

Site 1 Mitigation Excavations Logierait Reinforcement Pipeline Perth and Kinross

**Archaeological Excavation** 

Report No. 1620







## **CFA ARCHAEOLOGY LTD**

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**Report No. 1620.1** 

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#### 1. INTRODUCTION

#### 1.1 General

- 1.1.1 This report presents the results of an archaeological excavation undertaken by CFA Archaeology Ltd (CFA) in March 2009 on the site of a temporary laydown area (Site 1) (NGR: NO 0705 2915 (centred) (Fig.1) associated with the construction of the Logierait Reinforcement Pipeline, Perth and Kinross. The work was commissioned by Land and Marine Project Engineering Ltd.
- 1.1.2 A Written Scheme of Investigation (WSI) dated 27 August 2008 was produced by CFA to cover a watching brief undertaken during ground-works for the construction of the pipeline. It was based upon information supplied by RSK Environment Ltd (RSK) who were acting as archaeological consultants for Scotland Gas Networks Ltd, and approved by Perth and Kinross Heritage Trust (PKHT). This particular programme of works relating to the Site 1 mitigation excavations was covered by Addendum 2 (09 March 2009) to the aforementioned WSI.

## 1.2 Background

- 1.2.1 The temporary lay-down area was located at Moneydie, c. 2.5km to the west of Luncarty and lay immediately to the north of the B8063 (Fig.1). Prior to any ground-breaking works, the area consisted of agricultural land. An Environmental Review (ER), incorporating an archaeological assessment, was undertaken by RSK in March 2008 on behalf of Scotland Gas Networks Ltd. The ER review identified a cultural heritage site (RSK DBA Site 7) (Fig. 1) immediately to the north-west of the temporary lay-down area within the same field. This site (NMRS No. NO02NE 81) (SMR No. MPK 2106) had been identified as a cropmark on aerial photographs and consisted of cultivation remains, and a possible souterrain and unenclosed settlement of probable Iron Age date.
- 1.2.2 Site 1 was identified in September 2008 during an earlier watching brief undertaken by CFA (Gray and Moore 2008). An area measuring 50m by 40m was stripped of topsoil, uncovering pits, linear features, possible rig-and-furrow cultivation and the remains of a buried soil. The area was covered with terram and stone, preserving the archaeological features in situ beneath. This measure was intended to provide temporary protection while work on the pipeline was completed. Further information on the background to this project is contained in CFA report no. 1564 (Gray and Moore 2008).
- 1.2.3 This programme of works involved the removal of the stone and terram, and the excavation of the features preserved beneath.

### 1.3 Aims and Objectives

- 1.3.1 The aims of the project were:
  - To excavate and record those features revealed within the lay-down area to a sufficient level to enable their likely function, date and character to be reported on.
  - To produce a report on the excavation.
  - To produce a project design for post-excavation work, and publication if appropriate.

#### 2. METHODS STATEMENT

#### 2.1 General

- 2.1.1 CFA Archaeology Ltd follows the Institute of Archaeologists' Code of Conduct, Standards and Guidance.
- 2.1.2 The area of investigation measured 50m by 40m.

### 2.2 Excavation Strategy

- 2.2.1 The work was carried out in accordance with the terms of Addendum 2 (09 March 2009) of the Written Scheme of Investigation.
- 2.2.2 The removal of the stone and terram was conducted by a mechanical excavator equipped with a smooth-bladed ditching bucket. All site-clearing work was carried out under constant archaeological supervision. Hand cleaning of the site was then undertaken in order to identify the archaeological features.
- 2.2.3 Sections excavated across linear features were a minimum of 1m wide and examined not less than 20% of the length of the features including terminals and intersections.
- 2.2.4 Each pit was half-sectioned to ascertain its form, nature of the fill, dimensions and likely date/purpose. They were then recorded in section before the remainder of the feature was excavated and recorded in plan.
- 2.2.5 Soil samples of a minimum of 10 litres, or the whole of the deposit where less, were taken from each of the excavated deposits.
- 2.2.6 All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by photography and by completing standard CFA record forms.
- 2.2.7 The location of all archaeological features was recorded using industry standard electronic surveying equipment.

