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Geophysical Survey

Borders Railway Project Site 13,14 & 613 Archaeological Evaluation

Report no. 1998

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**Borders Railway Project
Archaeological Evaluation of Sites 13, 14 and 613.**

**Data Structure Report
No. 1998**

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Fig. 2 Location of evaluation trenches in Area 14

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Fig. 6 General shot of South side of Millerhill Road after backfilling

Fig. 7 Tr. 1 showing depth of ceramic field drain at base of trench

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Fig. 10 Post-ex shot of Tr. 20

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in November 2011. Site numbers relate to study specific numbers from the Environmental Statement.

The work was undertaken on Sites 13, 14 & 613. They are Longthorn Colliery (Sites 13 and 613) (NMRS No NT36NW 63 SMR No MEL 8407) and a building identified from early mapping (Site 14). The sites were spread over the North and South sides of Millerhill Road.

The Written Scheme of Investigation was based on mitigation measures approved by the East Lothian Council Archaeology Service which are identified in Table A4 in the *Cultural Heritage Management Plan* (Jones & Neighbour 2010). The area for evaluation is identified in the *Borders Railway Project Environmental Management System Manual* (McLuckie 2011). The area for evaluation was revised in the field as some of the area initially marked for evaluation will not be used in the final construction of the project.

1.2 Objectives

The objectives of the project were:

- to establish the presence/absence, extent, condition, character, quality and date of any archaeological features or deposits including any relating to Sites 13, 14 & 613 within the evaluation area;
- to establish their vulnerability to the proposed development;
- to propose mitigation measures where appropriate to avoid, reduce or offset any predicted negative impacts on the archaeological resource.

2. WORKING METHODS

2.1 General

Work was conducted with regard to the Institute for Archaeologists' (IfA) *Standard and Guidance for an Archaeological Evaluation and Code of Conduct*.

2.2 Evaluation Strategy

The total evaluation area was 44480m²: forty-eight trial trenches were opened in total which examined 2660m², c. 6% of the evaluation area. The work was undertaken over two phases the first being on the South side of Millerhill Road and second on the North side of Millerhill Road. Trench numbers, context registers and photographic registers were given duplicate numbers so they are identified in the appendices as being from either the North side of the road or the South side of the road.

The trenches were excavated by machine under direct archaeological supervision to remove topsoil and other soil deposits down to subsoil or the first significant archaeological horizon, whichever was reached first.

Samples of all features of archaeological interest were hand excavated in order to establish their likely date, nature, extent and condition.

All hand excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by digital photography and by completing standard CFA record forms.

Trench locations were recorded using industry standard surveying equipment and the trenches were backfilled on completion of recording.

3. ARCHAEOLOGICAL RESULTS

3.1 General

Appendix 1 contains a tabulated summary of trench dimensions and a list of the features encountered.

The trenches were evenly spread across the site however an area of standing water in the south east corner of the area to the South of Millerhill Road was avoided.

3.2 Evaluation – South side of Millerhill Road

Twenty three trenches (Fig. 1, Appendix 1) were excavated on the South side of Millerhill Road. No features of archaeological significance were identified

Plough scarring in the natural geology due to the shallow topsoil was seen across many of the trenches, (Fig. 3), these scars followed the direction seen in contemporary ploughing and crop planting.

Ceramic field drains were encountered in many of the trenches. The ceramic drains were encountered in most of the trenches at a depth of approximately 0.10m below the level of the natural geology and were thus not damaged by the trench excavation process, (Fig. 5).

3.3 Evaluation – North side of Millerhill Road

Twenty five trenches (Fig. 2, Appendix 1) were excavated on the North side of Millerhill Road. No features of archaeological significance were identified.

Areas of deliberate ground levelling were discovered in Trenches 2, 6, 20 and 21, These took the form of spreads of fine/small coal and crushed sandstone/brick deposits which levelled the topography where the natural dropped at a steep angle. Fragments of white ceramic and broken pieces of rusting metal were found within these deposits, (Fig. 9).

Plough scarring in the natural geology due to the shallow topsoil was seen across many of the trenches, these scars followed the direction seen in contemporary ploughing and crop planting on the topsoil surface, (Fig. 8).

Ceramic field drains were encountered in many of the trenches. The ceramic drains were encountered in most of the trenches at a depth of approximately 0.40m below the level of the natural geology and were thus not damaged by the trench excavation process, (Fig. 7).

4. CONCLUSIONS AND RECOMMENDATIONS

Overall, forty-eight trial trenches were excavated which covered 2660m² or c. 6% of the evaluation area. No features of archaeological significance were identified.

Based on the results of the evaluation CFA recommend that no further work is required; however, the responsibility for deciding the scope of any further work lies solely with East Lothian Council Archaeology Service.

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 reports will be lodged with the East Lothian Council Sites and Monuments Record.

A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland 2012*.

