

Archaeological Watching Brief Cable  
route between Coupar Angus substation  
and Tullymurdoch Windfarm PERTH &  
KINROSS

AG08



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**ARCHAEOLOGICAL WATCHING BRIEF  
TULLYMURDOCH CABLE ROUTE  
PERTH & KINROSS**

**AG08**

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*Illustration 1: Coupar Angus-Tullymurdoch WF Cable Route*

*Illustration 2: Site 66, features*

*Illustration 3: Pit and posthole features, Site 66*

*Illustration 4: Areas of Archaeological Watching Brief*

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***ABSTRACT***

*Green Cat Renewables Ltd on behalf of its clients commissioned Alder Archaeology to undertake an archaeological watching brief on work to lay an electric cable between Coupar Angus substation and Tullymurdoch wind farm, via Welton of Creuchies wind farm, between NGR NO 21750 39273 and NO 20441 53817. The development area was a linear corridor approximately 19km in length, running generally N/NE from Coupar Angus to finish in an upland area W of Alyth. The work (site code AG08) was undertaken during the period July-September 2017 in varying weather conditions. Archaeological features exposed included a group of pits, postholes and possible fires/hearths close to an unexcavated souterrain and other settlement remains.*

# **1 Background**

## **1.1 Introduction**

Green Cat Renewables Ltd on behalf of its clients commissioned Alder Archaeology to undertake an archaeological watching brief on work to lay an electric cable between Coupar Angus substation and Tullymurdoch wind farm, via Welton of Creuchies wind farm, between NGR NO 21750 39273 and NO 20441 53817. The proposed development area was a linear corridor approximately 19km in length, running generally N/NE from Coupar Angus to finish in an upland area W of Alyth. The work (site code AG08) was undertaken during the period July-September 2017 in varying weather conditions. The requirement was to monitor all soil stripping and excavation in the vicinity of several archaeological sites, pre-identified by a walkover survey conducted in 2015 by AOC Archaeology Ltd and ARCUS Archaeological Consultants.

The work was designed to satisfy the archaeological condition on development application reference 15/01562/FLM.

## **1.2 Aims and Objectives**

The main aim of this investigation was to establish the presence/absence, date, character and quality of any archaeological remains surviving within the development area.

## **1.3 Reporting**

The present document has been prepared as the final report on this watching brief. Copies will be sent to the client, The National Record of the Historic Environment at Historic Environment Scotland, and Perth & Kinross Historic Environment Record.

## **1.4 Planning and Curatorial Issues**

This watching brief is the final part of a programme of archaeological work designed to satisfy the outstanding archaeological condition on the planning consent for this development.

## **1.5 Acknowledgements**

We wish to thank Gavin Jackson of Green Cat Renewables, John Ferguson of Welton Generating Company Ltd and David Shelton of Smith Brothers Ltd for their assistance and guidance throughout this project. Welton of Creuchies Generating Company Ltd and Tullymurdoch Ltd funded this watching brief.

# **2 Details of Work**

## **2.1 The Site (Illus 1)**

A walkover conducted by AOC Ltd and ARCUS identified fourteen sites at risk from the development. These were: 121, 142, 145; 126; 19, 20; 24; 39; 152; 133; 64, 66, 68; 100.

Site number(s) from ARCUS addendum	Site name
121, 142, 145	Tullymurdoch hut circles
126	Tullymurdoch stone rubble
19, 20	Mains of Creuchies, cup marked stone and hut circle
24	Mains of Creuchies, cottage and enclosure
39	Glendams/St Fink settlement remains
152	Hill of St Fink, possible robbed cairn or building platform
133	Chapelton, masonry fragment
64, 66, 68	Coupar Grange, settlement cropmarks
100	Coupar Angus, settlement cropmarks

In addition site 17 (Happy Hillock cairn) lay close to the cable route and groundworks in the vicinity were monitored accordingly.

## 2.2 Archaeological Potential

Desk-based assessment and walkover survey work by AOC Archaeology in June and July 2015 identified a number of archaeologically sensitive areas along the proposed cable route. The route was subsequently redesigned to avoid the Happy Hillock chambered cairn south of Tullymurdoch, but a total of 9 sites or site groupings were still likely to be affected by the works. These included three separate hut circles within a settlement cluster at Tullymurdoch (to be bisected by the cable), several groups of hut circles, a burnt mound and other settlement evidence at Hatton Moss, a possible long cairn near Hill of St Fink, a potential prehistoric settlement near Coupar Grange farm, a cup and ring marked stone near Mains of Creuchies, enclosures near Bendochy and a possible barrow and other features at Kemphill. Recommendations made subsequent to the walkover survey included trial trenching at the Tullymurdoch hut circle settlement and a topographical survey at the St Finks possible cairn, with a watching brief being maintained on all sites affected. The recommended trial trenching was conducted by AOC Ltd as part of monitoring of construction work at Tullymurdoch wind farm; a report was issued by AOC and is not discussed here.

## 2.3 Archaeological Method

Watching briefs were maintained on all of the site clusters identified in the ARCUS addendum (Appendix 2 to Planning Application 15/01562/FLM) as being at risk from the development. An archaeologist from Alder was present for all works taking place within 50m of each of these areas, maintaining continuous monitoring whenever excavation occurred close to archaeological remains. Topsoiling for the cable trench was performed by a tracked excavator equipped with a toothless ditching bucket. All

archaeological remains exposed were recorded and where necessary hand excavated using the methodologies described in Appendix 6 below.

## **2.4 Results of Investigations**

Archaeological remains were exposed at sites 100, 64, 66, 20 and 17. Results are given from S to N along the cable route.

### Site 100

This site was a possible unenclosed settlement identified from aerial photographs and comprising several possible pits on the brow of a N-facing hill above the River Isla NW of Coupar Angus.

A sub-circular pit was exposed within the 3m wide track at NO 21295 40105. Cut directly into loose yellow sandy subsoil on the brow of a steep, N-facing slope below 0.30m of ploughsoil, the cut [1004] of this feature measured 1.20m E-W x 1.10m N-S, with a gently dished profile and maximum depth of 0.17m. The uniform fill (1003) of moderately loose mid-brown sandy silt contained occasional pebbles and very occasional charcoal flecks. A single small sherd of Neolithic pottery was recovered from on top of this fill, but may have been an intrusion from the ploughsoil. It is possible that the feature was a tree bole, as possible root channels were exposed in the somewhat undulating base of the cut. A soil sample was taken of the fill (1003)

No other features of archaeological interest were exposed. A second, smaller pit [1006] to the N of [1004] was a tree or bush bole.

### Site 64

This lay on the N bank of the River Ericht in a loop of the river containing an area of very low-lying land (below the level of a flood defence embankment against the water's edge). The site itself, an enclosure, in fact lay to the NE of the cable route on a ridge of higher ground and was not directly impacted by the works.

At NGR NO 22589 43988, the approximate mid-point of the area being monitored, a deposit (6403) of crushed grey sandstone was exposed beneath 0.20m of ploughsoil. Measuring 1.20m wide, the deposit extended across the width of the track on a NW-SE alignment and contained fragments of plastic material indicating a modern origin. It probably represented hard-standing or a path associated with the river embankment.

No other archaeological features were exposed.