#### 3. ARCHAEOLOGICAL RESULTS

#### 3.1 General

- 3.1.1 Numbers in bold and parentheses are context numbers, a full list of which can be found in Appendix 1.
- 3.1.2 The features (Fig. 2) excavated during this programme of works consisted of nine small pits (003, 007, 009, 012, 014, 016, 020, 032 and 037), four linear ditches (025, 027, 030 and 042) and two vestigial traces of rig-and-furrow (023 and 036).
- 3.1.3 The natural subsoil across the area consisted of orange-brown sandy-gravel (002).

### 3.2 Archaeological Features

Pit 003

3.2.1 Pit **003** (Fig. 3.1) was oval in shape, with sloping sides and a rounded base. Orientated north-west to south-east, it measured 0.75m by 0.5m by 0.2m deep and contained three fills (**004**, **005** and **006**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 007

3.2.2 Pit **007** was sub-circular in shape, with shallow sloping sides and a concave base. It measured 0.65m by 0.6m by 0.08m deep and contained a single fill (**008**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 009

3.2.3 Pit **009** (Fig. 3.2) was oval in shape, with steeply sloping sides and a rounded base. Orientated north to south, it measured 0.65m by 0.4m by 0.25m deep and contained two fills (**010** and **011**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 012

3.2.4 Pit **012** was circular in shape with shallow sloping sides and a concave base. It measured 0.4m in diameter by 0.08m deep, and contained a single fill (**013**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 014

3.2.5 Pit **014** (Fig. 3.3) was circular in shape with sloping sides and a flat base. It measured 0.5m in diameter by 0.13m deep, and contained a single fill **(015)**.

There were no finds from this feature, but a soil sample was retained for analysis.

Pit 016

3.2.6 Pit **016** was circular in shape with sloping sides and a concave base. It measured 0.2m in diameter by 0.06m deep, and contained a single fill **(017)**. There were no finds from this feature, but a soil sample was retained for analysis.

Pit 020

3.2.7 Pit **012** (Fig. 3.4) was circular in shape with shallow sloping sides and a concave base. It measured 0.35m in diameter by 0.12m deep, and contained two fills (**021** and **022**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 032

3.2.8 Pit **032** was sub-circular in shape, with shallow sloping sides and a concave base. It measured 0.45m by 0.4m by 0.13m deep and contained a single fill (**033**). There were no finds from this feature, but a soil sample was retained for analysis.

Pit 038

3.2.9 Pit **038** was oval in shape, with shallow sloping sides and a concave base. Orientated east to west, it measured 0.4m by 0.3m by 0.1m deep and contained a single fill (**039**). There were no finds from this feature, but a soil sample was retained for analysis

*Linear 023 and 036* 

3.2.10 Linear **023** (Fig. 4.3) and **036** are thought to represent vestigial traces of rigand-furrow cultivation. These parallel features were orientated north to south and were located 8m apart. The surviving remains of **023** measured between 1m and 2.5m in width and had a depth of up to 0.1m, while **036** was even more vestigial, measuring up to 1m in width, with a depth of less than 0.05m.

*Linear 025 and 042* 

3.2.11 Linear **025** consisted of a ceramic cylinder drain, which had been cut into the subsoil. It emerged from the south-western edge of the area, running in a west to east direction for c.4m before turning through 45° to run in a south-west to north-east direction. Linear **042** was on the same south-west to north-east alignment as the majority of the exposed part of linear **025**, adjoining it at the 45° bend. It was not possible to get a stratigraphic relationship between **025** and **042**, but the fact that they are on the same alignment suggests that **042** was originally a continuation of **025** prior to the aforementioned 45° change in direction being implemented. Linear **025** and **042** (Fig. 4.4) measured 0.3m wide by 0.25m deep and had vertical sides and a flat base.

3.2.12 Linear **027** (Fig. 4.1) emerged from beneath the south-eastern edge of the area. It ran in an east to west direction, terminating after a distance of c. 6m. Sections excavated across this feature showed that it measured 0.65m in width by 0.35m in depth and that it had steeply sloping sides and a flat base. The upper fill (**028**) of this feature consisted of dark grey sandy silt and the lower fill (**029**) consisted of orange-brown sandy gravel. There were no finds from this feature, but a soil sample was retained for analysis.

Linear 030

3.2.13 Linear **030** (Fig. 4.2) emerged from beneath the south-eastern edge of the area. Running parallel with linear **027** at a distance of c. 4m to the north, it terminated after a distance of c. 10m. Sections excavated across this feature showed that it measured 0.7m in width by 0.4m in depth and that it had steeply sloping sides and a flat base. The upper fill (**031**) of this feature consisted of dark brown stony silt and the lower fill (**044**) consisted of orange-brown stony gravel. There were no finds from this feature, but a soil sample was retained for analysis.