5. BIBLIOGRAPHY

Jones C and Neighbour T 2010 'Borders Railway Project: Cultural Heritage Management Plan' Version 5 Rev A

McLukie A 2011 'Borders Railway Project Environmental Management System Manual, Version 5 Rev A

APPENDIX 1: SUMMARY OF EVALUATION TRENCHES

South Side of Millerhill Road

Trench #	Trench Information
1	<p> Trench Size: 2m x 65m Trench Orientation: NNE-SSW Trench Depth: 0.30m Topsoil Depth: 0.30m No visible subsoil Topsoil sits on natural, field drains cut into natural Geology is brown stiff clay changing to orange-brown sandy clay after 40m to the south end One ceramic field drain 1m from the north end of the trench was exposed, cut into the natural at a depth of 0.10m. The drain was not broken or disturbed </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003 </p>
2	<p> Trench Size: 2m x 65m Trench Orientation: NNE-SSW Trench Depth: 0.20m – 0.30m Topsoil Depth: 0.20 - 0.30m No visible subsoil Topsoil sits on natural, field drains cut into natural Geology is brown stiff clay changing to orange-brown sandy clay after 40m to the south end One ceramic field drain was found in the north end of the trench, it is not the same one as Trench 1 but was at the same depth (0.10m) below natural. Drain was not broken/disturbed </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003 </p>
3	<p> Trench Size: 2m x 69m Trench Orientation: NNE-SSW Trench Depth: 0.30m – 0.40m Topsoil Depth: 0.30m-0.40m No visible subsoil Topsoil sits on natural, field drains cut into natural Geology is a yellowish brown sandy clay with occasional patches of gravel Ceramic field Drains are closer to the level of the natural in this trench with the tops of the drains flush with the level of the natural. Both drains are a narrower diameter than those in Trench 1 and 2. </p>

	<p>Both drains were not broken/disturbed</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003</p>
4	<p>Trench Size: 2m x 50m Trench Orientation: WSW-ENE Trench Depth: 0.35m – 0.40m Topsoil Depth: 0.33m – 0.38m No visible subsoil, topsoil sits on natural Topsoil sits on natural (0.02m visible) Geology is a yellowish brown sandy clay with few large sub round stones Layer of rubble debris approx 2m wide and 0.1m deep was found in the centre of the trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
5	<p>Trench Size: 2m x 10m Trench Orientation: E-W Trench Depth: 0.40m – 0.43m Topsoil Depth: 0.40m – 0.43m No visible subsoil Topsoil sits on natural Geology is orange-brown sandy clay with few medium sized sub round stones No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
6	<p>Trench Size: 2m x 25m Trench Orientation: E-W Trench Depth: 0.35m – 0.40m Trench Orientation: 0.33m – 0.38m No visible subsoil Topsoil sits on natural (0.02m visible), field drains cut into natural Geology is light to mid orange sandy clay with occasional gravel patches Ceramic field drains are cut into the natural at a depth of approximately 0.10m. Both drains have a narrow diameter and were not broken/disturbed</p>

	<p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p> <p>Field Drain – 003</p>
7	<p>Trench Size: 2m x 25m</p> <p>Trench Orientation: N-S</p> <p>Trench Depth: 0.45m – 0.50m</p> <p>Topsoil Depth: 0.41m – 0.46m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural (0.04m visible), field drain cut into natural</p> <p>Geology is light orange sandy clay</p> <p>One ceramic field drain, cut into the natural at a depth of 0.07m.</p> <p>Field drain not broken/disturbed</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p> <p>Field Drain - 003</p>
8	<p>Trench Size: 2m x 25m</p> <p>Trench Orientation: E-W</p> <p>Trench Depth: 0.40m – 0.45m</p> <p>Topsoil Depth: 0.36m – 0.41m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural (0.04m visible)</p> <p>Geology is orange brown sandy clay with occasional small patches of gravel</p> <p>No archaeology</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p>
9	<p>Trench Size: 2m x 25m</p> <p>Trench Orientation: NNE-SSW</p> <p>Trench Depth: 0.45m – 0.60m</p> <p>Topsoil Depth: 0.45m – 0.60m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural, field drains cut into the top of the natural</p> <p>Geology is light orange sandy clay with lighter coloured patches</p> <p>Five field drains in total were found, two visible, the other three were left under the topsoil because the field drains were flush with the top of the natural. The two that were visible were not broken/disturbed</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p> <p>Field Drain – 003</p>

10	<p> Trench Size: 2m x 25m Trench Orientation: N-S Trench Depth: 0.30m – 0.35m Topsoil Depth: 0.30m – 0.35m No visible subsoil Topsoil sits on natural Geology is orange brown sandy clay Plough scars are visible </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
11	<p> Trench Size: 2m x 25m Trench Orientation: NW-SE Trench Depth: 0.55m – 0.60m Topsoil Depth: 0.47m – 0.52m No visible subsoil Topsoil sits on natural (0.08m visible) Geology is orange brown sandy clay with occasional patches of gravel No archaeology </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
12	<p> Trench Size: 2m x 25m Trench Orientation: NE-SW Trench Depth: 0.30m – 0.35m Topsoil Depth: 0.30m – 0.35m No visible subsoil Topsoil sits on natural Geology is orange brown sand with occasional lenses of clay Plough scars visible </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
13	<p> Trench Size: 2m x 25m Trench Orientation: NW-SE Trench Depth: 0.30m – 0.45m Topsoil Depth: 0.28m – 0.43m No visible subsoil Topsoil sits on natural (0.02m visible) Geology is orange brown sandy clay with a lens of sand Plough scars visible </p>