### Site 66

This was a scatter of possible pits on high ground to the NE of Coupar Grange Farm, identified from aerial photographs and lying W of a possible settlement (site 65) including pits and possible souterrains and E of an unexcavated souterrain (site 68) which lay on the other side of a footpath accessing the River Ericht, which flowed NW-SE to the E of site 66.

At NGR NO 22416 43655, a pit was exposed as a patch of burnt subsoil 0.80m below the present ground surface. The cut [6604] of this feature measured 1.02m N-S x 0.45m E-W, with a scooped profile and maximum depth of 0.25m. The upper fill (6605) of

dark-brown, moderately compact clay-silt with frequent charcoal contained a lens of orange-pink clay (6603) concentrated around the centre of the pit. The lower fill (6606) of mottled yellow-brown sandy silt was constituted of mixed upper fill and redeposited natural subsoil, no more than 0.05m thick. At the lowest point of the pit, resting on natural subsoil below (6606) was a fragment of white quartz, possibly a worked core, together with a single quartz flake. A soil sample was taken of the upper fill (6605). Slightly discoloration of the underlying subsoil was noted, which together with the frequency of charcoal might indicate that the feature represented the remains of a small fire.

Between NGR NO 22444 43727 (SW end) and NO 22460 43735 (NE end), close to the NE end of the section being monitored and 15.00m SW of the point at which the track ended short of the river (the river itself then being crossed by drilling down), a series of pits and postholes was exposed within the track below the overlying ploughsoil and cut directly into orange-yellow sand-gravel subsoil (6607). 10 features were present, including a pit, 2 possible fires and 7 postholes, all situated around 51.00m AOD on firm subsoil. The topsoil declined from 0.60m thick at the NE end of the section to 0.40m at the SW end, eventually thinning to 0.20m beyond the area of archaeological features.

[6609], a sub-circular posthole, lay at the NE end of the track section, 15.20m from the drill point and 0.30m from the NW edge of the track. This measured 0.37m in diameter, 0.25m deep, with a tapering profile. Its main fill (6608) was a homogenous grey-brown sandy silt, moderately loose with few inclusions. A small lens of subsoil (6607) in the base suggested slumping from the sides. No post-pipe was apparent, but the slumping may have resulted from the removal of a post.

[6612], a sub-circular posthole, lay 3.50m SW of [6609]. With a somewhat irregular plan, this measured 0.55m in diameter, with a small spur to the NE measuring 0.20m long and possibly representing a fulcrum or post ramp. The main cut, with a scooped profile, was a maximum of 0.11m deep, with the deepest point to the E of the centre and a gentler slope to the W side than the E. The main fill (6610) was a homogenous grey-brown sandy silt, moderately loose with occasional pebbles; a 0.10m long cobble (6611) on the W side of the fill may have represented a post packer.

[6614], a sub-elliptical or sub-rectangular pit or posthole, lay 1.50m E of [6612] and 2.30m S of [6609]. This measured 0.90m NE-SW x 0.32m NW-SE, with a steeply scooped profile 0.65m long and a shallow extension 0.25m long on the NE edge, possibly representing a post-ramp. The main cut was 0.28m deep (max), the extension 0.05m deep, tapering away to the outer edge. The fill (6613), was a homogenous grey-brown clay silt with occasional pebbles. No post pipe was apparent; angular stones within the fill may have been post packers, but more likely were the result of backfilling of the feature.

[6617], a sub-circular posthole, lay 4.70m SW of [6612] and measured 0.22m in diameter, 0.17m deep with a sharply tapering profile. The main fill (6615) was a homogenous grey-brown silt with occasional pebbles; the outer edges of the cut were occupied by a loose sandy fill (6616) up to 0.08m wide and 0.12m thick on the S side of the cut, 0.03m wide and 0.05m thick on the N. Main fill (6615) was thus a post-pipe surrounded by re-deposited sand.

[6619], a sub-circular posthole, lay 0.30m SW of [6617], measured 0.20m in diameter and 0.06m deep, with a gently scooped base. Very shallow and slight, this was nevertheless of regular appearance and probably a truncated anthropogenic feature rather than, for example, a bush or boulder impression. The fill (6618) was a homogenous, moderately loose grey-brown silt with occasional small pebbles.

[6621], a sub-circular posthole, lay 1.20m SW of [6619], measured 0.40m N-S x 0.32m E-W, with a somewhat irregular plan and undulating base tapering to the E, maximum depth of 0.15m (W side) thinning to 0.04m (E side). The main base was convex, with the tapering E side a possible fulcrum or ramp. The fill (6620) was a homogenous grey-brown silt with occasional pebbles.

[6623], a sub-oval pit, lay 1.10m SW of [6621] measured 0.71m NE-SW x 0.52m NW-SE, a maximum of 0.17m deep with a steeply sloped N edge and gently scooped S edge. The fill (6622) was a homogenous, moderately compact dark grey/black clay silt, with a large (0.12m thick x 0.19m long) cobble (6624) at the S edge of the cut. The presence of the cobble may have indicated that the feature was a posthole with post packer; however, [6623] lay 0.40m NW of a series of intercutting pits, [6629], which contained similar stones, suggesting that [6623] was of similar origin and function.

[6626], an irregular and intermittent cut, vertically truncated, lay 1.70m S of [6623], spreading over 1.60m and comprising a main segment 0.70m in diameter with patches further S. With a largely flat base 0.08m in depth, the feature contained a moderately loose dark-grey/black clay silt (6625) with frequent flat stone fragments and small cobbles. Although no obvious subsoil discoloration was noted, it is possible that the feature represented the remains of a small fire, or at least the disposal of waste from a fire.

[6629], a complex series of intercutting pits, lay 0.95m NE of [6626] and 0.40m E of [6623]. At least six intercut pits formed a U-shaped plan, the E arm of which merged with the side of the trench. Each pit had a scooped base, increasing in diameter from 0.25m (N end) to 0.50m (S corner); the depth also increased in the same direction from 0.10m to 0.25m below the top of the subsoil. The NW-facing section of the trench showed that the pit here (numbered separately as [6633]) descended from 0.25m above the subsoil, the total depth of the feature therefore being 0.50m below the ploughsoil. The main fill of the feature was a homogenous dark-grey/black clay silt, moderately compact with occasional pebbles. Also present was a concentration of stone fragments (6628), mostly flat slabs, several cracked, possibly by heat. This did not appear to be structural but rather the result of dumping into the pits. In the NW end of [6629], a concentration of cobbles (6634), each c.0.15-0.20m long, rested on top of fill (6627) and were probably also the result of dumping. It is possible that the feature as a whole represented repeated re-digging of pits used to cook via stones heated in a nearby fire. A sub-pyramidal quartz chip found within (6627) measuring 25mm long with a base 15mm x 18mm, with a sharp point and a pronounced curve on one face from which a flake had been struck, this find was possibly a core rather than an accidental chip or fire-lighter and was the only find recovered from the site.

[6632], an intermittently present sub-oval cut extending over 4.00m NE-SW and out from the NW side of the trench 0.90m to the SE (the return side not seen beneath the trench baulk, therefore). The cut was gently scooped, 0.18m deep around the mid-point against the baulk, tapering upwards to N, S and E. The fill (6630) was a mixture of



charred matter and dark-grey clay silt, moderately compact and with occasional pebbles. Below this, much of the base was covered by a spread of very compact, discoloured, heat-affected gravel (6631). The feature probably represented the base of a fairly large fire.

