

Beattockhill Quarry, Dumfries & Galloway: Archaeological Watching Brief

Data Structure Report

by Peter Klemen

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Rathmell
Archaeology Ltd

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Institute of Field Archaeology's Standards and Policy Statements and Code of Conduct.

Signed

Date

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Checked

Date

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Introduction

1. This Data Structure Report has been prepared for Quarryplan Ltd on behalf of Barr Quarries in respect to the over burden stripping for extraction workings at Beattockhill Quarry, near Moffat, Dumfries & Galloway (NGR NT0695 0325 centre point, ranging in height from 173-214m OD). The archaeological works are designed to mitigate the impact on the archaeological remains within their extraction area, complying with the condition identified within the planning application (10/P/4/0301) to renew extraction at Beattockhill Quarry (Quarryplan 2010, Section 5.6).
2. Dumfries & Galloway Council Archaeology Service, which advises Dumfries & Galloway Council on archaeological matters, has provided guidance on the structure of archaeological works required on this site during the extraction works.
3. Rathmell Archaeology Limited was appointed by Quarryplan Ltd on behalf of Barr Quarries to undertake the development and implementation of the archaeological mitigation works at Beattockhill Quarry.

Archaeological and Historical Background

4. Between 1995 & 2000 intensive extraction was carried out at Beattockhill Quarry in connection with the M74/M6 construction projects. The present proposal is the recommencement of quarrying activities, for the extraction of gritstone (greywacke) within the 1.9ha site. The focus for the archaeological watching brief is presented in Figure 2.
5. There are no known archaeological sites within the extraction area and the earliest sound mapping from the mid-eighteenth century (Roy 1747-55, Figure 1a) shows an uncultivated hillside. The 1st edition Ordnance Survey (1861, Figure 1b) shows that while there has been large-scale enclosure from the late eighteenth century onwards, the extraction site has remained unenclosed pasture.
6. The surrounding landscape, in contrast to the extraction area, is rich in identified upstanding sites of archaeological significance. Within 1km there are an array of sites and remains spanning many chronological periods. Located to the southwest is the scheduled monument of Beattockhill Fort (RCAHMS ref: NT 00SE.5), later prehistoric in date and characterised by a double ditch and bank enclosing the summit of Beattockhill. To the northwest stands the scheduled monument of 13th century Auchen Castle (RCAHMS ref: NT00SE 3.0) on the far side of the Garpol Linn, while two later prehistoric banked enclosures (RCAHMS ref: NT00SE4 & SE13) lie on the northern flanks of Beattockhill to the south.
7. Archaeological remains in the form of Bronze Age worked flint, burnt mounds, clearance cairns, agricultural field systems and structures all indicate that the area has had human activity over several millennia. Therefore, this highlights the potential for possible activity to be recorded within the extraction area.

Project Works

8. This Data Structure Report provides the findings of the archaeological mitigation carried out on the 1st September 2011 and 22nd-23rd November 2011. These two phases represent the beginning of a longer stage of monitoring works that will continue at a later date, as of yet not specified. The mitigation consisted of archaeological monitoring of the overburden stripping to ensure that mineral extraction can proceed while dealing appropriately with the identified adverse impacts on the archaeological resource, as detailed in the agreed Written Scheme of Investigation (Rees 2011).

