dark brown soil with few medium stones, several charcoal fragments, one small fragment of burnt wood. Possible posthole.

Appendix II Features Register

Feature	Trench	Photo No.	Dimensions (m)	Depth (m)	Notes	Date
1	21	AAB8 AAB9	4.3 x 0.2	0.25	Field Drain	12/02/07
2	21	AAB9	1.2 x 0.2	0.25	Field drain, intersects with feature 1	12/02/07
3	21	AAB10	2.2 x 0.8	0.15	Field drain	12/02/07
4	21	AAB12	2 x 0.8	0.15	Field drain	12/02/07
5	21	AAB13	2.1 x 0.8	0.2	Field drain	12/02/07
6	19	AAB15	2.4 x 0.8	0.25	Field drain	13/02/07
7	19	AAB16	2.1 x 0.25	0.25	Field drain	13/02/07
8	19	AAB18	15 x 0.25	0.25	Field drain, parallel with trench. Shifted trench to avoid.	13/02/07
9	19	AAB19	6.2 x 0.7	0.25	Field drain.	13/02/07
10	19	AAB21	2.0 x 0.8	0.25	Field drain.	13/02/07
11	19	AAB22 AAB23	2.0 x 0.9	0.30	Field drain, connects with Feature 12.	13/02/07
12	19	AAB23 AAB24	19.5 x 0.2	0.35	Field drain, connect Features 11 and 13.	13/02/07
13	19	AAB25	1.2 x 0.9	0.30	Field drain, connects with Feature 12.	13/02/07
14	20	AAB28	2.1 x 0.9	0.30	Field drain.	14/02/07
15	20	AAB29 AAB30	8.4 x 0.45	0.40	Field drain, v. mixed soil w/ orange pipe, connects w/ 16.	14/02/07
16	20	AAB30	2.0 x 0.6	0.30	Field drain, connects with 15.	14/02/07
17	20	AAB31	2.0 x 0.25	0.40	Field drain, parallel to 16.	14/02/07
18	20	AAB32	7.3 x 0.25	0.30	Field drain.	14/02/07
19	20	AAB33	2.0 x 0.45	0.35	Field drain.	14/02/07
20	20	AAB34	7.8 x 0.2	0.45	Field drain.	14/02/07
21	18	AAB36	1.7 x 0.25	0.30	Field drain, parallel to 22, 23, 24, 25, 26	14/02/07
22	18	AAB38	2.0 x 0.25	0.40	Field drain, parallel to 21, 23, 24, 25, 26	14/02/07
23	18	AAB39	2.0 x 0.25	0.25	Field drain, parallel to 21, 22, 24, 25, 26	14/02/07
24	18	AAB40	2.0 x 0.25	0.25	Field drain, parallel to 21, 22, 23, 25, 26	14/02/07
25	18	AAB41	1.2 x 0.25	0.25	Field drain, parallel to 21, 22, 23, 24, 26	14/02/07
26	18	AAB42	2.0 x 0.25	0.25	Field drain, parallel to 21, 22, 23, 24, 25	14/02/07
27	18	AAB43	2.0 x 0.8	0.35	Field drain	14/02/07
28	17	AAB46 AAB47	14 x 0.8	0.25	Field drain, intersects with 29	15/02/07
29	17	AAB47 AAB48 AAB51	19.4 x 0.25	0.30	Field drain, connects 28 and 32	15/02/07
30	17	AAB49	20.5 x 0.25	0.30	Field drain, parallel to 29 and 31	15/02/07
31	17	AAB50	16.4 x 0.25	0.30	Field drain, parallel to 29 and 30	15/02/07
32	17	AAB51 AAB52	5.5 x 0.6	0.30	Field drain, intersects with 29	15/02/07

