AIRBORNE GEOPHYSICAL SURVEY
1988

FORT RELIANCE AREA
NORTHWEST TERRITORIES

Parts of 75K/10, 11, 14, 15

GAMMA RAY SPECTROMETER, VLF AND MAGNETOMETER
COLOUR MAPS

with accompanying
Stacked Profiles and Geology Map Overlay

Scale 1:150,000

Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

Canada

OPEN FILE
DOSSIER PUBLIC
1981
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA

1989

LEVÉ GÉOPHYSIQUE AÉRIEN DE RÉGION FORT RELIANCE DANS LES T.N.-O.

La Commission géologique du Canada a effectué en 1988 un levé géophysique aérien multiparamétrique dans la région du Fort Reliance (Territoires du Nord-Ouest). La carte-index montre l'étendue du secteur d'étude. Le levé visait avant tout à obtenir des données spectrométriques quantitatives de rayons gamma. Des données sur le champ électromagnétique VLF et sur le champ magnétique total ont aussi été recueillies.

Les données sont présentées sous forme d'ensemble de onze cartes polychromes à 1/150 000, soit le débit d'exposition, le potassium, les concentrations en équivalent uranium et en équivalent thorium, les rapports eU/eTh, eU/K et eTh/K, la carte des radioéléments ternaires (J. Broome, J.M. Carson, J.A. Grant et K.L. Ford, 1987, A Modified Ternary Radioelement Mapping Technique and its Application to the South Coast of Newfoundland, Étude de la CGC 87-14), la carte du champ magnétique total et la carte du champ EM total à très basse fréquence et la carte du quadrature VLF.

Toutes les données ont été recueillies à une seconde d'intervalle. Les mesures ont été effectuées à l'aide d'un spectromètre à 256 canaux comportant 12 détecteurs au NaI (Tl) mesurant 102 sur 102 sur 406 mm. L'appareil était opéré à une hauteur moyenne de 125 m au-dessus du sol, à une vitesse de 190 km/h. Les lignes de vol est-ouest respectaient un intervalle de 500 mètres entre elles. Les mesures magnétométriques aériennes ont été faites au moyen d'un magnétomètre aéroporté à proton modèle G-803 de marque Geometrics, selon une résolution de 1 gamma. Les mesures aériennes à très basse fréquence ont été effectuees à l'aide d'un appareil aéroporté VLF Totem 2A des Industries Herz, Ltée. Le champ electromagnétique primaire est produit par la station VLF NLK à Seattle (Washington).

Le potassium est mesuré directement à partir de photons de rayons gamma de 1,46 MeV émis par le ^{40}K. Par contre, l'uranium et le thorium sont mesures indirectement à partir des photons de rayons gamma émis par des produits de filiation propres à leurs chaines de désintégration respectives: le compte d'uranium est déterminé au moyen de photons d'environ 1,76 MeV émis par le ^{214}Bi alors que le compte de thorium est établi à partir de photons de 2,62 MeV provenant du ^{208}Tl. Les fenêtres énergétiques utilisées sont les suivantes:

Potassium	^{40}K	1,36 à 1,56 MeV
Uranium	^{214}Bi	1,66 à 1,86 MeV
Thorium	^{208}Tl	2,41 à 2,81 MeV

Les comptes d'uranium, de thorium et de potassium ont éte corriges pour tenir compte des temps morts, des changements de température ambiante, du rayonnement de fond, de la diffusion spectrale et des écarts entre l'altitude reelle et l'altitude nominale du levé. Les données cartographiees présentent des concentrations moyennes de surface: la proportion d'affleurements, de mort-terrains, de régions couvertes par de la végétation ou par de l'eau et la quantité d'eau dans le sol peuvent tous influer sur les résultats. Par conséquent, les concentrations indiquées sur les cartes sont généralement plus faibles que celles du socle rocheux.

Afin de déterminer les facteurs qui permettent de convertir les mesures aériennes en concentrations, on a comparé les taux de comptage obtenus au cours du levé aux taux mesurés au-dessus d'une bande d'essai de la région d'Ottawa pour laquelle les concentrations au sol étaient connues. Les facteurs de conversion utilisés sont les suivants:

1% de K	91,0 cps
1 ppm eU	9,1 cps
1 ppm eTh	7,0 cps

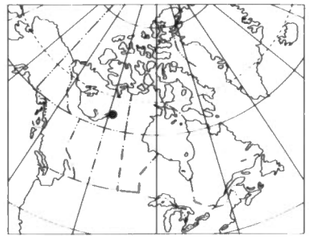
Le taux d'exposition, exprimé en micro-roentgens par heure (µR/h), a été calculé à partir de concentrations connues de potassium, d'uranium et de thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W. et Holman, P.B. 1984. Natural Background Radiation in Canada. Commission géologique du Canada, Bulletin 360). On peut comparer ces données à celles exprimées auparavant en unités de concentration de radioélément (Ur) en considérant que 1µR/h équivaut à environ 1,67 Ur

Pour obtenir des renseignment sur la disponibilité de cet dossier public, on peut écrire à l'endroit suivant: La Commission géologique du Canada, 601 rue Booth, Ottawa, Ontario; ou téléphone (613) 995-4342.

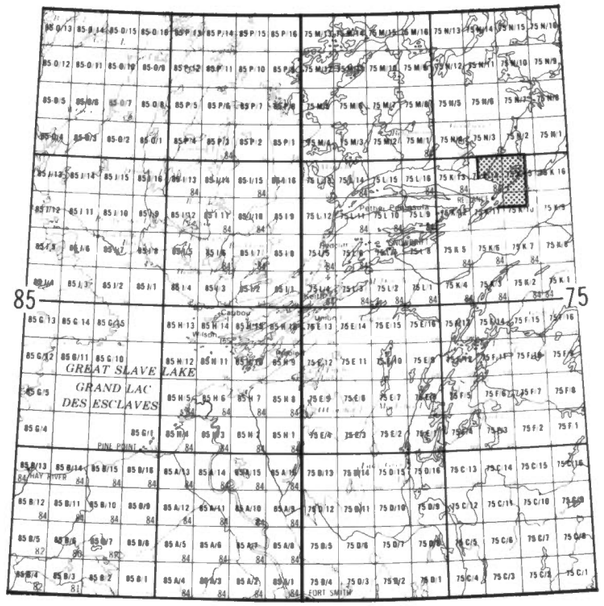
Le fond de carte provient de la Direction des levés et de la cartographie.

La cartographie a été exécutée par la Commission géologique du Canada.

Le levé aéroporté magnétique, VLF et de spectrométrie par rayons gamma a été effectué, compilé et defrayé par la Commission géologique du Canada



INDEX MAP



AIRBORNE GEOPHYSICAL SURVEY FORT RELIANCE AREA, N.W.T.

In 1988 a multiparameter geophysical survey was flown by the Geological Survey of Canada in the Fort Reliance area of the Northwest Territories. The area surveyed is shown on the index map. The main purpose of the survey was to acquire quantitative gamma ray spectrometric information. VLF electromagnetic and total field magnetic data were also recorded.

Data are presented as a set of eleven 1:150 000 colour maps (exposure rate, potassium, equivalent uranium and equivalent thorium concentrations, the eU/eTh, eU/K and eTh/K ratios, the ternary radioelement map (J. Broome, J.M. Carson, J.A. Grant and K.L. Ford, 1987 A Modified Ternary Radioelement Mapping Technique and its Application to the South Coast of Newfoundland, GSC Paper 87-14)), the total magnetic field map and the VLF-EM total field and VLF quadrature maps.

All data were sampled at 1 second intervals. The airborne radiometric measurements were made using a 256 channel spectrometer, with twelve 102x102x406 mm NaI (Tl) detectors, flown at a mean terrain clearance of 125 m at 190 km/h. East-west flight lines were at 500 metre line spacing. The airborne magnetometer measurements were made using a Geometrics Model G-803 Airborne Proton Magnetometer with a 1 gamma resolution. The airborne VLF measurements were obtained using a Herz Industries Ltd. Totem 2A airborne VLF system. The primary electromagnetic field is generated by VLF station NLK at Seattle, Washington.

Potassium is measured directly from the 1.46 MeV gamma ray photons emitted by ^{40}K, whereas uranium and thorium are measured indirectly from gamma ray photons emitted by daughter products in their decay chains. Uranium is monitored by means of gamma ray photons at approximately 1.76 MeV from ^{214}Bi, and thorium, from 2.62 MeV photons emitted by ^{208}Tl. The energy windows used are as follows:

Potassium	^{40}K	1.36-1.56 MeV
Uranium	^{214}Bi	1.66-1.86 MeV
Thorium	^{208}Tl	2.41-2.81 MeV

Uranium, thorium and potassium counts have been corrected for dead time, ambient temperature changes, background radiation, spectral scattering and deviations of terrain clearance from the planned survey altitude. The data as presented represent an average surface concentration which is influenced by varying amounts of outcrop, overburden, vegetation, soil moisture and surface waters. As a result, the concentrations as shown are usually lower than the concentrations in the bedrock.

Factors for converting the airborne measurements to concentrations were determined by relating the airborne count rates to the known ground concentrations of a test strip in the Ottawa area. The factors used to convert the airborne measurements to ground concentrations are:

1% K	91.0 cps
1 ppm eU	9.1 cps
1 ppm eTh	7.0 cps

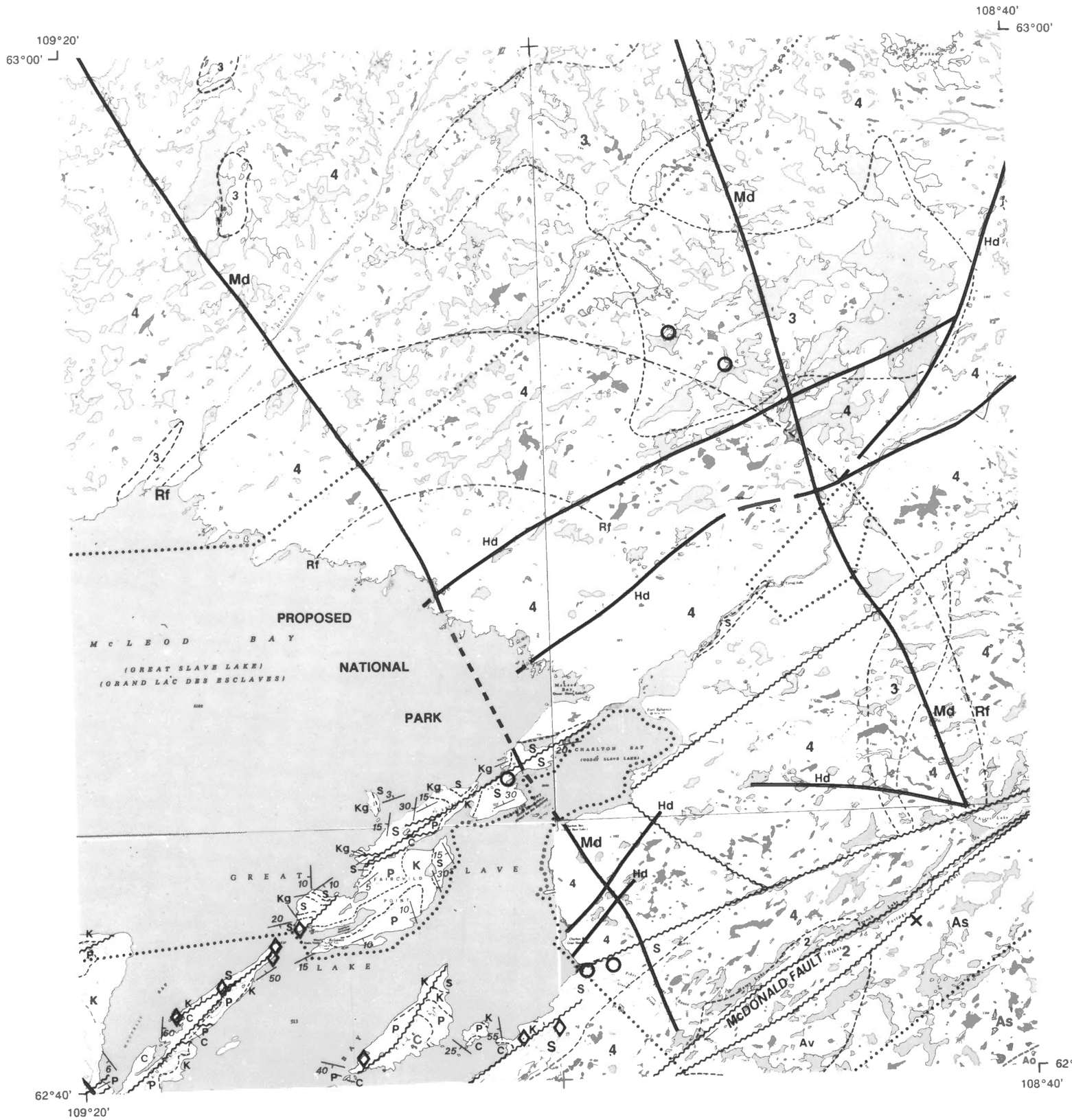
The exposure rate, in micro Roentgens per hour has been computed from the measured concentrations of potassium, uranium and thorium (Grasty, R.L., Carson, J.M., Charbonneau, B.W. and Holman, P.B., 1984, Natural Background Radiation in Canada, Geol. Sur. Can., Bull. 360). To compare these data with earlier total count maps expressed in Units of Radioelement concentrations (Ur), the conversion factor is 1µR/h≈1.67 Ur

Information regarding the availability of this Open File release may be obtained from: Geological Survey of Canada, 601 Booth St., Ottawa, Ontario, K1A 0E8. Telephone (613) 995-4342

Base map material supplied by Surveys and Mapping Branch

Cartography by Geological Survey of Canada

Airborne gamma ray spectrometer, VLF and magnetic survey flown, compiled and funded by Geological Survey of Canada



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LEGEND

HELIKIAN

- **Md** — *MACKENZIE DIABASE DYKES, northwest trending*

APHEBIAN

GREAT SLAVE SUPERGROUP **(C,P,K,S)**

- **C** — *CHRISTIE BAY GROUP, megabreccia with sedimentary clasts*
- **P** — *PETHEI GROUP, dolomite, limestone, stromatolites*
- **K** — *KAHOCHELLA GROUP, red and green shales, gabbro sills* **(Kg)**
- **S** — *SOSAN GROUP, arkose, sandstone, siltstone*
- **Hd** — *HEARNE DIABASE DYKES, northeast trending*
- **A** — *GNEISSES IN CHRUCHILL STRUCTURAL PROVINCE AND THELON TECTONIC ZONE,* **Av, As** *and* **Ao** *derived from volcanic, sedimentary and plutonic rocks*

ARCHEAN

(SLAVE STRUCTURAL PROVINCE)

- **4** — *GRANITIC ROCKS, tonalite, granodiorite, granite; gneissic & massite*
- **3** — *GNEISS AND MIGMATITE, derived mainly from* **2**
- **2** — *METASEDIMENTARY ROCKS, greywacke, slate*
- **1** — *METAVOLCANIC ROCKS, not distinguished in the map area but unit* **3** *includes minor occurrences of mafic metavolcanic rocks*

Geological boundary

Proposed national park boundary

Ring fracture (or dyke?) observed on airphoto — Rf

Fault

Attitude of beds — 55

MINERAL OCCURRENCE

Copper ◇ *Uranium* ○

Iron (magnetite) ×

0 Scale 5 km

Source: Roscoe, S.M., Gandhi, S.S., Charbonneau, B.W., Maurice, Y.T. and Gibb, R.A., 1987, Mineral Resource Assessment of the area in the East Arm (Great Slave Lake) and Artillery Lake region, N.W.T., proposed as a National park; Geological Survey of Canada, Open File 1434, 92 p.

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CARTE PROVISOIRE
75 K/15

EDITION 2

Canada

EDITION 2

PROVISIONAL MAP

1:50,000

CANADA

EDITION 1

Title: Fort Reliance N.W.T. 1988
Survey: SPRELIA, 10 km, Central Meridian: 111°00'
Scale: 1:50000, UTM grid interval: 1000 (line spacing=500m)

McLEOD BAY

(GREAT SLAVE LAKE)
(GRAND LAC DES ESCLAVES)

CHARLTON BAY

GREAT SLAVE LAKE

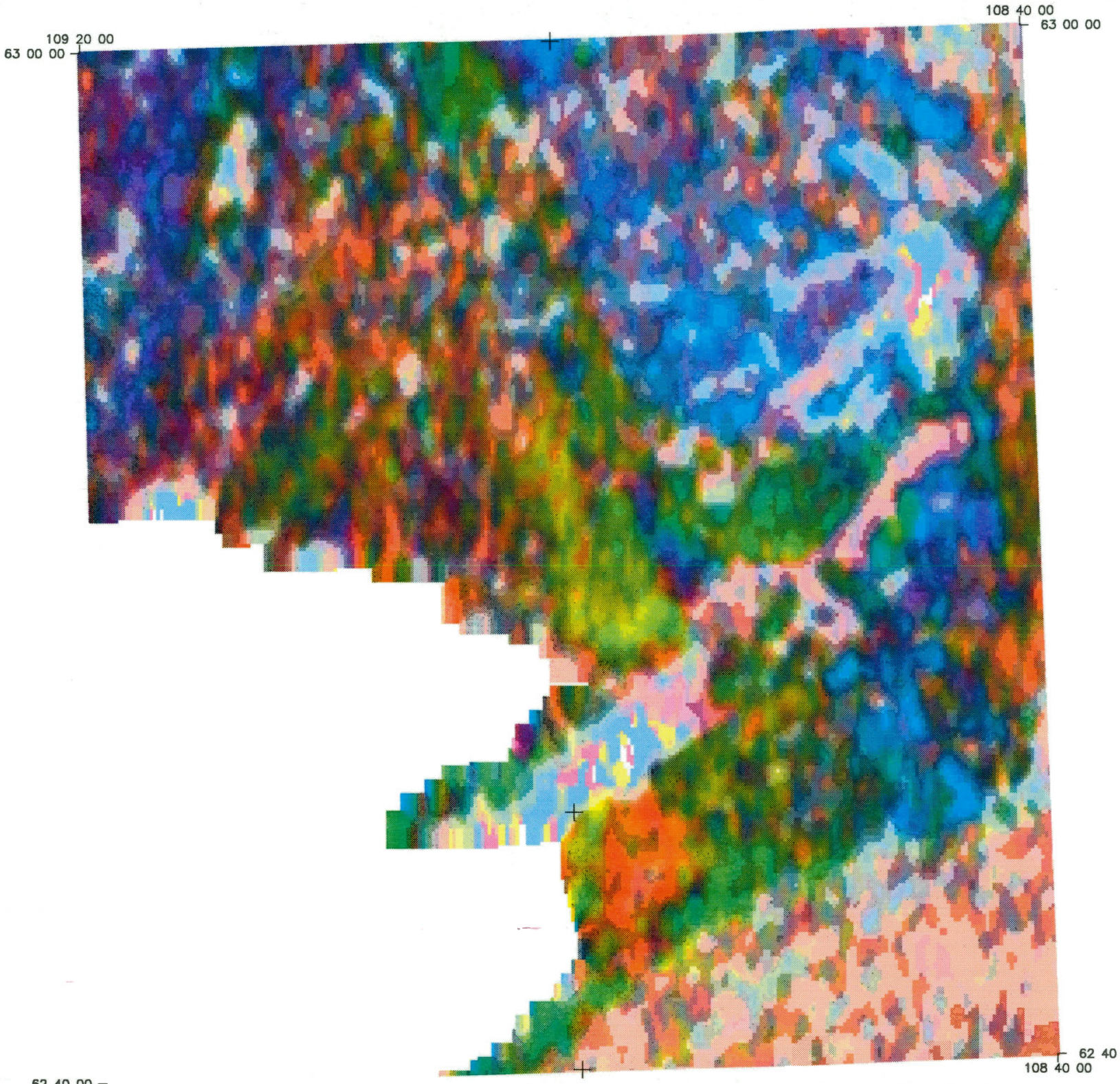
FAIRCHILD POINT

Fort Reliance Historic Site

MAYERHOFF BAY

MAYERHOFF POINT

BAY



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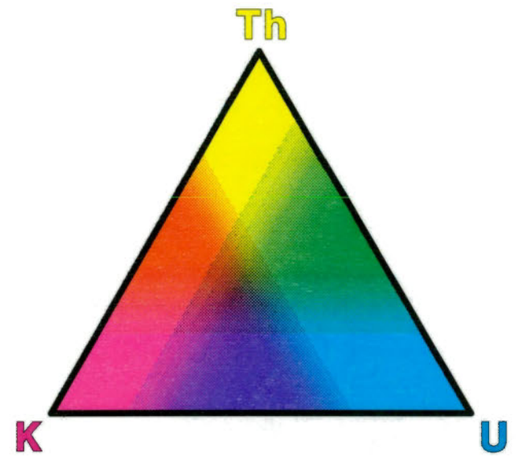
Airborne Gamma Ray Spectrometer Survey

of the

Fort Reliance Area, N.W.T.