Subsoil 045

3.2.14 A subsoil **045** extended into the north-western side of the area (Fig. 2). Sondages hand excavated through this deposit demonstrated that it consisted of dark brown silt with a depth of c. 0.1m and overlay natural orange-brown sandy-gravel (**002**). There was no evidence that this deposit was an archaeological feature and it might simply represent slope-wash from the neighbouring fields. It had been cut by linear **023**, indicating that it pre-dated the probable rig-and-furrow. No further work was carried out on this deposit as it was considered that any potential features sealed beneath it would be preserved in situ following reinstatement. A sample of this deposit was retained for analysis.

#### 4. CONCLUSION AND RECOMMENDATIONS

- 4.1 A programme of archaeological excavations was carried out at a temporary lay-down area associated with Logierait Reinforcement Pipeline. These features had originally been identified during a watching brief carried out by CFA in September 2008, but had been preserved in situ beneath a layer of terram and stones until work on the site had been completed.
- 4.2 The excavated features consisted of pits, linears and possible rig-and-furrow cultivation. With the exception of one of the linears, which is a field drain of probable 19<sup>th</sup> century date, and the rig-and-furrow cultivation, which is likely to be medieval or post-medieval in date, the lack of dating evidence collected so far make it impossible to determine to which period the features belong.
- 4.3 An Environmental Review undertaken by RSK identified a cropmark site immediately to the north-west of the temporary lay-down area, situated within the same field (Fig. 1). The site consisted of cultivation remains, and a possible souterrain and unenclosed settlement of probable Iron Age date. It is possible that the features excavated by CFA relate to the identified cropmarks.
- 4.4 Soil samples were recovered from all of the excavated features. A programme of post-excavation analysis of these samples should be undertaken to determine if the features contained any dating evidence.
- 4.5 A post-excavation project design will be provided under separate cover following discussions with Perth and Kinross Heritage Trust.
- 4.6 A summary statement of the results of this watching brief will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 5).
- 4.7 The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of the report will be lodged with Perth and Kinross Heritage Trust Sites and Monuments Record.

#### 5. REFERENCES

Gray, H. and Moore, P. 2008, Logierait Reinforcement Pipeline, Perth and Kinross: Archaeological Works, CFA Report No. 1564.

# **APPENDIX 1: Context Register**

Context	Cut	Description					
001		Topsoil					
002		Subsoil – orange brown sandy gravel					
003	003	Cut of oval pit					
004	003	Upper fill of pit					
005	003	Fill of pit					
006	003	Basal fill of pit					
007	007	Cut of shallow sub-circular pit					
008	007	Fill of pit					
009	009	Cut of oval pit					
010	009	Upper fill of pit					
011	009	Basal fill of pit					
012	012	Cut of small circular pit					
013	012	Fill of pit					
014	014	Cut of circular pit					
015	014	Fill of pit					
016	016	Cut of circular pit					
017	016	Fill of pit					
018	N/A	N/A					
019	N/A	N/A					
020	020	Cut of circular pit					
021	020	Upper fill of pit					
022	020	Basal fill of pit					
023	023	Cut of rig-and-furrow					
024	023	Fill of rig-and-furrow					
025	025	Cut of field drain					
026	025	Ceramic cylinder field drain					
027	027	Cut of linear feature					
028	027	Upper fill of linear feature					
029	027	Basal fill of linear feature					
030	030	Cut of linear feature					
031	030	Upper fill of linear feature					
032	032	Cut of sub-circular pit					
033	032	Fill of pit					
034	N/A	N/A					
035	N/A	N/A					
036	036	Cut of rig-and-furrow					
037	036	Fill of rig-and-furrow					
038	038	Cut of oval pit					
039	038	Fill of pit					
040	N/A	N/A					
041	N/A	N/A					
042	042	Cut of probable field drain					
043	042	Fill of probable field drain					
044	030	Basal fill of linear feature					
045	N/A	Buried soil					

