

MAR 19950014: PEARSON

Received date: Sep 13, 1995

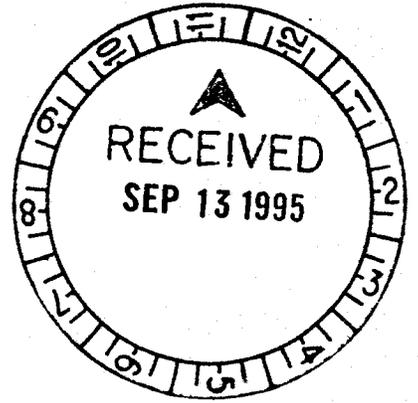
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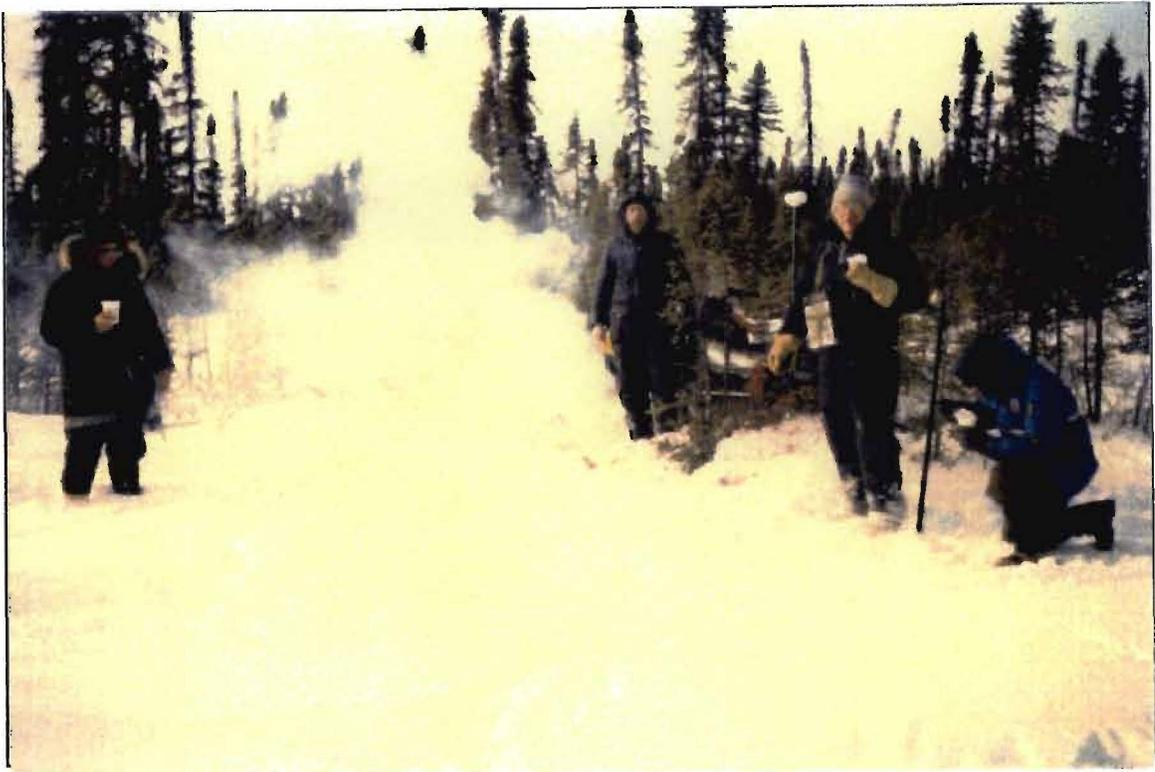


**PEARSON-MARGUERITE-AUDET EXPLORATION PERMITS
NORTHEAST ALBERTA**

by

**Adrian G. Mann Ph.D., P.Geol.
7 September 1995**

**E.J. Friesen & Associates Inc.,
#8 Lake Placid Rise S.E.,
Calgary, Alberta - T2J 5B5**



FRONTICEPIECE

North Doberman Lake - Coffee break.

SUMMARY

Two almost perfectly circular lakes coincide with a very evident, though subtle, high shoulder in the regional aeromagnetic contoured surface. Although there is no outcrop in the area, this feature is readily pinpointed by ground based magnetometry, where it has a very strong signature, which requires detailed examination, probably by drilling. There is a prominent small knoll to the east of these lakes, and another to the south of Audet Lake, both of which coincide with a small aeromagnetic high, and on both of which there is an anomalous copse of birch trees in a sea of black spruce.

Work done comprised air photo interpretation, two aerial overflyings to search for outcrop, field geological mapping (which yielded no outcrop), ground based magnetometer reconnaissance, ground based detailed magnetometer work on a small grid over and between the twin lakes, and a winter jeep- and skidoo-based search for outcrop. Vegetation in winter, and swampy land in summer, precluded reaching either birch covered knoll.

Apart from claim and permit acquisition costs of \$1,350.00, a total of \$60,017.95 has been spent in this work on these properties.

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FRONTICEPIECE - NORTH DOBERMAN LAKE

Figure 1 Muskeg, and deceptively "open" country to the southeast of South Doberman Lake

Figure 2 North End of South Doberman Lake, within the core area of the anomaly

Figure 3 Southwest edge of North Doberman Lake, preparing traverse lines by compacting with a skidoo prior to walking the packed trail.

Figure 4 Intersecting traverse lines north-south and east-west on North Doberman Lake.

Figure 5 False colour infra-red aerial photograph of the Doberman Lakes area.

Figure 6 False colour infra-red aerial photograph of the Margarite River area.

1 Introduction

Three mineral exploration permits as follows:

Pearson	9392080044
Marguerite	9393080049
Audet	9393080048

totalling 27,648 Ha, being all of Townships 101 Range 7; 100 Range 7; and 99 Range 6 West of 4th Meridian have been staked in northeast Alberta. The permits lie immediately east of the the Fort MacMurray-Fort Chipewyan winter road, 90km south of the western reaches of Lake Athabasca and 35km east of Point Brule and Chipewyan Indian Reservation 201G on the Athabasca River (location map fig 1).

Permit outlines and topographic features are shown on figures 31, 32, 33.

The project objective initially was to determine whether kimberlitic material exists on the claims.

Being underlain by a thin veneer of sedimentary rocks of the lower Devonian suggests that there is scope for a massive or disseminated sulphide deposit beneath the high magnetic anomalies, or alternatively, that the magnetic highs may represent either intrusive diatremes, such as kimberlites, or merely upfaulted horsts of basement rock.

1.1 Geology

The regional geological map shows the area is underlain by Archaean gneisses in the east, and Devonian sedimentary rocks in the west, all covered more or less by glacial debris. Ice flow was from northeast towards southwest. The area is a flat plain cut by the Marguerite River which touches the extreme southeast in a shallow incised meander, some 50 ft (15m) deep. There are no reported rock outcrops, nor were any observed, despite a summer aerial-, a fall jeep- and foot-, and a winter skidoo- mounted search.

Reconnaissance mapping was undertaken by two men in early September 1992, with a drive over as many of the accessible tracks as possible, and several low level overflights were undertaken prior to walking traverses to seek outcrop, and some test ground magnetometer work. The difficulty of moving on foot in the extensive muskeg swamps of the area, coupled with a sharp

and sustained magnetic high within the primary target area, prompted a winter exercise, using a six man team.

The west and south of the area is covered by fine, unconsolidated wind blown dune sands, on which a 10cm topsoil supports meagre boreal forest of black spruce and rare aspen. The central part of the northern permit, and almost all of the two southern permits are under muskeg. There is no outcrop, and thin (5m) to medium (25m) glacial debris covers the entire area.

Most compelling features are the coincidence of several subtle, but clearly apparent, positive aeromagnetic anomalies with equally apparent aerial photograph features.

Two almost perfectly circular lakes coincide with a very evident, though subtle, high shoulder of some 20nT in the regional aeromagnetic contoured surface. The same high, in the ground based survey is in excess of 300nT. Although there is no outcrop in the area, this feature is readily pinpointed by ground based magnetometry, where it has a very strong signature.

Minor subtle aeromagnetic highs occur on the Margarite River, and close to the Winter road, south of Doberman Lakes and west of the Margarite river. There is a prominent small knoll to the east of these lakes, and another to the south of Audet Lake, both of which coincide with a small aeromagnetic high, and on both of which there is an anomalous copse of birch trees in a sea of black spruce.

1.2 Aeromagnetism.

With flight lines at 800m intervals, and flight elevation of 300m above level terrain (topography variance of <<100ft), the area has good aeromagnetic coverage, albeit unsuited to the small targets envisaged. In general the regional magnetic response is subdued (fig 2), but of interest are:

1.2.1 A "bullseye" feature, covering an ellipse of some 60 hectares area, with a magnitude of some 30nT over general background of 60000nT, occurs in the southeastern half of the permit, sited of an elongated "shoulder"

1.2.2 A 2000m elongated "shoulder" with a minor associated "bullseye" of 20nT magnitude in the southwest of the permit.

1.2.3 A minor broad bullseye feature of 20 nT magnitude in the northeast.

1.3 Aerial photo features

1.3.1 Black and White Natural Colour

Aerial Photographs series 1950 A 12937 run 160-5714-1709 photographs 115, 116 and 117 (1:40000 scale) were examined at the University of Calgary Library. Fig 3 depicts the geology interpreted from the central photograph, # 116. The same features are clearly visible on more recent photographs series 1982 74 E 14 run 82-1791R Ln 6 AS 2665 104, 105 and 106 (1:30,000 scale). Several features are notable:

1.3.1.1 Subtle bedding banding strikes along a consistent 350° trend over the entire area. Dip is probably very moderate towards the west.

1.3.1.2 Coinciding with the southeastern aeromagnetic "bullseye" is a clearly visible elliptical ring feature, with associated less obvious radial linears, which are interpreted as radial dykes or faults. Concentric with the central ring feature is a discontinuous outer ring, which is interpreted as a conical dyke sheet. Dimension of the ring feature is 550m long axis, 200m short axis (35 Ha area), with the radial features extending little more than a kilometre from the edges of the central ring feature.

1.3.1.3 Coinciding with the western aeromagnetic "shoulder" feature are two almost perfectly circular shallow "Kettle" lakes. These, in turn, lie slightly east and south of two small ring features. The structure requires explanation.

1.3.1.4 A large, near circular, ring feature, some 100 hectares in area, is centred north of the southeastern ring feature.

1.3.2 False Colour Infra-red

The same features are reflected, even enhanced, by false colour infrared photography, (Series 27 A37601 numbers 89, 90 and 91 scale 1:70,000) in which warmer areas show red. The southeastern treed feature shows up particularly prominently.

1.3.3 Satellite Imagery

The southeastern feature is clearly visible on the ERTS 30m pixel satellite photographs of the area.

2 Interpretations of the features seen

2.1 The aeromagnetic "bullseye" and "shoulders" could represent clustered vertical cylindrical pipelike bodies, typical of the pattern of occurrence of kimberlite pipes, the "shoulders" being distortion effects of the over-all background magnetic field. This interpretation is reinforced by the coincidence with the ring feature, which may be an actual pipe.

2.2 The circular lakes may be either true kettle lakes, or may each be the focus of a pipe. Alternatively, the lakes may have migrated as erosion and uplift followed glaciation, having been originally localized by pipes, represented by the two small ring structures.

3 Regional Considerations.

In a recent publication, Gent of the Saskatchewan Department of Energy and Mines suggests that a fundamental locus for kimberlite intrusion parallels the eastern margin of the Phanerozoic Basin, especially along the west Margin of the trans-Hudson Orogen zone, in the deformation between the Hearn and Superior cratons, stretching from the Arctic Circle to the Manitoba-Saskatchewan border. This favourable linearity traverses northeast Alberta, where he shows zones of unspecified aeromagnetic anomalies of probable kimberlitic origin. This area lies within one such designated zone.

Recent mapping by the Alberta Geological Survey in the Margarite River area shows strong mylonitization and cryptocrystalline to amorphous silica/chert along intensely sheared faults which trend northeast in the gneisses. They report significant gold values at the base of a Cretaceous coal in the Firebag River area.

Uncorroborated evidence in recent press releases from junior exploration companies indicate that significant precious metal values are being recorded in the immediately overlying Devonian carbonates and arenites around Fort MacKay, which is on strike of the Rudi Martin Fault, some 40km to the southwest. There are good reasons to believe that their findings are real, and that the gold values they have returned are appreciable. Certainly, gold grains have been recorded in rocks in the area in scanning electron microscope work done by the ISPG - GSC in Calgary. Evidence suggests that the gold mineralization is related to the faulting, to the carbonates, and to the presence or proximity of hydrocarbons.

4 Comparison to other areas in Canada.

4.1 Fort a la Corne, Saskatchewan. The aeromagnetic map shows very similar patterns to this area. Anomalies range from 10nT to 100nT above a subdued background of 60500nT, each covering areas of 1000m diameter or less, and density of 11 in 120km². Drilling confirmed these are kimberlitic.

4.2 James Bay, Ontario With 25m to 150m cover, and very subdued topography, depth of cover is greater than at Pearson Lake South, and the geological setting is different - granitic gneisses of the Archaean. At 60m elevation and 250m spacing follow up flights, the kimberlites stand out admirably: magnitude of anomaly was 30 to 300nT, diameters generally less than 600m. Density of anomalies is 19 in 140km². Drilling confirmed that these are kimberlitic.

5 Initial Investigation Targets

The target body would be an irregular, ellipsoidal vertical pipe of the order of 10 000m² (1Ha) to 300 000m² (30Ha) in horizontal area. Classically, such "pipes" occur along or near narrow (<2m), planar, vertical, tabular kimberlite dykes of great lateral extent. Generally, specific gravity and magnetic susceptibility of kimberlite are markedly greater than of the surrounding Palaeozoic carbonates (although this is not universally true). Techniques using these characteristics are therefore tailor-made for this investigation.

5.1 Magnetometer Survey

The magnetic susceptibility of kimberlite ranges from 0.1×10^{-3} cgs units to 6×10^{-3} cgs units.

5.1.1 Reconnaissance Simple ground-borne magnetometer traverses, reading at 30m, 20m, 15m 10m and, in some instances, 5m intervals, corroborate the existence of body between the Doberman Lakes of the shape and size indicated above. The initial survey was postponed until winter, to allow easier access, because of difficulty of traversing in the muskeg close to the lakes. Some difficulty with one of the magnetometers, in intense cold, negated many of the readings.

5.2 Field Geology

5.2.1 Reconnaissance Free traverse mapping linked to the preliminary magnetic reconnaissance survey, hampered by the swampy ground, indicated that no outcrop occurred within the west and southwest. An ground based attempt to locate outcrop in the southeast was undertaken in winter 1993, but was thwarted as much by inclement weather as by thick underbrush and old deadfall from a recent forest fire, which precluded extensive travel by skidoo.

In summer of 1992, the area was traversed by air, using a light fixed wing airplane flying at low altitude, searching for outcrop. This was supplemented with a helicopter sweep by staff of Birch Mountain Minerals (for which no charges are reflected in this report) in summer 1994, with similar lack of success. Geobotanic sampling done by that company over these claims as a part of their regional work, incorporated some eighteen samples of Cladina (Cariboo lichen) and Plerozium (swamp moss) collected, prepared and analysed by NAA for a full spectrum of elements. No significant chemical anomalies were reported to us by Birch Mountain Minerals.

An attempt at boulder train sampling on drivable tracks and roads met with no success as the dune sand covers all glacial boulders for at least 15km to the south, and roads and tracks are few and far between.

5.2.2 Follow-up There is insufficient outcrop to allow even patchy geological maps to be drawn. Despite repeated forays to locate outcrop, none was seen. Initial focus was therefore on the detailed magnetometer survey.

6 Conclusions and Recommendations

6.1 The exploration effort in this area has only begun. Certainly, the magnetic anomalies must be further investigated. How to achieve this is a conundrum;

6.2 Detailed low level aeromagnetic traverses will define more accurately where the anomalies exist, and their extent;

6.3 The Doberman Lakes anomaly needs to be drilled.

7 Expenditure

Physical expenditure on these permits was not great, mostly incurred in access to the area, in road travel from Calgary to Fort McMurray, in rental of equipment (skidoos) in Fort McMurray and in camping costs. Assay and technical equipment costs add to this. The balance claimed is largely in the form of unpaid labour; professional, technical and manual, both field and base.

Claimed expenditure is detailed on a separate schedule.