1988

Parts of 75K/10,11,14,15



TERNARY RADIOELEMENT MAP

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
Airborne Geophysics Section
Mineral Resources Division
Geological Survey of Canada

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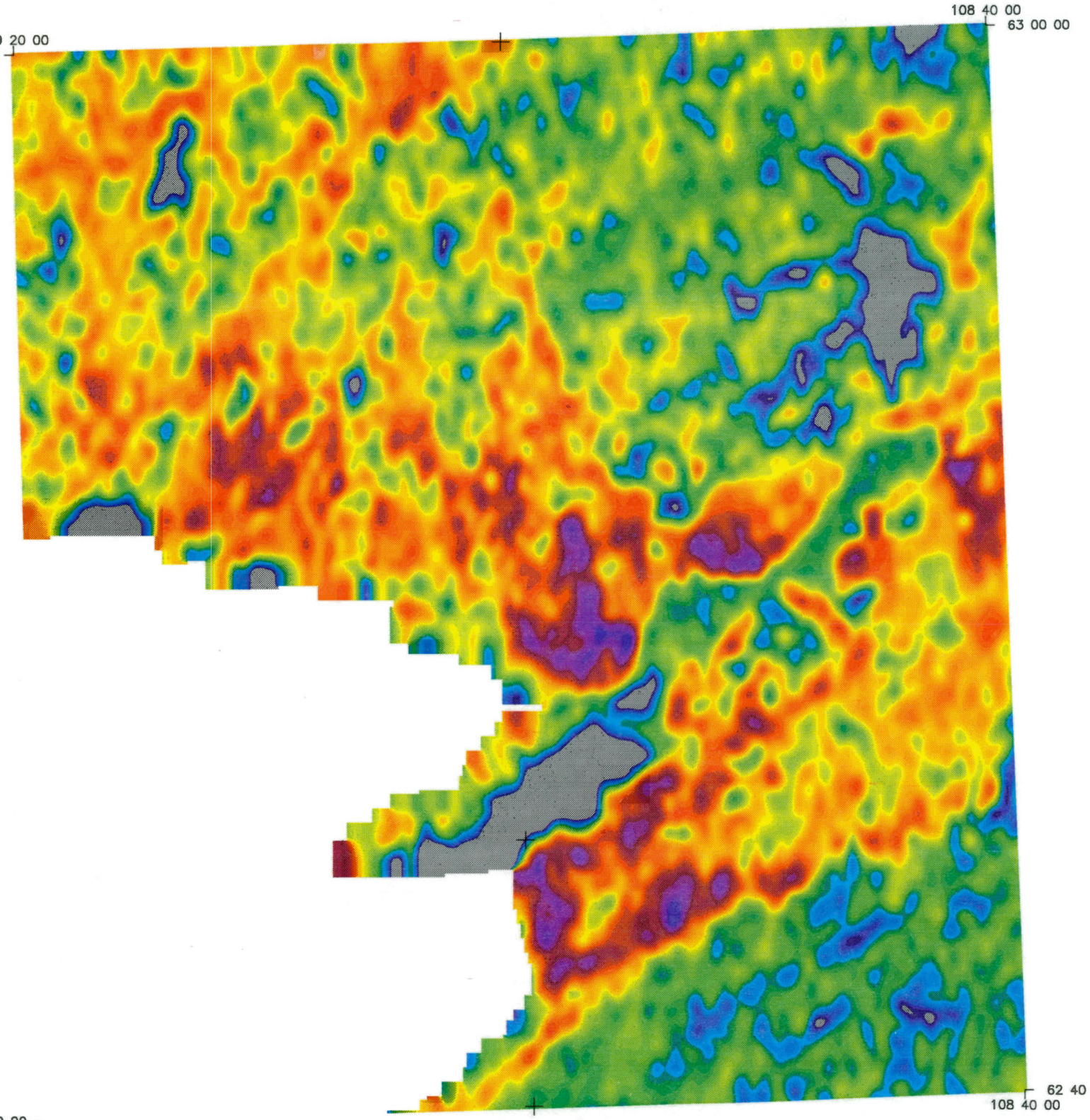

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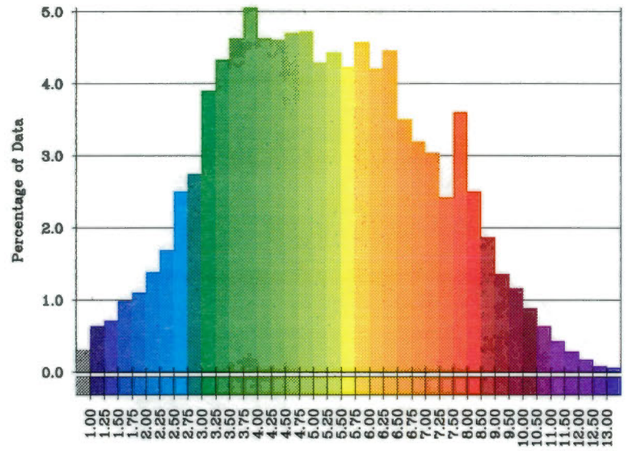

EXPOSURE (μR/H)

Scale = 1:150 000
Line spacing = 500 metres

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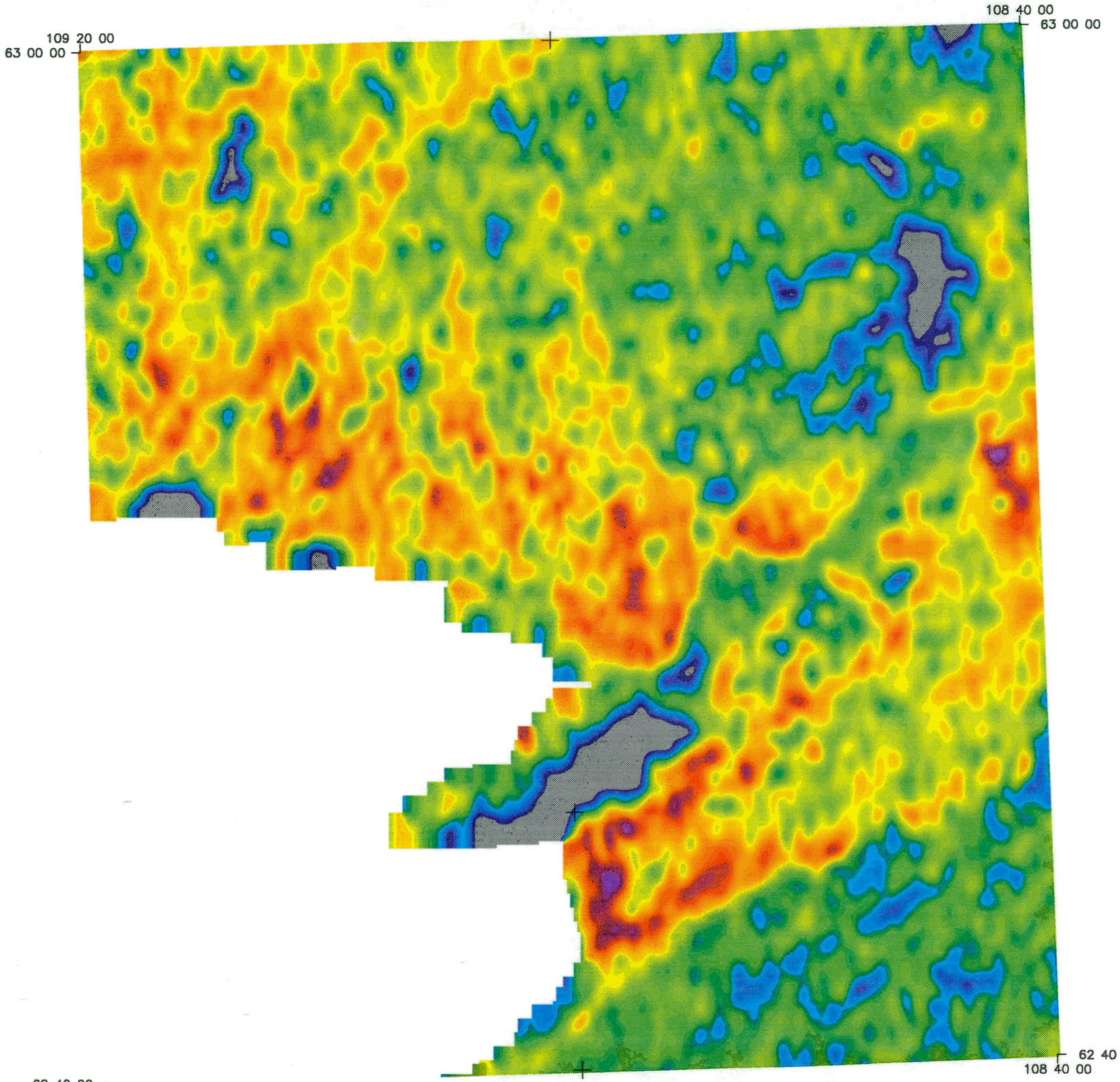

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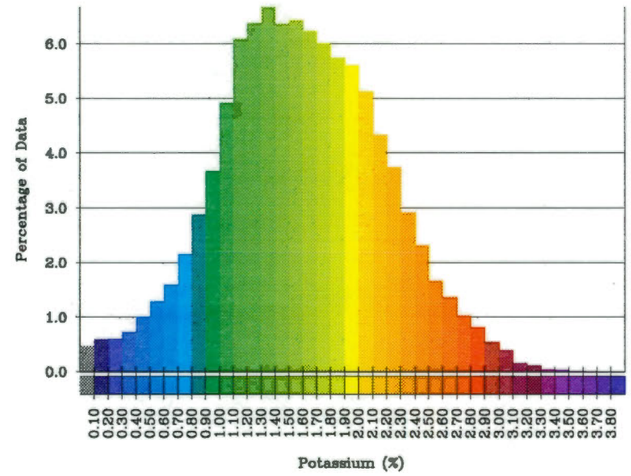

POTASSIUM (%)

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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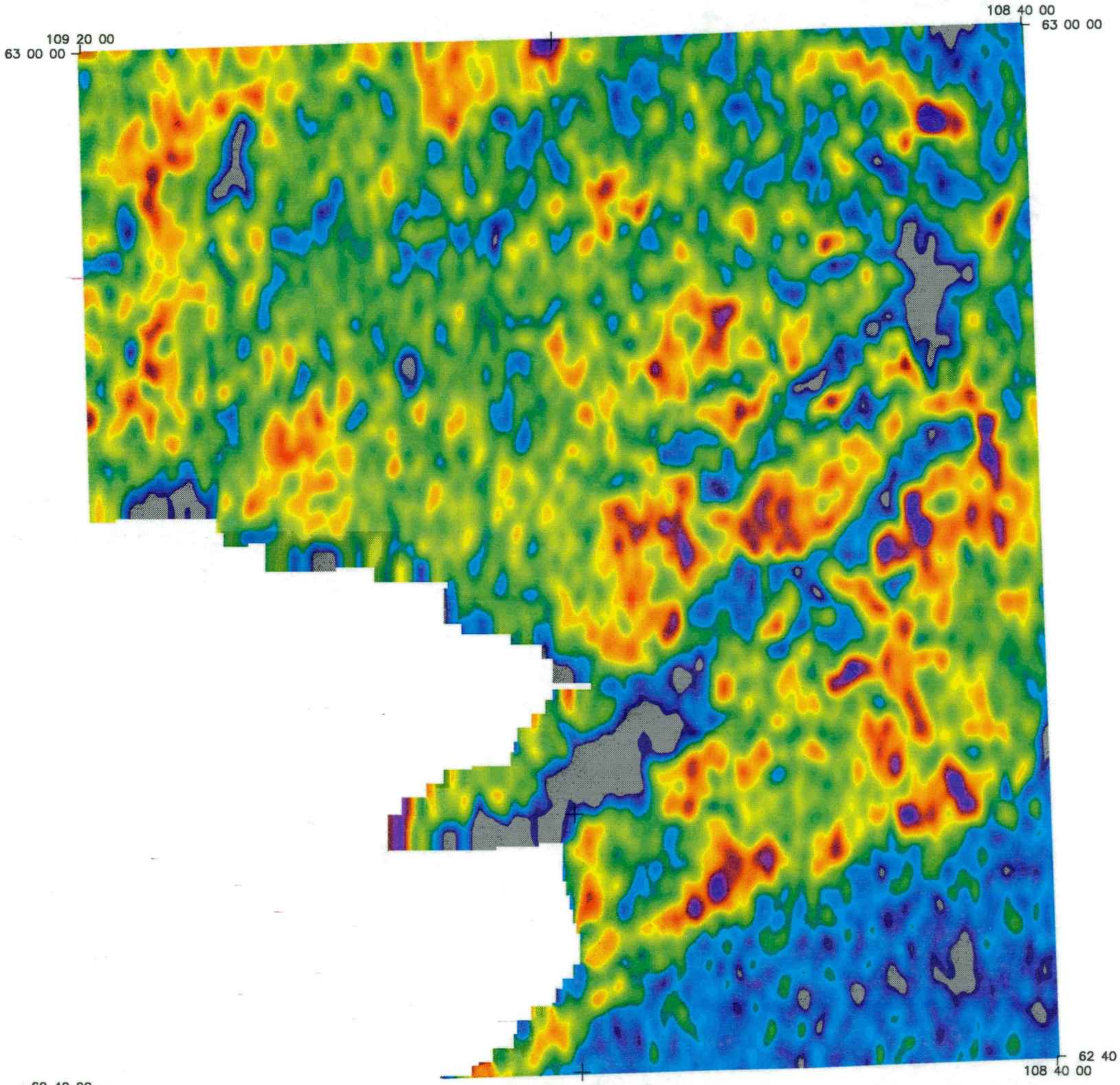

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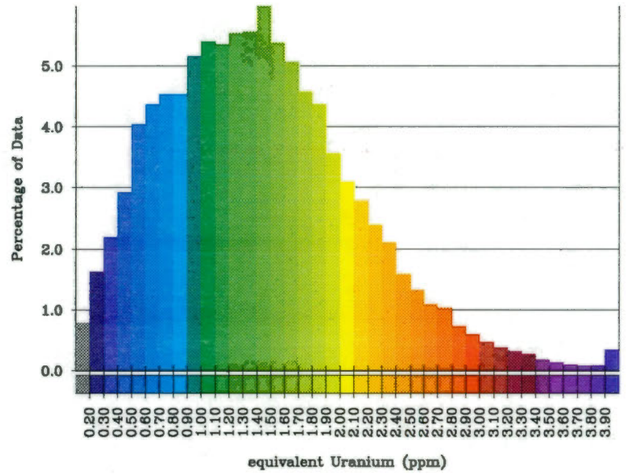

EQUIVALENT URANIUM (PPM)

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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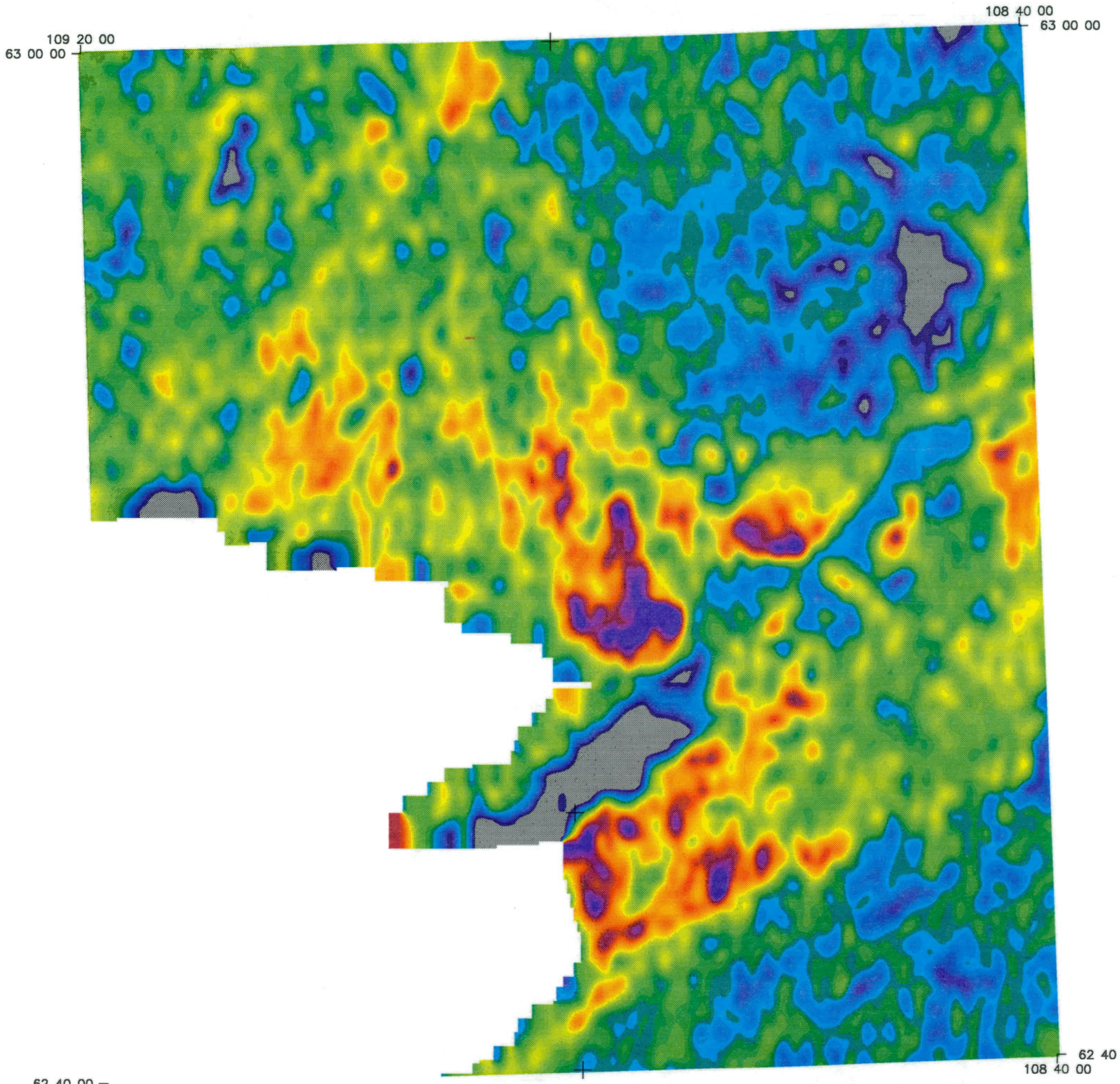

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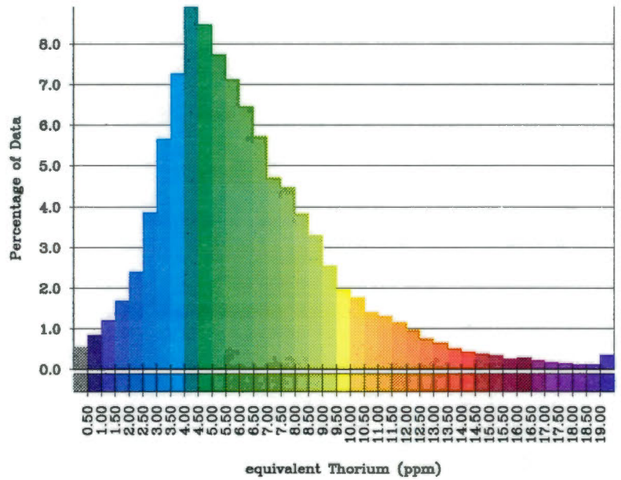