Given the proximity of the site to several possible souterrains, it seems quite likely that the features exposed within the cable track represented the remains of prehistoric activity, perhaps including a structure. The smaller features, which seem to represent the bases of postholes, may be part of a roundhouse or smaller building, with associated storage or cooking pits and a large fire close by. Given the narrow window afforded by the trench, it was not possible to fully encompass any structure or structures there may have been or ascertain their extent or orientation. The presence of a possible core of quartz in context (6628) might suggest a date earlier than the Iron Age, but a complete absence of pottery and general dearth of finds actually accords well with Iron Age archaeology in this part of Scotland, away from higher status sites such as hillforts. Bulk samples were taken from all excavated features in order to obtain material for C14 dating. The absence of features further SW in the track (including, for instance, any continuation of a roundhouse circumference) may be explained by the rise in the natural subsoil and thinning of the overlying ploughsoil, which may have resulted in any cut features being ploughed out.

#### Sites 24, 19 & 20

Site 24, a ruinous building and enclosure, was protected by a thick hedge and more than 20.00m outside the cable track corridor- it was not directly impacted. Two concentrations of boulders to the SW of the site proved to be recent field clearance.

Site 19, a cup-marked stone, was found to be completely buried beneath another pile of recently cleared boulders. While this prevented adequate recording of the feature, it also protected it from disturbance during the groundworks in the vicinity.

Site 20, a possible hut circle, was situated at a gateway close to the cable track; however, the track turned away from the gateway before crossing the feature, which was in any case extremely vague, having probably been subject to many years of erosion due to vehicle movement through the gate. The groundworks thus avoided directly impacting the site. The remains of a drystone dyke (2003) were exposed in the track, buried beneath 0.15m of topsoil and partially overlapped by a leached grey hillwash (2004). The dyke crossed the track on a N-S alignment and appeared to intersect with a standing dyke parallel with the cable track, notable for the rather unusual construction method of placing heavier stones as copes with lighter rubble beneath.

#### Site 17

The robbed long cairn at Happy Hillock (NMRS NO15SE 1) lay on an E-W ridge, steeply sloped on the N side and gradually descending on the S, with a natural watercourse (Ollie's Burn) flowing N-S at the W end of the ridge. The cairn was 15.00m W of the cable track; an attempt had been made to re-route the track at least 40.00m distant, but due to overhead powerlines this could not be achieved. The works were therefore monitored. Stripping began on a steep S-facing slope to the N of the cairn, down into a gully between this slope and a N-facing ridge on which the cairn

was positioned. The clay-silt topsoil thickened to over 1.00m in the gully, with a deposit of peat (1703) below this; as the track began to ascend the N ridge, a buried electrical cable (1704) was exposed to the NW of the overhead line, crossing the track E-W. 10.00m S of the cable, at NGR NO 20014 52227, a concentration of boulders was exposed in the base of the track, below the topsoil (1701) and resting on firm sandy-gravel subsoil. This deposit (1705) comprised boulders between 0.30-0.40m in diameter in one or two courses extending 3.00m across the track from the W (ie, almost the full width) and 2.00m N-S. No bonding material was noted, but boulder clay (1706) overlapped the N edge of the feature, which sat against the edge of the gully. The clay was at least 0.30m thick (as seen in a sondage) and may have been deposited in a paleochannel once feeding into the burn. The boulders may have represented the remains of a revetment wall at the side of this natural feature and retaining the slope above, but no build up of soil against a structure was apparent and the feature may alternatively have resulted from dumping of field clearance. No artefacts were present; three pieces of quartz from within clay (1706) were probably geofacts. A bulk soil sample was taken in the hope of extracting dateable material. No return of the possible wall was noted further to the S, on the far side of the cairn.

No other features of archaeological interest were exposed at any of the sites monitored.

### **3 Interpretation**

The group of pits and postholes at site 66 are of regional significance due to their likely prehistoric origin. Soil samples from both this group and pit [1004] were selected, sieved and any useable material dispatched to the AMS facility at SUERC, East Kilbride (see SUERC certificates, below).

C14 dating of two samples returned the following results:

SUERC-78173/GU46965, a sample of *corylus avellana* (hazel) charcoal from context 1003 (pit [1004]) was dated to 3448BP  $\pm$ 26, calibrated to 1838 – 1687 B.C. (95.4% probability), with the more recent date most likely at 65.1% probability. This places the pit feature in the Middle Bronze Age.

SUERC-78174/GU46966, also *corylus avellana* charcoal, from context 6627 (U-shaped pit [6629]), was dated to 2186BP  $\pm$ 26, calibrated to 271-176 B.C. (95.4% probability), with the older date somewhat more likely at 56.5% probability. This places the U-shaped pit and probably the surrounding features in the Late Pre-Roman Iron Age. The site 66 features may represent an Iron Age building with associated cooking and disposal activity, with isolated pit [6605] a structured deposit of a quartz core.



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*RADIOCARBON DATING CERTIFICATE*  
04 April 2018

**Laboratory Code** SUERC-78173 (GU46965)  
**Submitter** Christina Hills  
CFA Archaeology Ltd  
Old Engine House, Eskmills Park  
Musselburgh  
East Lothian, EH21 7PQ  
**Site Reference** AG08  
**Context Reference** 1003  
**Material** Charcoal : Corylus Avellana  
 **$\delta^{13}\text{C}$  relative to VPDB** -25.6 ‰  
**Radiocarbon Age BP** 3448  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by : E. Dunbar

Checked and signed off by :

P. Nayantub

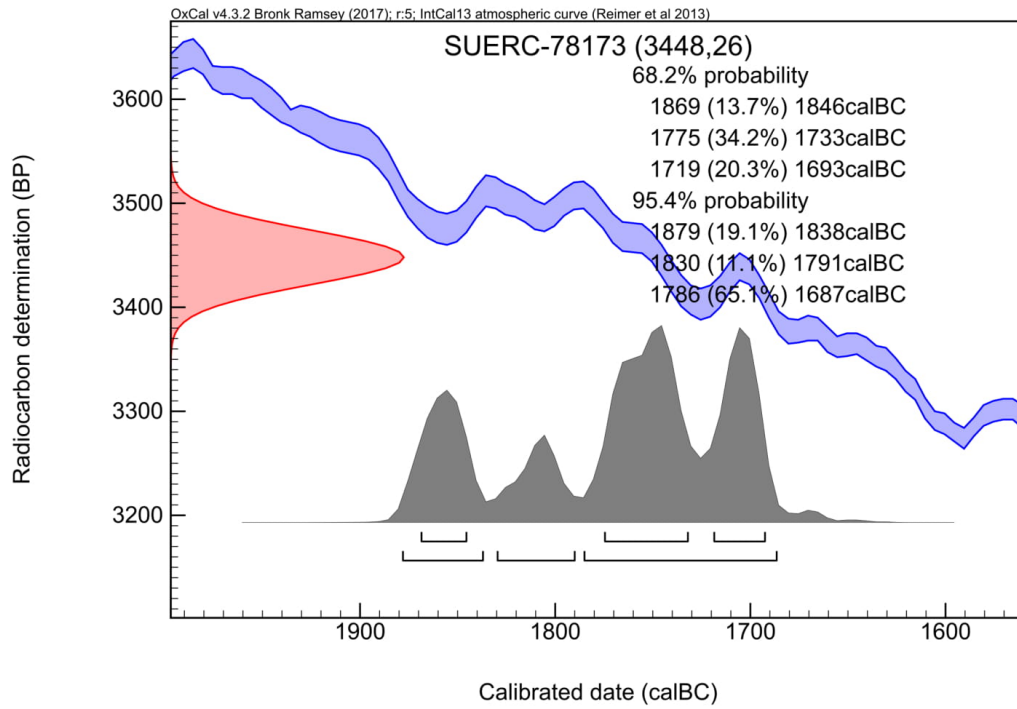


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registered in Scotland, with registration number SC005336