8 Certification

I, Adrian Gardiner MANN, undersigned, certify that:

8.1 I am a graduate of the Universities of London, England and Witwatersrand, South Africa;

8.2 I hold the degrees of:

Ph.D.,

M.B.A.,

B.Sc. (General Honours) in chemistry and geology,

B.Sc. (Special Geology) (Honours);

8.3 I am a member in good standing of:

Society of Economic Geologists,

Geological Society of South Africa,

Institution of Mining and Metallurgy,

Canadian Institute of Mining, Metallurgy and Petroleum;

8.4 I am registered:

in Alberta as a Professional Geologist,

in Britain as a Chartered Engineer;

8.5 I have practised continuously as a geologist since first I graduated in 1965. My experience was gained in central and southern Africa, south and north America;

8.6 The work presented in this report is a fair and honest reflection of the geology of the claim area and its immediate surrounds;

8.7 The data on which opinions expressed in this report are made derive from:

8.7.1 Examination of the reference material cited;

8.7.2 Personal field visits in September 1992 and February 1993;

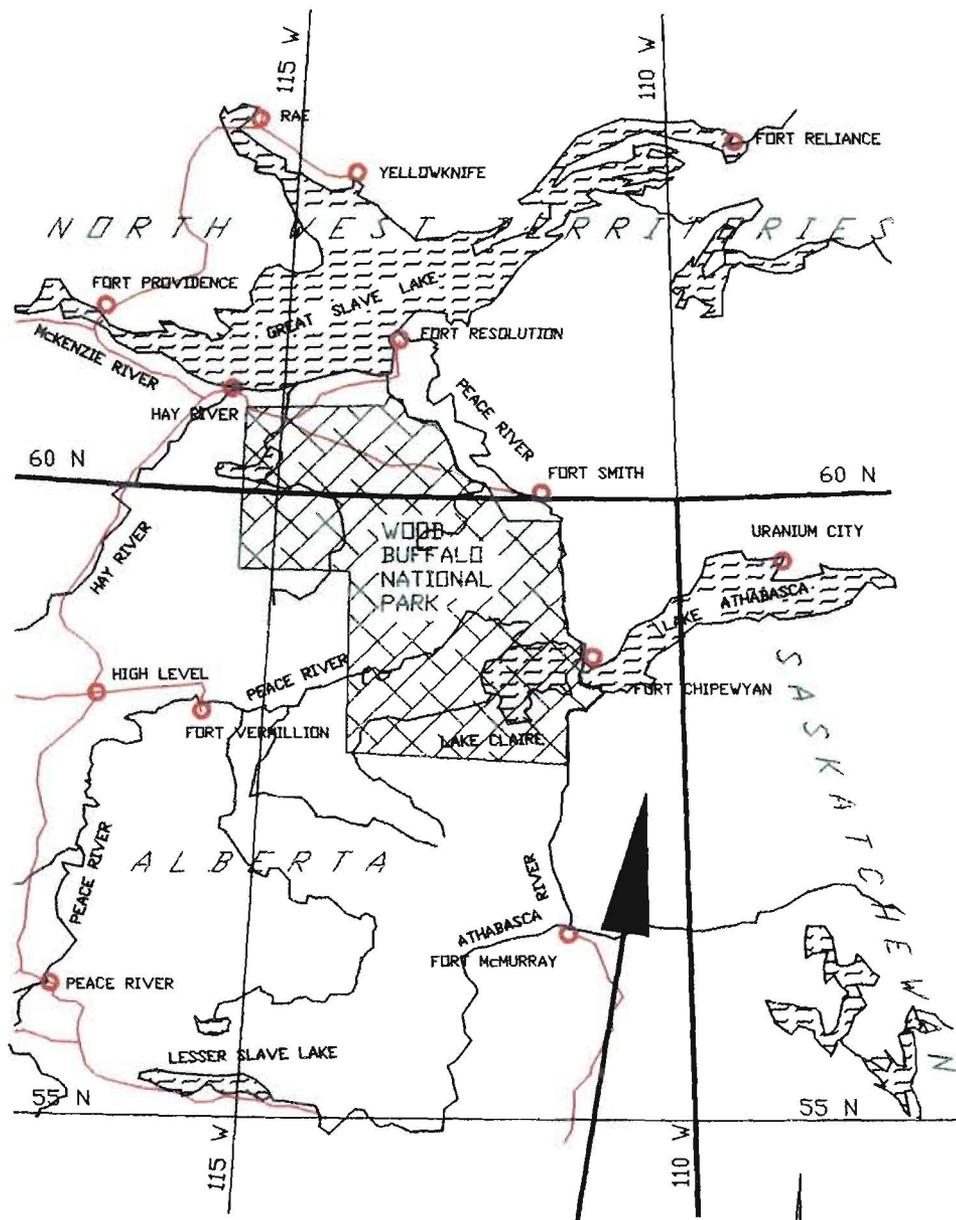
8.8 I have a direct one third interest in the property.

Adrian G. Mann Ph.D., P.Geol.,

Calgary, Alberta T2W 1A1.

7 September 1995

FIGURES

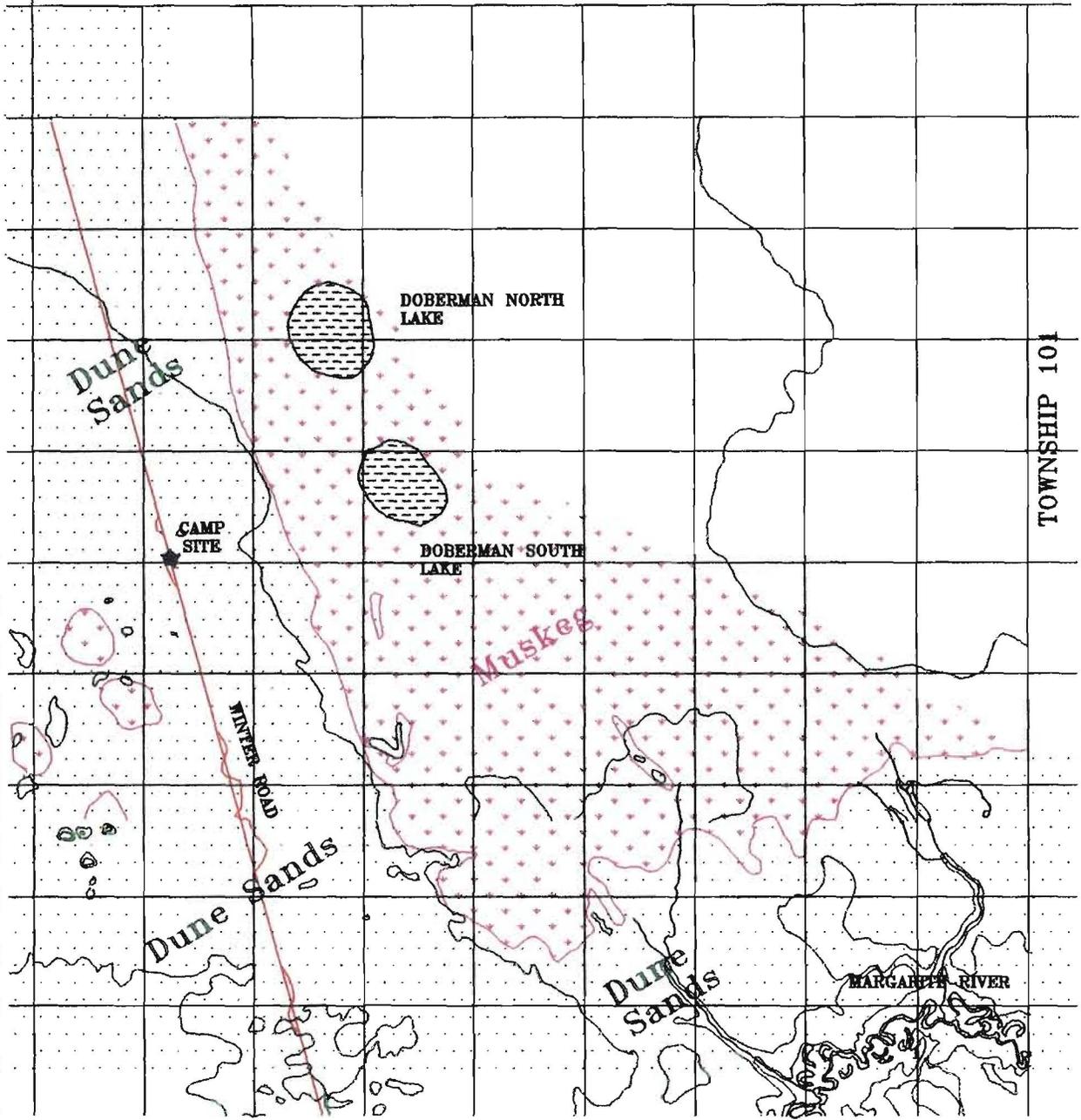


LOCATION OF
PEARSON-AUDET
LAKES MINERAL
PERMITS

Figure 1

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4



EXPLANATION:

 E.J. Friesen & Associates Inc.
Calgary Alberta

FILE
PEARSON-AUDET LAKES PERMITS
DOBERMAN LAKES
GEOMORPHOLOGY FEATURES

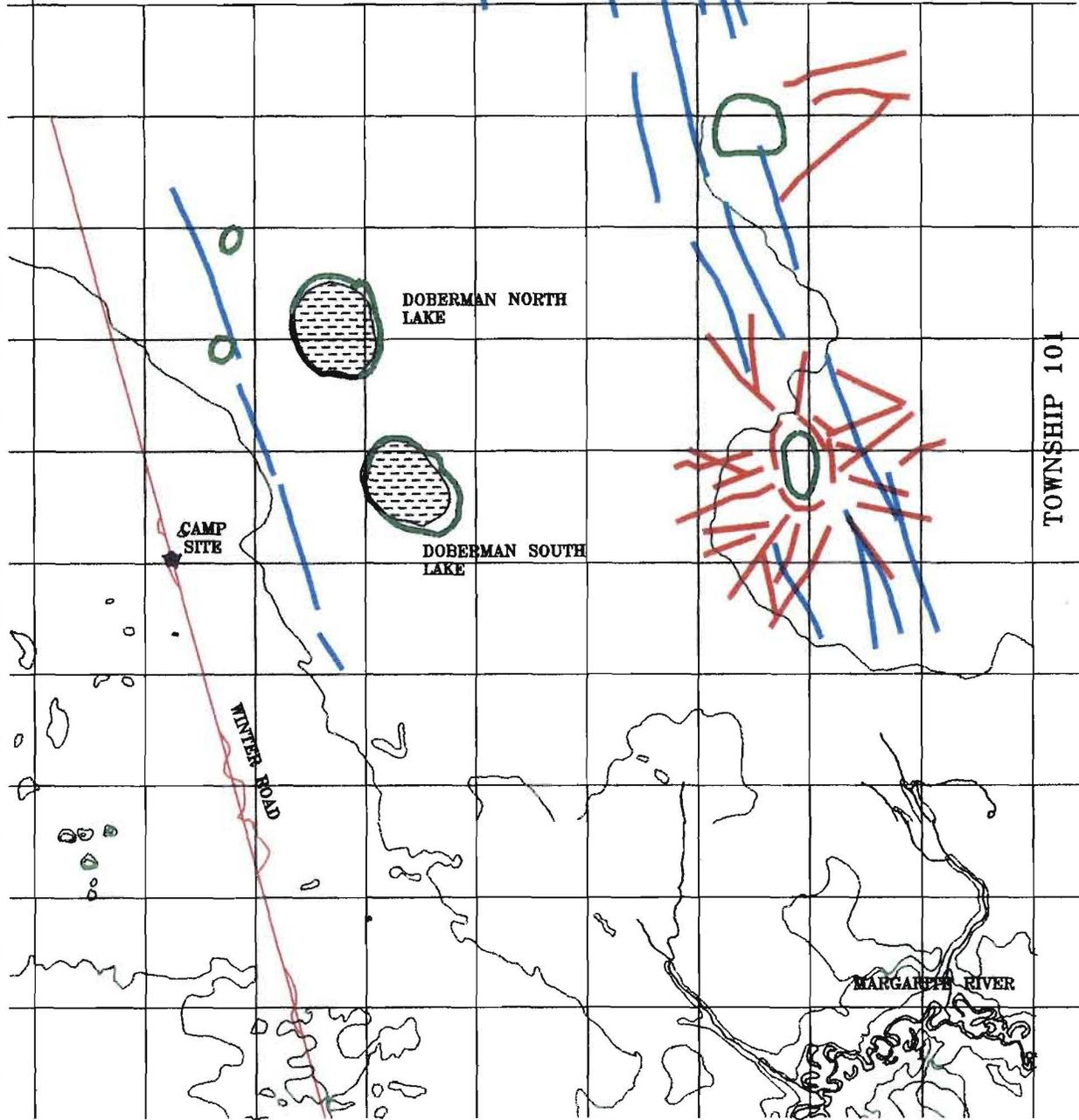
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PROJECT NUMBER 950801	SCALE	CAD FILE
DRAWING NO.		NTS

Figure 2

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4

TOWNSHIP 101



EXPLANATION:

-  RING FEATURE
-  LINEAR - BEDDING
-  LINEAR - FRACTURE

 E.J. Friesen & Associates Inc.
Calgary Alberta

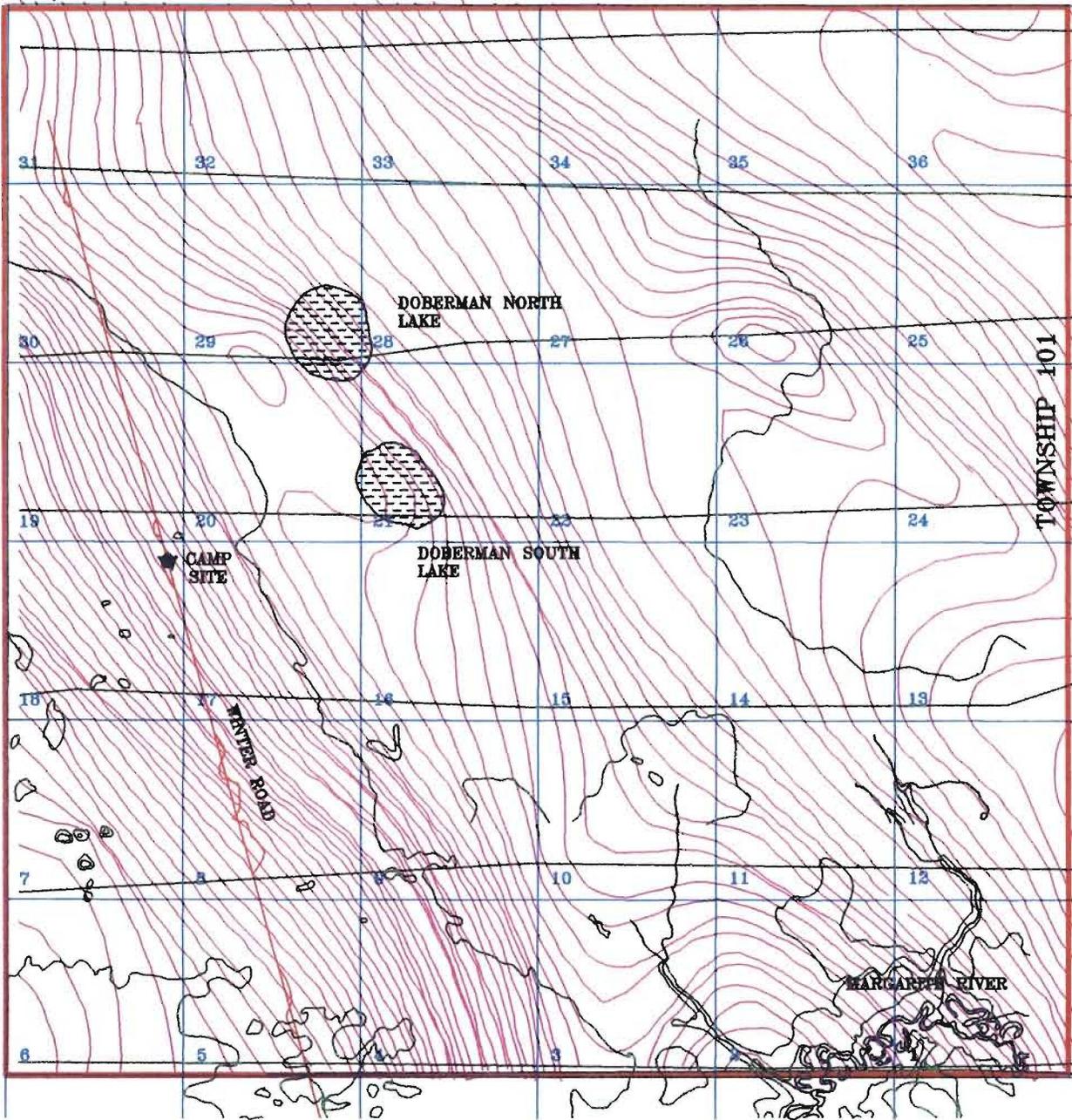
THE
PEARSON-AUDET LAKES PERMITS
DOBERMAN LAKES
AIR PHOTO FEATURES

DRAWN BY ADRIAN MANN	CHECKED BY	DATE 1995:09:08
PROJECT NUMBER 950801	SCALE	DWG FILE
DRAWING NO.		PTS

Figure 3

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4



EXPLANATION:

 E.J. Friesen & Associates Inc.
Calgary Alberta

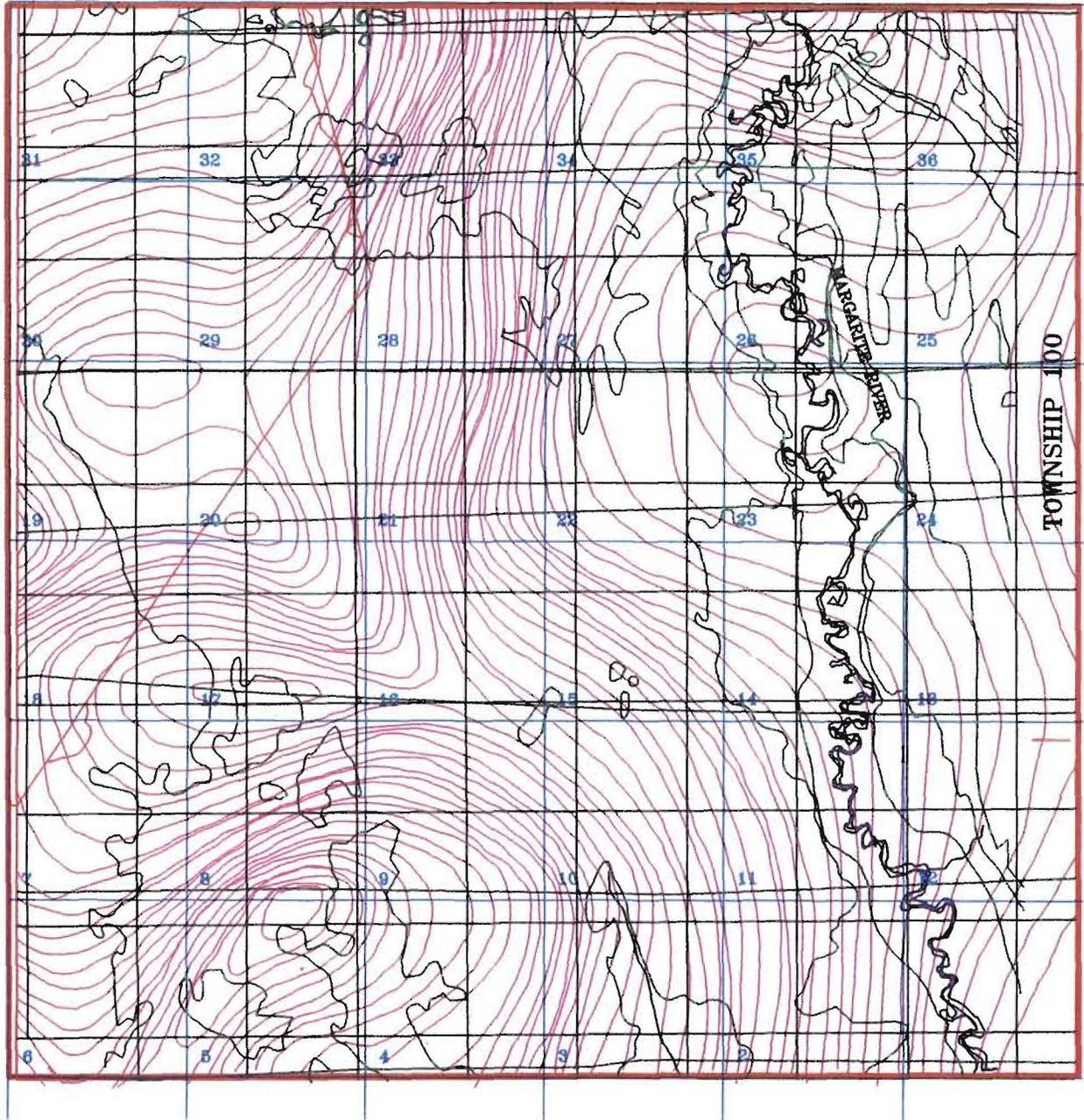
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PEARSON-AUDET LAKES PERMITS
DOBERMAN LAKES
ORIGINAL AEROMAGNETIC DATA