## **APPENDIX 2: Photographic Register**

Film 1: Colour and Digital

No	Description	From	Conditions
1-2	Pit <b>003</b> , west facing section	West	Sun
3-4	Pit <b>003</b> , post-excavation	NE	Sun
5-6	Rabbit burrow within the area of archaeological features	NE	Sun
7-8	Pit <b>007</b> , SE facing section	SE	Sun
9-10	Pit <b>007</b> , post-excavation	WNW	Sun
11-12	Pit <b>009</b> , north facing section	North	Sun
13-14	Pit <b>009</b> , post-excavation	West	Sun
15-16	Pit <b>012</b> , NE facing section	NE	Sun
17-18	Pit <b>012</b> , post-excavation	North	Sun
19-20	Pit 014, SE facing section	SE	Sun
21-22	Pit <b>014</b> , post-excavation	SE	Sun
23-24	Pit 016, SW facing section	SW	Sun
25-26	Pit <b>016</b> , post-excavation	SW	Sun
27-28	Patch of buried soil	WNW	Sun
29-30	Pit <b>020</b> , NW facing section	NW	Sun
31-32	Pit <b>020</b> , post-excavation	NW	Sun
33-34	Rig-and-furrow <b>023</b> , slot 1 SE facing section	SE	Sun
35-36	Rig and furrow <b>023</b> , slot 2 SE facing section	SE	Sun

Film 2: Colour and Digital

No	Description	From	Conditions
1-2	Linear <b>027</b> , Slot 1, east facing section	East	Sun
3-4	Linear <b>027</b> , Slot 2, west facing section	West	Sun
5-6	Linear 027, terminus at western end	West	Sun
7-10	Linear 030, Slot 1, west facing section	West	Sun
11-12	Linear <b>030</b> , Slot 3, west facing section	West	Sun
13-14	Linear 030, general shot showing terminus	West	Sun
15-16	Linear <b>030</b> , Slot 2, east facing section	East	Sun
17-18	Pit <b>032</b> , south facing section	South	Overcast
19-20	Pit <b>032</b> , post-excavation	SE	Sun
21-22	Pit 038, north facing section	North	Sun
23-24	Pit <b>038</b> , post-excavation	North	Sun
25-26	Linear <b>042</b> , SW facing section	SW	Sun
27-28	Linear 025, general shot	SW	Sun
29-30	Linear <b>025</b> and <b>042</b> , general shot showing the junction	NE	Sun
	between these two features		
31-32	Rig-and-furrow 023, general shot	South	Overcast
33-34	Rig-and-furrow 036, general shot	South	Overcast
35-37	Panorama of general site shots	NW	Overcast

