# Darrington Quarry

## Phases 3-6

*Gradiometer Survey*

*March 1995*


West Yorkshire
Archaeology Service

West Yorkshire Archaeology Service
14 St John's North, Wakefield WF1 3QA

WYAS R239, 14th March 1995

# Darrington Quarry

# Phases 3 - 6

*Gradiometer Survey*

## Contents

# 1. Summary


***Client***

Drinkwater Sabey Ltd
Cumberland House
Wintersells Road
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Surrey
KT14 7AZ

***Objectives***

To conduct a geophysical survey by gradiometer on land earmarked for the expansion, through Phases 3 to 6, of the limestone quarry at Cridling Stubbs, Darrington, North Yorkshire.

***Techniques and Methods***

A 50% sample of a 6ha site was carried out using a Geoscan FM36 fluxgate gradiometer with an ST1 sample trigger. The data was downloaded to a Compaq laptop portable computer and later processed on an Elonex 486.

***Results and Conclusions***

No features of possible archaeological significance were observed.

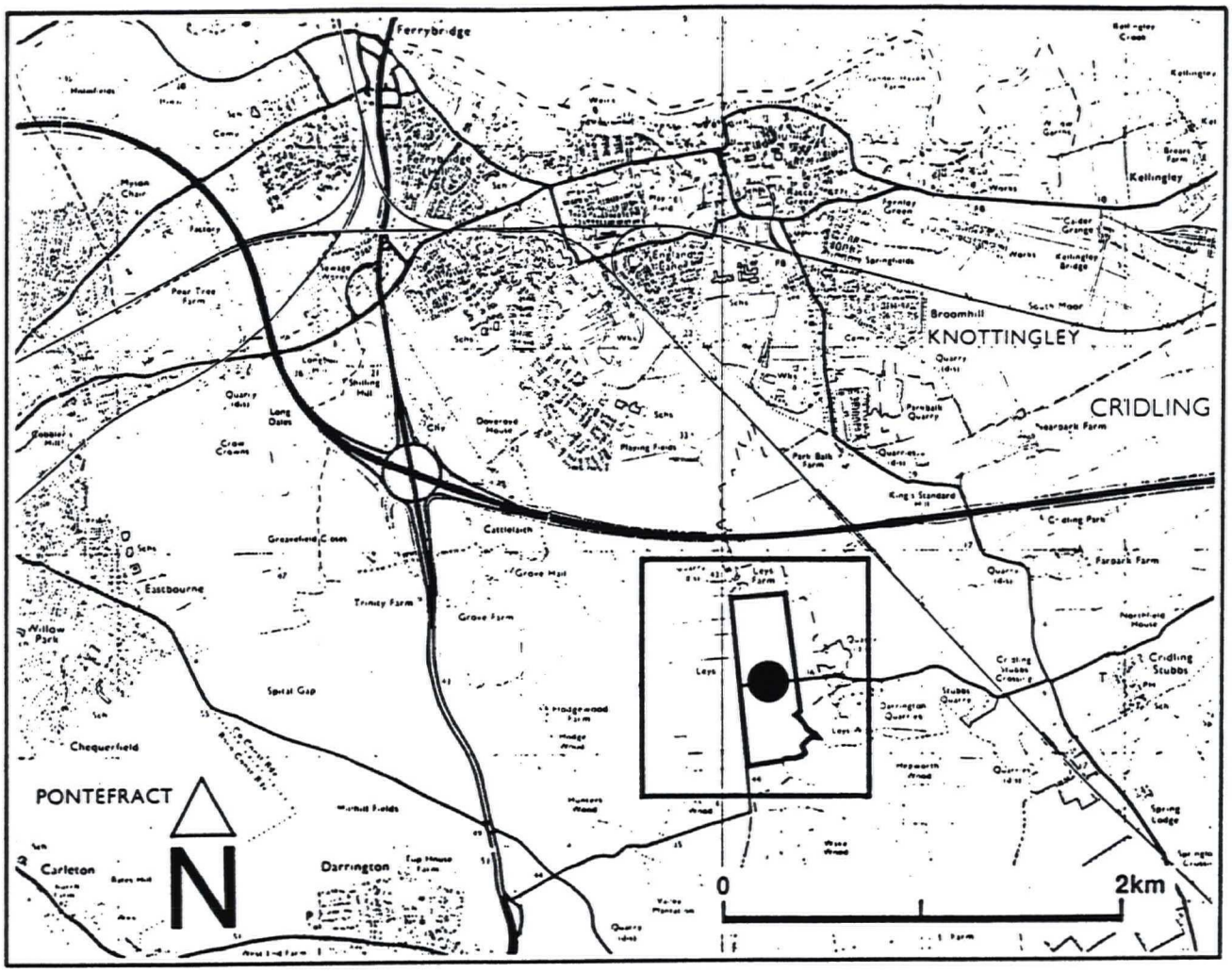
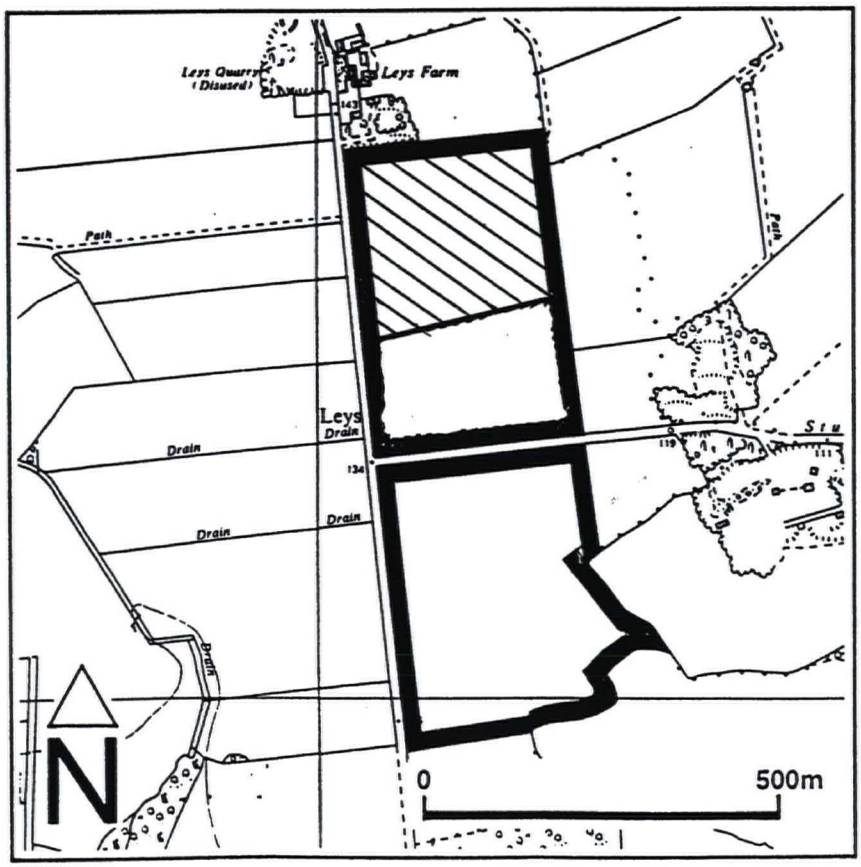



