

Llanwrin to Dolgellau Gas Pipeline Replacement



Archaeological Watching Brief Report



October 2012

Client: PPS Pipeline Systems

Issue No: 1

OA Job No: 5286

NGR: SH75 0043



Client Name: PPS Pipeline Systems on behalf of
Wales and West Utilities Ltd.

Client Ref No:

Document Title: Llanwrin to Dolgellau Gas Pipeline Replacement

Document Type: Watching Brief Report

Issue/Version Number: 1

Grid Reference: NGR: SH 750 043

Planning Reference:

OA Job Number: 5286


Site Code: WAGAS12

Invoice Code: WAGASWB

Receiving Museum: Powysland Museum; Gwynnedd Museum and RCHW

Museum Accession No:

Public Record No:

Issue	Prepared by	Checked by	Approved by	Signature
1	Mark Dodd Supervisor	Stuart Foreman Senior Project Manager	Stuart Foreman Senior Project Manager	

Document File Location T:\Llanwrin to Dolgellau Gas Pipeline\002Reports\Client Report\
Graphics File Location O:\W_codes\WAGASWB
Illustrated by Julia Collins and Matt Bradley

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

© Oxford Archaeological Unit Ltd 2012

Janus House

Osney Mead

Oxford OX2 0ES

t: +44 (0) 1865 263800

e: oasouth@thehumanjourney.net

f: +44 (0) 1865 793496

w: oasouth.thehumanjourney.net

Oxford Archaeological Unit Limited is a Registered Charity No: 285627



Llanwrin to Dolgellau Gas Pipeline Replacement

Archaeological Watching Brief Report

Written by Mark Dodd, illustrated by Julia Collins

Table of Contents

1 Introduction.....	5
1.1 Scope of work.....	5
1.2 Location, geology and topography.....	5
1.3 Archaeological and historical background.....	5
2 Project Aims.....	7
2.1 General aims.....	7
2.2 Specific aims and objectives.....	7
3 Project Specific Methodology.....	8
3.1 Watching brief methodology and conditions.....	8
3.2 Historic landscape features.....	9
3.3 Palaeo-environmental and geoarchaeological mitigation.....	10
4 Fieldwork Results.....	10
4.1 Distribution of archaeological features.....	10
4.2 Field 1/5.....	10
4.3 Field 4/1.....	10
4.4 Field 4/3.....	10
4.5 Field 7/6.....	11
4.6 Field 7/12.....	11
4.7 Field 9/2.....	11
4.8 Field 9/6.....	11
4.9 Field 9/10.....	12
4.10 Field 9/21.....	12
4.11 Field 9/26.....	12
4.12 Field 9/27.....	13



4.13	Field 9/28.....	13
4.14	Field 10/1.....	13
4.15	Field 10/10.....	14
4.16	Field 16/2.....	14
4.17	Field 19/5.....	14
4.18	Field 20/3.....	14
4.19	Field boundaries.....	14
4.20	Other historic landscape features.....	15
4.21	Roman roads.....	15
4.22	Mill race.....	15
5	Artefacts.....	16
5.1	Introduction.....	16
5.2	Metal finds by Ian R Scott.....	16
5.3	Glass by Ian R Scott.....	16
5.4	Worked stone by Ruth Shaffrey.....	16
5.5	Worked flint by Geraldine Crann.....	17
6	Environmental Remains.....	18
6.1	Assessment of possible cremation burial (context 6008) by Julia Meen.....	18
6.2	Results of hand auger survey by Carl Champness and Elizabeth Stafford.....	18
7	Discussion and conclusions.....	20
7.1	Reliability of results.....	20
7.2	Significant archaeological results.....	20
8	References.....	21
	Appendix A. Summary of Site Details.....	22
	Appendix B. Boundary Register.....	23
	Appendix C. Hand Auger Sample Logs.....	24
	Appendix D. Field Completion Record	25
	Appendix E. Context Inventory.....	26



List of Tables

Table 1: Location of auger samples

Table 2: Results of radiocarbon dating

List of Figures

Fig.1 Site location

Fig.2 Route map showing location reference numbers and archaeological site and feature locations (sheet 1)

Fig.3 Route map showing location reference numbers and archaeological site and feature locations (sheet 2)

Fig.4 Route map showing location reference numbers and archaeological site and feature locations (sheet 3)

Fig.5 Route map showing location reference numbers and archaeological site and feature locations (sheet 4)

Fig.6 Route map showing location reference numbers and archaeological site and feature locations (sheet 5)

Fig.7 Route map showing location reference numbers and archaeological site and feature locations (sheet 6)

Fig.8 Route map showing location reference numbers and archaeological site and feature locations (sheet 7)

Fig.9 Route map showing location reference numbers and archaeological site and feature locations (sheet 8)

Fig.10 Route map showing location reference numbers and archaeological site and feature locations (sheet 9)

Fig.11 Route map showing location reference numbers and archaeological site and feature locations (sheet 10)

Fig.12 Route map showing location reference numbers and archaeological site and feature locations (sheet 11)

Fig.13 Location of auger samples in Fields 12/1 and 12/2

Fig.14 Sections 1014, 6001, 6002, 6003 and 6120

Fig.15 Sections 7004, 7010 and 8004



Summary

A watching brief was undertaken along the 23.5 km route of a gas pipeline through mountainous terrain in mid-Wales, passing through Powys, Gwynedd and Snowdonia National Park. The landscape is very varied, including the Afon Dulas and Afon Llefenni river valleys, the Mynydd Gwerngraig and Cadair Idris uplands, the Afon Wnion river valley as well as hill areas around Dolgellau.

Very little significant archaeology was encountered. A single possible prehistoric or Roman cremation burial was identified, but its date and identification as a human burial remain uncertain.

Other features identified were few in number and either undated or demonstrably of modern date. The latter included a mill race, structures within a flint quarry and buried footings associated with a sheepfold.

The possible lines of Roman Roads between Brithdir (Dolgellau), Cefn Caer Roman fort at Pennal (Machynlleth) and Ffestiniog were investigated at seven locations. At six locations former or current tracks were observed as eroded hollow-ways, but revealed no evidence that could shed light on the early origins of these routeways.

A survey of historic boundaries was undertaken to record the profiles of potentially significant boundaries and attempt to recover dating evidence for the origins of the field boundary systems crossed by the pipeline route. No significant dating evidence was recovered.

A series of hand auger samples was recovered to assess the palaeoenvironmental potential of relatively shallow surface peat deposits encountered at several locations along the route. None of the sequences were suitable for further analysis – Modern radiocarbon results were obtained from one of the sequences, which could reflect the recent origin of the peat, or contamination, possibly caused by bioturbation. None of the peat sequences were associated with archaeological remains.



1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA), was commissioned by PPS Pipeline Systems to undertake a Watching Brief on the site of a gas pipeline replacement works and the related off-easement activities.
- 1.1.2 The work was undertaken in accordance with a Technical Brief prepared by RSK Environment Ltd, on behalf of Wales and West Utilities Ltd, detailing the Local Authority's recommendations for archaeological work required to mitigate the impact of the scheme on the historic environment. The development was located within Snowdonia National Park, Gwynedd and Powys and was undertaken in consultation with the Archaeological Curators for these Planning Authorities. These are John Roberts for Snowdonia National Park Authority (NSPA), Jenny Emmett and Ashley Batten for Gwynedd Archaeological Trust (GAT), and Mark Walters for Clwyd-Powys Archaeological Trust (CPAT). OA prepared a Written Scheme of Investigation (WSI) detailing the archaeological methods to be used, which was also approved by the curators.
- 1.1.3 All work was undertaken in accordance with local and national planning policies, Management of Research Projects in the Historic Environment (MoRPHE, English Heritage 2006), the Research Framework for the Archaeology of Wales, and the standards and guidelines produced by the Institute for Archaeologists (IfA).

1.2 Location, geology and topography

- 1.2.1 The route of the development extended approximately 23.5 km from south to north from Llanwrin to Dolgellau (Figs. 1 - 13).
- 1.2.2 The route passed through a varied landscape including the Afon Dulas and Afon Llefenni river valleys, the Mynydd Gwerngraig and Cadair Idris uplands, the Afon Wnion river valley as well as hill areas around Dolgellau. The topography was extremely variable and ranged between 10m and 400m above Ordnance Datum (aOD) (RSK Environment Ltd, February 2012).
- 1.2.3 The solid geology of the area is largely mudstone, with alluvium present in river valleys. Drift deposits on the route include areas of Devensian Till and peat (Geology of Britain Viewer, British Geological Survey). The presence of igneous intrusions is highlighted in the Geophysical Survey report for the route (Bartlett-Clark Consultancy; 2010).

1.3 Archaeological and historical background

- 1.3.1 The archaeological and historical background to the site has been described in detail in Section 9 of the Llanwrin to Dolgellau Pipeline Replacement Environmental Statement, (RSK Environment Ltd) and is summarised briefly below.
- 1.3.2 The Archaeology and Cultural Heritage section of the Environmental Statement draws on evidence from the Archaeological Desk-Based Assessment (ADBA), Archaeological Field Reconnaissance Survey (AFRS) and a route-wide geophysical Survey (Bartlett-Clark Consultancy 2010).
- 1.3.3 Trial trenching was subsequently carried out to investigate possible significant archaeological sites (Wessex Archaeology December 2011). Thirty-two trenches were



excavated as part of the two phases of evaluation works undertaken in October and November 2011. These were mainly targeted on geophysical anomalies identified during the geophysical survey of the route, although a small number investigated potential features identified on aerial photographs. These targeted trenches identified a small number of archaeological features, the majority of which were undated, post-medieval or modern in date. No new significant concentrations of archaeological remains were found.

- 1.3.4 Charred hazelnut shells from two small discrete and otherwise undated features from Trench 20 (Plot 9/20) and Trench 32 (Plot 1/5) were submitted for radiocarbon-dating following the completion of the trial trenching, as these were considered as potential evidence for activity during the Mesolithic or Neolithic periods. However, the results of the dating placed the material into the early historic period (cal AD. 680-890 (1225±35 BP, SUERC-38162).
- 1.3.5 The survey findings and archaeological potential are summarised in the Technical Brief (RSK Environment Ltd, February 2012), as follows:
- The route corridor did not contain any archaeological remains dating to the Palaeolithic or Mesolithic and potential for the discovery of Palaeolithic or Mesolithic archaeological evidence was considered low to negligible.
 - The route corridor did not contain any archaeological remains dating to the Neolithic period but as activity from this period is known in the wider area the potential was assessed as low.
 - There is evidence of Bronze Age settlement and ritual activity at Maes-coch, Pentre Farm and Ffridd leading to an assessment of high potential for further Bronze Age evidence in the area north of Dolgellau. Other areas along the route were considered to have low potential for Bronze Age sites.
 - There are fewer identified Iron Age sites along the route but the evidence suggests one area of high potential to the north of the Afon Wnion. Other parts of the route were considered to have low potential for Iron Age archaeological discoveries.
 - Moderate potential for Roman activity was ascribed to areas where the projected lines of Roman roads cross the route, but was considered low overall. The lines of Roman roads as identified in the EIA are the putative, projected or known alignments of Roman roads between Brithdir (Dolgellau), Cefn Caer Roman fort at Pennal (Machynlleth) and Ffestiniog. In general terms, these were considered to be of local to regional interest and are therefore of low to medium relative importance.
 - High potential for Medieval activity was identified at Maes-coch and on the northern slopes of Cadair Idris based on the presence of possible long huts at both sites and the deserted settlement and field boundaries at Maes-coch. High potential for Medieval archaeological evidence was also identified at the northern end of the route corridor. The potential over the rest of the route was considered low.
- 1.3.6 There was considered to be moderate to high potential for the recovery of post-medieval evidence along the pipeline but the significance of such evidence is low. There was low potential for encountering significant previously unknown modern sites (RSK, February 2012).



2 PROJECT AIMS

2.1 General aims

2.1.1 The general aim of the Watching Brief was to provide mitigation in the event of the discovery of previously unknown archaeological remains during ground-works pertaining to the gas pipeline replacement and any related off-easement construction. In the event of discoveries of low significance this will be in the form of excavation and preservation by record.

2.2 Specific aims and objectives

2.2.1 The specific aims and objectives of the watching brief were:

- (i) To determine the existence or absence of any archaeological remains, assess their significance and inform the representative of the Main Works Contractor of these on a daily basis and to provide RSK with weekly reports on this.
- (ii) In the case of remains of low significance, to carry out excavation and preservation by record with minimal disruption to the construction schedule.
- (iii) In the case of significant remains, to immediately inform the Main Works Contractor's Environmental Manager of the discovery and to then work with the Main Works Contractor, Wales and West Utilities, RSK and the relevant Archaeological Curators to establish and carry out suitable mitigation with minimal disruption to the construction schedule.
- (iv) To maintain a free running track for site traffic along side the working width.
- (v) To secure the analysis, conservation and long-term storage of any artefactual/ ecofactual material recovered from the site and appropriate reporting of the work carried out.
- (vi) Specifically, OA was asked to carry out palaeoenvironmental mitigation work in the form of sampling in advance of works, to be carried out in Fields 12/1 and 12/2, using a Russian Corer (peat auger) (RSK, Llanwrin to Dolgellau Gas Pipeline, Technical Brief for Archaeological Mitigation, 2011). By agreement with the client, additional auger holes were drilled on an opportunistic basis for palaeoenvironmental assessment purposes, at two other locations with comparatively deep peat sequences.
- (vii) To investigate the possibility that historic field systems crossed by the route could be of prehistoric, Roman or medieval origin.



3 PROJECT SPECIFIC METHODOLOGY

3.1 Watching brief methodology and conditions

3.1.1 The Written Scheme of Investigation (WSI) and the Technical Brief (Appendix 3 – Archaeological Watching Brief Procedure), provide details of the site specific methodology for the Watching Brief. It is therefore not necessary to repeat this information in detail here. An Archaeological Watching Brief was carried out on all construction work involving the stripping of topsoil and on all construction activities with the potential to impact on above or below-ground archaeological remains.

3.1.2 This included:

- Topsoil stripping of the working width, off-easement access and temporary laydown and construction compound areas;
- Any significant drainage excavations;
- Benching;
- Trench excavation;
- Excavation of launch and reception pits for non-open cut crossings or HDD sections;
- Historic landscape features within the working width, such as former field boundaries, quarries, ponds, etc.;
- Reinstatement of any archaeologically or historically sensitive areas that may be identified.

3.1.3 In order to fulfil the objectives of the watching brief, OA deployed a variable number of archaeologists and geoarchaeologists to the project, responding to the requirements of the work programme. Typically, a single archaeologist was present with each team carrying out excavation work along the route. During the busy periods this required 4 archaeologists, each monitoring a team of mechanical excavators along the route of the pipeline. On a daily basis, the deployment of staff was liable to change depending upon the requirements within each machining front.

3.1.4 A field numbering system was devised by the client for consistent referencing. This consisted of a section prefix, followed by a specific field number (eg. 13/7). The section prefix was applied using road crossings to divide the route into 20 separate areas. These were then subdivided, individually numbering each field through which the pipeline passed, from south to north.

3.1.5 Within the archive created by OA during the course of these works, and throughout this report, geographical references are made using the field numbering system. A single site code was applied to all archaeological records (WAGAS12). The recording purposes route was sub-divided into sections respecting the administrative areas defined by the counties of Powys and Gwynedd, as the archaeological archive will have to be split between the collecting museums for these areas. The pipeline route crosses the boundary several times. Separate registers were created to document the individual archaeological features and field boundaries. Pre-defined number blocks were assigned to each route section, which were used for context, drawing and photographic registers. The number blocks created, and their respective geographical boundaries were as follows:

▪



- 1000's – Field 0/1 to River Crossing (RVX) 1 (Powys)
- 2000's – RVX 1 to RVX 2 (Gwynedd)
- 3000's – RVX 2 to RVX 3 (Powys)
- 4000's – RVX 3 to RVX 5 (Gwynedd)
- 5000's – RVX 5 to RVX 8 (Powys)
- 6000's – RVX 8 to RDX 12 (Powys)
- 7000's and 8000's – RDX 12 to end (Powys)

3.1.6 Topsoil stripping was carried out using a toothless ditching bucket. In general this led to good archaeological visibility in areas with shallow soil sequences on relatively level ground. However the stripping level adopted in each route section was dictated primarily by engineering rather than archaeological considerations (as is usually the case under a watching brief specification). The method of 'benching' the route to create a terraced access road, which was dictated by the rough terrain, limited opportunities for archaeological observation during topsoil stripping in some route sections (see section 7.1 below for further discussion).

3.1.7 Due to the varied landscape through which the route passed, the ground conditions encountered also affected the visibility of archaeological remains. For example, areas of recently cleared woodland were characterised by heavily disturbed ground. Surface deposits of peat and otherwise waterlogged ground may have masked archaeological features. Poor weather conditions may also have adversely affected archaeological visibility at times.

3.1.8 The excavation of the pipe trench itself provided opportunities for useful observation, for example in investigating historic routeways at road crossings, and in areas covered with peat, but was limited to a very narrow strip.

3.1.9 A record of the level of visibility available was maintained on a daily basis using the 'Watching Brief Record' proforma.

3.1.10 Fieldwork completion records were maintained in the form of a register organised by field number (Appendix D).

3.2 Historic landscape features

3.2.1 Historic landscape features (former field boundaries, ponds, quarries etc) affected by the development were assessed and, where necessary, recorded as part of the watching brief (See Appendix D). Proforma record sheets and photographic survey were used for this purpose (rather than single context recording). Any boundaries or other historic landscape features that were considered likely to be of intrinsic archaeological importance, were to be reported as a significant discovery requiring the deployment of additional team members to clean and further investigate the feature. This response might, for example, have been triggered by the discovery of significant artefacts or clearly defined in situ buried soil horizons beneath a boundary.

3.2.2 The Archaeology and Cultural Heritage section of the Environmental Statement produced by RSK provides details of the known archaeological sites along the route. Specifically, this provides a list of 51 cultural heritage sites that were assessed as likely or certain to be impacted upon by the pipeline route. The eventual route was sensitive to these archaeological sites, but where these were impacted upon, these were recorded using OA proforma sheets and photographic survey. Where appropriate, reference to these sites has been made using these numbers, accompanied by the prefix 'RSK'.



3.2.3 The field boundary survey undertaken as part of this work was partly informed by analysis of the 1st Edition Ordnance Survey Map. Following consultation of these maps, the field boundaries could be classed as either pre- or post- 1889. Thus unless observation on the ground determined otherwise, only pre-1889 boundaries were recorded in detail (See Appendix B).

3.3 Palaeo-environmental and geoarchaeological mitigation

3.3.1 Palaeo-environmental investigation in the form of sampling in advance of pipe trenching was carried out in fields 12/1 and 12/2 using a Russian Core, in accordance with the methodology outlined in the WSI (section 4.3.5). As the development progressed, additional sites of geoarchaeological interest were sampled on an opportunistic basis. In no cases were the sampled sequences associated with archaeological remains. The coring method was as detailed in the WSI.

4 FIELDWORK RESULTS

4.1 Distribution of archaeological features

4.1.1 In the course of the watching brief, a number of definite and possible archaeological features were identified and recorded. These are described below, arranged by field number from south to north along the route. The identification of the some of the features described below as archaeological was not always certain. Very few artefacts were recovered from *in situ* feature fills and the majority of finds from features investigated were of modern date. Features that were proved to be of 20th century or more recent origin, based upon artefacts found within them, are not described below. Only fields containing recorded archaeological features are referred to below. Appendix E comprises a summary context register.

4.2 Field 1/5

4.2.1 Positioned within field 1/5 was an east-west aligned ditch (1043) with steep sides and a concave base. This feature measured 0.5m in width and 0.12m in depth, and was filled with a friable mid orange brown clay silt. Aligned across the contours of the hillside, and with a very distinct edge, it was interpreted as a possible drain. There were no finds to date the feature but it's position in the field indicates that it was probably a former field boundary.

4.3 Field 4/1

4.3.1 During the topsoil stripping in field 4/1, an oval pit (1032) was observed, measuring 1.1m by 0.9m, with steep sides and a concave base down to a depth of 0.2m. A layer of charcoal formed a distinct initial fill at the base of the pit which was overlain by a mid yellow brown, clay silt and stones. There was no artefactual material associated with the feature, but a clearly defined boundary between the charcoal fill and the natural geology through which the feature was cut, indicates that the feature may have been modern in date.

4.4 Field 4/3

4.4.1 A total of eight possible post holes were recorded within route of the pipeline within field 4/3. These formed two unrelated alignments. The largest grouping consisted of 5 possible post holes (2000, 2002, 2004, 2006, and 2008) on a broadly NE-SW alignment



over a distance of 4m. All of the features were sub-circular in plan, between 0.26m and 0.5m in diameter, with shallow concave profiles to a depth of 0.07m.

- 4.4.2 The remaining three post holes were positioned along an east-west alignment over a distance of 5m. These were very similar in form to the larger alignment, sub-circular in plan, with shallow concave profiles. These measured between 0.3 and 0.4m in diameter, with the shallowest cut measuring just 0.03m in depth, and the deepest only 0.08m in depth.
- 4.4.3 All of the features were filled with a mid brown grey, clay silt, with small fragments of slate, up to 0.03m in diameter. None of the features contained any anthropogenic material, nor any trace of a post. Most were very shallow and indistinct and could result from root action.

4.5 Field 7/6

- 4.5.1 Positioned at the north west edge of field 7/6 was an irregular shaped feature (5007), measuring 0.4m across in plan. Following excavation, an irregular profile was revealed, which contained a dark grey black, sandy clay with <1% charcoal inclusions. The irregular form of this feature is consistent with that of a tree throw. No artefactual material was recovered from the fill.

4.6 Field 7/12

- 4.6.1 A second potential tree throw was revealed further along the route, within field 7/12. Following the topsoil stripping, a shallow irregular feature was identified, measuring 1.5m by 0.9m in plan, and 0.1m deep. The edges of the feature had been reddened slightly and the fill was a charcoal rich dark brown, sandy silt. This suggests that either hot material had been dumped into a tree throw, or a tree-bole had been burnt in-situ.

4.7 Field 9/2

- 4.7.1 Much of field 9/2 was covered by slate working waste associated with the Aberllefenni quarry. Consequently, it was not possible to observe the underlying undisturbed ground and determine the presence of features pre-dating the slate working. The slate waste material exceeded depths of 1.5m across much of the area.
- 4.7.2 Approximately midway across the field, within the north-east side of the pipe trench, close to some standing structures, was a dry stone wall (6026) built from roughly hewn slate blocks. The blocks measured up to 0.4m in length forming rough courses up to 0.2m in height. The wall itself survived to a length of 15m and a height of 0.5m, but the full width was not visible.
- 4.7.3 With only one face of the wall exposed, it was not possible to determine whether this was part of a larger structure or building. The wall was evidently contemporary with the slate workings.

4.8 Field 9/6

- 4.8.1 Observed within field 9/6 was an oval pit (6006), with vertical sides, and a flat base. This measured 0.78m by 0.7m in plan, and 0.45m deep. Within the pit the initial and main fill of the feature was a dark grey black, silty loam (6008) that contained approximately 50% charcoal and some fragments of burnt bone. Overlying this deposit was a shallow (0.14m) layer of dark orange, silty clay which could be either a deliberately layer sealing the pit, or overlying subsoil that had settled into the top of the feature. A 40L soil sample was taken from the main fill (6008) and wet-sieved to



establish whether or not the feature was a cremation burial . The results were inconclusive: Burnt long bone and miscellaneous fragments were recovered in very small quantities (4g total weight) but the fragments showed no diagnostically animal or human features. No artefacts were recovered, either by hand excavation or wet-sieving. The deposit was rich in wood charcoal (see Section 4.5 below for further details).

4.9 Field 9/10

- 4.9.1 Traversing field 9/10, on an east-west alignment, parallel to the contour of the slope, was a linear ditch, (6014). At least 20m in length, 3.09m in width and 0.5m in depth, it had an asymmetrical profile, with a convex north side and a concave southern side. The base of the ditch was flat.
- 4.9.2 The primary fill of the ditch was a dark grey-reddish brown, gritty sand (6017) with some iron -oxide formation present. This was approximately 0.08m in depth and had probably formed whilst the ditch was open. Overlying this was a yellow brown, silt deposit (6016) that measured 0.45m at it's thickest on the northern side of the ditch. The final fill (6015) was a dark grey brown, silt clay that measured 0.5m in depth, and was concentrated on the southern side of the ditch.
- 4.9.3 This ditch is thought to be the remains of an aqueduct, previously identified in the Environmental Statement (RSK 2011). Beyond the limits of the pipeline route, it was still possible to observe the continuation of this aqueduct, identifiable as an earthwork through the adjacent fields. In places, the presence of a stone lining was present, indicating that the entire aqueduct had once been stone-lined, but was subsequently robbed out. It is likely that the convex slope to the northern side of the ditch, and the overlying deposit, 6016 was the result of the side collapsing after the removal of this lining.
- 4.9.4 Lying to the north of 6014 within field 9/10, was a second ditch (6019) that was also aligned on an E-W orientation. It measured 0.85m in width and 0.23m deep, extending over a distance of at least 16m. Within the ditch was a single deposit of brown grey, silt with frequent angular inclusions of slate throughout. Within the field to the east, a second aqueduct was observed, in addition to that of 6014. It is possible that this second ditch is the continuation of this second aqueduct.

4.10 Field 9/21

- 4.10.1 Positioned within the steeply sloped field 9/21, close to the boundary with field 9/22, was a linear gully (6179), aligned broadly north-south. With a length of 20m, it measured 0.72m and just 0.08m deep. Excavation of the feature revealed a concave profile with a flat base. Contained within the gully was a single fill of grey brown silt with approximately 60% slate inclusions. The feature was possibly formed by natural erosion.