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



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*RADIOCARBON DATING CERTIFICATE*  
04 April 2018

**Laboratory Code** SUERC-78174 (GU46966)

**Submitter** Christina Hills  
CFA Archaeology Ltd  
Old Engine House, Eskmills Park  
Musselburgh  
East Lothian, EH21 7PQ

**Site Reference** AG08

**Context Reference** 6627

**Material** Charcoal : Corylus Avellana

**δ<sup>13</sup>C relative to VPDB** -27.9 ‰

**Radiocarbon Age BP** 2186 ± 26

**N.B.** The above <sup>14</sup>C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

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For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by : E. Dunbar

Checked and signed off by : P. Nayantub

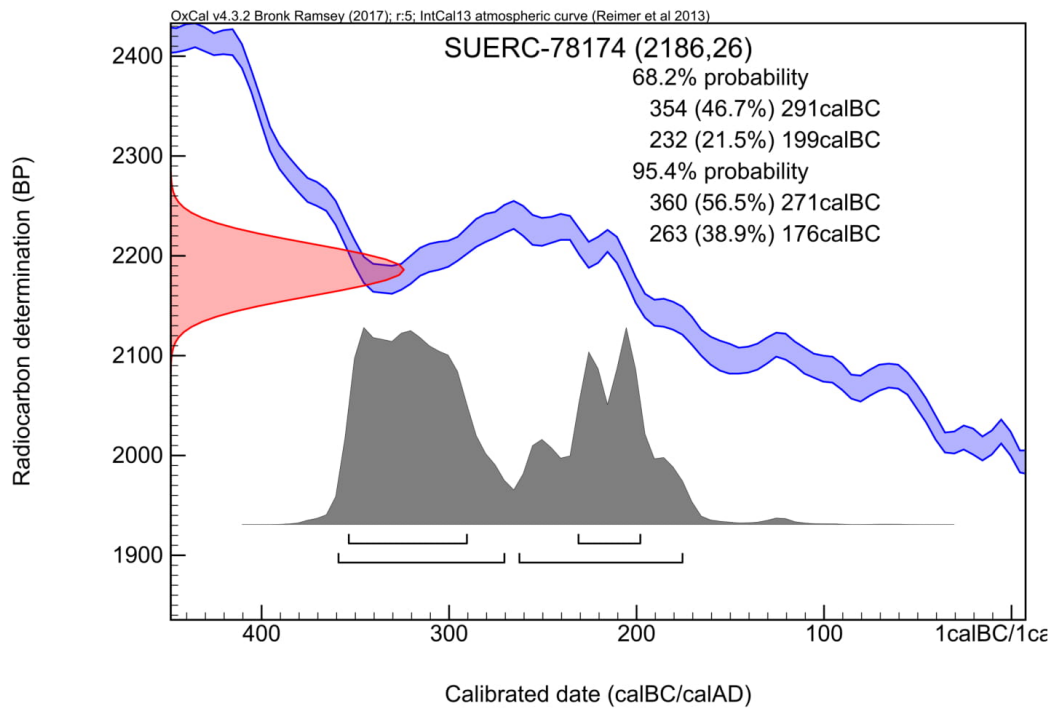


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The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

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† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

## **4 Conclusions and Recommendations**

### **4.1 Recommendations for Further Work**

Alder Archaeology consider that the watching brief was mounted appropriately and do not recommend further work on site in association with the present development. However, the final decision ultimately rests with Perth & Kinross Heritage Trust, as curators of Perthshire archaeology.

## Appendix 1 Context Register

<i>No:</i>	<i>Description</i>
	<b>Site 100</b>
1001	Topsoil
1002	Subsoil
1003	Deposit, fill of cut 1004
1004	Cut
1005	Deposit, fill of tree bole 1006
1006	Tree bole
1007	Deposit, fill of tree bole 1008
1008	Tree bole
	<b>Site 64</b>
6401	Topsoil
6402	Subsoil
6403	Deposit of crushed stone fragments and gravel, path/hardstanding
	<b>Site 66</b>
6601	Topsoil
6602	Subsoil
6603	Deposit, fill of pit cut 6604
6604	Cut
6605	Deep hillwash deposit at bend in track
6606	Sand subsoil below 6605
6607	Gravel subsoil E of 6606
6608	Deposit, fill of posthole 6609
6609	Posthole
6610	Deposit, fill of posthole 6612
6611	Packing stones in cut 6612



6612	Posthole
6613	Deposit, fill of posthole 6614
6614	Posthole
6615	Deposit, post pipe within posthole 6617
6616	Deposit, sand, backfill of posthole 6617
6617	Posthole
6618	Deposit, fill of posthole 6619
6619	Posthole
6620	Deposit, fill of posthole 6621
6621	Posthole
6622	Deposit, fill of pit 6623
6623	Pit, possible continuation of 6626
6624	Cobble, possible cooking/hearth stone or packer
6625	Deposit, fill of pit 6626
6626	Pit, possible fire/hearth
6627	Deposit, fill of 6629
6628	Stones, possible cooking/hearth stones or combination of both
6629	Pit, several inter-cutting pit bases forming U-shaped plan
6630	Deposit, shallow spread of charred matter and silt, base of fire in cut 6632
6631	Very compact spread of heat-affected gravel forming base of cut 6632
6632	Cut, base of fire, intermittently present
6633	Pit seen in NW-facing section of track, part of inter-cutting pits 6629
6634	Cobbles in NW end of 6629
	<b>Site 20</b>
2001	Topsoil
2002	Subsoil
2003	Stone concentration, remains of drystone dyke
2004	Leached grey hillwash

	<b>Site 17</b>
1701	Topsoil
1702	Subsoil
1703	Peat below 1701 in gully
1704	Buried electrical cable
1705	Stone concentration, possible retaining wall or stone dump
1706	Clay overlapping stone 1705

## Appendix 2 Photographic Register

<i>Image No</i>	<i>Description</i>	<i>View</i>
	<b>Site 100</b>	
001-4	Location shots, track stripped without monitoring, site 100	S, SE, E, NE
005-6	Extent of track stripped without monitoring, towards Coupar Angus	S, SE
007	Deposit 1003, pre-ex	SE
008	Deposit 1003, location shot	SE
009-10	Deposit 1003/cut 1004 half-sectioned	S
011-13	W-facing section, 1003/cut 1004, half-sectioned	E
014	Deposit 1005, pre-ex	SE
015	Deposit 1005, location shot	SE
016	N-facing section, 1005	S
017-19	Working shots, excavation of track to N of 1005	NE, N
020	Deposit 1007, pre-ex	E
021	Deposit 1007, location shot	SE
022	Tree bole 1007, post-ex	E
023-24	Extent of excavated track, to low ground N of site 100	N
025	Cut 1004, post-ex	W
026	Location shot, cut 1004	W
	<b>Site 64</b>	

