

Tween Bridge Solar Farm

Environmental Statement

Appendix 8.2: Geophysical Survey Report – Part 5

Planning Act 2008

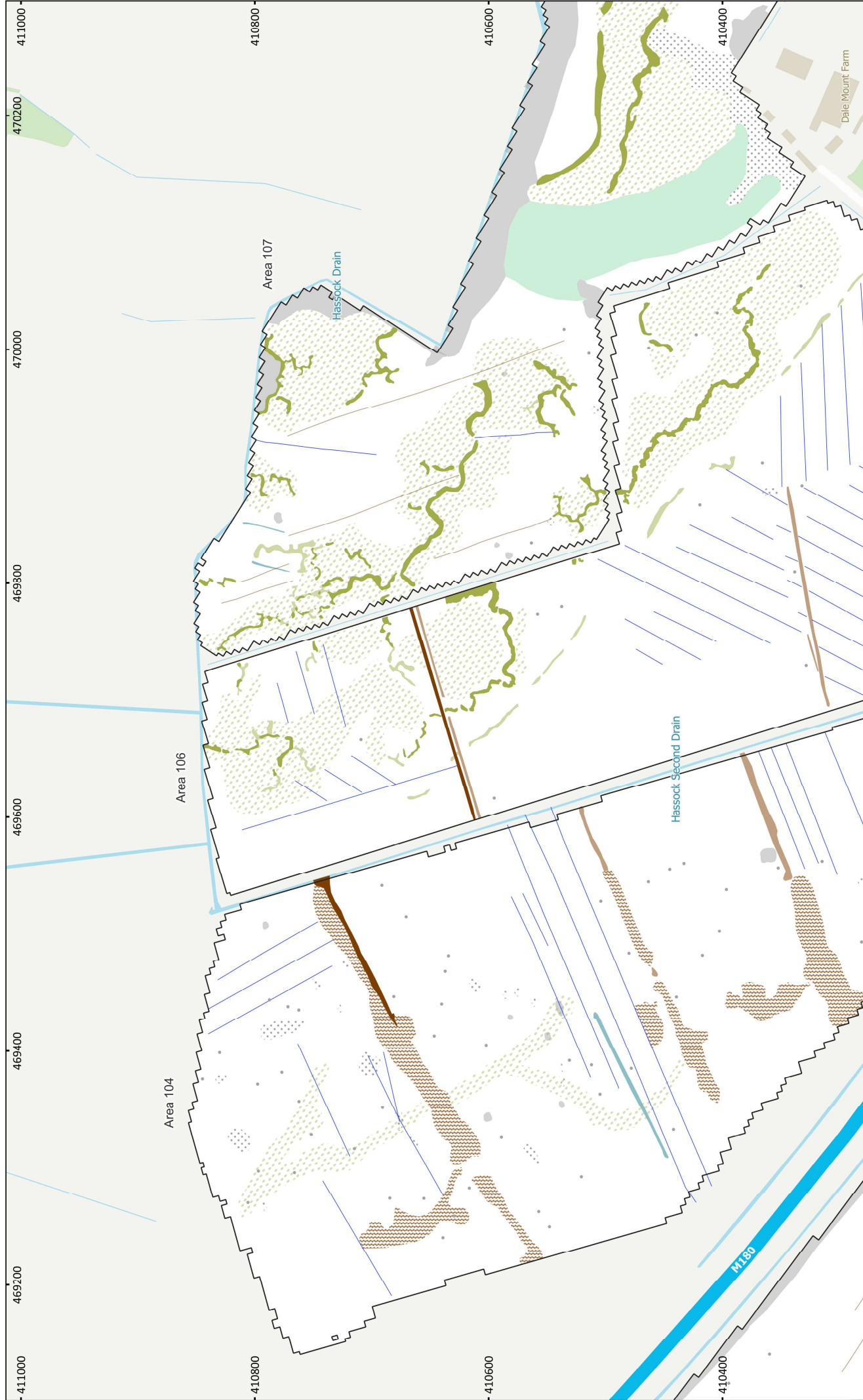
Infrastructure Planning (Applications: Prescribed Forms
and Procedure) Regulations 2009

APFP Regulation 5(2)(a)

Document Reference: 6.3.8.2

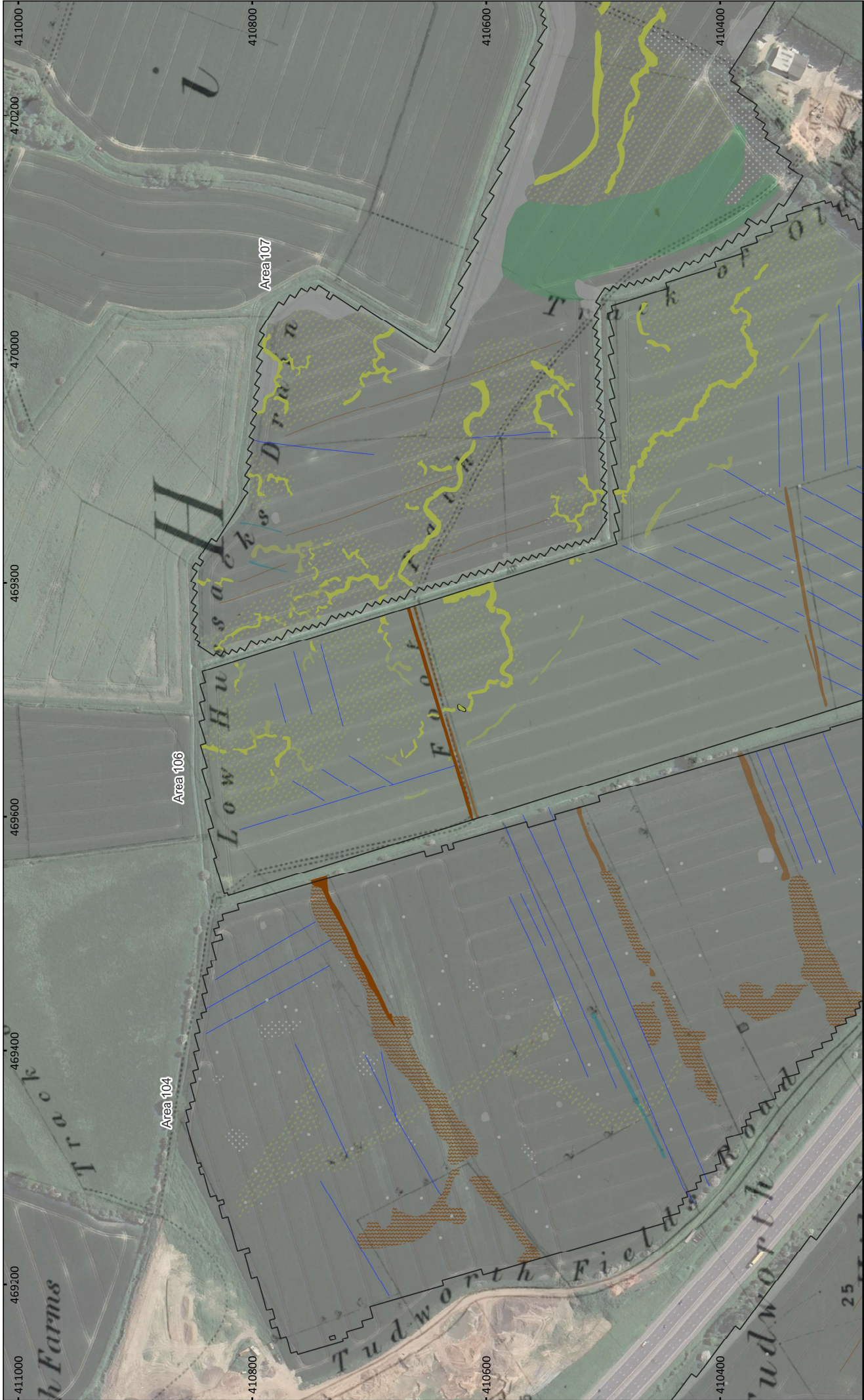
August 2025

Revision 1



MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 93 - Magnetic Interpretation (Areas 104, 106, 107 & 117)
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0 50 100 150 m