EQUIVALENT THORIUM (PPM)

Scale = 1:150 000
Line spacing = 500 metres

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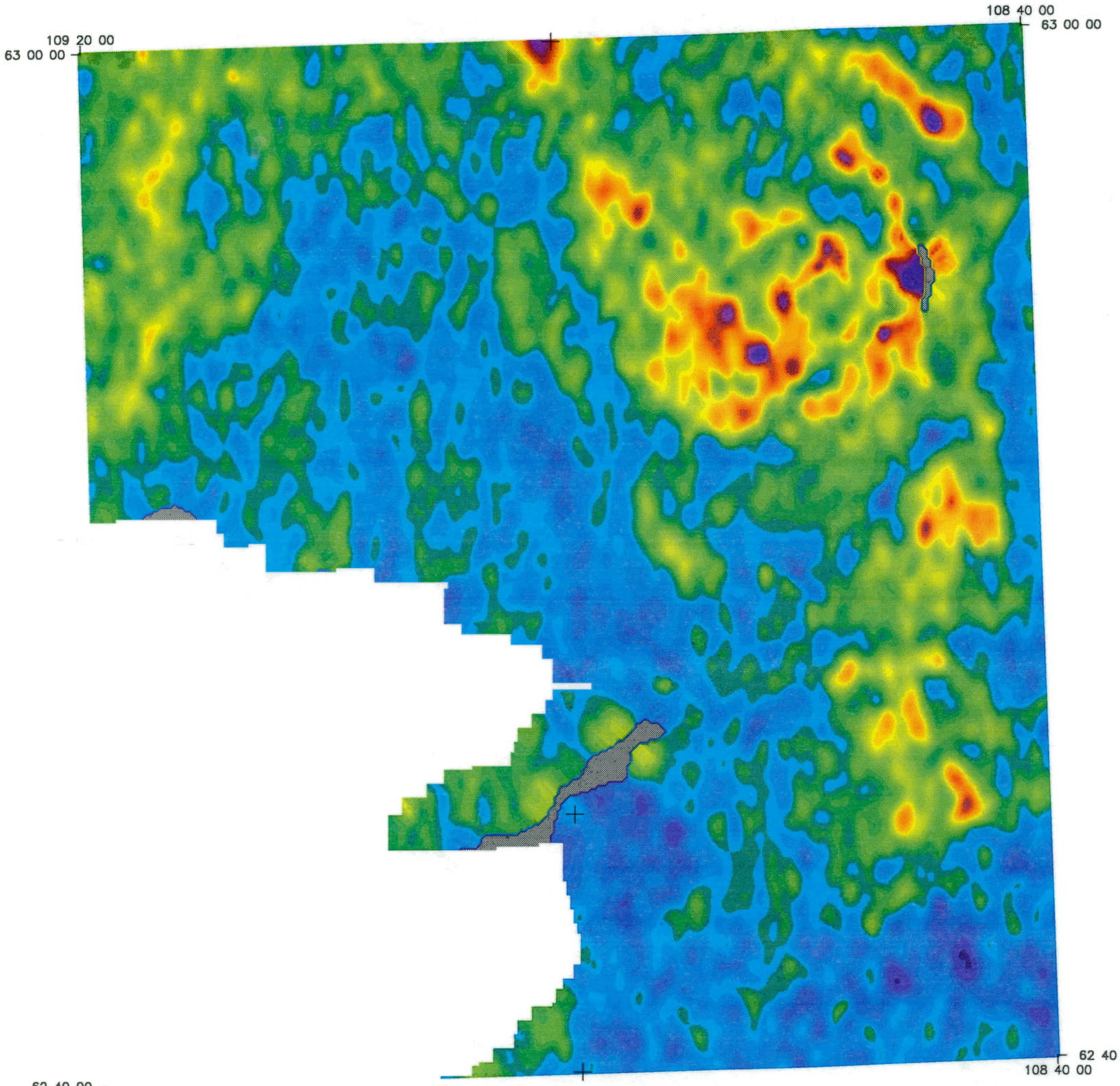

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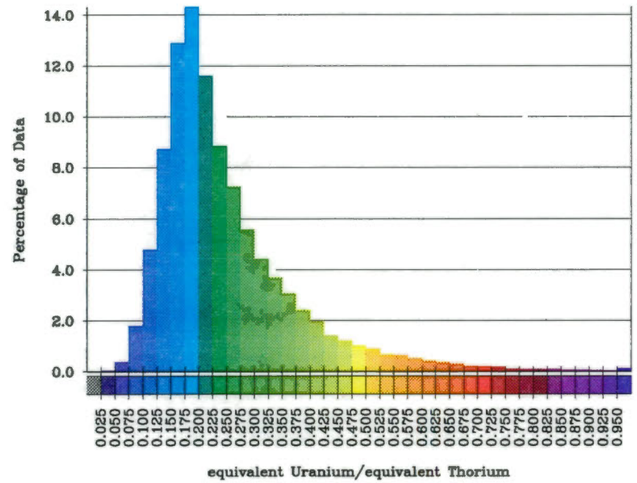

EQUIVALENT URANIUM/EQUIVALENT THORIUM

Scale = 1:50 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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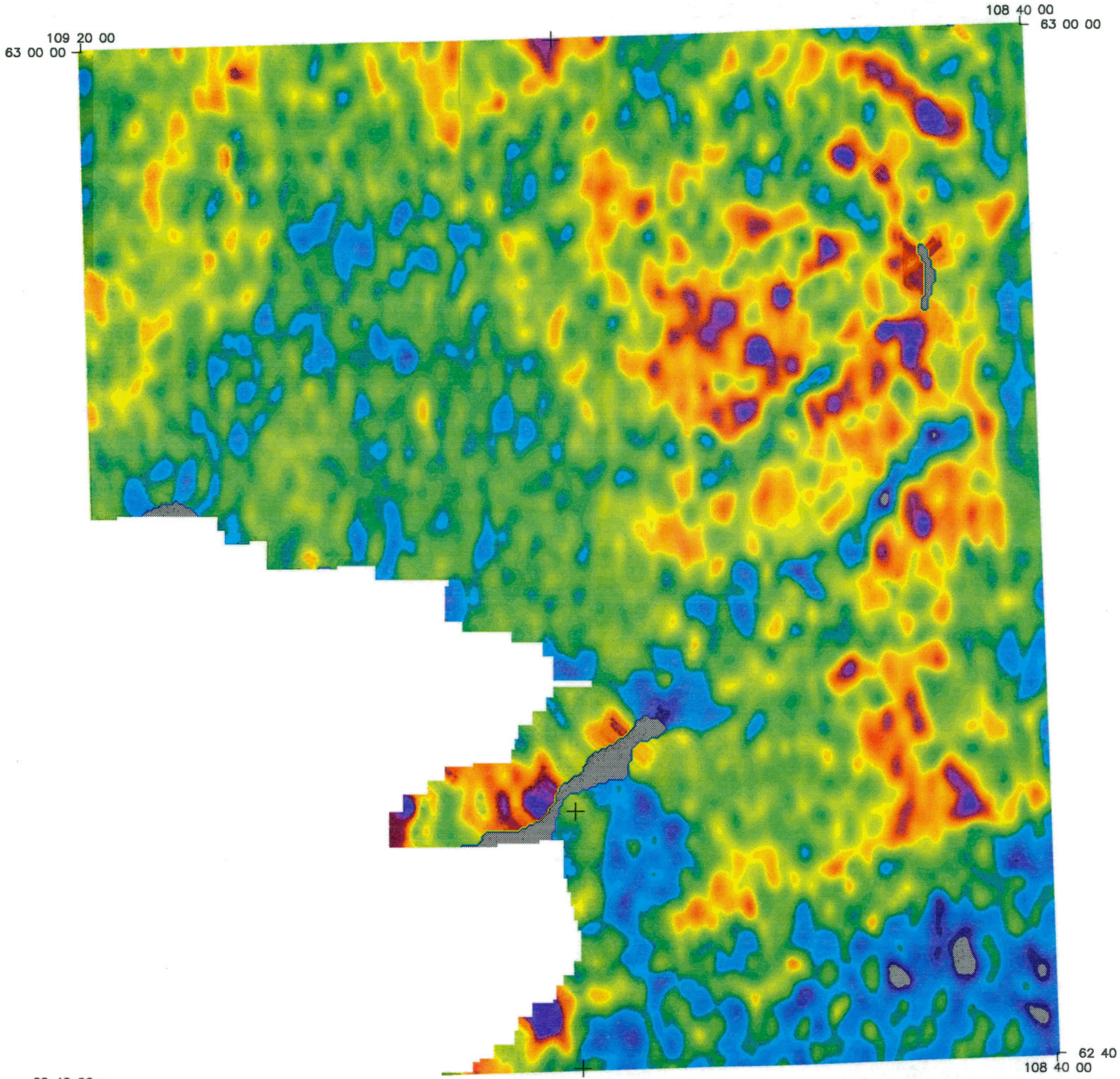

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Fort Reliance Area, N.W.T.

1988

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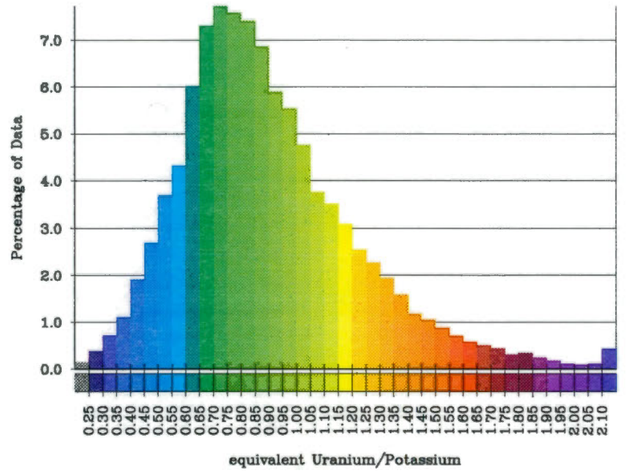

EQUIVALENT URANIUM/POTASSIUM

Scale = 1:150 000
Line spacing = 500 metres

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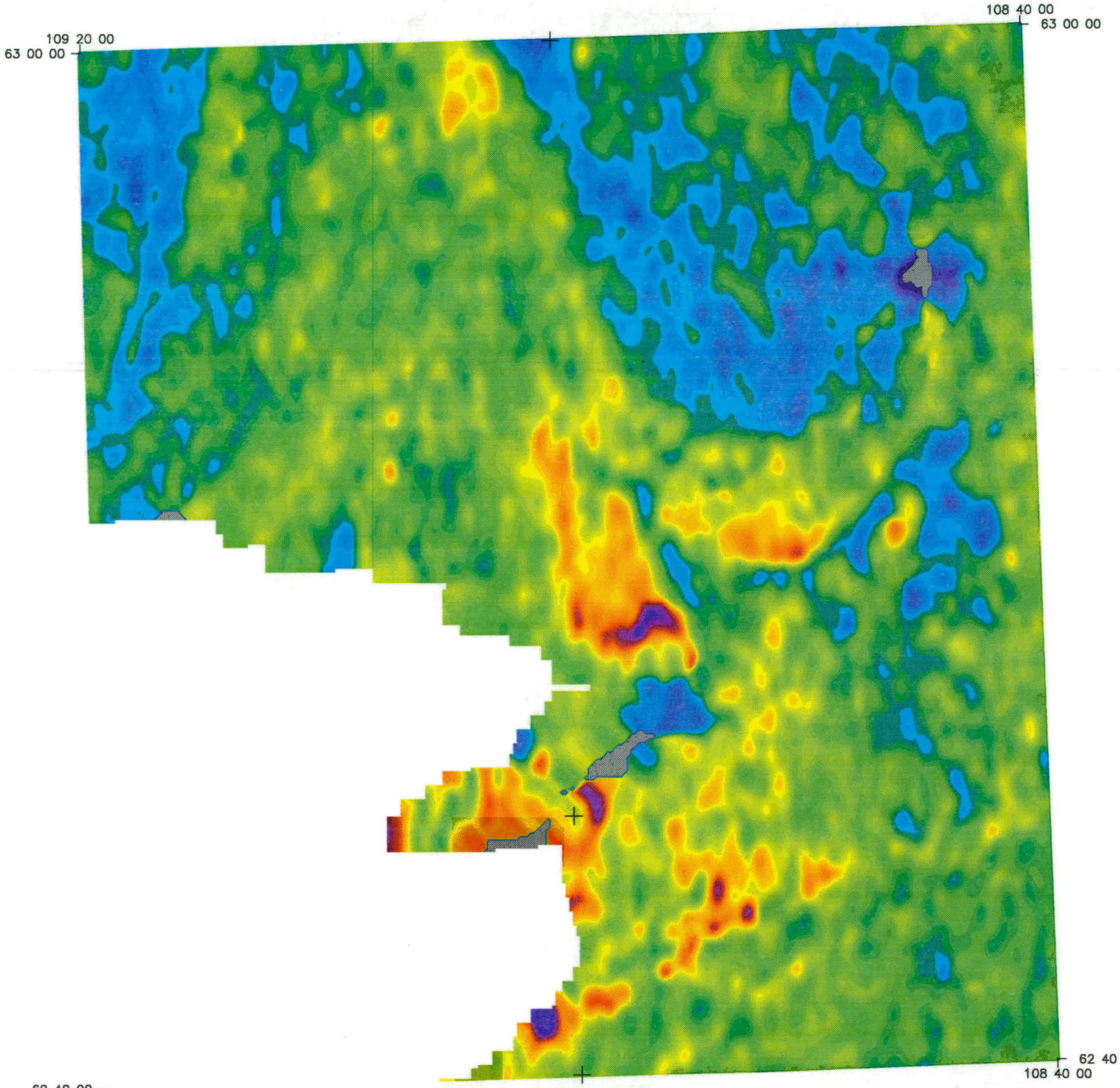

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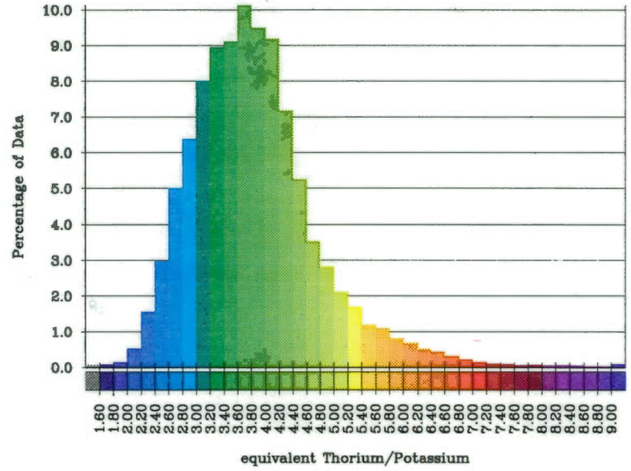

EQUIVALENT THORIUM/POTASSIUM

Scale = 1:150 000
Line spacing = 500 metres

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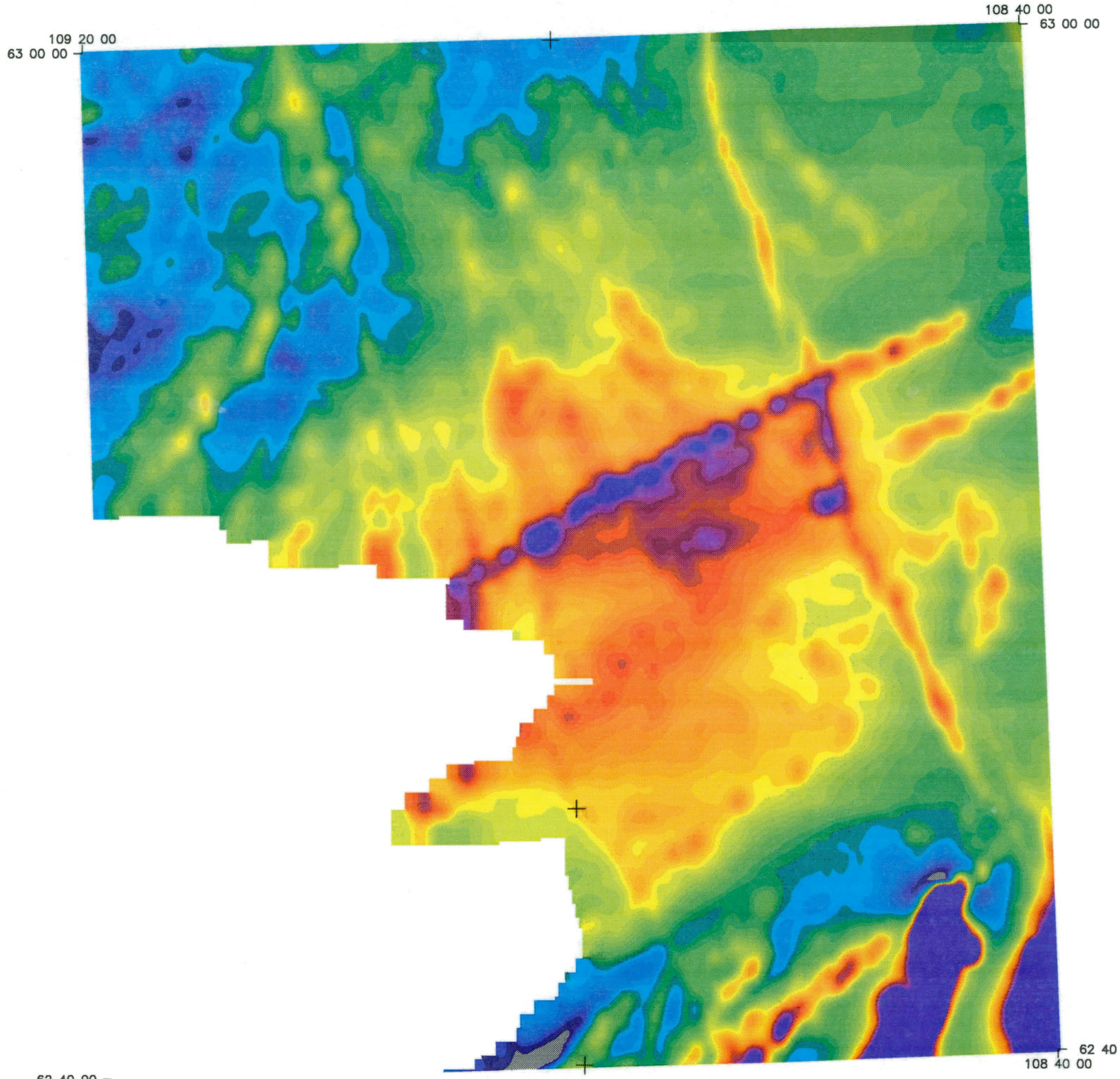

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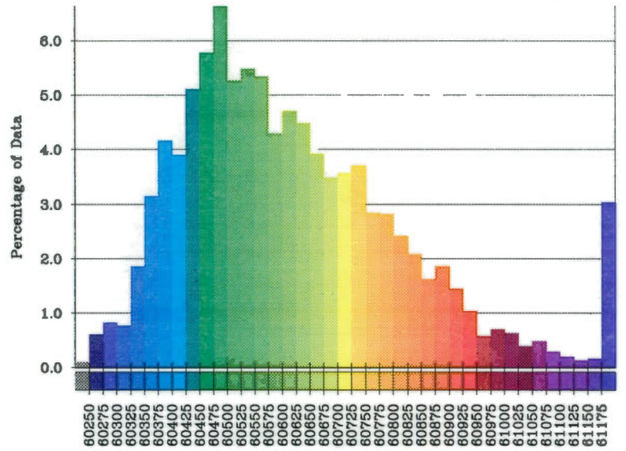

TOTAL MAGNETIC FIELD (NT)