027-29	Location shots, site 64	S, SE
030-31	Location shots, S end of track site 64, pre-strip	NW, N
032-34	Working shots, strip of S end of track, site 64	NW, W
035	Subsoil exposed, site 64	W
036-38	Working shots, strip of S end of track, site 64	NW, W
039	Subsoil exposed, view back to start of strip, site 64	S
040	Working shot, strip of track, mid-section, site 64	W
041	Path 6403 exposed in base of track	W
042	SW-facing section, path 6403	NE
043	Location shot, SW-facing section, path 6403	NE
044-46	Path 6403 exposed in base of track	SW, W
047	Subsoil exposed, view back to start of strip	S
048	Subsoil exposed, view back to mid-section of strip	S
049	Working shot, stripping near fishing hut, N end of track section, site 64	N
050-51	Subsoil exposed, view back to fishing hut from N end of track, site 64	S
	<b>Site 66</b>	
052	Location shot, view down to footbridge over Ericht from site 66	NE
053	Location shot, view to tree at end of track strip, site 66, from Ericht	SW
054	Location shot, view to Grampians across Ericht, site 66	N
055	Location/working shot, digger entering site 66 from S	S
056	Working shot, stripping towards tree, site 66	NW
057	Working shot, view to S edge of field, site 66	S
058-59	Working shots, subsoil exposed, site 66	N
060	Deposit 6603, pre-ex	N
061	Location shot, deposit 6603, pre-ex	N
062-63	S-facing section, 6603	N
064	Location shot, S-facing section, 6603	N
065	Cut 6604, post-ex	N

066	Location shot, cut 6604, post-ex	N
067-69	Extent of deep deposit 6605 in bend in track	W, E
070	Location shot, rising slope to N of deposit 6605	E
071	Working shot, excavating beneath deposit 6605 with dredging bucket	E
072	Working/location shot, cable tubes laid to SE of bend in track, site 66	SE
073-74	Deep sand section, bend in track	E
075-76	Location shots, extent of concentration of features at E end of track, site 66, pre-clean	E, NE
077	Location shot, extent of concentration of features, site 66, pre-clean	W
078-81	Location shots, extent of concentration of features at E end of track, site 66	E, NE, W
082	E end of concentration, posthole deposits 6608, 6613	SE
083	E end of concentration, posthole deposits 6610, 6613	SE
084	Centre of concentration, pit 6630	SE
085	W end of concentration, pits 6627, 6625	SE
086-91	General overview shots, concentration of features	SE, S, ESE, E
092-93	Posthole deposit 6608, pre-ex	E, N
094-95	W-facing section, 6608	E
096-97	Posthole deposit 6610, pre-ex	E
098	Location shot, posthole deposit 6610	NE
099	S-facing section, 6610	N
100	Posthole deposit 6613, pre-ex	N
101-102	Location shots, 6613, pre-ex	NE, N
103-104	S-facing section, 6613	N
105	Posthole deposit 6615, pre-ex	NE
106	Location shot, 6615	NE
107	SW-facing section, 6615	NE
108-109	Posthole deposit 6618, pre-ex	NE
110	SW-facing section, 6618	NE

111	Posthole deposit 6620, pre-ex	NE
112	Location shot, 6620	NE
113	SW-facing section, 6620	NE
114	Pit 6622, pre-ex	NE
115	Location shot, 6622	NE
116	SE-facing section, 6622	NW
117	Cut 6623, post-ex	NW
118	Pit deposit 6625, pre-ex	NE
119	Location shot, 6625	NE
120	W-facing section, 6625	E
121-123	Pit deposit 6627, pre-ex	SE
124	Stones 6628, in NW-facing section of 6627	SE
125	Stones 6628	NE
126	NW-facing section, 6627	SE
127-128	Deposit 6630, pre-ex	NE
129-130	SW-facing section, 6630	NE
131-134	Heat-affected compacted gravel 6631	SW
	<b>Site 152</b>	
135-137	Working shots, stripping onto natural mound	N, S
	<b>Site 39</b>	
138-140	Working shots, commencing strip to NE from Welton turbines	NE
141-142	Subsoil at SW end of track, Welton	NE
143-147	Stone concentration in track, natural feature	S, SSW, E
148-149	Working shots, stripping through Welton site	NE
150-152	Sheep track or dried stream, natural feature	S
153	Stripped track from base of hill, Welton	SW
154	Working shot, stripping at base of hill	NE
155	Stripped track from base of hill, Welton	SW

156	View towards settlement remains area, from track	N
157	Stripped track from base of hill, Welton	SW
158	Working shot, stripping up to road through Welton site	NE
159-160	Leached soil in boggy area close to road	NE
161	Working shot, stripping through bog, Welton	NE
162	Stripped track, from road, Welton	SW
	<b>Site 133</b>	
163	Location shot, Chapelton cottage	E
164	Working shot, stripping S of Chapelton	SE
165-166	Working shots, commencing strip within area of monitoring, Chapelton	NW
167	Stripped trench to S of monitoring area	S
168-170	Stripped 3m track W of cottage	W
171	Depth of ploughsoil to SW of cottage	NE
172-173	Location shots, track to be stripped to W and N of cottage	SW, NE
174-176	Working shots, stripping to W of cottage	N, NE
177-179	Rubble from destroyed dyke to W of cottage	N
180	Dyke to W of cottage	E
181-182	Subsoil in track to N of cottage	N
183	Potatoes in ploughsoil to N of cottage	NE
184	Subsoil to N of cottage	N
185-186	Stripped track to N of cottage	S
	<b>Site 24</b>	
187	Clearance cairn to SW of site 24	N
188-189	Location shots, cable route from clearance cairn	W, SW
190	Second clearance cairn SW of site 24	W
191	Location shot, cable route from second cairn	S
192-198	Working shots, stripping close to clearance cairns	N, NE
199-200	Depth of bog in track	E

201-202	Working shots, stripping through bog	NE
203	Stripped track through bog	S
204-205	Second cairn	NW
206-207	Loose stones in clearance cairn during strip	NW
208-210	Location shots, fence and hedge E of site 24	W
211	Location shot, ruins of site 24 through hedge	W
212-213	Location shots, site 24 from site 20	S
214-215	Working shots, stripping alongside site 24	N
216-220	Subsoil in track	N
221	Bedrock in track	N
	<b>Site 20, Site 19</b>	
222-223	Stripped track E of Parkneuk stone circle	S
224-226	Route from Parkneuk circle	E
227	Location shot, Happy Hillock from site 20	N
228-229	Working shots, stripping E of stone circle	S
230-231	Location shots, site 20	N, W
232	Site 19, under recent clearance rubble	N
233-234	Location shots, site 19	NW, W
235	Working shot, commencing strip to W of site 20/SE of Parkneuk circle	W
236	Drystone dyke E of Parkneuk	S
237	Working shot, stripping N of dyke E of Parkneuk	W
238	Subsoil in track	NE
239	Subsoil by dyke	W
240-241	Stripped track by dyke	E
242	Dyke, beyond track	SW
243-245	Remains of grubbed-out dyke 2003, in track	S
246-248	Leached hillwash 2004 by grubbed-out dyke 2003	S
249-250	Location shot, turn in track with site 20 at gate beyond	E