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Figure 94 - Magnetic Interpretation Over Historical Maps and Satellite Imagery
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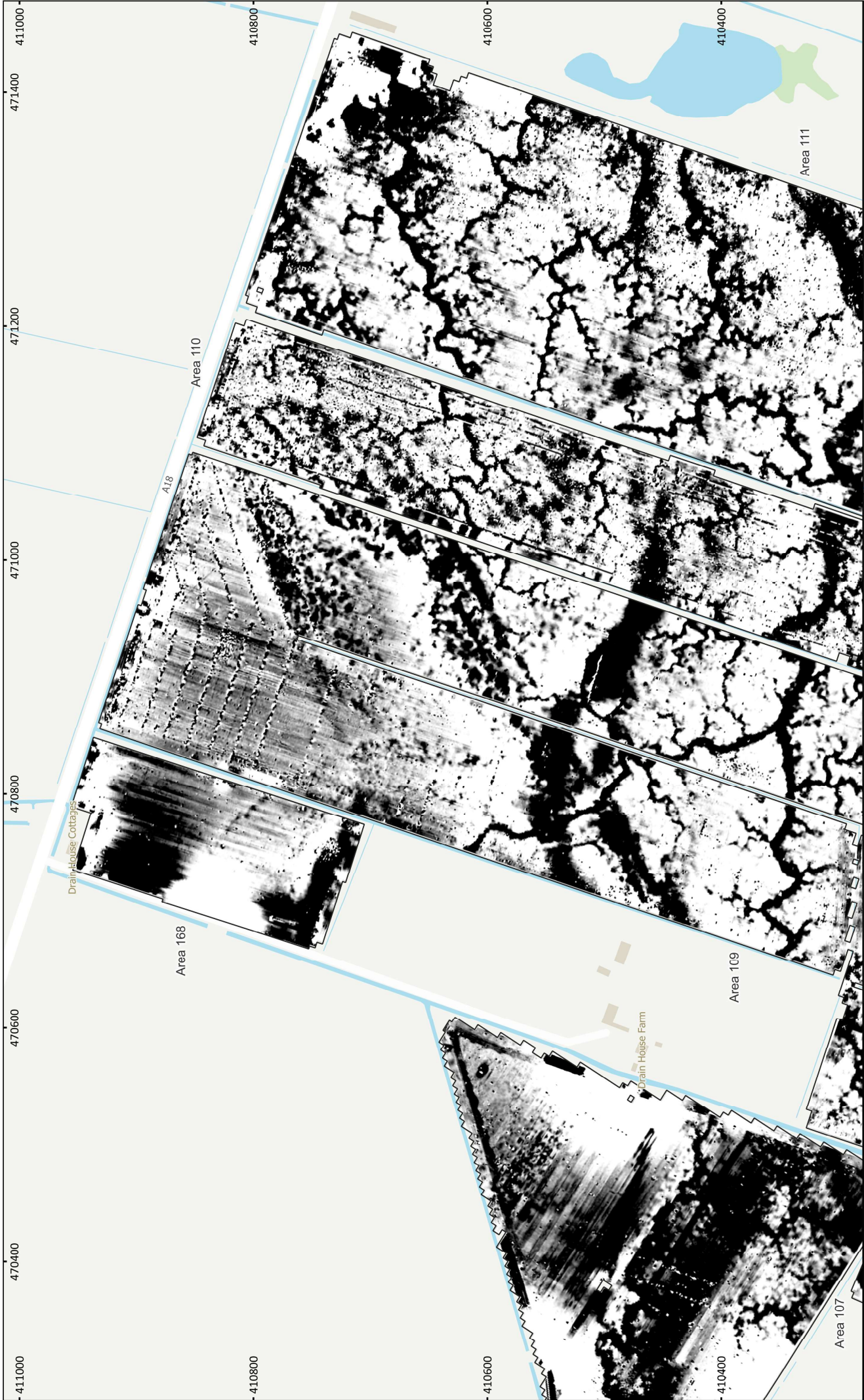
Legend

	Agricultural (Strong)		Natural (Spread)		Agricultural (Trend)
	Agricultural (Weak)		Palaeochannel		Drainage Feature
	Agricultural (Spread)		Undetermined (Weak)		Ferrous (Spike)
	Natural (Strong)		Magnetic Disturbance		
	Natural (Weak)		Ferrous/Debris (Spread)		

N

0 50 100 150 m

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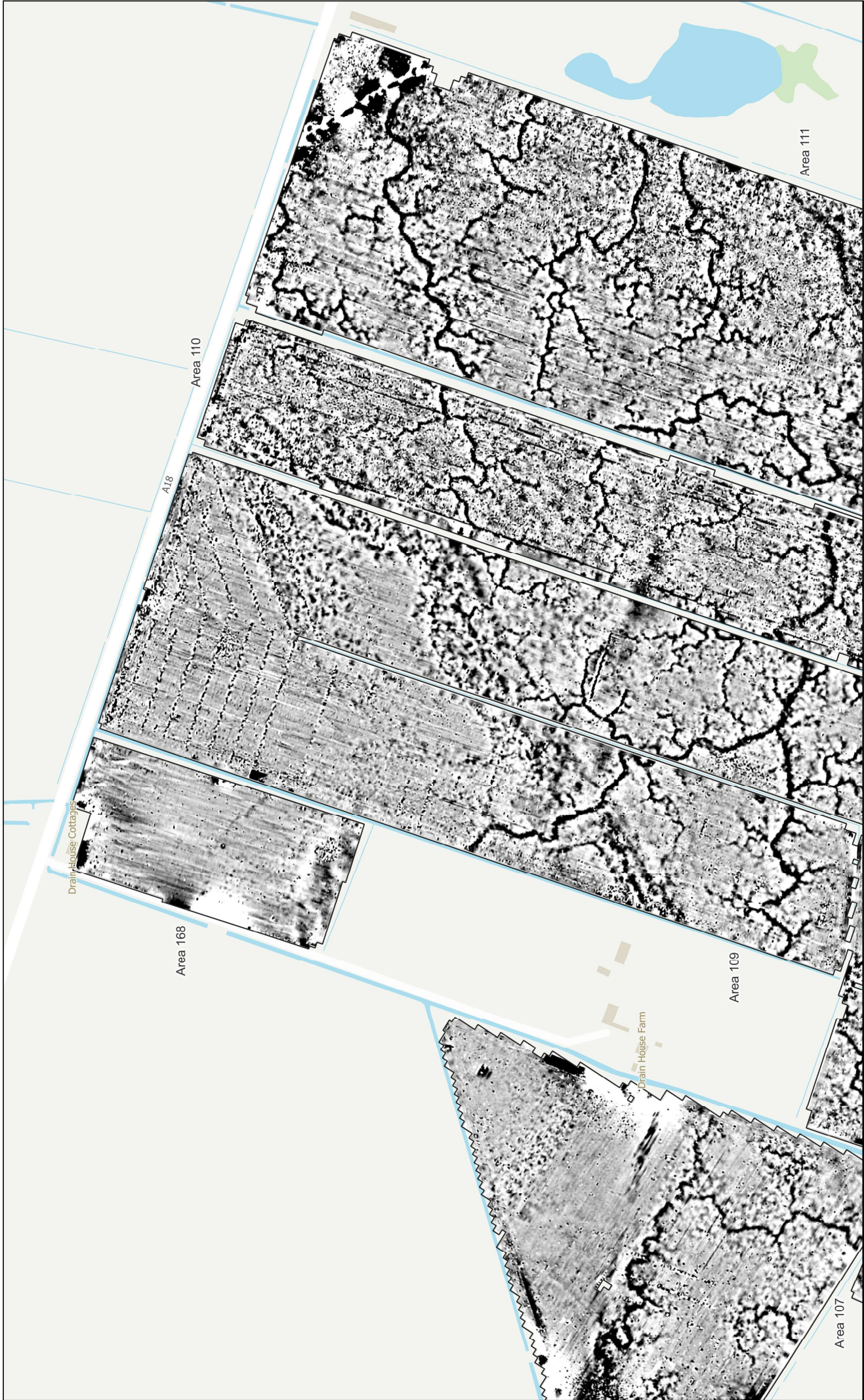


MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 95 - Magnetic Total Field (Lower Sensor) (Areas 107, 109, 110, 111 & 168)
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0 50 100 150 m

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
 Figure 96 - Magnetic Gradient (Areas 107, 109, 110, 111 & 168)
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Drain House Cottages

Drain House Farm

Area 107

Area 109

Area 110

Area 111

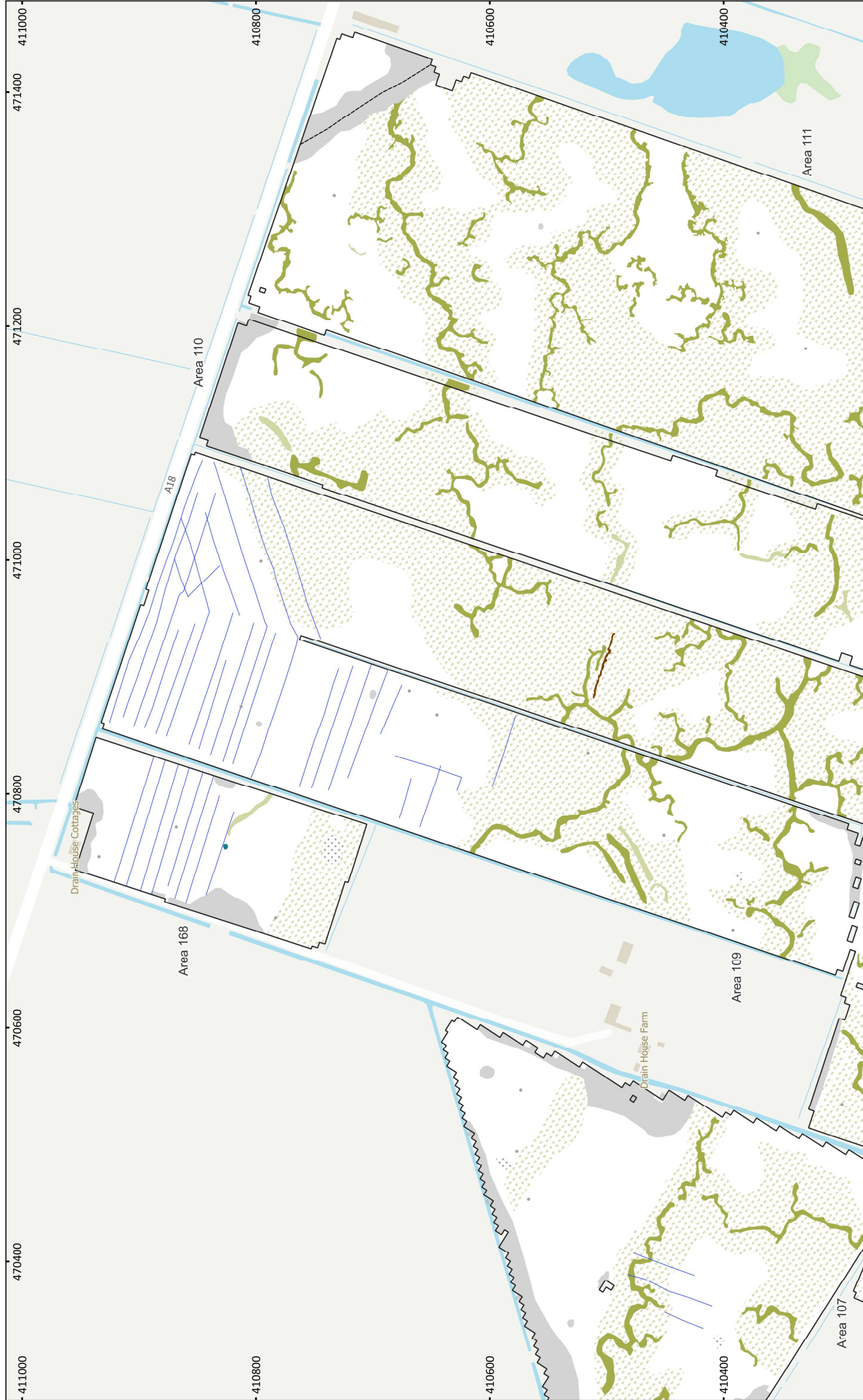
A18

0 50 100 150 m

N

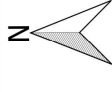
-1 nT 2

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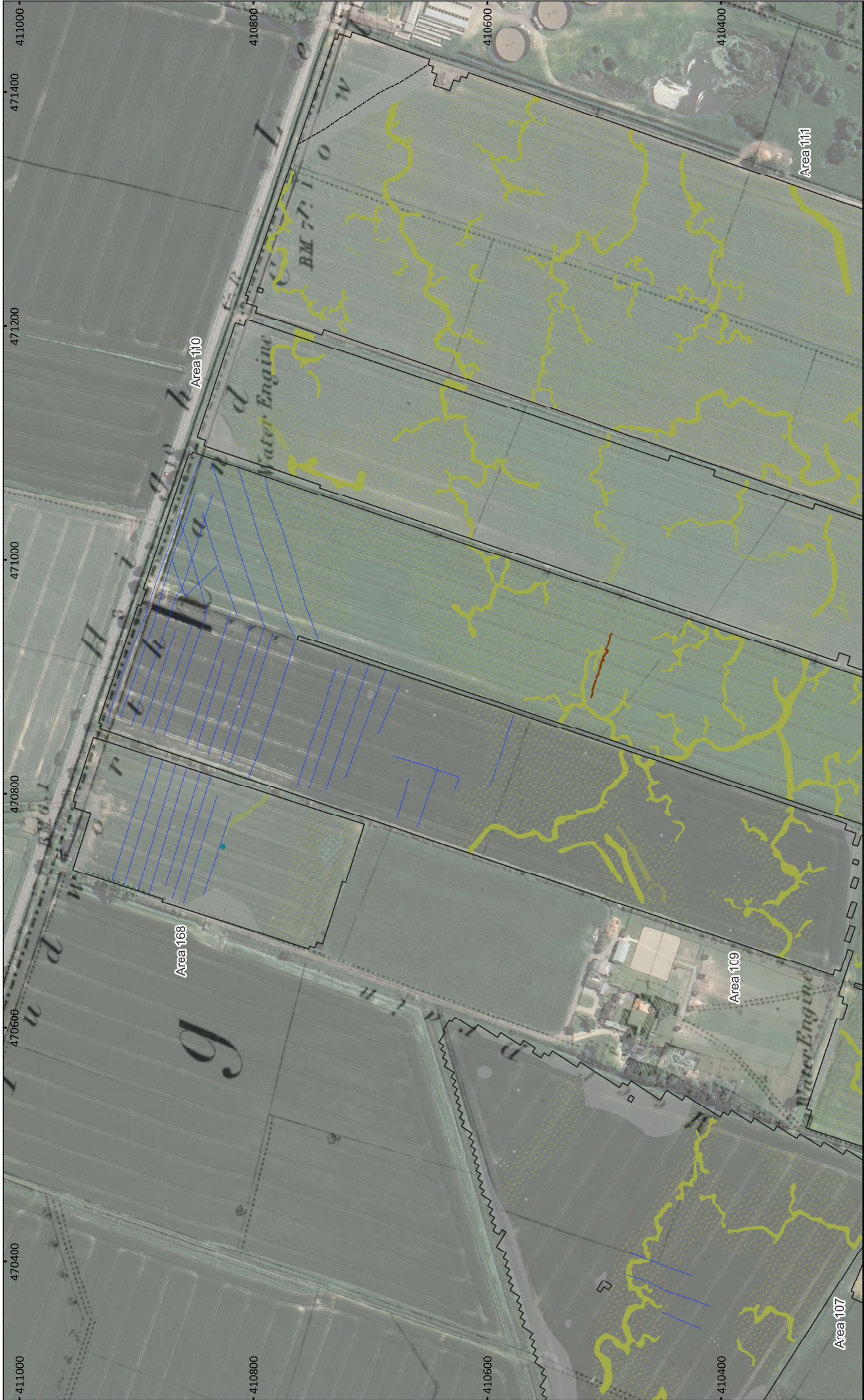
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0 50 100 150 m



MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle,
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Figure 97 - Magnetic Interpretation (Areas 107, 109, 110, 111 & 168)
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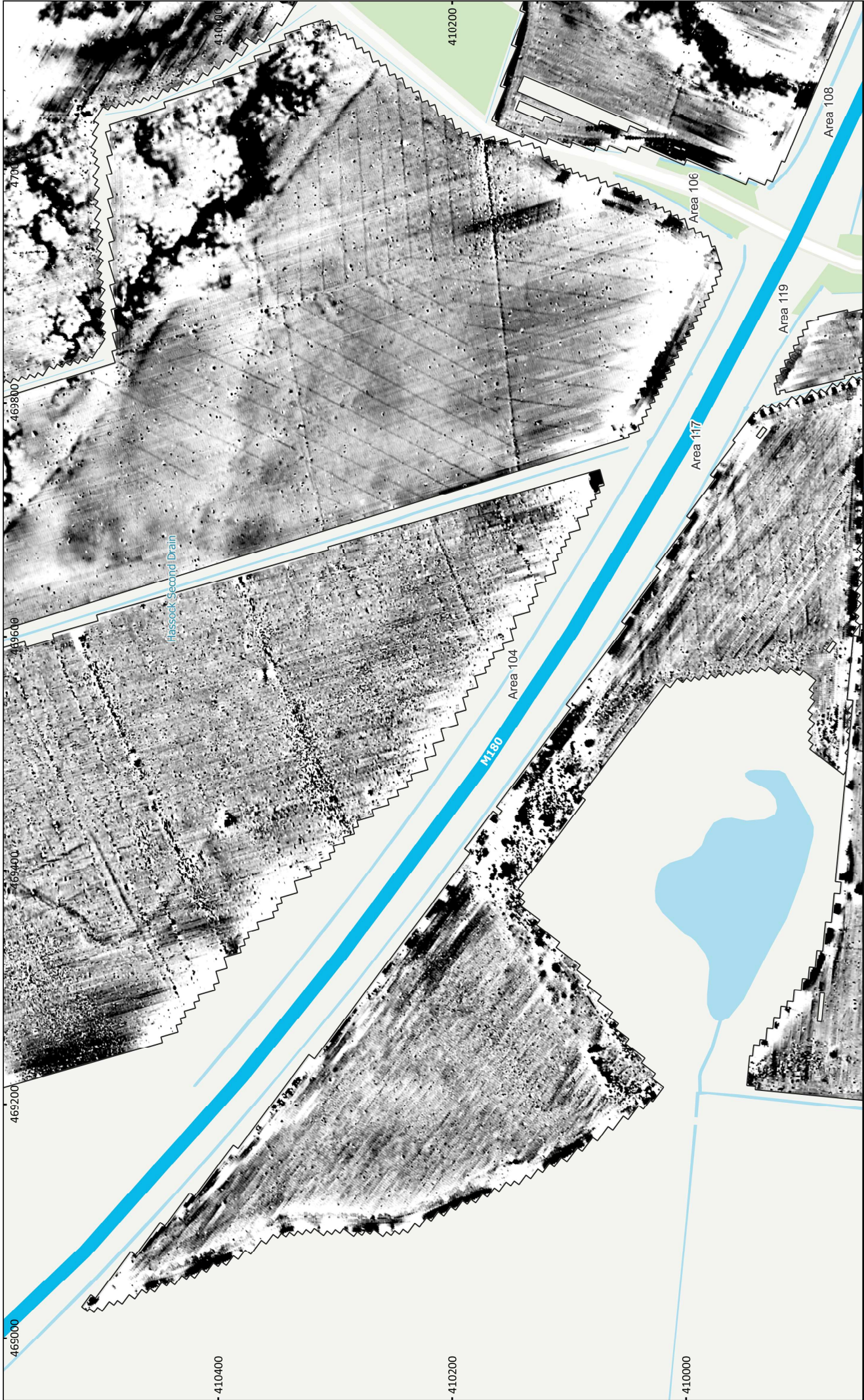
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Figure 98 - Magnetic Interpretation Over Historical Maps and Satellite Imagery
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Legend

	Agricultural (Strong)		Drainage Feature
	Natural (Strong)		Undetermined (Strong)
	Natural (Weak)		Magnetic Disturbance
	Natural (Spread)		Ferrous/Debris (Spread)
			Service
			Ferrous (Spike)

0 50 100 150 m

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire

Figure 99 - Magnetic Total Field (Lower Sensor) (Areas 104, 106, 107, 108, 117 & 119)

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N

0 50 100 150 m

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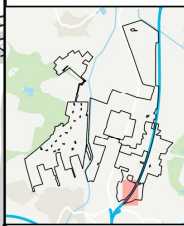
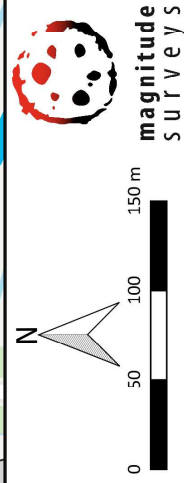
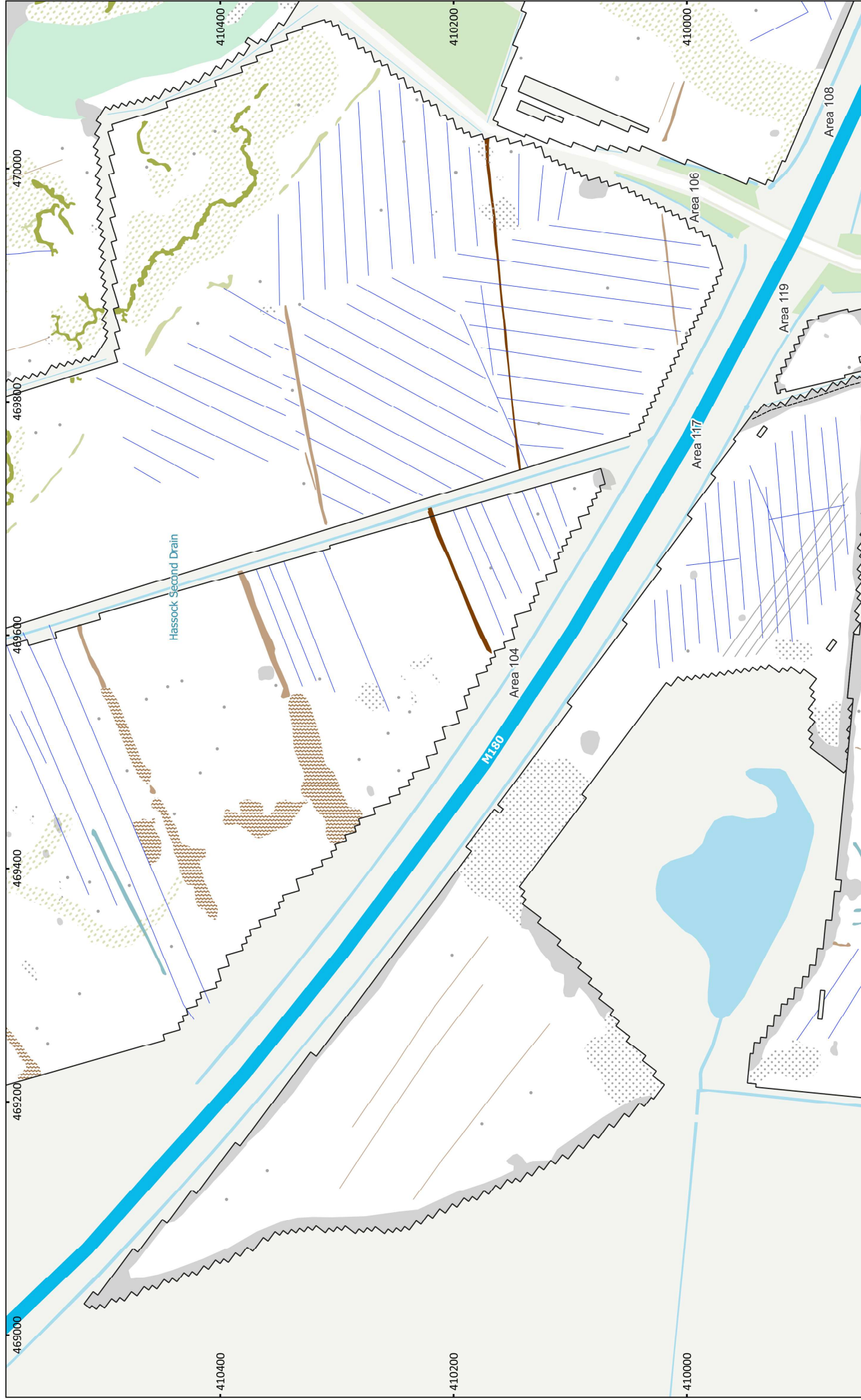
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Figure 100 - Magnetic Gradient (Areas 104, 106, 107, 108, 117 & 119)
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-1 nT 2