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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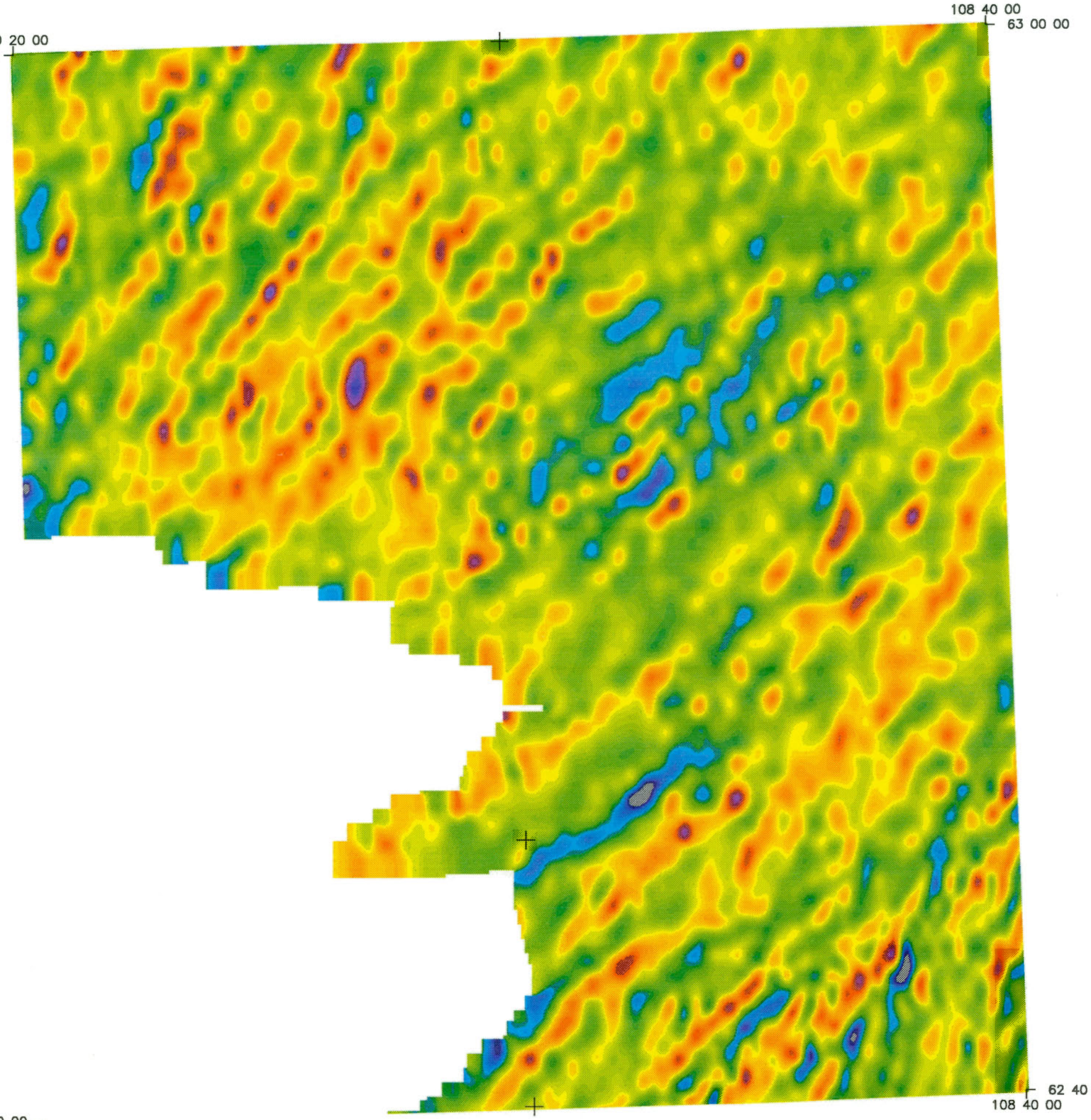

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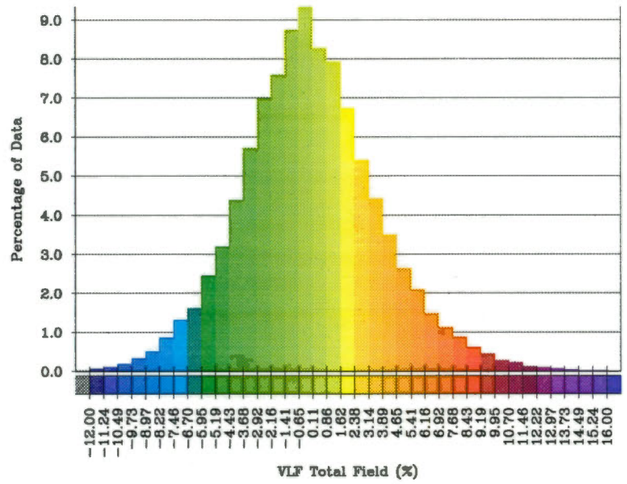
Parts of 75K/10,11,14,15



VLF TOTAL FIELD (%)

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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109 20 00
63 00 00

108 40 00
63 00 00

62 40 00
109 20 00

62 40 00
108 40 00

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Airborne Gamma Ray Spectrometer Survey

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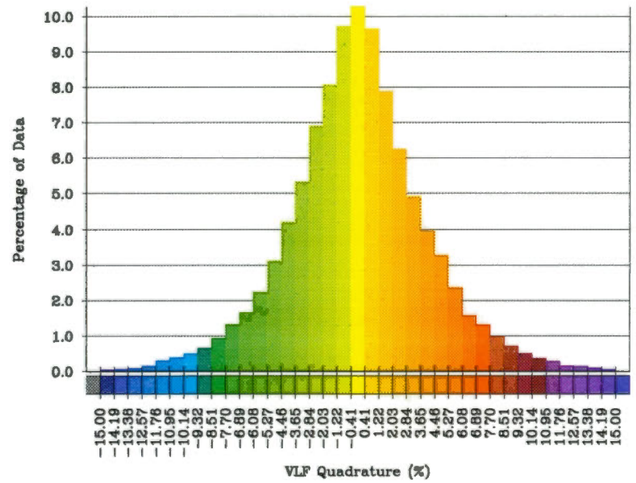
1988

Parts of 75K/10,11,14,15



VLF QUADRATURE (%)

Scale = 1:150 000
Line spacing = 500 metres

Survey flown, compiled and funded by
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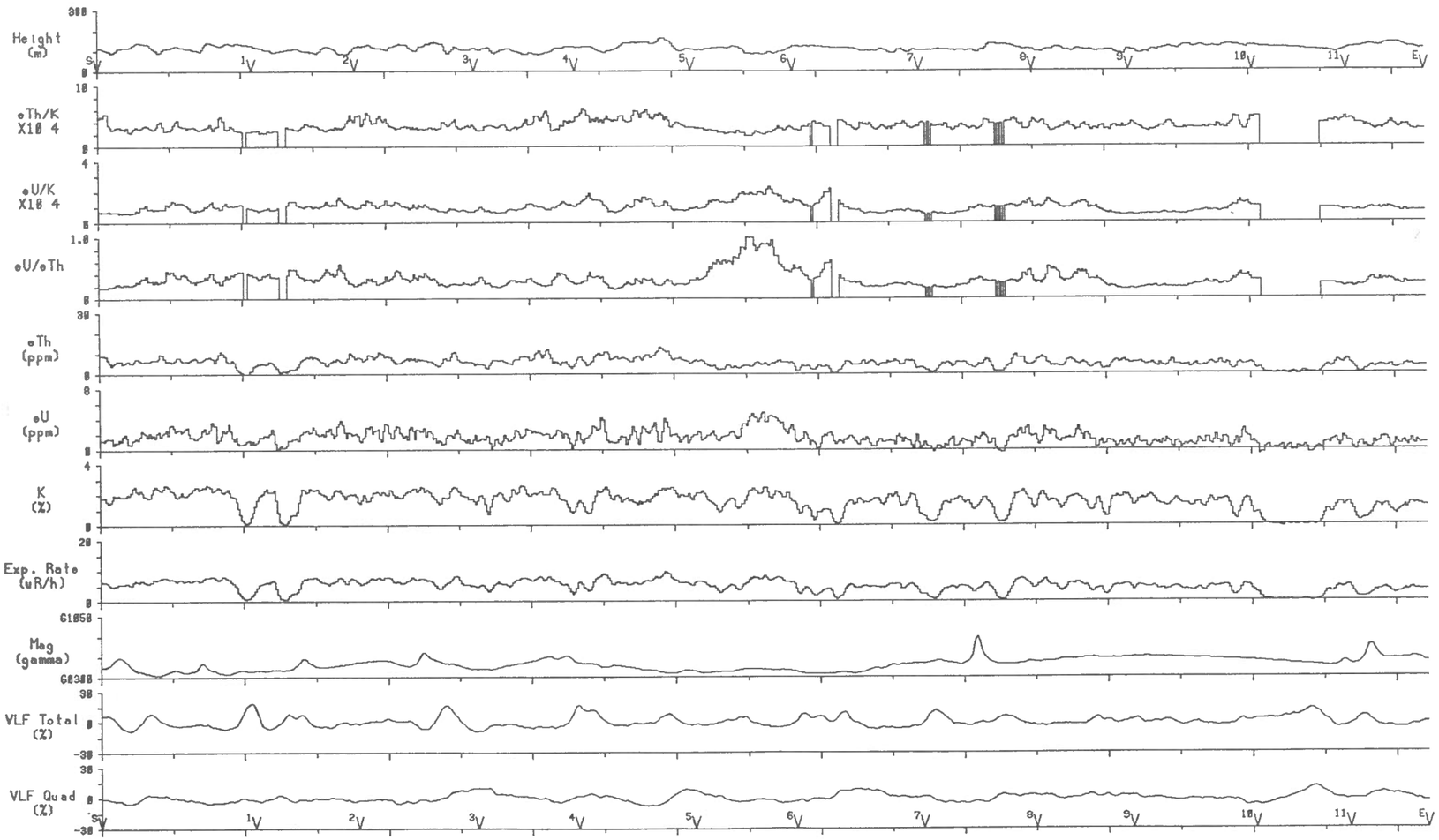
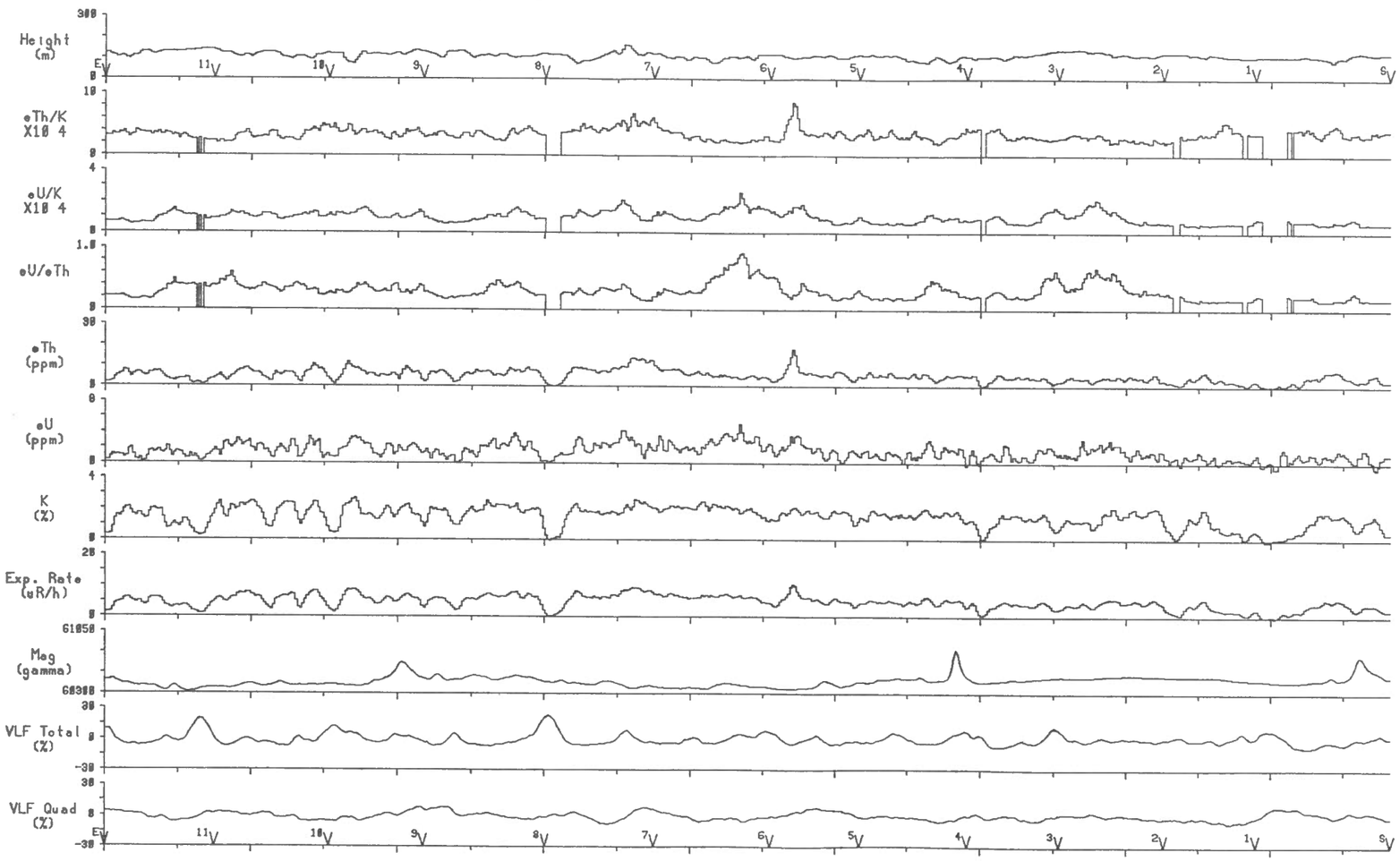
Fort Reliance N.W.T. 1988 (line spacing=500m)



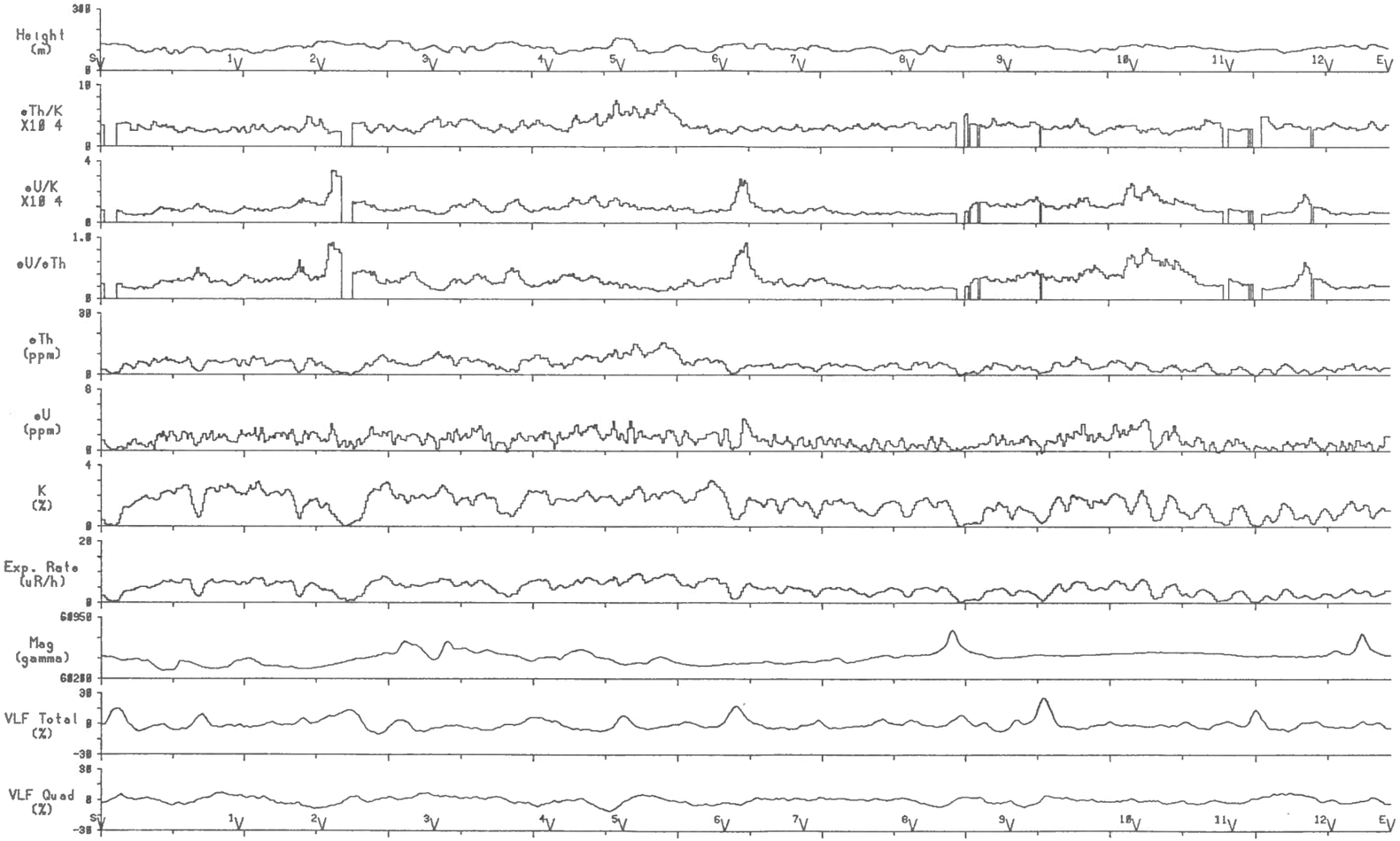
Line 1 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



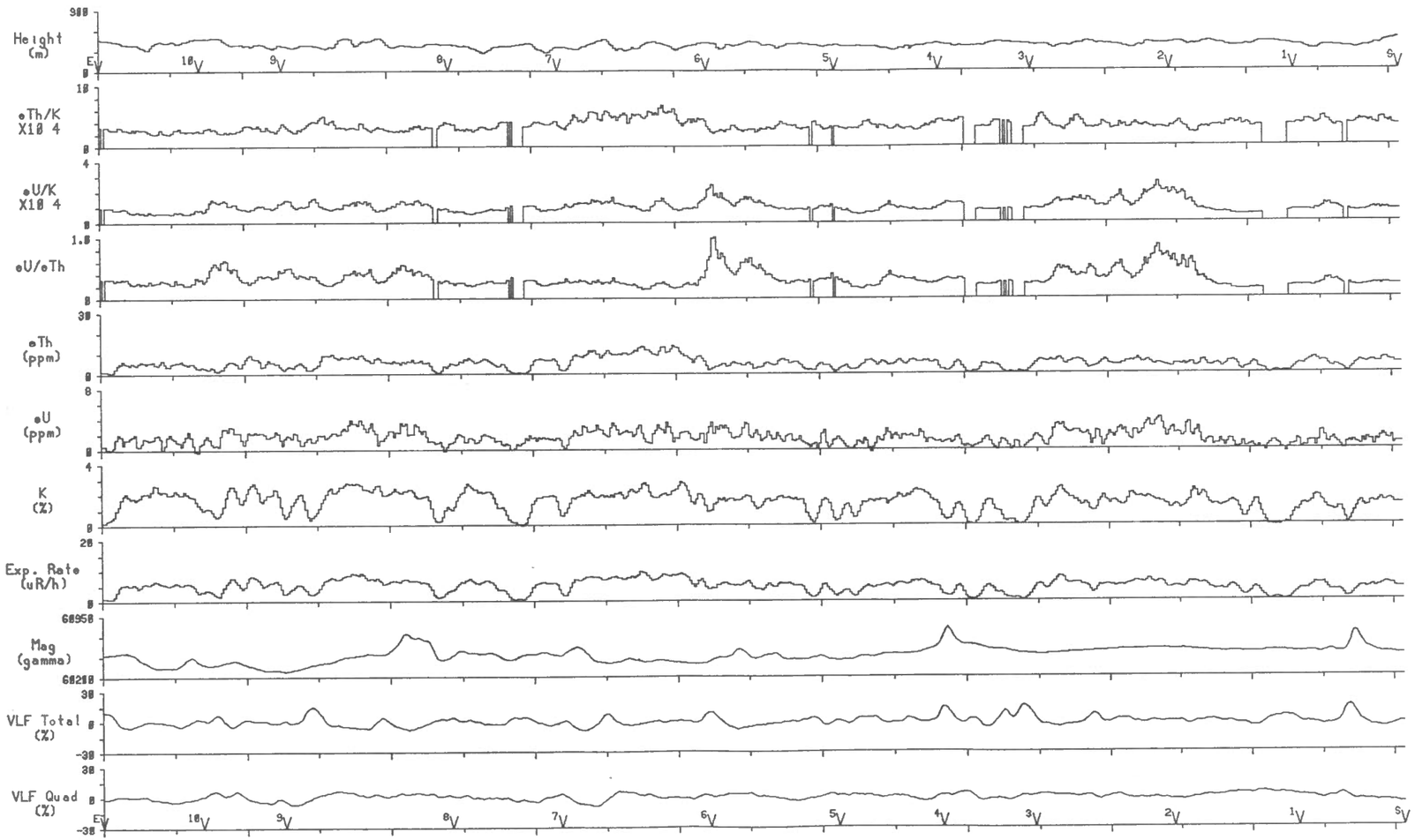
Line 3 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