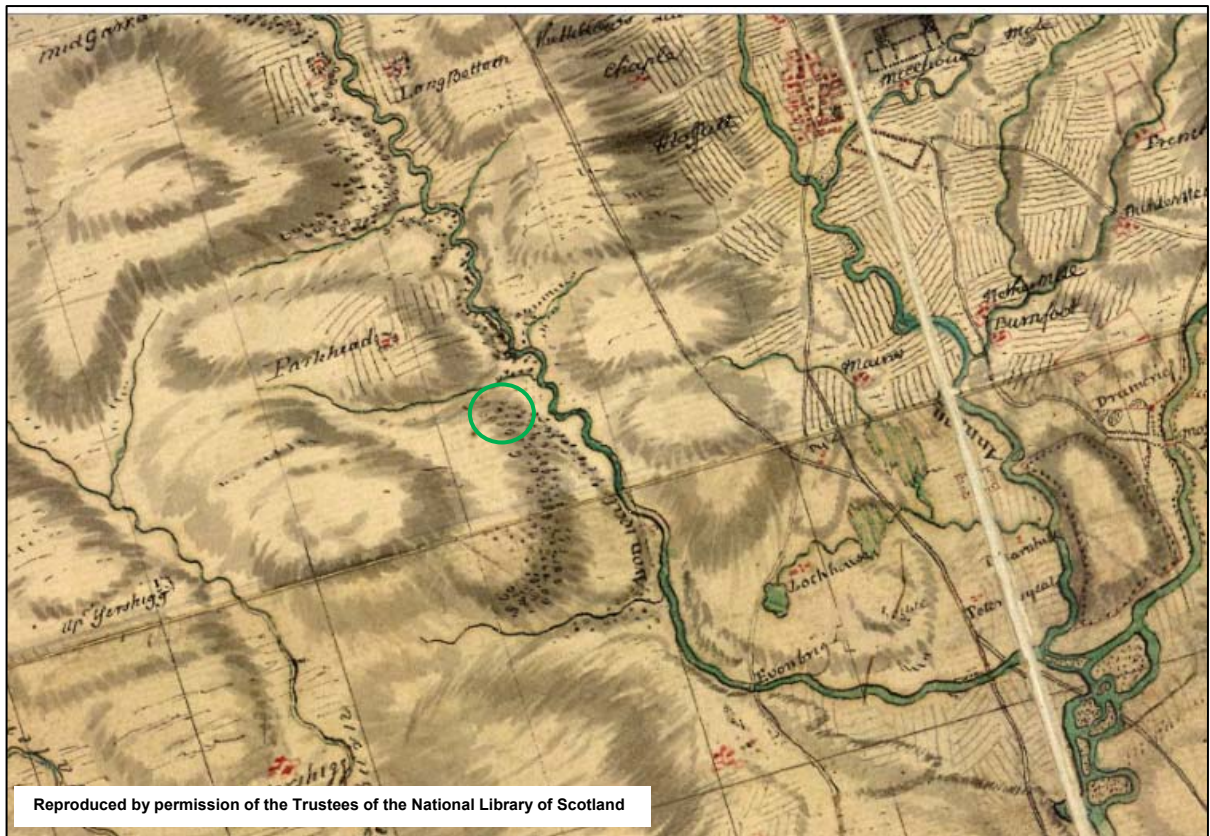


Figure 1a: Detail from Roy's Military Map (1747-55).