	<p>Contexts in Trench Topsoil - 001 Natural - 002</p>
14	<p>Trench Size: 2m x 25m Trench Orientation: NNE-SSW Trench Depth: 0.30m-0.35m Topsoil Depth 0.30m-0.35m No visible subsoil Topsoil sits on natural, field drains cut into natural Geology is light orange brown sandy clay Two field drains, one exposed, one not. Both are not broken/disturbed</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003</p>
15	<p>Trench Size: 2m x 25m Trench Orientation: NW-SE Trench Depth: 0.30m – 0.40m Topsoil Depth: 0.27m – 0.37m No visible subsoil Topsoil sits on natural (0.03m visible) Geology is a light brown sand with occasional patches of lignite Trench appears to be situated on a sandy knoll</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
16	<p>Trench size: 2mx25m Trench Orientation: NW-SE Trench Depth: 0.25m -0.30m Topsoil depth: 0.25m-0.30m No visible subsoil Topsoil sits on natural Geology is light orange-brown sandy clay One field drain, not exposed, cut filled with lighter clay</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003</p>
17	<p>Trench size: 2mx25m Trench orientation: NE-SW</p>

	<p>Trench depth: 0.35m-0.40m Topsoil depth: 0.35m-0.40m No visible subsoil Topsoil sits on natural Geology is orange brown sandy clay No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
18	<p>Trench size: 2mx25m Trench orientation: E-W Trench depth: 0.30m Topsoil depth: 0.3m No visible subsoil Topsoil sits on natural Geology is a fine yellow/brown sand changing to a coarse brown sand at the eastern end of the trench No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
19	<p>Trench size: 2mx25m Trench orientation: E-W Trench depth: 0.25m-0.35m Topsoil depth: 0.25m-0.35m No visible subsoil Topsoil sits on natural Geology is yellow/brown coarse sand, eastern end of trench is yellow/brown clay Plough scars visible across trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
20	<p>Trench size: 2mx35m Trench orientation: NW-SE Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible topsoil Topsoil sits on natural Geology is yellow/brown sandy clay which changes to yellow/brown clay at the NE end of the trench One field drain at a depth of 0.12m from top of natural</p> <p>Contexts in Trench</p>

	Topsoil - 001 Natural - 002 Field Drain – 003
21	Trench size: 2mx25m Trench orientation: E-W Trench depth: 0.45m-0.60m Topsoil depth: 0.45m-0.60m No visible subsoil Topsoil sits on natural Geology is an orange/brown sandy clay with rare large sub-rounded sandstone (one was 1m in length) Plough scars visible along the trench. One field drain at a depth of 0.10m Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003
22	Trench size: 2mx25m Trench orientation: NW-SE Trench depth: 0.20m-0.30m Topsoil depth: 0.20m-0.30m No visible subsoil Topsoil sits on natural Geology is mid. Brown sandy clay with flecks of coal and lignite throughout No archaeology Contexts in Trench Topsoil - 001 Natural - 002
23	Trench size: 2mx15m Trench orientation: E-W Flat ground Ground is arable land with grass and wheat/barley stubble across its length Trench depth: 0.30m Topsoil depth: 0.30m No visible subsoil Topsoil sits on natural Geology is orange/yellow sand with patches of natural lignite Plough scarring visible in trench Contexts in Trench Topsoil - 001 Natural - 002

North Side of Millerhill Road

Trench #	Trench Information
1	<p> Trench size: 2mx40m Trench orientation: NE-SW Trench depth: 0.40m-0.45m Topsoil depth: 0.40m-0.45m No visible subsoil Topsoil sits on natural Geology is a mid-brown sandy clay changing to a yellow/brown sandy clay at the SW end of the trench Six Field Drains were uncovered, ceramic drains are at a depth of 0.35m-0.40m from the top of the natural </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003 </p>
2	<p> Trench size: 2mx40m Trench orientation: NE-SW Trench depth: 0.30m-1.15m Topsoil depth: 0.30m-0.40m No visible subsoil Topsoil sits on natural for first 15m for the NE end after that a step in the natural is filled first by a 0.60m deep layer of broken stone, 005 then a 0.60m layer of compact, fine coal debris, 004 Geology is yellow/brown sandy clay with yellow/brown sand patches at the SW end of the trench One Field Drain at a depth of 0.35m from the top of the natural was uncovered, drain is possibly a continuation of one uncovered in Tr.1. Layers 005 and 005 are used to level the areas topography </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003 Coal debris ground levelling layer - 004 Broken stone ground levelling layer - 005 </p>
3	<p> Trench size: 2mx25m Trench orientation: NE-SW Trench depth: 0.40m-0.45m Topsoil depth: 0.40m-0.45m No visible subsoil Topsoil sits on natural Geology is yellow/brown sandy clay </p>