Feature	Trench	Photo No.	Dimensions (m)	Depth (m)	Notes	Date
33	26	AAB56	1.6 x 0.3	0.35	Field drain.	16/02/07
34	26	AAB57	2.5 x 0.3	0.35	Field drain	16/02/07
35	26	AAB58	2.1 x 0.3	0.35	Field drain	16/02/07
36	25	AAB59 AAB60	5.7 x 0.7	0.35	Field drain.	16/02/07
37	23	AAB63	9.2 x 0.5	0.30	Field drain.	19/02/07
38	28	AAB66 AAB68	2.0 x 0.4	0.35	Field drain, intersects with 39, parallel to 40	19/02/07
39	28	AAB67 AAB68	11 x 0.25	0.35	Field drain with clay pipe, connects 38 and 40	19/02/07
40	28	AAB69	2.0 x 0.4	0.30	Field drain, intersects with 39	19/02/07
41	28	AAB70 AAB71	0.6 x 0.75 x 0.3 (dep)	0.30	Probable posthole, three 10-cm stones in mid-brown gravelly soil with few bits of charcoal and one small frag of burnt wood.	19/02/07
42	28	AAB72	2.0 x 0.8	0.30	Field drain	19/02/07
43	28	AAB73	2.0 x 0.45	0.40	Field drain, parallel to 45	19/02/07
44	28	AAB74	2.0 x 0.25	0.40	Field drain, parallel to 44	19/02/07
45	28	AAB75	2.0 x 0.3	0.30	Field drain, parallel to 46	19/02/07
46	28	AAB76	2.0 x 0.3	0.30	Field drain, parallel to 45	19/02/07
47	24	AAB82	1.9 x 0.3	0.30	Field drain.	20/02/07
48	24	AAB83	2.0 x 0.4	0.30	Field drain.	20/02/07
49	24	AAB85 AAB86	2.0 x 0.4	0.30	Field drain with clay pipe, intersects with 50	21/02/07
50	24	AAB85 AAB86	14.3 x 0.4	0.30	Field drain, intersects with 49, shifted W to avoid.	21/02/07
51	24	AAB87 AAB89	5.0 x 0.2	0.30	Field drain parallel to trench, shifted W again to avoid.	21/02/07
52	24	AAB88 AAB89	4.0 x 0.2	0.30	Field drain, parallel to trench, ended trench early here.	21/02/07
53	22	AAB91	2.0 x 0.9	0.25	Field drain.	21/02/07
54	16	AAB93	2.0 x 0.25	0.30	Field drain.	21/02/07
55	16	AAB95	4.5 x 0.5	0.30	Field drain, intersects with 56.	21/02/07
56	16	AAB96	2.0 x 0.25	0.30	Field drain, intersects with 55.	21/02/07
57	16	AAB97	6.4 x 0.6	0.30	Field drain.	21/02/07
58	17	AAB99 AAB100	0.7 x 0.5	0.40	Natural subcircular feature of orange clayey sand; sectioned to depth of 10cm. Very granite-like rotten rock. No charcoal.	21/02/07
59	17	AAB101 AAB102	1.1 x 0.8	0.40	Natural subcircular feature of black- orange clayey sand; sectioned to depth of 15cm. Very granite-like rotten rock. No charcoal.	21/02/07
60	19	AAB103 AAB104	0.3 x 0.15 x 0.05	35	Scattered subcircular feature - burnt roots.	21/02/07
61	19	AAB105 AAB106	0.3 x 0.35 x 0.15	35	Natural subcircular deposit	21/02/07

Appendix III Photographic Register

Photo No.	Camera Location	Direction Facing	Notes	Date
AAB1	CP1	NW	Site prior to trial trenching	07/02/2007
AAB2	CP2	NE	Site prior to trial trenching	07/02/2007
AAB3	CP1	E	Site prior to trial trenching	07/02/2007
AAB4	CP1	E	Site prior to trial trenching	07/02/2007
AAB5	CP1	N	Site prior to trial trenching	07/02/2007
AAB6	CP2	NW	Views northwest from ridge/bund to west of site	07/02/2007
AAB7	CP3	S	Trench 21, southern half	12/02/2007
AAB8	-	N	Feature 1 - Field drains	12/02/2007
AAB9	-	N	Feature 1 and Feature 2 - Field drains	12/02/2007
AAB10	-	NE	Feature 3 - Field drain	12/02/2007
AAB11	CP4	S	Trench 21, centre portion	12/02/2007
AAB12	-	N	Feature 4, Field drain	12/02/2007
AAB13	-	W	Feature 5, Field drain	12/02/2007
AAB14	CP5	S	Trench 21, northern half	12/02/2007
AAB15	-	N	Feature 6, Field drain	13/02/2007
AAB16	-	N	Feature 7, Field drain	13/02/2007
AAB17	CP6	N	Trench 19, northern half	13/02/2007
AAB18	-	N	Feature 8, Field drain	13/02/2007
AAB19	-	N	Feature 9, Field drain	13/02/2007
AAB20	CP7	N	Trench 19, central portion	13/02/2007
AAB21		N	Feature 10, Field drain	13/02/2007
AAB22	1	N	Feature 11, Field drain	13/02/2007
AAB23	•	N	Feature 12, connecting to 11	13/02/2007
AAB24	-	N	Feature 12	13/02/2007
AAB25	-	N	Feature 13	13/02/2007
AAB26	-	N	Feature 12 connecting to 13 with 11 in the distance	13/02/2007
AAB27	CP8	N	Trench 19, southern half; note shift in trench to avoid 12	13/02/2007
AAB28	-	S	Feature 14, Field drain	14/02/2007
AAB29	-	N	Feature 15 in back, Field drain w/ pipe in v. mixed soil	14/02/2007
AAB30	-	N	Feature 16, Field drain connecting to 15	14/02/2007
AAB31	-	N	Feature 17, Field drain	14/02/2007
AAB32	-	N	Feature 18, Field drain	14/02/2007
AAB33	-	NE	Feature 19, Field drain	14/02/2007
AAB34	-	NW	Feature 20, Field drain	14/02/2007
AAB35	CP9	N	Trench 20	14/02/2007