251	Working shot, site 20 in background	E
252-256	Working/location shots, site 19 under rubble in background	NE
	<b>Site 17</b>	
257-258	Working/location shot, commencing strip to N of Happy Hillock- cairn in background	S
259-260	Subsoil 1702 in track	S
261	Deep silt 1703 at base of slope N of cairn	S
262	Depth of topsoil 1701 at base of slope	W
263-265	Buried cable in track	S
266-267	Working shots, on ridge	SE, S
268	Peat 1704, in W-facing section of track	E
269-273	Stone concentration 1705 (possible dyke remains)	N, W
274	Location shot, cairn behind stones 1705	W
275-276	Stones 1705	E
277-280	Clay 1706 in sondage	W, S
281	Working shot, stripping to S of cairn	S
282	Location shot, depth of ploughsoil to E of cairn	W
283-284	Stripped track to S of cairn	SW
285-286	Location shot, cairn from track	W, NW
287-288	Stripped track, from S end	N
289	Location shot, end of monitored area	S
	<b>Site 142</b>	
290	Working shot, commencing strip at site 142	S
291	Location shot, Alyth Burn to N of site 142	N
292-293	Subsoil in track	W, S
294	Peat 1424 in track	S
295	Location shot, peat 1424	N
296-297	Peat 1424 in W-facing section of track	W
298	Working shot, stripping track	S



299-300	Peat 1425 in track	E
301-302	Working shots, stripping track	S
303	Stripped track, S of site 142	N
	<b>Site 121</b>	
304	Working shot, stripping at site 121	S
305	Location shot, hut circles N of site 121	SE
306	Working shot, stripping N of site 121	S
307-308	Depth of topsoil in bog, site 121	E
309	Location shot, hut circles to N of site 121 (marker post)	E
310	Working shot, stripping N of site 121	S
311-312	Location shots, hut circles to N of site 121	SE, E
313-316	Working shots, stripping at site 121	S
317	Drain to N of site 121	E
318	Base of drain in track	S
319-320	Working shot, stripping at site 121	S
321	Drain to N of site 121	E
322	Location shot, site 121	SE
323-324	Base of drain 1214 in track	S
325-326	Working shots, stripping at site 121	S
	<b>Site 145</b>	
327-328	Working shots, stripping at site 145	S
329-330	Base of drain 1453 in track	S
331-335	Location shots, site 145	SE
336-339	Working shots, stripping at site 145	S
340-342	Location shots, site 145	E, NE
	<b>Site 126</b>	
343	Location shot, site 126	W
344	Working shot, stripping at site 126	NE

### Appendix 3 Drawing Register

<i>Sheet No.</i>	<i>Description</i>	<i>Scale</i>
1	Plans and sections, sites 100, 66	1:100, 1:20, 1:10
2	Plans and sections, site 66, 17	1:20, 1:10

### Appendix 4 Finds Register

<i>Context</i>	<i>Material Type</i>	<i>Details</i>
1001/1003	Ceramic	Single sherd undecorated Neolithic pottery, red exterior, dark grey/charred interior, 8mm x 7mm x 5mm. Body sherd. Interface of topsoil and fill of pit, possible intrusion.
6606	Quartz	Sub-cuboid fragment, possible core, uneven facets, possible flaking. 55mm x 41mm x 33mm. In base of pit.
6606	Quartz	Flake, uneven sub-triangular outline, slightly concave, possible heat spall. 6mm x 5mm x 1mm.
6627	Quartz	Sub-pyramidal fragment, possible core, curved facet, point, 25mm x 15mm x 18mm. From within main fill of intercutting pits.

## Appendix 5 Discovery & Excavation in Scotland Entry

<b>LOCAL AUTHORITY:</b>	Perth & Kinross
<b>PROJECT TITLE/SITE NAME:</b>	Tullymurdoch Cable Route
<b>PROJECT CODE:</b>	AG08
<b>PARISH:</b>	Alyth
<b>NAME OF CONTRIBUTOR:</b>	C Fyles
<b>NAME OF ORGANISATION:</b>	Alder Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	WB
<b>NMRS NO(S):</b>	NO15SE 1, NO15SE 56, NO15SE 53, NO14NE 72, NO24SW 63, NO24SW 61, NO24SW 43, NO24SW 14
<b>SITE/MONUMENT TYPE(S):</b>	Robbed cairn, cup-marked stone, hut circle, settlement remains, enclosure, souterrains, pits, settlement cropmarks
<b>SIGNIFICANT FINDS:</b>	Neolithic potsherd, quartz cores
<b>NGR (2 letters, 8 or 10 figures)</b>	NO 21750 39273 to NO 20441 53817
<b>START DATE (this season)</b>	July 2017
<b>END DATE (this season)</b>	September 2017
<b>PREVIOUS WORK (incl. DES ref.)</b>	Walkover survey, evaluation
<b>MAIN DESCRIPTION:</b> (NARRATIVE) (May include information from other fields)	An archaeological watching brief was maintained on work to lay an electric cable between Coupar Angus substation and Tullymurdoch wind farm, via Welton of Creuchies wind farm. The development area was a linear corridor approximately 19km in length, running generally N/NE from Coupar Angus to finish in an upland area W of Alyth. The requirement was to monitor all soil stripping and excavation in the vicinity of several archaeological sites, pre-identified by a walkover survey conducted in 2015 by AOC Archaeology Ltd and ARCUS Archaeological Consultants. Archaeological features exposed included a group of pits, postholes and possible fires/hearths close to an unexcavated souterrain and other settlement remains.
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	-
<b>SPONSOR OR FUNDING BODY:</b>	Welton of Creuchies Generating Company Ltd and Tullymurdoch Ltd
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
<b>EMAIL ADDRESS:</b>	<a href="mailto:director@alderarchaeology.co.uk">director@alderarchaeology.co.uk</a>
<b>ARCHIVE LOCATION</b> (intended/deposited)	HES (intended)

## Appendix 6 Standard Terms of Reference for all Fieldwork

### 6.1 Recording Methodology

Alder Archaeology employs a Single Context Recording System that allows full cross-referencing of stratigraphy, finds and environmental samples, as well as site-wide phasing. All features will be planned at scale 1:20, and sections drawn at scale 1:10. Sections and profiles will be drawn and all features will be photographed with metric scale included. Environmental samples will be taken from archaeologically significant contexts, if the analysis of these samples would aid significantly in the interpretation of any features identified.

### 6.2 Human Remains

If human remains are encountered they will be left in situ and the local police will be informed. If removal is required this will take place in compliance with Historic Scotland's Policy Paper *The Treatment of Human Remains in Archaeology*.

### 6.3 Products and Reporting

A Data Structure Report will normally be prepared within a period agreed within the Written Scheme of Investigation/ Project Design, after the completion of the fieldwork. This forms the basic level of reporting. Further reporting may be required on the basis of discoveries made during excavations.

A copy of the report and the project archive will be deposited in the NMRS. Further copies will be sent to the client, LAAO and others, as appropriate.

### 6.4 Artefacts

Finds of objects will be subject to the Scots Laws of Treasure Trove and *Bona Vacantia*. We will report such finds, if recovered, with supporting documentation to the Secretariat of the Treasure Trove Panel for disposal to the appropriate museum.

### 6.5 Discovery and Excavation in Scotland

A brief summary of the results will be submitted to *Discovery and Excavation in Scotland*.

### 6.6 General Conditions and Health and Safety

We adhere to the Code of Conduct of the Institute for Archaeologists.

