



Rampion Offshore Wind Farm



ES Section 26 – Archaeology & Cultural Heritage - Appendix 25.6 (Part two)

RSK Environment Ltd

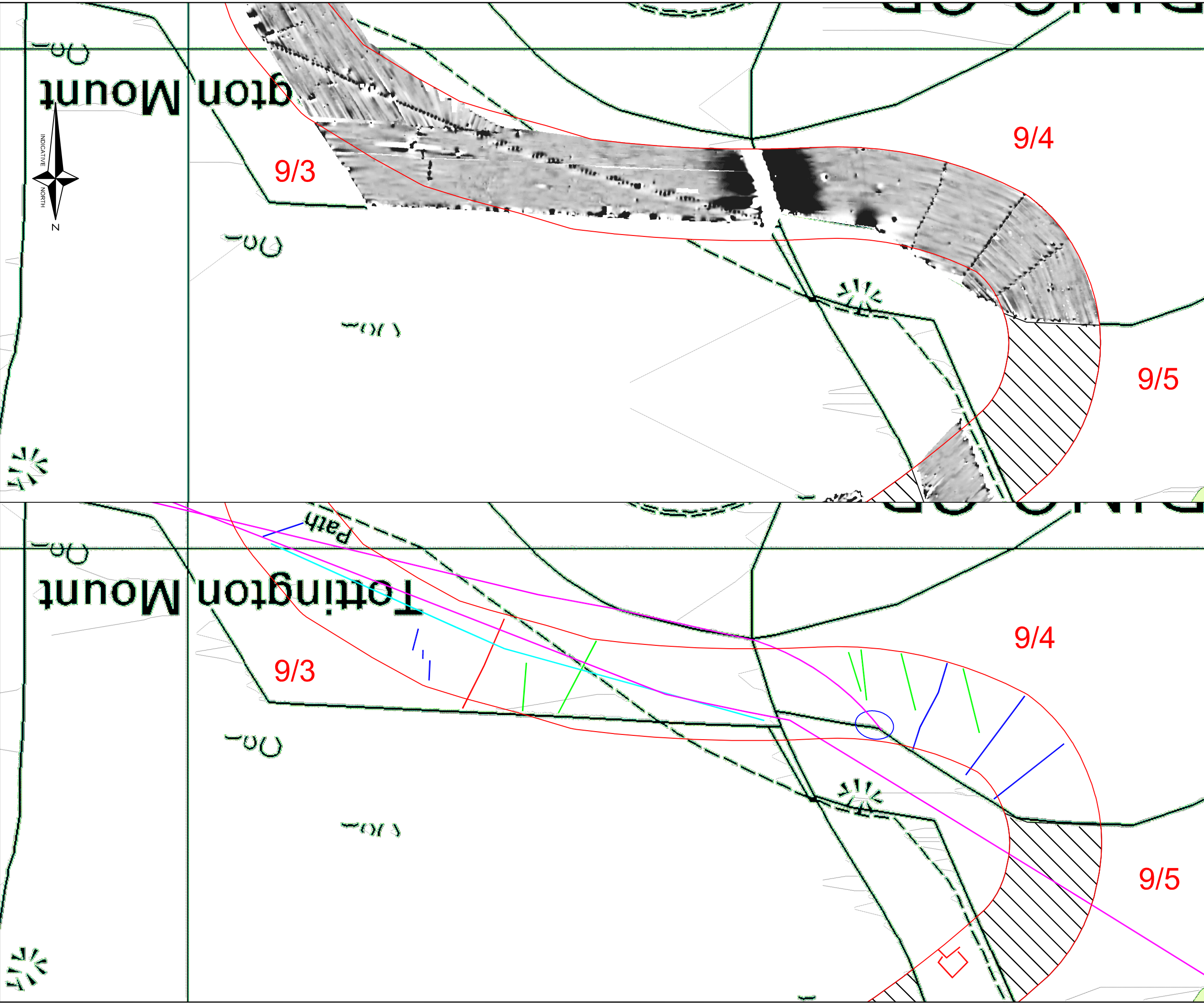
Document 6.3.25iii

December 2012

APFP Regulation 5(2)(a)

Revision A

E.ON Climate & Renewables UK Rampion Offshore Wind Limited



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Scale

0 20 40 60 80 100m

Residual Magnetic Field (nT)

-2 0 2

KEY

Survey Area

Areas of No Access

Utilities from records (non-specific)

Probable Archaeology

Possible Archaeology

Above/Below Surface Metal, Modern or Geological Features

Plough Scars

Metallic Service

14/1 FIELD REFERENCE NO.

SHEET LAYOUT

RSK

18 Frogmore Road
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United Kingdom

Tel: +44 1442 437500
Fax: +44 1442 437550
Email: geophysics@rsk.co.uk
Web: www.rsk.co.uk

Client

e-on

Project Title

RAMPION WIND FARM

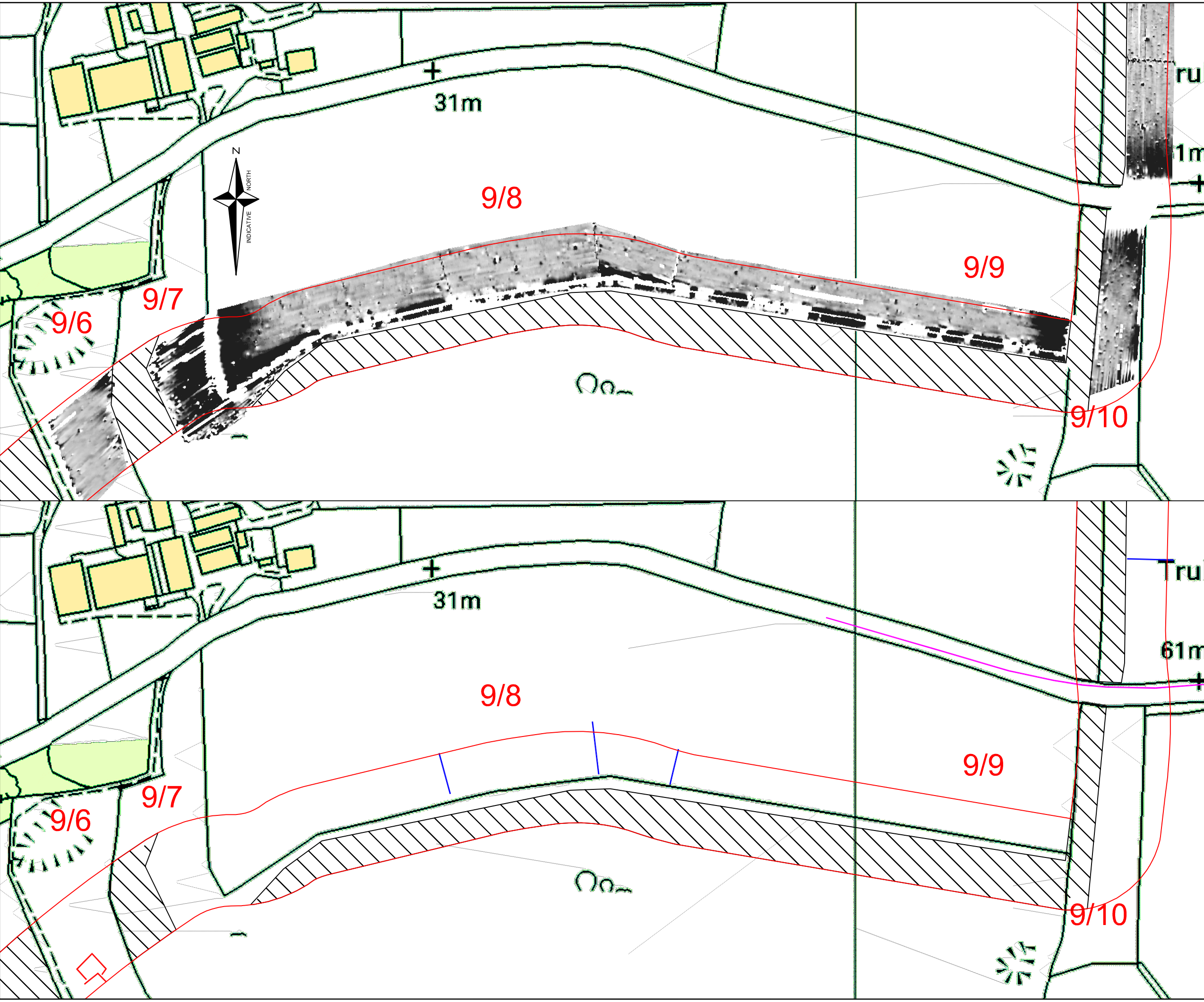
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MAGNETOMETRY RESULTS & INTERPRETATION

