

**KSG 99**

**Results of an Archaeological Watching Brief at Kinegar  
Sand and Gravel Pit, Cockburnspath, Borders: Phase 3**

*Client: Kinegar Sand and Gravel*

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*August 2001*

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### ***Summary***

*Headland Archaeology were commissioned to undertake an archaeological watching brief during topsoil stripping in advance of an extension to Kinegar Sand and Gravel Quarry, Cockburnspath, Scottish Borders. A number of pits and postholes, probably dating to the Neolithic, were excavated and recorded.*

## **1 INTRODUCTION**

Headland Archaeology Ltd were commissioned to carry out an archaeological watching brief during topsoil stripping for an extension to Kinegar Sand and Gravel Quarry, Cockburnspath, Scottish Borders, in order to satisfy a condition of planning consent. This report details the results of the third phase of this watching brief, earlier strips having been monitored in July and August 2000 (Conolly 2000) and January 2001 (Conolly 2001).

The work was carried out between the 13<sup>th</sup> and 19<sup>th</sup> June 2001.

## **2 SITE LOCATION AND DESCRIPTION (fig.1)**

Kinegar Quarry is located to the south of Cockburnspath, Scottish Borders (NT 770 706). The area stripped in this phase lies on slightly undulating ground sloping gently down to the north and west.

Up until the time of the watching brief the field had been under cultivation. The land to the north-west has been extensively quarried.

The underlying geology is sandy gravel.

## **3 ARCHAEOLOGICAL BACKGROUND**

The general archaeological background to the watching brief has been fully rehearsed in previous reports (Conolly 2000 & 2001). The site lies in an area where there have been several discoveries of cist burials and there are cropmark sites in the vicinity.

In the course of the first two phases of the watching brief three clusters of prehistoric features and several isolated features were identified and excavated. (Conolly 2000). The majority of these were pits and postholes with a single sherd of Bronze Age food vessel type pottery being recovered from a pit.

## **4 AIMS AND METHODS**

The watching brief was intended to ensure that any archaeologically significant deposits that would be destroyed by quarrying operations might be appropriately recorded.

The topsoil strip was carried out using a 360° mechanical excavator fitted with a toothless ditching bucket, operating under continuous archaeological supervision.

Features identified during the strip were hand cleaned, along with the surrounding area, before being excavated and recorded. Their location was then tied into the national grid using a total station.

## 5 RESULTS (fig. 2)

A rectangular area, totalling 5926 m<sup>2</sup>, was stripped of up to 0.3m of topsoil (001). This overlay natural sand and gravel (002).

A total of eleven discrete features was identified and excavated. Of these, five were post-holes, two pits and two were tree throws. No possible structures were identified, nor were there any clusters comparable to those found in previous phases.

Most of the features identified appeared to have silted up naturally with the exceptions of pits [100] and [111] and pit/post-hole [119], which appeared to have been backfilled deliberately. Features [100] and [119] contained large quantities of burnt stone, but there was no evidence of burning *in situ*. Pit [111] had been partially filled with (110), redeposited natural sand and gravel. Several large sherds of a pot lay on top of this in the southern half of the feature (see Appendix 3). A worked stone, probably a quern, which had been broken in two before it had been placed in the ground, overlay the pottery.

The pottery from (110) has been identified as being much of the upper portion of an early Neolithic round-bottomed bowl with one sherd from another vessel.

Pottery was also recovered from post-holes [100] and [117], pit/post-hole [119] and tree throw [123]. Again this has been given a probable Neolithic date.

In addition to the pottery found during excavation several more sherds were recovered from samples taken from [100] and [111] and flint flakes, representing waste from flint working, were recovered from a sample taken from the basal fill of pit [111]. As well as the artefactual material, charcoal and charred plant remains, including cereal grain and hazelnut shell, were recovered from environmental samples taken from a representative sample of the features excavated (see Appendix 2).

## 6 CONCLUSIONS

The results of this phase of the watching brief at Kinegar follow the pattern, seen in earlier phases, of discrete features scattered across the landscape. Also it was established that the main cluster of features identified in the previous phase did not extend any further to the east. However, it appears that the features discovered in this phase may be earlier than those found previously, which, on the strength of a single sherd of pottery, had been dated to the Bronze Age. The environmental evidence is relatively inconclusive sitting happily with both Bronze Age and Neolithic dates and it is not unlikely that features from both periods are present. Given the general paucity of finds so far, it is evident that radiocarbon dating of several features will be necessary. A scientific date to go with the pottery in pit [111] would be particularly useful, as few such vessels have been well dated in southern Scotland.