0 50 100 150 m

N

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
 Figure 101 - Magnetic Interpretation (Areas 104, 106, 107, 108, 117 & 119)
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Figure 102 - Magnetic Interpretation Over Historical Maps and Satellite Imagery

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Legend

	Agricultural (Strong)		Natural (Spread)		Agricultural (Trend)
	Agricultural (Weak)		Paleochannel		Data Artefact
	Agricultural (Spread)		Undetermined (Weak)		Service
	Natural (Strong)		Magnetic Disturbance		Drainage Feature
	Natural (Weak)		Ferrous/Debris (Spread)		Ferrous (Spike)

Scale

0 50 100 150 m

North Arrow

N

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 104 - Magnetic Gradient (Areas 104, 106, 108, 117, 118, 119, 120 & 121)
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Stoupersgate Farm

Sandbift Road

M180

Area 104

Area 106

Area 108

Area 117

Area 119

Area 118

Area 120

Area 121

Low Levels Bank

0 50 100 150 m

N

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-1 0 1 2 nT

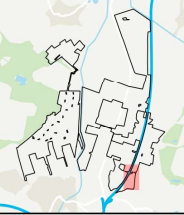


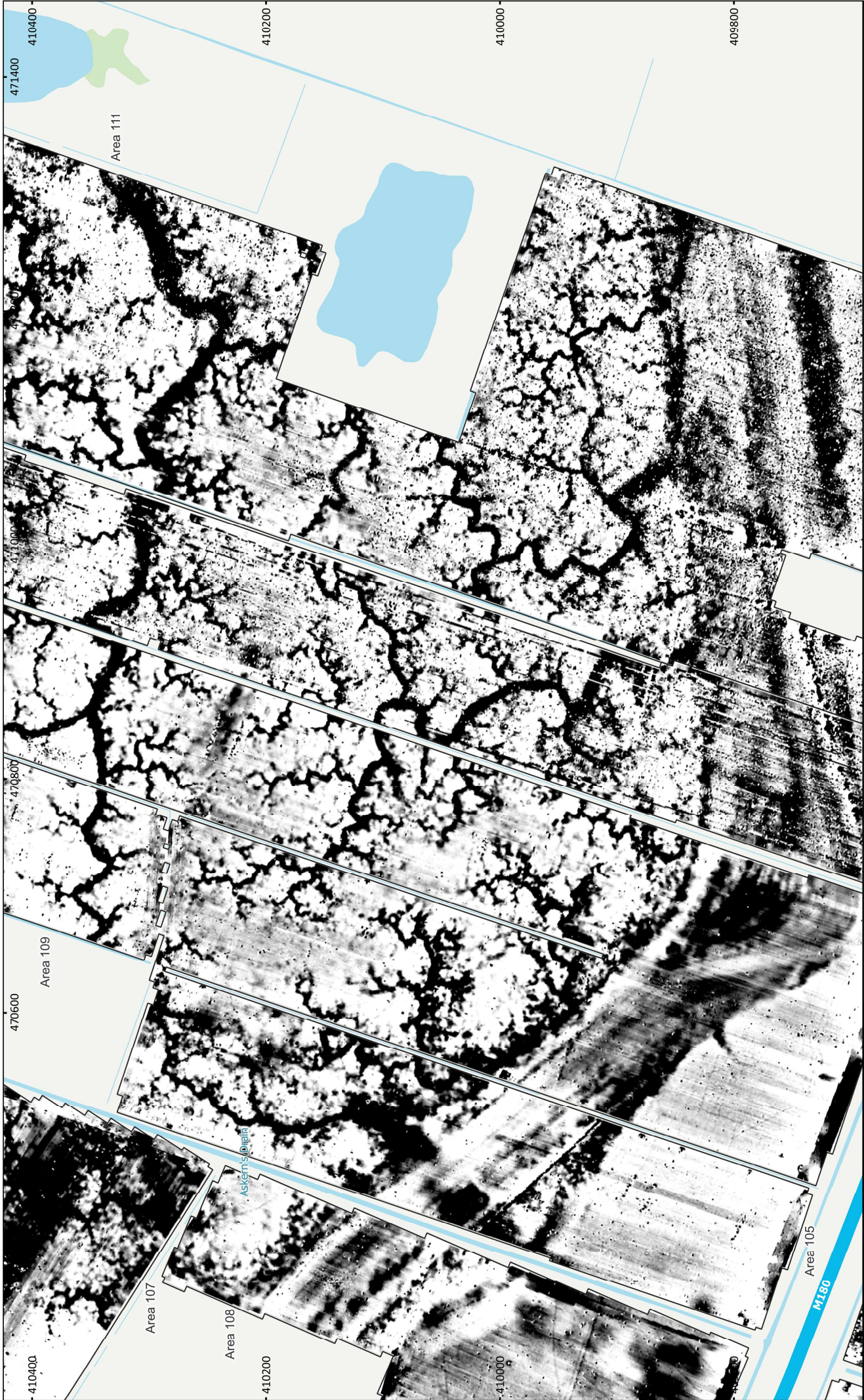
MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 105 - Magnetic Interpretation (Areas 104, 106, 108, 117, 118, 119, 120 & 121)
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0 50 100 150 m

N





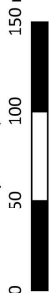
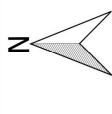
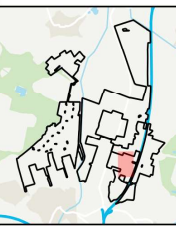
MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 107 - Magnetic Total Field (Lower Sensor) (Areas 105, 107, 108, 109, 110 & 111)
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48997 nT 49005