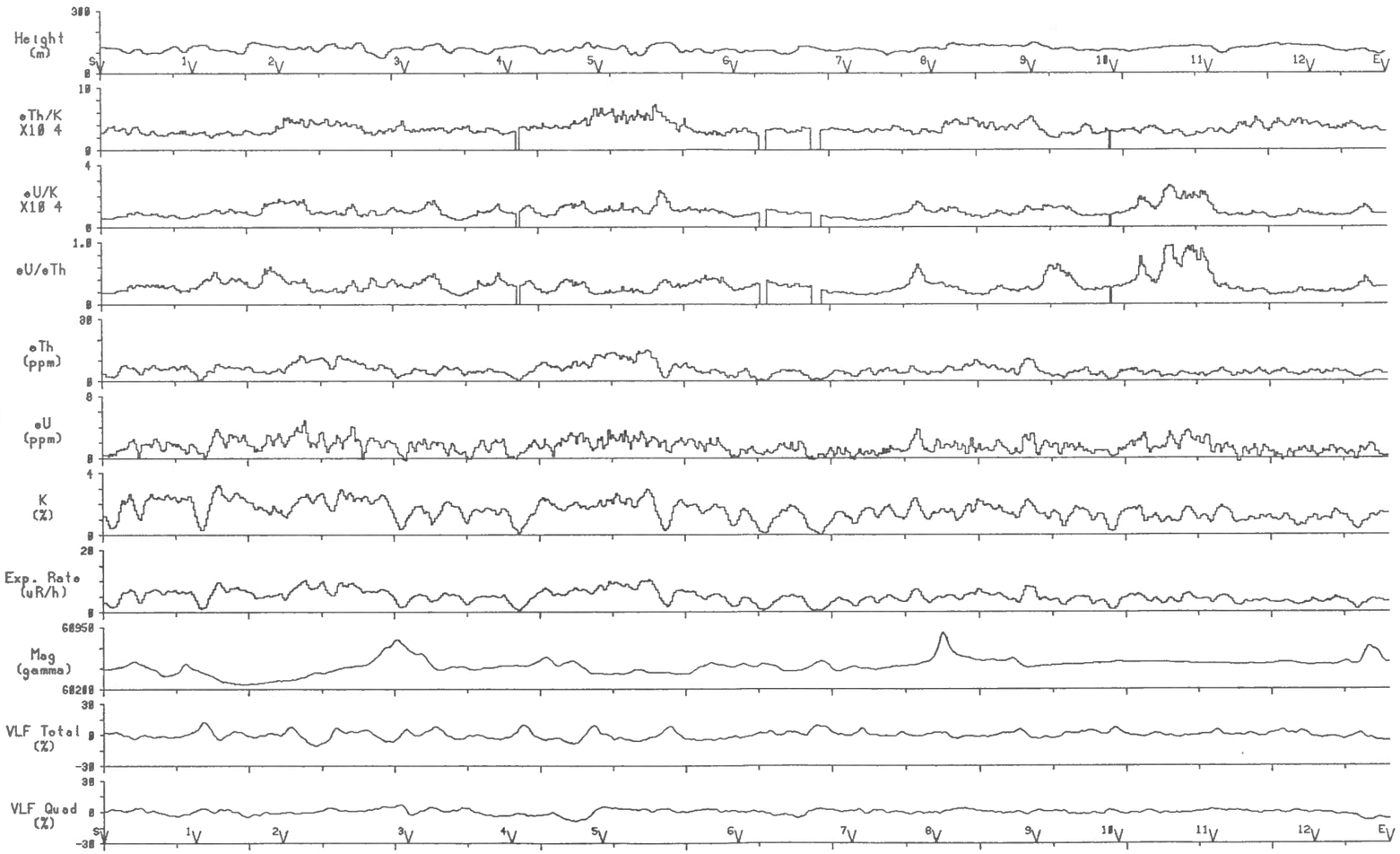
Line 5 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



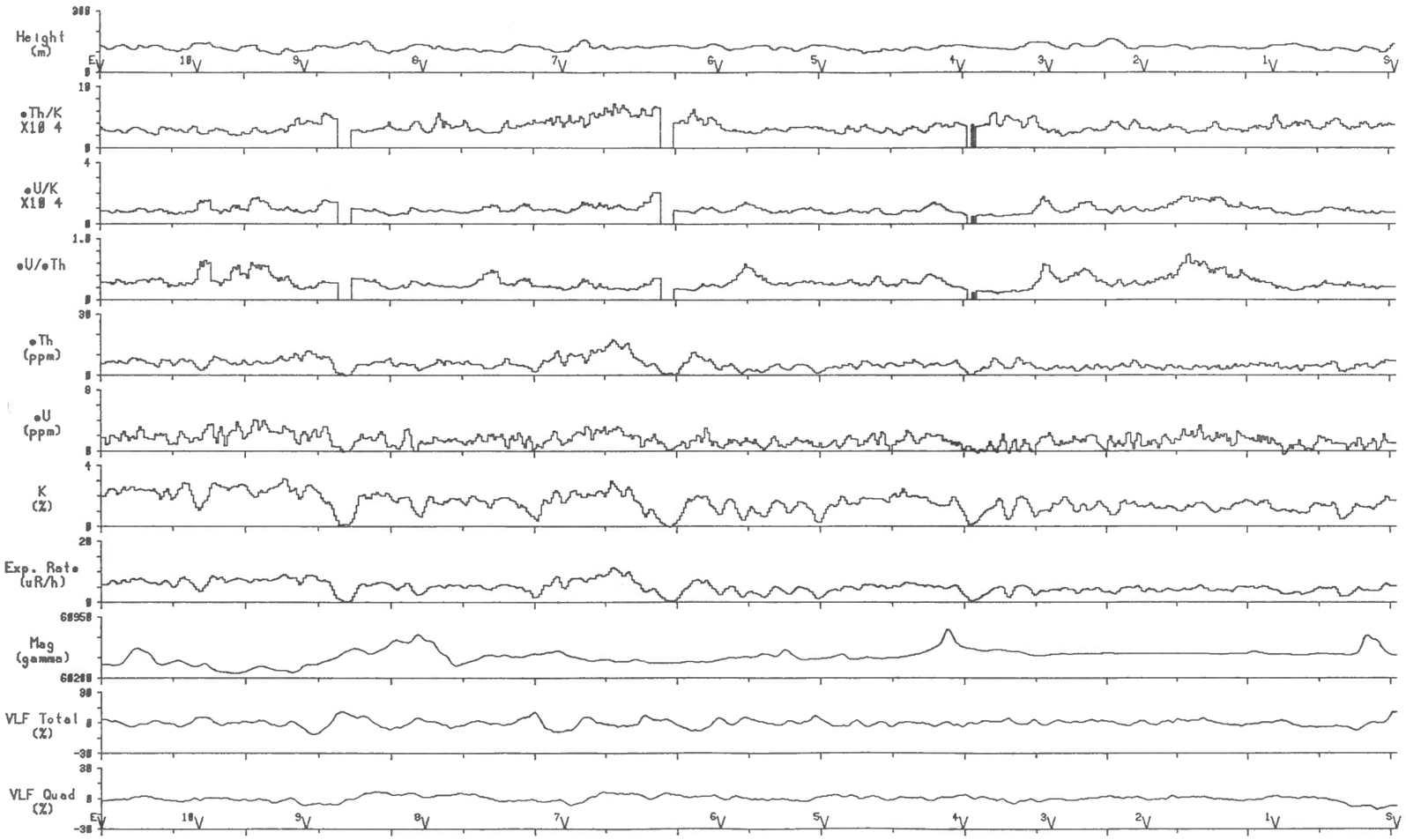
Line 7 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



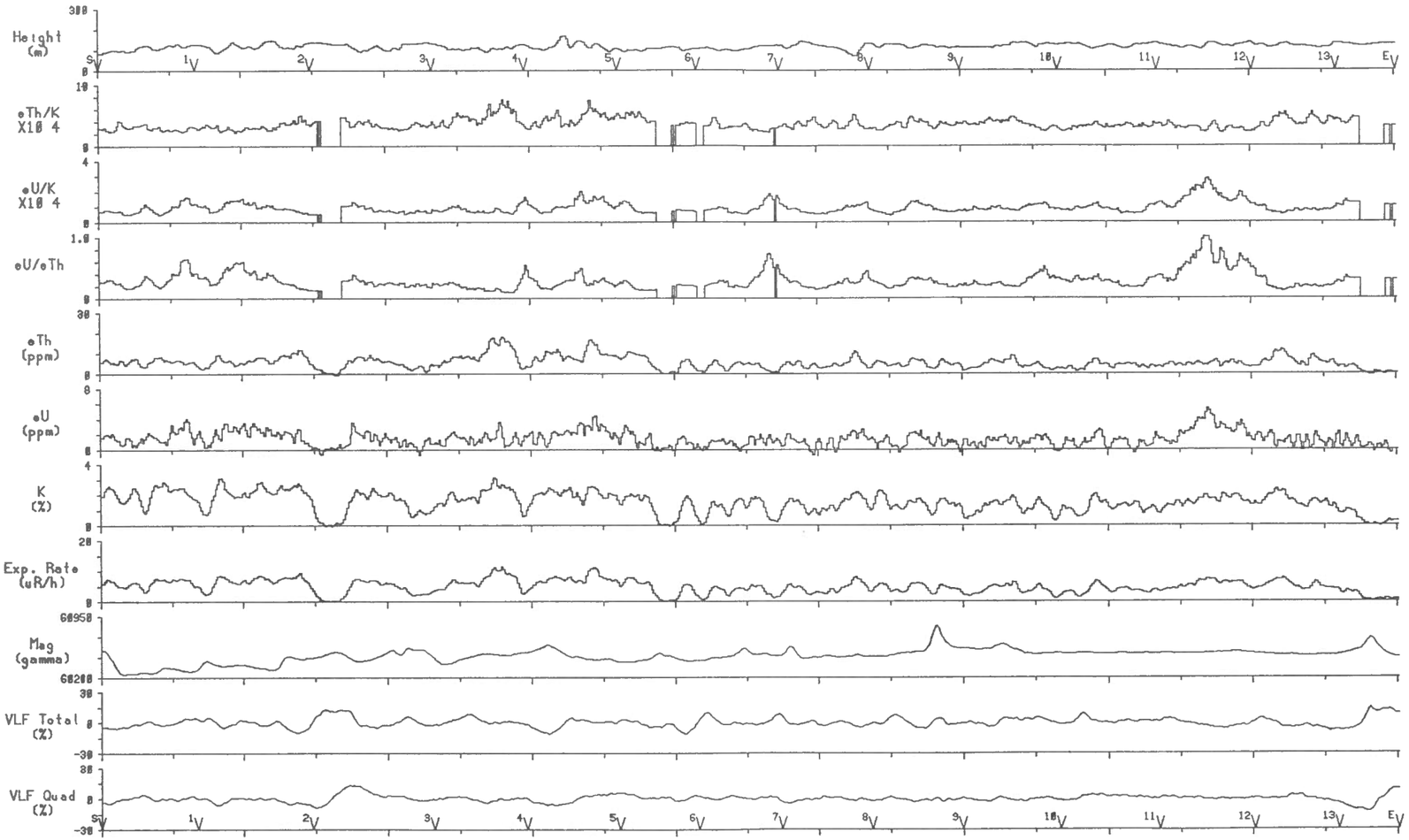
Line 9 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



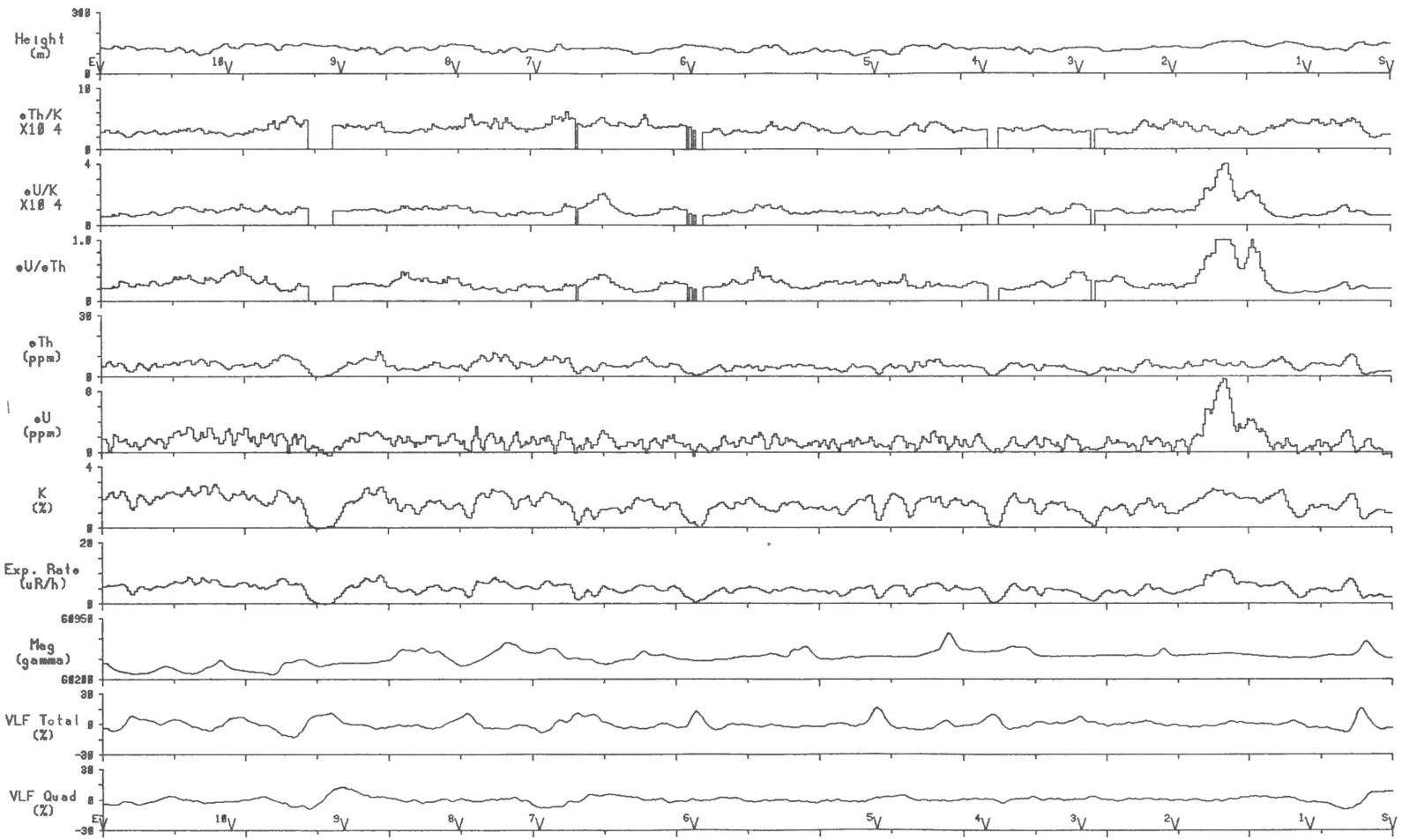
Line 11 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



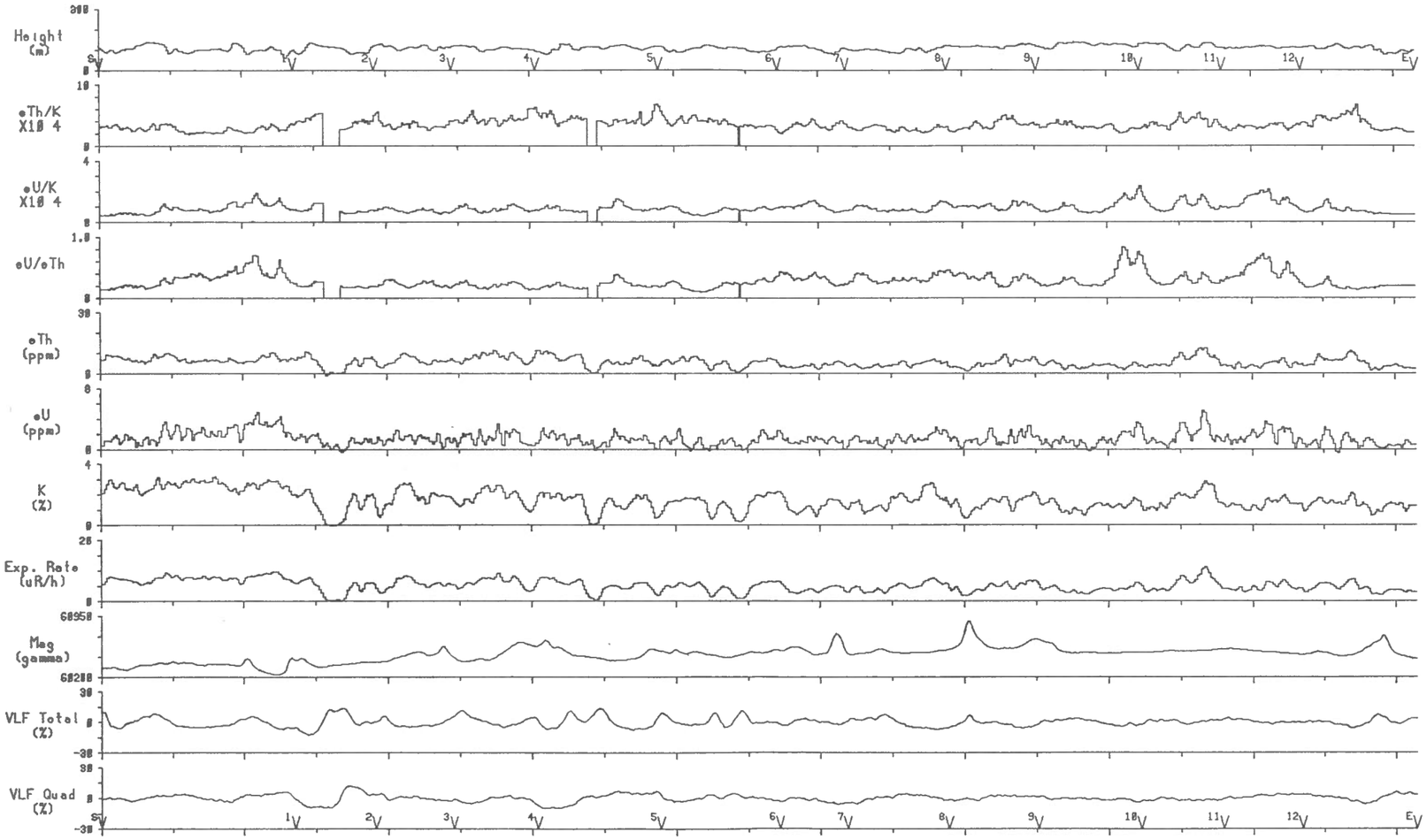
Line 13 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