## **APPENDIX 3: Drawings Register**

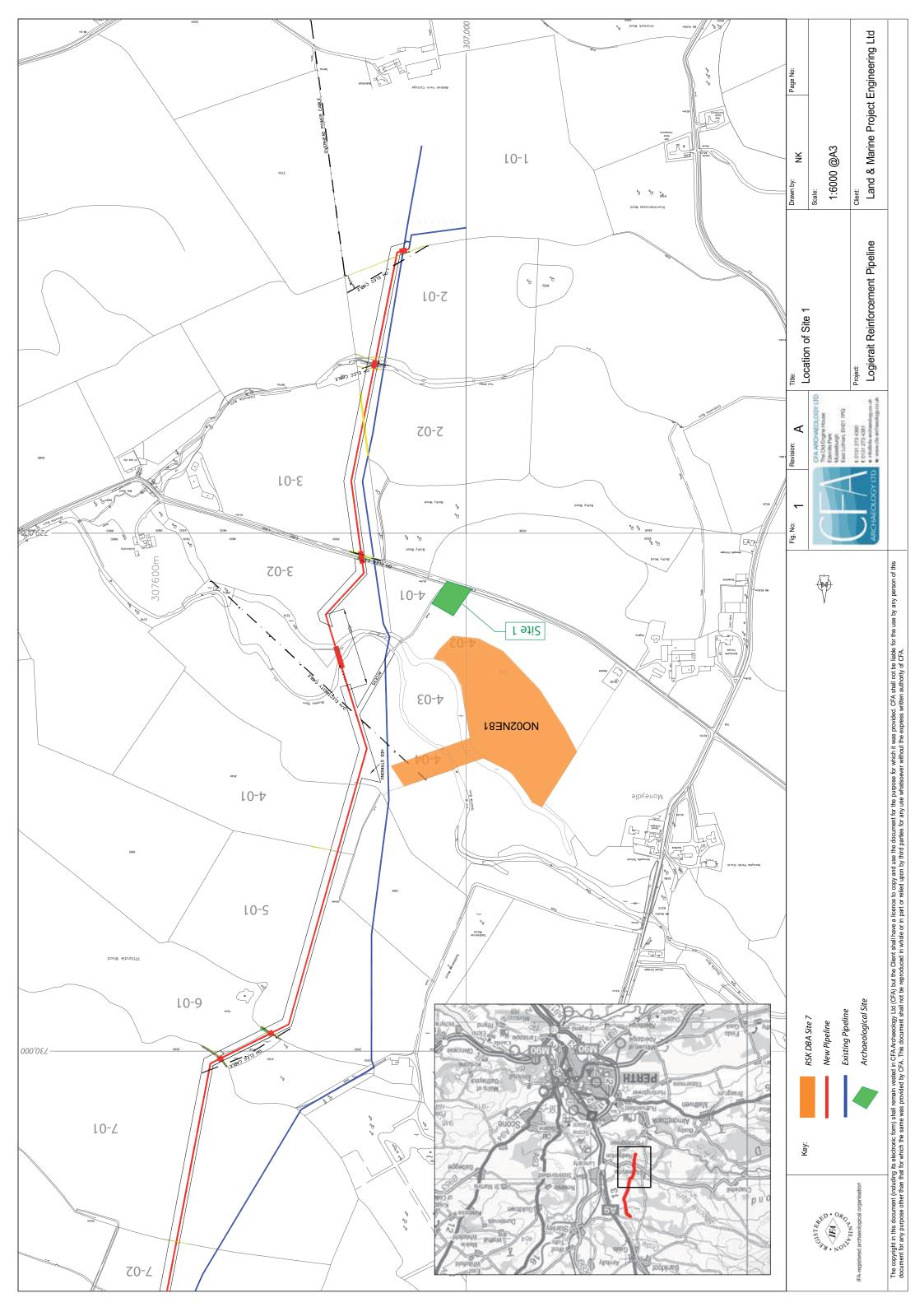
No	Description / Section	Sec / Plan	Scale
1	Pit <b>003</b> , NW facing section	Section	1:10
2	Pit <b>003</b> , post-excavation plan	Plan	1:20
3	Pit <b>007</b> , SE facing section	Section	1:10
4	Pit <b>007</b> , post-excavation plan	Plan	1:20
5	Pit <b>009</b> , north facing section	Section	1:10
6	Pit <b>009</b> , post-excavation plan	Plan	1:20
7	Pit <b>012</b> , NNE facing section	Section	1:10
8	Pit <b>012</b> , post-excavation plan	Plan	1:20
9	Pit 014, SE facing section	Section	1:10
10	Pit <b>014</b> , post-excavation plan	Plan	1:20
11	Pit 016, SW facing section	Section	1:10
12	Pit <b>016</b> , post-excavation plan	Plan	1:20
13	Pit <b>020</b> , NW facing section	Section	1:10
14	Pit <b>020</b> , post-excavation plan	Plan	1:20
15	Rig and furrow <b>023</b> , Slot 1, SE facing section	Section	1:20
16	Rig and furrow 023, Slot 1, plan	Plan	1:20
17	Linear <b>027</b> , Slot 1, east facing section	Section	1:10
18	Linear 027 and 030, post-excavation plan	Plan	1:50
19	Linear <b>027</b> , Slot 2, west facing section	Section	1:10
20	Linear 030, Slot 1, west facing section	Section	1:10
21	Linear 030, Slot 2, east facing section	Section	1:10
22	Linear 030, Slot 3, west facing section	Section	1:10
23	Pit 032, south facing section	Section	1:10
24	Pit <b>032</b> , post-excavation plan	Plan	1:20
25	Pit 038, north facing section	Section	1:10
26	Pit 038, post-excavation plan	Plan	1:20
27	Linear 042, SW facing section	Section	1:10
28	Linear 025 and 042, post-excavation plan	Plan	1:20
29	Linear <b>025</b> , SW facing section of field drain	Section	1:10