0 50 100 150 m

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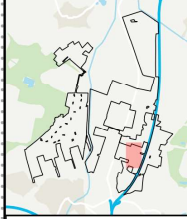
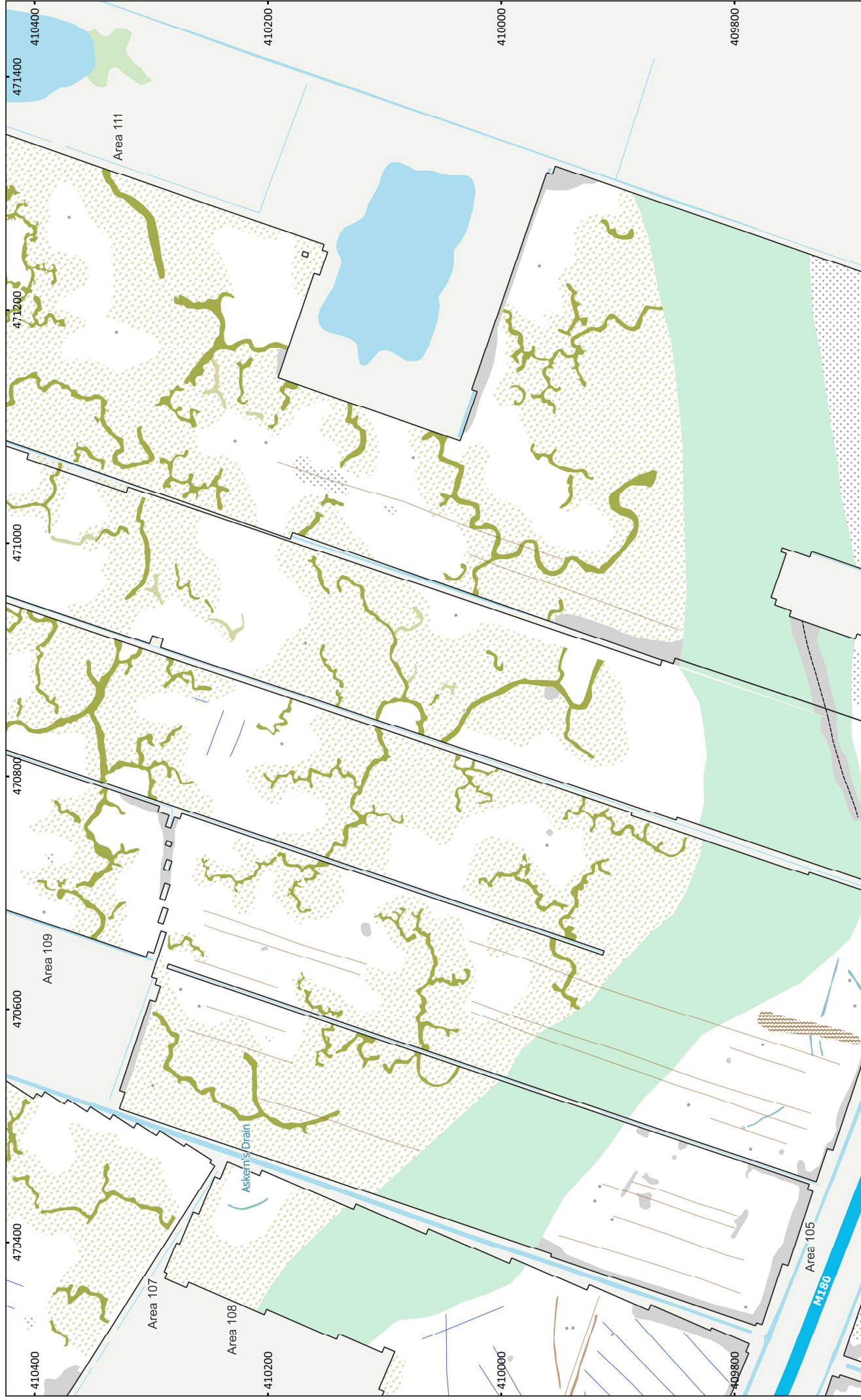






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MSS1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle,
North Lincolnshire
Figure 108 - Magnetic Gradient (Areas 105, 107, 108, 109, 110 & 111)
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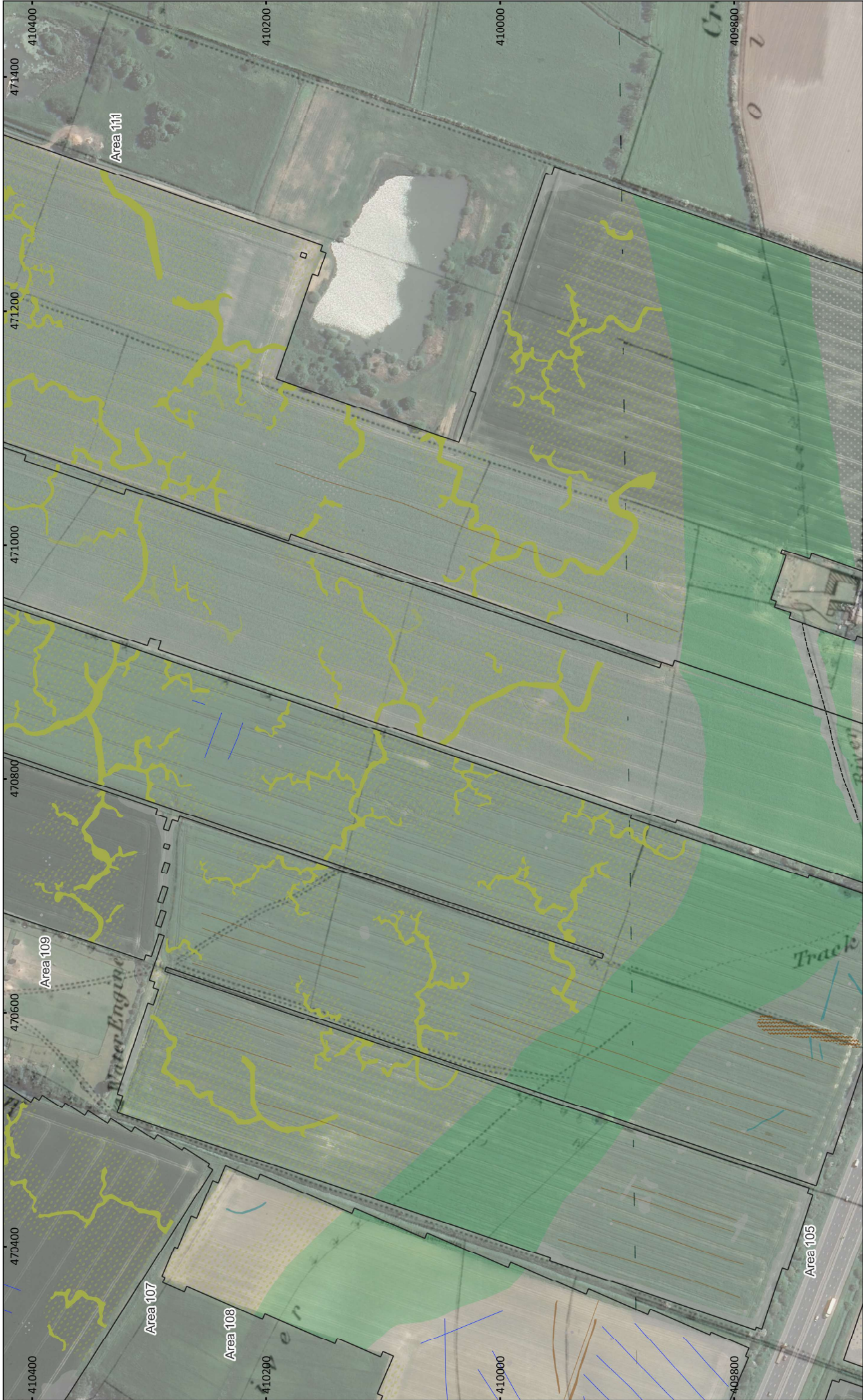


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Distance from water surface (m)	Concentration of dissolved oxygen (mg/L)
0	12
50	18
100	16
150	15

MSSEL548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle,
North Lincolnshire
Figure 10c - Magnetic Interpretation (Areas 105, 107, 108, 109, 110 & 111)
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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 110 - Magnetic Interpretation Over Historical Maps and Satellite Imagery
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Palaeochannel
Undetermined (Weak)
Magnetic Disturbance
Ferrous/Debris (Spread)
Agricultural (Trend)