Drawn	Date	Checked	Date	Approved	Date
TWC	05/07/12	TG	05/07/12	GT	06/07/12

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1:2500	A3	293069

Drawing No.	Rev.
293069 Sheet 14 of 28	



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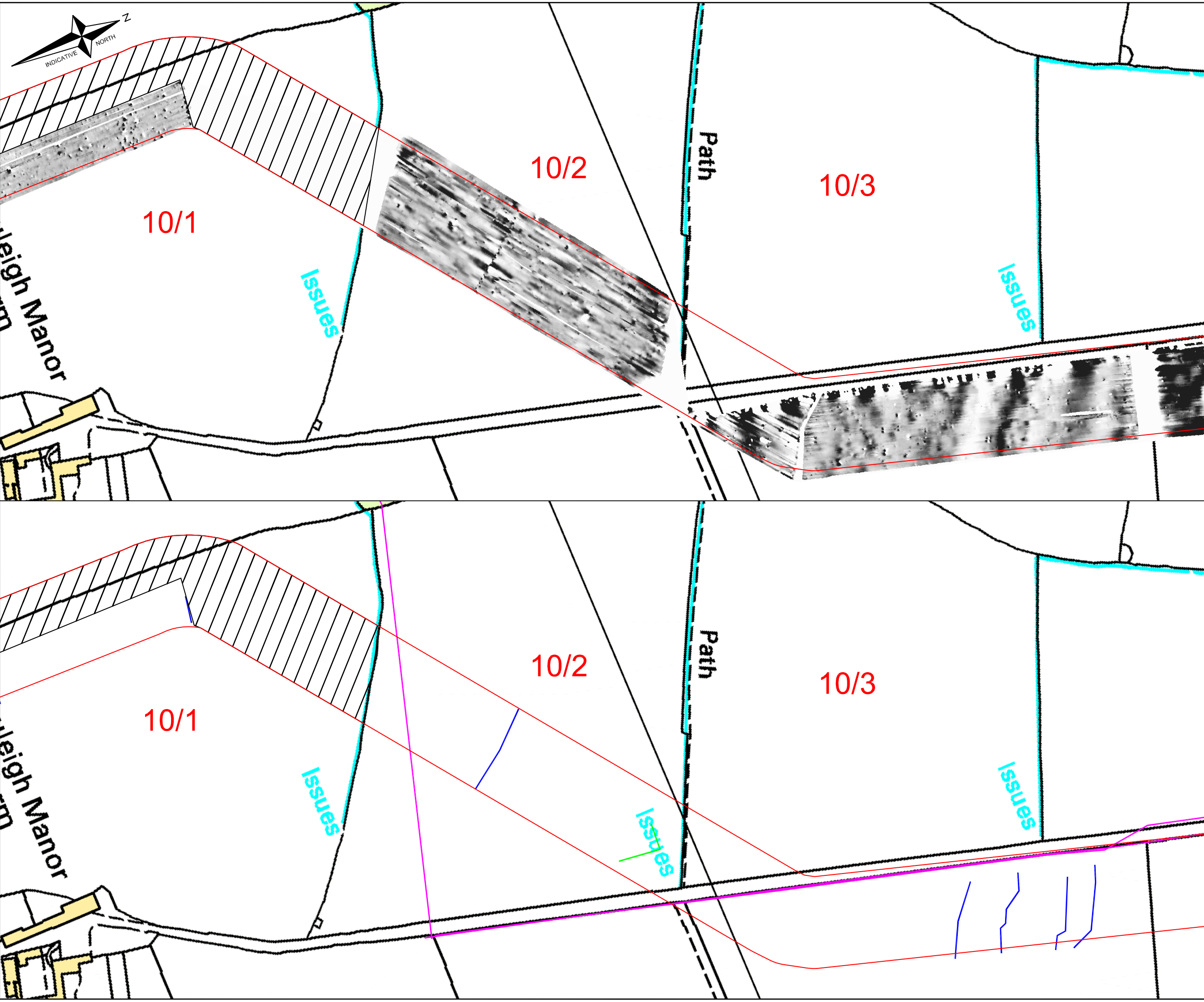
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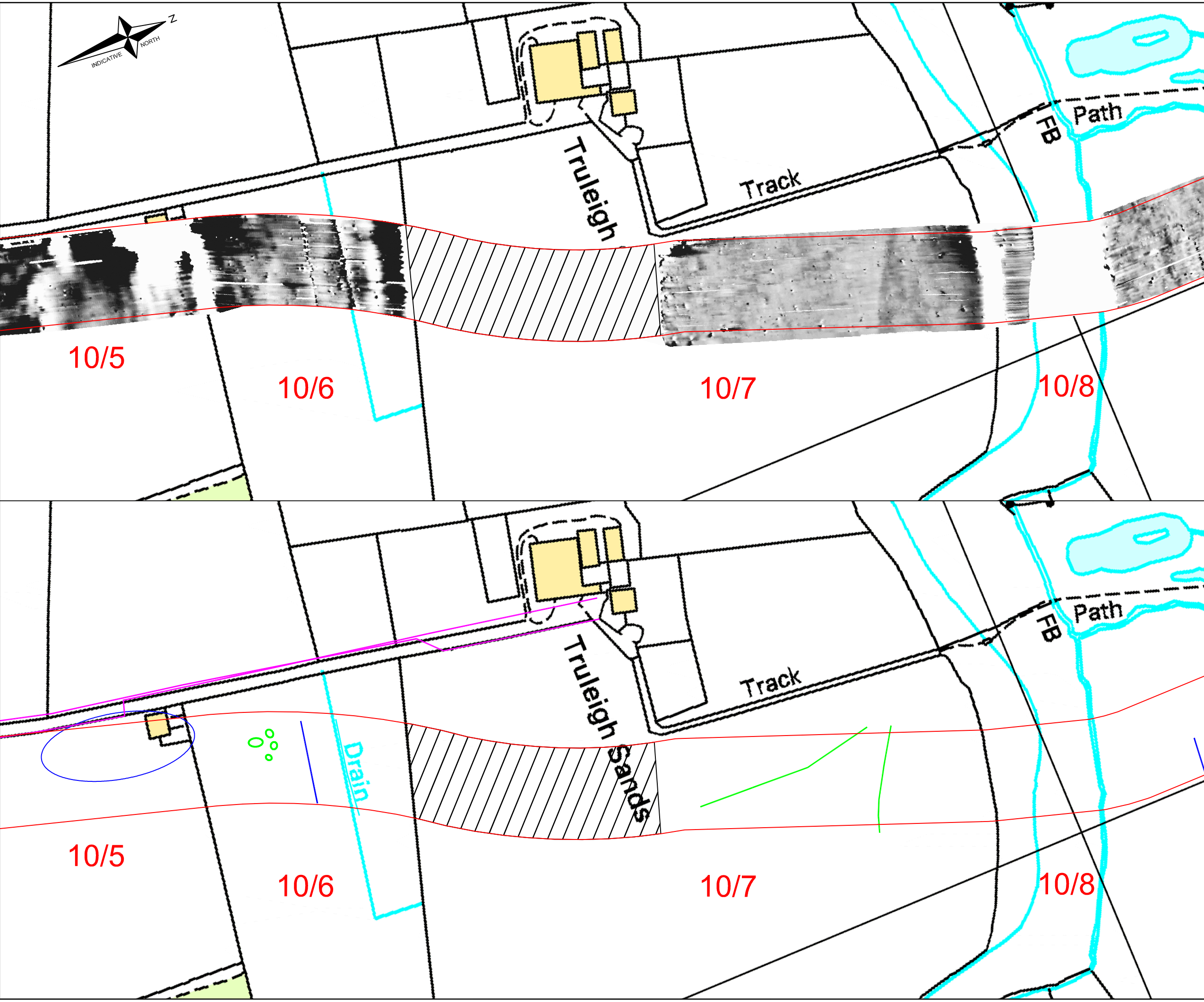
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293069 Sheet 16 of 28	