DRAWN BY ADRIAN MANN	CHECKED BY	DATE 1995:09:06
PROJECT NUMBER 950801	SCALE	GAD FILE
DRAWING NO.		NTS

Figure 4

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4



EXPLANATION:

 E.J. Friesen & Associates Inc.
Calgary Alberta

TRK
PEARSON-AUDET LAKES PERMITS
MARGARITE RIVER

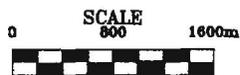
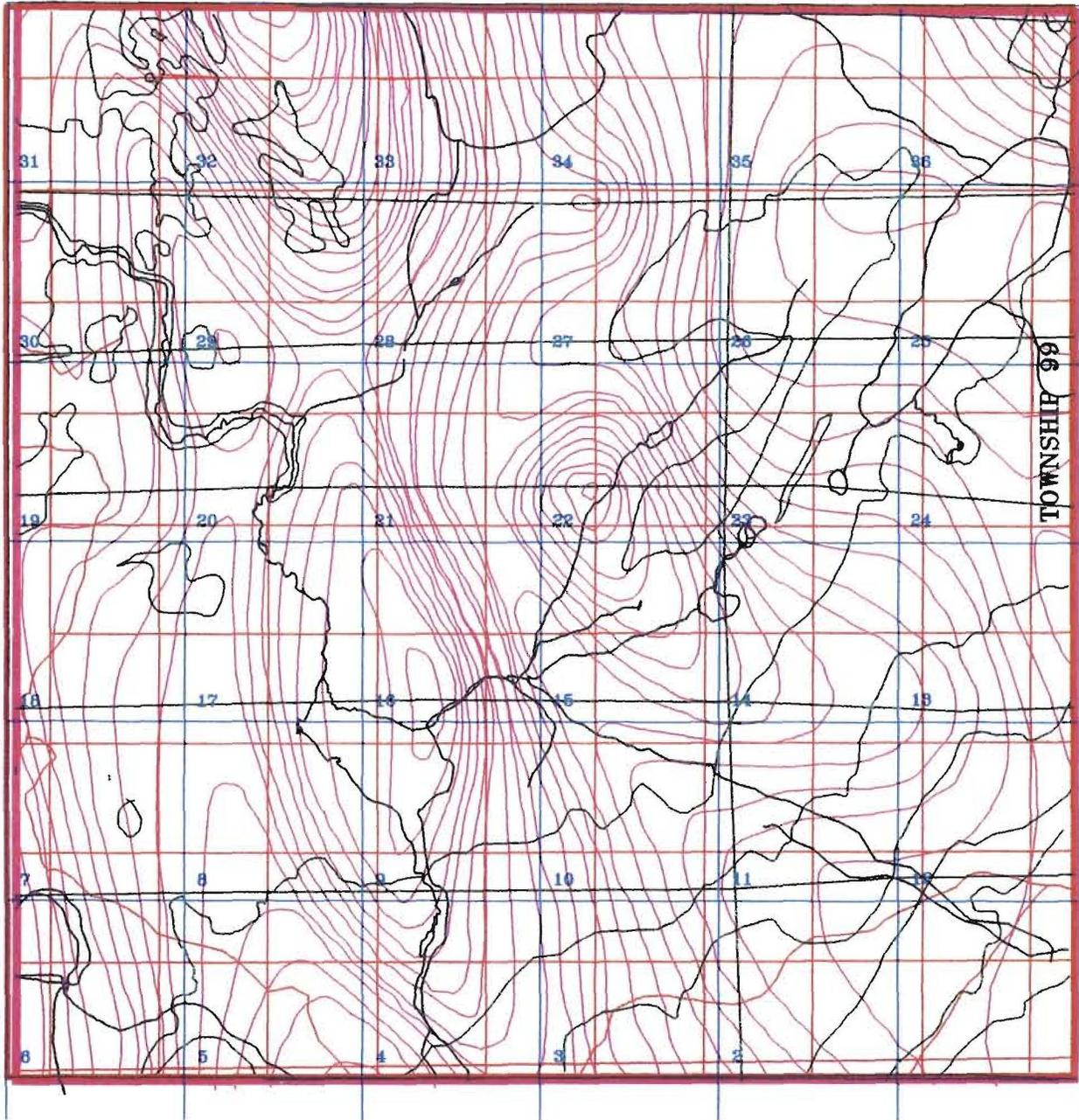
ORIGINAL AEROMAGNETIC DATA

DRAWN BY ADRIAN MANN	CHECKED BY	DATE 1995:09:08
PROJECT NUMBER 950801	SCALE	GRID FILE
DRAWING NO.		SITS

Figure 5

TRUE NORTH
MAGNETIC NORTH

RANGE 6 W4



EXPLANATION:

 **E.J. Friesen & Associates Inc.**
Calgary Alberta

TITLE
PEARSON-AUDET LAKES PERMITS
AUDET LAKE
ORIGINAL AEROMAGNETIC DATA

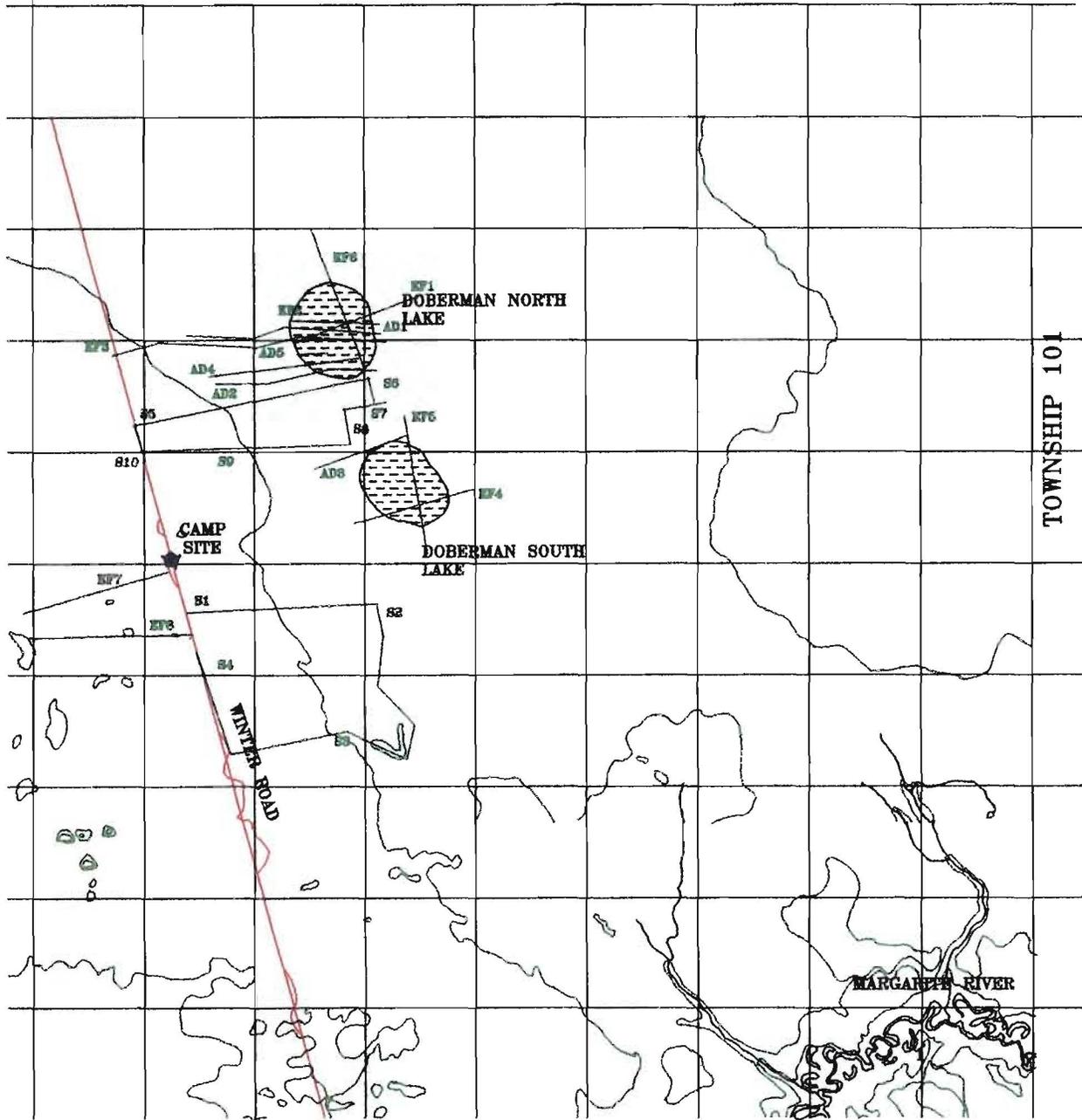
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PROJECT NUMBER 950801	SCALE	GRID FILE
DRAWING NO.		NTS

Figure 6

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4

TOWNSHIP 101



EXPLANATION:

 E.J. Friesen & Associates Inc.
Calgary Alberta

WMA
PEARSON-AUDET LAKES PERMITS
DOBERMAN LAKES
GROUND MAGNETOMETER TRAVERSES

DRAWN BY ADRIAN MANN	ORDERED BY	DATE 1995:09:06
PROJECT NUMBER 950801	SCALE	DWG FILE
DRAWING NO.		NTS

Figure 7

Figure 8

MAGNETOMETER TRAVERSE 100N
DATA SET AD1 - NORTH DOBERMAN
LAKE, SOUTH OF BASE LINE

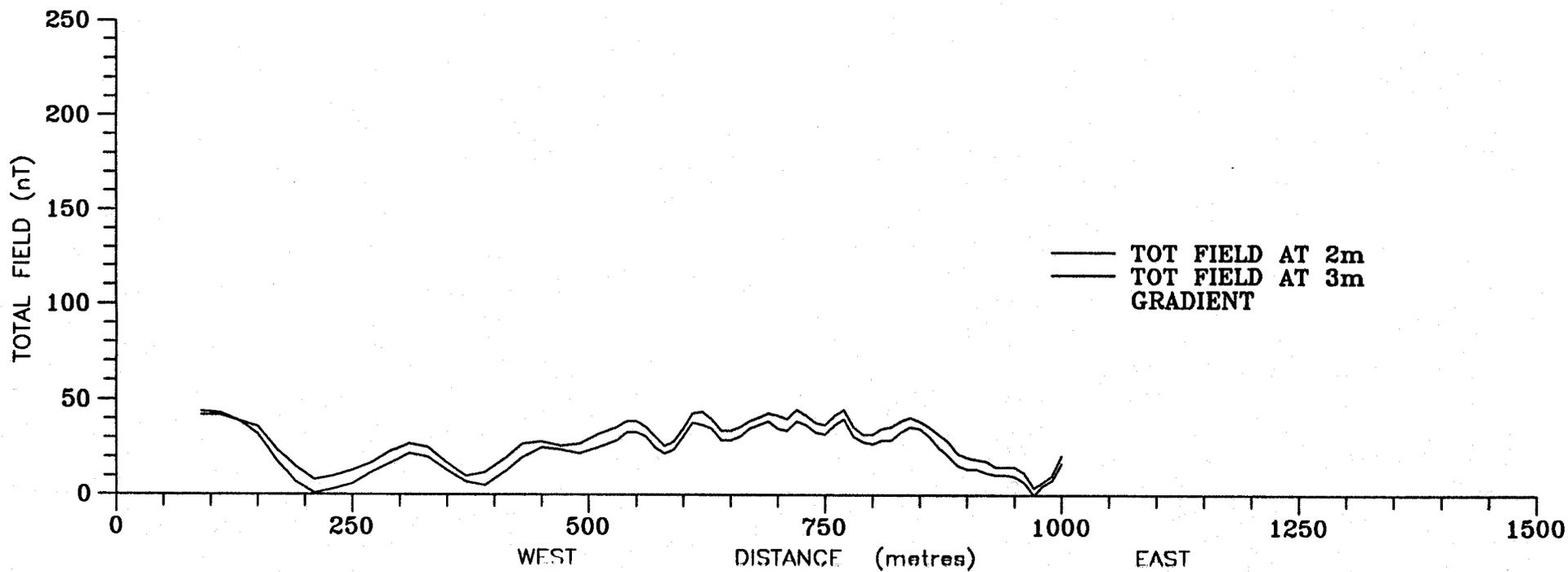


Figure 9

MAGNETOMETER TRAVERSE -200N
DATA SET AD2 - NORTH DOBERMAN
LAKE, EXTREME SOUTH.

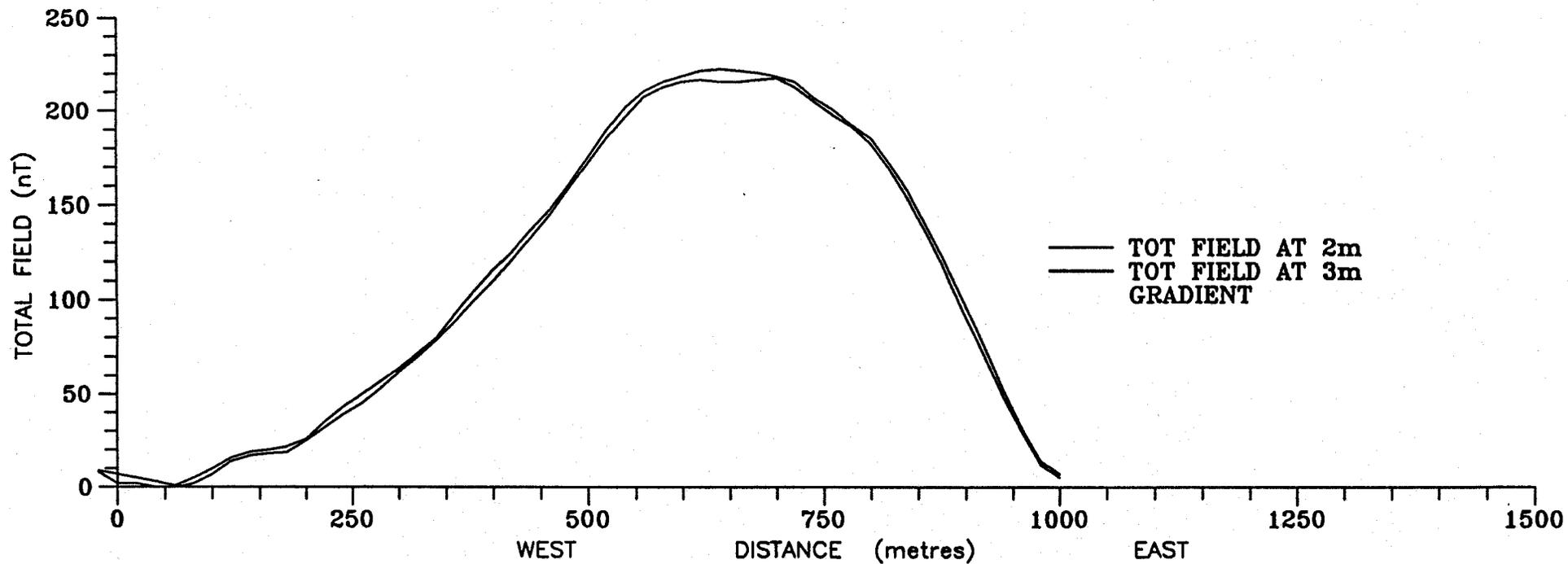


Figure 10

MAGNETOMETER TRAVERSE -1200N
DATA SET AD3 - SOUTH DOBERMAN
LAKE, EXTREME NORTHWEST

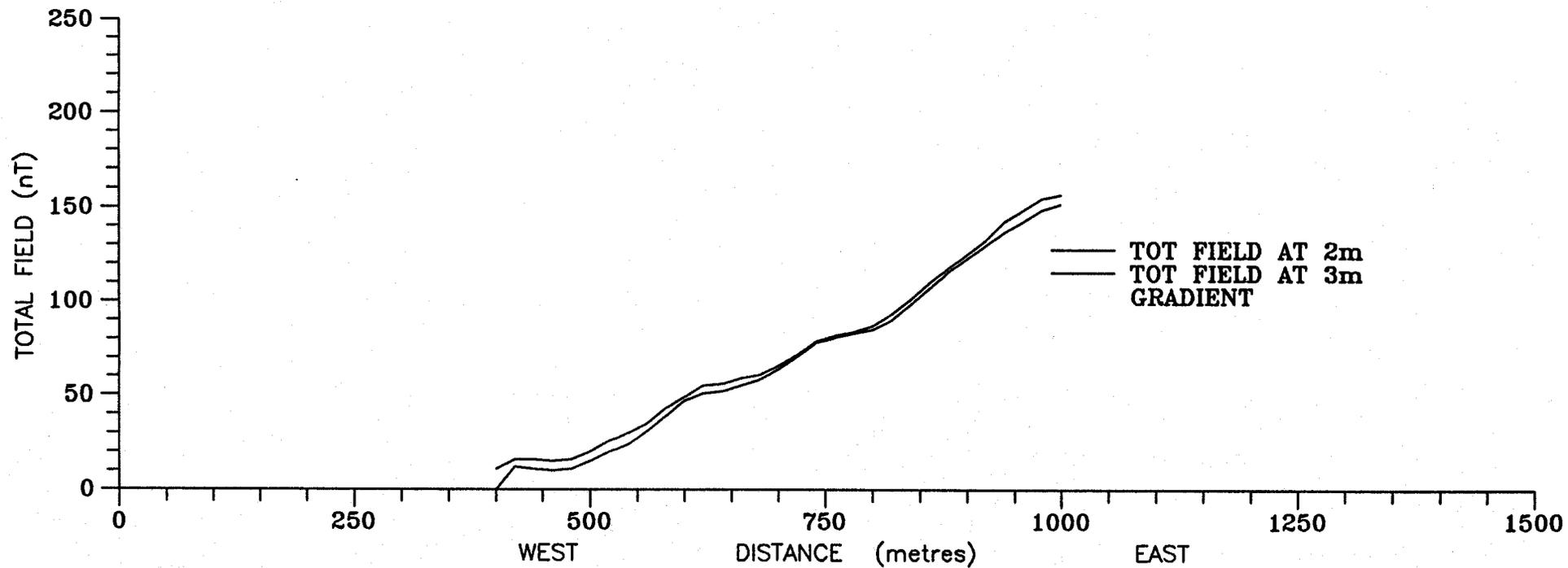


Figure 11

MAGNETOMETER TRAVERSE -100N
DATA SET AD4 - NORTH DOBERMAN
LAKE, EXTREME SOUTH.