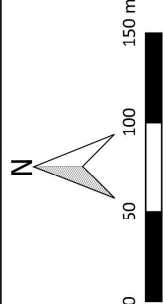
Agricultural (Weak)
Agricultural (Spread)
Natural (Strong)
Natural (Weak)
Natural (Spread)

Service
Drainage Feature
Ferrous (Spike)

0 50 100 150 m

N

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 111 - Magnetic Total Field (Lower Sensor) (Areas 109, 110, 111, 112, 120, 121, 122, 123, 124, 125, 126, 156, 181 & 182)
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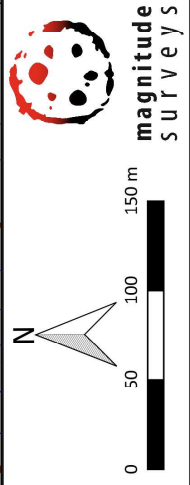
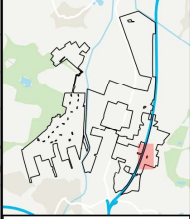
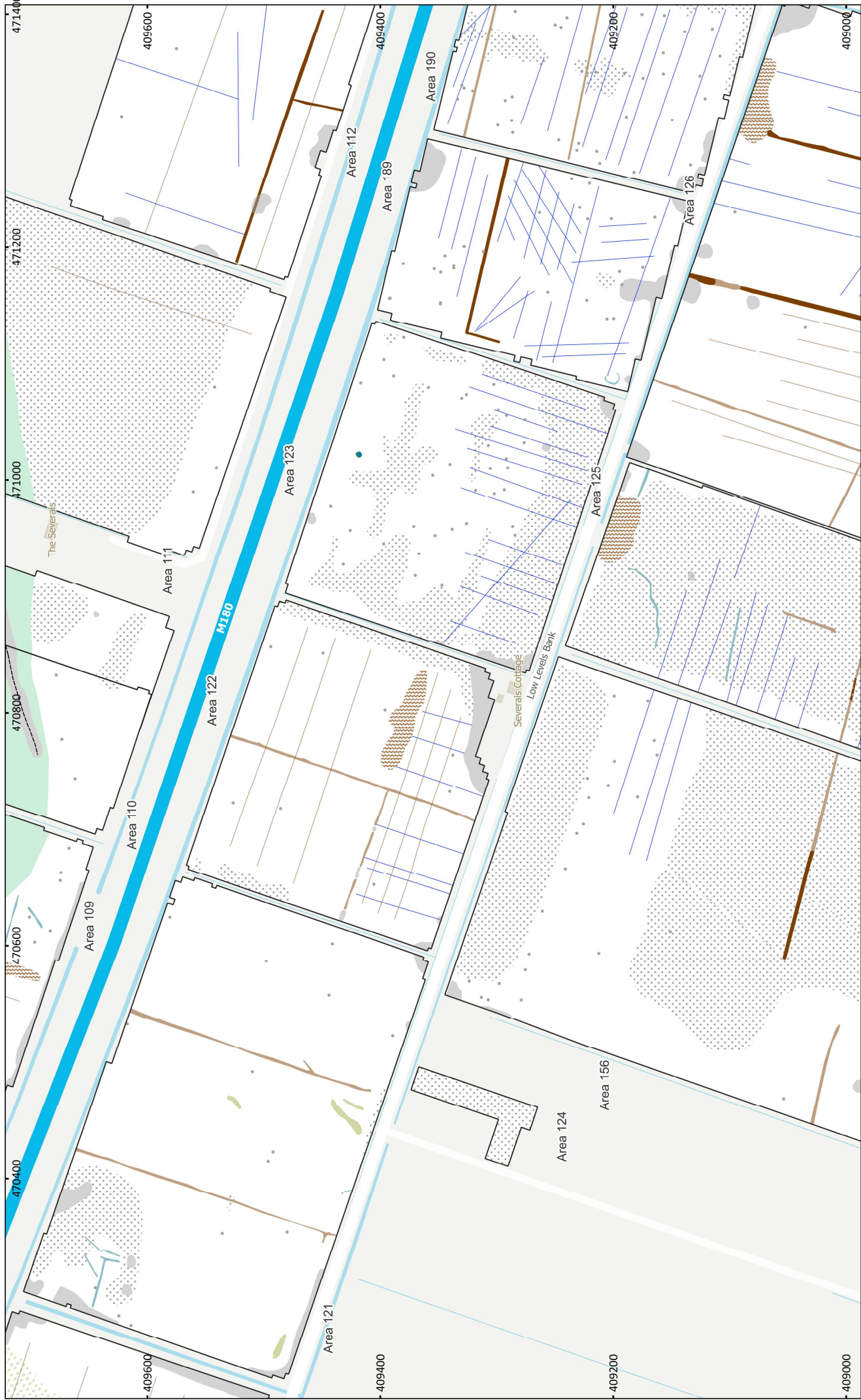
MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 112 - Magnetic Gradient (Areas 109, 110, 111, 112, 120, 121, 122, 123, 124, 125, 126, 156, 181 & 182)
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0 50 100 150 m

N

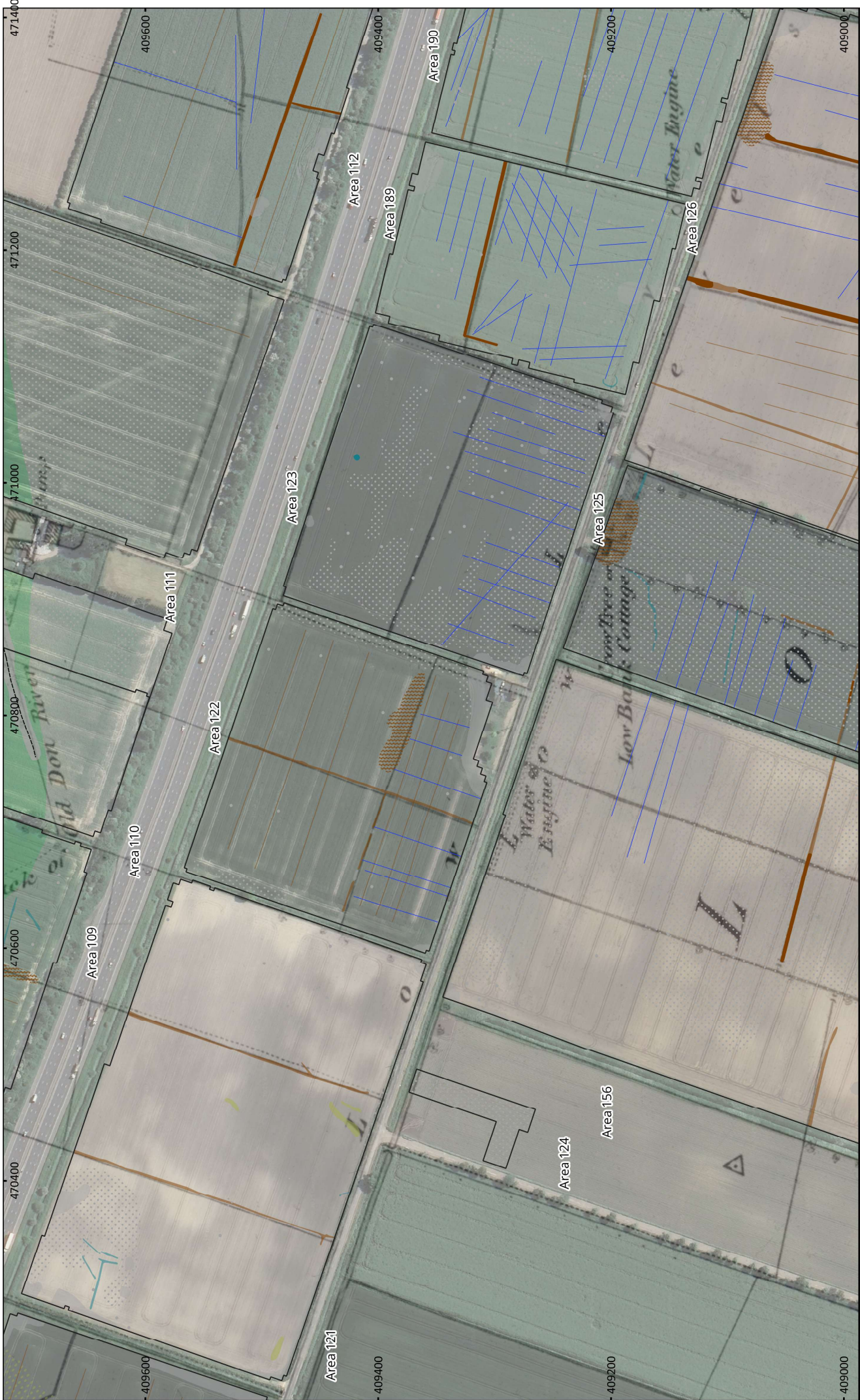
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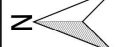
MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 113 - Magnetic Interpretation (Areas 109, 110, 111, 112, 120, 121, 122, 123, 124, 125, 126, 156, 181 & 182)
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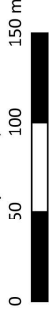