Photo No.	Camera Location	Direction Facing	Notes	Date
AAB36	-	SE	Feature 21, Field drain	14/02/2007
AAB37	CP10	N-NW	View from Trench 18 along Trench 19	14/02/2007
AAB38	-	SE	Feature 22, Field drain	14/02/2007
AAB39	-	SE	Feature 23, Field drain	14/02/2007
AAB40	-	SE	Feature 24, Field drain	14/02/2007
AAB41	-	SE	Feature 25, Field drain	14/02/2007
AAB42	-	SE	Feature 26, Field drain	14/02/2007
AAB43	-	W-NW	Feature 27, Field drain	14/02/2007
AAB44	CP11	SE	Trench 18	14/02/2007
AAB45	CP12	N	Trench 17	15/02/2007
AAB46	-	W-NW	Feature 28, Field drain	15/02/2007
AAB47	-	NW	Feature 29, field drain connecting to Feature 28	15/02/2007
AAB48	-	N-NW	Feature 29, the length of the trench w/ 32 intersecting	15/02/2007
AAB49	-	NW	Feature 30, Field drain	15/02/2007
AAB50	-	NW	Feature 31, Field drain	15/02/2007
AAB51	-	N	Feature 32, Field drain connecting with 29	15/02/2007
AAB52	-	NW	Feature 32, Field drain connecting with 29	15/02/2007
AAB53	CP13	W	Trench 17	15/02/2007
AAB54	CP13	SW	Trench 17	15/02/2007
AAB55	CP14	N-NE	Trench 26, northern half	16/02/2007
AAB56	-	N	Feature 33, Field drain	16/02/2007
AAB57	-	N	Feature 34, Field drain	16/02/2007
AAB58	-	NW	Feature 35, Field drain	16/02/2007
AAB59	-	Е	Feature 36, Field drain	16/02/2007
AAB60	-	NE	Feature 36, Field drain	16/02/2007
AAB61	CP15	NE	Trench 25	16/02/2007
AAB62	CP15	NE	Trench 25	16/02/2007
AAB63	-	NE	Feature 37, Field drain	19/02/2007
AAB64	CP16	Е	Trench 23	19/02/2007
AAB65	CP16	Е	Trench 23	19/02/2007
AAB66	-	S-SW	Feature 38, Field drain	19/02/2007
AAB67	-	W-SW	Feature 39, Field drain w/ clay pipe, connects w/ 38	19/02/2007
AAB68	-	W-SW	Features 38 / 39	19/02/2007
AAB69	-	S	Feature 40, Field drain	19/02/2007
AAB70	-	N-NW	Feature 41, probable posthole	19/02/2007
AAB71	-	N-NW	Feature 41 w/ section, probably posthole	19/02/2007
AAB72	-	W	Feature 42, field drain	19/02/2007
AAB73	-	S-SW	Feature 43, Field drain	19/02/2007