4.11 Field 9/26

- 4.11.1 Orientated on an E-W alignment, traversing the spread as it passed through field 9/26, was a linear gully, (6163). It measured in excess of 15m long, with a width of 0.44m and a maximum depth of 0.14m. Within which was a single fill of loose grey, silty sand with sub-angular slate pebbles throughout. The original purpose of this linear is uncertain, and the irregular profile even be an indicator that like gully (6179), this was a naturally formed feature resulting from erosion. Certainly with the absence of any anthropogenic evidence, it is difficult to be conclusive.



4.12 Field 9/27

- 4.12.1 Following the stripping of topsoil and underlying peat deposits from field 9/27 a series of six, N-S aligned, parallel linears were revealed (6147, 6149, 6151, 6153, 6155, 6157). Extending beyond the limits of the excavated area, they were very similar in their form, varying between 0.34 and 0.46m in width, and typically just 0.06m deep. The sole exception to this was gully 6149 which had straight steep sides and measured a maximum depth of 0.2m. Contained within each of the gullies was a single fill of greenish grey, sandy silt with rare flecks of charcoal.
- 4.12.2 The function and origin of these gullies is not clear. Though the regularity of them is indicative of deliberate activity, as opposed to the potential naturally occurring gullies identified within fields 9/21 and 9/26. The most obvious function would be that of drainage. Given the proximity to former dwellings, it is plausible that this field was previously cultivated.

4.13 Field 9/28

- 4.13.1 Positioned to the NE of the pipeline route as it passed through field 9/28, was a small rectangular structure, previously identified in the Environmental Statement as RSK 348. The remains of the structure measured 11.75m in length and 6.5m wide, with the longest axis orientated along NNE-SSW alignment. The walls of the structure were of dry-stone construction, 0.8m in width, predominantly utilising roughly hewn slate blocks, with occasional blocks of quartz. Although largely robbed away, a 0.8m wide break in the eastern wall has been interpreted as a probable entrance.
- 4.13.2 Immediately to the south, adjacent to the main structure, was a raised platform covering an area of 4.2m by 4m. This platform was delimited by the remains of a dry stone wall on the southern and western sides. Unlike the principal structure, this was just a single stones width and would have been unlikely to support any significant weight.
- 4.13.3 No dating evidence was observed in association with this structure, but analysis of the 1st Edition Ordnance Survey Map, indicates that there was no known structure at this location in 1889.

4.14 Field 10/1

- 4.14.1 Positioned at the southern edge of field 10/1 were two possible pits (6137, 6140) and a ditch (6141). The largest of the two pit-like features (6139) was oval in plan, with a concave profile. It measured 0.6m in length and 0.5m wide with a maximum depth of 0.2m. The second discrete feature was sub-triangular in plan, measuring 0.6m across, with steep sides down to a depth of 0.2m. These were filled by identical deposits of mixed dark brown and grey brown silty peat, with occasional charcoal flecks.
- 4.14.2 Orientated along a NW-SE alignment, between these two pits, was the linear ditch 6141. Evident over a distance in excess of 30m, this ditch measured 0.75m wide, with a concave profile 0.2m deep. Within the ditch was a deposit of dark grey brown peat, which became lighter towards the base, with an increased clay content.
- 4.14.3 It is likely that the ditch was originally a drainage ditch or a boundary ditch, perhaps performing both functions. Whereas the pit-like features appear to have been rapidly backfilled after their excavation and did not contain any artefactual material. They may have simply been the result of field clearance, with the material accumulating in hollows created following the removal of large stones.



4.15 Field 10/10

- 4.15.1 Ditch 6232 was not observable following the initial topsoil stripping of field 10/10. Only becoming apparent within an exposed section at the edge of the spread, once the field had been benched. Consequently, it was only observable in section. What remained of the feature measured 2.4m wide and 1.1m deep. The sides were moderately steep, leading down to a concave base. It is suspected that the ditch had been left open after excavation as it appears to have been filled by a succession of silt and sand deposits that had washed in naturally.

4.16 Field 16/2

- 4.16.1 A single ditch 7002 was identified within field 16/2. Aligned north-south, it extended beyond the limits of the pipeline route. Investigation of the ditch revealed moderately steep sides and a flat base, which measured 0.75m wide and 0.15m deep. It is worth noting that the ditch was observed cutting through the subsoil (7005) suggesting a recent date for its excavation. Contained within the ditch was a mid yellow brown sandy silt. No finds were recovered from the fill.

4.17 Field 19/5

- 4.17.1 Positioned against the western edge of the excavated area within field 19/5, was a circular pit (7052). It measured 0.6m in diameter, with steep concave sides and a flat base 0.15m deep. Within the pit was a single deposit of dark grey brown clay silt and approximately 10% charcoal fragments. No artefactual material was observed within the pit, but the fill did appear to have been rapidly backfilled so may have been a dumping event.
- 4.17.2 Further archaeological evidence was present in the form of a re-cut ditch (7048). Identified on an E-W orientation only 6.4m of the ditch was observable as it terminated within the route of the pipeline and extended beyond the limits of the excavation. The ditch measured 1.4m wide and 0.3m deep, and was filled by a light to mid brown grey silt.
- 4.17.3 The northern edge of ditch (7048) was re-cut by a second ditch (7049). The ditch profile was shallow, with a flat base just 0.3m deep and up to 1.35m wide, filled by a mid brown-grey clay silt.
- 4.17.4 In the field beyond the route of the pipeline was an earthwork on the same alignment, as these ditches. It is likely that they served as a field boundary pre-dating the current field system.

4.18 Field 20/3

- 4.18.1 Within field 20/3 was a single circular pit (7031). It measured 0.8m in diameter and 0.2m deep. Deposited within the pit was a mid brown grey, clay silt interpreted as a deliberate backfill. There were no associated finds.

4.19 Field boundaries

- 4.19.1 The field boundaries recorded throughout the course of the pipeline route are summarised in Appendix B. Dating the origins of potentially ancient field boundaries is notoriously difficult. Even if artefacts are found they are more likely to reflect the fortunes of nearby settlements than the origins of the boundary. *In situ* buried soils found sealed beneath boundary features have the potential to be dated by scientific methods but are often unsuitable due to extensive animal burrowing and bioturbation.



In the case of the boundaries assessed along the pipeline route, no artefactual evidence was recovered from the investigated boundary sections and no buried soils were identified. The form of the boundaries was highly variable and offered no potential for dating on morphological grounds.

4.20 Other historic landscape features

4.20.1 Many of the cairns, sheepfolds and other extant features identified within the route corridor remained unaffected by the construction works. Exceptions to this include the possible dwelling or sheepfold (RSK 348) which is described above (Field 9/28). A summary record of features affected by the works is included in Appendix D.

4.21 Roman roads

4.21.1 A total of seven Roman roads, or possible routes of Roman roads, were proposed within the Environmental Statement. All of these were examined in the course of the watching brief, but none of them were in a state of preservation that could either confirm, or contribute to, their suggested origins. With the exception of L4, within field 14/1, the proposed routes were identified as hollow-ways, currently being used as either roads or farm trackways and footpaths. Such features are formed by erosion into the natural geology caused by long-term traffic. Consequently, any deposits (such as surfaces) that may have been associated with their original period of use had in all cases been eroded away.

4.21.2 The proposed Roman road L4, which was evident as an earthwork across field 14/1 illustrates the difficulty of dating the origins of such features: Present within a field of pasture and no longer active, it was necessary to excavate a slot across the width of the trackway to expose the former surface. In section the profile of the hollow-way was 7.5m wide, cutting into the natural to a maximum depth of 1.6m, with a slightly flattened concave profile. The primary deposit overlying the base of the feature was a soft dark brown grey, clay silt with iron panning present throughout. This layer was 0.1m thick. Overlying this was a deliberately dumped deposit of mid brown silty loam which contained large stones up to 0.7m across, as well as numerous fragments of heavily corroded Iron (not retained). The presence of plastic and a 20th century glass drinks bottle demonstrated that the infill of the hollow-way was a modern deposit throughout. The owner of the field confirmed that he had filled in the hollow-way in the 1980's when he acquired the land. There was no evidence for a track surface, or other deposits or datable material relating to it's earlier periods of active use.

4.22 Mill race

4.22.1 Within field 15/2 were the extant remains of stone-lined mill race, 7147 (RSK L3). This comprised of a 3.6m wide trench, with a flat base and vertical sides to a maximum depth of 1.1m. Positioned on either side of the trench was a stone revetment or lining. These had been constructed using roughly hewn pieces of the local igneous rock each measuring up to 0.3m in diameter.

4.22.2 Positioned close to the base of the valley side, the spoil from the excavation of the trench had been placed on the northern, lower side of the hill. No artefactual material was observed in association with the mill race.



5 ARTEFACTS

5.1 Introduction

5.1.1 A very small collection of finds was recovered. The majority of the finds are of modern date and were recovered as dating evidence for features. These have no intrinsic archaeological interest and will be discarded prior to deposition of the archive. The only intrinsically significant finds are a stone pendant of uncertain date from Field 1/6 and a prehistoric worked flint flake from Field 12/13, both of which were unstratified (detailed further below).

5.2 Metal finds *by Ian R Scott*

5.2.1 There were nine metal finds of iron, from four contexts as detailed below:

- Context 1037 – Two pieces of iron were recovered and comprise one 5 inch wire nail with a missing head and bent tip (L extant: 68mm), and possible nail or length of wire (L: 96mm) heavily encrusted with corrosion.
- Context 2016 – A possible staple or joiner's dog, again heavily encrusted (L: 68mm).
- Context 6028 – An undiagnostic fragment of iron.
- Context 7023 – (1) Two large fragments of heavily encrusted iron sheet or plate together with 2 smaller fragments probably from the same object.
- (2) A length of iron rod flattened into chisel-like tip at one end and with a hexagonal nut attached at the other end (L: 205mm). There are also 2 washers on the rod.

5.2.7 None of the metal need date earlier than the late 19th or 20th century.

5.3 Glass *by Ian R Scott*

5.3.1 There were three sherds of glass and a complete bottle with screw cap. The glass comes from four contexts. All the glass is vessel glass or probably vessel glass.

- Context 1008 – Complete small modern 'Lucozade' bottle, colourless glass with buff coloured plastic screw cap (Ht: 170mm)
- Context 1037 – Sherd from the base of machine moulded bottle in colourless metal.
- Context 2016 – small edge sherd from a vessel base. Colourless metal.
- Context 6025 – small body sherd in pink metal. Undiagnostic to vessel form.

5.3.6 All the glass is modern, that is late 19th-century or later in date, and in the case of the 'Lucozade' bottle much more recent.

5.3.7 In addition to the glass there is a tiny flat fragment of plastic from context 6025. This has a flesh pink textured surface on one side and an orange or red brown finish on the other side. This is also modern.

5.4 Worked stone *by Ruth Shaffrey*

5.4.1 Three pieces of stone were retained. Of these, two are unworked and one is a rounded slate that has been carefully perforated from both sides roughly in the centre of the stone. It seems likely to have been worn as a pendant, but was recovered from the



topsoil (1034) and is undated. Stone pendants of this form are rare and are not intrinsically datable with examples of Neolithic through to Roman date.

5.5 Worked flint by *Geraldine Crann*

5.5.1 A single worked flint, Small Find 5000 (context 5023) was recovered during the project. This was a large blade-like flake on pale creamy flint, struck from a single platform core. The flake has clear platform preparation with a soft-hammer lip and seven rather irregular dorsal scars. The entire distal margin was damaged, though the profile suggests that feather termination was likely (dimensions 78mm x ?29mm x 6mm, weight 16g).

The flint was located in an unstratified context in a valley bottom, between the steep valley side and a narrow flood plain of peat bog. It was found lying upon redeposited natural gravels that had been disturbed during the benching process. It is therefore impossible to determine the original context of the blade. No associated features or artefacts were identified in the vicinity. As it is a single tool, rather than knapping waste, it is possible that this was an isolated discarded/ lost item, rather than part of a more extensive prehistoric site. Technologically the single unstratified flint could originate in either the Mesolithic or Neolithic, though its size makes a Neolithic date more likely. No Neolithic evidence is known from the immediate vicinity, but activity from this period is known in the wider area. The small quantity of worked flint limits the interpretation of the material, beyond illustrating a human presence in the local area during the early prehistoric period. The assemblage is generally of low potential and requires no further work.



6 ENVIRONMENTAL REMAINS

6.1 Assessment of possible cremation burial (context 6008) by Julia Meen

- 6.1.1 A 40L bulk environmental sample was taken for the recovery of charred plant remains, bone and artefacts from Sample <100>, which was taken from context (6008), suggested in the field to be a possible cremation burial. The sample was recovered in accordance with current sampling guidance (eg. Oxford Archaeology, 2005 and English Heritage, 2011). As this was an isolated feature, it was taken on an opportunistic basis rather than as part of a defined soil sampling strategy. One of the aims of processing was to establish whether burnt human bone was present. The sediment was a dark greyish brown (2.5Y 4/2) mixed with strong brown (7.5YR 4/6) silty clay, with approximately 20% angular slate inclusions.
- 6.1.2 The sample was processed by water flotation using a modified Siraf style flotation machine. The flot was collected on a 250µm mesh and the heavy residues were sieved to 500µm and dried in a heated room, after which the residues were sorted by eye for artefacts and ecofactual remains. The dried flot was scanned for plant remains using a binocular microscope at approximately x15 magnification and identifications made with reference to published guides and the comparative seed collection held at OAS. Plant nomenclature follows Stace (2010).
- 6.1.3 A small quantity of calcined bone (4g, including long bone and miscellaneous fragments) was recovered from the heavy residue. None have distinctive human or non-human morphological characteristics (L. Loe and L.Strid, pers. comm.) .
- 6.1.4 The sample produced a large flot, of approximately 4L volume. A portion of this was scanned. Only charcoal was observed, with many pieces greater than 4mm in size and hence potentially identifiable by a charcoal specialist. In addition, a charred nutshell of hazel (*Corylus avellana*) was recovered from the heavy residue. This was broken into two pieces, with the top of the shell cleanly broken off from the lower part, but otherwise was complete.
- 6.1.5 It has not been possible to state with any degree of certainty whether or not this deposit represents a human cremation. The quantity of burnt bone was extremely small, so if a human cremation then this must represent redeposited pyre rather than the bulk of the cremated body.
- 6.1.6 The large volume of charcoal recovered from this sample is potentially identifiable to species. The presence of a hazelnut shell may indicate the presence of hazel wood. The separation of the very top of the nutshell may be indicative of its being collected and eaten by a small rodent, although no obvious tooth marks were visible either on the surface of the shell or along the edge of the break. Alternatively, if the feature is a cremation burial, the nut may have been incorporated into the deposit as part of the cremation fuel.

6.2 Results of hand auger survey by Carl Champness and Elizabeth Stafford

- 6.2.1 Seven locations were hand augered in Fields 12/1-2 (OA1-7, Fig 14) in close proximity to the locations sampled by Wessex Archaeology in 2011 (AP20-25, WA 2011). The purpose of the augering was to retrieve samples suitable for radiocarbon dating and palaeoenvironmental analysis. Ground conditions were very difficult with the sediment being soft and very compressible; various different augers (Russian corer, Gouge and Dutch auger) were used to retrieve both intact cores and bulk samples. Sediment



descriptions and details of samples retrieved at each location are presented in Appendix C.

- 6.2.2 The sequences were very similar to those previously described (WA 2011). Peat deposits were present at all locations, although thickness varied considerably from c 0.4m (eg. OA1 and OA3) up to c 1.5m (eg. OA2 and OA6). The peat generally appeared poorly humified, often with evidence of modern rooting.
- 6.2.3 Detailed assessment of a number of sub-samples of the peat from the cores at OA2 and OA5 failed to identify macroscopic remains (eg waterlogged seeds) that could be used for radiocarbon dating. Two samples of the peat submitted for radiocarbon dating produced relatively recent dates on the humic fraction, either suggesting a recent date for sequence accumulation, or contamination of the samples, possibly through bioturbation (OA2, Table 2). Based on the results of the radiocarbon dating no further work is recommended on these samples.

Table 1: Location of auger samples

Bore	Field	Easting	Northing	Elevation	Total depth
OA1	12/1	275883.45	314669.69	236.00	0.4
OA2	12/1	275873.79	314675.91	235.45	1.6
OA3	12/2	275866.34	314680.71	235.32	0.4
OA4	12/2	275859.15	314685.24	235.37	1.1
OA5	12/2	275828.41	314710.47	235.14	1.1
OA6	12/2	275833.50	314702.64	235.49	1.88
OA7	12/2	275834.33	314700.75	235.37	1.51
OA8	6/14	275540.47	307512.91	71.82	2.15
OA9	7/27	277217.23	309985.09	99.90	1.65

Table 2: Results of radiocarbon dating

Bore	Depth bgl	Lab Code	$\delta^{13}\text{C}$	Result BP	Calibrated (95.4 % at 2 sigma)
OA2	0.58-0.62m	SUERC-42131	-28.4 ‰	166 ± 37	AD 1666-1954
OA2	1.46-1.50m	SUERC-42132	-28.8 ‰	181 ± 37	AD 1648-1955



7 DISCUSSION AND CONCLUSIONS

7.1 Reliability of results

7.1.1 The watching brief produced very sparse archaeological remains. This is largely as predicted on the basis of the desk-based assessment, geophysical survey and trial trenching, but may in part be due to variable archaeological visibility. The route crossed mountainous terrain which meant that the topsoil stripping method in the main pipeline easement often involved 'benching' the ground to form a terraced track from which the pipeline could be installed. Visibility in 'benched' route sections was commonly poor, whereas in other sections where benching was limited, the soil stripping resulted in substantial open area strips with good visibility. Preliminary topsoil stripping for compounds and access tracks also generally resulted in substantial stripped areas with good visibility. The pipeline excavation itself was in the form of a narrow trench, in which visibility of features in section was generally good, but visibility in plan was limited. The visibility in different route sections therefore forms a complex patchwork, which is documented in the daily journal records and weekly reports which form part of the project archive.

7.2 Significant archaeological results

7.2.1 Arguably the only potentially significant archaeological feature encountered was a possible cremation burial in field 9/6 (context 6008). Detailed assessment of the fill has failed to confirm the identification of this feature as a human cremation. The quantity of burnt bone recovered was extremely small, so if it was a cremation then it must represent redeposited pyre rather than the bulk of the cremated body. The date of the feature is unclear as no artefacts were associated with it. It has potential for radiocarbon dating but, as it is an isolated feature of uncertain identification, this is not recommended.

7.2.2 The other archaeological features encountered along the pipeline route are either undated or demonstrably of modern date.

7.2.3 The suspected lines of Roman Roads were investigated at seven locations along the route. Where features were identified they were in the form of 'hollow-ways' – tracks worn into the surface of the natural geology by constant traffic. No artefactual or structural evidence was encountered that might shed further light on the origins of these routeways.

7.2.4 Relatively shallow surface peat deposits were encountered at several locations and sampled for palaeoenvironmental assessment purposes at three locations. The most extensive sampling was undertaken in Fields 12/1 and 12/2. Unfortunately the sequences are not suitable for detailed palaeoenvironmental study due to the extent of bioturbation and their very soft and compressible nature. Modern radiocarbon results were obtained from one of the sequences in Field 12/1 (OA2), which could reflect the recent origin of the peat or contamination, possibly caused by bioturbation. None of the peat sequences were associated with archaeological remains.



8 REFERENCES

Bartlett-Clark Consultancy; 2010; Gas Pipeline Replacement: Llanwrin to Dolgellau: Report on Archaeological Geophysical Survey, 2010.

English Heritage, 2011. Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post-excavation (second edition). Centre for Archaeology guidelines.

Oxford Archaeology, 2005. Sampling guidelines. Unpublished document (revised 2010).

RSK Environment Ltd, September 2010, Llanwrin to Dolgellau Pipeline Replacement: Environmental Statement.

RSK Environment Ltd, December 2011; Llanwrin to Dolgellau Gas Pipeline Replacement: Technical Brief for Archaeological Mitigation.

Stace, C. 2010. (third edition). New Flora of the British Isles. Cambridge: Cambridge University Press.

Wessex Archaeology, December 2011, Llanwrin to Dolgellau Pipeline, Wales: Report on the results of an archaeological evaluation. Ref 79141.02.



APPENDIX A. SUMMARY OF SITE DETAILS

Site name:	Archaeological mitigation on the Llanwrin to Dolgellau Gas Pipeline Replacement
Site code:	WAGAS12
Grid reference:	Centred at NGR SH750043
Type of watching brief:	General watching brief on groundworks for pipeline installation
Date and duration of project:	16/02/2012 - 07/09/2012
Summary of results:	<p>A watching brief was undertaken along the 23.5 km route of a gas pipeline through mountainous terrain in mid-Wales, passing through Powys, Gwynnedd and Snowdonia National Park. The landscape is very varied, including the Afon Dulas and Afon Llefenni river valleys, the Mynydd Gwerngraig and Cadair Idris uplands, the Afon Wnion river valley as well as hill areas around Dolgellau.</p> <p>Very little significant archaeology was encountered. A single possible prehistoric or Roman cremation burial was identified, but its date and identification as a human burial remain uncertain.</p> <p>Other features identified were few in number and either undated or demonstrably of modern date. The latter included a mill race and buried footings associated with a sheepfold.</p> <p>The possible lines of Roman Roads between Brithdir (Dolgellau), Cefn Caer Roman fort at Pennal (Machynlleth) and Ffestiniog were investigated at seven locations. At six locations former or current tracks were observed as eroded hollow-ways, but revealed no evidence that could shed light on the early origins of these routeways.</p> <p>A survey of historic boundaries was undertaken to record the profiles of potentially significant boundaries and attempt to recover dating evidence for the origins of the field boundary systems crossed by the pipeline route. No significant dating evidence was recovered.</p> <p>A series of hand auger samples were recovered to assess the palaeoenvironmental potential of relatively shallow surface peat deposits encountered at several locations along the route. None of the sequences were suitable for further analysis – Modern radiocarbon results were obtained from one of the sequences, which could reflect the recent origin of the peat, or contamination, possibly caused by bioturbation. None of the peat sequences were associated with archaeological remains.</p>
Location of archive:	Oxford Archaeology, Osney Mead, Oxford, OX2 0ES, pending museum deposition at



APPENDIX B. BOUNDARY REGISTER

**LLANWRIN TO DOLGELLAU GAS PIPELINE REPLACEMENT
HN037 PROJECT**

Boundary Record Register

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
0/1	RDX 1	1049	Bank	Roadside bank
RDX 1	1/1	1048	Bank	Roadside bank
1/1	1/2	1021	Hedge	Exists as a line of mature trees
1/2	1/3	1022	Hedge	Overgrown hedge, now accompanied with wire fence
1/3	1/4	1023	Hedge	Overgrown Hawthorn hedge. Diverse.
1/4	1/5	1024	Bank	No associated ditch observed
1/5	1/6	1025	Ditch and Bank	
1/6	RDX 2	1050	Bank and Fence	
RDX 2	2/1	1051	Fence and Hedge	
2/1	2/2	-		Modern - Not on 1st Edition OS
2/2	2/3	1059	Bank	
2/3	2/4	-		Modern - Not on 1st Edition OS

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
2/4	RDX 3	1042	Bank and Fence	
RDX 3	3/1	1052	Hedge and Fence	
3/1	3/2	-		Modern wire fence
3/2	3/3	1053	Wooden Fence	Wooden Fence
3/3	RDX 4	1055	Hedge	Overgrown hedge
RDX 4	4/1	1054	Bank and Hedge	
4/1	TRX 1	1045	Bank and Hedge	
TRX 1	4/2	1057	Bank and Hedge	
4/2	4/3	-		River crossing
4/3	4/4	-		River crossing
4/4	4/5	-		Modern - Not on 1st Edition OS
4/5	RDX 5	-		Drilled - Not exposed
RDX 5	5/1	-		Drilled - Not exposed
5/1	5/2	-		Pipe follows trackway - Not exposed
5/2	5/3	-		Modern wire fence

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)	Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
5/3	5/4	3000	Bank and Ditch		6/7	6/8	-		Modern wire fence
5/4	5/5	3001	Bank and Ditch	Hawthorn hedge also present	6/8	6/9	-		Modern wire fence and occasional shrub
5/5	5/6	-		Modern wire fence	6/9	6/10	-		Modern wire fence
5/6	5/7	-		Modern wire fence	6/10	6/11	4007	Hedge	
5/7	5/8	-		Modern wire fence	6/11	6/12	4005	Hedge	
5/8	5/9	-		River Crossing 3	6/12	6/13	4006	Hedge	
5/9	5/10	-		Modern wire fence	6/13	6/13.1	-		Modern wire fence
5/10	RDX 6	-		Dismantled Railway	6/13.1	6/14	4008	Hedge	
RDX 6	6/1	4004	Lynchet and Hedge		6/14	6/15	4009	Hedge	
6/1	6/2	-		Modern wire fence	6/15	6/16	-		River Crossing 5
6/2	6/3	-		Modern wire fence, but also occasional young Alder.	6/16	RDX 7	-		Modern wire and hedge
6/3	6/4	-		Modern wire fence	RDX 7	7/1	-		Pipe follows trackway - Not exposed
6/4	6/5	-		Not visible	7/1	7/2	-		Modern wire fence
6/5	6/6	-		Modern wire fence	7/2	7/3	5006	Wall	Single width, dry stone wall
6/6	6/7	-		Modern wire fence and vertical slates	7/3	7/4	5004	Hedge	