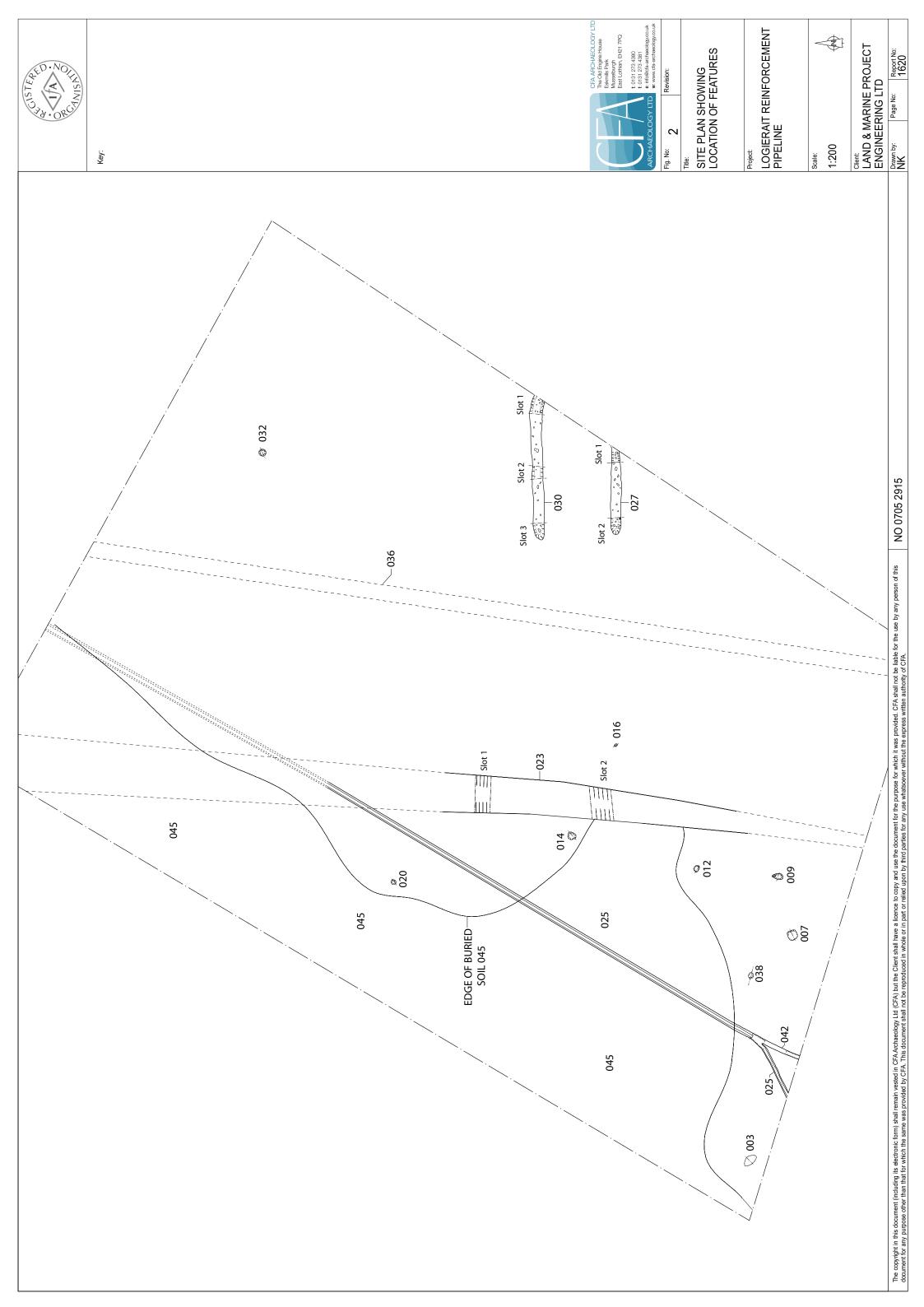
## **APPENDIX 4: Samples Register**

Sample no.	Context	Feature	Comment	Size
1	004	003	50%	10L
2	005	003	50%	10L
3	006	003	50%	10L
4	008	007	50%	12L
5	010	009	50%	10L
6	011	009	50%	12L
7	013	012	50%	10L
8	015	014	50%	12L
9	017	016	50%	10L
10	021	020	50%	10L
11	022	020	50%	10L
12	024	023	Bulk	12L
13	028	027	Bulk	12L
14	029	027	Bulk	12L
15	031	030	Bulk	12L
16	044	030	Bulk	12L
17	033	032	50%	12L
18	045	045	Bulk	12L
19	039	038	50%	10L
20	043	042	Bulk	12L

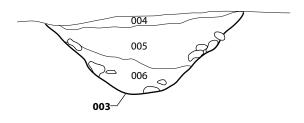
# **APPENDIX 5: Discovery and Excavation in Scotland Entry**