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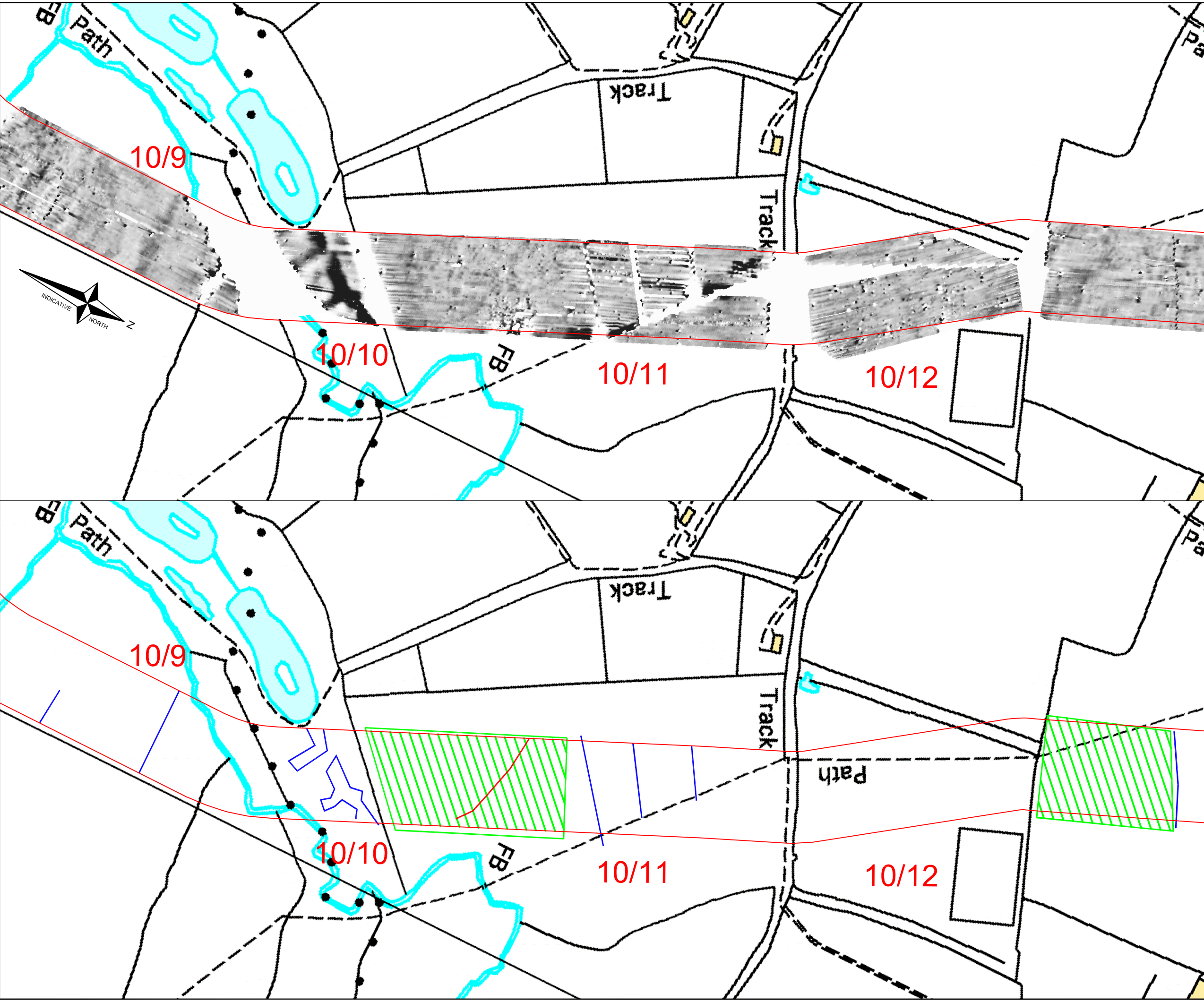
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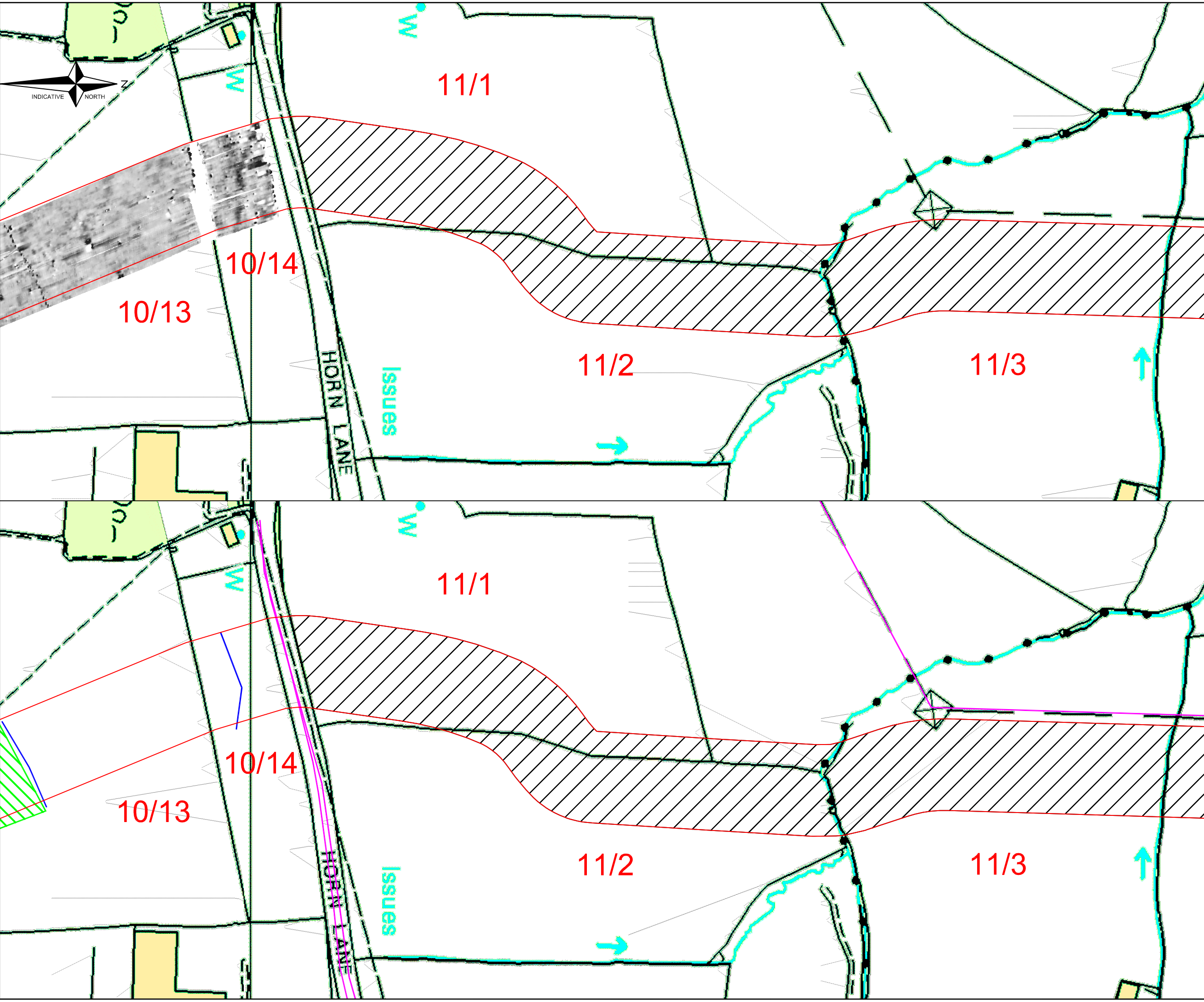
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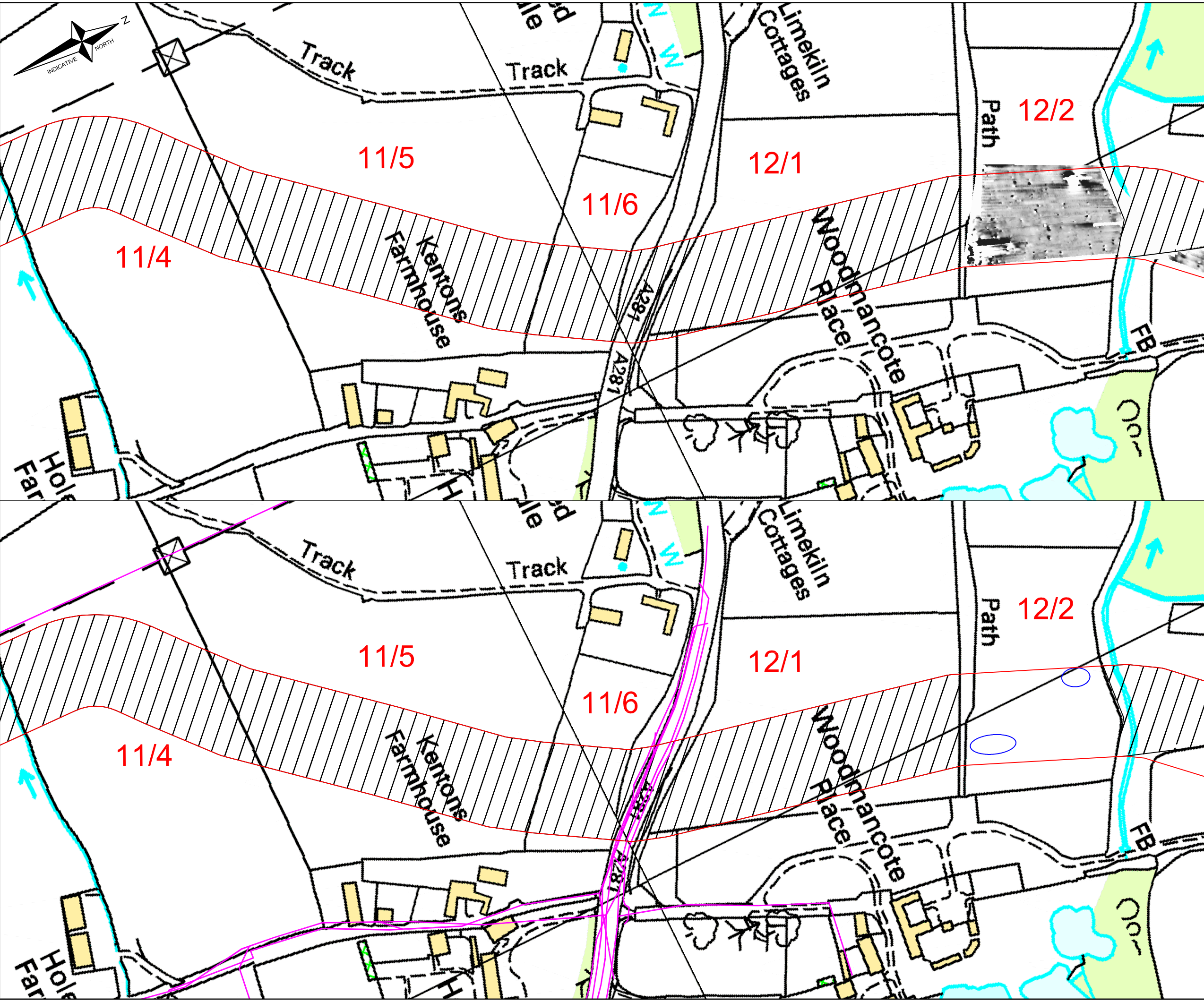