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
7/4	7/5	5005	Lynchet and wall	Largely collapsed stone revetment to lynchet. 1.4m high.
7/5	7/6	-		Water Crossing 9
7/6	7/7	-		Change from pasture to woodland Water Crossing 9.1
7/7	7/8	-		Woodland
7/8	7/9	-		Woodland
7/9	7/10	-		Change from woodland to pasture
7/10	7/11	5013	Bank	
7/11	7/12	5012	Bank	
7/12	7/13	-		Pipe follows trackway - Not exposed
7/13	7/14	-		Pipe follows trackway - Not exposed
7/14	7/15	-		Pipe follows trackway - Not exposed
7/15	7/16	-		Pipe follows trackway - Not exposed
7/16	7/17	-		Pipe follows trackway - Not exposed
7/17	7/18	-		Modern wire fence
7/18	TRX 10	5019	Hedge	Mature, diverse species

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
TRX 10	7/20	5020	Hedge	Mature, diverse species
7/20	7/21	5021	Hedge	Immature and sparse
7/21	7/22	-		modern subdivision
7/22	7/23	-		modern subdivision
7/23	7/24	5022	Hedge and Bank	Just sporadic mature trees on a low bank. Wall evident in the distance
7/24	7/25	-		Modern wire fence between woodland and pasture
7/25	7/26	-		Modern wire fence between woodland and pasture
7/26	7/27	-		River Crossing 8
7/27	7/28	-		Modern wire fence
7/28	7/29	-		Modern wire fence
7/29	RDX 8	-		Modern wire fence
RDX 8	8/1	-		Modern wire fence
8/1	8/2	6002	Wall	Single width dry stone wall
8/2	8/3	-		Modern wire fence
8/3	8/4	-		Sparse hedge

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)	Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
8/4	RDX 9	-		Modern wire fence	9/14	9/15	-		Modern wire fence
RDX 9	9/1	-		No boundary present	9/15	9/16	-		Modern wire fence
9/1	9/2	-		No boundary present	9/16	9/17	-		Modern - Not on 1st Edition OS
9/2	9/3	6003	Wall	Dry stone wall part of structure RSK 339	9/17	9/18	-		Modern wire fence
9/3	9/4	-		No boundary present	9/18	9/19	-		Water Crossing 13
9/4	9/5	-		Modern wire fence	9/19	9/20	-		Water Crossing 14
9/5	9/6	-		Modern wire fence	9/20	9/21	-		Modern wire fence
9/6	9/7	-		River Crossing 9	9/21	9/22	-		Modern - Not on 1st Edition OS
9/7	9/8	-		Track Crossing 15 - Modern wire fence	9/22	9/23	6181	Wall	Stone faced stone wall
9/8	9/9	6009	Wall	Stone face wall	9/23	9/24	-		Track Crossing 18 - Modern wire fence
9/9	9/10	-		River Crossing 10	9/24	9/25	-		Water Crossing 15
9/10	9/11	-		Track Crossing 16 - Modern wire fencing	9/25	9/26	6176	Ditch	
9/11	9/12	6004	Bank and Hedge	Open, sporadic mature trees	9/26	9/27	6177	Hedge	Diverse
9/12	9/13	6005	Ditch and Bank	Sporadic mature trees present	9/27	9/28	6178	Ditch	
9/13	9/14	-		Modern wire fence	9/28	RDX 10	6143	Wall	Stone faced stone wall

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)	Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
RDX 10	10/1	-		No visible boundary	11/1	11/2	-		Modern wire fence
10/1	10.1/1	-		Modern - Not on 1st Edition OS	11/2	RDX 12	-		Modern wire fence
10.1/1	10.1/2	-		Modern - Not on 1st Edition OS	RDX 12	12/1	-		Modern wire fence
10.1/2	10.1/3	-		Modern - Not on 1st Edition OS	12/1	12/2	-		Modern wire fence
10.1/3	10/2	-		Modern - Not on 1st Edition OS	12/2	12/3	-		Modern wire fence
10/2	10/3	6135/6136	Wall and Bank	Two boundaries visible	12/3	12/4	-		Nothing visible other than footpath
10/3	10/4	-		Modern - Not on 1st Edition OS	12/4	12/5	-		Water Crossing 22 - Modern wire fence
10/4	10/5	-		Modern - Not on 1st Edition OS	12/5	12/6	7132	Wall	Stone faced stone wall
10/5	10/6	-		Modern - Not on 1st Edition OS	12/6	12/7	-		
10/6	10/7	-		Modern - Not on 1st Edition OS	12/7	12/8	7133	Wall	Stone faced wall
10/7	10/8	-		Water Crossing 18	12/8	12/9	7144	Wall	Stone faced wall
10/8	10/9	6114	Wall	Appears to be doubled as 6134	12/9	12/10	-		Stone wall noted, but not visible where pipeline crosses the boundary - Robbed away?
10/9	10/10	6108	Wall	Single stone width dry stone	12/10	12/11	-		Drilled beneath - Not damaged
10/10	RDX 11	-		Modern wire fence	12/11	12/11A	-		Nothing visible other than footpath
RDX 11	11/1	-		Modern wire fence	12/11A	12/12	7127	Wall	Stone faced stone wall

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)	Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
12/12	12/13	7116	Wall	Stone faced stone wall	13/6	13/7	7146	Wall	Stone faced wall
12/13	12/14	7115	Wall	Stone faced stone wall	13/7	13/8	7082	Wall	Stone face stone wall
12/14	12/15	7110 7109	Wall	Stone faced wall	13/8	13/9	7083	Wall	Stone face stone wall
12/15	12/16	7107 7108	Bank	Stone faced Bank	13/9	13/10	-		Track Crossing 24
12/16	12/17	-		Water Crossing 27 - Modern wire fencing	13/10	13/11	8020	Wall	Stone face stone wall
12/17	12/18	7105	Wall	Collapsed remains	13/11	13/12	8019	Wall	Stone face stone wall
12/18	12/19	7104	Ditch and Bank		13/12	13/13	8015	Wall	Stone face stone wall
12/19	RDX 13	-		No boundary visible	13/13	13/14	8014	Wall	Stone face stone wall
RDX 13	13/1	-		No boundary visible	13/14	13/15	-		Modern - Not on 1st Edition OS
13/1	13/2	-		No boundary visible	13/15	13/16	-		Water Crossing 32
13/2	13/3	-		Field 13/3 off route	13/16	13/17	8025	Lynchet	No revetment
13/3	13/4	-		Field 13/3 off route	13/17	13/18	7098 7097	Wall	Stone face stone wall
13/2	13/4	7075	Wall	Single stone width dry stone wall	13/18	13/19	8008	Lynchet	Revetted lynchet
13/4	13/5	7080	Wall	Stone face stone wall	13/19	13/20	8006	Wall	Stone face stone wall
13/5	13/6	7081	Wall	Stone faced stone wall	13/20	13/21	7094	Hedge and Lynchet	

Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)	Boundary Between Fields:		Context No.	Type	Notes: (eg. reason not recorded)
13/21	RDX 14	8004	Lynchet	Revetted lynchet	RDX 19	19/1	-		Modern wire fence
RDX 14	14/1	8003	Bank	Stone faced bank	19/1	19/2	7142	Wall	Stone faced wall
14/1	14/4	-		Modern wire fence	19/2	19/3	7143	Wall	Stone faced wall
14/4	RDX 15	7099	Lynchet	Revetted lynchet	19/3	19/4	7057	Wall	Stone face stone wall
RDX 15	15/1	-		Not damaged	19/4	19/5	7058	Bank	Bank with associated stream
15/1	15/2	-		Mill Race	19/5	19/6	7060	Bank and Hedge	Diverse hedge, but trimmed
15/2	15/3	7027 7028	Wall Ditch	River Crossing 12. Rubble core dry stone wall	19/6	19/7	-		Modern wire fence
15/3	RDX 16	-		No Crossing	19/7	RDX 20	-		Hedge
RDX 16	16/1	-		No Crossing	RDX 20	20/1	-		Hedge
16/1	16/2	-		Modern wire fence	20/1	20/2	-		Track Crossing 30
16/2	RDX 17	-		Modern wire fence	20/2	20/3	7026	Wall	Stone wall
RDX 17	17/1	-		Modern wire fence	20/3	20/4	7033	Wall	Stone face stone wall
17/1	RDX 18	-		Modern wire fence	20/4	20/5	7141	Wall	Stone faced wall
RDX 18	18/1	-		Modern wire fence					
18/1	RDX 19	-		Modern wire fence					