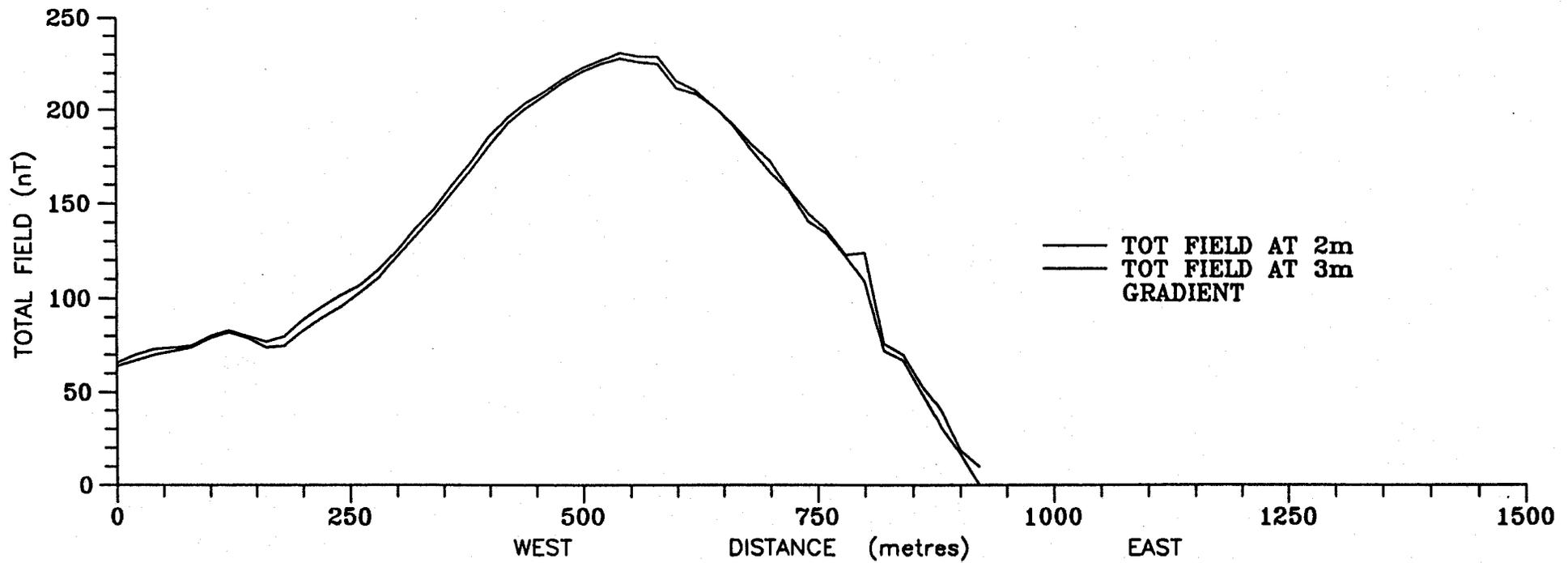


Figure 12

MAGNETOMETER TRAVERSE +/-00N
DATA SET AD5 - NORTH DOBERMAN
LAKE, CENTRAL SOUTH.