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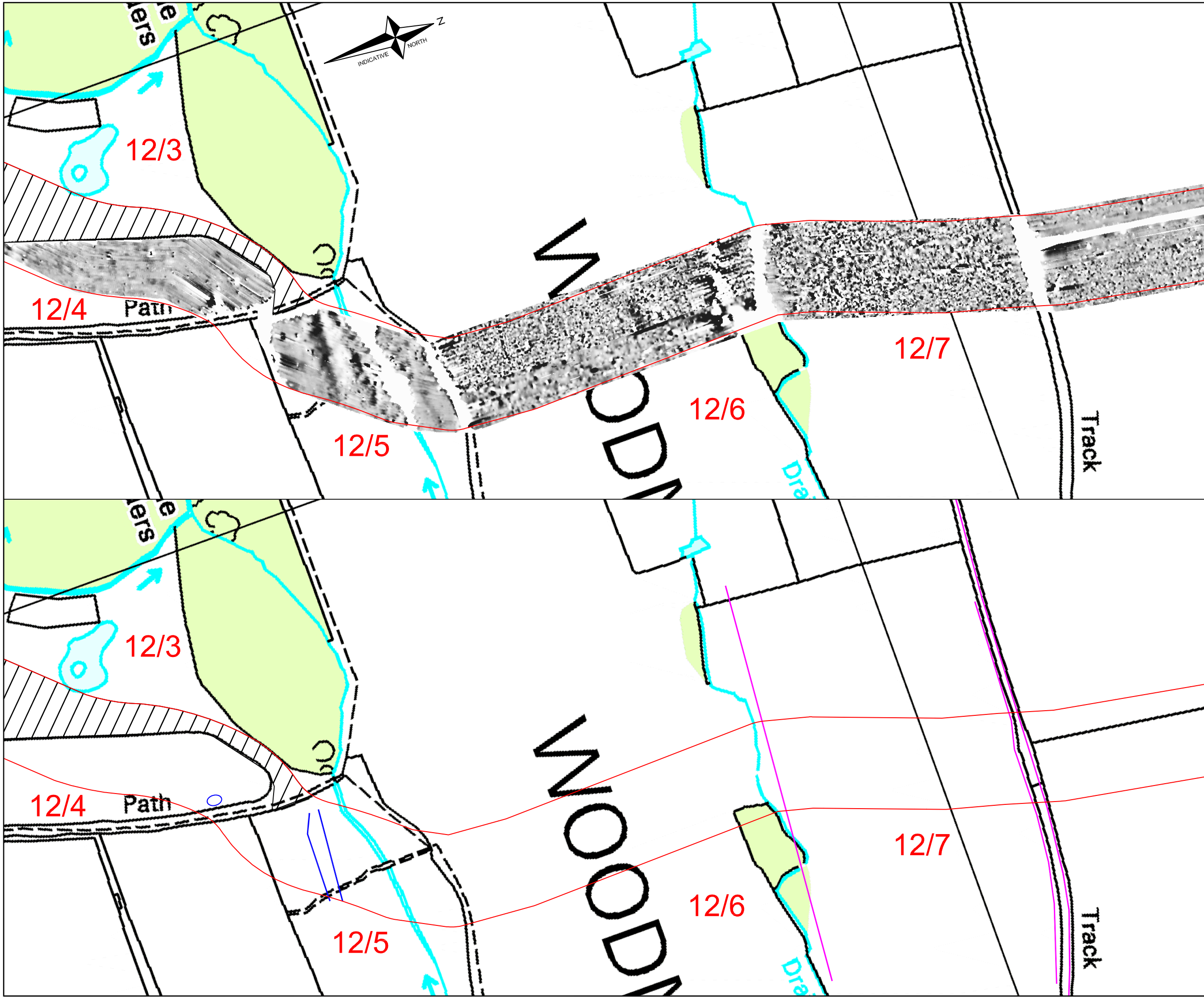
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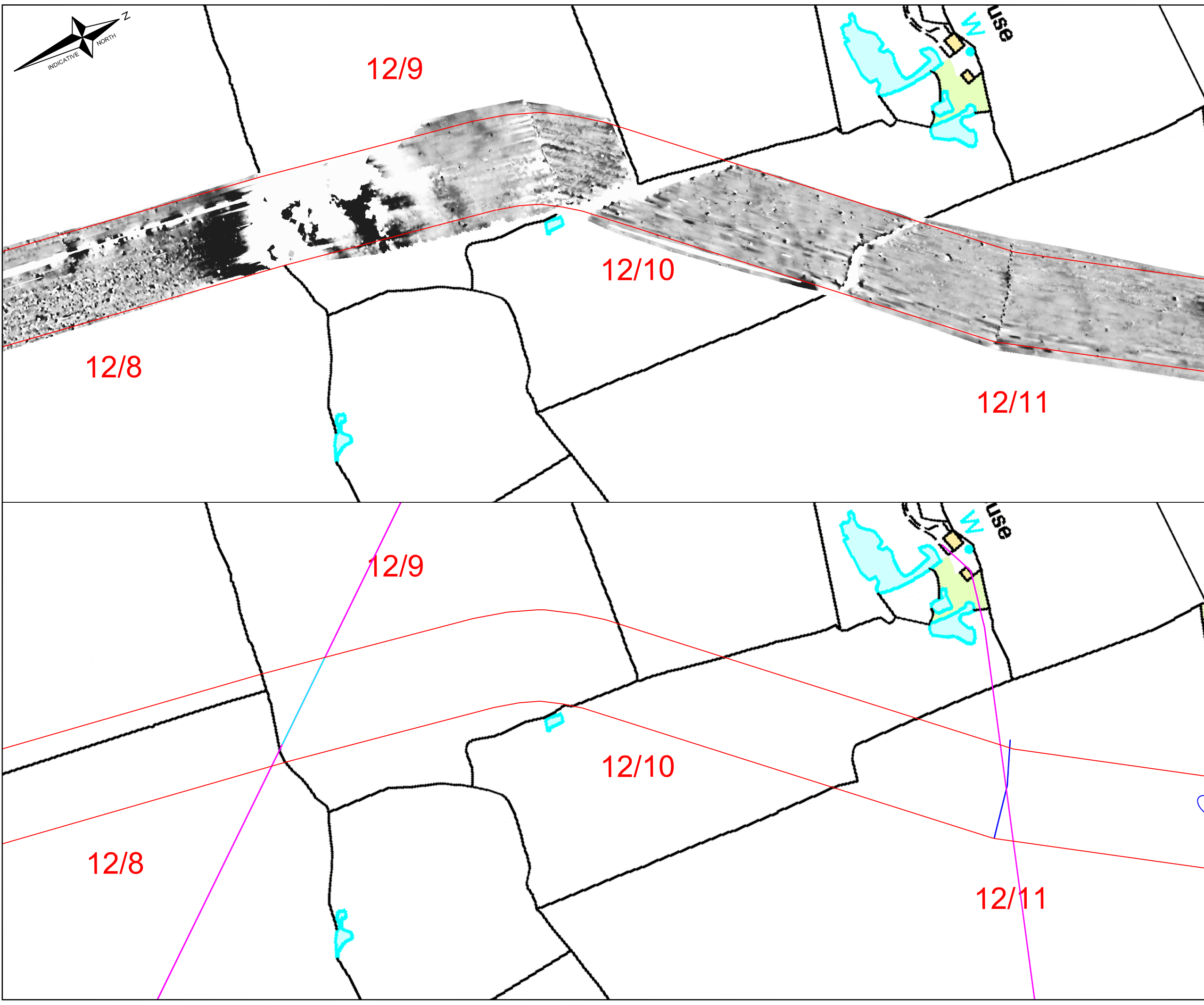
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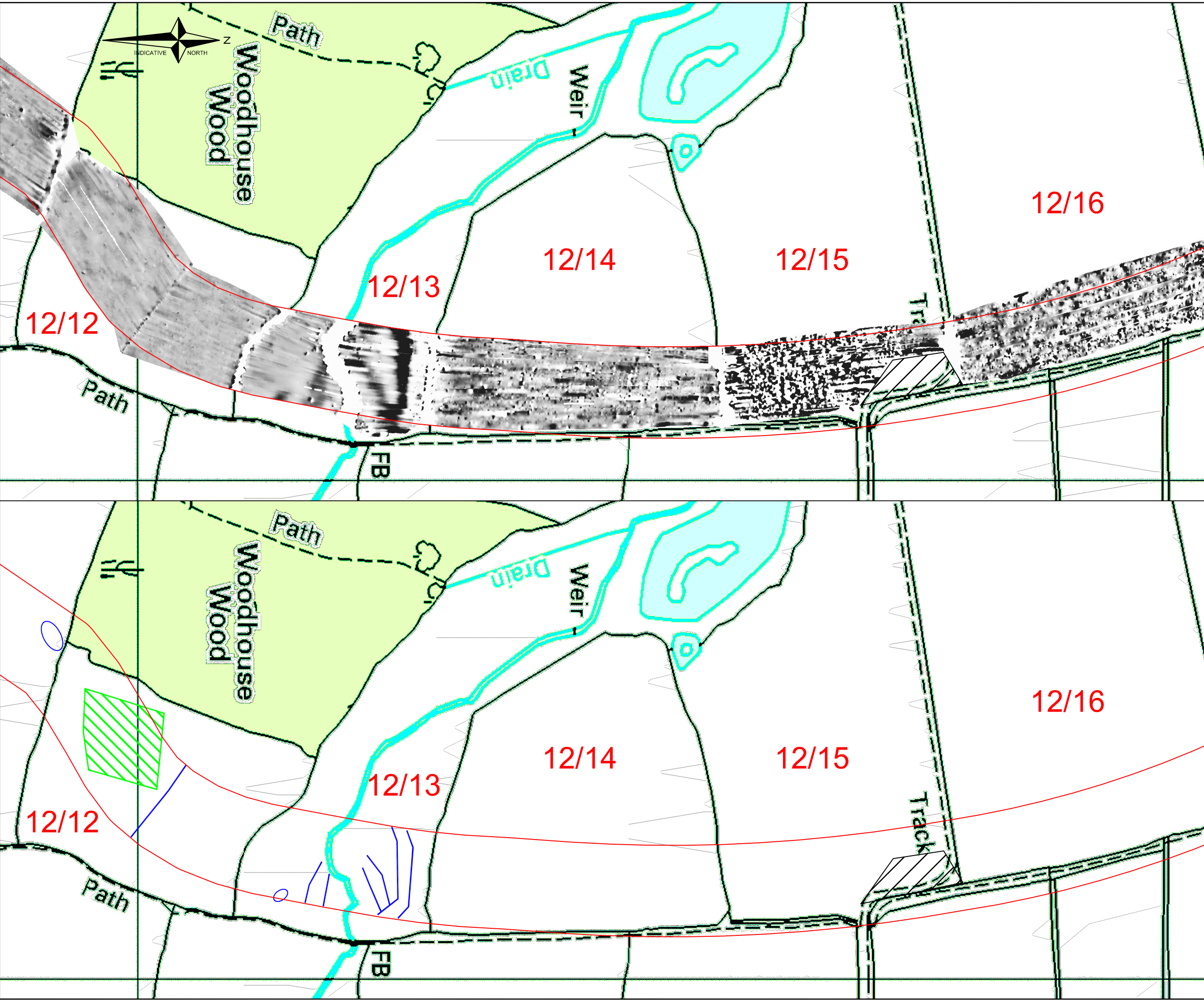
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293069 Sheet 21 of 28	