APPENDIX C. HAND AUGER SAMPLE LOGS

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275883.45

DATE: 08/05/12

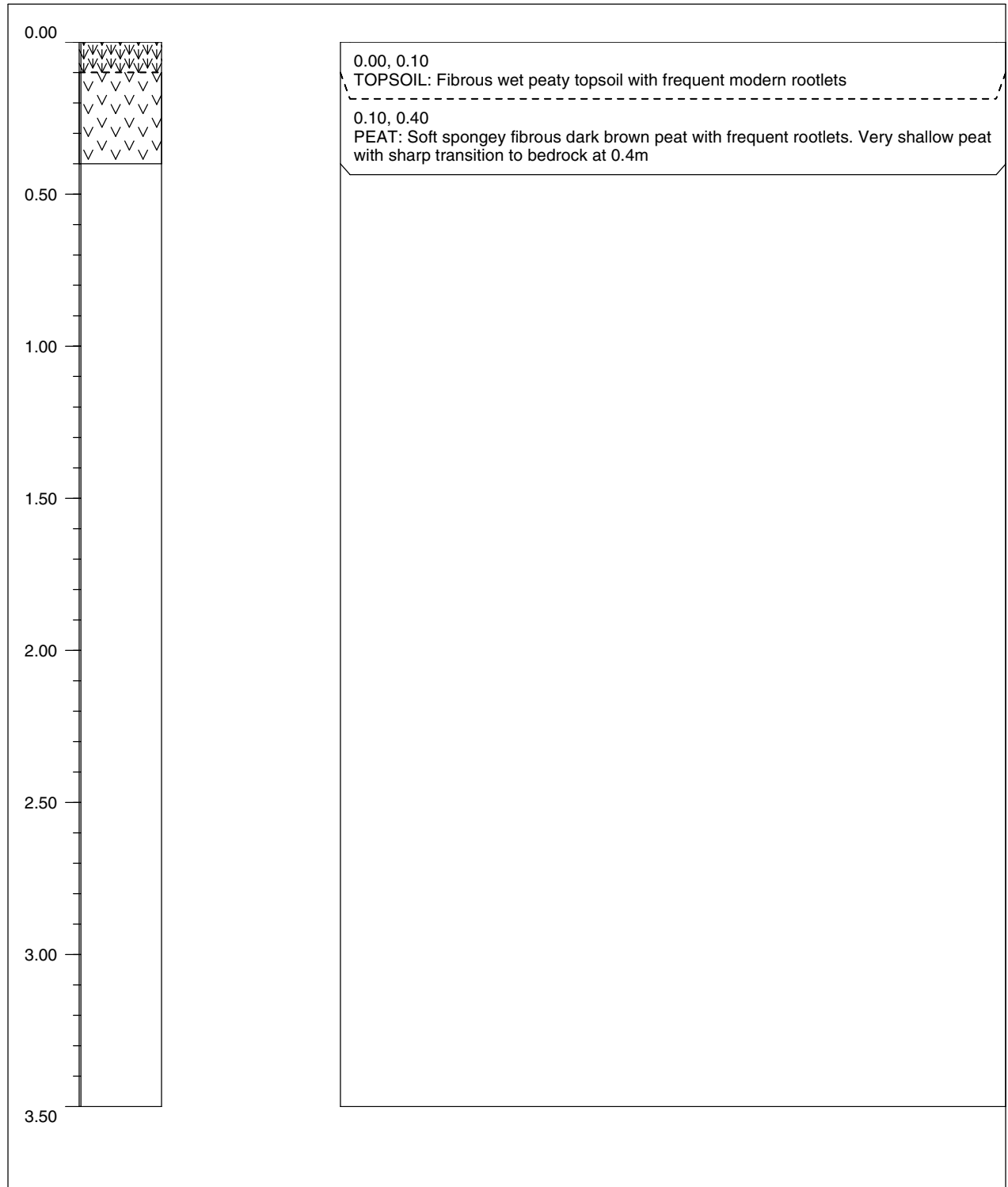
BH NO: OA1

ELEVATION: 236.00

NG NORTHING: 314669.69

LOGGER: CC

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275873.79

DATE: 08/05/12

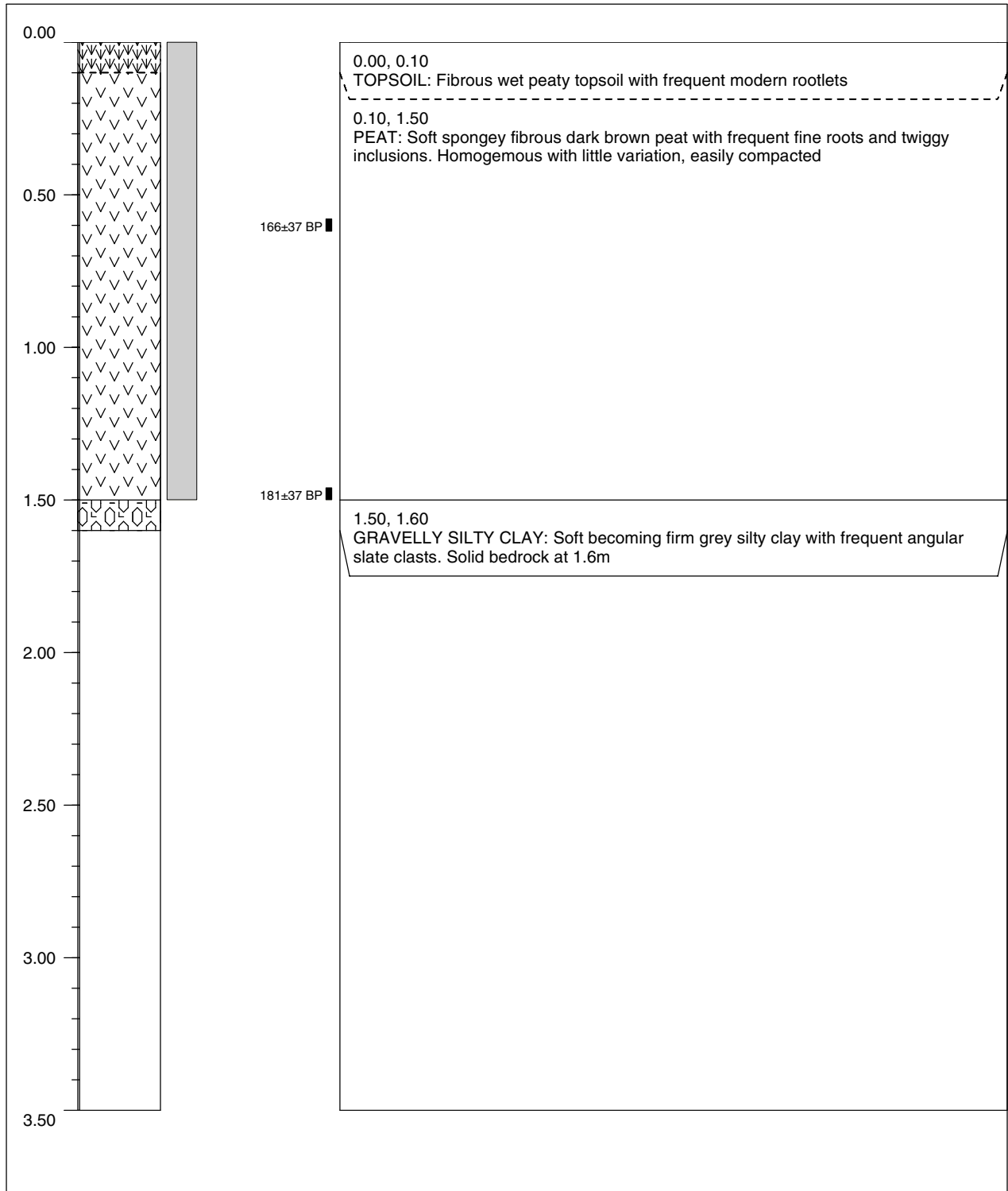
BH NO: OA2

ELEVATION: 235.45

NG NORTHING: 314675.91

LOGGER: CC

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275866.34

DATE: 08/05/12

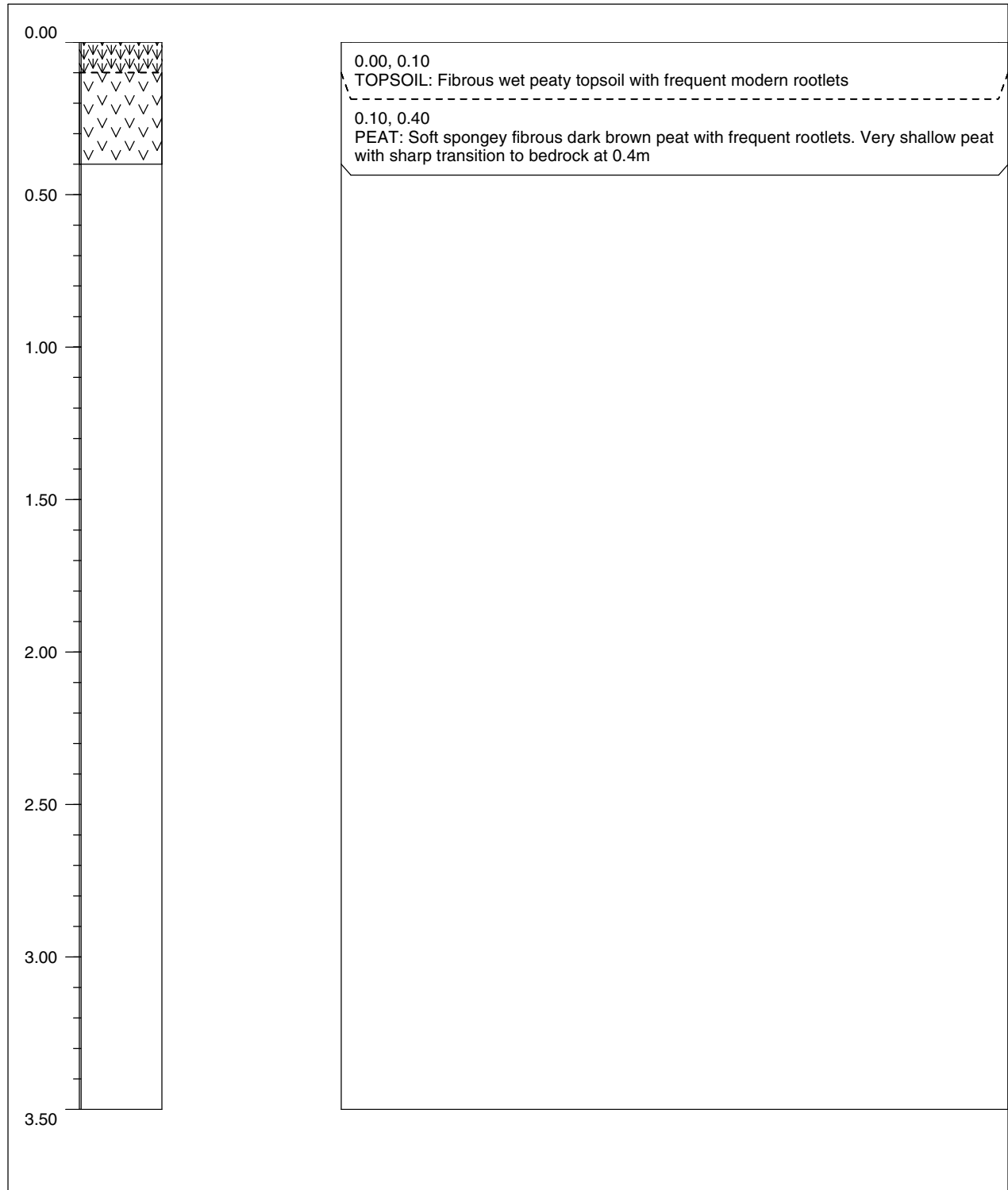
BH NO: OA3

ELEVATION: 235.32

NG NORTHING: 314680.71

LOGGER: CC

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275859.15

DATE:29/05/12

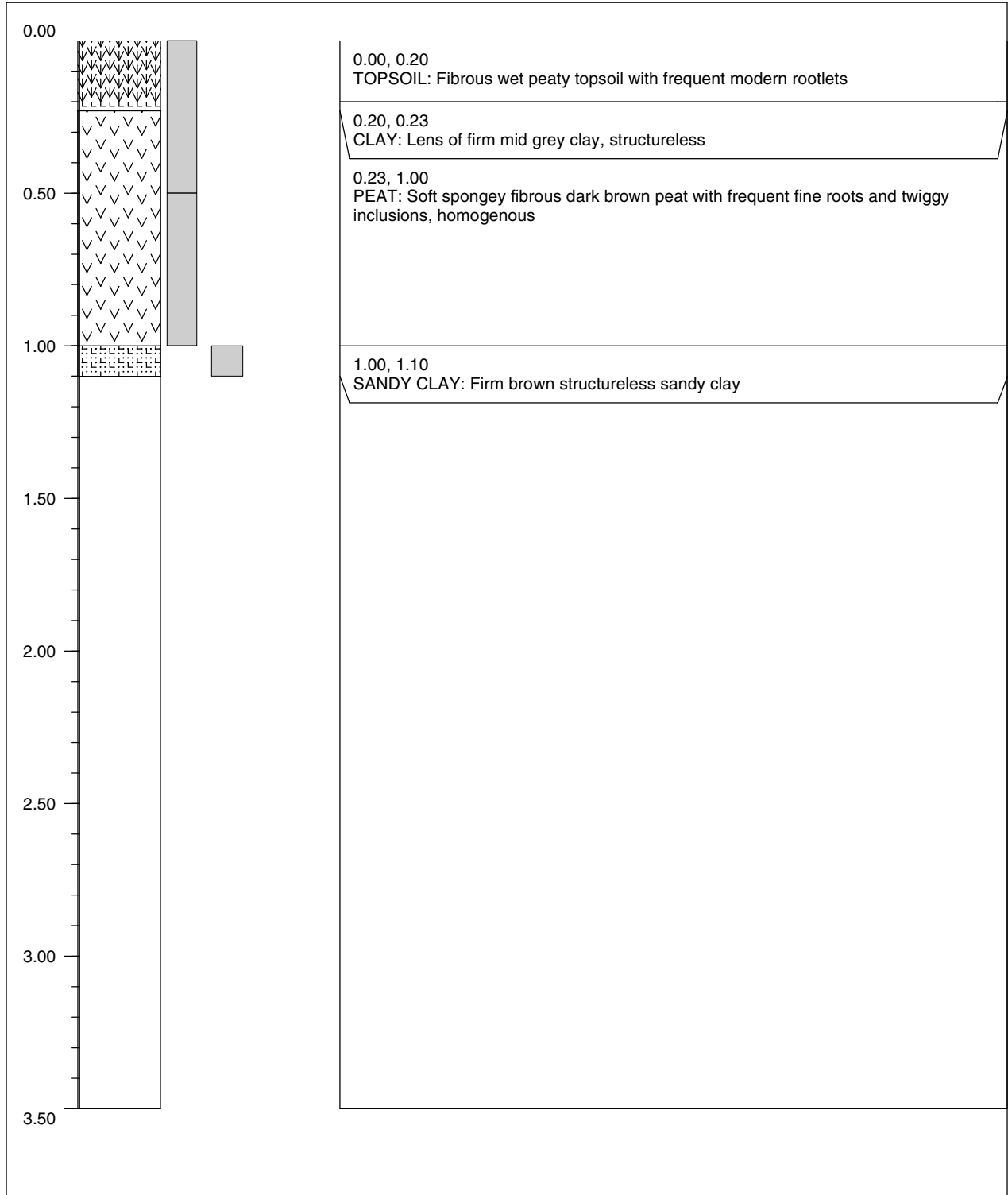
BH NO: OA4

ELEVATION: 235.37

NG NORTHING: 314685.24

LOGGER: CH

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275828.41

DATE: 08/05/12

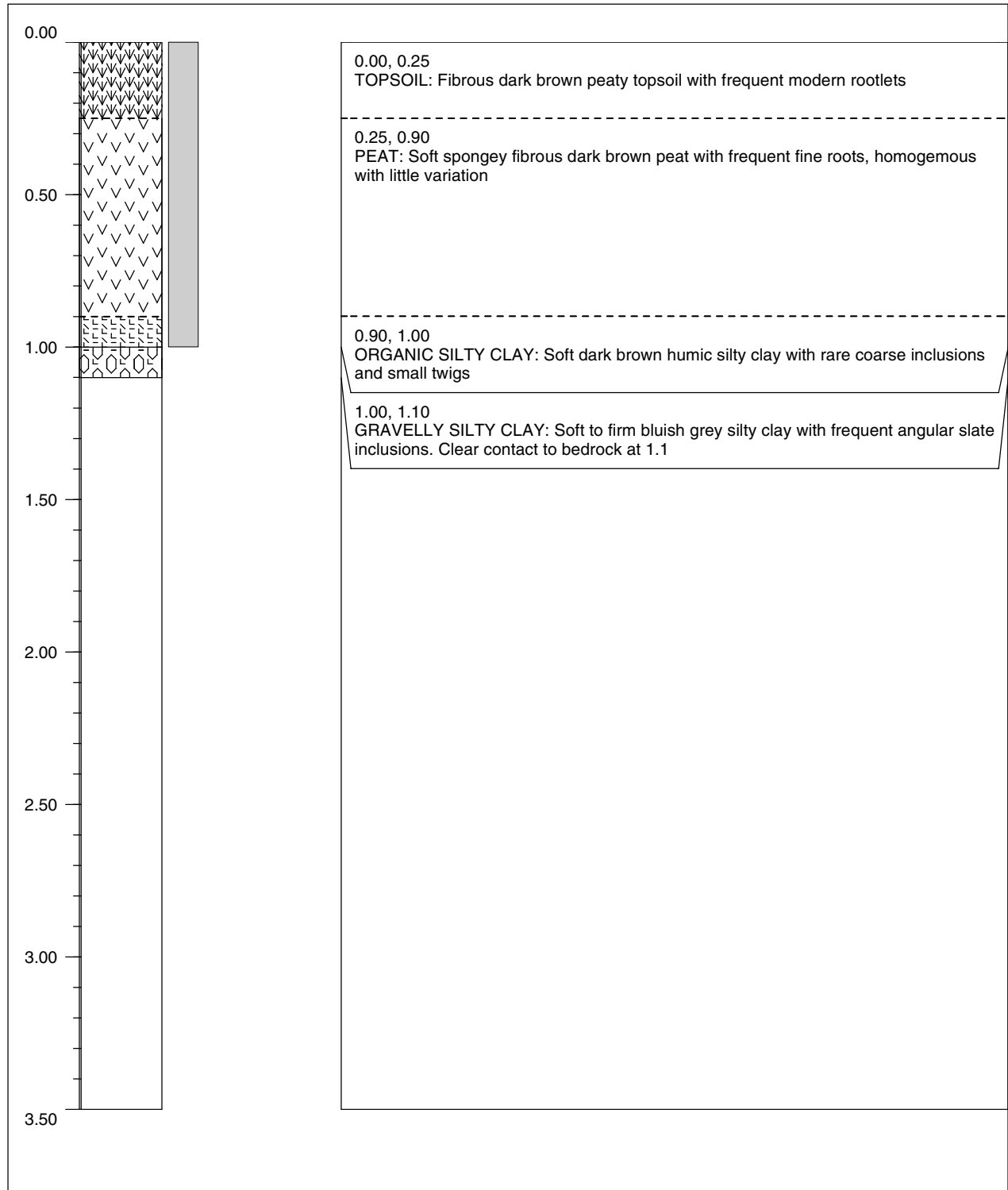
BH NO: OA5

ELEVATION: 235.14

NG NORTHING: 314710.47

LOGGER: CC

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275833.50

DATE:29/05/12

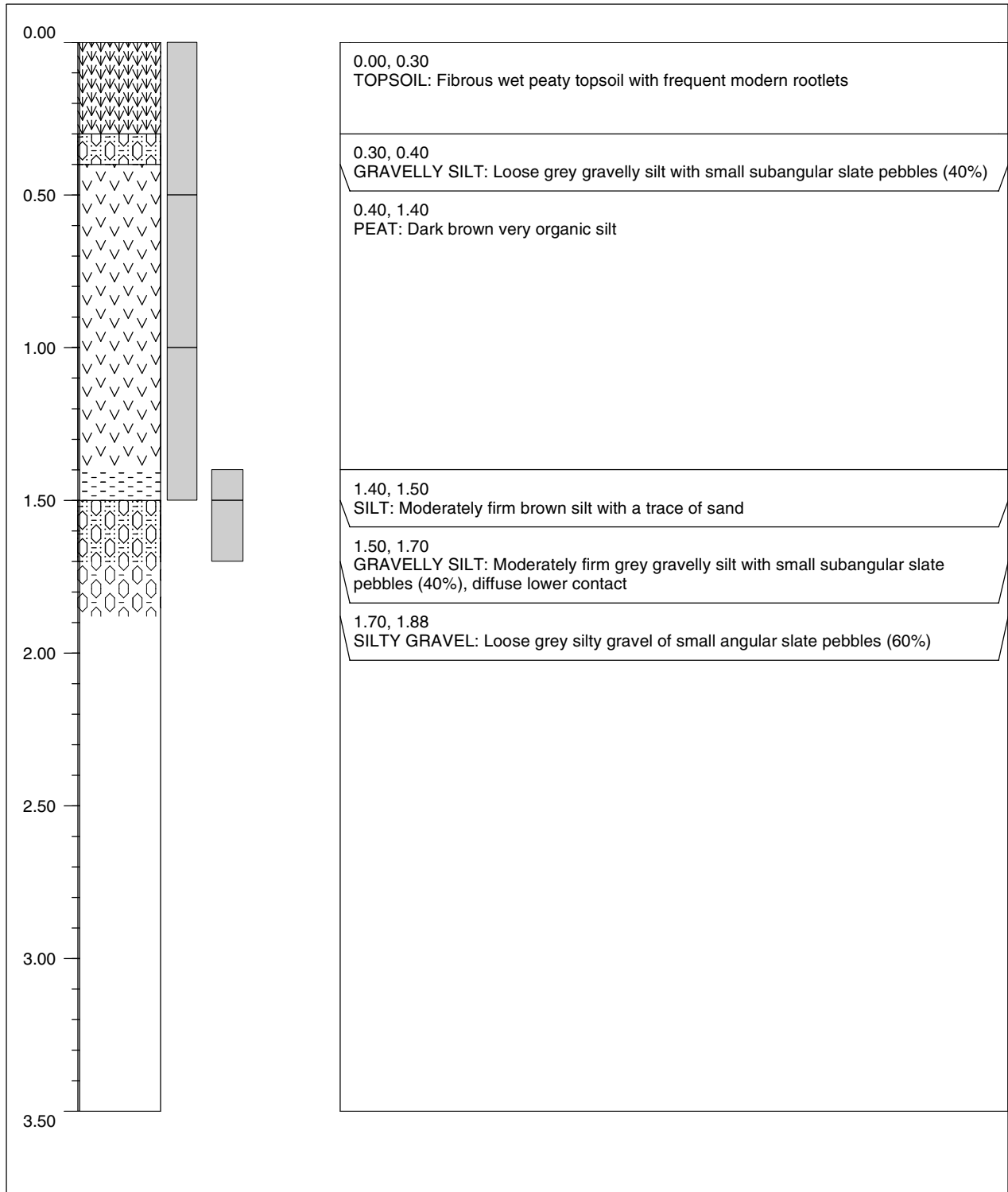
BH NO: OA6

ELEVATION: 235.49

NG NORTHING: 314702.64

LOGGER: CH

Depth Lithology Cores Bulk C14 Description



NOTES:

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275834.33

DATE: 30/05/12

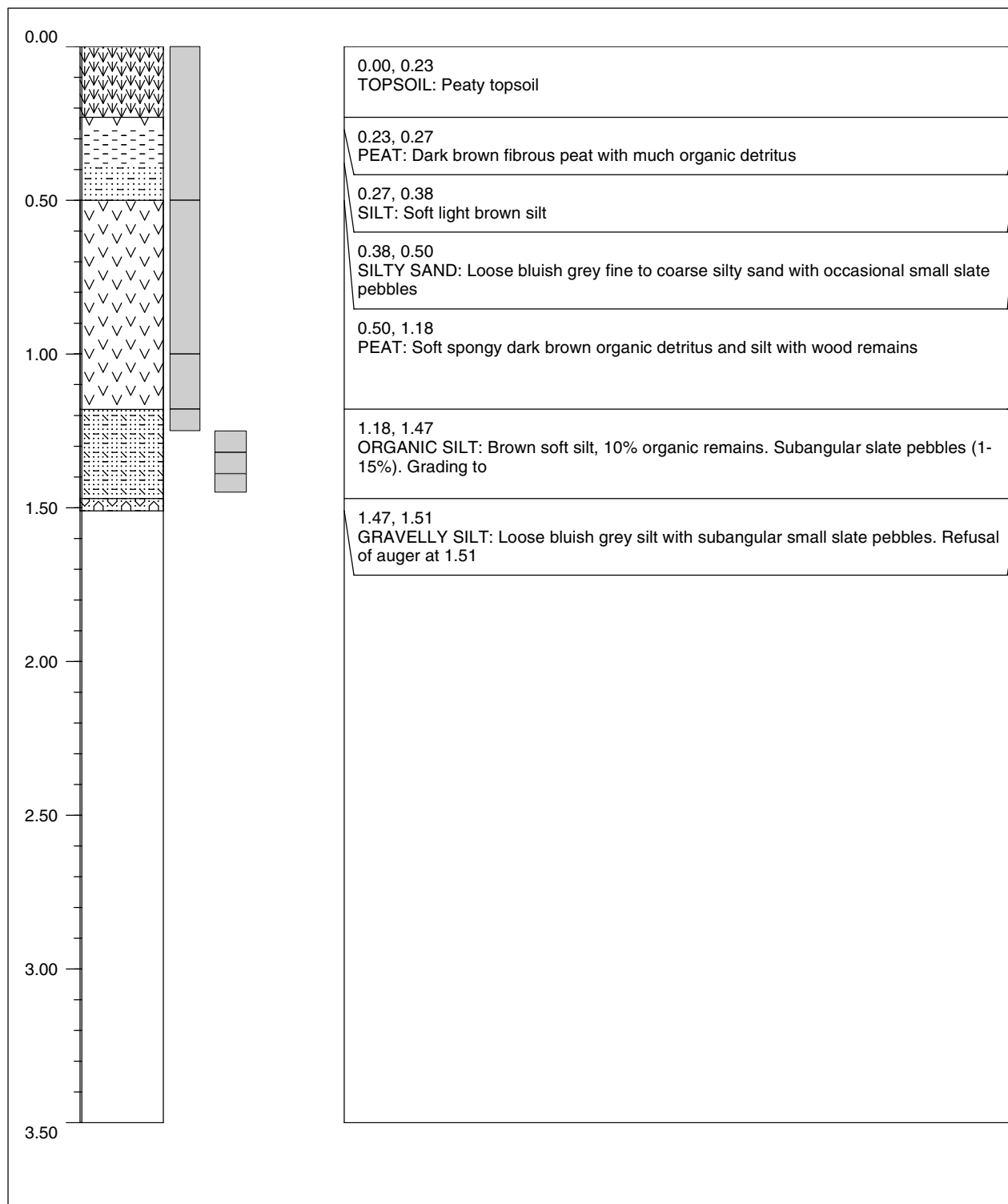
BH NO: OA7

ELEVATION: 235.37

NG NORTHING: 314700.75

LOGGER: CH

Depth Lithology Cores Bulk C14 Description



NOTES: Difficult ground conditions resulted in repeated efforts to obtain intact cores in the lower part of the peat sequence

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 275540.47

DATE: 17/07/12

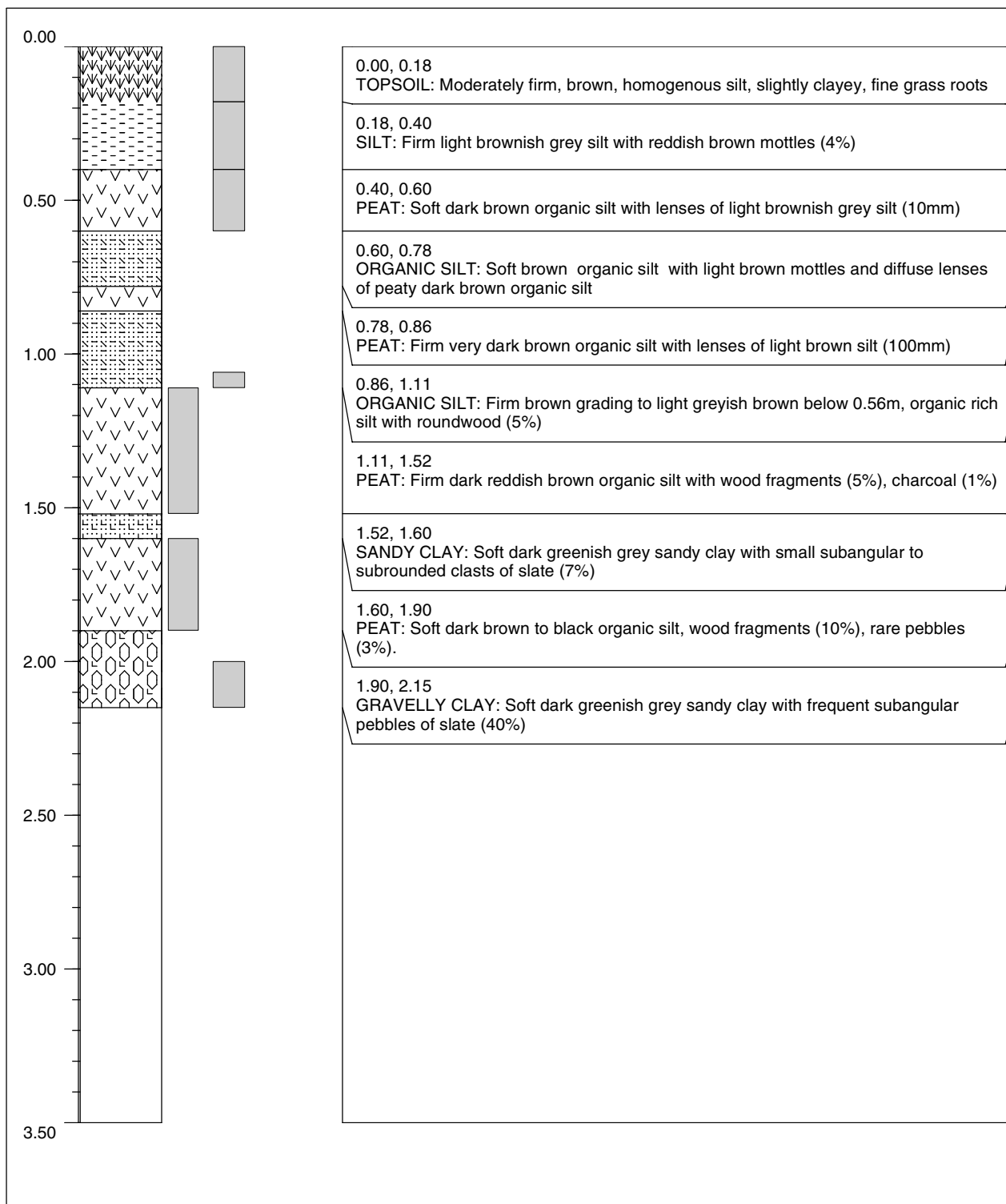
BH NO: OA08

ELEVATION: 71.82

NG NORTHING: 307512.91

LOGGER: CH

Depth Lithology Cores Bulk C14 Description



NOTES: Field 6/14, under pasture, at break of slope to valley bottom

FIELD SEDIMENT LOGGING SHEET

SITE CODE: WAGAS12

NG EASTING: 277217.23

DATE: 26/07/12

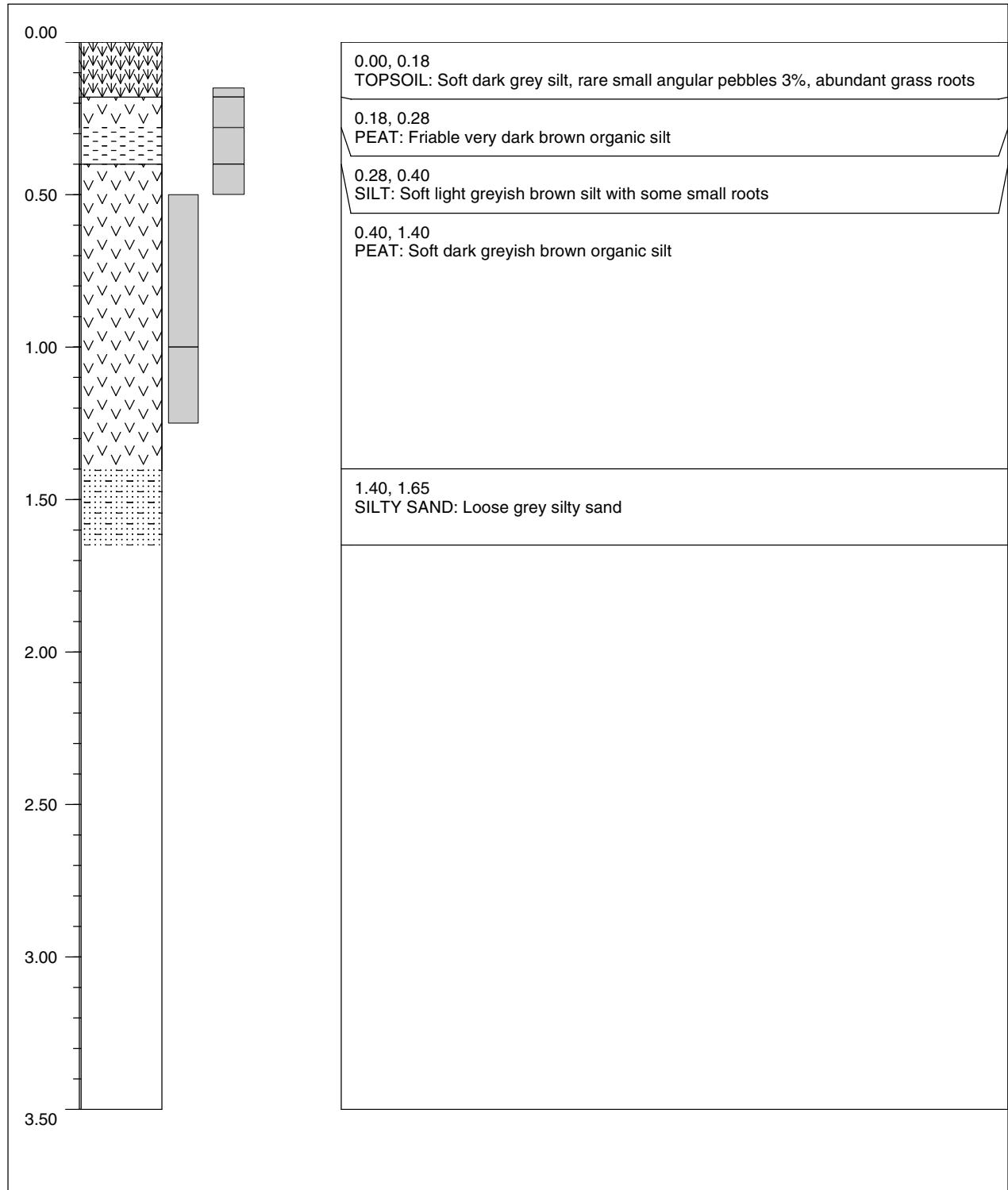
BH NO: OA9

ELEVATION: 99.90

NG NORTHING: 309985.09

LOGGER: CH

Depth Lithology Cores Bulk C14 Description



NOTES: Field 7/27 wet pasture



APPENDIX D. FIELD COMPLETION RECORD

**LLANWRIN TO DOLGELLAU GAS PIPELINE REPLACEMENT
HN037 PROJECT**

OXFORD ARCHAEOLOGY FIELD SIGN-OFF RECORD

- * Archaeological Supervisor signature required for each weekly update.
- ** Archaeological Supervisor to record completion of each stage of groundworks in each field.
- *** Information updated from Appendix C of RSK DBA report. Add details of field boundaries assessed in this column.

Version	Date	Item	Signature*	Print name
v1.0	29/05/2012	First issue		M. Dodd
v2.0	06/06/2012	Accompanying Weekly Report 13		M. Dodd
v3.0	18/06/2012	Accompanying Weekly Report 15		M. Dodd
v4.0	25/06/2012	Accompanying Weekly Report 16		M. Dodd
v5.0	30/06/2012	Accompanying Weekly Report 17		M. Dodd
v6.0	07/07/2012	Accompanying Weekly Report 18		M. Dodd
v7.0	14/07/2012	Accompanying Weekly Report 19		M. Dodd
v8.0	21/07/2012	Accompanying Weekly Report 20		M. Dodd
v9.0	29/07/2012	Accompanying Weekly Report 21		M. Dodd
v10.0	06/08/2012	Accompanying Weekly Report 22		M. Dodd
v11.0	13/08/2012	Accompanying Weekly Report 23		C. Heistermann
v12.0	20/08/2012	Accompanying Weekly Report 24		C. Heistermann
v13.0	28/08/2012	Accompanying Weekly Report 25		M. Dodd
v14.0	03/09/2012	Accompanying Weekly Report 26		M. Dodd
V15.0	07/09/2012	Accompanying Weekly Report 27		M.Dodd

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
0/1	28/03/12	Y	31/03/12	Y			RSK Site 275: Glan Fechan farmstead. Still occupied L22: active trackway forming northeastern field boundary	No archaeology observed. The potential for archaeological remains following the benching is deemed to be very low.
1/1	14/04/12	Y	14/04/12	Y	18/06/12	Y	RSK Event E5: pipeline watching brief. No evidence for works are visible	The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
1/2	14/04/12	Y	14/04/12	Y	18/06/12	Y		The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
1/3	14/04/12	Y	14/04/12	Y	18/06/12	Y		The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing..
1/4	14/04/12	Y	14/04/12	Y	18/06/12	Y		The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
1/5	25/04/12	Y	28/04/12	Y	16/06/12	Y	L21: Pennal to Ffestiniog Roman Road. An active tarmacked road which forms western field boundary L44: Relict field boundary and track identified from Tithe mapping. Visible in field as low earth bank and hedge.	A single undated linear feature was revealed and recorded. It ran East – West and its edge definition suggested it was modern. The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
1/6	28/04/12	Y	28/04/12	Y	16/06/12	Y	L21: Pennal to Ffestiniog Roman Road. An active tarmacked road which forms northern field boundary and is lined by mature trees	The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
2/1							L21: Pennal to Ffestiniog Roman Road. An active tarmacked road which forms southern field boundary and is lined by mature trees	
2/2	21/04/12	Y	21/04/12	Y	11/06/12	Y		The burnt feature identified was investigated and found to be modern. Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. Pipe trench

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								revealed nothing.
2/3	20/04/12	Y	21/04/12	Y	07/06/12	Y	L29: cropmark identified in adjacent field. Not visible but follows the natural break of slope	No archaeological remains. Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. Pipe trench revealed nothing.
2/4	21/04/12	Y	21/04/12	Y	07/06/12	Y	L29: cropmark identified in adjacent field. Not visible but follows the natural break of slope	Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. Pipe trench revealed nothing.
3/1	21/04/12	Y	21/04/12	Y	30/05/12	Y	RSK Site 280: Level. Visible as a slight discontinuity in the slope of the hill in its recorded position L29: Pennal to Ffestiniog Roman Road. An active tarmacked road	The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
3/2	21/04/12	Y	21/04/12	Y	30/05/12	Y		The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
3/3	21/04/12	Y	21/04/12	Y	30/05/12	Y	RSK Site 282: Farmstead of Glennydd. Still occupied	The potential for archaeological remains following the benching is deemed to be very low. Pipe trench revealed nothing.
RDX/4	14/04/12	Y	14/04/12	Y	23/05/12	Y		Area to west, north of Henddol

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
4/1	19/04/12	Y	21/04/12	Y	11/06/12	Y	L30: Possible route of palaeochannel visible on AP. Possible, hugging the curve of the break of slope in the field RSK Site 259: Farmstead of Hen-ddol. Still occupied	No archaeological remains. Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. Pipe trench revealed nothing.
4/2	19/04/12	Y	21/04/12	Y	30/05/12	Y	L45: footpath at Henddol. Still active	An area of burnt stone and a fire-pit were identified and recorded, although neither provided any dating evidence and were within 20m of a caravan, suggesting it was likely to be a modern camp fire. Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. Pipe trench revealed nothing. Deep sequence of alluvial deposits were observed overlying the bedrock, when the pipe trench was excavated.
4/3	17/04/12	Y	21/04/12	Y	29/06/12	Y	L35: Corris Railway. Forms NW field boundary and A487 road. Slate revetting visible L34: Watercourse, Pantperthog. No evidence for this watercourse remains in the field L43: incline forms the N field boundary, largely rudy but with structural elements remain along its length	Two series of postholes totaling 8 individual features were revealed and recorded, three in the vicinity of evaluation trench 5, the others towards the northern end of the stripped area. Neither produced any dating evidence. Due to minimal benching and remnant colluvium, the potential for archaeological remains exists The pipe trench revealed no archaeology
4/4							L43: Incline for Llwyn-gwern quarry forms the S field boundary and is up to approx. 7m high in field	
4/5							RSK Site 43: Pont Llwyngwern. Forms N field boundary to field. Intact and actively used by	