	<p>Three field drains</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain – 003</p>
4	<p>Trench size: 2mx25m Trench orientation: N-S Trench depth: 0.25m-0.40m Topsoil depth: 0.25m-0.40m No visible subsoil Topsoil sits on natural Geology is mid-brown coarse sandy clay with patches of lignite No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
5	<p>Trench size: 2mx25m Trench orientation: NW-SE Trench depth: 0.30m Topsoil depth: 0.30m No visible subsoil Topsoil sits on natural Geology is yellow/brown sand Plough scars visible across the trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
6	<p>Trench size: 2mx25m Trench orientation: NE-SW Trench depth: 0.30m-0.60m Topsoil depth: 0.30m-0.60m No visible subsoil For the first 10m for the NE the topsoil sits on natural then a step in the natural is filled by a 0.60m deep layer 006 of broken and crushed sandstone and brick Geology is a yellow/brown sand Plough scars visible across the trench with layer 006 levelling the areas topography</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Broken stone and brick debris ground levelling layer - 006</p>

7	<p> Trench size: 2mx25m Trench orientation: NE-SW Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural Geology is a loose orange/brown sand No archaeology </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
8	<p> Trench size: 2mx25m Trench orientation: NW-SE Trench depth: 0.40m-0.65m Topsoil depth: 0.30m-0.55m No visible subsoil Topsoil sits on natural Geology is an orange/brown sand for the first 6m of the NW end of the trench then bands of yellow/brown and grey clay with patches of lignite and degrading stones No archaeology </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
9	<p> Trench size: 2mx25m Trench orientation: N-S Trench depth: 0.40m-0.70m Topsoil depth: 0.40m-0.45m No visible subsoil Topsoil sits on natural Geology is a light yellow/brown sandy clay with a strip of lignite running across the S end of the trench Plough scarring across the trench </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
10	<p> Trench size: 2mx25m Trench orientation: NNW-SSE Trench depth: 0.40m-0.45m Topsoil depth: 0.40m-0.45m No visible subsoil Topsoil sits on natural Geology is a light yellow/brown sand No archaeology </p>

	<p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p>
11	<p>Trench size: 2mx25m</p> <p>Trench orientation: N-S</p> <p>Trench depth: 0.30m-0.35m</p> <p>Topsoil depth: 0.30m-0.35m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural</p> <p>Geology is light to mid orange/brown sandy clay</p> <p>Plough scars visible across trench, two rubble drains exposed but not damaged</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p>
12	<p>Trench size: 2mx25m</p> <p>Trench orientation: NNE-SSW</p> <p>Trench depth: 0.30m-0.40m</p> <p>Topsoil depth: 0.30m-0.40m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural</p> <p>Geology is light to mid orange/brown sandy clay</p> <p>Plough scars visible across the trench, one field drain</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p> <p>Field Drain - 003</p>
13	<p>Trench size: 2mx25m</p> <p>Trench orientation: N-S</p> <p>Trench depth: 0.50m-0.65m</p> <p>Topsoil trench: 0.50m-0.65m</p> <p>No visible subsoil</p> <p>Topsoil sits on natural</p> <p>Geology is mid orange/brown sandy clay with occasional sandstone blocks</p> <p>No archaeology</p> <p>Contexts in Trench</p> <p>Topsoil - 001</p> <p>Natural - 002</p>
14	<p>Trench size: 2mx25m</p> <p>Trench orientation: N-S</p> <p>Sloping ground to the N</p>

	<p>Ground is arable land with wheat/barley stubble across its length Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural Geology is mid brown coarse sand with patches of lignite No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
15	<p>Trench size: 2mx25m Trench orientation: NE-SW Trench depth: 0.40m-0.45m Topsoil depth: 0.38m-0.43m No visible subsoil Topsoil sits on natural Geology is light to mid orange/brown coarse sand that turns to sandy clay at the NE of the trench One field drain</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003</p>
16	<p>Trench size: 2mx25m Trench orientation: NE-SW Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural Geology is orange/brown sandy clay turning to gravel in the NE of the trench One field drain</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003</p>
17	<p>Trench size: 2mx25m Trench orientation: E-W Trench depth: 0.30m-0.50m Topsoil depth: 0.32m-0.47m No visible subsoil Topsoil sits on natural Geology is orange/brown sandy clay One field drain at a depth of 0.33m from the top of the natural</p>