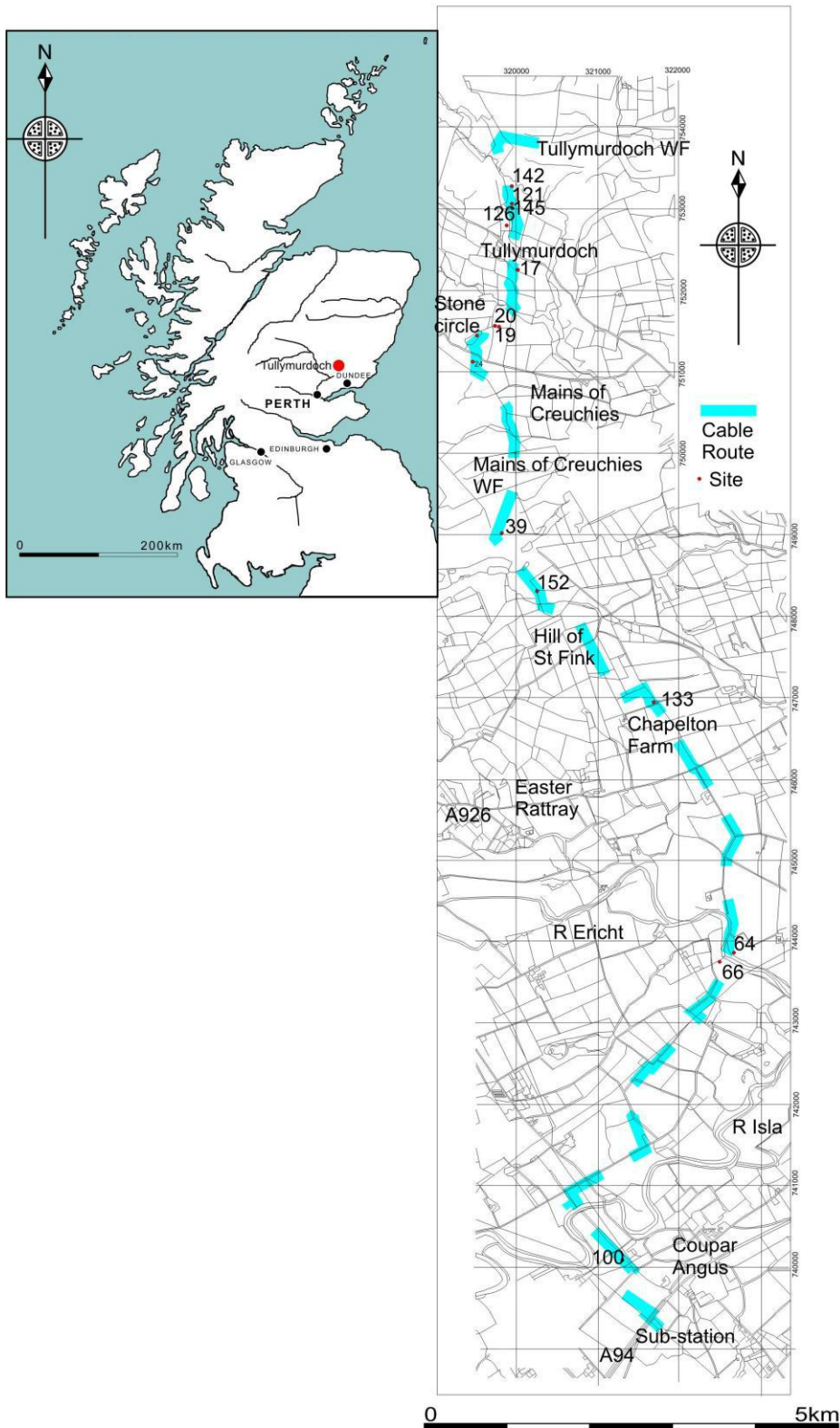
Alder Archaeology Ltd has public liability insurance of £2,000,000. Details of this can be provided on request.

We operate a strict health and safety policy that conforms to the Health and Safety at Work Act. We undertake Risk Assessments on all fieldwork carried out.

Alder Archaeology representatives will at all times wear protective footwear, high visibility clothing and other appropriate clothing. Hard hats will be worn if there is active plant on site or at all times if the site is deemed a hard hat area.

If lightly contaminated deposits are uncovered disposable boiler suits and gloves will be worn. A source of clean water will be made available for staff to clean hands with. If the health risk posed by site contamination is felt to be too high all further archaeological work will stop in that area.

Illus 1 Coupar Angus-Tullymurdoch WF Cable Route Location



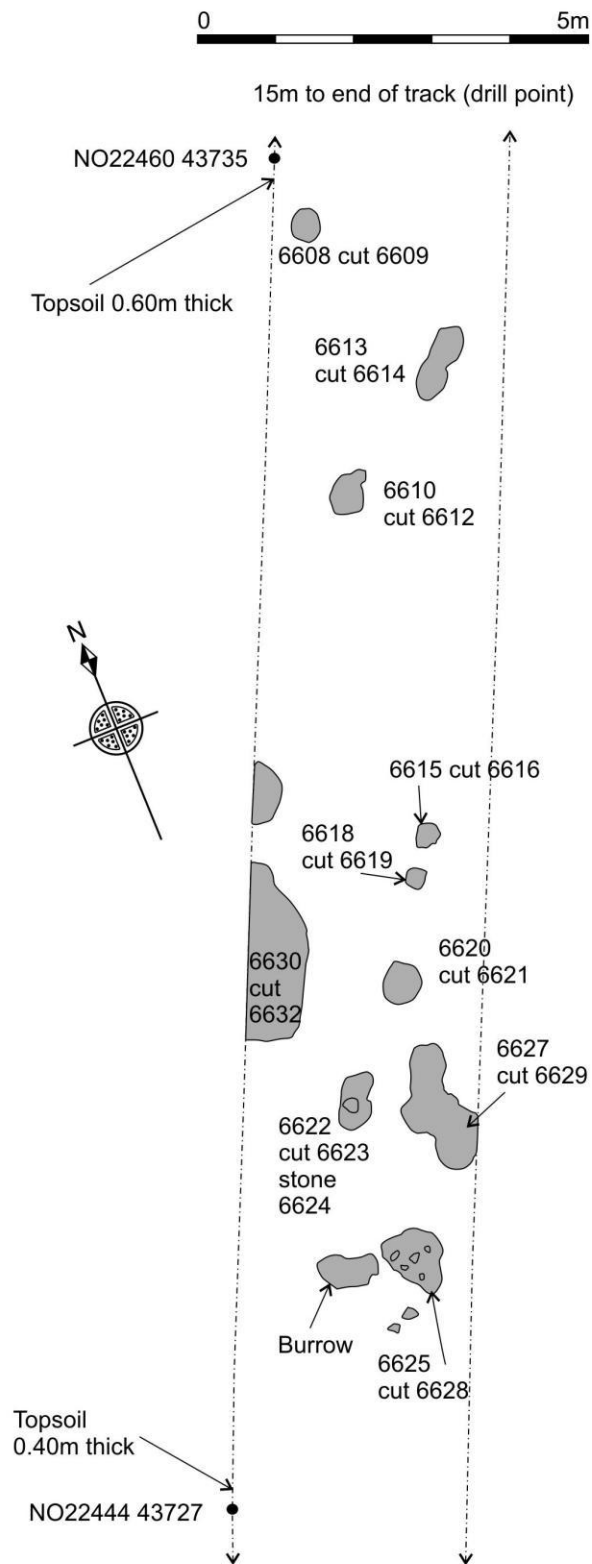
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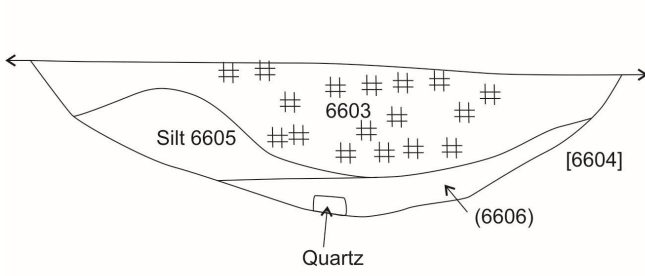
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Illus 2