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							vehicles. Form of bridge difficult to observe due to heavy overgrowth	
5/1	15/04/12	Y	15/04/12	Y	31/07/12		RSK Site 43: Pont Llwyngwern. Forms S field boundary to field. Intact and actively used by vehicles. Form of bridge difficult to observe due to heavy overgrowth	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
5/2					31/07/12		RSK Site 204: Farm, Llwyn-gwern. Still active. No remains of outbuildings in stone were identified	No archaeology revealed during trenching.
5/3	21/04/12	Y	21/04/12	Y	20/06/12	Y	RSK Site 355: Possible ridge and furrow, Llwyn-gwern. Possible ridge and furrow was identified within field 5/3, visible as a parallel series of variations in the colour of the sprouting rapeseed crop, along the same orientation as the field boundary (WSW to ENE). Not identified on APs. Discussion with Mr. R. W. C. Beaumont, the landowner, indicate that the ploughing and fertilizing of the rapeseed crop was undertaken by some external contractors earlier this year, an inferior quality job was done, and this may account for the parallel striping seen in this field	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
5/4	21/04/12	Y	21/04/12	Y	21/06/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
5/5	21/04/12	Y	21/04/12	Y	22/06/12	Y	RSK Site 285: Structure, Coed Llwyn-gwern. Single roofed structure depicted on OS 1st Edition 6" map and current maps. Visible as a ruined DSW slate structure in AFRS. One gable end almost intact, 2 storeys. Possible barn?	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
5/6	21/04/12	Y	21/04/12	Y	22/06/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
5/7	19/04/12	Y	21/04/12	Y	23/06/12	Y		Two areas of burning were identified and photographed, although they were found to contain modern broken glass and metalwork. Revealed four features, each 20cm in diameter within 2m of each other and several further areas of burning or heat affected ground. All four small features were half-sectioned and three contained clearly modern burnt remains including batteries. No archaeology revealed during trenching.
5/8	19/04/12	Y	21/04/12	Y	27/06/12	Y		Due to minimal benching and remnant colluvium, the potential for archaeological remains exists. No archaeology revealed during trenching.
5/9	19/04/12	Y	19/04/12	Y	29/06/12	Y	L35 Corris Railway Line. Visible in field as tumbled DSW and structure forming W field boundary	This field was only partially benched and so potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
5/10	19/04/12	Y	19/04/12	Y	-		RSK Site 40: Milestone adjacent to A487. Not visited L35 Corris Railway Line. Runs adjacent to A484 road	
6/1	-		-				L35 Corris Railway Line. Defunct and overgrown	Not within the route
6/2	20/04/12	Y	20/04/12	Y	19/07/12	Y		Site access. Very low potential. No archaeology revealed during trenching.
6/3	20/04/12	Y	20/04/12	Y	19/07/12	Y	L35 Corris Railway Line. Defunct and overgrown	Low potential following stripping and benching. No archaeology revealed during trenching.
6/4	23/04/12	Y	23/04/12	Y	04/07/12	Y		Low potential following stripping and benching. No archaeology revealed during trenching.
6/5	23/04/12	Y	23/04/12	Y	19/07/12	Y		Low potential following stripping and benching. No archaeology revealed during trenching. Peat deposits noted.
6/6	28/04/12	Y	28/04/12	Y	19/07/12	Y	RSK Site 39: Locomotive Shed for Corris Railway line. Occupies enclosure forming NW field boundary	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching. Peat deposits noted
6/7	28/04/12	Y	28/04/12	Y	19/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/8	28/04/12	Y	28/04/12	Y	04/07/12	Y	L35 Corris Railway Line: active and forms NW field boundary	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/9	28/04/12	Y	28/04/12	Y	19/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								archaeology revealed during trenching.
6/10	28/04/12	Y	28/04/12	Y	04/07/12	Y	L35 Corris Railway Line: active and forms NW field boundary	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/11	28/04/12	Y	28/04/12	Y	04/07/12	Y	L35 Corris Railway Line: active and forms NW field Boundary RSK Site 353: Structure, Brynllwyd. A roofed structure is depicted on the OS 1st Edition 6" map. Current mapping depicts it as unroofed. The AFRS identified it as of slate drystone construction with two entrances and multiple construction phases, now roofless.	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/12	28/04/12	Y	28/04/12	Y	04/07/12	Y	L35 Corris Railway Line: active and forms NW field boundary	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/13	25/04/12	Y	25/04/12	Y	04/07/12	Y	L35 Corris Railway Line: active and forms NW field boundary	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
6/13.1	25/04/12	Y	25/04/12	Y	04/07/12	Y		Flint blade surface find. No associated feature identified. No archaeology revealed during trenching.
6/14	26/04/12	Y	26/04/12	Y	10/07/12	Y	L35 Corris Railway Line: active and forms NW field boundary	Peat deposits encountered and bulked sampled, then augered. No archaeology revealed during trenching.
6/15	27/04/12	Y	27/04/12	Y	10/07/12	Y	RSK Site 358 Placename, Werglodd Ysgubor: No	This field was only partially benched and so potential for

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							barn or structure identified in field	archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
6/16	27/04/12	Y	27/04/12	Y	05/07/12	Y	RSK Site 299: Pentre Farm: still occupied RSK Site 266: Structure, Fron-Felen. Derelict, with a square structure in adjoining field	This field was only partially benched and so potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology was revealed within the alluvial sequences.
RDX 7	-		-		12/05/12	Y	Crossed L 17- Roman Road	No archaeology observed, no evidence of L17. No archaeology revealed during trenching.
7/1	-	Y	17/05/12	Y	21/08/12	Y	L18: Pennal to Festiniog predicted line of Roman road. Now a bridleway track 4m wide L17: Brithdir to Cefn Caer predicted line of Roman road. Now a heavily overgrown track with mature trees	The potential for archaeological remains following the benching is deemed to be very low.
7/2	19/05/12	Y	21/05/12	Y	06/07/12	Y	L17: Brithdir to Cefn Caer predicted line of Roman road. A heavily overgrown track on the shoulder of hill	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/3	19/05/12	Y	21/05/12	Y	06/07/12	Y	RSK Site 222: Quarry located in adjacent field RSK Site 354: Platform, Abercorris A square stone platform approximately 5m by 5m was identified during the AFRS adjacent to a gate into field 7/3. It consists of unworked slate slabs, and could be a platform for an animal feeding area or	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							trough.	
7/4	19/05/12	Y	21/05/12	Y	09/07/12	Y	L18: Pennal to Festiniog predicted line of Roman road. Now a track up to 4m wide and terraced into shoulder of hillside, lined with mature trees with occasional evidence of slate revetting L17: Brithdir to Cefn Caer predicted line of Roman road. Forms NW field boundary. A 3m wide track terraced into hillside, lined with mature trees and with a lynchet 1.5m high on the E side	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/5	19/05/12	Y	21/05/12	Y	10/07/12	Y	L17: Brithdir to Cefn Caer predicted line of Roman road. Depicted midway up hillslope in field overlooking river. No evidence for a track in recorded location	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/6	19/05/12	Y	21/05/12	Y	11/06/12	Y	L17: Brithdir to Cefn Caer predicted line of Roman road. Depicted midway up hillslope in field overlooking river. No evidence for a track in recorded location	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/7	19/05/12	Y	21/05/12	Y	14/07/12	Y	L35 Corris Railway Line. Visible as a break of slope and terrace lined with slate DSWs	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/8	19/05/12	Y	21/05/12	Y	15/07/12	Y	L35 Corris Railway Line. Visible as a break of slope and terrace lined with slate DSWs	The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/9	25/05/12	Y	25/05/12	Y	15/07/12	Y		The potential for archaeological remains following the benching

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								is deemed to be very low. No archaeology revealed during trenching.
7/10	25/05/12	Y	25/05/12	Y	15/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/11	25/05/12	Y	25/05/12	Y	27/07/12	Y		Isolated peat deposits up to 0.5m deep were identified within this field. The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/12	25/05/12	Y	25/05/12	Y	26/07/12	Y	RSK Site 341: Structure, Cae cenau. A single unlabelled structure is depicted on the OS 1st Edition 25" map within a triangular enclosure. The enclosure is still depicted on current mapping, but no structure is depicted. Partly visible during AFRS as a terrace and low slate DSW	The potential for archaeological remains following the benching is deemed to be very low.. Structure, RSK 341 was recorded. No archaeology revealed during trenching.
7/13	25/05/12	Y	25/05/12	Y	03/09/12	Y	RSK Site L16: Predicted line of Roman Road	The predicted roman road survives as nothing more than a farm track in this location. The potential for archaeological remains following the benching is deemed to be very low.
7/14	-	Y	25/05/12	Y	03/09/12	Y	RSK Site L16: Predicted line of Roman Road	Stone revetment for raised trackway and possible bridge, identified outside of the route limits. This was photographed. Current trackway was benched by a 360 digger with a toothless ditching bucket. L16 is nothing more than a dirt track at this location. No archaeology revealed during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
7/15	-	Y	25/05/12	Y	30/08/12	Y	RSK Site L16: Predicted line of Roman Road	Current trackway was benched by a 360 digger with a toothless ditching bucket. L16 is nothing more than a dirt track at this location. No archaeology revealed during trenching.
7/16	-	-	-	-	-	-	RSK Site L16: Predicted line of Roman Road	Off route.
7/17	-	-	-	-	23/08/12	Y	RSK Site L16: Predicted line of Roman Road	No archaeology revealed during trenching.
7/18	24/05/12	Y	24/05/12	Y	30/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/19	25/05/12	Y	25/05/12	Y	31/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/20	25/05/12	Y	25/05/12	Y	30/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/21	25/05/12	Y	25/05/12	Y	30/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
7/22	-		-		-			Not within the route
7/23	-		-		-			Not within the route
7/24	26/05/12	Y	-	Y	28/07/12	Y		This field was not benched. Consequently, potential for archaeological remains exists within the underlying drift

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								deposits. No archaeology revealed during trenching.
7/25	25/05/12	Y	25/05/12	Y	31/07/12	Y		Wooded area on a steep slope. The potential for archaeological remains following the stripping and benching is deemed to be very low.
7/26	26/05/12	Y	26/05/12	Y	31/07/12	Y		The archaeological potential remains good where significant alluvial deposits were exposed alongside the river.
7/27	02/05/12	Y	02/05/12	Y	24/07/12	Y		The archaeological potential remains good where significant alluvial deposits were exposed alongside the river. Significant peat deposits were revealed and an Auger sample was taken accordingly.
7/28	02/05/12	Y	02/05/12	Y	24/07/12	Y	L35 Corris Railway line. Defunct, and underneath existing road L42 Track, Cymerau Quarry to Aberllefenni. A track is depicted on the 1st Edition OS 6" map, leading to Aberllefenni from Cymerau Quarry. The AFRS identified that it is delineated by mature birch and ash, and currently cut off by fencing	.A structure, RSK340, was recorded. L35 and L42 were recorded (23/5/12). Significant peat deposits were revealed and an Auger sample was taken accordingly.
7/29	-		-		-			Not within the route
RDX 8					08/06/12	Y	L35 and L42 - Tramway and Trackway	No archaeology observed.
8/1	05/05/12	Y	05/05/12	Y	18/07/12	Y		Field boundary was recorded (03/05/12). The potential for archaeological remains following

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
8/2	05/05/12	Y	05/05/12	Y	18/07/12	Y	RSK Site 339: Magazine, Aberllefenni. Still visible in NW corner of field	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
8/3	05/05/12	Y	05/05/12	Y	18/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
8/4	05/05/12	Y	05/05/12	Y	18/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
RDX 9					15/06/12	Y		No archaeology was observed, although a sequence of alluvial deposits was identified, with a possible peat/soil horizon at the base.
9/1	05/05/12	Y	05/05/12	Y	11/07/12	Y		Work here was limited to the levelling of quarry waste. There was no excavation of topsoil. Consequently, the potential for archaeological remains exists. No archaeology revealed during trenching.
9/2	05/05/12	Y	05/05/12	Y	11/07/12	Y	RSK Site 338: Structures, Aberllefenni Quarry. Series of four roofed structures depicted on the south side of the main road leading from Aberllefenni on the OS 1st Edition map, with a further two	Carried out recording of structures in Fields 9/2 and 9/3 (26/04/12). Work here was limited to the levelling of quarry waste. There was no excavation of topsoil. Consequently, the potential for archaeological

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							located on the north side. Only a single unroofed structure is depicted on the south side in current mapping, and no structures were identified during the walkover as the entire area is covered in slate spoil	remains exists. A single dry stone wall was revealed within the side of the trench. Possibly part of a larger structure. Not damaged.
9/3	28/04/12	Y	28/04/12	Y	26/07/12	Y		Due to limited benching, the potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
9/4	28/04/12	Y	05/05/12	Y	26/07/12	Y	L26: Mill race past Blue Cottages. Not visible in field RSK Site 321: Structure, Aberllefenni Roofed structure at terminus of mill race and labelled "Aqueduct" on 1st Edition OS 25" map. Depicted as roofless on current mapping and still visible during AFRS L27: Tramway to Aberllefenni slate quarry. Only visible on road. Elsewhere, the tramways are covered in slate spoil	Due to limited benching, the potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
9/5	30/04/12	Y	05/05/12	Y	26/07/12	Y	L26: Mill race past Blue Cottages. Not visible in field	Due to limited benching, the potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
9/6	30/04/12	Y	05/05/12	Y	27/07/12	Y	L26: Mill race past Blue Cottages. Visible in field immediately to the W, but not visible in this field RSK Site 350: Structures, Blue Cottages. A pair of roofed structures are depicted on the	One area of burning was identified and fenced off and subsequently investigated and recorded. A pit 6006 was excavated. Due to limited benching, the potential for archaeological

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							OS 1st Edition 6" map, and shown as unroofed on current mapping. On site, the structures were found to be a poorly preserved drystone wall structure and a scatter of slate fragments in field 9/6	remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
9/7	01/05/12	Y	05/05/12	Y	27/07/12	Y		One area of modern burning identified, no archaeological remains identified. The field boundary between Fields 9/8 and 9/9 was recorded. Due to limited benching, the potential for archaeological remains exists within the alluvial/colluvial deposits. No archaeology revealed during trenching.
9/8	05/05/12	Y	05/05/12	Y	27/07/12	Y	RSK Site 349: Pillar, Afon Llefenni visible in corner of field adjacent to Afon Llefenni	The field boundary between Fields 9/8 and 9/9 was recorded. The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/9	05/05/12	Y	05/05/12	Y	27/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/10	05/05/12	Y	05/05/12	Y	28/07/12	Y	L32: Aqueducts, Tafarn-fach. Pair of aqueducts leading from Cam-bergi Quarry (RSK Site 157) to Afon Llefenni. Visible only as a field boundary RSK Site 329: Magazine, Cam-bergi Quarry. Small discrete square structure depicted adjacent to Afon Llefenni. Still visible as a small,	A structure identified as an aqueduct in the DBA was recorded and a further undated ditch was investigated. The potential for archaeological remains following the stripping and benching is deemed to be very low. Both the 'ditch' aqueduct and the ceramic pipe aqueduct were identified during the trenching phase.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							well-built square roofless structure L41: Path, Hengae. Visible as a slight terrace	
9/11	05/05/12	Y	05/05/12	Y	28/07/12	Y		Field boundary between Fields 9/11 and 9/12 was recorded (03/05/12). One undated linear feature and a pile of stone rubble were recorded (04/05/12). The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/12	12/05/12	Y	12/05/12	Y	28/07/12	Y		Field boundary between Fields 9/11 and 9/12 was recorded (03/05/12). The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/13	12/05/12	Y	12/05/12	Y	28/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/14	12/05/12	Y	12/05/12	Y	30/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/15	12/05/12	Y	12/05/12	Y	31/07/12	Y	RSK Site 23: Hengae Farmstead. Still occupied. Various abandoned outbuildings associated with the farmstead are present to the W of the site	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/16	12/05/12	Y	12/05/12	Y	31/07/12	Y	RSK Site 23: Hengae Farmstead. Still occupied. Various abandoned outbuildings	The potential for archaeological remains following the stripping and benching is deemed to be

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							associated with the farmstead are present to the W of the site	very low. No archaeology revealed during trenching.
9/17	15/05/12	Y	15/05/12	Y	01/08/12	Y	RSK Sites 154 and 155. Waste tip and tunnel. Not visible due to heavy overgrowth L13: Roman Road, Brithdir - Cefn Caer, Pennal. Now a very narrow path on the W side of slopes overlooking the Afon Llefenni	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/18	19/05/12	Y	19/05/12	Y	03/08/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
9/19	19/05/12	Y	19/05/12	Y			L13: Roman Road, Brithdir - Cefn Caer, Pennal. Now a very narrow path on the W side of slopes overlooking the Afon Llefenni RSK Site 352: reported location of a sheep pen and dip. Not identified on ground due to impassable overgrowth	The potential for archaeological remains following the stripping and benching is deemed to be very low.
9/20	19/05/12	Y	19/05/12	Y			RSK Site 351 Barn, Fron-fraith identified during AFRS	The potential for archaeological remains following the stripping and benching is deemed to be very low.
9/21	31/05/12	Y	31/05/12	Y	08/08/12	Y		The potential for archaeological remains following the benching is deemed to be very low
9/22	31/05/12	Y	31/05/12	Y	08/08/12	y		The potential for archaeological remains following the benching is deemed to be very low
9/23	31/05/12	Y	31/05/12	Y	15/08/12	Y		The potential for archaeological remains following the benching is deemed to be very low
9/24	31/05/12	Y	31/05/12	Y	15/08/12	Y	RSK Sites 143 and 144: Vron Fraith slate quarry and spoil tip. Not identified within woodland	The potential for archaeological remains following the benching is deemed to be very low

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
9/25	31/05/12	Y	31/05/12	Y	11/0812	y		Deep peat deposits were located here. The waterlogged conditions mean it is difficult to ascertain the remaining archaeological potential, although benching is likely to have reduced it. Monolith taken through peat.
9/27	31/05/12	Y	31/05/12	Y	13/08/12	Y	RSK Site 302: Waun-Llefenni. Still extant	Five parallel linears were identified across this field which may either be geological or the result of agricultural practices. Not deemed significant. The potential for archaeological remains following the stripping and benching is deemed to be very low.
9/28	31/05/12	Y	31/05/12	Y	15/0812	Y	L9: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path with slate fencing along W Side RSK Site 348: Structure, Fotty-y-waun identified during AFRS in a demolished state	The potential for archaeological remains following the stripping and benching is deemed to be very low.
10/1	25/05/12	Y	25/05/12	Y	16/08/12	Y	L8: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path RSK Site L40: Track, Waun-Llefenni. Leads from former quarry site	Monitored road crossing exposed an undated holloway filled with washed in sandy deposits that produced no archaeological finds. A single shallow ditch and three discrete features were revealed ([6141], [6138], [6137] and [6139] respectively. The potential for archaeological remains following the benching is deemed to be very low.
10.1/1	25/05/12	Y	-	Y	18/08/12	Y	L7: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	Boggy and low visibility, with no subsequent benching. Road crossing was dug and

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								backfilled quickly due too instable sediments, resulting in poor visibiliy. No archaeology was observed.
10.1/2	06/06/12	Y	-	Y	21/08/12	Y	L7: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	Poor visibility due to woodland, but nothing was seen. Archaeological potential is deemed to be low. No archaeology was reveal during trenching.
10.1/3	19/05/12	Y	-	Y	21/08/12	Y	L7: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	Boggy and low visibility, with no subsequent benching. Archaeological potential remains. Road crossing to monitor. No archaeology was reveal during trenching.
10/2	25/05/12	Y	25/05/12	Y	16/08/12	Y	RSK Site 142: Fotty-y-waun hafod. Still extant RSK Site 303: Sheepfolds, Fotty-y-waun. Still present, but largely demolished RSK Site 331: Sheepfold, Fotty-y-waun. Visible as piles of stone against NW field L7: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	Deep peat (0.6m) and boggy conditions made visibility difficult. The potential for archaeological remains following the benching is deemed to be very low.
10/3	25/05/12	Y	25/05/12	Y	16/08/12	y		The quality of the stripping was poor throughout this section due to the conditions. Rather than being benched, stone was then added to create an access road. No archaeology was reveal during trenching.
10/4	25/05/12	Y	25/05/12	Y	21/08/12	Y		Woodland. Same treatment as F. 10/3.
10/5	25/05/12	Y	25/05/12	Y	21/08/12	Y	RSK Site 140: Roman milestone. No trace identified L7: Part of Roman Road, Brithdir - Cefn Caer, Pennal.	An upright stone was located at the position of RSK 140. But there is no evidence this was a Roman milestone. Same

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							Present as a cycle path	treatment as F. 10/3. No archaeology was reveal during trenching.
10/6	23/05/12	Y	23/05/12	Y	21/08/12	Y	RSK Site 332: Sheepfold, Cefn y Clawdd. Not identified L6: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology was reveal during trenching.
10/7	23/05/12	Y	23/05/12	Y	21/08/12	Y	RSK Site 332: Sheepfold, Cefn y Clawdd. Not identified L6: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology was reveal during trenching.
10/8	23/05/12	Y	23/05/12	Y	21/08/12	Y	L6: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology was reveal during trenching.
10/9	17/05/12	Y	17/05/12	Y	23/08/12	Y	L6: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path. RSK Site 327: Structure, Cefn y Clawdd. Identified as demolished structure on terrace L5: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path. An eroded ditch is visible on the W side of the path	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology was reveal during trenching.
10/10	17/05/12	Y	17/05/12	Y	23/08/12	Y	L6: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology was reveal during trenching.
RDX 11	-	-	-	-	18/08/12	Y		Trenching of road crossing RDX11 was monitored 18/08/12 revealing an undated holloway filled with gravelly sand. No

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								archaeological finds occurred.
11/1	12/05/12	Y	12/05/12	Y	29/08/12	Y	L5: Part of Roman Road, Brithdir - Cefn Caer, Pennal. Present as a cycle path L39: Path, Cefn Naw Clawdd identified in field to N of 11/1	The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
11/2	12/05/12	Y	12/05/12	Y	29/08/12	Y		Area to east done by 19/05/12. The potential for archaeological remains following the stripping and benching is deemed to be very low.
RDX 12	-	-	-	-	-	-		Crossed with directional drilling.
12/1	-	-	-	-	-	-		Auger survey (08/05/12) peat deposits. Drilled so not stripped or trenched.
12/2	-	-	-	-	-	-		Auger survey (08/05/12) peat deposits. Drilled so not stripped or trenched.
12/3	03/07/12	Y	-		24/07/12	Y		Only partially stripped. The rest to be drilled to de-turfed specially. Following stripping, the archaeological potential is thought to be low. No archaeology revealed during trenching.
12/4	27/06/12	Y	-		25/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be low. No archaeology revealed during trenching. No archaeology revealed during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
12/5	26/06/12	Y	-		26/07/12	Y	RSK Site 307: Sheepfold, Cefn-y-clawydd. Replaced by modern breeze block sheepfold RSK Site 324: Ford, Cefn y clawydd identified during AFRS	The potential for archaeological remains following the stripping and benching is deemed to be low. Small section of de-turfing completed 03/07/12. No archaeology revealed during trenching.
12/6	26/06/12	Y	30/06/12	Y	27/07/12	Y	L38: Drovers' road, Gwernraig still visible forming NE boundary to field	The potential for archaeological remains following the stripping and benching is deemed to be low. No archaeology revealed during trenching.
12/7	28/06/12	Y	30/06/12	Y	27/07/12	Y	L38: Drovers' road, Gwernraig still visible forming NE boundary to field	The potential for archaeological remains following the stripping and benching is deemed to be low. No archaeology revealed during trenching.
12/8	30/06/12	Y	30/06/12	Y	28/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be low. No archaeology revealed during trenching.
12/9	04/08/12	Y	-		04/08/12	Y		Planned to be drilled due to protected grass. No archaeology revealed during trenching or de-turfing.
12/10	05/07/12	Y	05/07/12	Y	11/08/12	y	RSK Site 131: Stone Pile, Cadair Idris. Not identified during AFRS	Following stripping and benching, the archaeological potential is thought to be low.
12/11	21/06/12	Y	22/06/12	Y	12/08/12	y	RSK Site 110: Bwlch Coch Quarry/ Ironstone Mine. Not identified during AFRS RSK Site 112: Garthgynfawr, Ironstone Workings. Identified during AFRS RSK Site 126: Cairn? Cadair Idris. Identified during AFRS	Following stripping and benching, the archaeological potential is thought to be low.
12/11A							RSK Site 102: Trackway, Cadair Idris. Not identified during AFRS	