Drawing No.	Rev.
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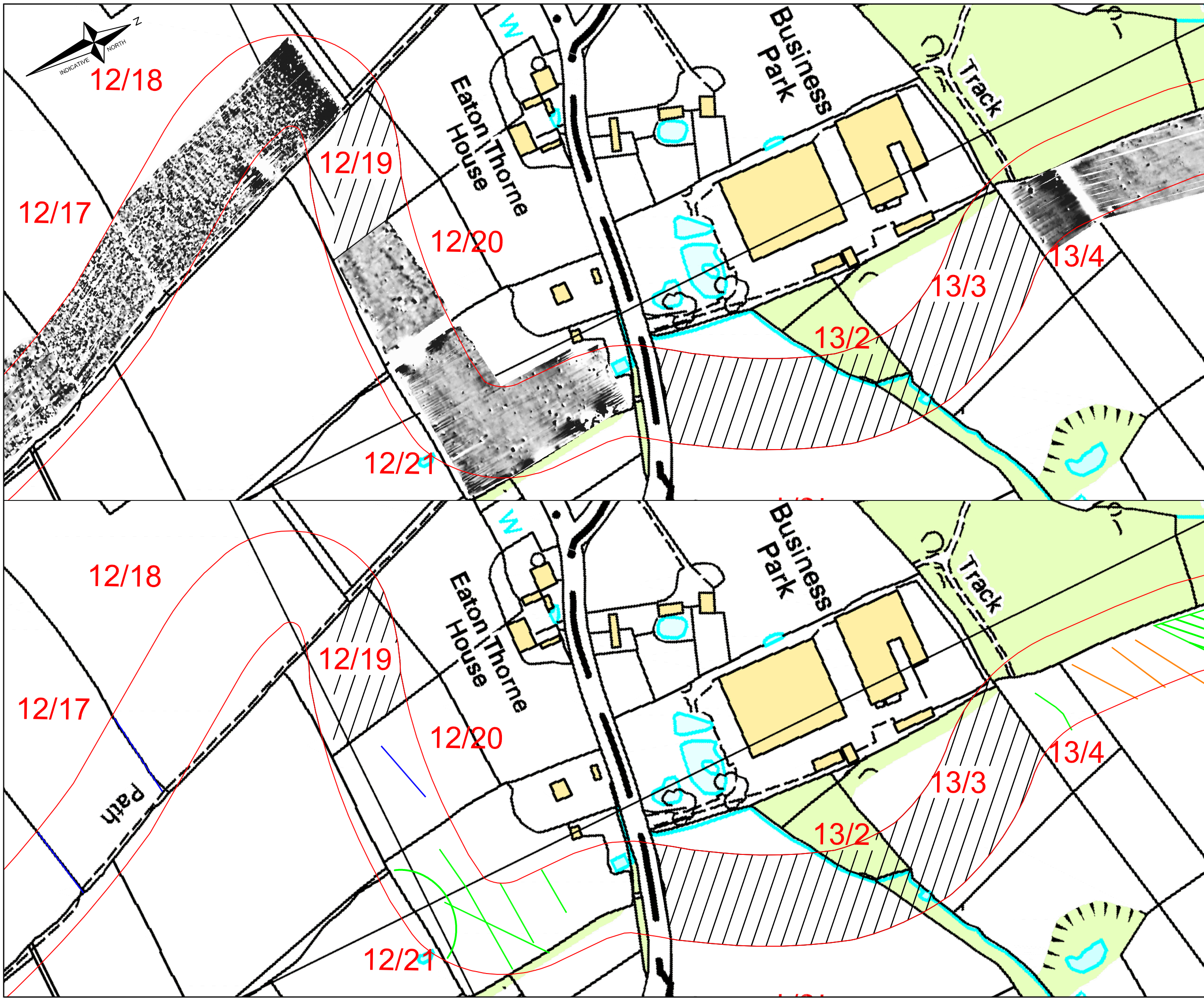
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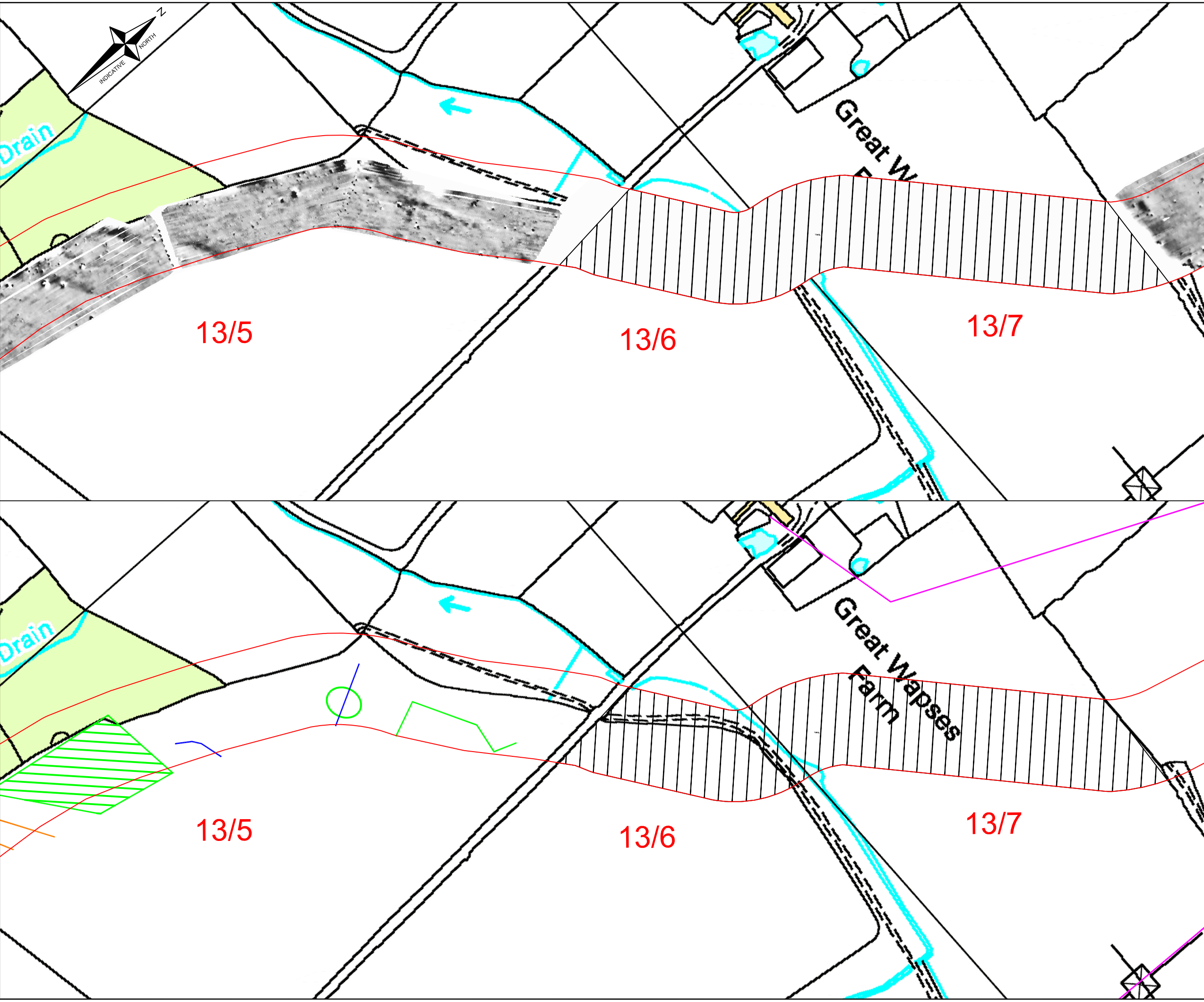
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