It was established that the main cluster of features identified in the previous phase did not extend any further to the east.

## **7 ACKNOWLEDGEMENTS**

The fieldwork was carried out by Richard Conolly and Jenni Morrison. A curatorial role was provided by John Dent for Borders Council. The illustrations were prepared by Laura Speed.

## **BIBLIOGRAPHY**

- Conolly, R.J. 2000 *An Archaeological Watching Brief at Kinegar Sand and Gravel Pit, Cockburnspath*, unpublished report of Headland Archaeology Ltd.
- Conolly, R.J. 2001 *An Archaeological Watching Brief at Kinegar Sand and Gravel Pit, Cockburnspath: Phase 2*, unpublished report of Headland Archaeology Ltd.

## APPENDIX 1: FIELD REGISTERS

### CONTEXT REGISTER

Context Number	Description	Dimensions
1 - 93	Used in first and second phases	-
94	Fill of pit [95]. Mid reddish brown soft silty sand with common angular to sub-angular stones <10 cm. Rare charcoal flecks and burnt bone.	-
95	Cut of pit. Sub-circular with very steep to vertical sides and near flat base.	0.70 x 0.68 x 0.19 m
96	Fill of post-hole [97]. Mid reddish brown soft silty sand with very common sub-angular to sub-rounded stones <10 cm. Rare fleck of possible burnt bone. Possible post-packing.	-
97	Cut of probable post-hole. Sub-ovoid with slightly irregular steep sides and near flat base.	0.50 x 0.40 0.12 m
98	Upper fill pit [100]. Black to very dark brown soft silty sand with moderate gravel <5 cm.	-
99	Fill of pit [100]. Loose mid reddish brown silty sand with abundant sub-angular to sub-rounded fire-cracked stones and rare charcoal.	-
100	Cut of pit. Sub circular with very steep to vertical straight sides and concave base.	0.46 x 0.46 x 0.21 m
101	Fill of feature [102]. Very dark brown to black soft silty sand with abundant gravel and grit <8 cm.	-
102	Cut of feature. Irregular in plan with moderate to near vertical sides and flattish base. Possible tree throw.	0.76 x 0.60 x 0.10 m
103	Fill of probable post-hole [104]. Very dark brown to black silty sand with common gravel <2cm.	-
104	Cut of probable post-hole. Sub-circular with concave sides/base.	0.34 x 0.28 x 0.07
105	Fill of post-hole [106]. Very dark brown to black silty sand with common gravel and rare flecks of burnt bone and charcoal.	-

Context Number	Description	Dimensions
106	Cut of post-hole. Circular with moderate concave sides and concave base.	0.36 x 0.28 x 0.07
107	Fill of feature [108]. Dark brown soft silty sand with common gravel and, at the eastern end, abundant grit.	-
108	Cut of probable tree throw. Elongated ovoid with shallow concave sides and base.	0.60 x 0.26 x 0.07 m
109	Fill of pit [111]. Very dark greyish brown firm silty sand with abundant sub-angular to rounded stones <8 cm. Rare burnt bone flecks and charcoal.	-
110	Fill of pit [111]. Firm gritty sand with abundant grave <3 cm and sparse angular stones 3 – 10 cm. Large flat stone broken in two and placed on top of broken pot.	-
111	Cut of circular pit with very steep near vertical sides in eastern half grading to moderate at west. Concave base.	1.08 x 0.90 x 0.25 m
112	Void.	-
113	Void.	-
114	Void.	-
115	Void.	-
116	Fill of pit /post-hole [117]. Firm dark brown slightly silty sand with common sub-angular gravel <8 cm. Rare charcoal flecks.	-
117	Cut of pit/post-hole. Well defined sub ovoid cut with regular steep concave sides and concave base.	0.50 x 0.38 x 0.13 m
118	Fill of pit/post-hole [119]. Dark to mid yellowish brown firm slightly silty sand with very common angular to sub-rounded , possibly fire cracked, stones 10 – 20 cm.	-
119	Cut of pit/post-hole. Sub-circular with near vertical straight sides and stepped base.	0.70 x 0.70 x 0.41
120	Fill of tree throw [123]. Mid reddish brown firm slightly silty sand with common gravel <10 cm. Identical to (124)	-
121	Fill of tree throw [123]. Very dark brown to black slightly silty sand with common gravel <8 cm. Identical to (125).	-