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
12/12	19/06/12	Y	22/06/12	Y	12/08/12	y		Largely rock outcrops which were quarried for stone during benching. Archaeological potential is very low.
12/13	18/06/12	Y	22/06/12	Y	13/08/12	Y		Small field traversed by watercourses. Good visibility, low archaeological potential.
12/14	18/06/12	Y	22/06/12	Y	16/08/12	Y	RSK Site 93: Clearance Cairns, E of Maes-coch Cadair Idris. Identified during AFRS RSK Site 94: Ty'n-y-ffordd fawr enclosure. Identified during AFRS RSK Site 96: Clearance Cairns, Ty'n y Ffordd Fawr. Identified during AFRS L36: Trackway, Ty'n Y Ffridd. Visible	Areas of subsoil still extant within the field following stripping and benching. Trenching did not reveal any archaeology.
12/15	15/06/12	Y	16/06/12	Y	16/08/12	Y	RSK Site 87: Former Public House, Ty'n Y Ffordd Fawr identified as unroofed structure RSK Site 89: Field Clearance, NE of Maes-coch Cadair Idris. Visible as slight banking of DSW field boundary	Poor weather and low visibility of exposed drift geology. Trenching did not reveal any archaeology.
12/16	-		16/06/12	Y	21/08/12	Y		Stone roadway constructed over the surface of boggy field. No excavation took place other than a drainage ditch exposing approximately 1m depth of peat. Archaeological potential unchanged. No archaeology was reveal during trenching.
12/17	15/06/12	Y	15/06/12	Y	21/08/12		RSK Site 347: Field clearance, Bwlch-coch identified during AFRS	Poor weather and low visibility of exposed drift geology. Archaeological potential remains. No archaeology was reveal during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
12/18	14/06/12	Y	15/06/12	Y	21/08/12	Y	RSK Sites 75 to 78 (Clearance Cairns). All present	Poor weather and low visibility of exposed drift geology. Archaeological potential remains. No archaeology was reveal during trenching.
12/19	13/06/12	Y	15/06/12	Y	22/08/12	Y		Cleared of scrubland only. No archaeology was reveal during trenching.
RDX 13					14/08/12	Y		
13/1	-		-					
13/2	12/05/12	Y	12/05/12	Y	16/08/12	Y		Cleared of scrubland, with limited benching. Some archaeological potential remains No archaeology was reveal during trenching.
13/3	12/05/12	Y	12/05/12	Y	17/08/12	Y	L37: Trackway, Ty'n-y-Bryn. Narrow possible hollow way identified forming SE field boundary.	Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.
13/4	12/05/12	Y	12/05/12	Y	17/08/12	Y	L37: Trackway, Ty'n-y-Bryn. Narrow possible hollow way identified forming SE field boundary.	Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.
13/5	12/05/12	Y	12/05/12	Y	15/08/12	Y	RSK Site 69: Bwlchcoch Independent Chapel and Sunday School. Now used as residential housing	The potential for archaeological remains following the benching is deemed to be very low. No archaeology was reveal during trenching.
13/6	12/05/12	Y	12/05/12	Y	28/08/12	Y		Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.
13/7	12/05/12	Y	12/05/12	Y	28/08/12	Y		Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								reveal during trenching.
13/8	12/06/12	Y	12/06/12	Y	29/08/12	Y	RSK Site 346: Structure, Ty Cae Newydd identified in field during AFRS	Stripping and minimal benching has exposed a possible subsoil or colluvial deposit, maintaining the archaeological potential. No archaeology was reveal during trenching.
13/9	13/06/12	Y	13/06/12	Y	30/08/12	Y		Largely consisting of rocky outcrops with low archaeological potential following the benching. No archaeology was reveal during trenching.
13/10	12/06/12	Y	12/06/12	Y	01/09/12	Y		Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.
13/11	11/06/12	Y	11/06/12	Y	02/09/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/12	11/06/12	Y	11/06/12	Y	07/09/12	Y	RSK Site 344: Field clearance, Tyddyn Ednyfed noted in field during AFRS RSK Site 345: Structure, Tyddyn Ednyfed noted in field during AFRS	Follows trackway through woodland, with little benching. Moderate archaeological potential remains. No archaeology was revealed during trenching.
13/13	11/06/12	Y	11/06/12	Y	07/09/12	Y	RSK Site 323: Structure, Tyddyn Ednyfed. Still visible. Possible barn.	Good visibility of drift geology underlying the topsoil, low archaeological potential.
13/14	11/06/12	Y	11/06/12	Y	31/08/12	Y		Steep slope with exposed natural geology, minimal archaeological potential. No archaeology was reveal during trenching.
13/15	-		11/06/12	Y	31/08/12	Y		Due to the presence of a watercourse, and boggy ground, this field was not stripped. But instead a stone roadway constructed across the surface.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								No archaeology was reveal during trenching.
13/16	07/06/12	Y	08/06/12	Y	31/08/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/17	07/06/12	Y	08/06/12	Y	31/08/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/18	07/06/12	Y	08/06/12	Y	30/08/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/19	07/06/12	Y	08/06/12	Y	30/08/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/20	07/06/12	Y	08/06/12	Y	29/08/12	Y		Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
13/21	07/06/12	Y	08/06/12	Y	29/08/12	Y	RSK Site 315: Structure, Fron Serth. Occupied farmstead.	Good visibility of drift geology underlying the topsoil, low archaeological potential. No archaeology was reveal during trenching.
RDX 14								Drilled.
14/1	06/06/12	Y	11/06/12	Y	29/08/12	Y	L4: Part of Roman Road, Brithdir - Cefn Caer, Pennal	Even after stripping and benching, the original surface of the road was not observable.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
							surface within field	Further investigation to take place prior to the excavation of the pipe trench. Slot revealed shallow buried soil, overlain by modern dumped deposits. No archaeology was reveal during trenching.
14/2	-		-					Not within the route
14/4	06/06/12		06/06/12	Y	03/09/12	Y		Previously excavated for another gas pipe and steeply ramped for access, minimal potential. No archaeology was reveal during trenching.
15/1	07/06/12		07/06/12		23/08/12	Y	RSK L:28, Mill Race	Mill race as yet unaffected by the works. Photographic record made. Mill race recorded after section cut through.
15/2	06/06/12	Y	06/06/1	Y	23/08/12	Y		Exposure of alluvial deposits means that the archaeological potential remains. No archaeology was reveal during trenching.
15/3	28/04/12	Y	28/04/12	Y	13/07/12	Y		A possible cobbled surface was identified in Field 15/3 and was photographed and fenced off pending further investigation (28/04/12). Post-medieval pottery was recovered from the surface (Buckley Ware - 17thC-19thC). No archaeology revealed during trenching.
16/1	27/04/12	Y	-		13/07/12	Y		South end of Field 16/1 and topsoil removed to reveal alluvial type deposits and subsoil with

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								frequent modern debris. Archaeological potential remains within these deposits
16/2			-				L47: Bala to Dolgellau railway. Now a track and fence forming S field boundary	
RDX/17	16/02/12	Y	16/02/12	Y				Railway ancillary deposits and drain.
17/1	12/05/12	Y	12/05/12	Y	27/07/12	Y		The potential for archaeological remains following the stripping and benching is deemed to be very low. No archaeology revealed during trenching.
18/1	09/05/12	Y	12/05/12	Y	02/08/12	Y		One potential linear feature was investigated and recorded but contained no dating evidence. It was very irregular and probably results from tree root action. The potential for archaeological remains following the stripping and benching is deemed to be very low.
19/1	12/05/12	Y	12/05/12	Y			RSK Sites 260 and 326: Cropmarks at Moel View. Not visible during AFRS RSK Site 342: Field clearance, Moel View identified during AFRS	Benching was limited and there remains archaeological potential within this field.

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
19/2	12/05/12	Y	12/05/12	Y	10/07/12	Y		The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
19/3	12/05/12	Y	12/05/12	Y	11/07/12	Y		Field Boundaries between 19/3 to 4 were recorded (04/05/12). Benchng was limited and there remains archaeological potential within this field. No archaeology revealed during trenching.
19/4	05/05/12	Y	05/05/12	Y	12/07/12	Y	RSK Site 343: Field clearance, Pen-y-cefn noted in field during AFRS	Field Boundaries between 19/3 to 4 were recorded 19/4 to 5 (04/05/12). Benchng was limited and there remains archaeological potential within this field. No archaeology revealed during trenching.
19/5	03/05/12	Y	05/05/12	Y	12/07/12	Y		Two stone filled drains were identified running approximately east – west across the stripped area, these potentially correlating with the possible enclosure targeted by evaluation trench 27. A linear feature was identified and excavated and found to be two ditches. No dating evidence was recovered and the feature was fully recorded. Field Boundaries between 19/4 to 5 were recorded (04/05/12). Benchng was limited and there remains archaeological potential within this field. No archaeology revealed during trenching.
19/6	02/05/12	Y	05/05/12	Y	12/07/12	Y		No archaeology was observed in this field. Field Boundaries between 19/5 to 6 were recorded (04/05/12). The potential for archaeological

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								remains following the benching is deemed to be very low. No archaeology revealed during trenching.
19/7	02/05/12	Y	05/05/12	Y	14/07/12	Y		No archaeology was observed in this field. The potential for archaeological remains following the benching is deemed to be very low. No archaeology revealed during trenching.
20/1	27/04/12	Y	28/04/12	Y	14/07/12	Y		No archaeology was observed in this field. The archaeological potential of this field is low. No archaeology revealed during trenching.
20/2	28/04/12	Y	28/04/12	Y	14/07/12	Y	RSK Site 51: Univallate Enclosure, Garth-maelanbach in adjacent field. Visible as a circular earthwork	The possible enclosure that Trench 30 was targeted on and did not reveal was also not visible in this scheme of works. The extent of benching works was negligible and subsoil appears to remain, and so there is still archaeological potential. No archaeology revealed during trenching.
20/3	01/05/12	Y	05/05/12	Y	17/07/12	Y		A small possible pit containing no finds or charcoal was excavated and recorded. Only sections of this field were benched and subsoil appears to remain, such that there is still archaeological potential. No archaeology revealed during trenching.
20/4	30/04/12	Y	05/05/12	Y	17/07/12	Y	L33: Road identified in estate map now visible as a wide DSW and hedge	Only sections of this field were benched and subsoil appears to remain, such that there is still archaeological potential. Stone

Field Number	Topsoil Strip complete	Y/N**	Benching Work complete	Y/N**	Pipe Trench complete	Y/N**	Historic Landscape Features ***	Additional comments
								drain and pit revealed during trenching. Significant depth of subsoil remains.
20/5	01/05/12	Y	05/05/12	Y	17/07/12	Y	RSK Site 319: Structure, Pant-llifio. Observed as still standing and partly roofed but abandoned	Several areas of modern burning containing recent artefacts were investigated. Only sections of this field were benched and subsoil appears to remain, such that there is still archaeological potential. No archaeology revealed during trenching.



APPENDIX E. CONTEXT INVENTORY

Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
1000	Layer				Topsoil	
1001	Layer				Subsoil	
1002	Layer				Natural	
1003	Layer				Natural	
1004	Layer				Natural	
1005	Layer				Buried soil	
1006	Layer				Natural	
1007	Cut	1.3	0.35	0.12	Possible Wheel rut	
1008	Fill	1.3	0.35	0.12	Fill of 1007	Glass/C20 th
1009	Layer				Buried soil	
1010	Layer				Natural	
1011	Layer				Peat deposit	
1012	Layer				Gravel clay deposit	
1013	Layer				Loose gravel sand	
1014	Layer				Peat deposit	
1015	Layer				Colluvium	
1016	Layer				Colluvium	
1017	Layer				Colluvium	
1018	Fill				Fill of 1019	
1019	Cut				Gas pipe trench	
1020	Deposit				Bioturbation	
1021	Field Boundary				See boundary register	
1022	Field Boundary				See boundary register	
1023	Field Boundary				See boundary register	
1024	Field Boundary				See boundary register	
1025	Field Boundary				See boundary register	
1026	Void			N/A	N/A	N/A
1027	Void			N/A	N/A	N/A
1028	Layer				Topsoil	
1029	Layer				Subsoil	
1030	Layer				Topsoil	
1031	Layer				Subsoil	
1032	Cut	1.1	0.9	0.2	Fire pit	Undated
1033	Deposit				Loose patch of burnt stones	
1034	Layer				Topsoil	
1035	Layer				Subsoil	
1036	Layer				Natural	
1037	Cut				Modern fire	Glass, Aluminum foil, Fe
1038	Layer				Topsoil	
1039	Layer				Subsoil	
1040	Layer				Natural	
1041	Layer				Peat deposit	
1042	Field Boundary				See boundary register	
1043	Cut		0.5	0.12	Gully – Possible Drain	
1044	Fill		0.5	0.12	Fill of 1043	
1045	Field Boundary				See boundary register	
1046	Fill			0.1	Fill of 1032	None
1047	Fill			0.1	Fill of 1032	None
1048	Field Boundary				See boundary register	
1049	Field Boundary				See boundary register	
1050	Field Boundary				See boundary register	
1051	Field Boundary				See boundary register	
1052	Field Boundary				See boundary register	
1053	Field Boundary				See boundary register	
1054	Field Boundary				See boundary register	
1055	Field Boundary				See boundary register	
1056	Field Boundary				See boundary register	
1057	Field Boundary				See boundary register	
1058	Layer				Topsoil Field 4/3	
1059	Field Boundary				See boundary register	
2000	Cut	0.45	0.35	0.05	Posthole	
2001	Fill	0.45	0.35	0.05	Fill of 2000	
2002	Cut		0.5	0.07	Posthole	
2003	Fill		0.5	0.07	Fill of 2002	
2004	Cut		0.26	0.07	Posthole	
2005	Fill		0.26	0.07	Fill of 2004	
2006	Cut		0.35	0.06	Posthole	
2007	Fill		0.35	0.06	Fill of 2006	
2008	Cut	0.4	0.26	0.07	Posthole	
2009	Fill	0.4	0.26	0.07	Fill of 2008	
2010	Cut		0.3	0.03	Posthole	
2011	Fill		0.3	0.03	Fill of 2010	
2012	Cut		0.36	0.05	Posthole	
2013	Fill		0.36	0.05	Fill of 2012	
2014	Cut		0.4	0.08	Posthole	
2015	Fill		0.4	0.08	Fill of 2014	
2016	Layer				Topsoil	Fe and Glass/C19 th /20 th
2017	Layer				Buried turfline	
2018	Layer				Subsoil	
2019	Layer				Natural	
3000	Field Boundary				See boundary register	
3001	Field Boundary				See boundary register	

Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
4000	Layer				Topsoil	
4001	Layer				Peat deposit	
4002	Layer				Subsoil	
4003	Layer				Natural	
4004	Field Boundary				See boundary register	
4005	Field Boundary				See boundary register	
4006	Field Boundary				See boundary register	
4007	Field Boundary				See boundary register	
4008	Field Boundary				See boundary register	
4009	Field Boundary				See boundary register	
5000	Structure				Building RSK 340	
5001	Layer				Topsoil	
5002	Layer				Subsoil	
5003	Layer				Natural	
5004	Field Boundary				See boundary register	
5005	Field Boundary				See boundary register	
5006	Field Boundary				See boundary register	
5007	Cut				Tree Bole	
5008	Fill				Fill of 5007	
5009	Layer				Peat deposit	
5010	Layer				Sandy gravel	
5011	Structure				Track RSK L17	
5012	Field Boundary				See boundary register	
5013	Field Boundary				See boundary register	
5014	Structure				Building RSK 341	
5015	Cut				Tree Bole	
5016	Fill				Fill of 5015	
5017	Structure				Track RSK L42	
5018	Structure				Track RSK L35	
5019	Field Boundary				See boundary register	
5020	Field Boundary				See boundary register	
5021	Field Boundary				See boundary register	
5022	Field Boundary				See boundary register	
5023	Object				Unstratified flint blade	
6000	Structure				Building in Quarry RSK 338	
6001	Structure				Building in Quarry RSK 331	
6002	Field Boundary				See boundary register	
6003	Structure				Building in Quarry RSK 339	
6004	Field Boundary				See boundary register	
6005	Field Boundary				See boundary register	
6006	Cut	0.78	0.7	0.45	Pit	
6007	Fill			0.14	Fill of 6006	
6008	Fill			0.3	Fill of 6006	
6009	Field Boundary				See boundary register	
6010	Structure				Building – Magazine	
6011	Layer				Topsoil	
6012	Layer				Subsoil	
6013	Layer				Natural	
6014	Cut	>20	3.09	0.5	Ditch/Aqueduct RSK L32	
6015	Fill			0.5	Fill of 6014	
6016	Fill			0.45	Fill of 6014	
6017	Fill			0.08	Fill of 6014	
6018	Deposit				Bank associated with 6014	
6019	Cut	>16	0.85	0.23	Ditch/Aqueduct RSK L32	
6020	Fill			0.23	Fill of 6019	
6021	Layer				Natural	
6022	Cut		0.6	0.34	Ditch	
6023	Fill			0.34	Fill of 6022	
6024	Field Boundary				See boundary register	
6025	Layer				Topsoil in field 9/8	Glass/Late C19th
6026	Structure				Wall	
6027	Layer				Topsoil	
6028	Layer				Alluvium	Fe/C19 th /20 th
6029	Layer				Peat deposit	
6030	Layer				Organic Silt	
6031	Layer				Peat deposit	
6032	Layer				Organic Silt	
6033	Layer				Peat deposit	
6034	Layer				Sandy Clay	
6035	Layer				Peat deposit	
6036	Layer				Gravel clay deposit	
6037	Layer				Topsoil	
6038	Layer				Peat deposit	
6039	Layer				Alluvium	
6040	Layer				Peat deposit	
6041	Layer				Peat deposit	
6042	Layer				Grey silty gravel	
6100	Layer				Natural	
6101	Layer				Topsoil	
6102	Layer				Subsoil	
6103	Layer				Natural	

Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
6104	Layer				Subsoil	
6105	Layer				Topsoil	
6106	Layer				Subsoil	
6107	Layer				Topsoil	
6108	Field Boundary				See boundary register	
6109	Layer				Topsoil	
6110	Layer				Subsoil	
6111	Layer				Natural	
6112	Layer				Topsoil	
6113	Layer				Natural	
6114	Field Boundary				See boundary register	
6115	Layer				Bank against 6114	
6116	Layer				Bank against 6114	
6117	Layer				Natural	
6118	Layer				Subsoil	
6119	Layer				Topsoil	
6120	Cut				Cut for field boundary 6114	
6121	Layer				Topsoil	
6122	Layer				Bleached Soil Ae	
6123	Layer				Peat deposit	
6124	Layer				Silt	
6125	Layer				Light grey sandy clay	
6126	Layer				Brownish yellow gravel clay	
6127	Layer				Topsoil	
6128	Layer				Brown silt	
6129	Layer				Peat deposit	
6130	Layer				Brown silt	
6131	Layer				Peat deposit	
6132	Layer				Brown sandy silt	
6133	Layer				Brownish yellow stoney clay	
6134	Field Boundary				See boundary register	
6135	Field Boundary				See boundary register	
6136	Field Boundary				See boundary register	
6137	Cut		0.6	0.2	Pit	
6138	Fill			0.2	Fill of 6137	
6139	Cut	0.6	0.5	0.2	Pit	
6140	Fill			0.2	Fill of 6139	
6141	Cut	30	0.75	0.2	Ditch	
6142	Fill			0.2	Fill of 6141	
6143	Field Boundary				See boundary register	
6144	Structure				Building/Sheepfold RSK 348	
6145	Field Boundary				See boundary register	
6146	Layer				Topsoil	
6147	Cut		0.4	0.06	Gully	
6148	Fill			0.06	Fill of 6147	
6149	Cut		0.46	0.2	Gully	
6150	Fill			0.2	Fill of 6149	
6151	Cut		0.34	0.06	Gully	
6152	Fill			0.06	Fill of 6151	
6153	Cut		0.44	0.04	Gully	
6154	Fill			0.04	Fill of 6153	
6155	Cut		0.34	0.06	Gully	
6156	Fill			0.06	Fill of 6155	
6157	Cut		0.46		Gully	
6158	Fill				Fill of 6157	
6159	Layer				Topsoil	
6160	Layer				Subsoil	
6161	Layer				Weathered natural	
6162	Layer				Natural	
6163	Cut				Gully	
6164	Fill				Fill of 6163	
6165	Void	N/A	N/A	N/A	N/A	N/A
6166	Void	N/A	N/A	N/A	N/A	N/A
6167	Void	N/A	N/A	N/A	N/A	N/A
6168	Void	N/A	N/A	N/A	N/A	N/A
6169	Layer				Topsoil	
6170	Layer				Colluvium	
6171	Layer				Peat deposit	
6172	Layer				Organic silt	
6173	Layer				Peat deposit	
6174	Layer				Colluvium	
6175	Layer				Natural	
6176	Field Boundary				See boundary register	
6177	Field Boundary				See boundary register	
6178	Field Boundary				See boundary register	
6179	Cut	20	0.72	0.08	Gully	
6180	Fill			0.08	Fill of 6179	
6181	Field Boundary				See boundary register	
6182	Layer				Topsoil	
6183	Layer				Natural	
6184	Layer				Topsoil	
6185	Layer				Pale brown silt	
6186	Layer				Brown clay silt	
6187	Layer				Brown stoney clay	

Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
6188	Layer				Grey stoney silt	
6189	Layer				Bluish grey gravel silt	
6190	Layer				Soft brown silt	
6191	Layer				Sandy silt	
6192	Layer				Gravel silt	
6193	Layer				Peat deposit	
6194	Layer				Peat deposit	
6195	Layer				Gravel silt	
6196	Layer				Light grey silty gravel	
6197	Layer				Dark grey sandy silt	
6198	Layer				Dark brown organic silt	
6199	Layer				Grey gravel silt	
6200	Layer				Brown silt	
6201	Layer				Gravel silt	
6202	Layer				Gravel sand	
6203	Layer				Brown silt	
6204	Layer				Gravel silt	
6205	Layer				Gravel silt	
6206	Layer				Light brown silt	
6207	Cut		2.08	0.45	Hollow-way	
6208	Fill			0.06	Fill of 6207	
6209	Fill			0.17	Fill of 6207	
6210	Fill			0.1	Fill of 6207	
6211	Fill			0.08	Fill of 6207	
6212	Layer				Hardcore gravel below 6217	
6213	Fill			1.1	Fill of 6207	
6214	Fill			0.14	Fill of 6207	
6215	Layer				Natural	
6216	Layer				Natural	
6217	Layer				Tarmac	
6218	Layer				Natural	
6219	Layer				Subsoil	
6220	Layer				Peat deposit	
6221	Fill				Gravel sand fill of 6232	
6222	Fill			0.2	Silt fill of 6232	
6223	Fill			0.15	Silt fill of 6232	
6224	Fill			0.2	Brown sand fill of 6232	
6225	Fill			0.1	Organic silt fill of 6232	
6226	Fill			0.34	Olive grey sand fill of 6232	
6227	Fill			0.12	Grey sand fill of 6232	
6228	Fill				Topsoil	
6229	Fill			0.14	Sandy silt	
6230	Fill		1	0.3	Bank associated with 6232	
6231	Layer				Brown silt, subsoil?	
6232	Cut		2.4	1.1	Ditch	
6233	Fill			0.06	Fill of 6232	
7000	Layer				Topsoil	
7001	Layer				Subsoil	
7002	Cut				Ditch	
7003	Fill				fill of 7002	
7004	Layer				Topsoil	
7005	Layer				Subsoil	
7006	Layer				Natural	
7007	Layer				Modern deposit	
7008	Cut				Drain	
7009	Layer				Topsoil	
7010	Layer				Subsoil	
7011	Layer				Topsoil	
7012	Layer				Subsoil	
7013	Layer				Topsoil	
7014	Layer				Subsoil	
7015	Layer				Deposit of blue grey, sandy clay. Likely Alluvium	
7016	Layer				Topsoil	
7017	Layer				Subsoil	
7018	Layer				Natural	
7019	Layer				River deposit	
7020	Layer				Alluvium	
7021	Layer				Subsoil	
7022	Layer				Topsoil	
7023	Layer				Subsoil	Fe/C19 th /20 th
7024	Layer				Alluvium	
7025	Layer				Alluvium	
7026	Field Boundary				See boundary register	
7027	Field Boundary				See boundary register	
7028	Field Boundary				See boundary register	
7029	Void	N/A	N/A	N/A	N/A	N/A
7030	Layer				Possible cobbled surface	
7031	Cut		0.8	0.2	Pit	
7032	Fill			0.2	fill of 7031	
7033	Field Boundary				See boundary register	
7034	Layer				Topsoil	
7035	Layer				Subsoil	
7036	Layer				Natural	

Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
7037	Layer				Topsoil	
7038	Layer				Subsoil	
7039	Layer				Natural	
7040	Layer				Topsoil	
7041	Layer				Subsoil	
7042	Void	N/A	N/A	N/A	N/A	N/A
7043	Layer				Natural	
7044	Cut				Drain	
7045	Layer				Topsoil	
7046	Layer				Subsoil	
7047	Layer				Natural	
7048	Cut		1.4	0.3	Ditch	
7049	Cut	6.4	1.35	0.3	Ditch	
7050	Fill			0.3	Fill of 7048	
7051	Fill			0.3	Fill of 7049	
7052	Cut	0.72	0.6	0.15	Pit	
7053	Fill			0.15	Fill of 7053	
7054	Layer				Natural	
7055	Layer				Subsoil	
7056	Layer				Natural	
7057	Field Boundary				See boundary register	
7058	Field Boundary				See boundary register	
7059	Field Boundary				See boundary register	
7060	Field Boundary				See boundary register	
7061	Layer				Topsoil	
7062	Layer				Subsoil	
7063	Layer				Natural	
7064	Layer				Topsoil	
7065	Layer				Subsoil	
7066	Layer				Natural	
7067	Layer				Topsoil	
7068	Layer				Subsoil	
7069	Layer				Natural	
7070	Cut				Bioturbation	
7071	Fill				Grey brown clay silt, fill of 7070	
7072	Layer				Topsoil	
7073	Layer				Subsoil	
7074	Layer				Natural	
7075	Field Boundary				See boundary register	
7076	Layer				Peat deposit	
7077	Layer				Topsoil	
7078	Layer				Subsoil	
7079	Layer				Natural	
7080	Field Boundary				See boundary register	
7081	Field Boundary				See boundary register	
7082	Field Boundary				See boundary register	
7083	Field Boundary				See boundary register	
7084	Structure				Sheepfold RSK 346	
7085	Structure				Cairn	
7086	Structure				Cairn	
7087	Field Boundary				See boundary register	
7088	Structure				Building/enclosure	
7089	Structure				Cairn	
7090	Field Boundary				See boundary register	
7091	Field Boundary				See boundary register	
7092	Field Boundary				See boundary register	
7093	Field Boundary				See boundary register	
7094	Field Boundary				See boundary register	
7095	Field Boundary				See boundary register	
7096	Field Boundary				See boundary register	
7097	Field Boundary				See boundary register	
7098	Field Boundary				See boundary register	
7099	Field Boundary				See boundary register	
7100	Field Boundary				See boundary register	
7101	Field Boundary				See boundary register	
7102	Field Boundary				See boundary register	
7103	Void	N/A	N/A	N/A	N/A	N/A
7104	Field Boundary				See boundary register	
7105	Field Boundary				See boundary register	
7106	Structure				Dry stone foundation	
7107	Field Boundary				See boundary register	
7108	Field Boundary				See boundary register	
7109	Field Boundary				See boundary register	
7110	Field Boundary				See boundary register	
7111	Structure				Cairn RSK 93	
7112	Structure				Cairn RSK 93	
7113	Structure				Cairn RSK 93	
7114	Structure				Sheepfold	
7115	Field Boundary				See boundary register	
7116	Field Boundary				See boundary register	
7117	Structure				Sheepfold	
7118	Structure				Sheepfold	
7119	Structure				Sheepfold	
7120	Cut				Mine RSK 90	