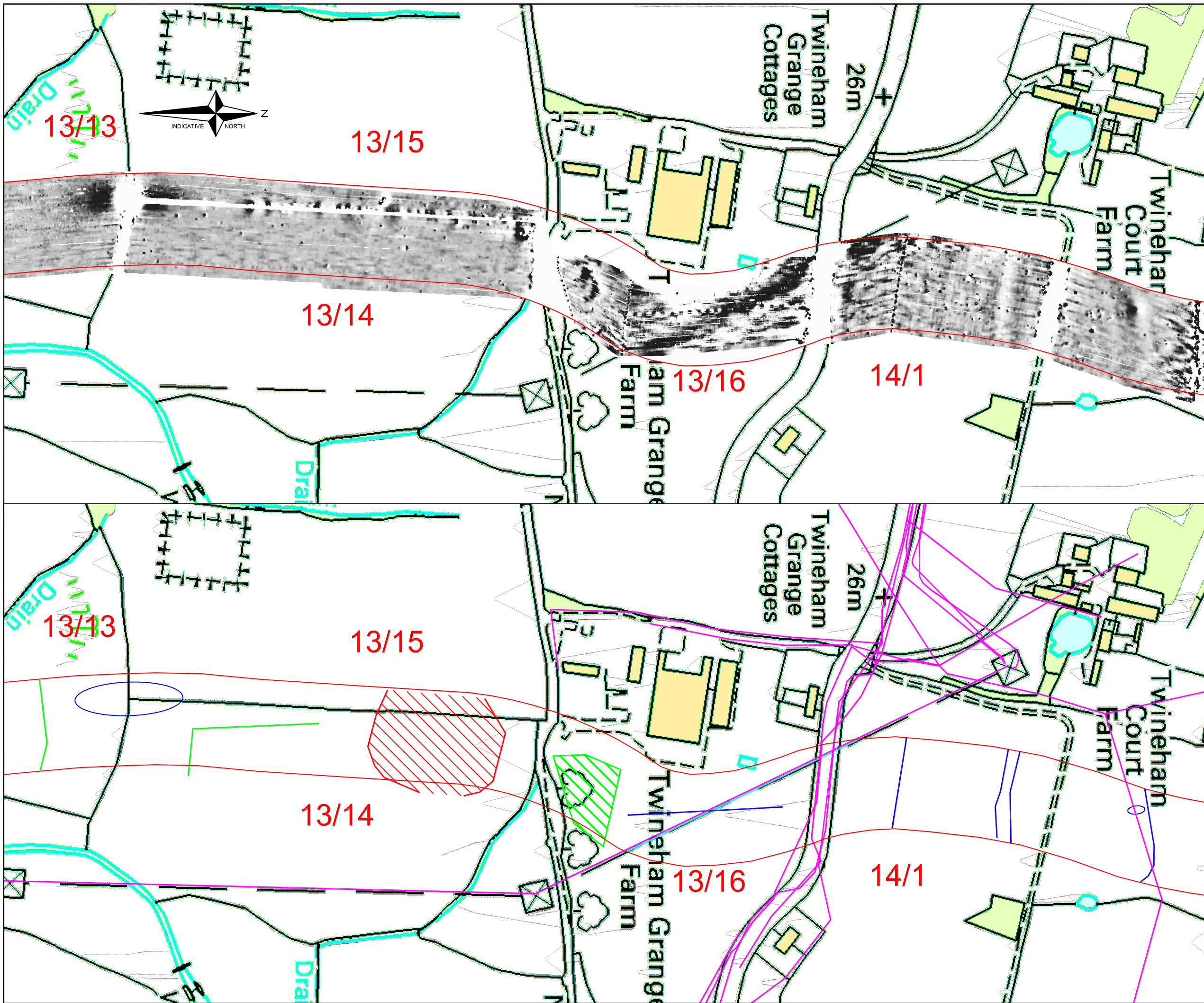
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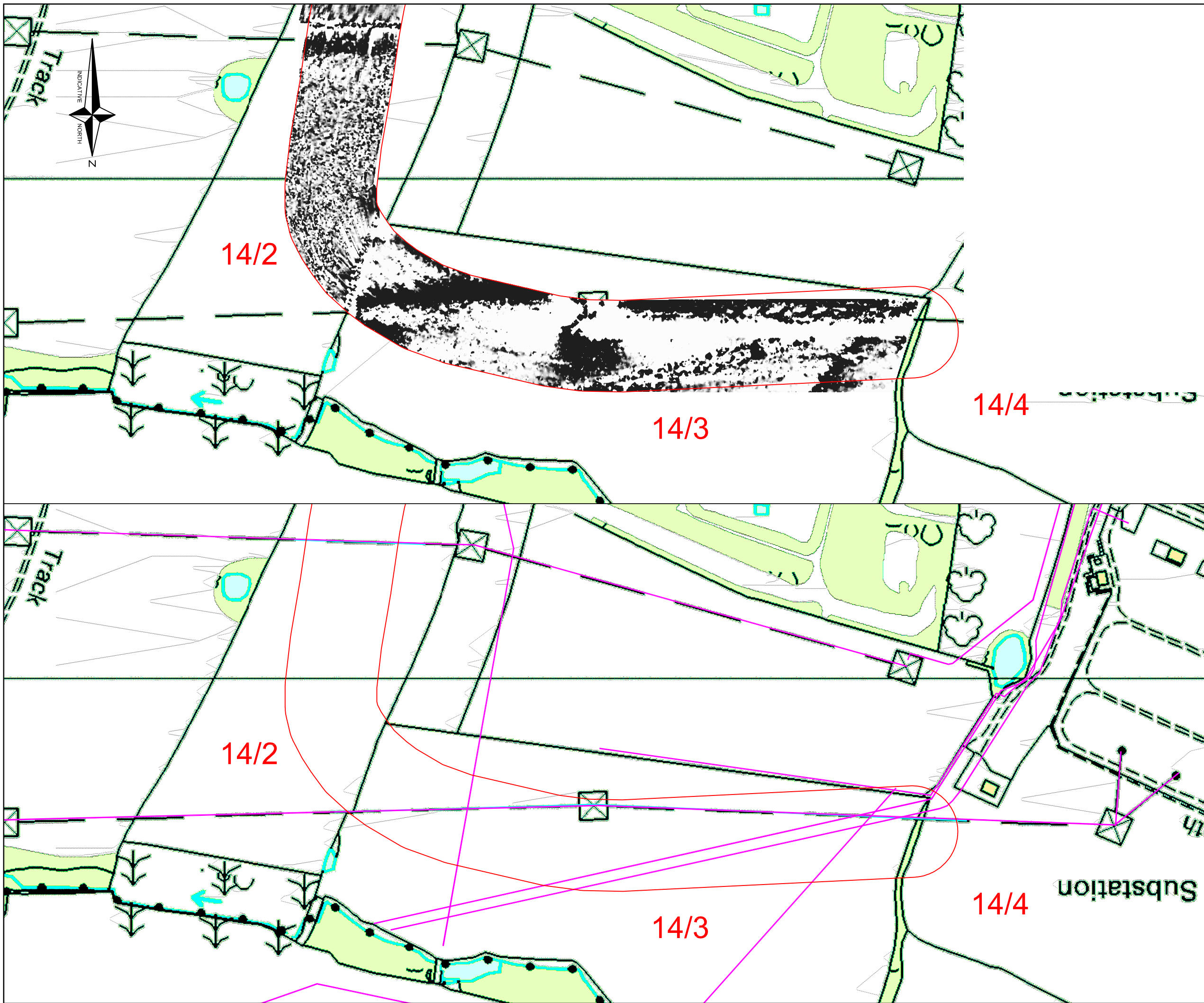
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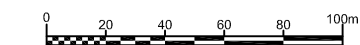