Fig. 1: Location plans. The hatched area denotes the area surveyed **(phases 3 to 6)** within the proposed overall limits of the quarry.



## 2. Introduction

A geophysical survey was carried out by two officers from the West Yorkshire Archaeology Service on behalf of Drinkwater Sabey Ltd, the operaters of the quarry at Cridling Stubbs, near Darrington, North Yorkshire.

Aerial photographs of the surrounding areas have revealed various cropmarks created by underlying archaeology. This suggests there is a good chance that archaeological remains may be preserved within the area delimited for mineral extraction. However, no evidence for this was revealed by an earlier survey (Boucher 1991) undertaken to evaluate areas affected by Phases 1 and 2 of the current quarry extension programme.

The site is situated at a height of 40m OD, lying on level ground at the top of a very slight rise. The underlying solid geology of the site comprised Lower Magnesian Limestone which has a very low magnetic susceptibility.

## 3. Methodology and Instrumentation

At the outset a sample area of 3 ha was laid out into grids measuring 20m by 20m. This represented a 50% sample of the area delimited for mineral extraction. Four criteria were used to determine the size and position of the sample blocks:

1. to leave a border of at least 20m around the edges of the survey area
2. to not survey within 30m of any known service pipes
3. to leave no more than a 20m gap between any two survey blocks
4. that no single block be less than 40m by 40m

This strategy is designed to avoid including areas that might give poor data quality (ferrous service pipes will mask responses from potential archaeological features), while at the same time maximising the interpretability of any features located and minimising the chance of missing features.

A Geoscan FM36/ST1 fluxgate gradiometer with an ST1 sample trigger was used to take readings at 0.5m intervals on north to south zig-zag traverses at 1m intervals. This gave 800 readings for each complete grid. Using the in-house Geocon software this data is interpolated thus giving 1600 readings for each completed grid.

The data was initially dumped to a Compaq LTE computer in the field and then processed on an Elonex 486.

## 4. Results

The data is presented as a dot density plot at a scale of 1:500. This is appended at the end of this report.

As in the previous survey (Boucher 1991) no well defined anomalies were detected during the survey. Again various broken striations can be seen across the site. However, these are probably attributable to variations in the underlying geology rather than to archaeological features.

## 5. Conclusion

No features of archaeological interest were detected during the course of this survey.

## Bibliography

Boucher, A. R, 1991, *Darrington Quarry Phases 1 and 2: Gradiometer Survey* WYAS R18

## Acknowledgments

Project Management: A. Boucher BSc
Gradiometer Survey: C. Morris BA, K. Brown BA, A. Webb BA
Report: A. Webb BA

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Gradiometer data plot not scanned
Please see Parish File for originals