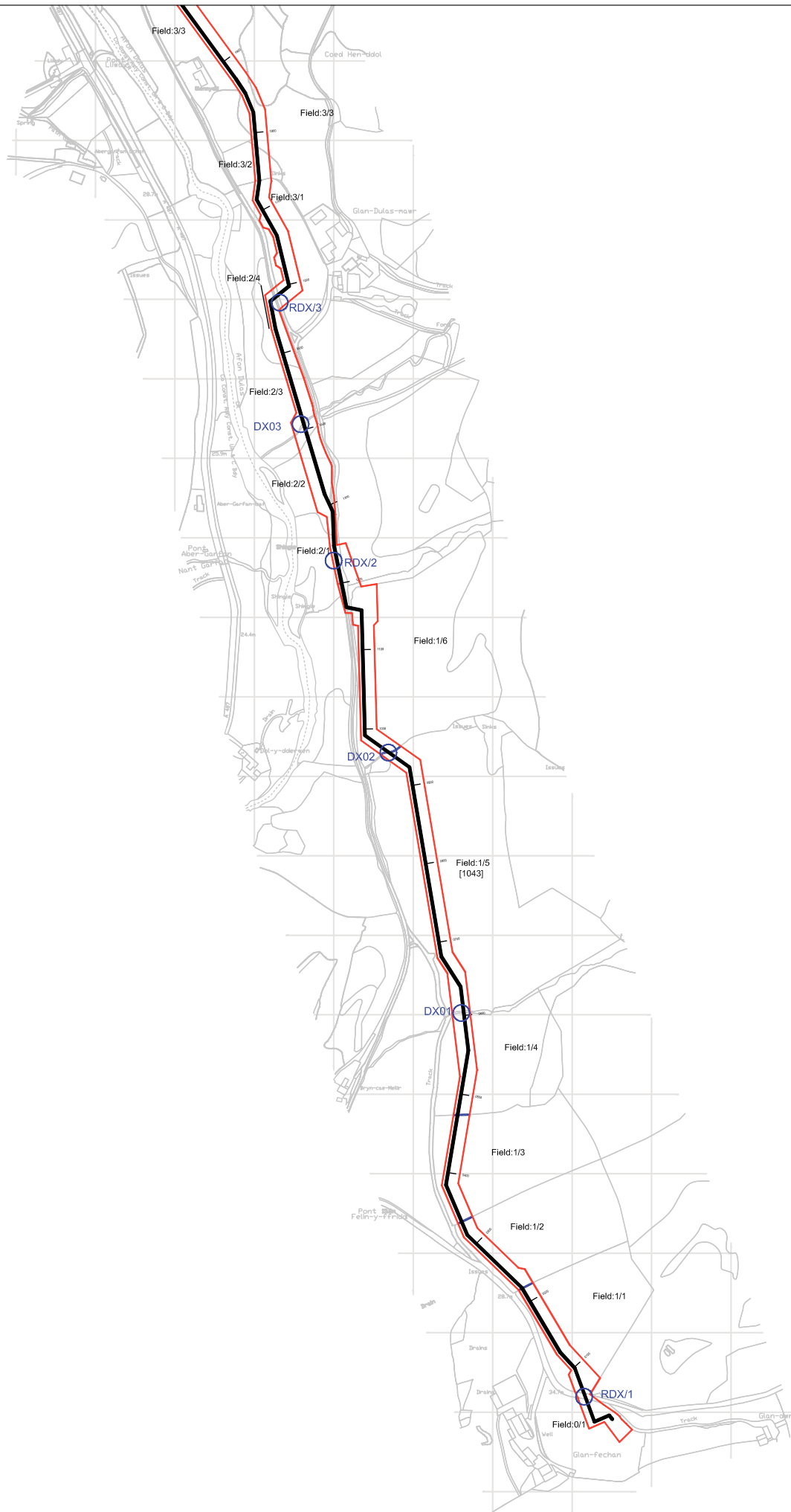
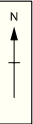
Llanwrin to Dolgellau Gas Pipeline Replacement - Archaeological Context Inventory

Context Number	Type	Length (m)	Width (m)	Depth (m)	Comments	Finds/Date
7121	Fill				Fill of 7120	
7122	Cut	12	3		Quarry pit	
7123	Layer				Topsoil	
7124	Layer				Subsoil	
7125	Layer				Natural	
7126	Field Boundary				See boundary register	
7127	Field Boundary				See boundary register	
7128	Layer				Subsoil	
7129	Layer				Topsoil	
7130	Layer				Subsoil	
7131	Layer				Natural	
7132	Field Boundary				See boundary register	
7133	Field Boundary				See boundary register	
7134	Object				Finds reference	
7135	Layer				Peat deposit	
7136	Cut				Geotechnical Pit	
7137	Fill				fill of 17136	
7138	Fill				fill of 17136	
7139	Fill				fill of 17136	
7140	Fill				fill of 17136	
7141	Field Boundary				See boundary register	
7142	Field Boundary				See boundary register	
7143	Field Boundary				See boundary register	
7144	Field Boundary				See boundary register	
7145	Field Boundary				See boundary register	
7146	Field Boundary				See boundary register	
7147	Field Boundary				See boundary register	
8000	Fill				Possible Hollow-way RSK L4	
8001	Fill			1.5	Fill of 8025	
8002	Field Boundary				See boundary register	
8003	Field Boundary				See boundary register	
8004	Field Boundary				See boundary register	
8005	Field Boundary				See boundary register	
8006	Field Boundary				See boundary register	
8007	Layer				Spread of stones	
8008	Field Boundary				See boundary register	
8009	Field Boundary				See boundary register	
8010	Field Boundary				See boundary register	
8011	Layer				Burnt treethrow	
8012	Layer				Topsoil	
8013	Layer				Subsoil	
8014	Field Boundary				See boundary register	
8015	Field Boundary				See boundary register	
8016	Layer				Topsoil	
8017	Layer				Subsoil	
8018	Layer				Natural	
8019	Field Boundary				See boundary register	
8020	Field Boundary				See boundary register	
8021	Layer				Topsoil	
8022	Layer				Subsoil	
8023	Layer				Subsoil	
8024	Layer				Natural	
8025	Cut		7.5	1.6	Hollow-way RSK L4	
8026	Fill			0.1	Fill of 8025	



Reproduced by permission of the Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office (c) Crown Copyright. 1996 All rights reserved. License No. AL 10005569

Figure 1: Site location



	Working Area
	Archaeological feature
	Crossing Point
	RDX Road
	RVX River
	TRX Track
	DX Ditch Crossing

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. License AL 10005559

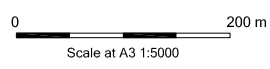
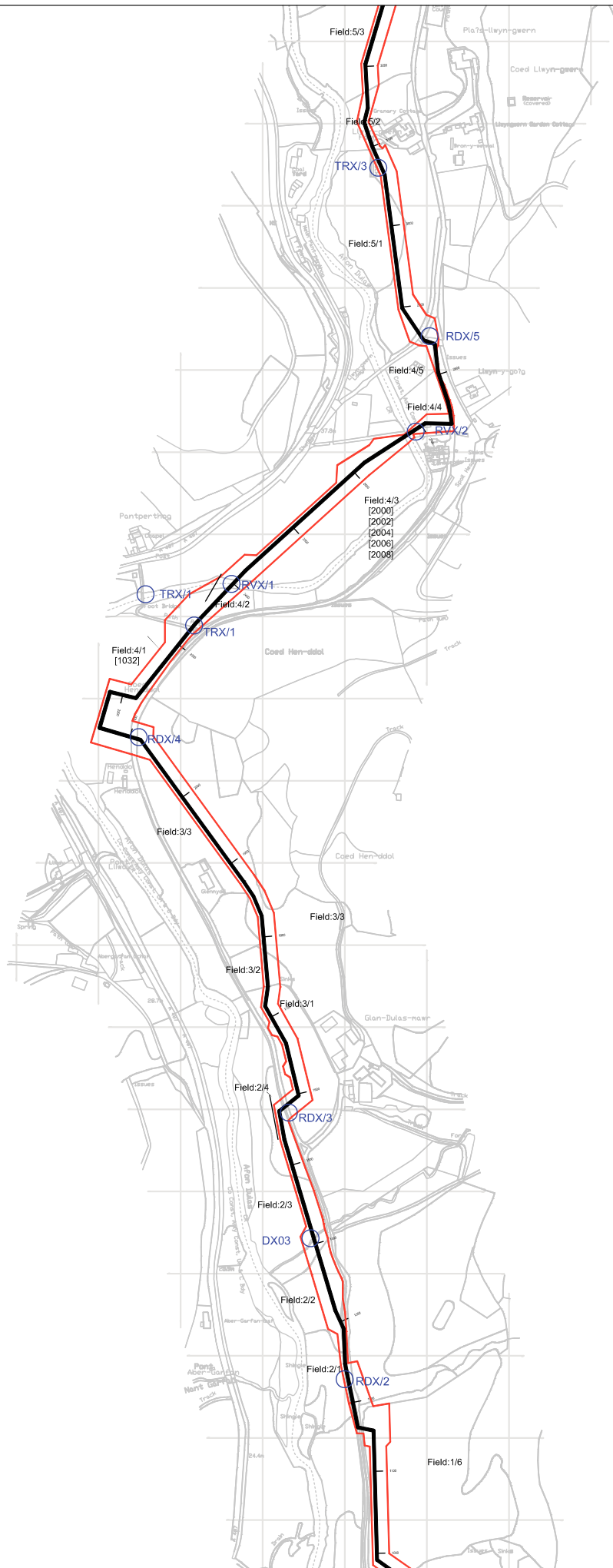
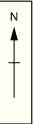


Figure 2: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 1 of 11)

CHECKED BY:



Working Area
 Archaeological feature
 Crossing Point
RDX Road
RVX River
TRX Track
DX Ditch Crossing

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. License AL 100005559

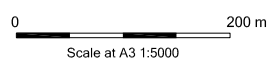
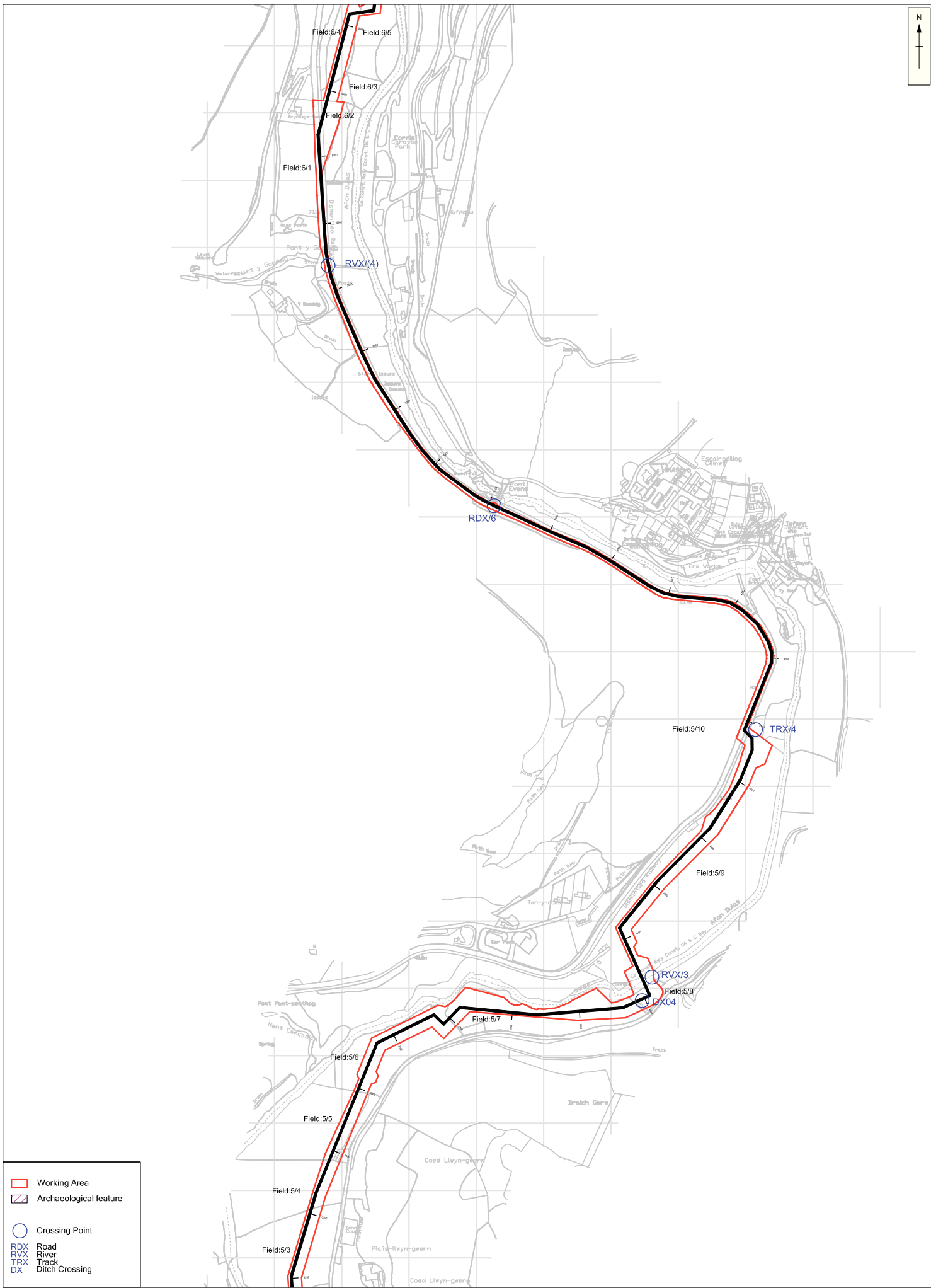
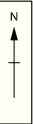


Figure 3: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 2 of 11)

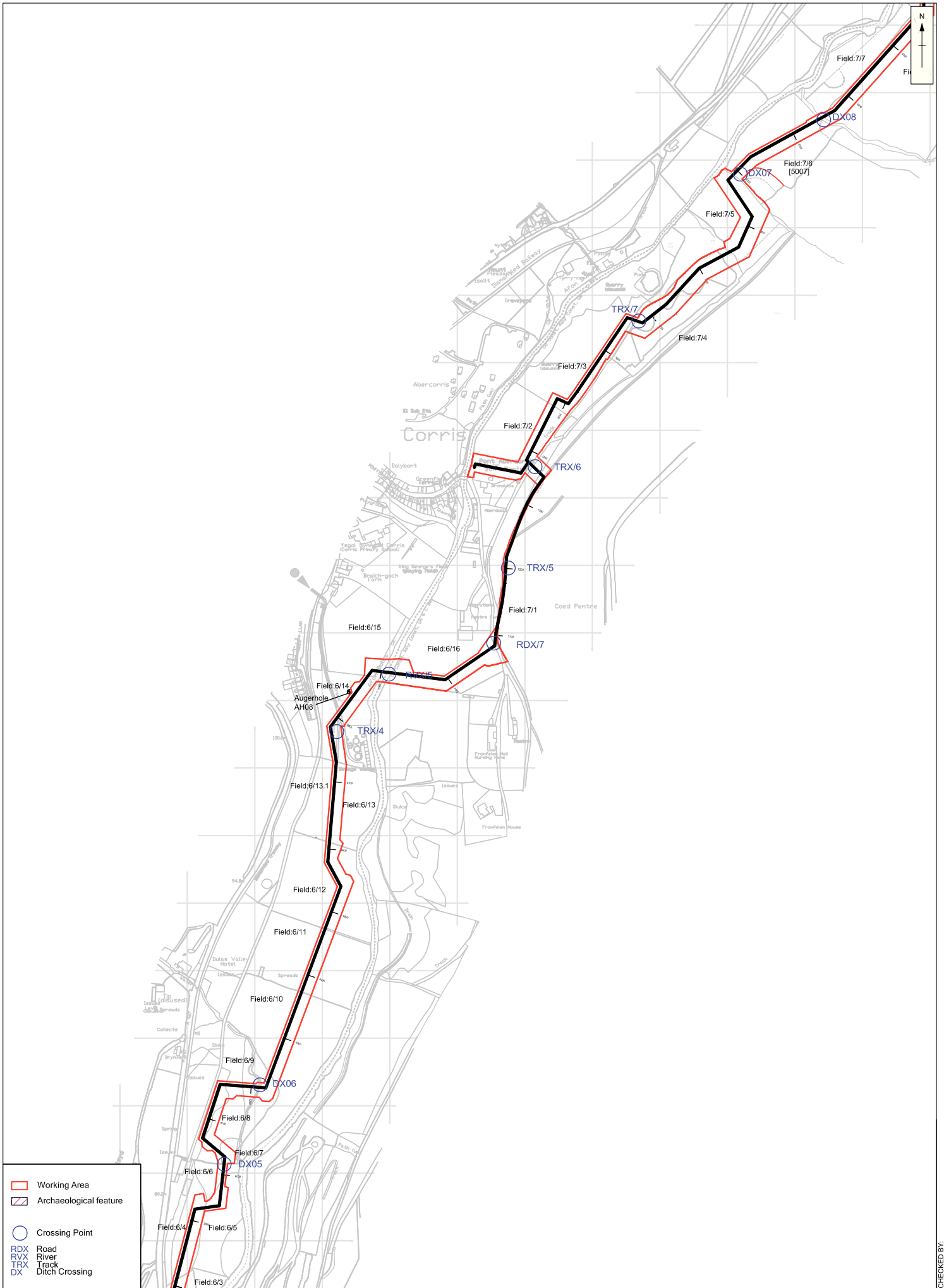
CHECKED BY:



- Working Area
- Archaeological feature
- Crossing Point
- RDX Road
- RVX River
- TRX Track
- DX Ditch Crossing

0 200 m
Scale at A3 1:5000

Figure 4: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 3 of 11)

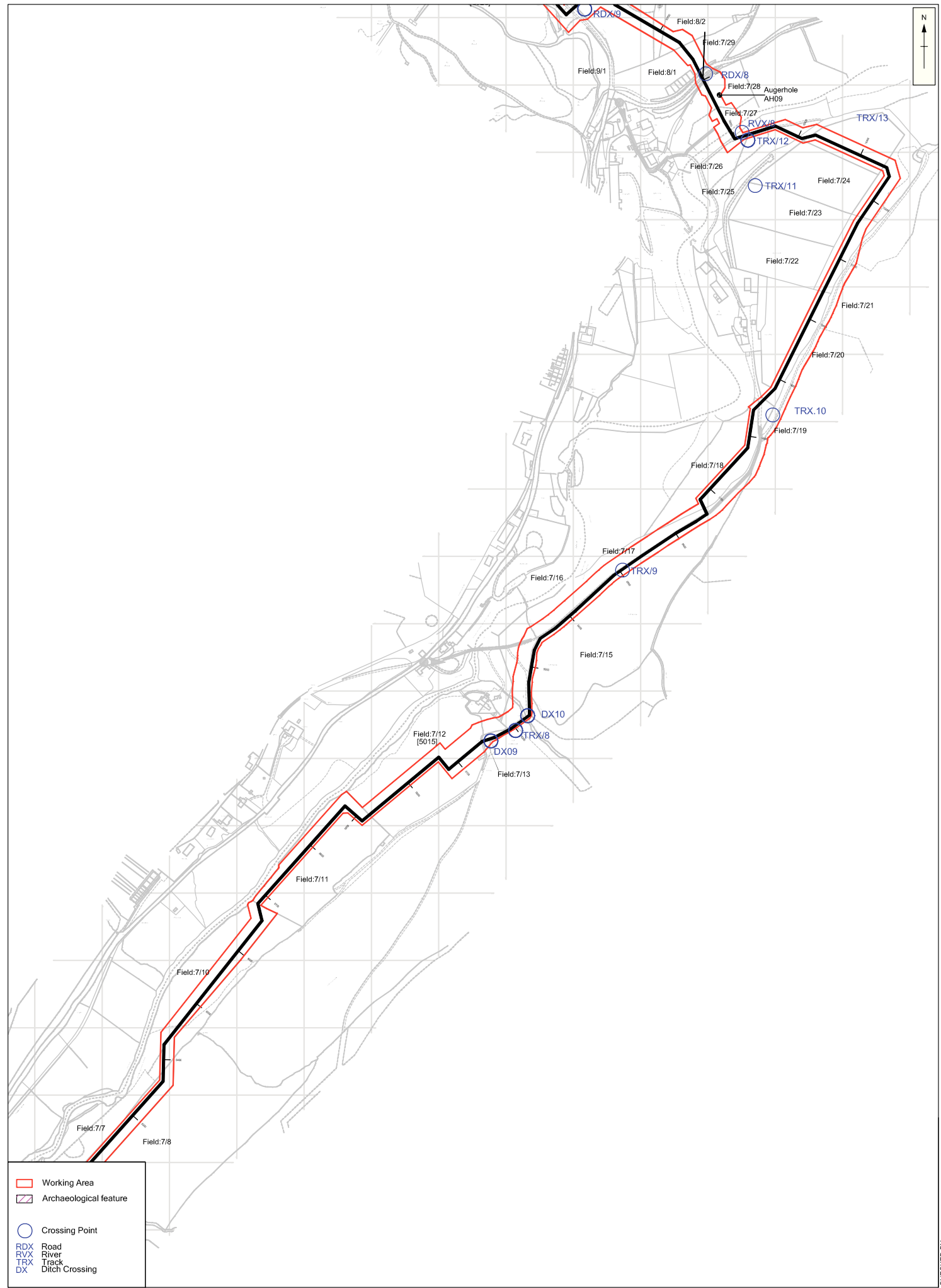


All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. License AL 100005559

0 200 m
Scale at A3 1:5000

Figure 5: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 4 of 11)

CHECKED BY:



All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. License AL 10005559

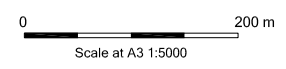


Figure 6: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 5 of 11)

CHECKED BY:

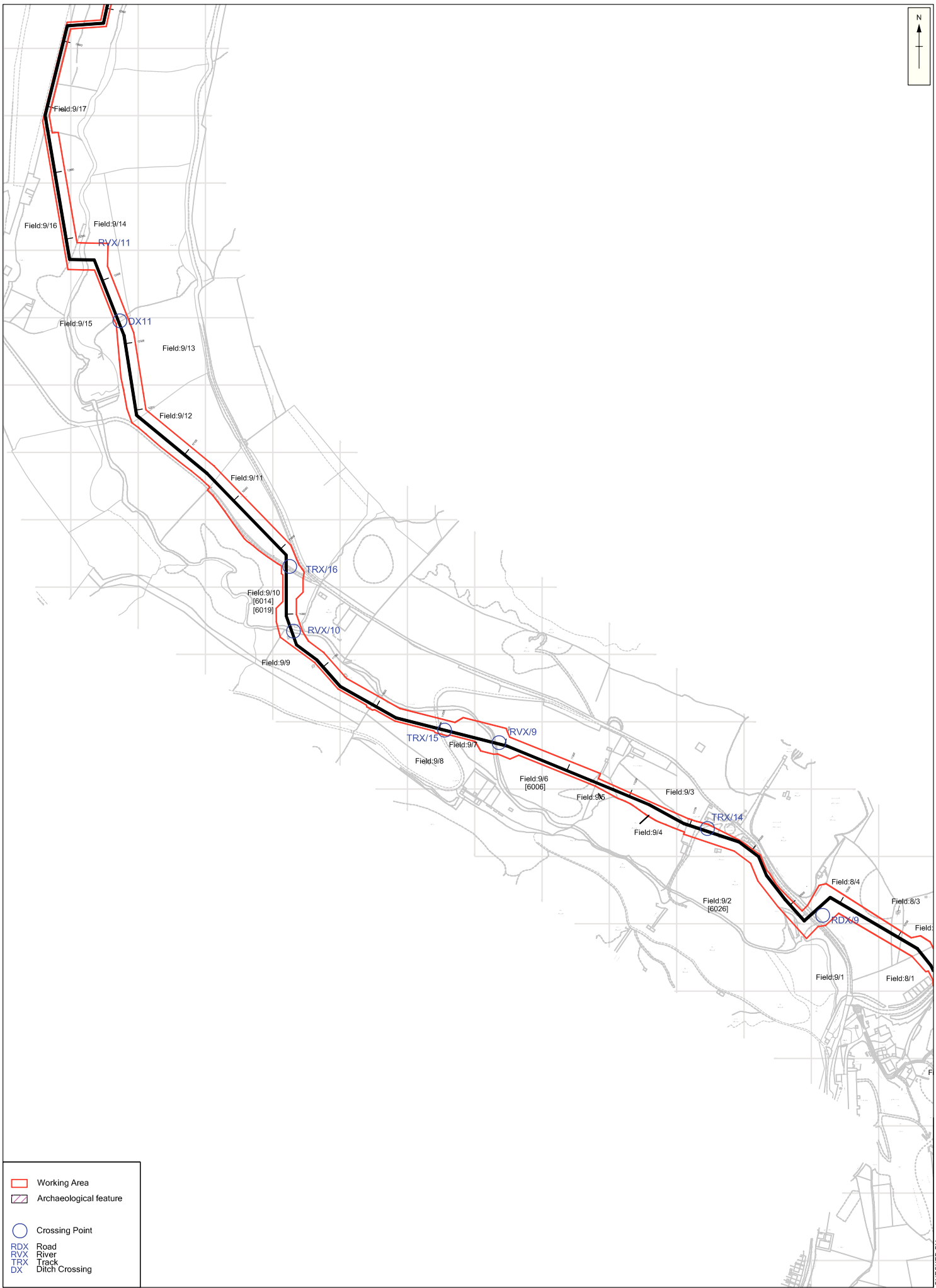
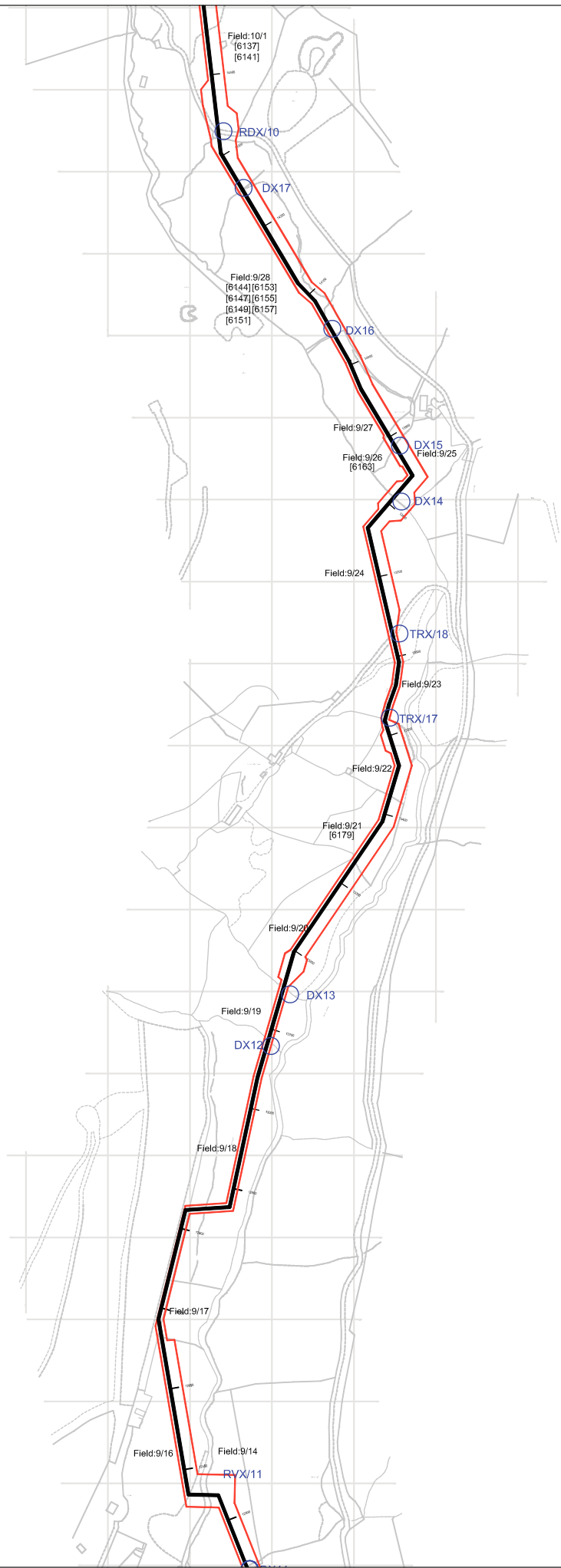
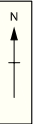