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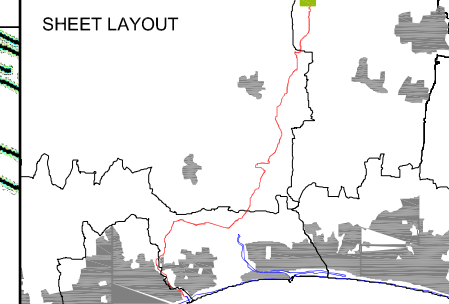
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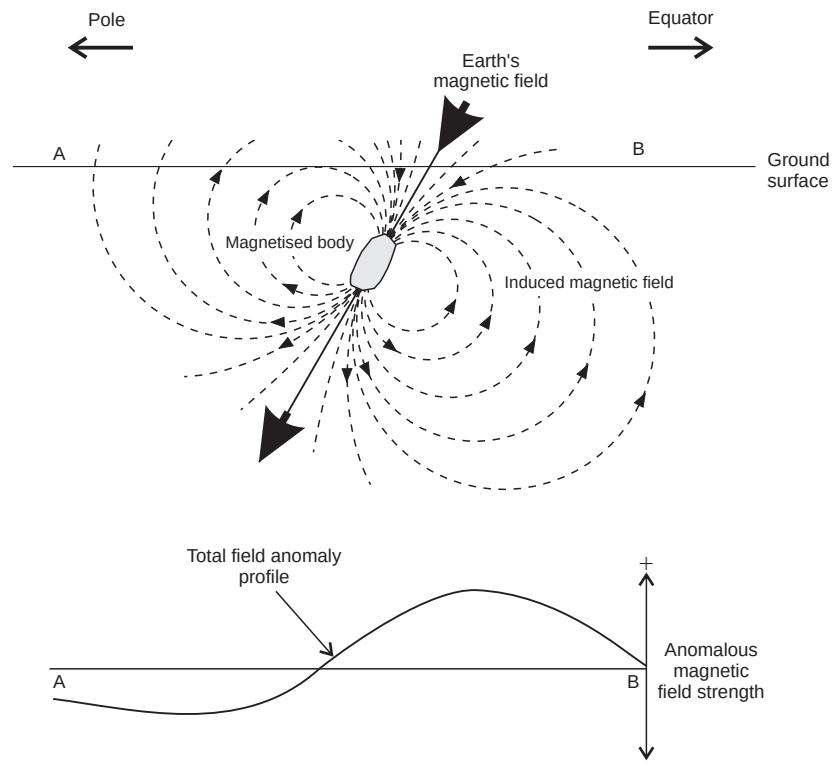
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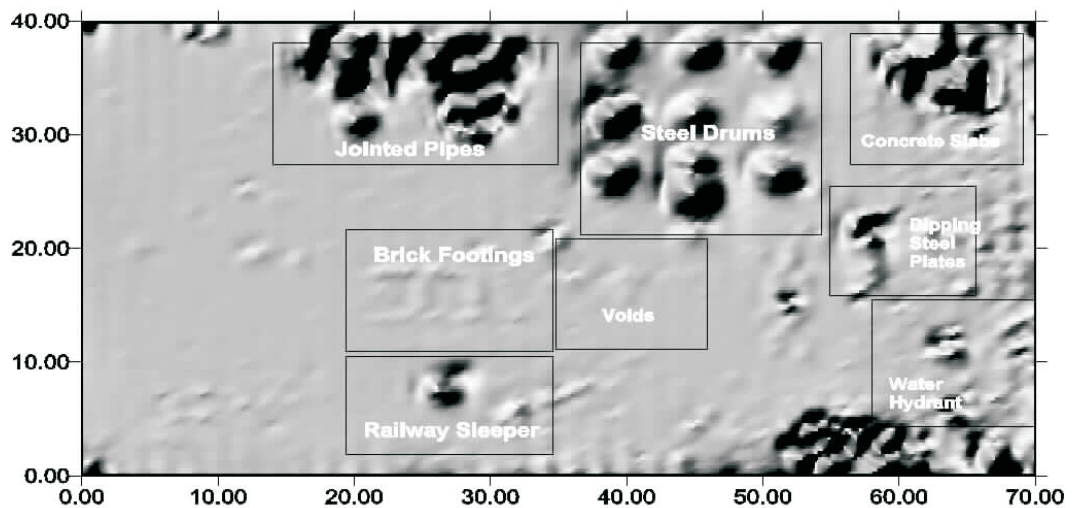
APPENDIX A