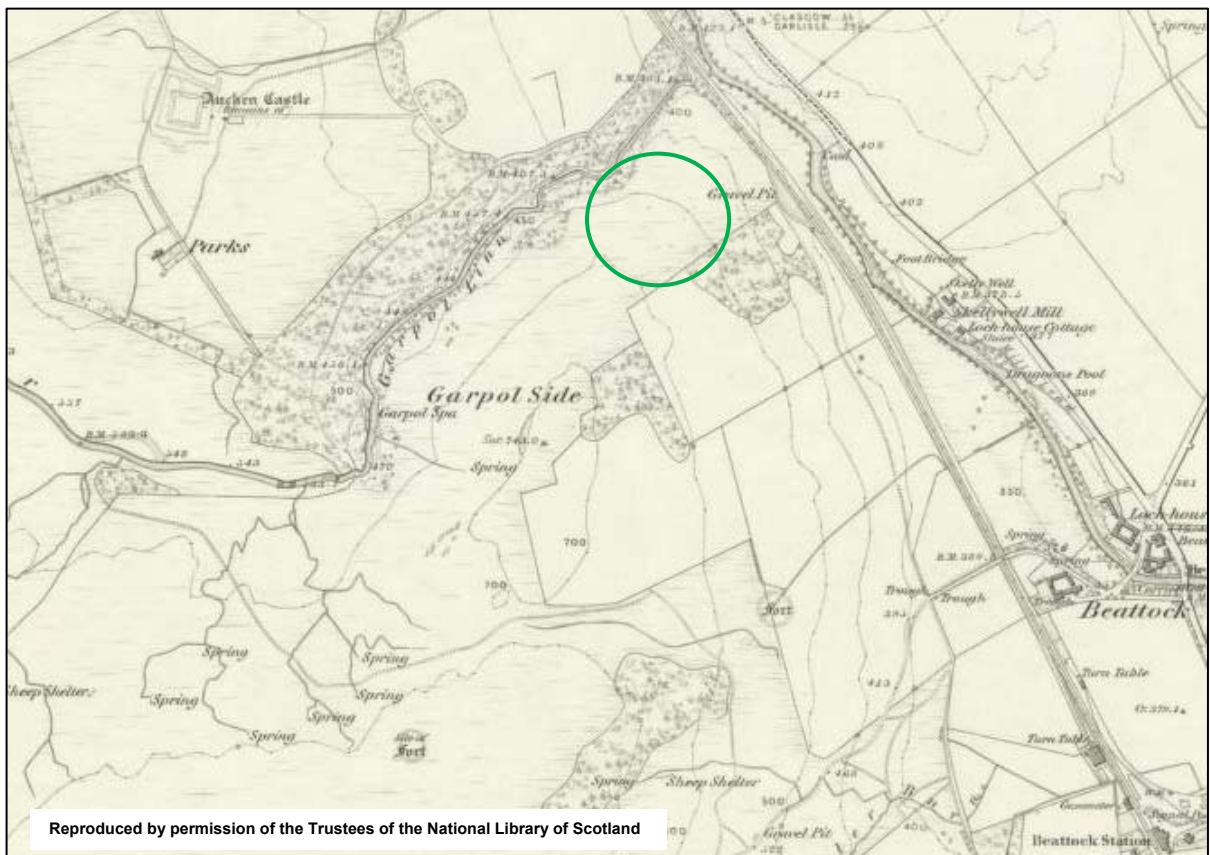


Figure 1b: Excerpt from 1st edition Ordnance Survey Map of 1861.