Site 66, features

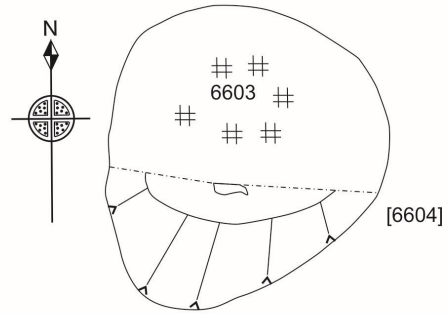




S-facing section pit [6604]



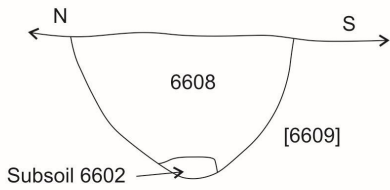
Sections



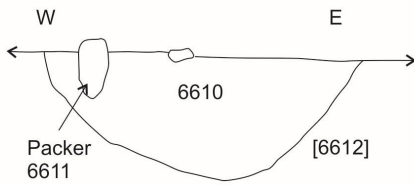
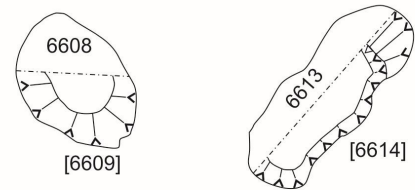
Plan of pit [6604], half-sectioned



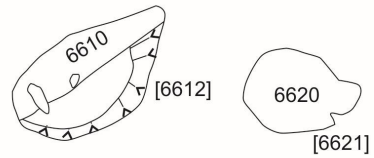
Plans



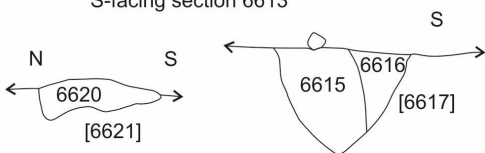
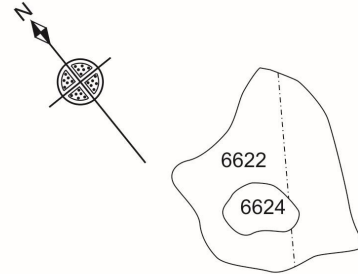
W-facing section posthole [6609]



S-facing section posthole 6612

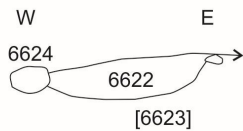


S-facing section 6613



W-facing section [6621]

W-facing section 6615



S-facing section [6623]

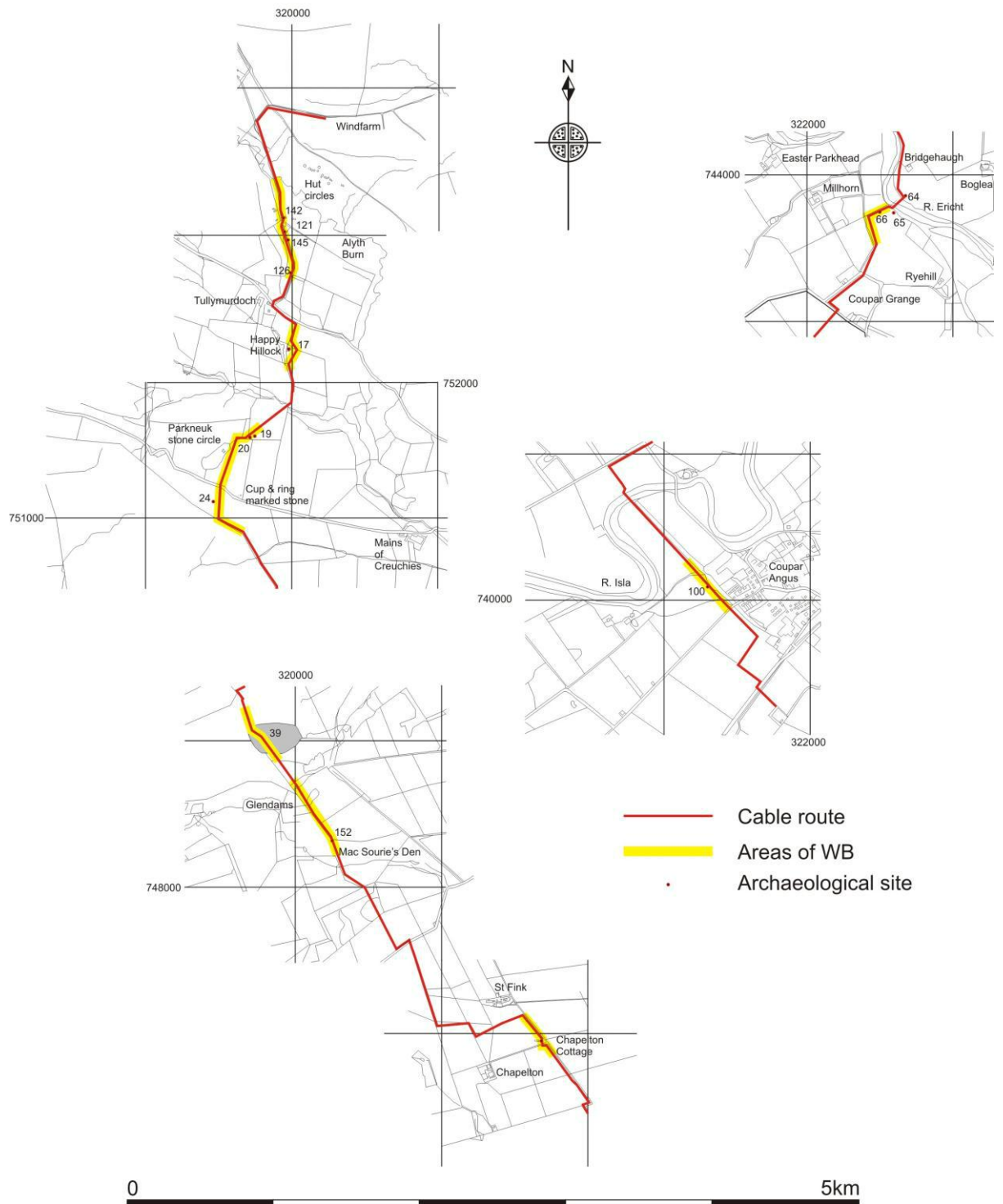


NW-facing section 6627

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Illus 4 Areas of archaeological Watching Brief



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