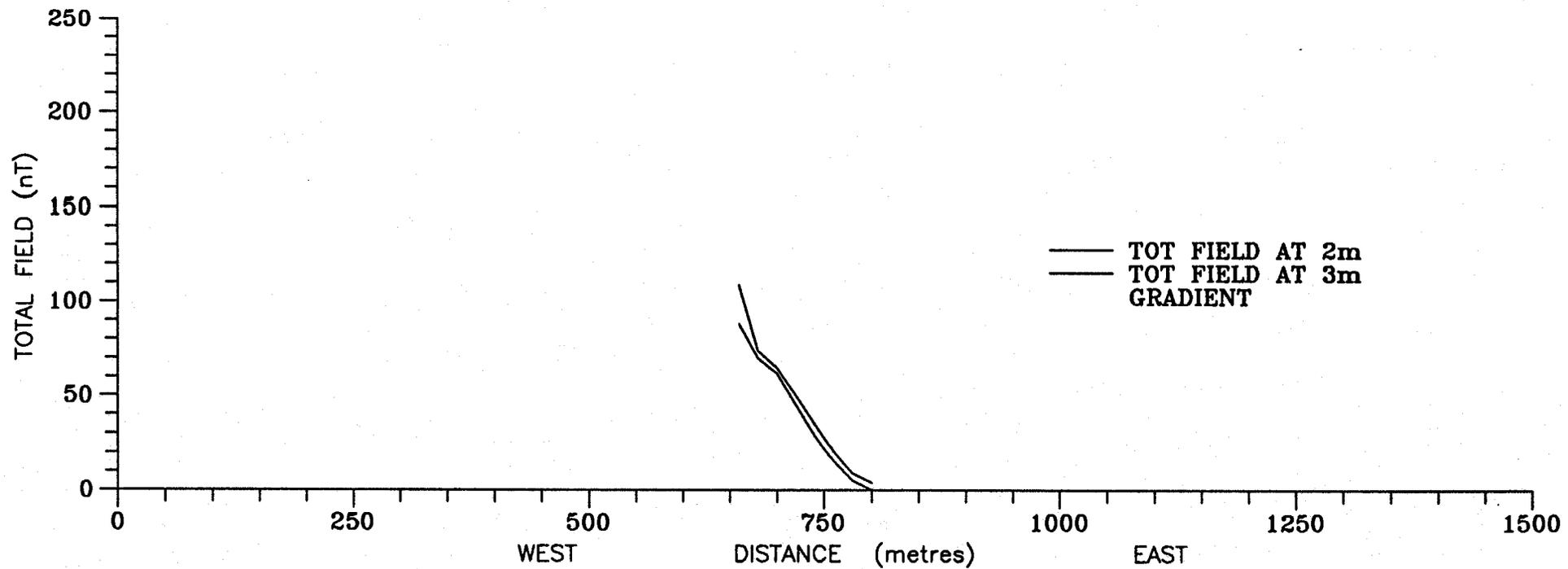


Figure 13

MAGNETOMETER TRAVERSE 100N
DATA EF1 - NORTH DOBERMAN
WEST TO EAST ON LAKE

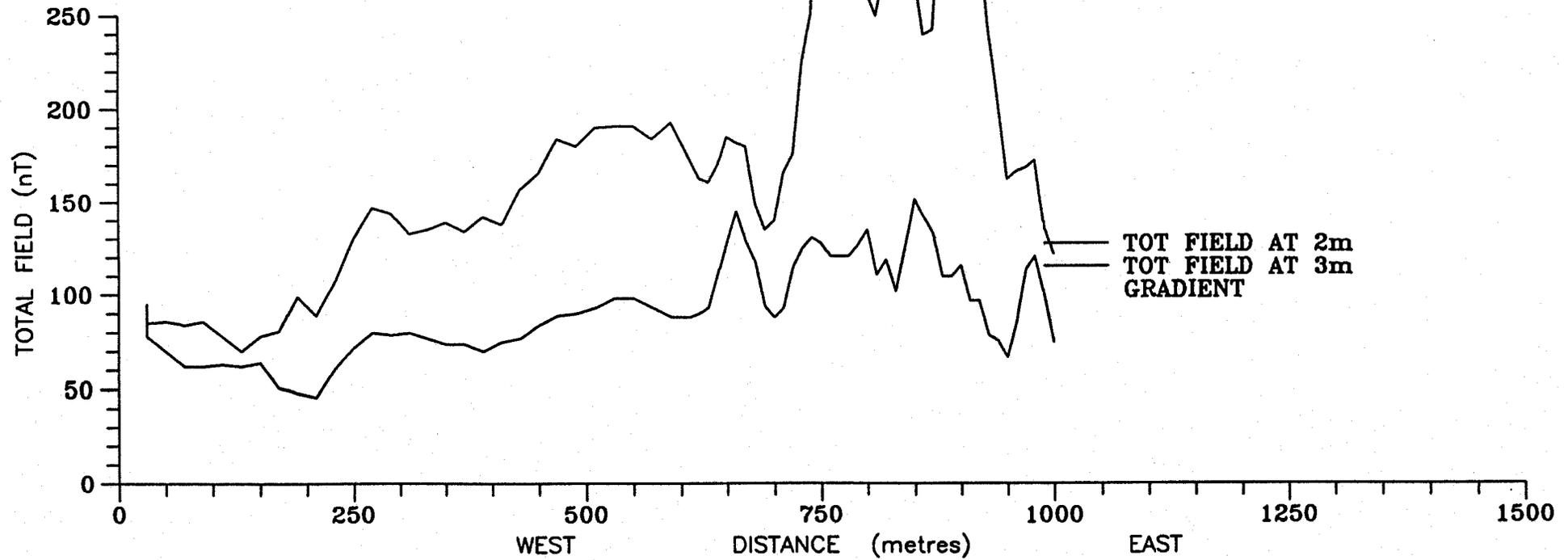


Figure 14

MAGNETOMETER TRAVERSE 300N
DATA EF2 - NORTH DOBERMAN
WEST TO EAST ON LAKE

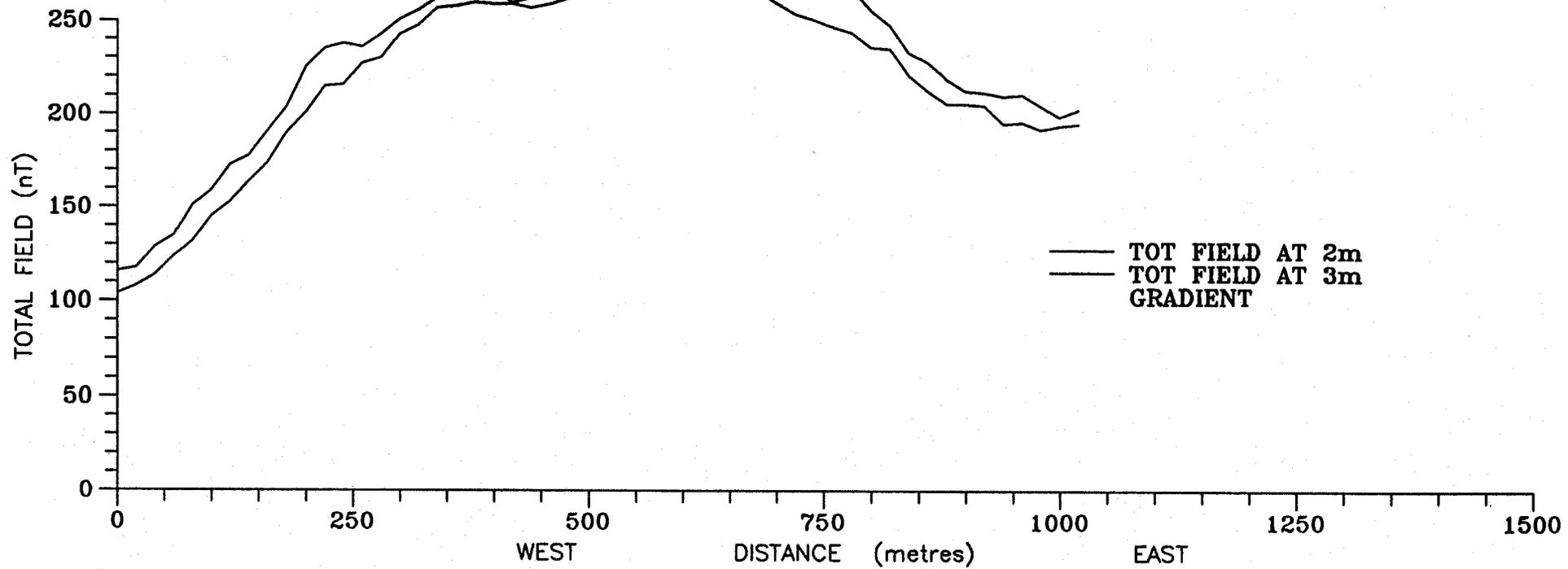


Figure 15

MAGNETOMETER TRAVERSE 400N
DATA EF3 - NORTH DOBERMAN
EAST TO WEST ON LAKE

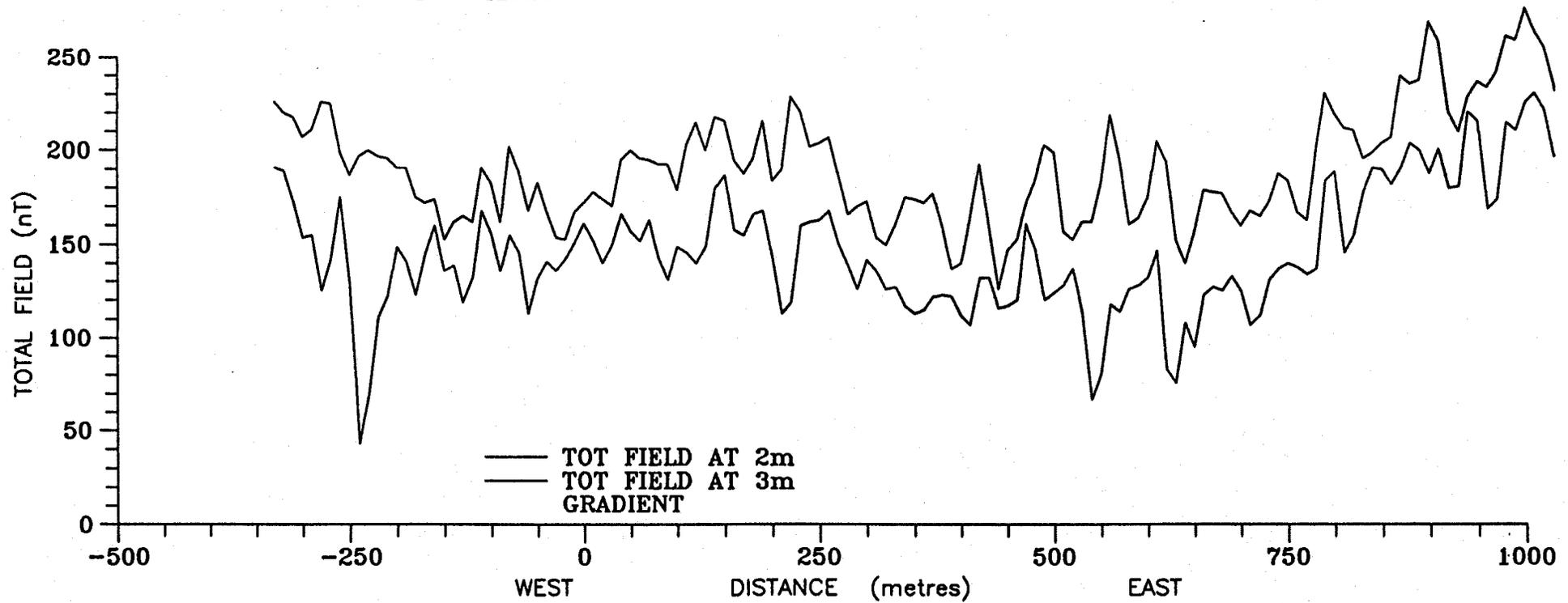


Figure 16

MAGNETOMETER TRAVERSE 1000S
DATA EF4 - SOUTH DOBERMAN
WEST TO EAST ON LAKE

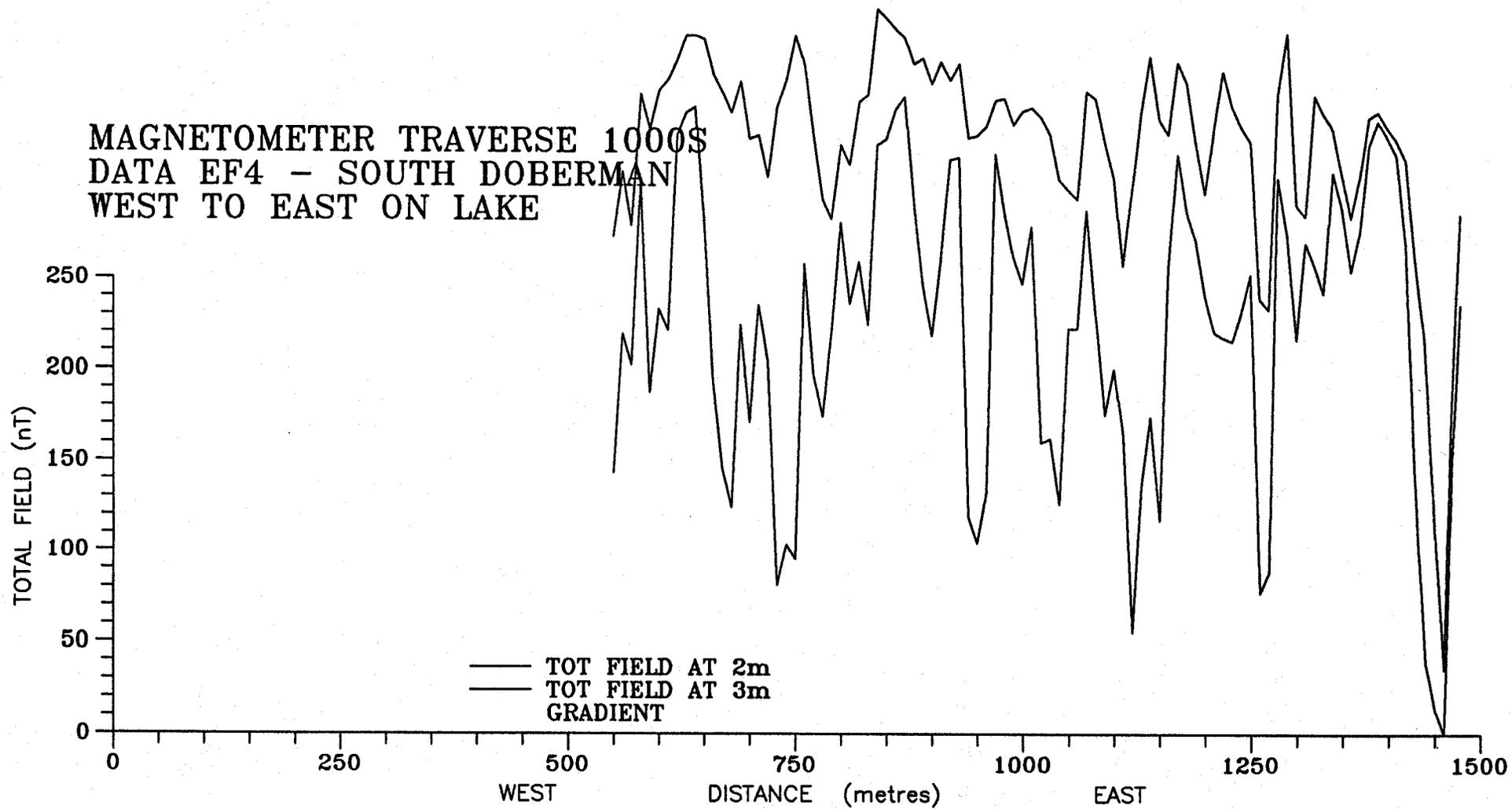


Figure 17

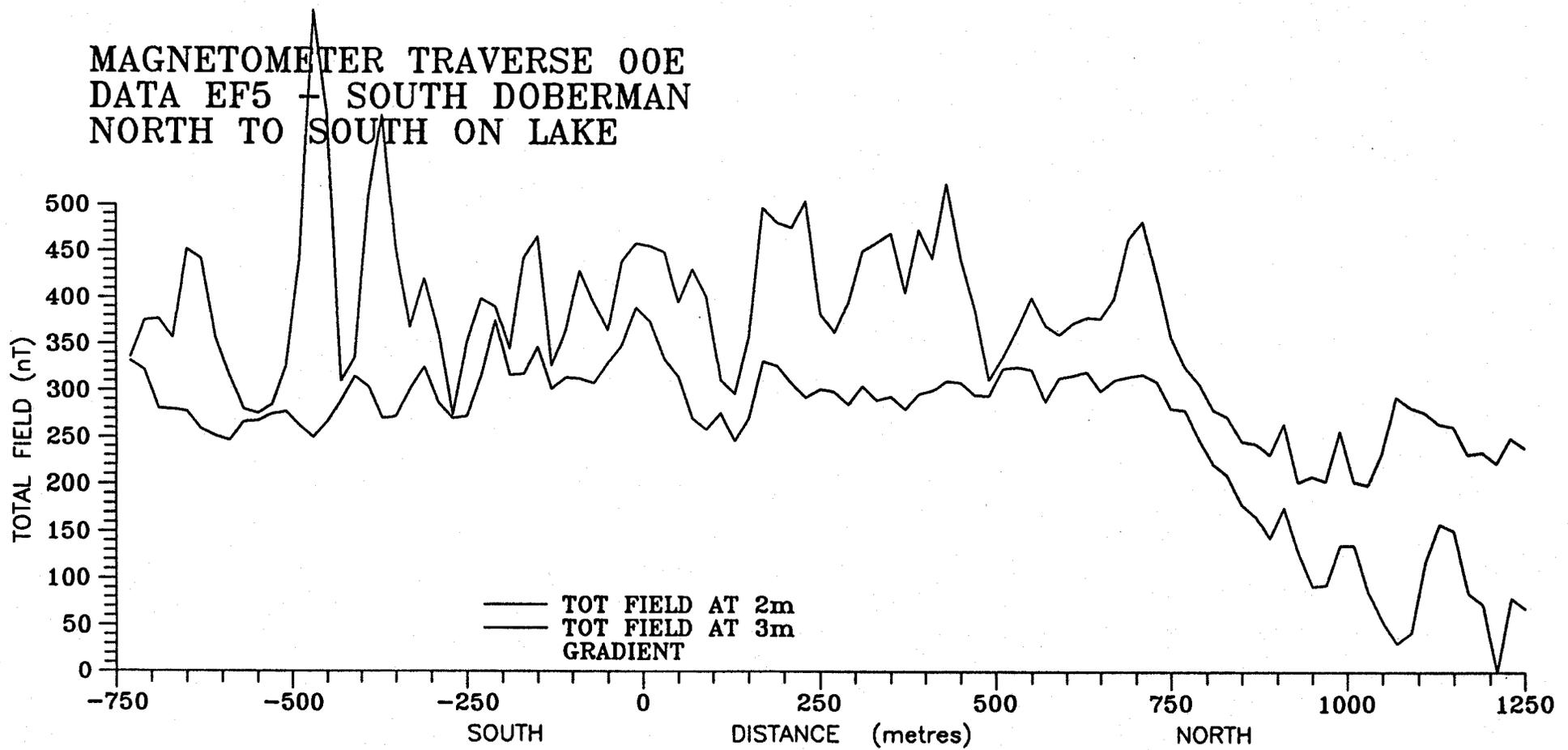


Figure 18

MAGNETOMETER TRAVERSE 00E
DATA EF6 - NORTH DOBERMAN
SOUTH TO NORTH ON LAKE

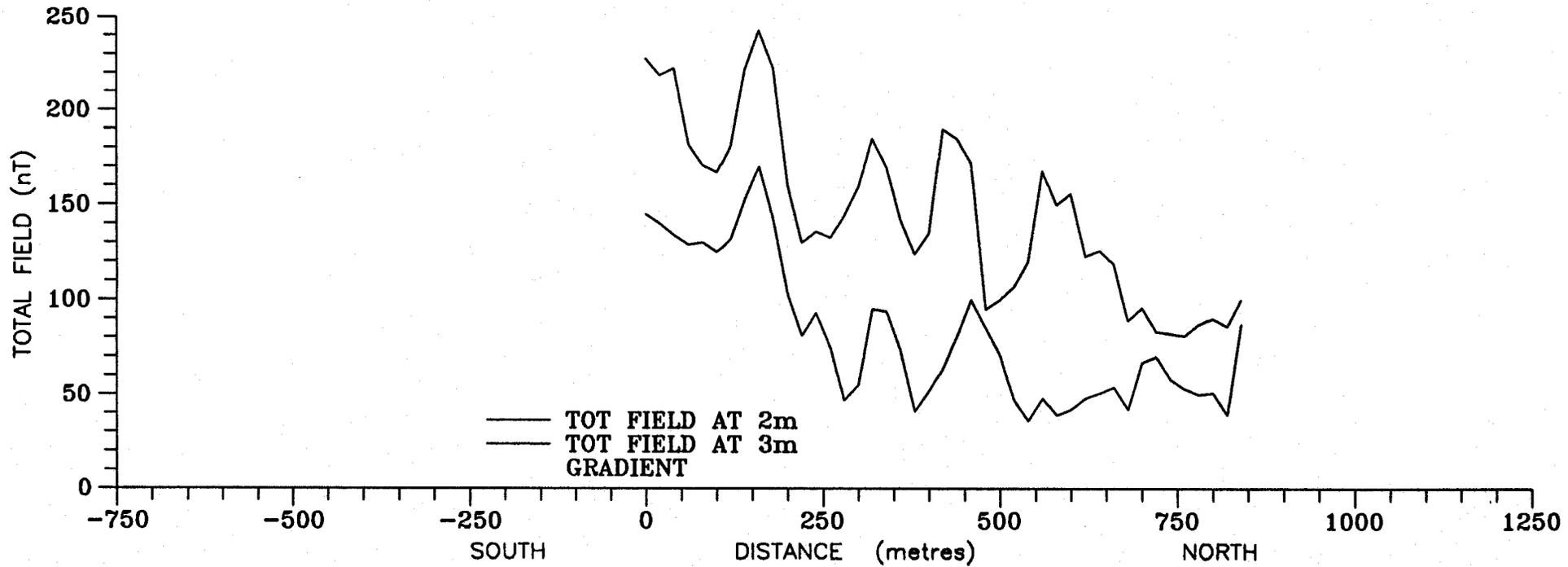


Figure 19

MAGNETOMETER TRAVERSE 100W
DATA EF7 - MUSKEG WEST OF
WINTER ROAD, IN OPEN FOREST

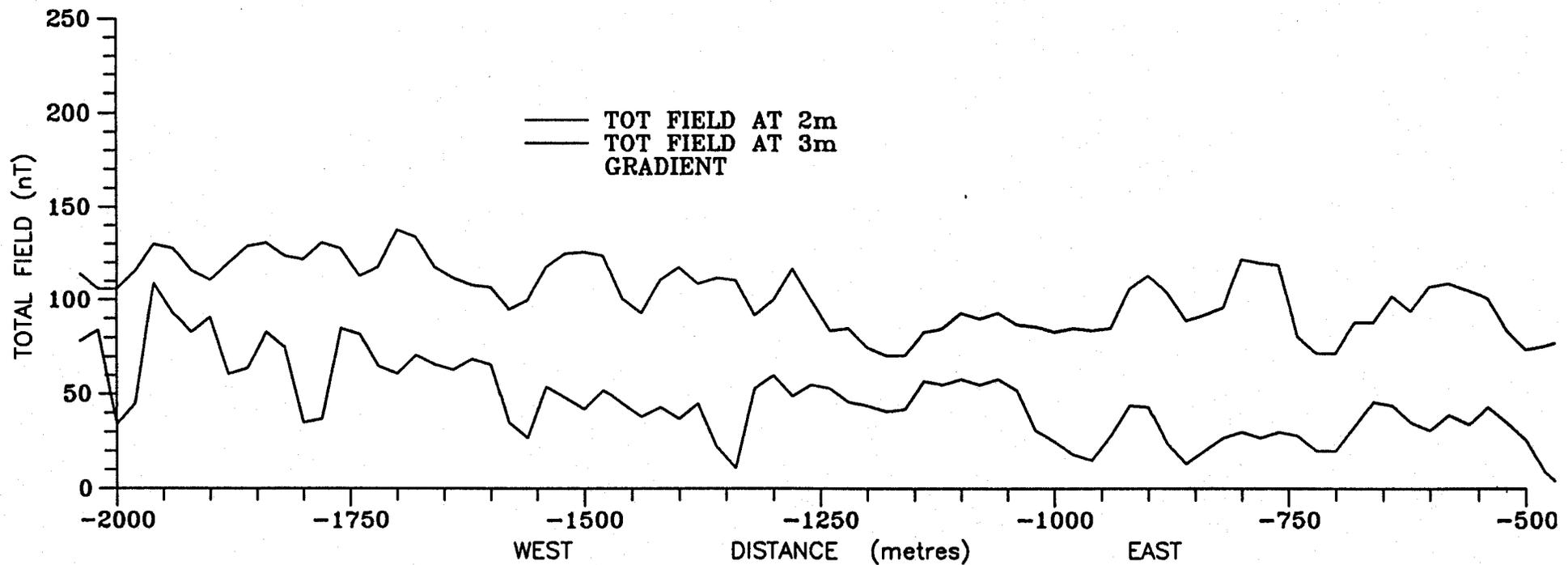


Figure 20

MAGNETOMETER TRAVERSE 200W