Photo No.	Camera Location	Direction Facing	Notes	Date
AAB74	-	S-SW	Feature 44, Field drain	19/02/2007
AAB75	-	S-SW	Feature 45, Field drain	19/02/2007
AAB76	•	S-SW	Feature 46, Field drain	19/02/2007
AAB77	CP17	NE	Trench 28	19/02/2007
AAB78	CP17	NE	Trench 28	19/02/2007
AAB79	CP18	S	View south from centre of site	20/02/2007
AAB80	CP19	NE	Trench 27	20/02/2007
AAB81	CP19	NE	Trench 27	20/02/2007
AAB82	-	N	Feature 47, Field drain	20/02/2007
AAB83	-	E	Feature 48, Field drain	20/02/2007
AAB84	CP20	NW	Trench 24, northern half	20/02/2007
AAB85	_	NW	Feature 49, field drain with clay pipe, connects with 50	21/02/2007
AAB86	_	NW	Feature 50, Field drain connects with 49	21/02/2007
AAB87	-	NW	Feature 51, Field drain, shifted trench to avoid	21/02/2007
AAB88	_	NW	Feature 52, Field drain, shifted trench again to avoid	21/02/2007
AAB89	-	NW	Features 51 and 52, Trench 24	21/02/2007
AAB90	CP21	NW	Trench 24, note shifting of trench to avoid drains	21/02/2007
AAB91	-	N	Feature 53, Field drain	21/02/2007
AAB92	CP22	N	Trench 22	21/02/2007
AAB93	-	N	Feature 54, Field drain	21/02/2007
AAB94	CP23	W	Trench 16	21/02/2007
AAB95	-	W	Feature 55, Field drain	21/02/2007
AAB96	-	W	Feature 56, Field drain	21/02/2007
AAB97	ı	W	Feature 57, Field drain	21/02/2007
AAB98	CP24	W	Trench 16	21/02/2007
AAB99	•	N	Feature 58 - natural subcircular deposit	21/02/2007
AAB100	-	N	Feature 58, sectioned - natural subcircular deposit	21/02/2007
AAB101	-	N	Feature 59 - natural subcircular deposit	21/02/2007
AAB102	-	N	Feature 59, sectioned - natural subcircular deposit	21/02/2007
AAB103	-	E	Feature 60 - remains of burnt root	21/02/2007
AAB104	-	Е	Feature 60, sectioned- remains of burnt root	21/02/2007
AAB105	-	E	Feature 61 - natural subcircular deposit	21/02/2007
AAB106	-	Е	Feature 61, sectioned - natural subcircular deposit	21/02/2007
AAB107	CP2	NE	Site post-trial trenching	22/02/2007
AAB108	CP2	E	Site post-trial trenching	22/02/2007
AAB109	CP2	Е	Site post-trial trenching	22/02/2007

Photo No.	Camera Location	Direction Facing	Notes	Date
AAB110	CP2	Е	Site post-trial trenching	22/02/2007
AAB111	-	-	Trench 26 Finds - Ceramic / glass fragments	27/02/2007
AAB112	•	•	Trench 24 Finds - Ceramic fragments	27/02/2007
AAB113	ı	•	Trench 25 Finds - Ceramic fragments	27/02/2007
AAB114	-	-	Trench 27 Finds - Ceramic fragments 27/02/2	
AAB115	•	•	Trench 19 Finds - Ceramic fragments	27/02/2007
AAB116	-	-	Trench 19 Finds - Glass / charcoal / iron fragments 27/02/2	
AAB117	-	-	Trench 23 Finds - Ceramic / glass fragments 27/02/200	
AAB118	-	-	Trench 17 Finds - Ceramic / charcoal fragments	27/02/2007

Appendix IV Balvonie Braes GPS Data

Point	Trench	Depth (cm)	Feature	National Grid Coordinates
Α	-		Field corner	NH70227 42211
В			Gatepost	NH 70180 42167
С			Gatepost	NH 70178 42164
D			Field corner	NH 70116 42106
E	16	30	Trench end	NH 70119 42127
F	16	35	Trench end	NH 70196 42190
G	17	30	Trench end	NH 70144 42165
Н	17	40	Trench end	NH 70160 42175
I	17	35	Trench end	NH 70133 42183
J	17	45	Trench end	NH 70149 42193
K	18	40	Trench end	NH 70137 42213
L	18	25	Trench end	NH 70206 42213
М	19	30	Trench end	NH 70189 42230
N	20	40	Trench end	NH 70137 42241
0	21	30	Trench end	NH 70123 42150
Р	24	40	Trench end	NH 70056 42206
Q	22	30	Trench end	NH 70092 42166
R	22	35	Trench end	NH 70058 42271
s	20	30	Trench end	NH 70095 42331
Т	21	40	Trench end	NH 70056 42338
U	25	35	Trench end	NH 70047 42399
V	25	45	Trench end	NH 70054 42417