Context Number	Description	Dimensions
122	Fill of tree throw [123]. Mid reddish brown firm slightly silty sand with common gravel <10 cm sparse 10 – 20 cm subangular to sub-rounded stones at base of deposit. Identical to (126)	-
123	Cut of tree throw. Irregular in plan with vertical to moderately sloping concave sides and concave base.	2.50 x 2.40 x 0.40 m
124	Identical to (121).	-
125	Identical to (122).	-
126	Identical to (123).	-
127	Identical to [124]	-

## PHOTO REGISTER

Film numbers 1 – 12 used in Phases 1 and 2. Film numbers 13 and 14 not used.

Film no. 15		Film Type: Colour Print
Shot no.	Direction Facing	Description
1	-	ID shot
2	N	Pottery in pit [111]
3	N	Pottery in pit [111]
4	N	Pottery in pit [111]
5	N	Pottery in pit [111]
6	W	East facing section pit [95]
7	NE	South-west facing section post-hole [97]
8	N	South facing section pit/posthole [100]
9	E	West facing section feature [102]
10	E	West facing section post-hole [104]
11	E	West facing section post-hole [106]
12	S	North facing section feature [108]
13	N	South facing section pit [111]
14	SE	North-west facing section tree throw [123]/[127]
15	NE	North-west facing section tree throw [123]/[127] (oblique)
16	SE	North-west facing section post-hole [117]
17	SE	North-west facing section pit [119]
18	SE	Overall view of features [117] – [127] inclusive.
19	N	Stone in pit [111]
20		General shot of stripped area
21		General shot of stripped area
22		General shot of stripped area
23		General shot of stripped area

Film no. 15		Film Type: Colour Slide
Shot no.	Direction Facing	Description
1	-	ID shot
2	N	Pottery in pit [111]
3	N	Pottery in pit [111]
4	N	Pottery in pit [111]
5	N	Pottery in pit [111]
6	W	East facing section pit [95]
7	NE	South-west facing section post-hole [97]
8	N	South facing section pit/posthole [100]
9	E	West facing section feature [102]
10	E	West facing section post-hole [104]
11	E	West facing section post-hole [106]
12	S	North facing section feature [108]
13	N	South facing section pit [111]
14	SE	North-west facing section tree throw [123]/[127]
15	NE	North-west facing section tree throw [123]/[127] (oblique)
16	SE	North-west facing section post-hole [117]
17	SE	North-west facing section pit [119]
18	SE	Overall view of features [117] – [127] inclusive.
19	N	Stone in pit [111]
20	N	General shot of stripped area
21	SE	General shot of stripped area
22	S	General shot of stripped area

## DRAWING REGISTER

Sheet number.	Drawing	Scale	Description
100 - 105	-	-	Used in Phase 2
106	A	1:10	East facing section pit [95]
106	B	1:20	Post-ex plan pit [95]
106	C	1:10	South-west facing section post-hole [97]
106	D	1:20	Post ex plan post-hole [97]
106	E	1:10	South facing section pit [100]
106	F	1:20	Post-ex plan pit [100]
106	G	1:10	West facing section pit [102]
106	H	1:20	Post-ex plan pit [102]
106	I	1:10	West facing section post-hole [104]
106	J	1:20	Post-ex plan post-hole [104]
106	K	1:10	West facing section post-hole [104]
106	L	1:20	Post-ex plan posthole [104]
106	M	1:10	North-west facing section post-hole [117]
106	N	1:20	Post-ex plan post-hole [117]
106	O	1:10	North facing section tree throw [108]

Sheet number.	Drawing	Scale	Description
106	P	1:20	Post-ex plan tree throw [108]
106	Q	1:10	North-west facing section pit/post-hole [119]
106	R	1:20	Post-ex plan pit/post-hole [119]
107	A	1:10	North-west facing section tree throw [123]
107	B	1:20	Post-ex plan tree throw [123]
108	A	1:10	South facing section pit [111]
108	B	1:20	Post-ex plan section pit [111]

## FINDS REGISTER

Context Number	Description
99	Pottery
109	Pottery
110	Pottery, worked stone and flint debitage
116	Pottery
118	Pottery
125	Pottery