A The principle of magnetic surveying



B An example of a magnetic gradiometry map

A number of different buried objects/structures are identifiable



RSK

**THE
MAGNETIC
TECHNIQUE**

Client:

E.On UK Ltd

Appendix: A

Job: 293069

Site/Project:

Rampion Wind Farm

SCALE

N/A

DATE

July 2012

G858 MAGNETOMETER



The G-858 MagMapper uses a graphical interface to make survey design and data acquisition quick and efficient. Various modes of operation allow the user to custom design a survey grid for their particular needs. The operator also has the ability to view his/her position on the grid and the current data profile during the survey. Sensitivity, resolution, and recording rate of the cesium magnetometer are user selectable. G-858 data acquisition offers either continuous or discrete station recording. The high sampling rate of the instrument in continuous mode allows the operator to survey an area at a fast walking pace. A wider search radius can be achieved by using a gradiometer configuration. As a result, over-all costs are inherently lower while data quality remains high

Specifications

<u>Operating Principle:</u> Self-oscillating split-beam Cesium Vapor (non-radioactive Cs133) with automatic hemisphere switching.	<u>Heading Error:</u> +/- 1 nT
<u>Operating Range:</u> 17,000nT to 100,000 nT	<u>Gradient Tolerance:</u> > 500 nT / inch; >20,000nT / meter
<u>Operating Zones:</u> For highest signal-to-noise ratio, the sensor long axis should be oriented at 45°, +/- 30° to the earth's field angle, but operation will continue through 45°, +/- 35°.	<u>Data Storage:</u> Nonvolatile RAM with capacity for 8 hrs. of Magnetometer time, event marks, field notes, location, or 3 hrs. of Gradiometer and GPS at maximum sample rates.
<u>Sensitivity:</u> 90% of all readings will fall within the following Peak-to-Peak envelopes: 1. 0.05nT at 0.1 sec cycle rate 2. 0.03nT at 0.2 sec cycle rate 3. 0.02nT at 0.5 sec cycle rate 4. 0.01nT at 1.0 sec cycle rate	<u>Visual Display:</u> A 320x200 graphic LCD, daylight visible with selectable outputs for: 1. Data display 2. System setup functions 3. Survey setup functions 4. Survey monitoring 5. System diagnostics
<u>Data Output:</u> Three wire RS232 standard serial port, optional continuous real time transmittal of data via RS232 to PC. Total memory output transfer time less than 5 minutes at 115,200 baud	<u>Battery Life:</u> 1. 24 VDC rechargeable gel cell, 6 hrs. Magnetometer or 3 hrs. Gradiometer usage. 2. Internal backup battery for clock and nonvolatile RAM
<u>Operating Temperature:</u> -25° C to +50° C (-13° F to +122° F)	<u>Water Tight:</u> To 3 ft. (0.9 m) depth
<u>Shock:</u> Drop 3 ft. on a hard surface without damage.	<u>Console Magnetic Effect:</u> Less than 1nT at 4 ft. from sensor.

**G858
MAGNETOMETER**