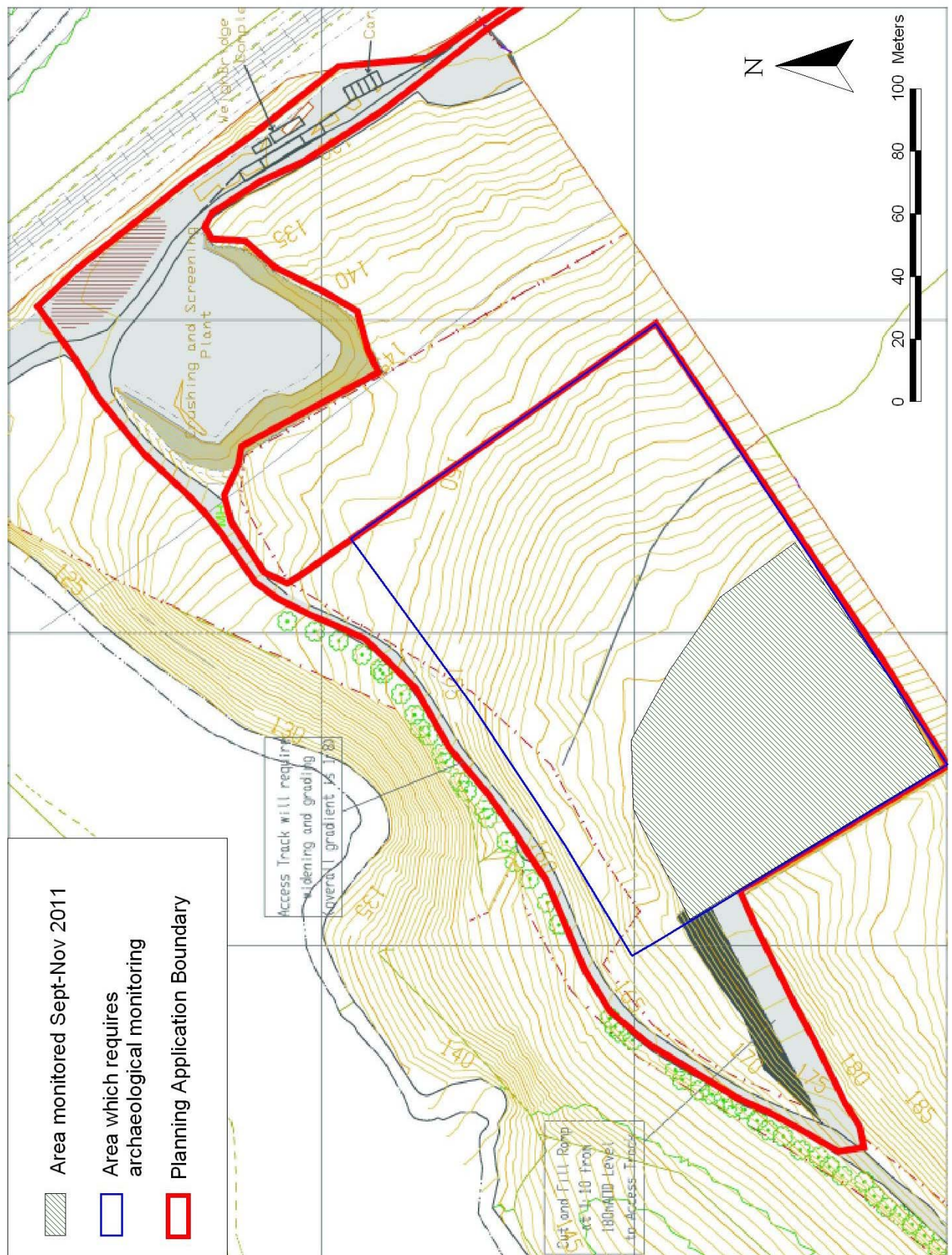


Figure 2: Plan of area monitored.

9. The programme of works was carried out over two phases. The first phase comprised of a site visit which took place on the 1st September 2011 while the second phase, comprising of the monitoring of stripping works, took place over two consecutive days on the 22nd-23rd November 2011.
10. Overburden stripping has the potential to impact on archaeological remains, therefore the default approach would be that all soft sediment ground breaking activities within the extraction area were monitored by an archaeologist to ensure that any significant archaeology is identified and safeguarded until an appropriate response can be agreed. This arrangement had been formalised through a Written Scheme of Investigation (Rees 2011) and agreed with Dumfries & Galloway Council Archaeology Service.
11. All works were conducted and undertaken according to the terms of the Written Scheme of Investigation (Rees 2011) and complied with Dumfries & Galloway Council Archaeology Service's Standard Conditions, the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Findings

12. The whole site is outside of agricultural production and is predominantly covered in thick grass, bracken and self seeded trees. It is located on a west-east slope, with steep gradients in areas and is exposed to the east overlooking the M74 and the Annan Valley.
13. The first phase of works was carried out on the 1st September 2011 after an area of the site had already been stripped. The area was located at the southwest end of the archaeologically sensitive area and measured approximately 3,300 sq. metres comprising roughly 17% of the sensitive area. Some of the area stripped covered a steep slope on the hillside which had areas of rock outcrop visible at the surface. This was approximately 1,000 sq. metres. The works undertaken had stripped through the topsoil (001) which was shallow at 200mm in depth. Most of the area, where bedrock was not exposed, had been taken down a further 300-500mm into the underlying sediments cutting through interfaces and into the natural dark orange/brown, loosely compacted, stone rich, silty sand subsoil (002). The area stripped was walked and no archaeological features were visible either on the surface or in the sections bordering the area.
14. The second phase of monitoring was carried on the 22nd-23rd November 2011. The area to be stripped covered a small area to the south continuing in the same area as the first visit, then to the southeast and headed down a steep slope to the east and finally finishing to the northeast. The mechanical excavator used was a JCB 220 with a 2 metre wide flat edged ditching bucket used for stripping. The total area stripped was 3,339 sq. metres, together this is a total of 6,639 sq. metres over both visits, comprising approximately 35% of the archaeologically sensitive area (see Figure 2). The topsoil (001) was again very shallow at 100-120mm in depth and the same as that recorded on the first visit (01/09/2011). Directly below (001) the natural (002) was visible, as recorded during the first visit. It is difficult to distinguish any intervening subsoil or possible ploughsoil between the topsoil and natural. In areas there is a pink/orange mix with a high frequency of stone. This may be a mix of the two matrices forming a shallow interface. The stone is a sedimentary sandstone known as greywacke.