## SAMPLE REGISTER

Sample Number	Context Number	Description
1 - 16	-	Used in previous phases
17	98	Fill of pit/post-hole [100]
18	99	Fill of pit/post-hole [100]
19	103	Fill of post-hole [104]
20	109	Fill of pit [111]
21	110	Fill of pit [111]

## APPENDIX 2: ASSESSMENT OF SAMPLES

Mhairi Hastie

### METHOD

Five samples were subjected to a system of flotation and wet sieving in a Siraf style flotation tank. The floating debris (float) was collected in a 250 µm sieve, once dry scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1 mm mesh and air-dried. This was then sorted by eye and material of archaeological significance removed. For results see Table 1 and 2.

### RESULTS

The results were extremely similar, in composition and quantity of finds, to material recovered during Phase 2 – watching brief (Hastie, 2001).

The concentration of archaeological remains was extremely low. Carbonised wood, cereal grains and weed seeds were the most frequently recovered material. The primary value of these will be as a source of dating evidence. If wood charcoal were selected, identification of the species represented would need to be undertaken prior to dating.

The most commonly identified element was charred cereal grain with occasional weed seeds. In all cases only low numbers of hulled barley (*Hordeum vulgare*) were present.

Small fragments of hazelnut shell (*Corylus avellana*) were also present in three of the samples. Hazelnuts are commonly recovered from a variety of archaeological sites and are recognised as having been used as a food source from as early as the Mesolithic period. They are, however, only present in extremely small quantities and could have as easily been brought to the site as part of wood collected for fuel rather than being harvested specifically for consumption.

A small quantity of pottery fragments were recovered from Context 98 and 109, and occasional fragments of burnt bone were recovered from a number of features. One sample – Context 110 – also contained a small quantity of possibly worked flint flakes, which may represent flint debitage.

### RECOMMENDATIONS

1. The identification of any samples required for radiocarbon dating.
2. All small finds should be incorporated into the analysis of material recovered by hand.
3. Only very small fragments of burnt bone were recovered and these are too fragmentary for any further detailed analysis.

4. A more detailed analysis of the grain containing assemblages would provide little additional information to that gained by this assessment.
5. A summary of methodology and results from this assessment should be added to any final report.

## REFERENCES

Hastie, M. 2001. 'Assessment of Samples' in R. Conolly. *Results of an Archaeological Watching Brief at Kinegar Sand and Gravel Pit, Cockburnspath, Borders: Phase 2*. Unpublished report of Headland Archaeology Ltd.

**TABLE 1: Composition of Flots**

Context No	Sample No	Context Description	Flot Total	Cereal	Weed	Charcoal		Modern	Comments
			Vol (ml)	Grains	Seeds	Qty	AMS	Plant	
98	17	Upper fill of pit [100]	20	+	+	+		+	Barley + Gramineae indet. x 1
99	18	Fill of pit [100]	20	+	+	+	*	++	Barley x 1 Gramineae indet. x 1
103	19	Fill of probable posthole [104]	20	+		+		++	Hulled Barley x 1
109	20	Fill of pit	No flot						
110	21	Fill of pit [111]	20	+		+	*	++	cf. Barley x 1

**TABLE 2: Composition of Retents**

Context No	Sample No	Context Description	Pottery	Flint Flakes	Bone	Charcoal	Hazel Nutshell
98	17	Upper fill of pit [100]	++		+	+	+
99	18	Fill of pit [100]			+	+	
103	19	Fill of probable posthole [104]			+		
109	20	Fill of pit [111]	+			+	+
110	21	Fill of pit [111]		+		++	+

**Key:**    + = rare , ++ = occasional, +++ = common and ++++ = abundant

\* = sufficient amount of charcoal for a AMS date

### **APPENDIX 3: ASSESSMENT OF POTTERY**

*Ann MacSween*

The most diagnostic sherds from the assemblage are those from context 110. They represent much of the upper portion of a vessel (dia approx 360 mm) the profile of which indicates an early Neolithic round-bottomed bowl (one of the rim sherds is much thinner and may be from a second bowl). The lack of fluting suggests that it belongs to the initial phase of early Neolithic plain ware, which has been found in much of Britain and Ireland. Sheridan (1997, 218-20) has suggested using the term 'traditional Carinated Bowl pottery' for these vessels. The dates for the assemblage from Biggar Common in Clydesdale are among the earliest dates for this type of pottery - 4234-3980 cal bc (GU-2985); 4219-3790 cal bc (GU-2986) and 3780-3531 cal bc (GU-4276) (*ibid* 219-20).