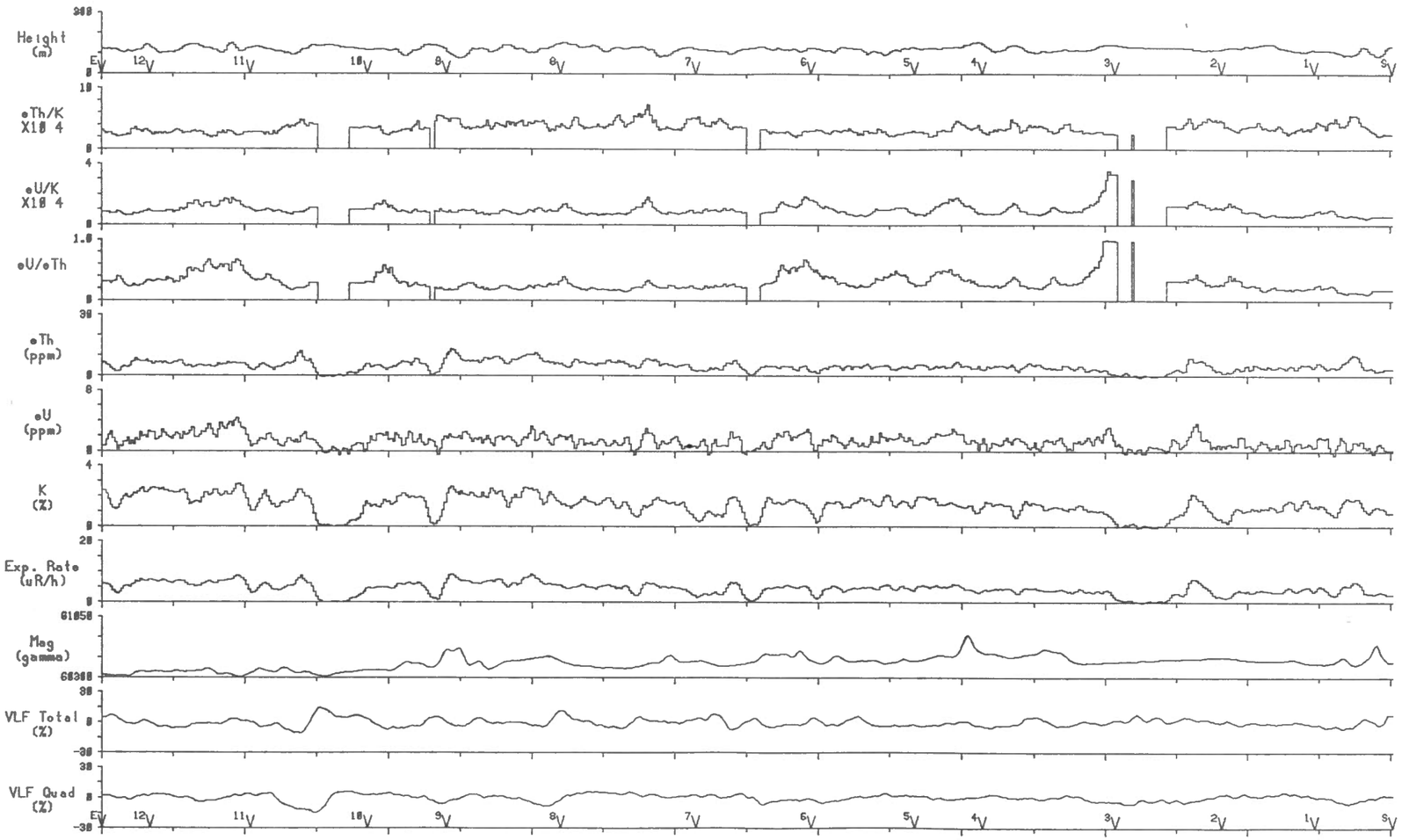
Line 15 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



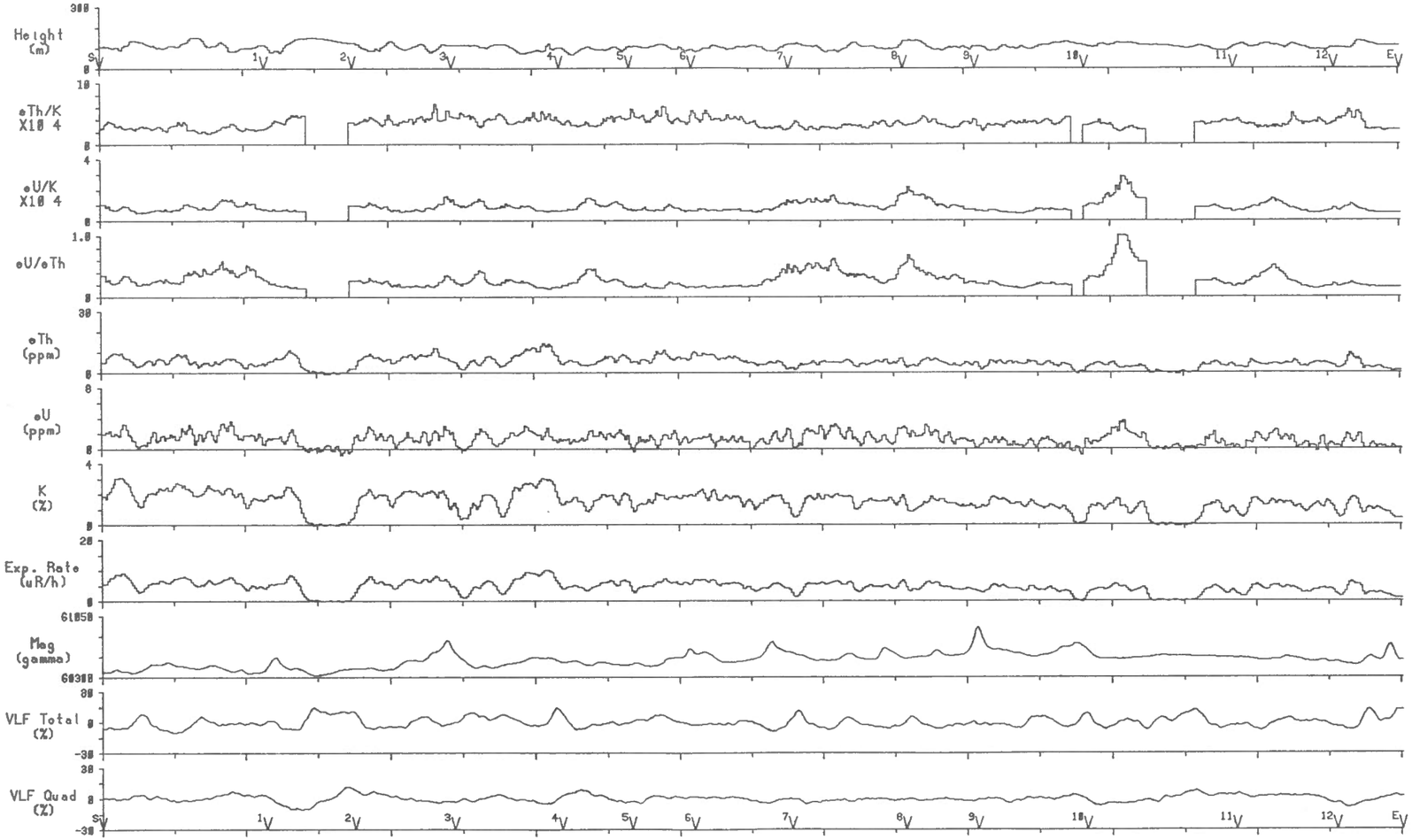
Line 17 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



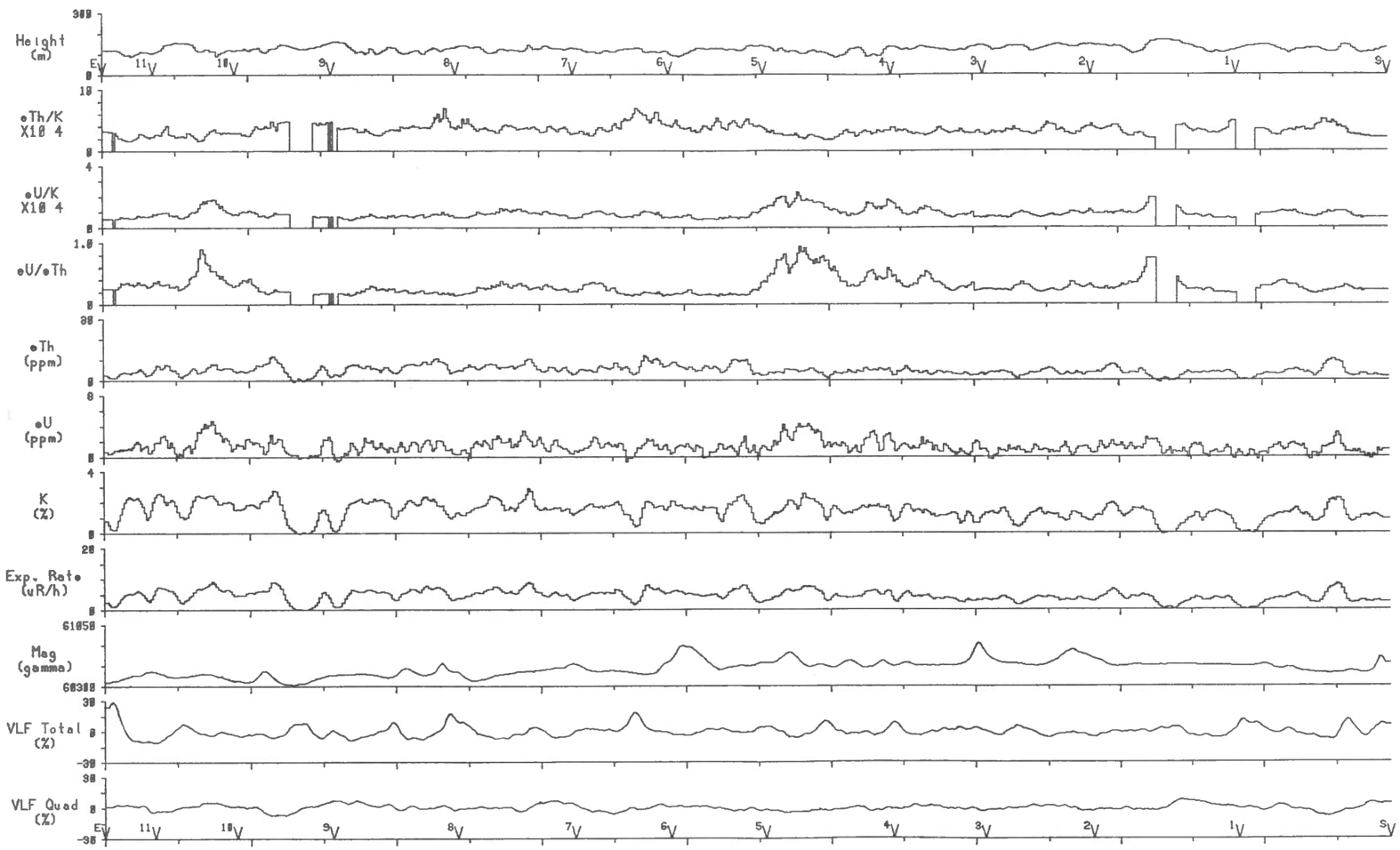
Line 19 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



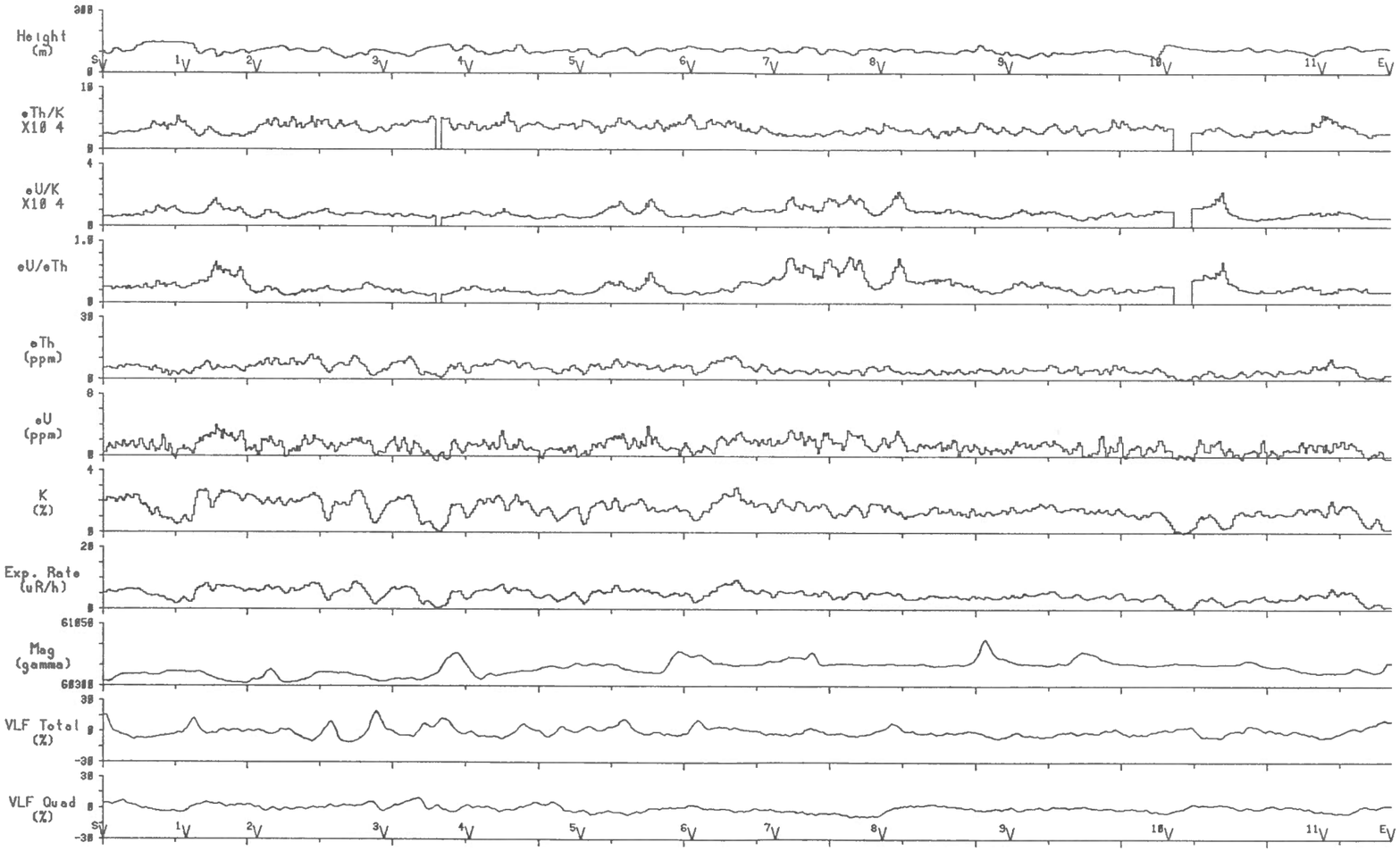
Line 21 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



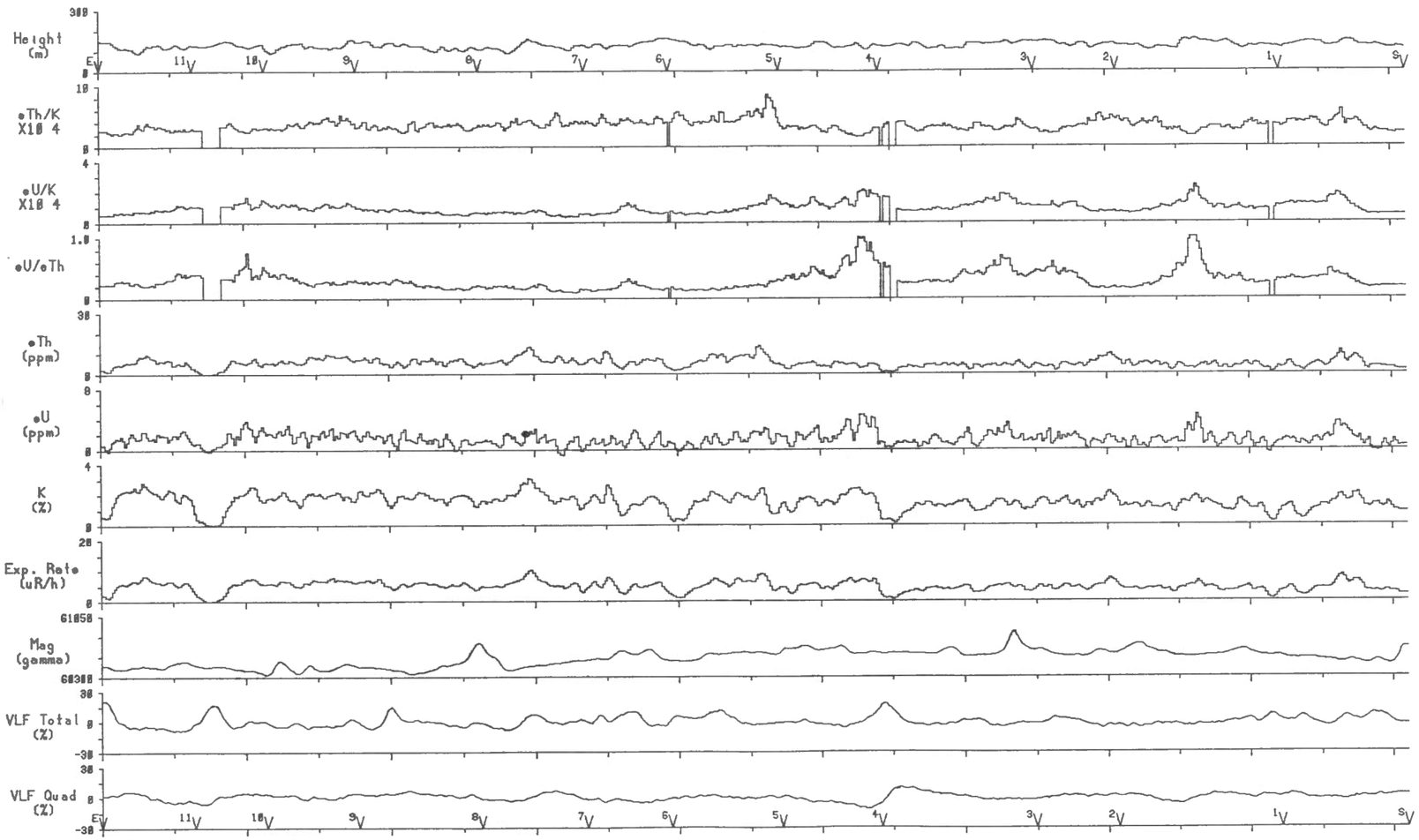
Line 23 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