Discussion

15. The observations made during the site visits resulted in no significant archaeological features being recorded or disturbed throughout the course of the archaeological monitoring. While to the south there has been enclosure of the land for pasture, the area for extraction has not and remains unenclosed. The long overgrown grass and bracken, the shallow topsoil with no definable ploughsoil and the lack of any evidence for field drains would suggest that the area for extraction has not been improved. This is also supported by the 1st ordnance survey map (Figure 1b) which shows the extraction area as unenclosed while being surrounded by an enclosed pasture landscape.

16. Topographically the site is located on a steep and exposed hillside which is open to the northeast and east, with the nearest water source to the north and at the bottom of a very steep slope. This may be a reason for there being no standing remains representing permanent habitation or activity within the area that has been monitored. However, as is demonstrated by the number of standing archaeological remains located in the surrounding landscape, there is still the potential for evidence indicative of permanent habitation or activity elsewhere within the application boundary area. There are also two localised flat terraces that could have been suitable for temporary activity. It is possible that such areas may contain remains that in an archaeological context would be ephemeral such as flint scatters.

Recommendations

17. The archaeological mitigation works revealed no significant archaeological features or artefacts within the development area and as such no further works are recommended as a direct consequence of this phase of monitoring. However, as further overburden stripping is to take place in the future and there is still a potential for archaeological features to be present elsewhere, we recommend that a process of archaeological monitoring is continued within the area designated for extraction.
18. The appropriateness and acceptability of our recommendations rest with Dumfries and Galloway Council and their advisors, Dumfries & Galloway Council Archaeology Service.

Conclusion

19. A programme of archaeological works were carried out on appointment by Quarryplan Ltd on behalf of Barr Quarries in respect to the over burden stripping for extraction workings at Beattockhill Quarry, near Moffat, Dumfries & Galloway.
20. No significant archaeological deposits were revealed and no anthropic material was recovered. No new deposits of significance were discovered during the course of these works.

References

Cartographic

1747-1755	Roy	Military Survey of Scotland
1861	Ordnance Survey	Ordnance Survey 1st Edition

Documentary

Rees, T, 2011, *Beattockhill Quarry, Dumfries and Galloway: Archaeological Monitoring. Method Statement*, unpublished commercial report by Rathmell Archaeological Limited



Figure 3a: Site location overlooking to the east The Annan Valley and M74.



Figure 3b: Mechanical excavator stripping lower eastern area of site.



Figure 4a: Showing shallow depth of topsoil onto the dark orange/brown natural.



Figure 4b: Showing the high concentration of sedimentary stone (greywacke).

Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the archaeological mitigation.

Photographic Register

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
01	-	-	-	-	18	Shot of stripped area (NW end)	NE	01/09/11
02	-	-	-	-	19	Shot of stripped area (Centre)	NNE	01/09/11
03	-	-	-	-	20	Shot of stripped area (E end)	NW	01/09/11
04	-	-	-	-	21	Sample of E facing section (N end)	E	01/09/11
05	-	-	-	-	22	Shot of one blast area in NW	SE	01/09/11
06	-	-	-	-	23	Sample of E Facing section (S end)	E	01/09/11
07	-	-	-	-	24	Shot of area needing further reduction	ESE	01/09/11
08	-	-	-	-	25	General shot of stripped area (NE end)	S	01/09/11
09	-	-	-	-	26	General shot of stripped area (Centre)	SSE	01/09/11
10	-	-	-	-	27	General shot of stripped area (SW end)	ESE	01/09/11
11	-	-	-	-	28	Shot of area needing further reduction	NW	01/09/11
12	-	-	-		29	General shot of stripped area	ENE	01/09/11
13	-	-	-	-	30	Shot of stripped slope at NE end	NW	01/09/11
14	-	-	-	-	31	Shot of stripped slope at NE end	WSW	01/09/11
15	-	-	-	-	32	Shot of road along base of stone	SE	01/09/11
16	-	-	-	-	33	Shot of slope	NNE	01/09/11
17	-	-	-		34	Shot of roadway	ENE	01/09/11
18	-	-	-		35	Shot of slope (outcrop area)	N	01/09/11
19	-	-	-		36	Shot of road (E end)	W	01/09/11