LOCAL AUTHORITY:	Perth & Kinross
PROJECT TITLE/SITE NAME:	Logierait Reinforcement Pipeline Phase 1, Pitcaringreen to Watermill, Perth & Kinross
PROJECT CODE:	STPI
PARISH:	Redgorton, Moneydie
NAME OF CONTRIBUTOR:	Helena Gray and Magnus Kirby
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Watching brief /Excavations
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	None
NGR (2 letters, 6 figures)	NO 07478 32449 to NO 07110 28454
START DATE (this season)	September 2008
END DATE (this season)	March 2009
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	An archaeological watching brief carried out during groundworks for a gas pipeline identified four archaeological sites, one of which was a group of pits containing prehistoric pottery, which possibly relates to prehistoric cropmarks located in the site's vicinity. Another site, a double-layered cobble surface is believed to relate to medieval/post-medieval agricultural practices, while the remaining site, three pits and two rubble spreads, contained no datable material but a soil sample was retained for analysis. A further site identified during the watching brief was initially preserved in situ until construction work had been completed before being excavated in March 2009. It consisted of a number of small pits, linear features and the vestigial traces of rig-and-furrow cultivation. These features might relate to cultivation remains, and a possible souterrain and unenclosed settlement that have been identified as cropmarks within the immediate vicinity. The lack of dating evidence means that it is not possible to ascertain to which period these features belong, but soil samples have been retained for analysis.
PROPOSED FUTURE WORK:	Post excavation analysis of soil samples
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Land and Marine Project Engineering Ltd
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, East Lothian, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	National Monuments Record for Scotland (NMRS)  Perth & Kinross Heritage Trust Sites and Monuments Record (SMR)









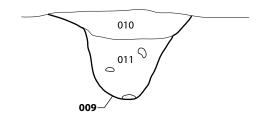


FIG 3.1 PIT 003, NORTH-WEST-FACING SECTION

FIG 3.2 PIT 009, NORTH-FACING-SECTION



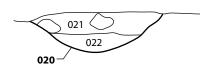
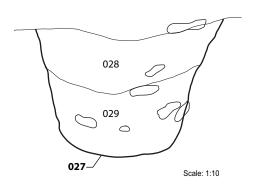


FIG 3.3 PIT 014, SOUTH-EAST-FACING SECTION

FIG 3.4 PIT 020, NORTH-WEST-FACING SECTION

Key:	Fig. No:	3	Revision:	Client: LAND & MARINE PROJECT ENGINEERING LTD		The	ARCHAEOLOGY LTD Old Engine House
	Title:	SECTION	NS OF PITS 00	3, 009, 014, 020		Mus	nills Park selburgh Lothian, EH21 7PQ
	Project:				ARCHAEOL	f: 01 e: inf	31 273 4380 31 273 4381 o@cfa-archaeology.co.uk
Scale: 0 500 mm	Í	LOGIERA	AIT REINFORC	EMENT PIPELINE	Drawn by:	Page No:	ww.cfa-archaeology.co.uk  Report No: 1620





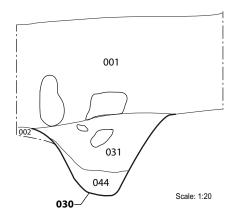
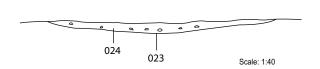


FIG 4.1 LINEAR 027 SLOT 1, EAST FACING SECTION

FIG 4.2 LINEAR 030 SLOT 1, WEST FACING SECTION



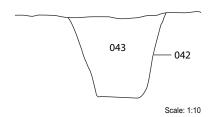


FIG 4.3 LINEAR 023, SLOT 1 SOUTH EAST FACING SECTION

FIG 4.4 LINEAR 042, SOUTH WEST FACING SECTION

Key:	Fig. No:	4	Revision:	Client: LAND & MARINE PROJECT ENGINEERING LTD		The C	ARCHAEOLOGY LTD Did Engine House
	Title:	Title: SECTIONS ACROSS LINEAR FEATURES, 027, 030, 023 AND 042				Muss East t: 013	Eskmills Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4380 f: 0131 273 4381
	Project:	LOGIERA	AIT REINFORC	EMENT PIPELINE	ARCHAEOL	OGYLID w:w	o@cfa-archaeology.co.uk ww.cfa-archaeology.co.uk
Scale:					Drawn by: NK	Page No:	Report No: 1620