Figure 7: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 6 of 11)



Working Area
 Archaeological feature
 Crossing Point
RDX Road
RVX River
TRX Track
DX Ditch Crossing

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. License AL 10005559

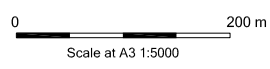


Figure 8: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 7 of 11)

CHECKED BY:

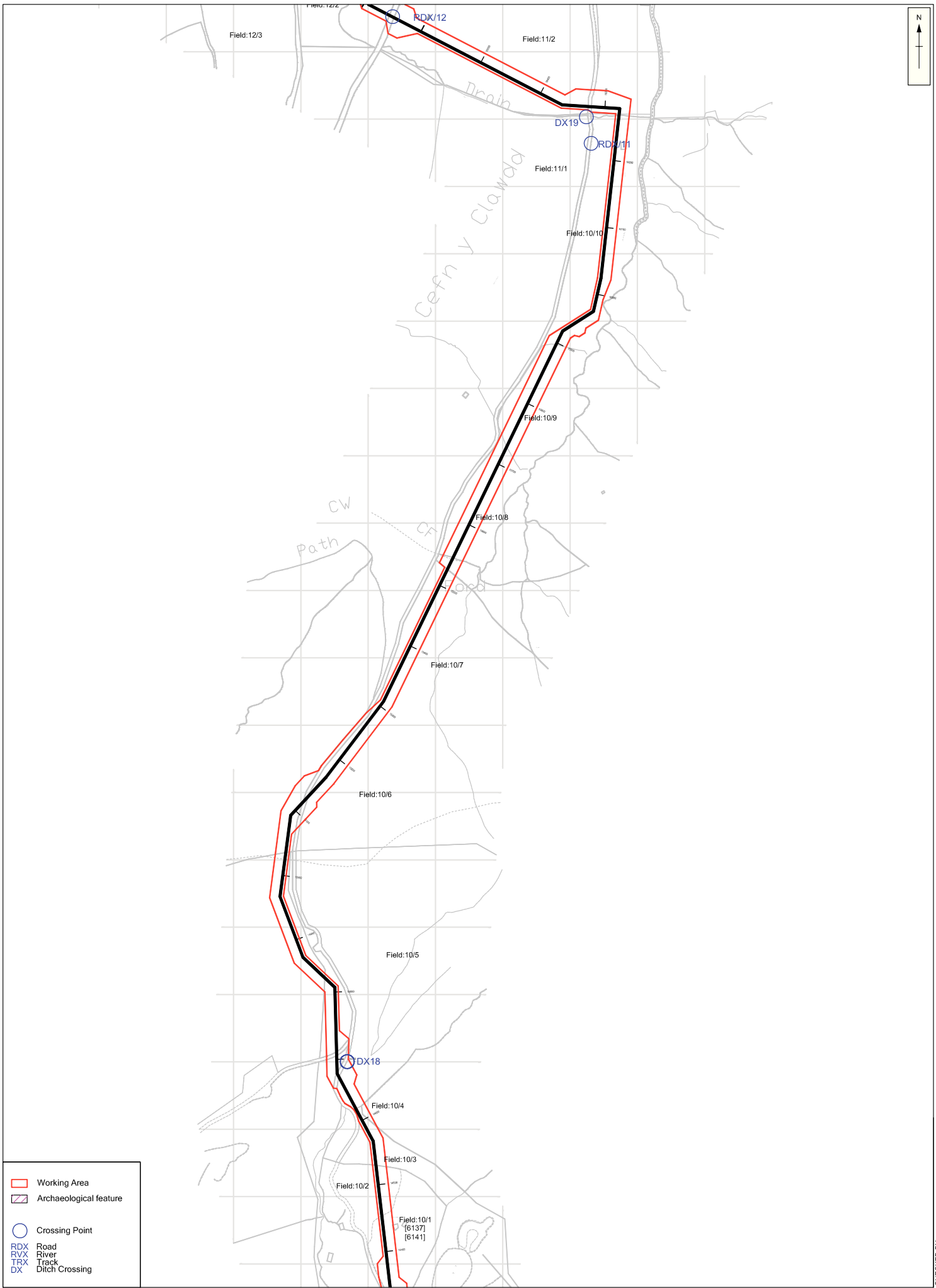
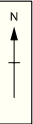


Figure 9: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 8 of 11)



- Working Area
- Archaeological feature
- Crossing Point
- RDX Road
- RVX River
- TRX Track
- DX Ditch Crossing

0 200 m
Scale at A3 1:5000

Figure 10: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 9 of 11)

CHECKED BY:

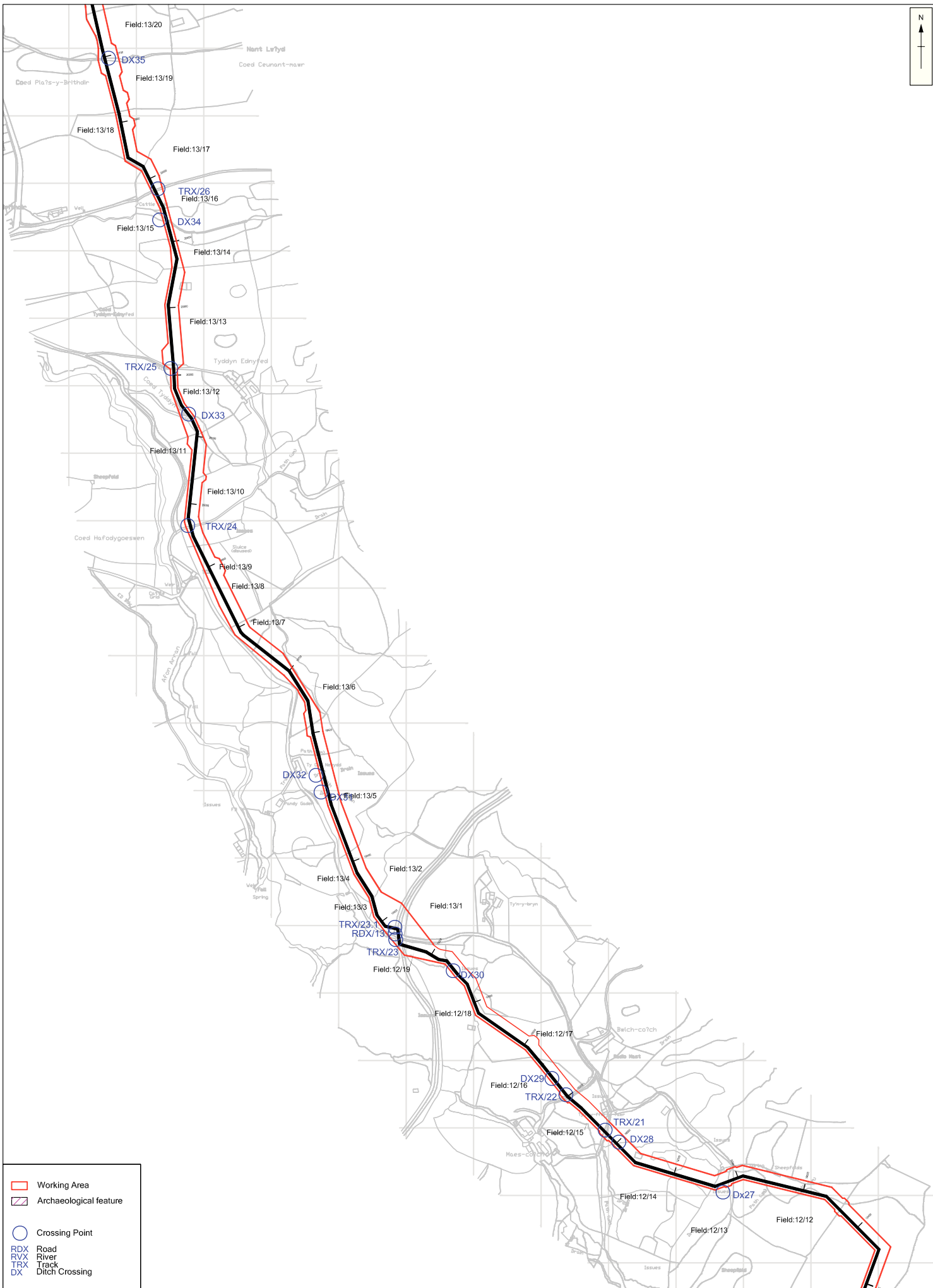


Figure 11: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 10 of 11)

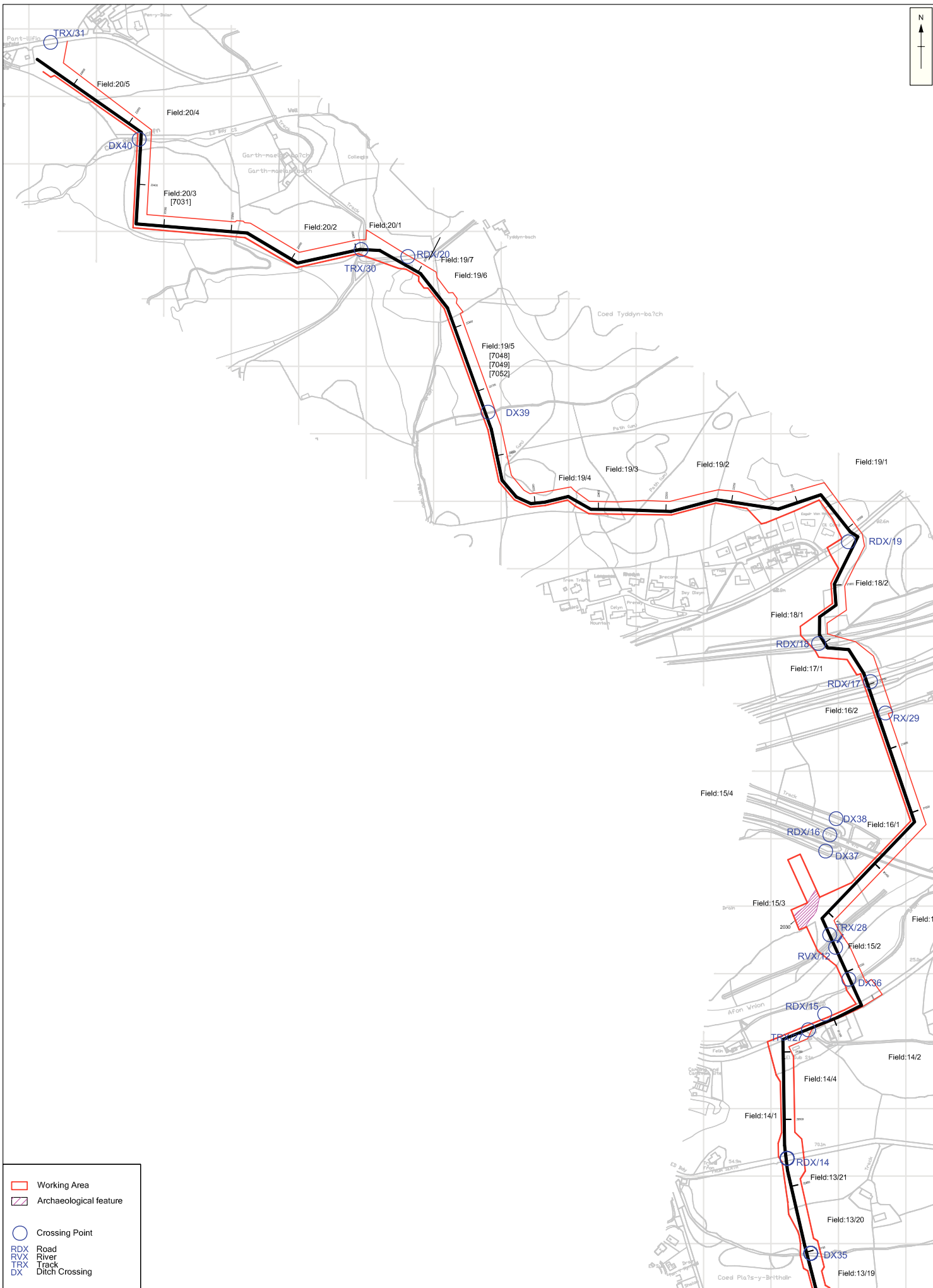
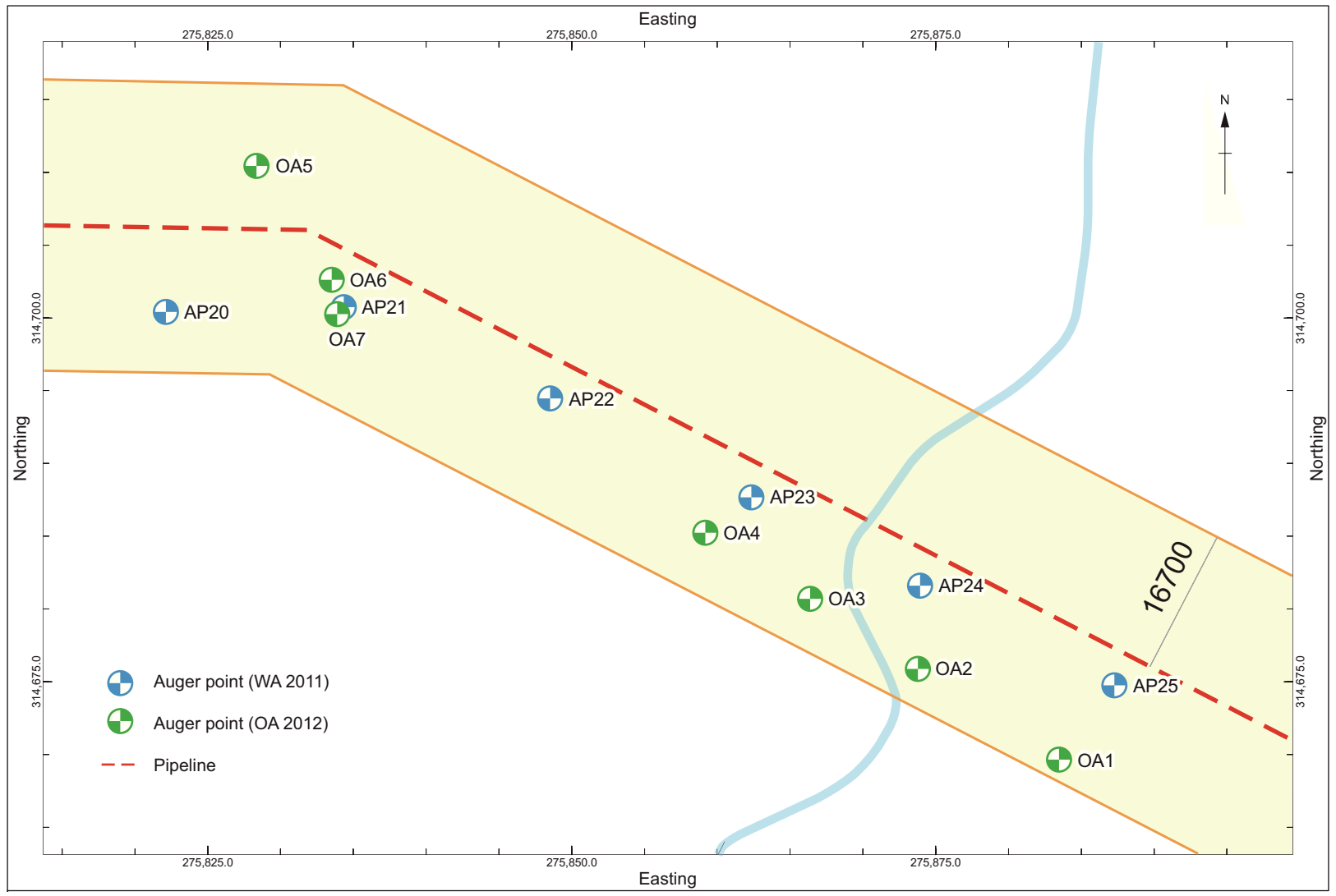
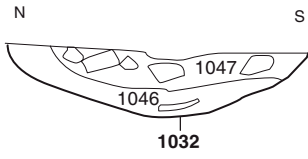


Figure 11: Llanwrin to Dolgellau Gas Replacement Pipeline route map, showing location reference numbers and archaeological site and feature locations (Sheet 11 of 11)

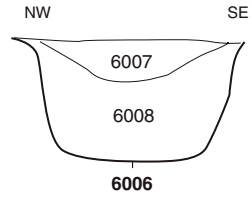




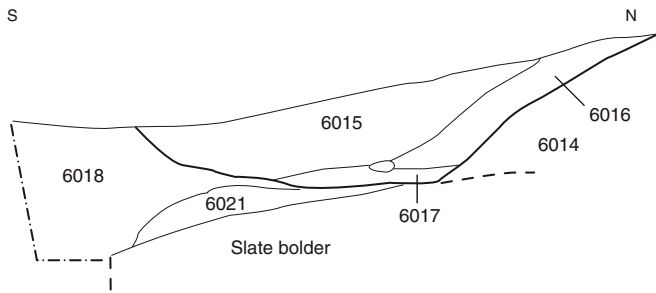
Section 1014



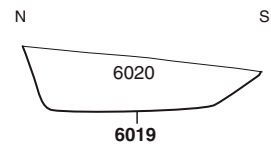
Section 6003



Section 6001



Section 6002



Section 6120

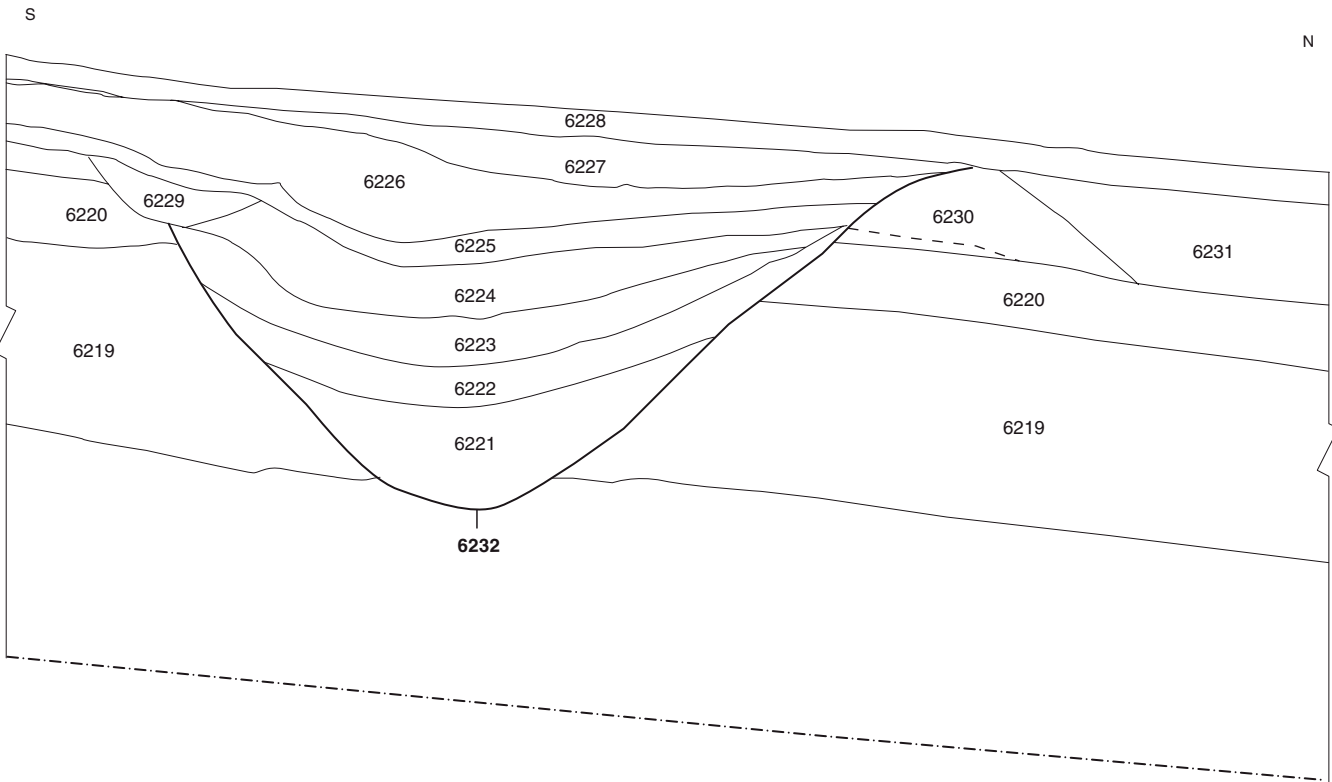


Figure 14: Sections 1014, 6001, 6002, 6003 and 6120

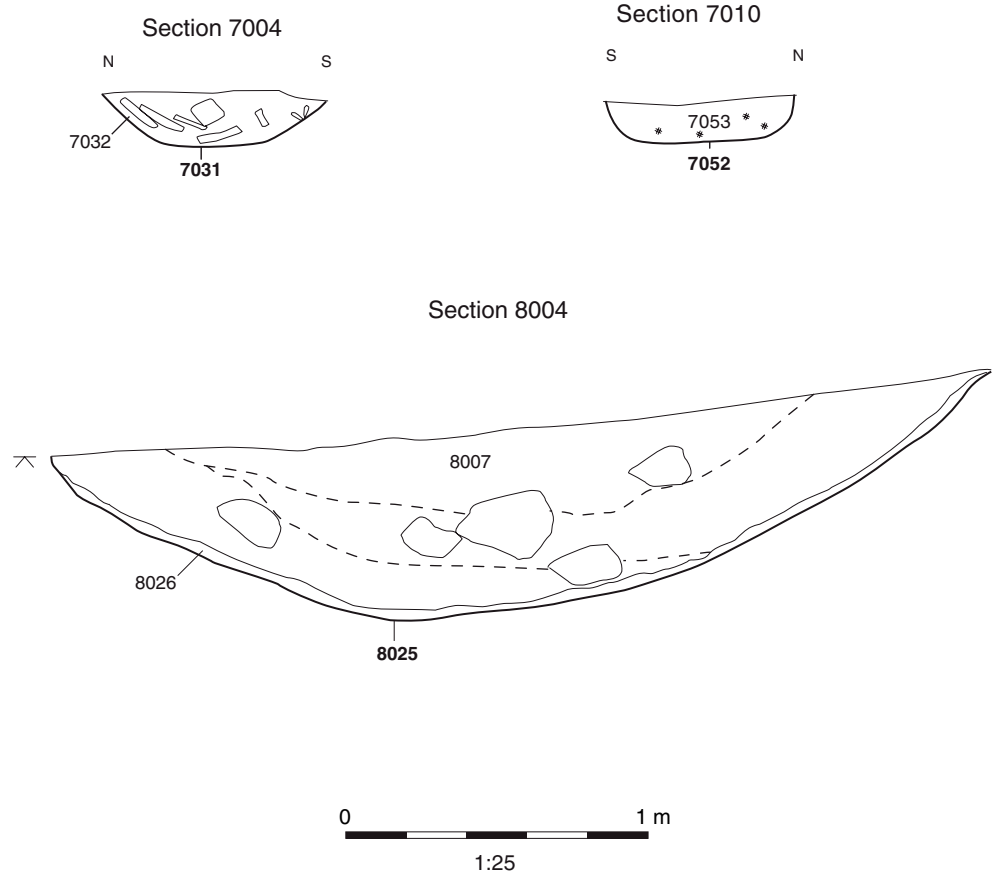


Figure 15: Sections 7004, 7010 and 8004



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarch.co.uk
w: <http://thehumanjourney.net>

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@thehumanjourney.net](mailto: oanorth@thehumanjourney.net)
w: <http://thehumanjourney.net>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850 500
f: +44 (0) 1223 850 599
e: [oaeast@thehumanjourney.net](mailto: oaeast@thehumanjourney.net)
w: <http://thehumanjourney.net>



Director: David Jennings, BA MIFA FSA

*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*