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
20	-	-	-		37	Shot of blast area	NE	01/09/11
21	-	-	-	-	38	Road at W end	W	01/09/11
22	-	-	-	-	39	General shot- area to S	NNE	01/09/11
23	-	-	-	-	40	General shot- area to SSE	NW	01/09/11
24	-	-	-	-	41	General shot- area to S	N	01/09/11
25	-	-	-	-	42	General shot- area to NE	SW	01/09/11
26	-	-	-	-	43	General shot- area to NNE	SSW	01/09/11
27	-	-	-	-	44	General shot- area to SE	SW	01/09/11
28	-	-	-	-	45	General shot- area to SE	SSW	01/09/11
29	-	-	-	-	30	Upper SW area of site to be stripped	NE	22/11/11
30	-	-	-	-	31	Upper SW area of site to be stripped	NE	22/11/11
31	-	-	-	-	32	Lower area of site to be stripped	W	22/11/11
32	-	-	-		33	Previous exposed area showing natural	W	22/11/11
33	-	-	-	-	34	Dozer stripping and tracks left	S	22/11/11
34	-	-	-	-	35	JCB 220 stripping	S	22/11/11
35	-	-	-	-	36	Exposed natural	S	22/11/11
36	-	-	-	-	37	Section showing depth of topsoil onto subsoil/natural	E	22/11/11
37	-	-	-		38	Plant in use	E	22/11/11
38	-	-	-		39	Stripped upper W area	E	22/11/11
39	-	-	-		40	Showing depth of topsoil onto natural	W	22/11/11
40	-	-	-		41	Site location photo	W	22/11/11
41	-	-	-		42	Looking east from site	W	22/11/11

42	-	-	-	-	43	Top of site (west) after stripped onto natural	E	22/11/11
43	-	-	-	-	44	Showing depth of topsoil	W	23/11/11
44	-	-	-	-	45	Showing depth of topsoil	N	23/11/11
45	-	-	-	-	46	View onto lower area east of site to be cleared	E	23/11/11
46	-	-	-	-	47	View onto lower area east of site to be cleared	E	23/11/11
47	-	-	-	-	48	West up to cleared area, south of site	E	23/11/11
48	-	-	-	-	49	Showing progress of clearing	S	23/11/11
49	-	-	-	-	50	Looking east over upper area after cleared	W	23/11/11
50	-	-	-	-	51	Topsoil: colour, inclusions, depth. Natural below	E	23/11/11
51	-	-	-	-	52	Exposed natural	E	23/11/11
52	-	-	-	-	53	Lower area cleared, end of site clearance	N	23/11/11

Context Register

Context No.	Area/ Trench	Type	Description	Interpretation
001	Whole area	Topsoil	A shallow layer across whole of the area changing in depth, approximately 100-200mm in thickness. Grey/black colour and loosely compacted, very frequent roots. The turf line is very shallow and both turf and topsoil have been given same number.	Topsoil.
002	Whole area	Deposit	Dark orange/brown, loosely compacted sandy/silt matrix. High frequency of grey angular stones.	Natural deposit. Sedimentary gritstone (greywacke).

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	Dumfries & Galloway
PROJECT TITLE/SITE NAME:	Beattockhill Quarry
PROJECT CODE:	RA 11055
PARISH:	Kirkpatrick-Juxta
NAME OF CONTRIBUTOR:	Peter Klemen
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Watching brief
NMRS NO(S):	NA
SITE/MONUMENT TYPE(S):	NA
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NT 0695 0325
START DATE (this season)	1 st September 2011
END DATE (this season)	23 rd November 2011
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	A programme of archaeological monitoring works was undertaken at Beattockhill Quarry, nr Moffat, Dumfries & Galloway. No significant archaeological deposits or remains were disturbed or recorded. No new deposits of significance were discovered during the course of these works.
PROPOSED FUTURE WORK:	Continued monitoring
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Barr Quarries
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
E MAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Dumfries & Galloway Council Archaeology Service and archive to RCAHMS Collections

Contact Details

21. Rathmell Archaeology can be contacted at our Registered Office or through the web:

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Ayrshire	f.: 01294 542849
KA13 6PU	e.: contact@rathmell-arch.co.uk

22. The Dumfries & Galloway Archaeology Service can be contacted at their office or through the web:

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Newall Terrace	e.: Jane.Brann@dumgal.gov.uk
Dumfries	
DG1 1LW	www.dumgal.gov.uk/index.aspx?articleid=2310

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