	<p>and two rubble drains meet at a right angle at the N end of the trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003</p>
18	<p>Trench size: 2mx25m Trench orientation: NNE-SSW Trench depth: 0.30m-0.40m Topsoil depth: 0.30m-0.40m No visible subsoil Topsoil sits on natural Geology is orange/brown sandy clay No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
19	<p>Trench size: 2mx25m Trench orientation: NNE-SSW Trench depth: 0.40m-0.50m Topsoil depth: 0.40m-0.50m No visible subsoil Topsoil sits on natural Geology is light to mid orange/brown sandy clay One field drain</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Field Drain - 003</p>
20	<p>Trench size: 2mx25m Trench orientation: N-S Trench depth: 0.40m-0.50m Topsoil depth: 0.40m-0.50m No visible subsoil Topsoil sits on natural Geology is light to mid orange/brown fine sand Plough scars visible across the trench, a 0.36m deep layer of modern debris appears at the N end of the trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
21	<p>Trench size: 2mx25m</p>

	<p> Trench orientation: NNE-SSW Trench depth: 0.30m-0.75m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural and 007 Geology is an orange/brown sand A layer of coal 007 is used to level of the topography in a shallow, 010m-040m, natural depression which runs for 15m along the trench </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 Coal levelling layer - 007 </p>
22	<p> Trench size: 2mx25m Trench orientation: NNE-SSW Trench depth: 0.25m-0.35m Topsoil depth: 0.25m-0.35m No visible subsoil Topsoil sits on natural Geology is an orange/brown fine sand No archaeology </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
23	<p> Trench size: 2mx25m Trench orientation: ENE-WSW Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural Geology is mid orange/brown coarse sand with patches of lignite Plough scars visible across the trench </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>

24	<p> Trench size: 2mx25m Trench orientation: E-W Trench depth: 0.30m-0.35m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on natural Geology is light to mid yellow/brown sandy clay Plough scars visible across the trench, one field drain </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>
25	<p> Trench size: 2mx20m Trench orientation: N-S Trench depth: 0.30m-0.33m Topsoil depth: 0.30m-0.33m No visible subsoil Topsoil sits on natural Geology is orange/brown fine sand No archaeology </p> <p> Contexts in Trench Topsoil - 001 Natural - 002 </p>

APPENDIX 2: PHOTOGRAPHIC REGISTER

South Side of Millerhill Road

Digital Shot	Description	From	Conditions
1	Entranceway looking towards road		Bright
2	Entrance gates looking towards road		Bright
3	Gatepost Detail		Bright
4	Gatepost Detail		Bright
5	Entranceway to road after machine has passed		Bright
6	Trench 1 Post-Ex	NNE	Bright
7	Field Drain Detail in Trench 1	NNE	Bright
8	Trench 2 Post-Ex	NNE	Bright
9	Field Drain Detail in Trench 2	NNE	Bright
10	Trench 3 Post-Ex	NNE	Bright
11	Field Drain Exposed but undamaged	NNE	Bright
12	Trench 4 Post-Ex	W	Bright
13	Trench 5 Post-Ex	W	Bright
14	Trench 6 Post-Ex with Field Drain in the foreground	E	Bright
15	Field Drain Detail Trench 6	W	Bright
16	Trench 7 Post-Ex	S	Bright
17	Field Drain Detail, intact	S	Bright
18	Trench 9 Post-Ex showing high areas with field drains	N	Bright
19	Trench 9 Field Drain exposed but intact	N	Bright
20	Trench 10 Post-Ex	S	Bright
21	Trench 11 Post-Ex	N	Bright
22	Trench 12 Post-Ex, showing visible plough scars	N	Bright
23	Trench 13 Post-Ex	N	Bright
24	Trench 14 Post-Ex	N	Bright
25	Trench 14 Field Drain exposed but intact	N	Bright
26	Trench 14 Field Drain cut exposed, drain not visible	N	Bright
27	Trench 16 Post-Ex	N	Bright
28	Trench 17 Post-Ex	N	Bright
29	Trench 18 Post-Ex	W	Cloudy
30	Trench 19 Post-Ex	W	Cloudy
31	Trench 20 Post-Ex	SE	Cloudy
32	Trench 20 Field Drain detail, intact	SE	Cloudy
33	Trench 21 Post-Ex	W	Cloudy
34	Trench 21 Field Drain detail, intact	W	Cloudy
35	Trench 22 Post-Ex	SE	Cloudy
36 to 38	General shots of field showing backfilled trenches		Cloudy
39	trench 23 Post-Ex	E	Cloudy
40	Road After Final Cleaning		Cloudy