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N



0 50 100 150 m



	Agricultural (Strong)		Palaeochannel		Agricultural (Trend)
	Agricultural (Weak)		Undetermined (Strong)		Service
	Agricultural (Spread)		Undetermined (Weak)		Drainage Feature
	Natural (Weak)		Magnetic Disturbance		Ferrous (Spike)
	Natural (Spread)		Ferrous/Debris (Spread)		

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Figure 114 - Magnetic Interpretation Over Historical Maps and Satellite Imagery

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 115 - Magnetic Total Field (Lower Sensor) (Areas 125, 126, 129, 130, 132 & 156)
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0 50 100 150 m

N

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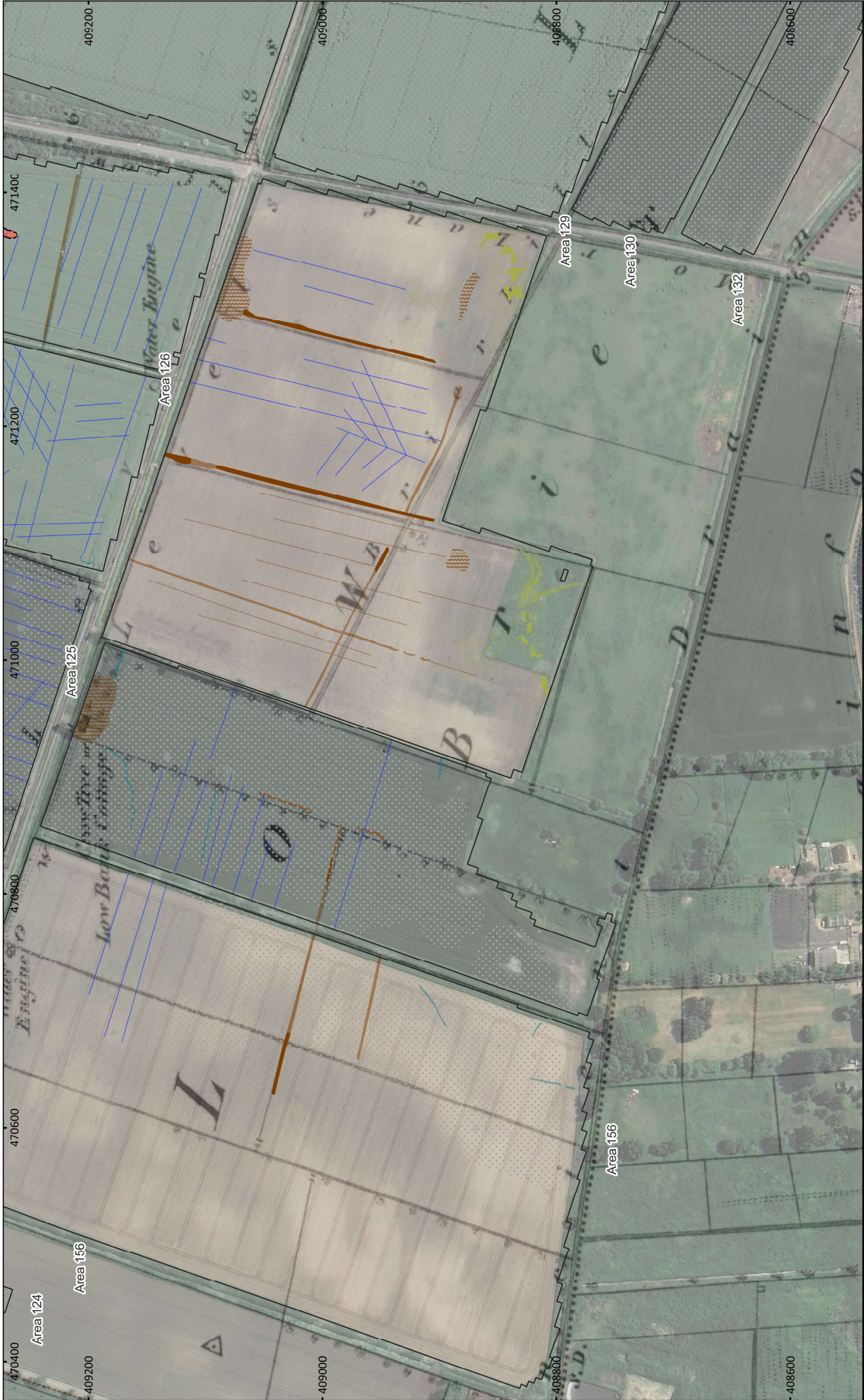
MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 116 - Magnetic Gradient (Areas 125, 126, 129, 130, 132 & 156)
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-1 0 1 2
nT

0 50 100 150 m

N

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Figure 118 - Magnetic Interpretation Over Historical Maps and Satellite Imagery
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0 50 100 150 m

N

Area 124
Area 125
Area 126
Area 129
Area 130
Area 132
Area 156

470400 470600 470800 471000 471200 471400
409200 409400 409600 409800 410000 410200
408600 408800 409000 409200 409400 409600

Legend:

- Agricultural (Strong)
- Agricultural (Weak)
- Agricultural (Spread)
- Natural (Weak)
- Natural (Strong)
- Natural (Spread)
- Undetermined (Weak)
- Magnetic Disturbance
- Ferrous/Debris (Spread)
- Agricultural (Trend)
- Drainage Feature
- Ferrous (Spoke)



MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 119 - Magnetic Total Field (Lower Sensor) (Areas 126, 129, 130, 131, 132 & 179)
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0 50 100 150 m

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Figure 120 - Magnetic Gradient (Areas 126, 129, 130, 131, 132 & 179)
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Scale: -1 nT to 2 nT

Inset map showing the location of the survey area within the region of North Lincolnshire and South Yorkshire.

North arrow pointing towards the top right of the page.

Scale bar: 0, 50, 100, 150 m

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire

Figure 121 - Magnetic Interpretation (Areas 126, 129, 130, 131, 132 & 179)

1:3,000 @ A3

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MSSE1548: Tween Bridge - Thorne, Doncaster, South Yorkshire to Crowle, North Lincolnshire
Figure 122 - Magnetic Interpretation Over Historical Maps and Satellite Imagery
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0 50 100 150 m

N

■ Agricultural (Strong)
■ Agricultural (Weak)
■ Agricultural (Spread)
■ Natural (Strong)
■ Natural (Weak)
■ Natural (Spread)
■ Palaeochannel
■ Magnetic Disturbance

■ Ferrous/Debris (Spread)
— Drainage Feature
● Ferrous (Spike)