Point	Trench	Depth (cm)	Feature	National Grid Coordinates
w	23	35	Trench end	NH 70049 42317
X	23	40	Trench end	NH 70021 42307
Υ	26	30	Trench end	NH 70019 42324
Z	24	30	Trench end	NH 69964 42352
AA	27	40	Trench end	NH 69974 42350
ВВ	27	40	Trench end	NH 69967 42357
СС	27	50	Trench end	NH 69989 42394
DD	27	50	Trench end	NH 69995 42387
EE	26	30	Trench end	NH 70030 42437
FF	28	25	Trench end	NH 70010 42457
GG	28	40	Trench end	NH 69922 42389
нн			Field corner	NH 69903 42387
II			Field corner	NH 70025 42482
JJ			Gatepost	NH 70180 42277
KK			Gatepost	NH 70179 42280
LL	19	30	Trench end	NH 70066 42414
UU	25	35	Trench end	NH 70042 42400
VV	25	45	Trench end	NH 70051 42417
ww	23	35	Trench end	NH 70047 42322
XX	23	40	Trench end	NH 70018 42307
1	21	25	1	NH 70095 42250
2	21	25	2	NH 70094 42255
3	21	15	3	NH 70092 42264
4	21	15	4	NH 70059 42370
5	21	20	5	NH 70058 42377

Point	Trench	Depth (cm)	Feature	National Grid Coordinates
6	19	25	6	NH 70079 42399
7	19	25	7	NH 70081 42395
8	19	25	8	NH 70100 42362 - 70109 42349
9	19	25	9	NH 70095 42352 - 70100 42349
10	19	25	10	NH 70122 42319
11	19	30	11	NH 70153 42276
12	19	35	12	NH 70153 42276 - 70167 42259
13	19	30	13	NH 70168 42259
14	20	30	14	NH 70099 42323
15	20	40	15	NH 70114 42293 - 70110 42300
16	20	30	16	NH 70113 42292
17	20	40	17	NH 70115 42287
18	20	30	18	NH 70123 42271 - 70119 42276
19	20	35	19	NH 70129 42257
20	20	45	20	NH 70135 42247 - 70131 42253
21	18	30	21	NH 70206 42213
22	18	40	22	NH 70182 42213
23	18	25	23	NH 70174 42213
24	18	25	24	NH 70171 42212
25	18	25	25	NH 70167 42212
26	18	25	26	NH 70146 42212
27	18	35	27	NH 70139 42212
28	17	25	28	NH 70151 42187 -70139 42185
29	17	30	29	NH 70159 42175 - 70148 42186
30	17	30	30	NH 70149 42169 - 70137 42185
31	17	30	31	NH 70142 42185 - 70155 42172
32	17	30	32	NH 70158 42178 - 70157 42174
33	26	35	33	NH 70028 42419
34	26	35	34	NH 70026 42400
35	26	35	35	NH 70025 42380

Point	Trench	Depth (cm)	Feature	National Grid Coordinates
36	26	35	36	NH 70021 42347
37	23	30	37	NH 70041 42320 - 70038 42311
38	28	35	38	NH 70004 42457
39	28	35	39	NH 70004 42457 - 69994 42451
40	28	30	40	NH 69994 42451
41	28	30	41	NH 69983 42440
42	28	30	42	NH 69965 42422
43	28	40	43	NH 69954 42415
44	28	40	44	NH 69950 42414
45	28	30	45	NH 69928 42398
46	28	30	46	NH 69924 42396
47	24	30	47	NH 70002 42278
48	24	30	48	NH 70019 42246
49	24	30	49	NH 70039 42227
50	24	30	50	NH 70035 42232 - 70045 42218
51	24	30	51	NH 70049 42210 - 70052 42206
52	24	30	52	NH 70051 42206 - 70053 42202
53	22	25	53	NH 70069 42238
54	16	30	54	NH 74145 42147
55	16	30	55	NH 70173 42171
56	16	30	56	NH 70176 42173
57	16	30	57	NH 70185 42181 - 70181 42177
58	17	40	58	NH 70151 42171
59	17	40	59	NH 70153 42184