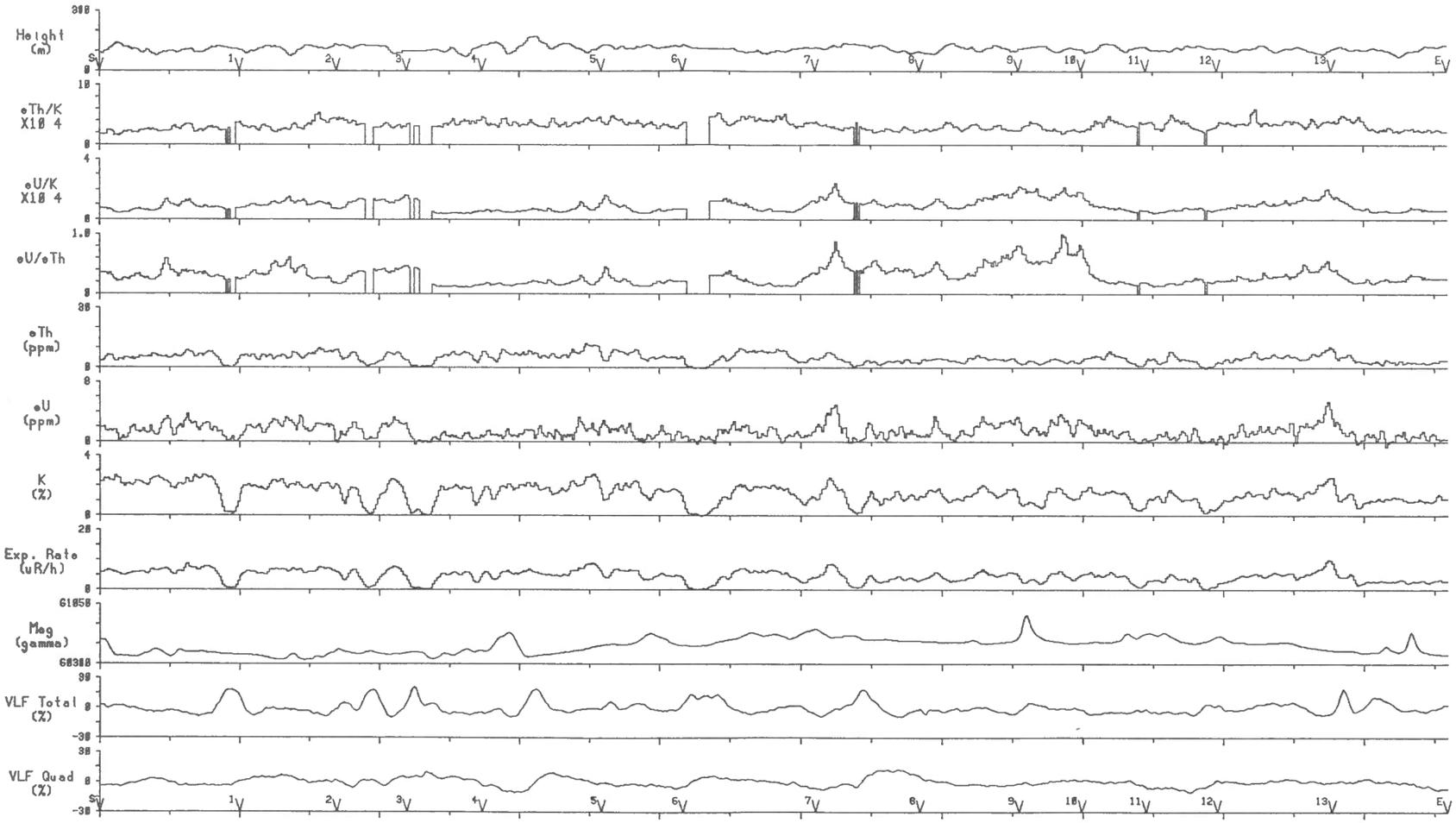
Line 25 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



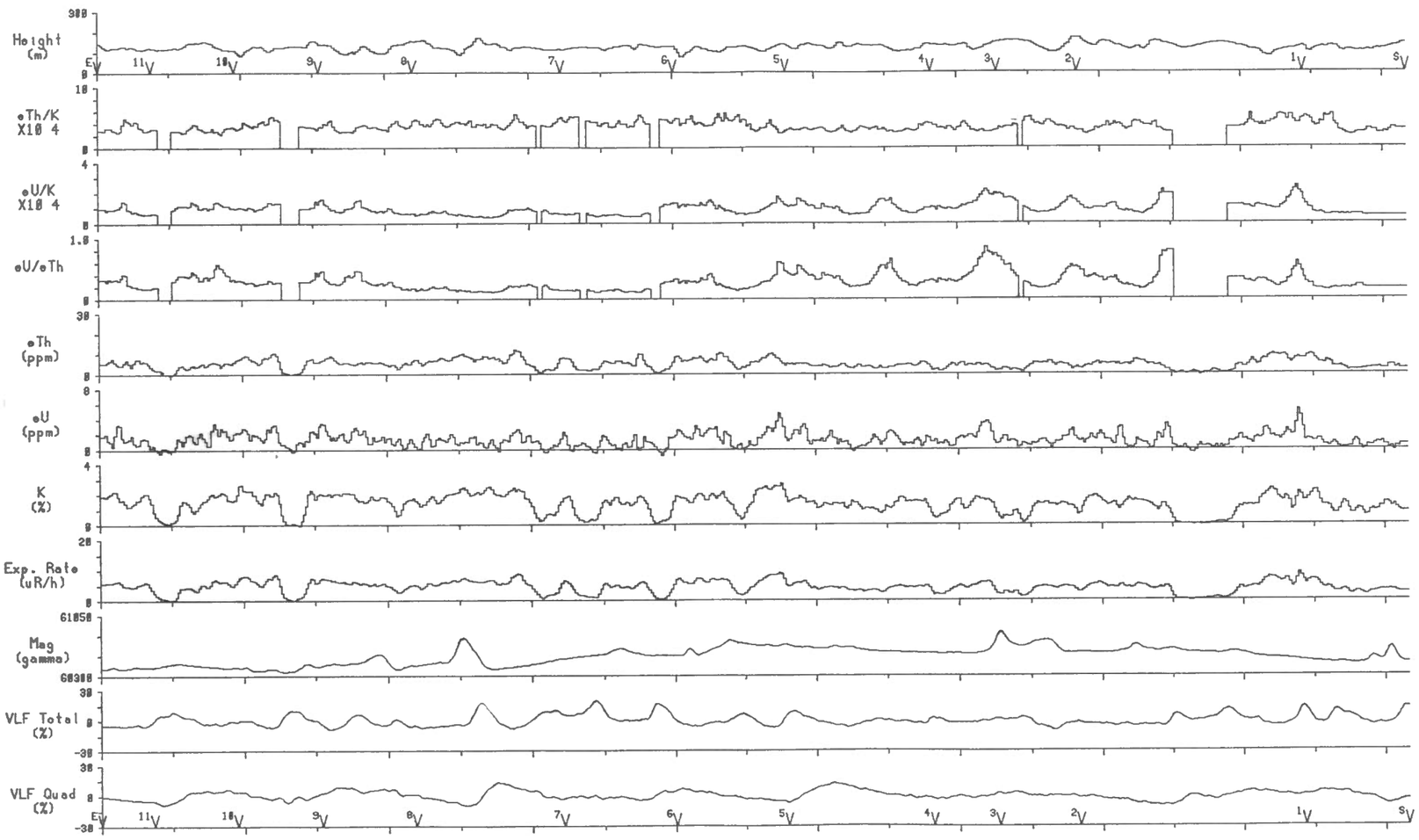
Line 27 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



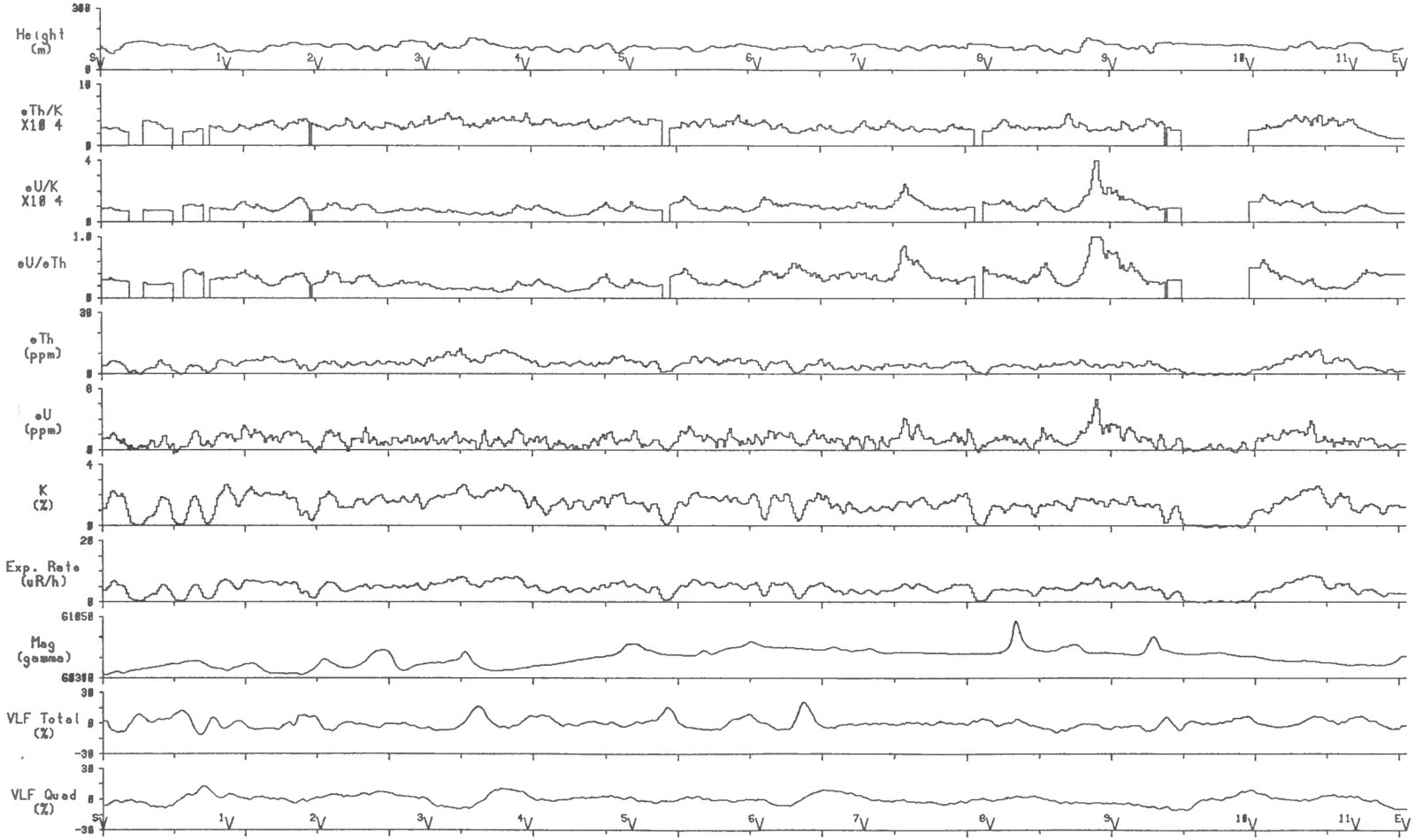
Line 29 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



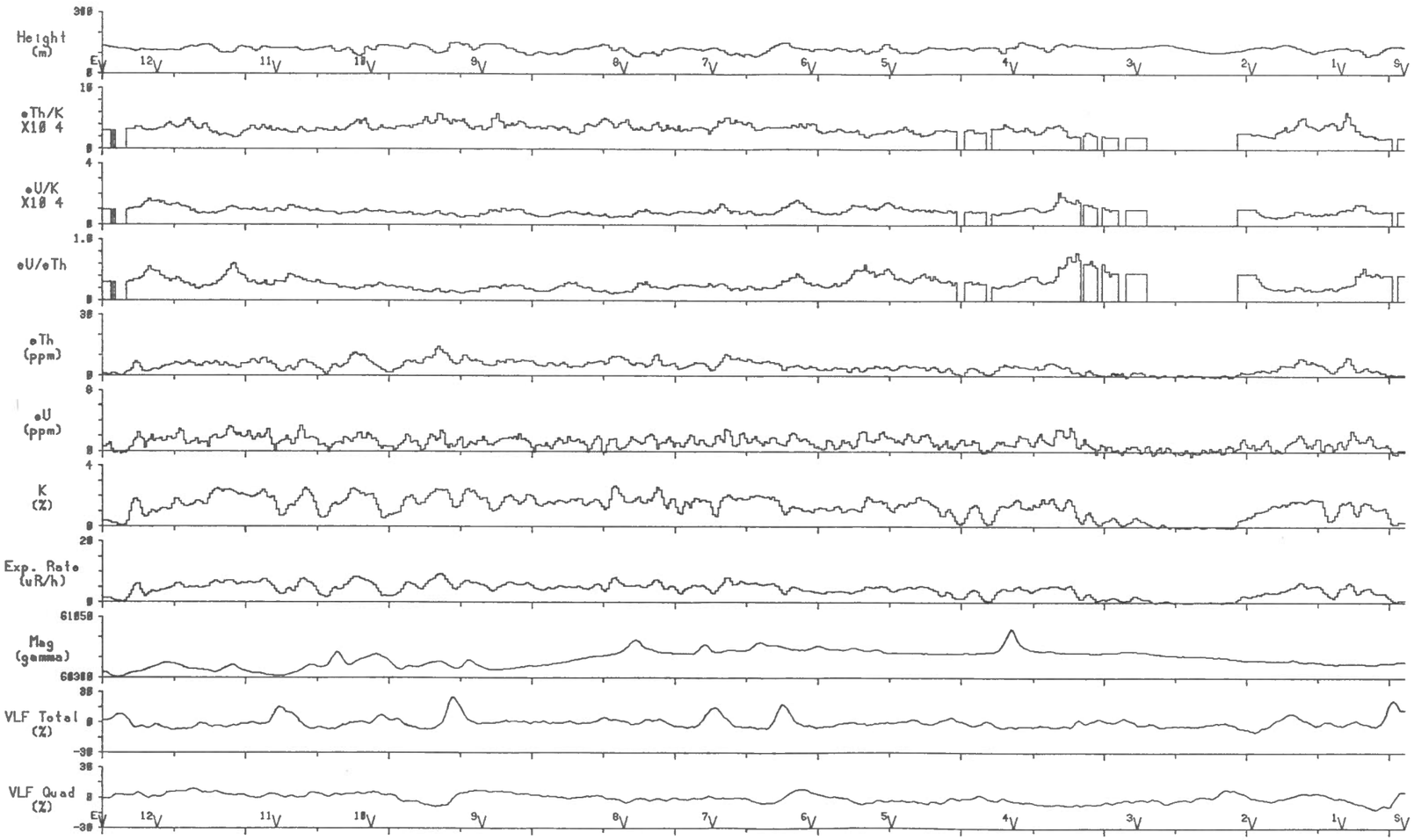
Line 31 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



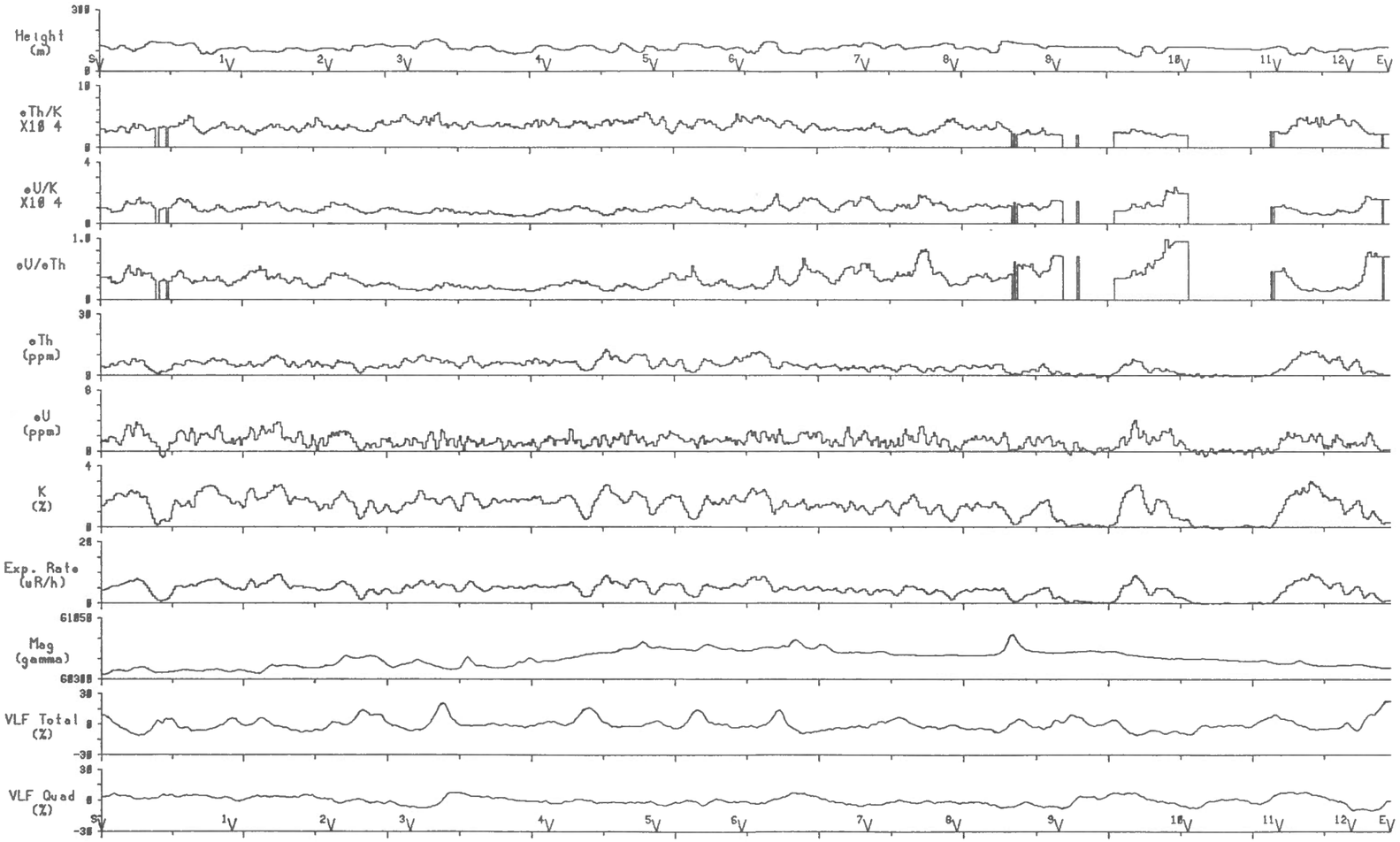
Line 33 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



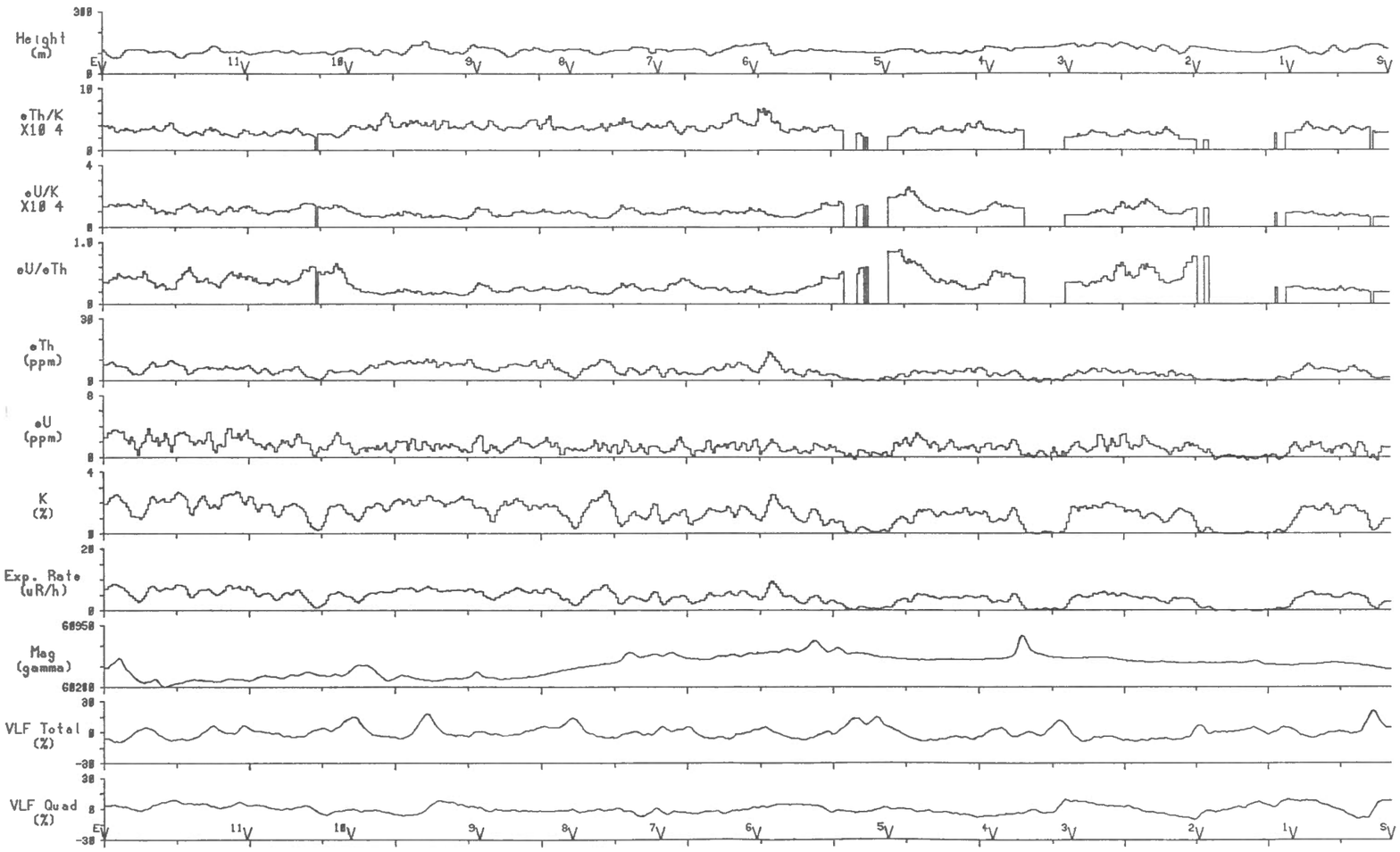
Line 35 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