North Side of Millerhill Road

Digital Shot	Description	From	Conditions
1	Kitted out in protective suit	S	Cloudy
2	Trench 1 Post-Ex	SW	Cloudy
3	Trench 1 Deep Field Drain	SW	Cloudy
4	Trench 2 West facing section showing made ground	W	Cloudy
5	Trench2 Detail of made ground	W	Cloudy
6	Trench 2 Deep Field Drain	W	Cloudy
7	Trench 2 Post-Ex	W	Cloudy
8	Trench 4 Post-Ex	NE	Cloudy
9	Trench 5 Post- Ex	N	Cloudy
10	Trench 6 Post-Ex	SW	Cloudy
11	Trench 7 Post-Ex	W	Cloudy
12	Trench 7 Made ground in South facing section	N	Cloudy
13	Trench 7 Detail of made ground in South section	N	Cloudy
14	Trench 8 Post-Ex	SE	Very Sunny
15	Trench 9 Post-Ex	S	Very Sunny
16	Trench 9 Post-Ex shot of section through natural band at South end	S	Very Sunny
17	Trench 9 Detail of band of natural coal/lignite at North end	NW	Very Sunny
18	Trench 9 Shot of bands of lignite at North end of trench	NW	Very Sunny
19	Trench 9 Detail of band of natural coal/lignite at North end	NW	Very Sunny
20	Trench 10 Post-Ex	SE	Very Sunny
21	Trench 11 Post-Ex	S	Very Sunny
22	Trench 12 Post-Ex	S	Very Sunny
23	Trench 13 Post-Ex	S	Very Sunny
24	Trench 14 Post-Ex	SSW	Very Sunny
25	Trench 15 Post-Ex	SW	Very Sunny
26	Trench 15 Field Drain Undamaged	NW	Very Sunny
27	Trench 16 Post-Ex	SW	Very Sunny
28	Trench 16 Drain Feature	NE	Very Sunny
29	Trench 17 Post-Ex	W	Very Sunny
30	Trench 17 Section through deep drain feature	SE	Very Sunny
31	Trench 17 Rubble Drains at East end of trench	S	Very Sunny
32	Trench 18 Post-Ex showing natural lignite	S	Very Sunny
33	Trench 19 Post-Ex	S	Very Sunny
34	Trench 20 Post-Ex	SE	Cloudy
35	Trench 20 East facing section with buried topsoil levelling	E	Cloudy
36	Trench 20 Detail of topsoil levelling	E	Cloudy
37	Trench 21 Post-Ex	S	Cloudy

38	Trench 21 West facing section, coal lens context 007	SW	Cloudy
39	Trench 21 Detail showing context 007	W	Cloudy
40	Trench 22 Post-Ex	SSE	Cloudy
41	Trench 23 Post-Ex, Plough scars visible	W	Cloudy
42	Trench 24 Post-Ex, Plough scars visible	WNW	Cloudy
43	Trench 25	S	Cloudy
44	General back fill shot of site	S	Cloudy
45	General back fill shot of site	S	Cloudy