The sherds from the other contexts at Kinegar Quarry include a few rim sherds. The rims have plain or flat lips and most seem to be from vessels with a short neck. While it is difficult to ascribe a date to these vessels, their fabrics and surface finish are similar to the pottery from context 110 and it is possible that they are part of the same assemblage.

### **REFERENCES**

Sheridan, A. 1997 'Pottery' in Johnston, D.A. 1997 *Biggar Common, 1987 – 93: an early prehistoric funerary and domestic landscape in Clydesdale, South Lanarkshire* in *Proceedings of the Society of Antiquaries*, 127 (1997), 185 – 253

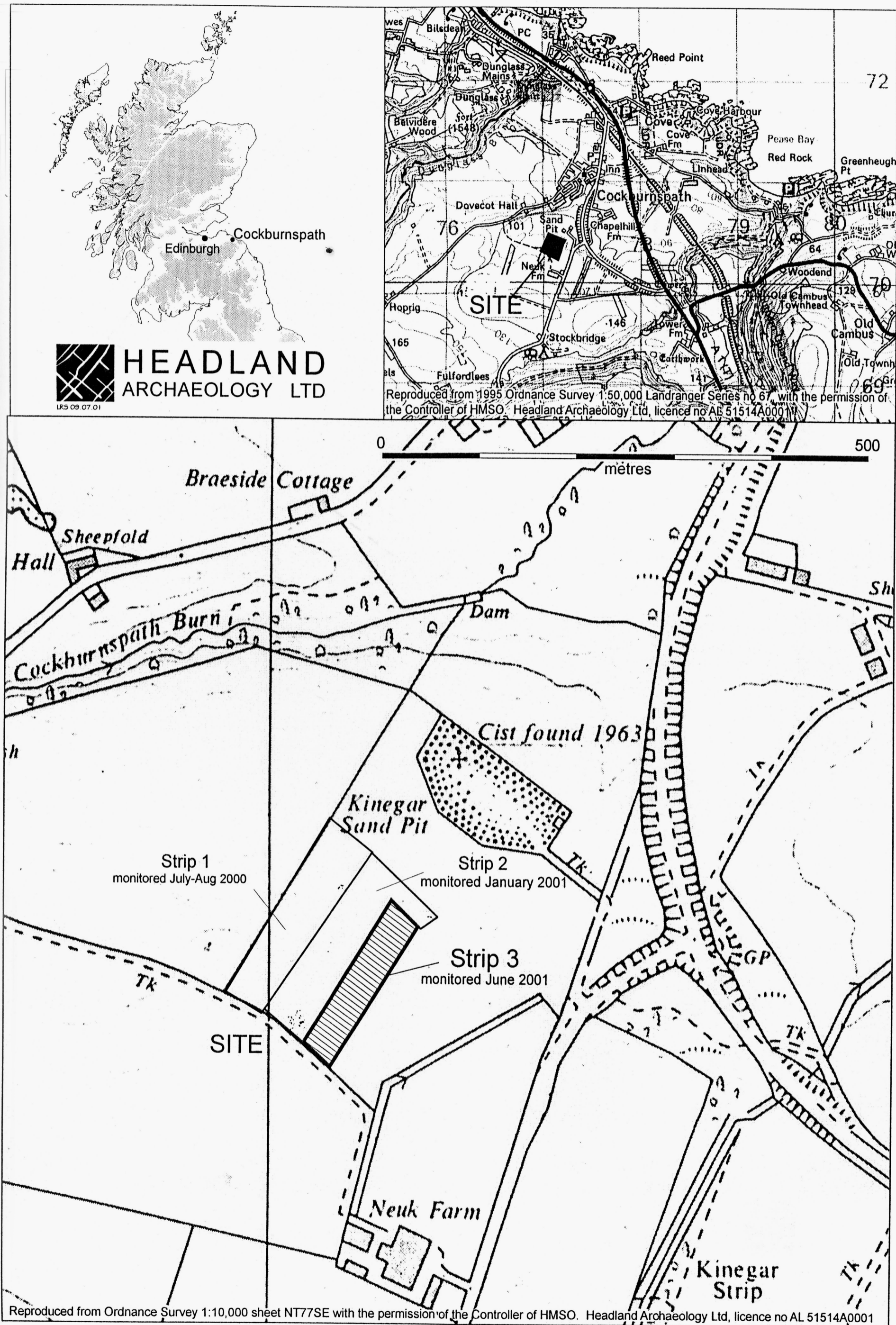


Figure 1. Kinegar Sand and Gravel: Site location

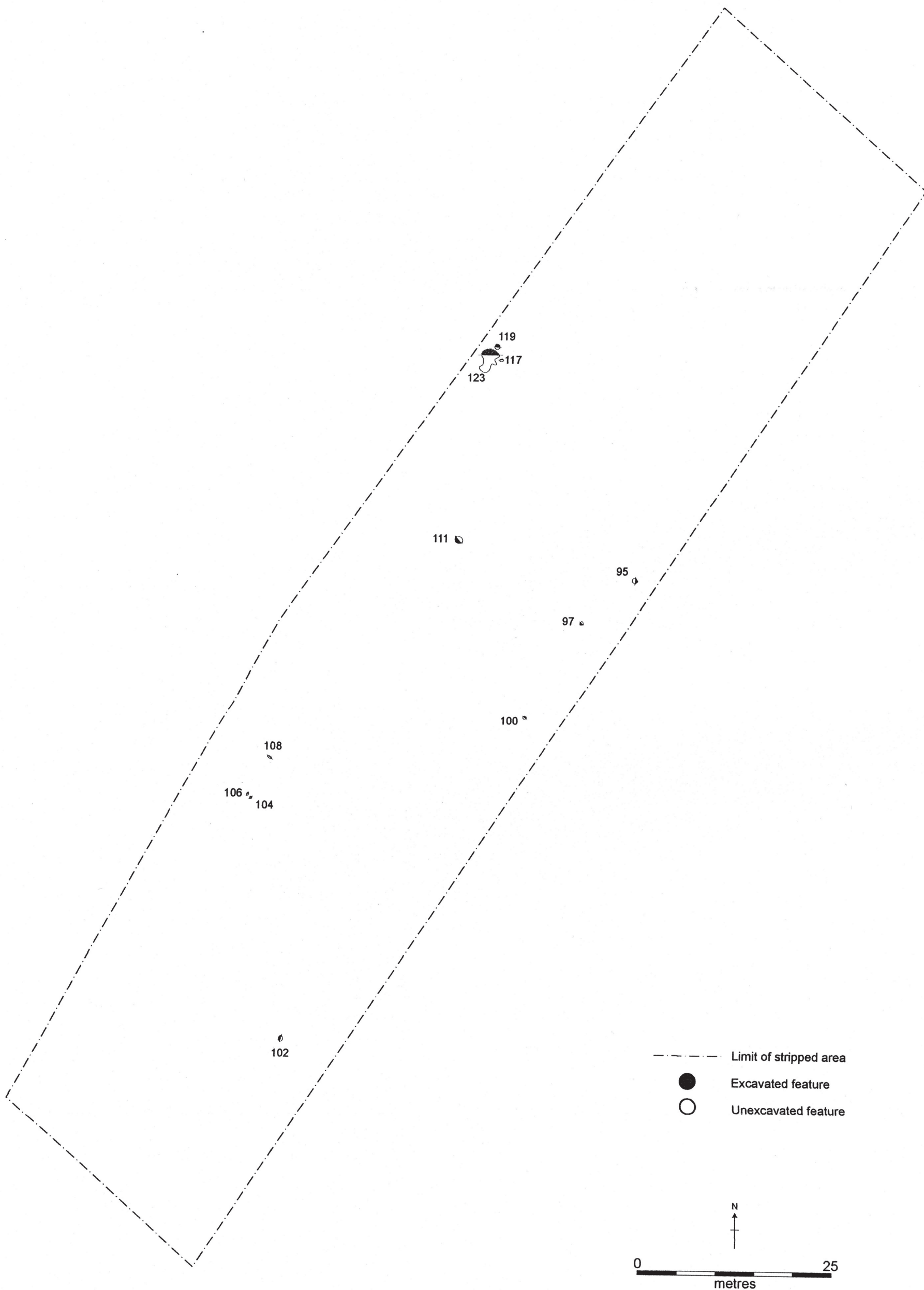


Figure 2. Kinegar Sand and Gravel: Plan of stripped area and archaeological features