DATA EF8 - MUSKEG WEST OF
WINTER ROAD, IN OPEN FOREST

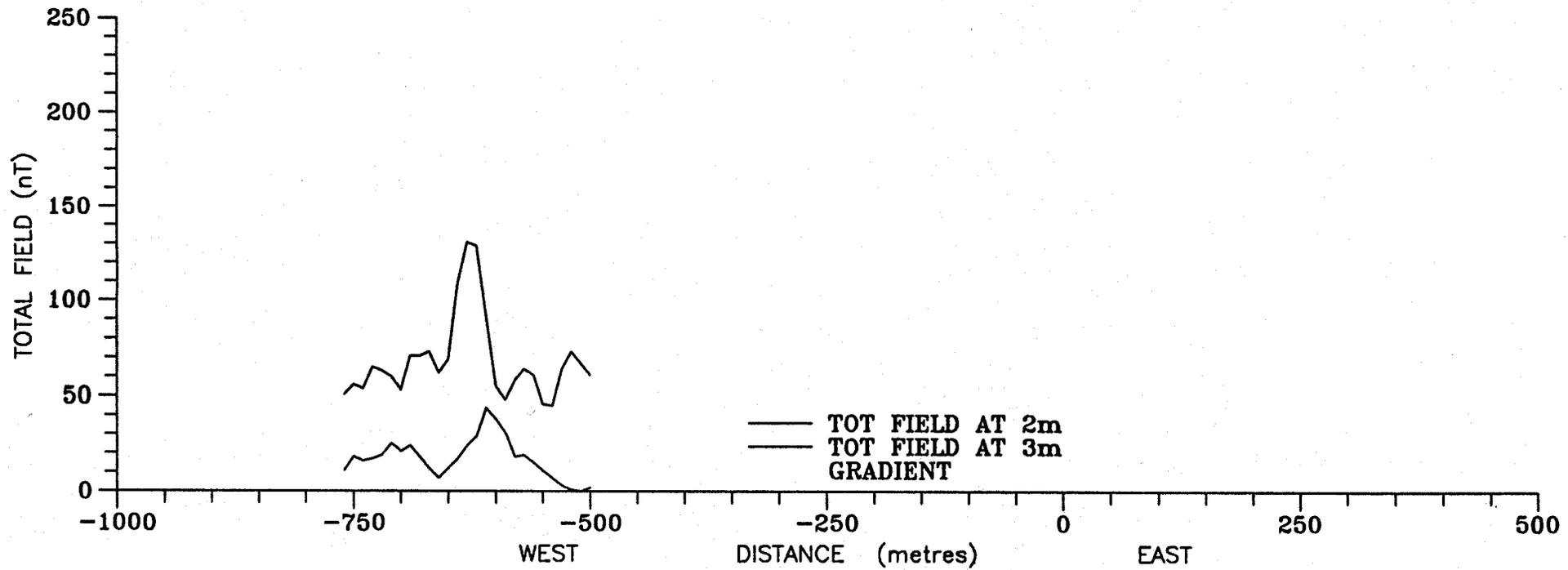


Figure 21

MAGNETOMETER TRAVERSE 1000S
DATA SET S1 EAST OF ROAD
SOUTH OF DOBERMAN

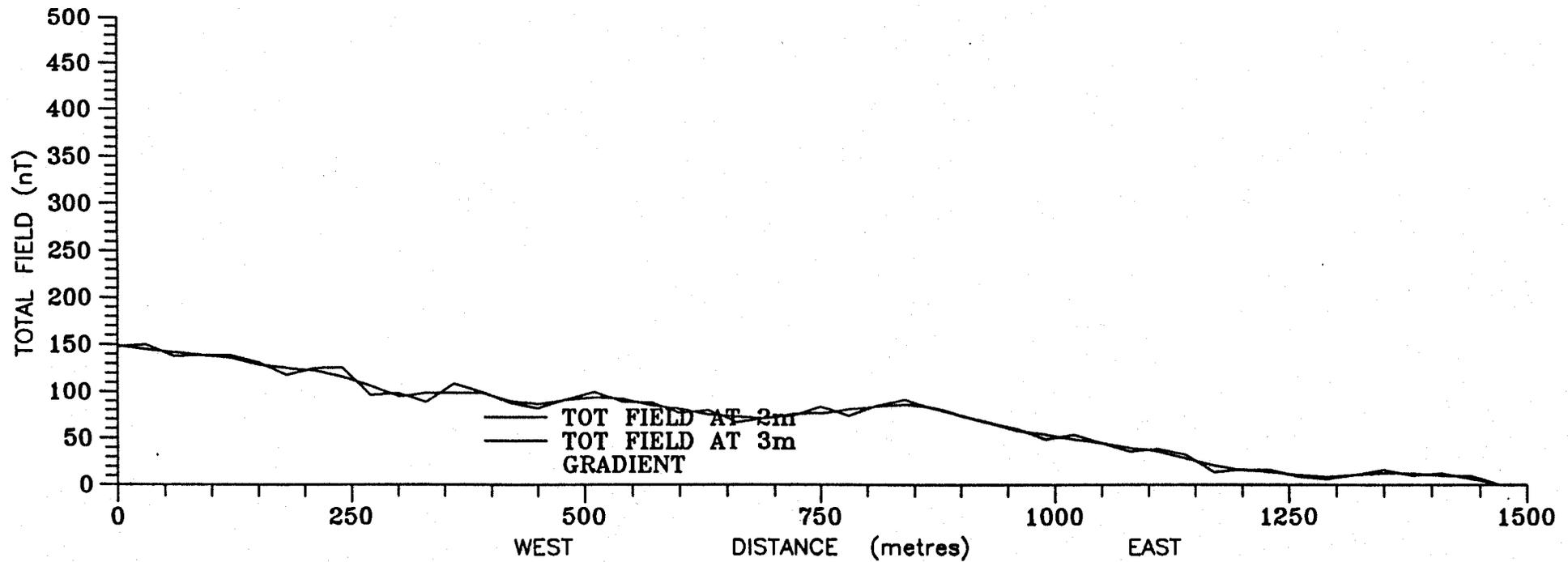


Figure 22

MAGNETOMETER TRAVERSE 1000E
DATA SET S2 ESKER AND MUSKEG
SOUTH OF DOBERMAN

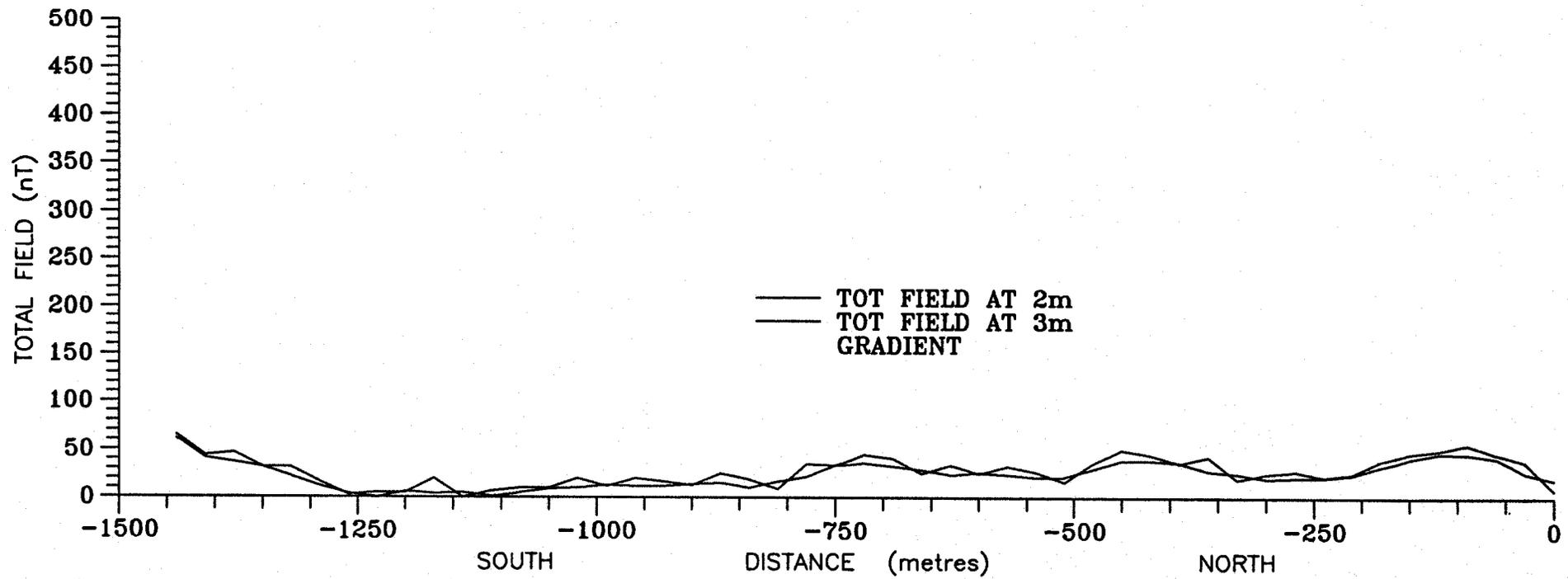


Figure 23

MAGNETOMETER TRAVERSE 1000S
DATA SET S3 EAST OF ROAD
SOUTH OF DOBERMAN

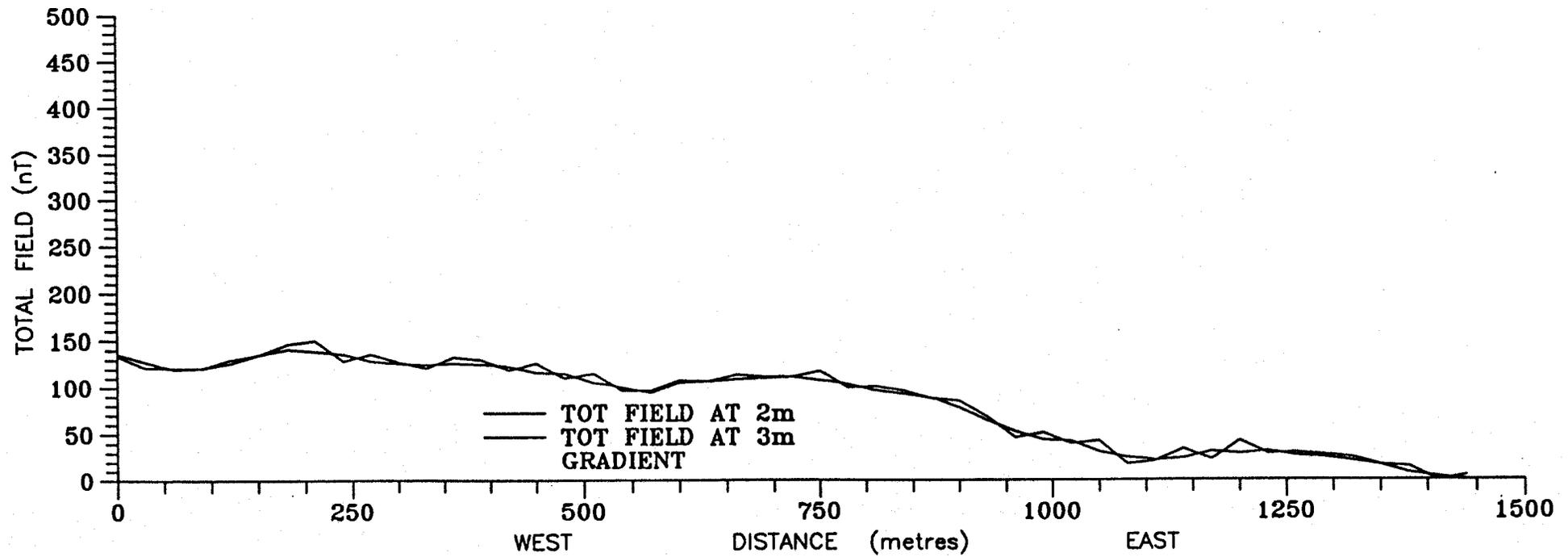


Figure 24

MAGNETOMETER TRAVERSE 500S
DATA SET S4 - WINTER ROAD
SOUTH OF DOBERMAN

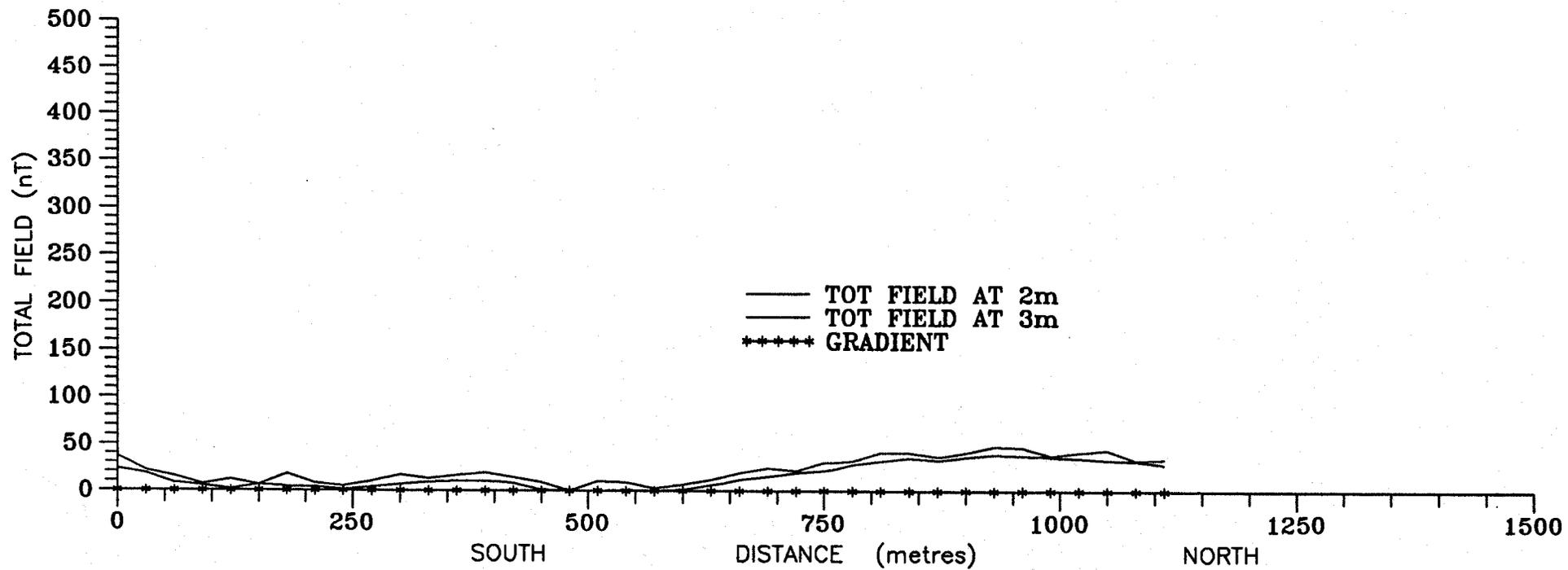


Figure 25

MAGNETOMETER TRAVERSE 700N
DATA SET S5 - DOBERMAN SLOUGH
BETWEEN THE LAKES

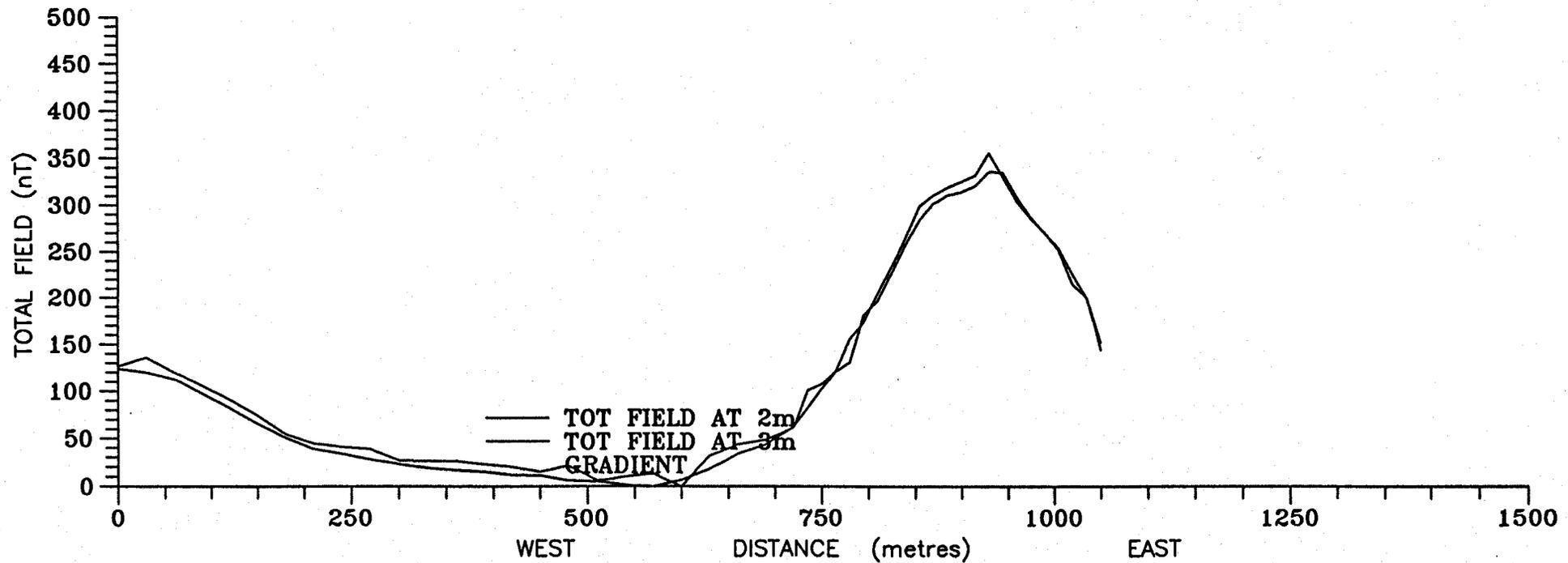


Figure 26

MAGNETOMETER TRAVERSE 600N
DATA SET S6 - DOBERMAN SLOUGH
BETWEEN THE LAKES

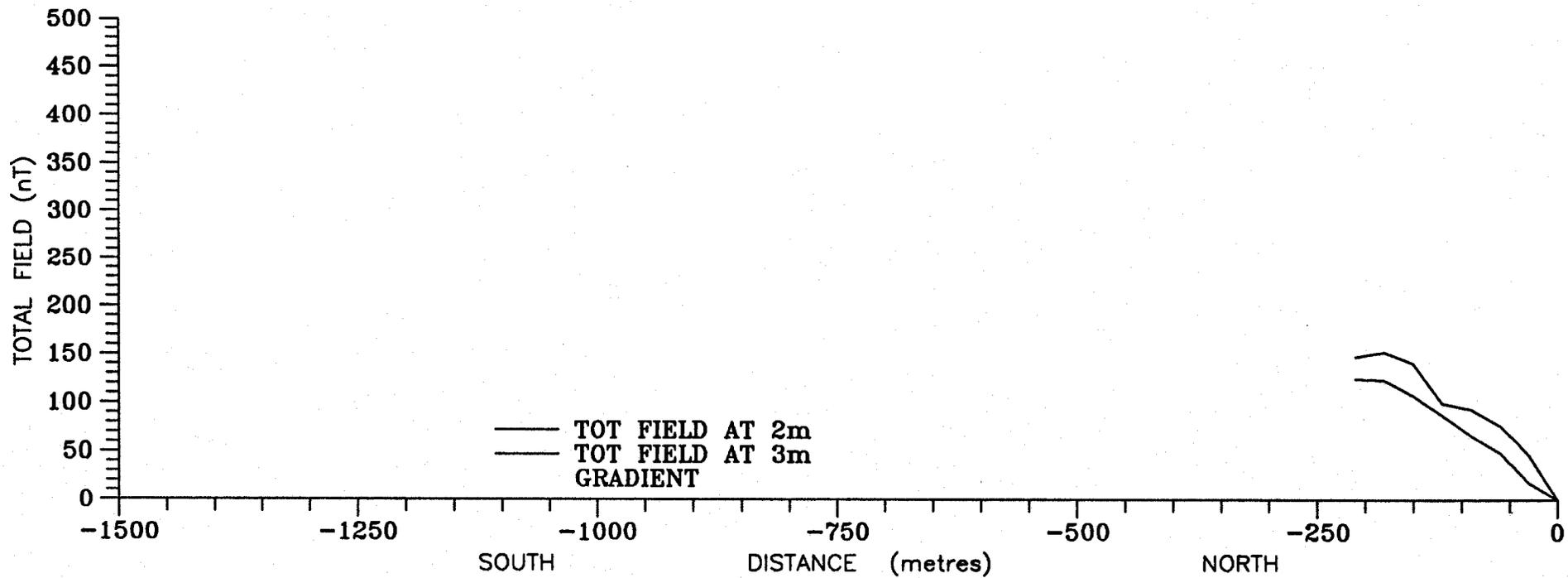


Figure 27

MAGNETOMETER TRAVERSE 600N
DATA SET S7 - DOBERMAN SLOUGH