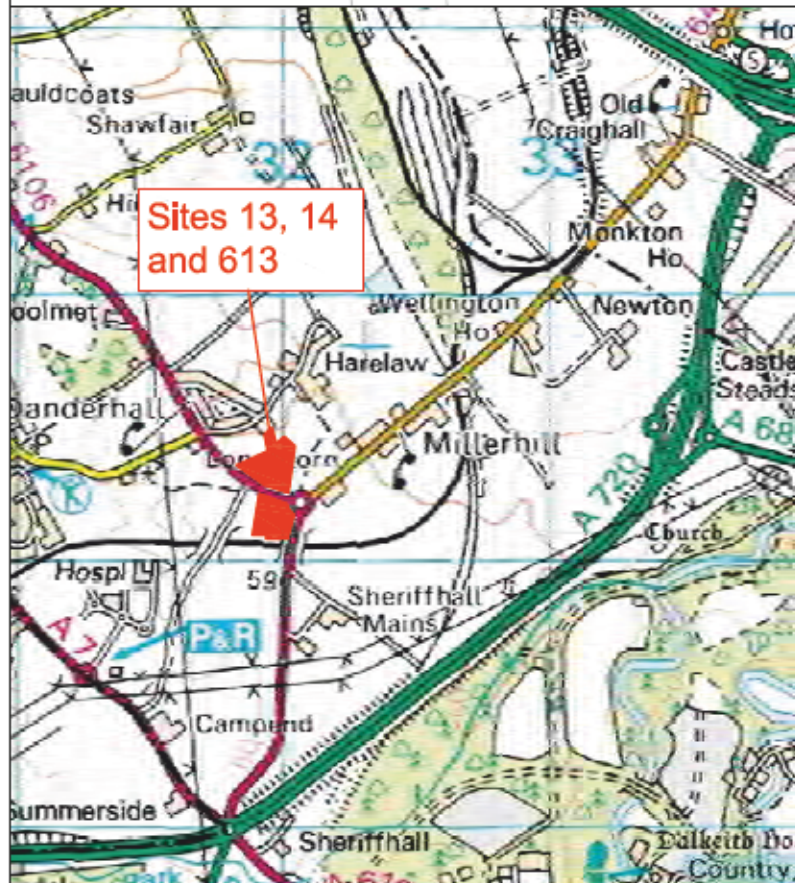
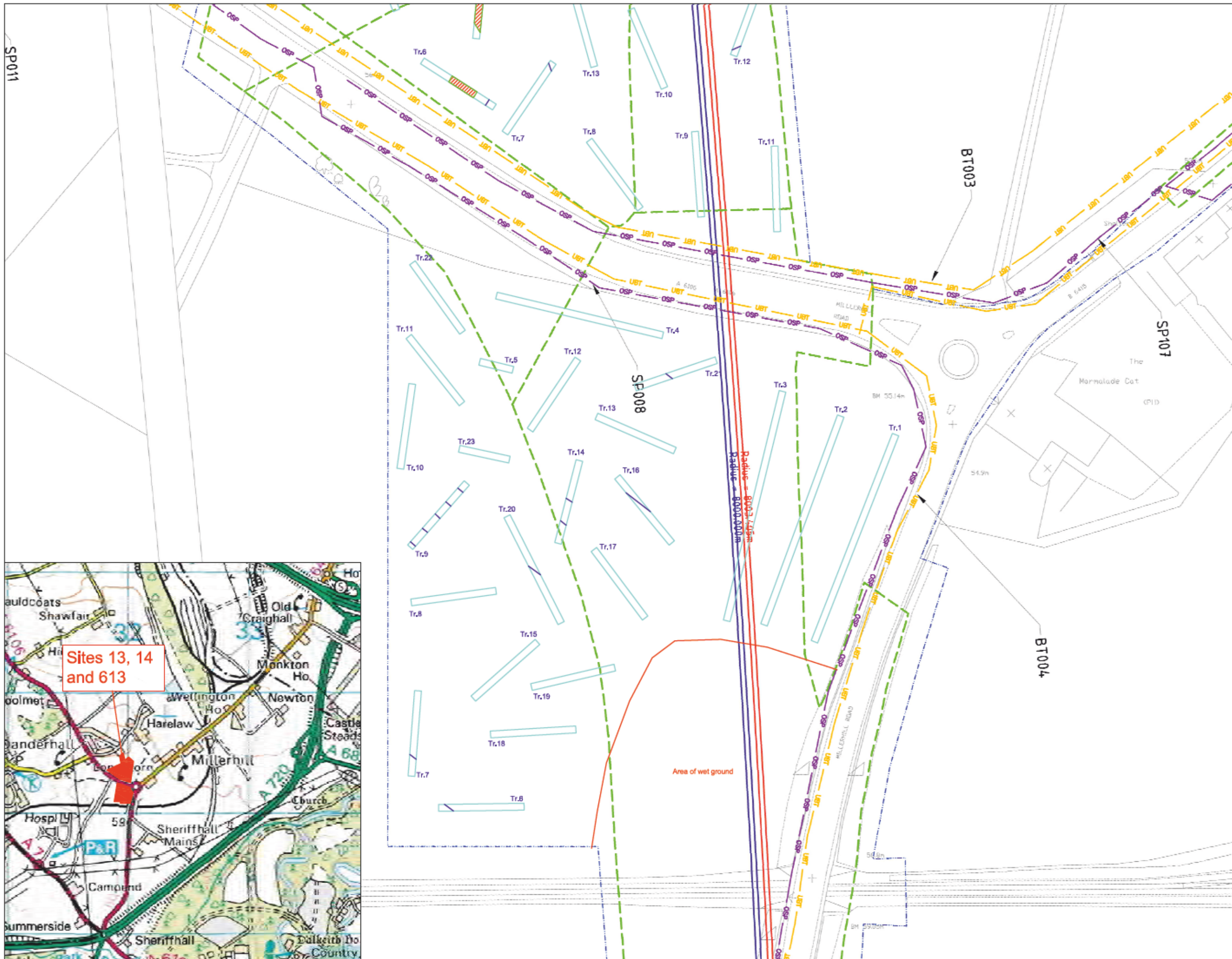
APPENDIX 3: CONTEXT REGISTER

South Side of Millerhill Road

Context	Description
001	topsoil
002	Natural, sandy clay or sand
003	Ceramic field drains, found in various trenches

North Side of Millerhill Road

Context	Description
001	Topsoil
002	Natural
003	Ceramic field drains in various trenches
004	Black coal layer infill of natural depression, over 005
005	Broken stone debris infill, under 004
006	Crushed stone and brick infill of natural depression
007	Black coal lens layer as infill of natural depression



Key:

- evaluation trenches
- field drains



Fig. No: 1 Revision: A

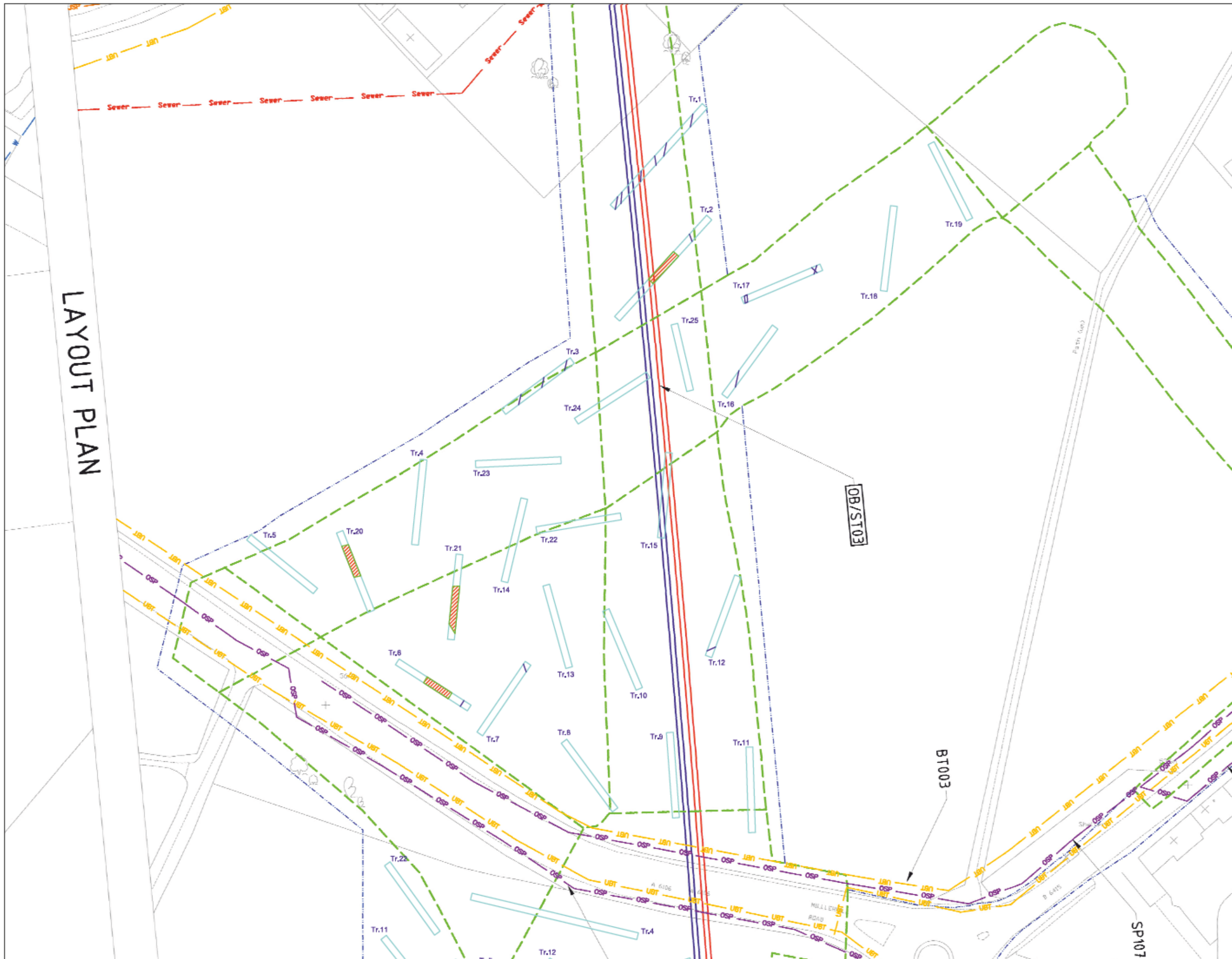
Title:
Site location and location of
evaluation trenches on south
side of road

Project:
Borders Railway Project,
Sites 13, 14 & 613 Evaluation

Client:
ERM Ltd per Transport
Scotland

Scale at A3:
1:1000

Drawn by: GC
Checked: LW
Report No: 1998



Key:

- evaluation trenches
- field drains
- made ground



Fig. No: 2 Revision: A

Title:
Evaluation trench location on north side of road

Project:
Borders Railway Project,
Areas 13,14 & 613 Evaluation

Client:
ERM Ltd per Transport
Scotland

Scale at A3:
1:1000





Fig. 3 Tr. 12 showing modern plough scarring from the north



Fig. 4 Tr. 17 post-ex from the north



Fig. 5 Depth of ceramic field drain in the base of Tr.6

Key:

Scale at A4:

Fig. No: 3-5 Revision: A Client: ERM Ltd *per* Transport Scotland

Title:

Project:

Borders Railway Project, Areas 13 & 14
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Checked:

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Report No:

1998



Fig. 6 General shot of South side of Millerhill Road after backfilling



Fig. 7 Tr. 1 showing depth of ceramic field drain at base of trench



Fig. 8 Post-ex shot of Tr. 6 showing modern plough scarring


Key:	Fig. No:	6-8	Revision:	A	Client:	ERM Ltd <i>per</i> Transport Scotland			 <div>CFA ARCHAEOLOGY LTD The Old Engine House Edinboro Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4360 f: 0131 273 4361 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk</div>
	Title:								
Scale at A4:	Project:						Drawn by: GC Checked: LW Report No: 1998		
	Borders Railway Project, Areas 13 & 14 Evaluation								



Fig. 9 South-facing section in Tr. 6 showing made ground consisting of crushed sandstone and brick



Fig. 10 Post-ex shot of Tr. 20

Key:

Scale at A4:

Fig. No: 9-10 Revision: A Client: ERM Ltd *per* Transport Scotland

Title:

Project:

Borders Railway Project, Areas 13 & 14
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