BETWEEN THE LAKES

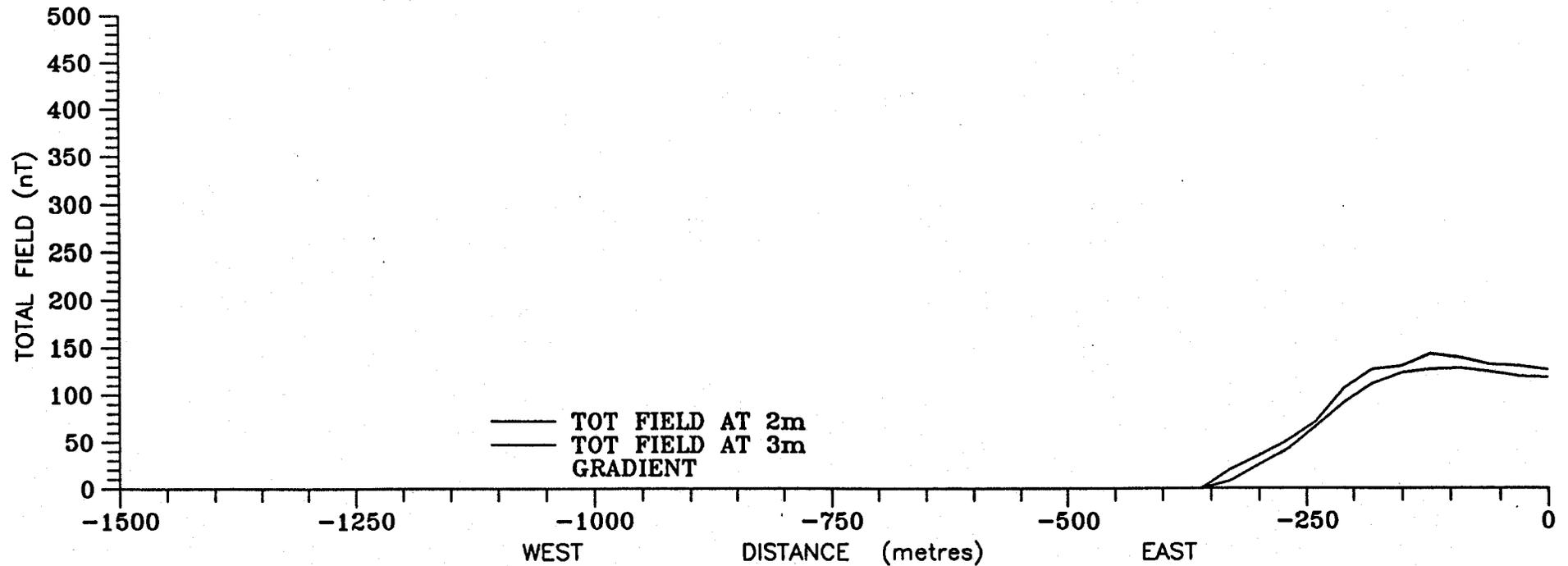


Figure 28

MAGNETOMETER TRAVERSE 500N
DATA SET S8 - DOBERMAN SLOUGH
BETWEEN THE LAKES

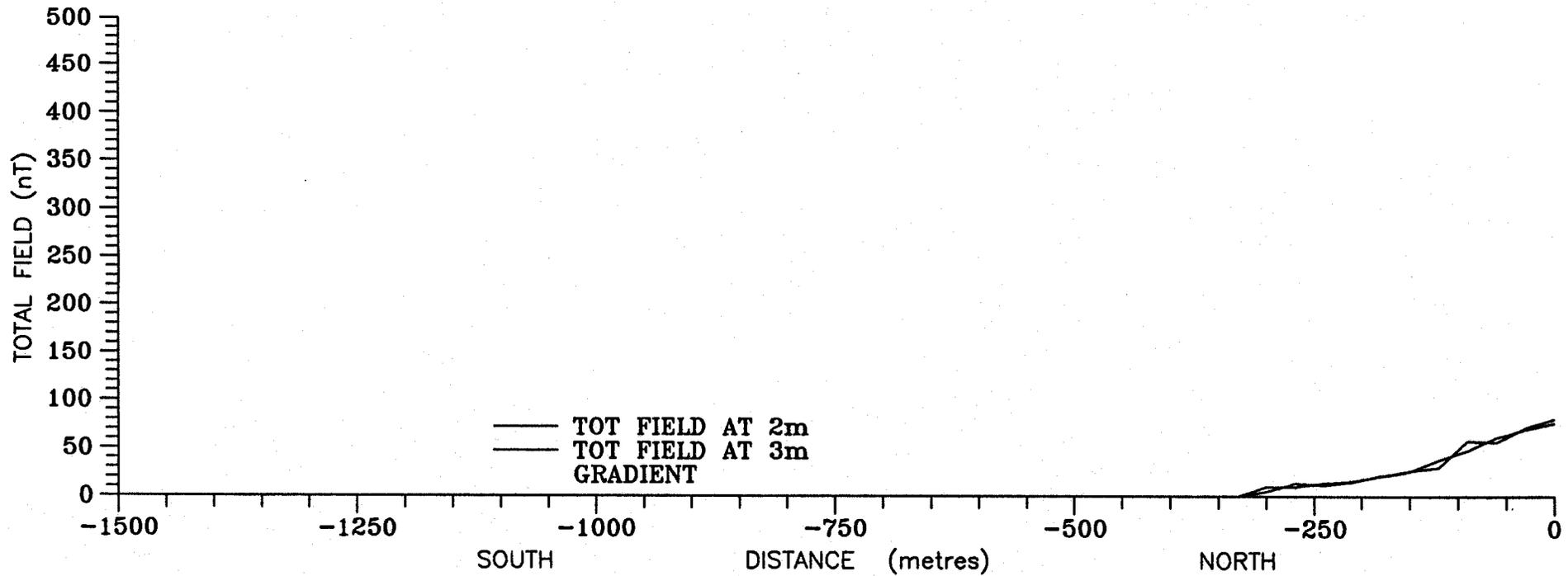


Figure 29

MAGNETOMETER TRAVERSE 500N
DATA SET S9 - WINTER ROAD
BETWEEN THE LAKES

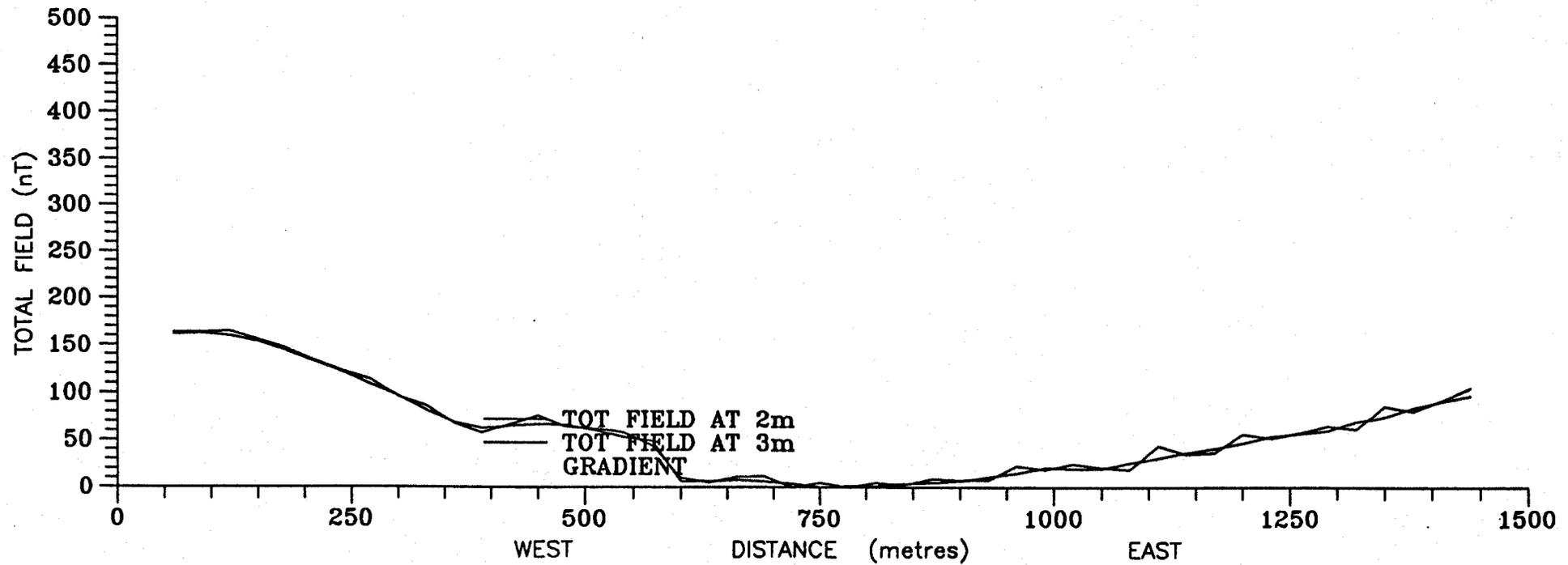
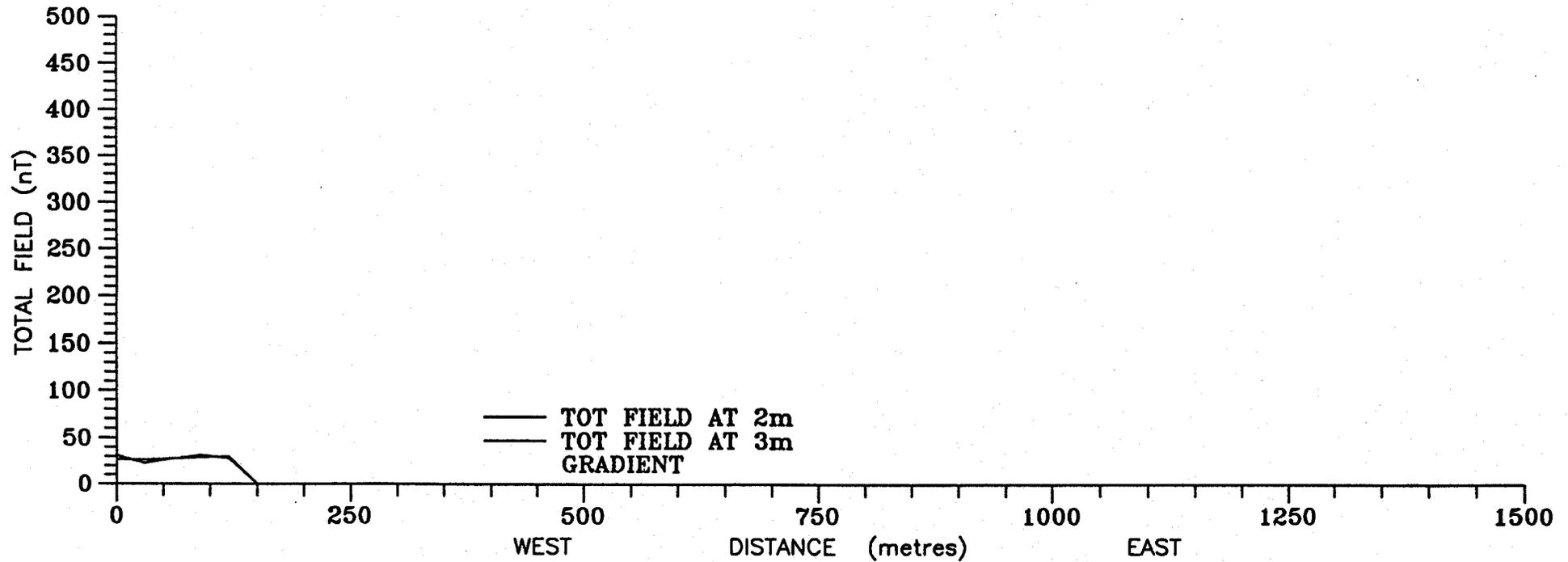


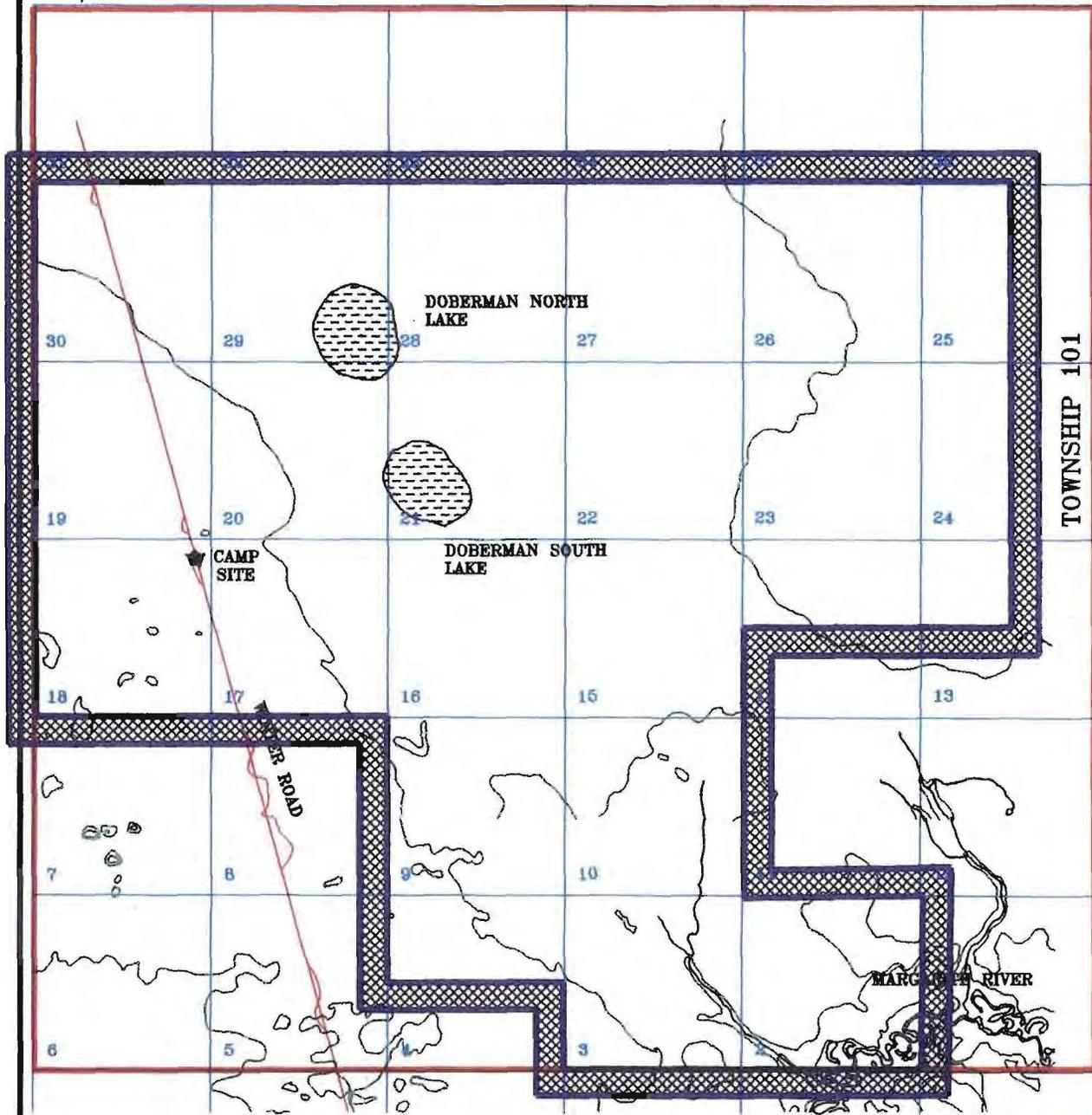
Figure 30

MAGNETOMETER TRAVERSE 2500W
DATA SET S10 - WINTER ROAD
CAMP AREA SOUTH.



TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4



EXPLANATION:



EXISTING PERMIT

PROPOSED PERMIT



E.J. Friesen & Associates Inc.
Calgary Alberta

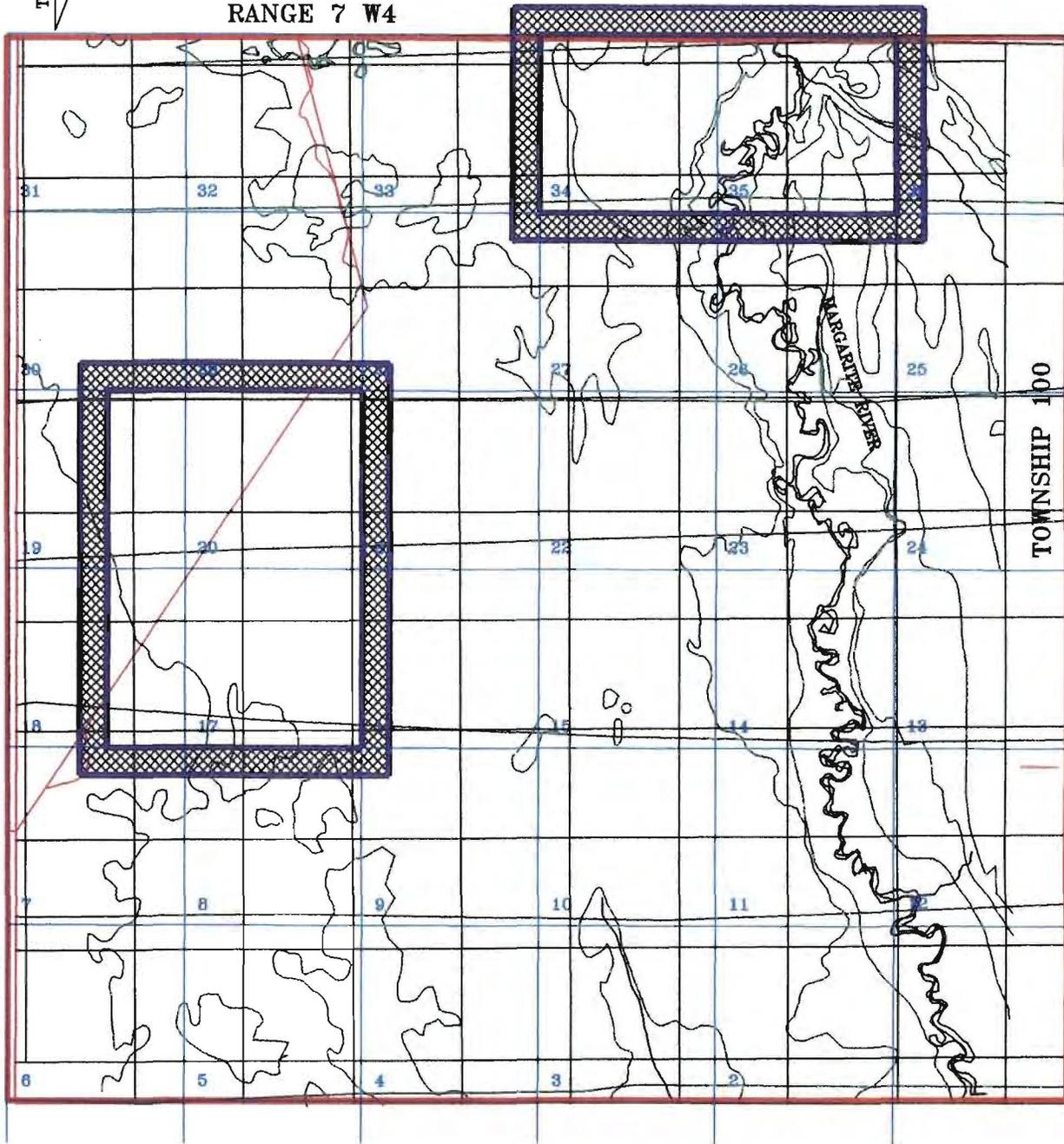
Figure 31

THE
PEARSON-AUDET LAKES PERMITS
DOBERMAN LAKES

DRAWN BY ADRIAN MANN	CREATED BY	DATE 1995:09:06
PROJECT NUMBER 950801	SCALE	DWG FILE
DRAWING NO.	NTS	

TRUE NORTH
MAGNETIC NORTH

RANGE 7 W4



EXPLANATION:



PROPOSED PERMIT

E.J. Friesen & Associates Inc.
Calgary Alberta

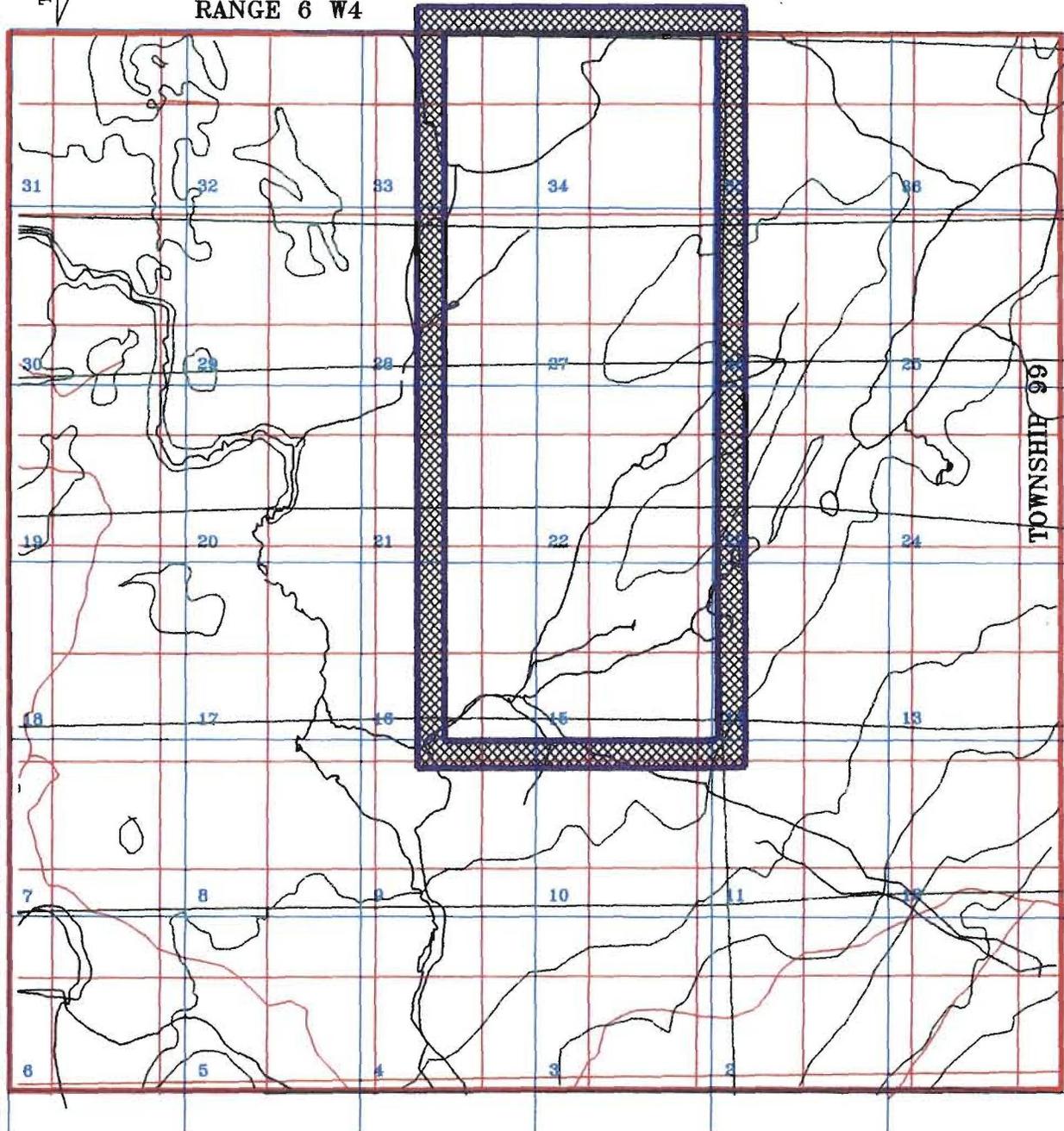
Figure 32

TITLE
PEARSON-AUDET LAKES PERMITS
MARGARITE RIVER

DRAWN BY ADRIAN MANN	CHECKED BY	DATE 1995:09:08
PROJECT NUMBER 950801	SCALE	GRID FILE
DRAWING NO.		RTS

TRUE NORTH
MAGNETIC NORTH

RANGE 6 W4



EXPLANATION:



EXISTING PERMIT

PROPOSED PERMIT

E.J. Friesen & Associates Inc.
Calgary Alberta

Figure 33

WMA
PEARSON-AUDET LAKES PERMITS
AUDET LAKE

DRAWN BY ADRIAN MANN	ORDERED BY	DATE 1995:09:06
PROJECT NUMBER 950801	SCALE	GAB FILE
DRAWING NO.		RTS

PLATES



Figure 1 Muskeg, and deceptively "open" country to the southeast of South Doberman Lake.



Figure 2 North end of South Doberman Lake, within the core area of the anomaly.



Figure 3 Southwest edge of North Doberman Lake, preparing traverse lines by compacting with a skidoo prior to walking the packed trail.



Figure 4 Intersecting traverse lines north-south and east-west on North Doberman Lake.

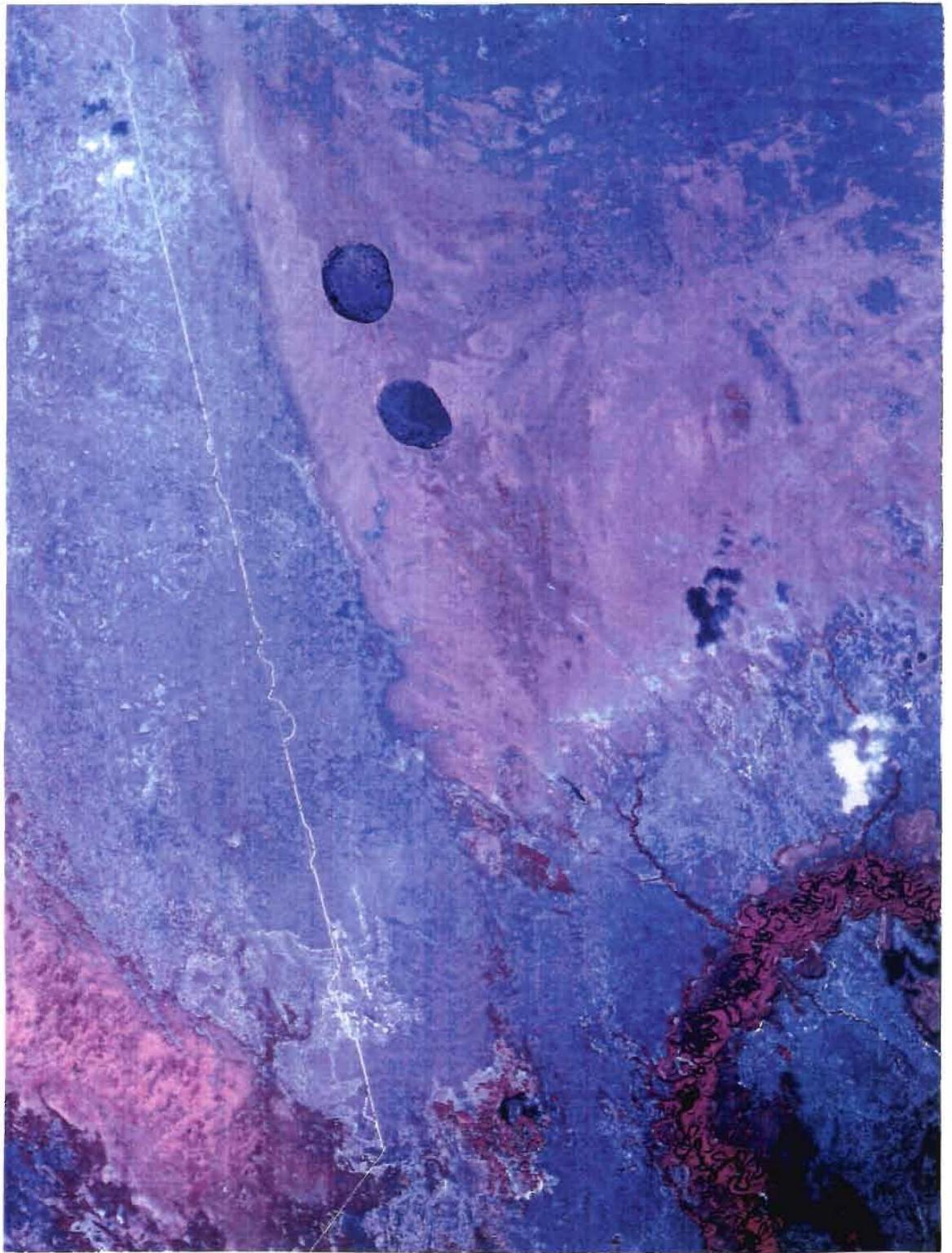


Figure 5 False colour infra-red aerial photograph of the Doberman Lakes area.

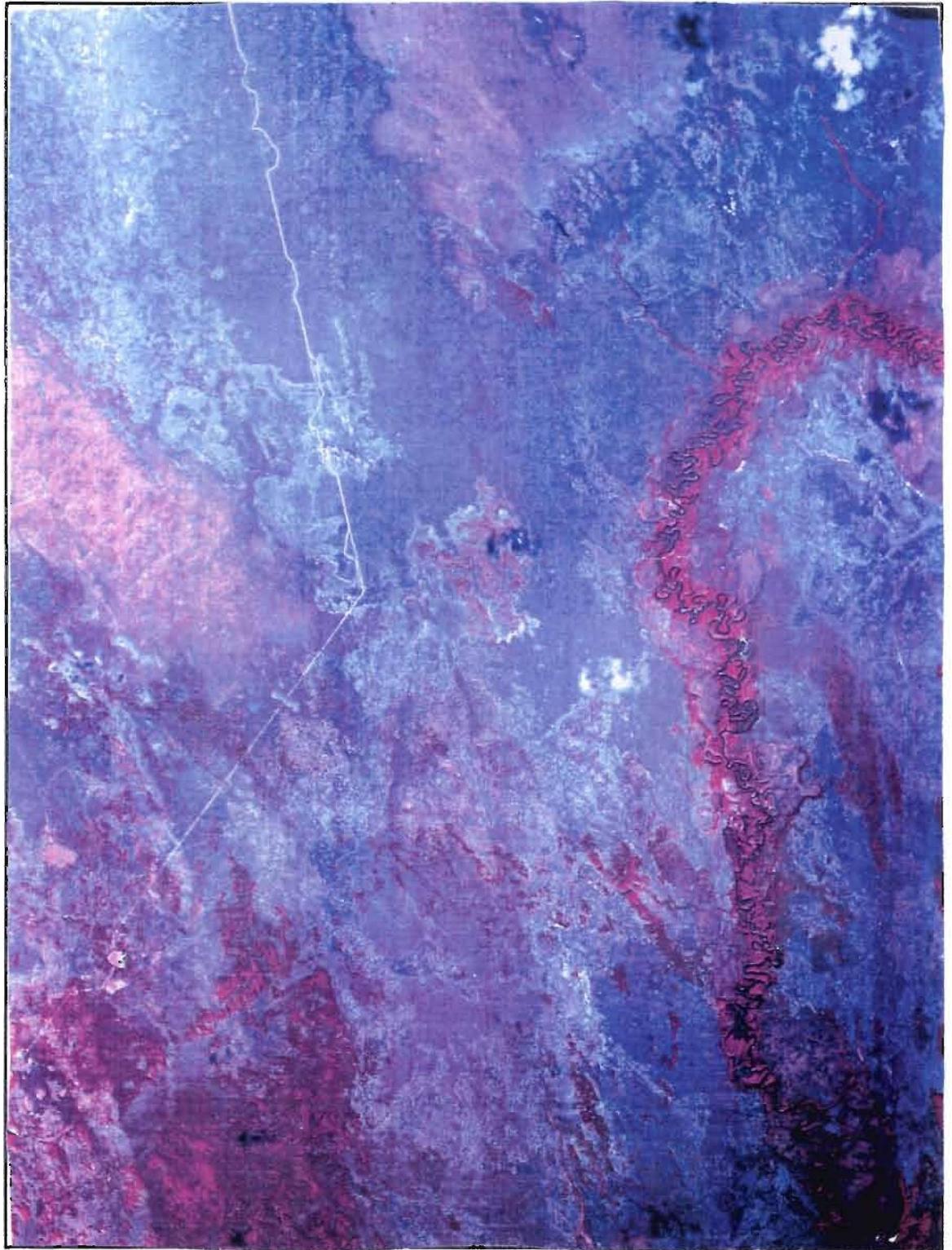


Figure 6 False colour infra-red aerial photograph of the Margarite River area.

The following personnel were involved

Name and address	Position
Karen Ahola ████████████████████ Calgary, AB T2J 5B5	worker
Ed Friesen ████████████████████ Calgary, AB T2J 5B5	Party chief
Mary Friesen ████████████████████ Calgary AB	worker
Rudy and Sharon Friesen ████████████████████ Okotoks, AB TOL 1T2	workers
Dave Keevill ████████████████████ Calgary, AB T2W 3H4	worker
Mike Keevill ████████████████████ Calgary, AB T2W 3H4	worker
Ron Keevill ████████████████████ Valleyview AB	worker
Adrian Mann ████████████████████ Calgary, AB T2W 1A1	chief geologist
Anita and Terry McMillan ████████████████████ Calgary, AB T2X 2S4	workers
Justin Snelling ████████████████████ Okotoks, AB TOL 1T2	geologist

North-east Alberta Mining Claims

Expences

Pearson, Marguerite, Audet - Summary

Expedition No.	Description	Total
1	aerial reconnacence Page 2 (portion)	3130
2	Sep-92 Page 3	10300
3	Feb-93 Page 4	43387.95
Office	report prep [REDACTED] 4 days @ \$400.00	1600
	[REDACTED] 4 days @ \$400.00	1600
	Total	<hr/> 60017.95

North-east Alberta Mining Claims

Date September 6, 1993

Expences

Aerial Reconnaissance - September 1993

		Days	Position	Rate \$/ Day	Costs
Personnel involved	[REDACTED]	1	pilot	\$400.00	400
		1	co-pilot	\$300.00	300
Preparation	[REDACTED]	2	pilot	\$400.00	800
		1	worker	\$200.00	200
		1	co-pilot	\$300.00	300
vehicle	aircraft	10 hours		\$150.00	1500
	van	60 KM		\$0.50	30
Equipment	video camera				50
	survival kit				100
Other	food				50
Office	[REDACTED]	3	project manager	\$400.00	1200

Total 4930

Areas surveyed

Pearson
Richardson
Marguerite
Audette

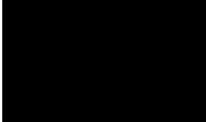
North-east Alberta Mining Claims

Expences

Dates

Thurs Sept 10 to Sun Sept 13, 1992

Pearson , Marguerite, Audet - September 1992

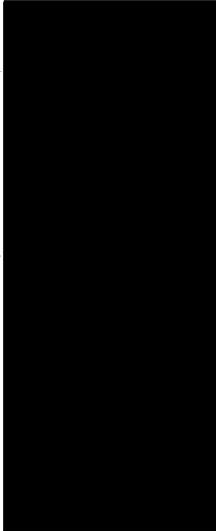
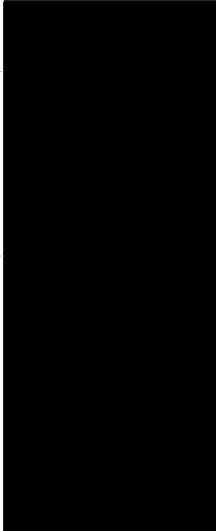
		Days	Position	Rate \$ / Day	Costs
Personnel Involved		4	party chief	\$400.00	1600
		4	geologist	\$400.00	1600
Preparation		3	party chief	\$400.00	1200
		1	geologist	\$400.00	400
		1	geologist	\$400.00	400
		1	worker	\$200.00	200
vehicle	jeep 4-trac	2000 km		\$0.50	1000
Equipment	magnetometer trailer	5 days @ 40.00			200
					100
Other	food				400
office		4	project manager	\$400.00	1600
		4	geologist	\$400.00	1600
Office Equipment	computers, plotters, photocopy etc.				500
				Total	10300

North-east Alberta Mining Claims

Dates Fri Feb. 13 to Sun Feb. 21, 1993

Expences

Pearson, Marguerite, Audet - February 1993

		Days	Position	Rate \$ / Day	Costs	
Personnel Involved		9	party chief	\$400.00	3600	
		2	geologist	\$400.00	800	
		9	worker	\$200.00	1800	
		9	worker	\$200.00	1800	
		9	worker	\$200.00	1800	
		2	worker	\$200.00	400	
Preparation		10	party chief	\$400.00	4000	
		4	worker	\$200.00	800	
		2	worker	\$200.00	400	
		2	worker	\$200.00	400	
		5	worker	\$200.00	1000	
		1	worker	\$200.00	200	
		1	worker	\$200.00	200	
		1	worker	\$200.00	200	
		1	worker	\$200.00	200	
		1	worker	\$200.00	200	
vehicle	jeep 3/4 Ton	2000 kM		\$0.50	1000	
		2000 kM		\$0.50	1000	
			GMC Surburban	2000 kM	\$0.50	1000
			3/4 Ton Dodge	500 kM	\$0.50	250
			3 snowmobiles - rented			3088.31
			insurance			150
			1 snowmobile - owned	10 days @		400
			1 quad			400
			16 ft trailer	10 days @ 15		150
			6 ft trailer	10 days @ 10		100
Equipment			10 ft trailer rental		139.64	
			magnetometer	10 days @ 40.00	repairs 1000	1400
			magnetometer	4 days @ 40.00		160
			generator	10 days @ 50.00		500
Other			tents total 3	10 days @ 15.00 ea	450	
			stoves		100	
			food		1000	
		office		14	project manager	\$400.00
18	geologist			\$400.00	7200	
Office Equipment			computers plotters/printers photocopy		1500	
				Total	43387.95	