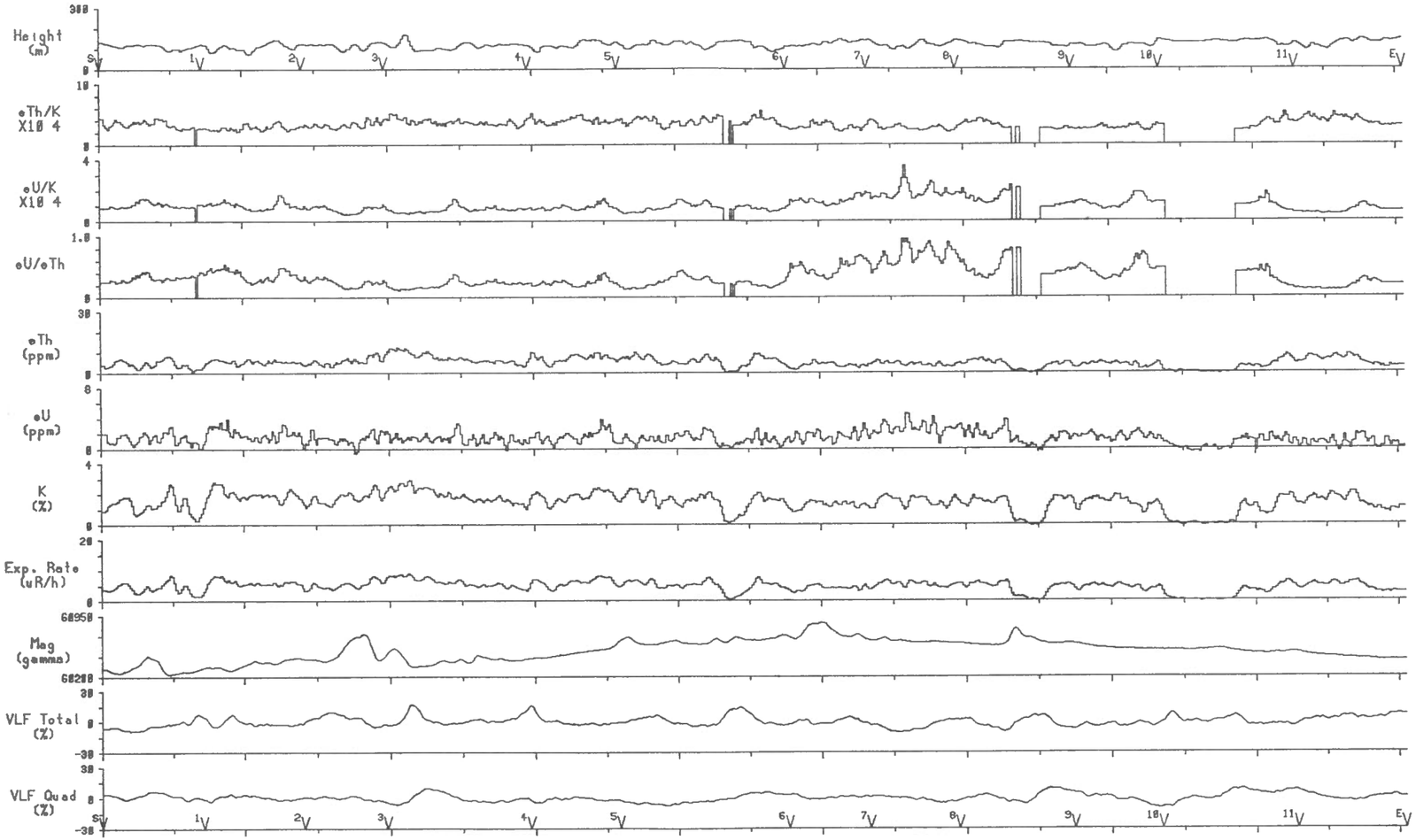
Line 37 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



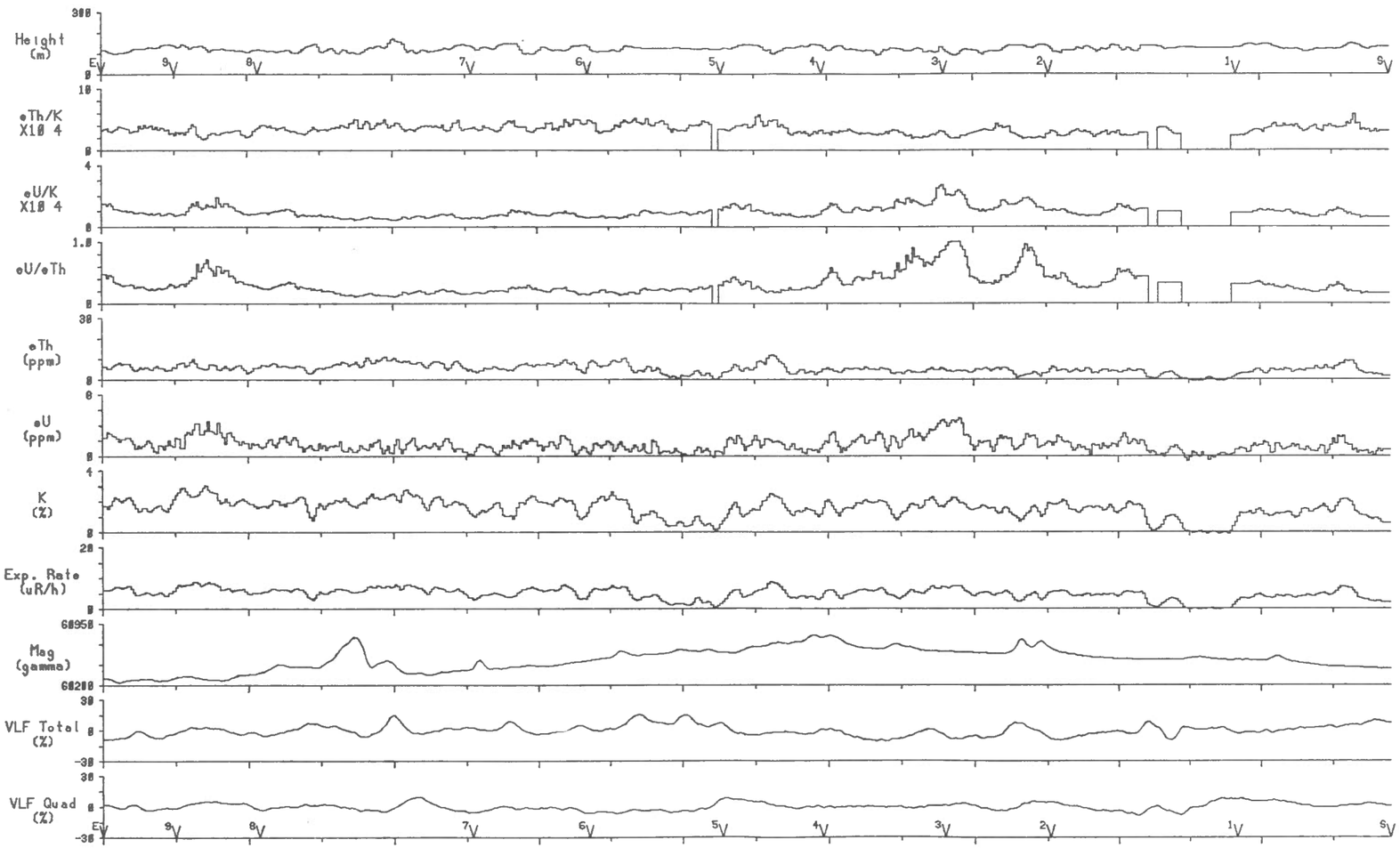
Line 39 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



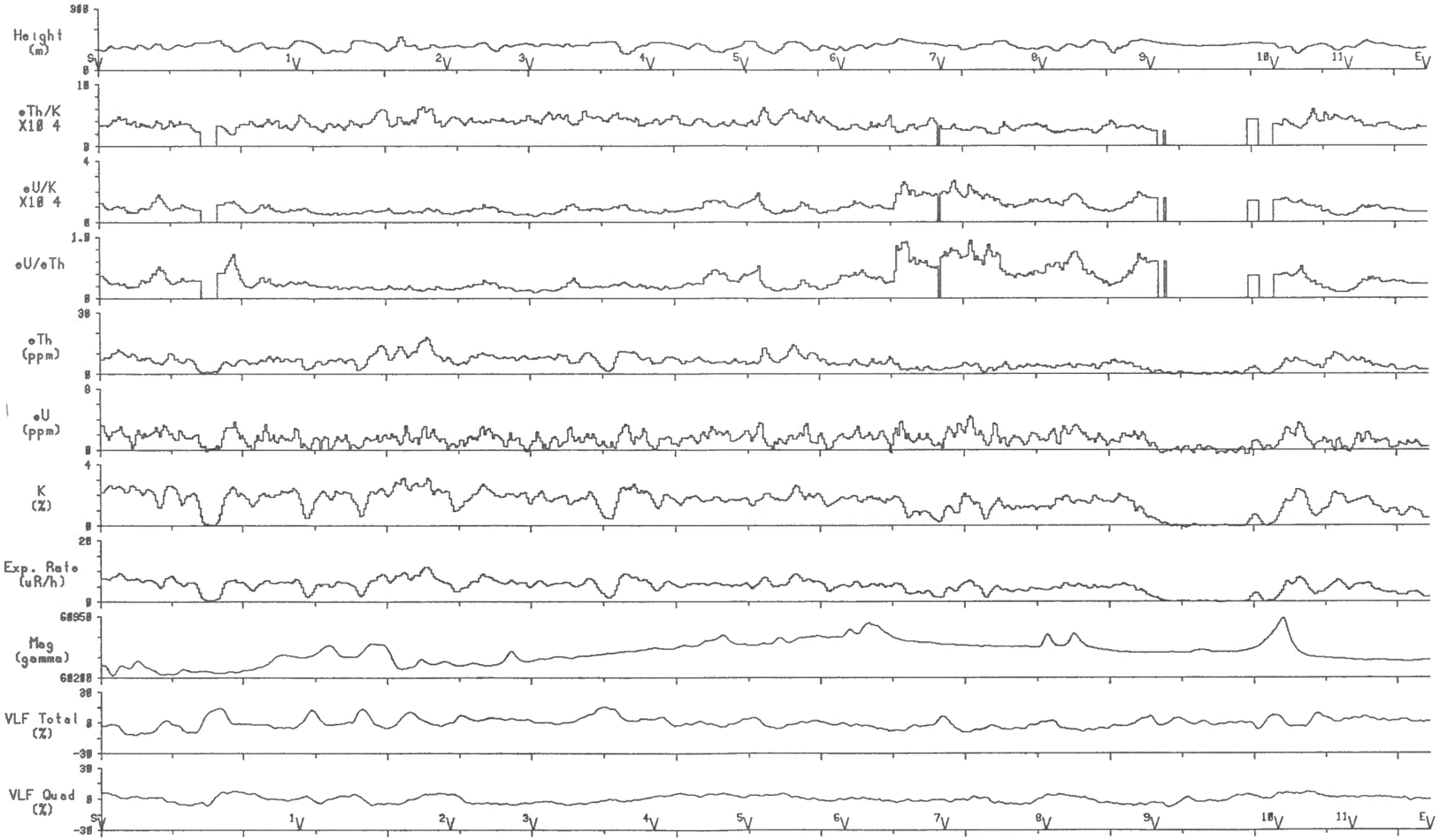
Line 41 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



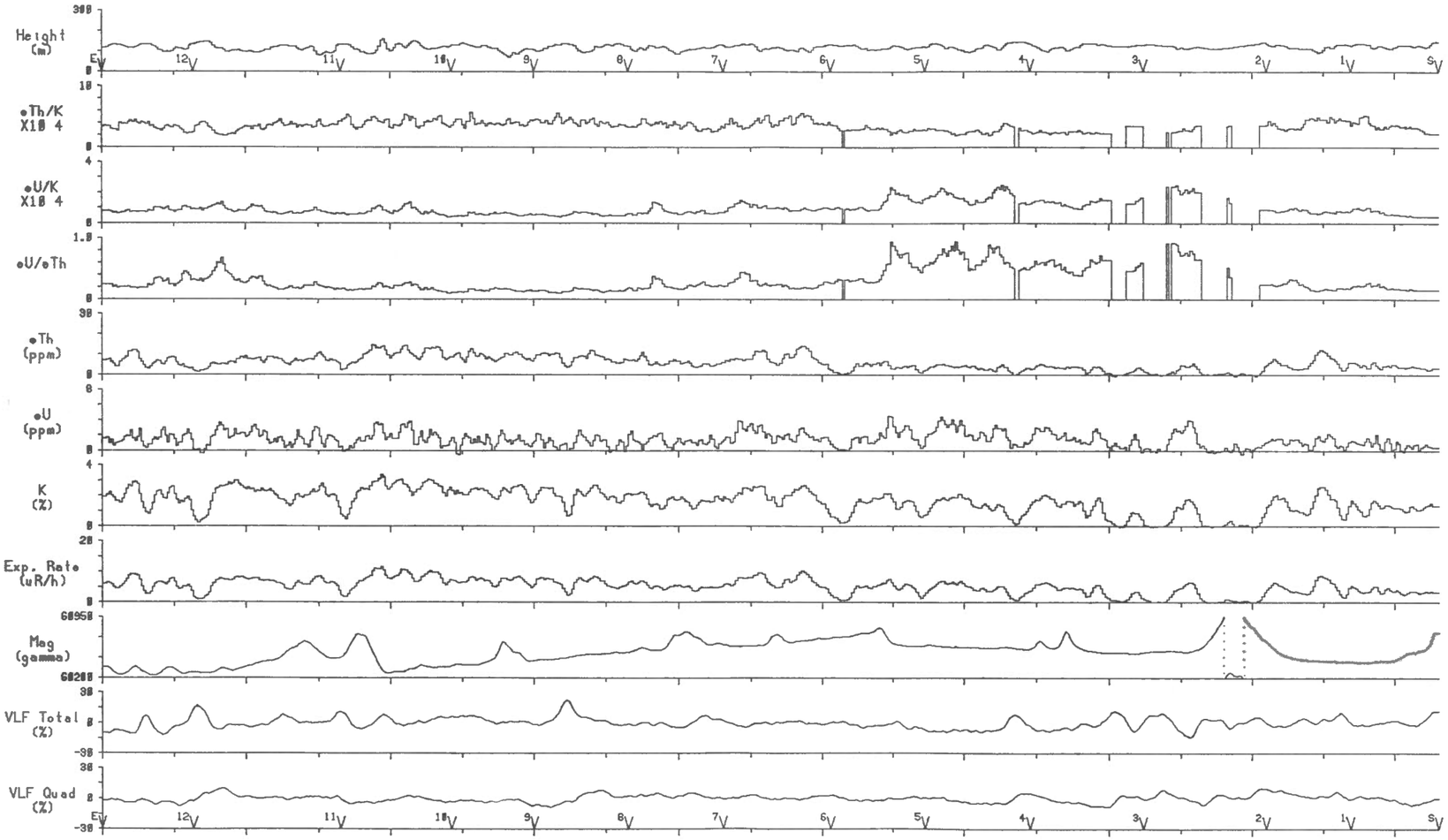
Line 43 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



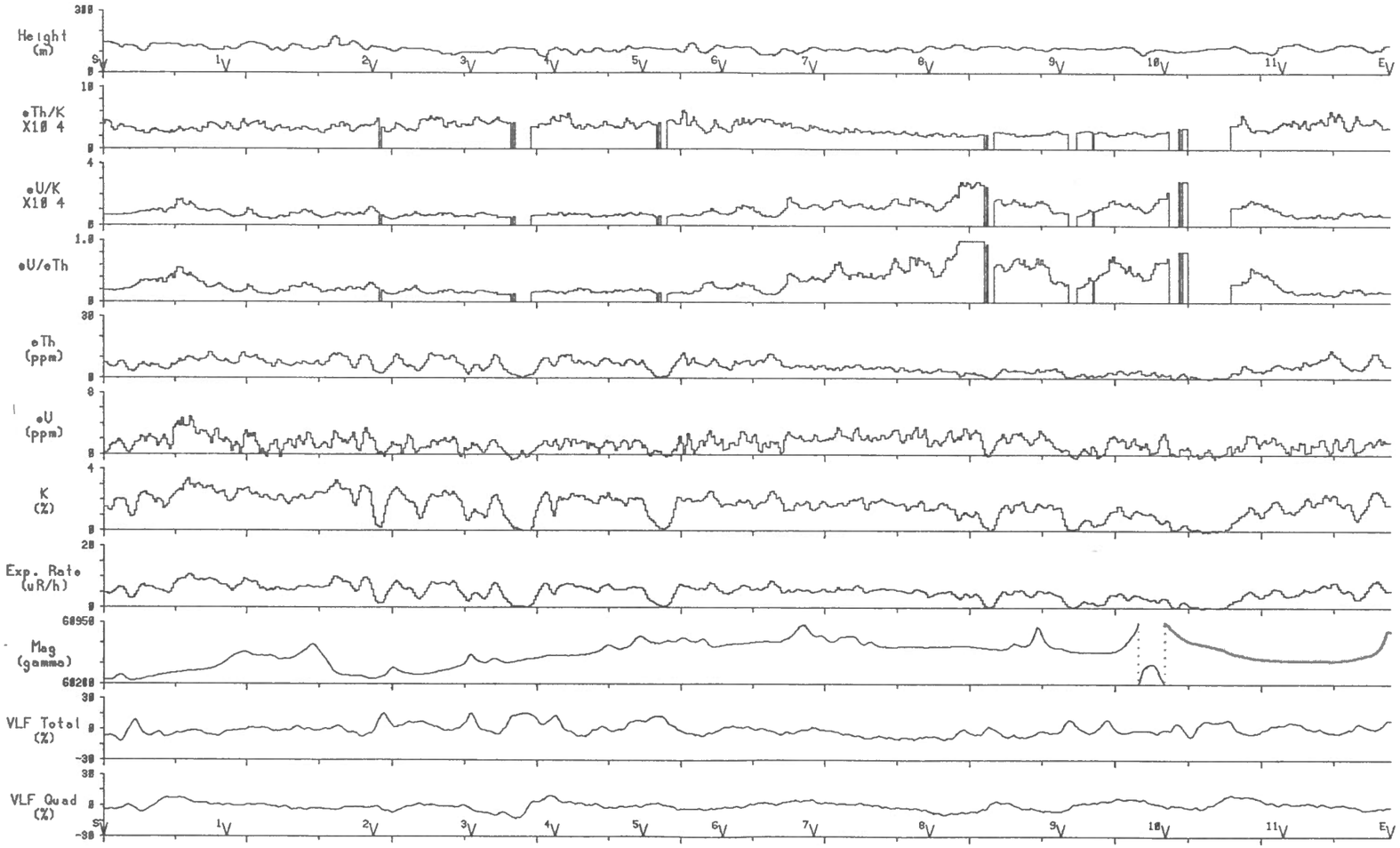
Line 45 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



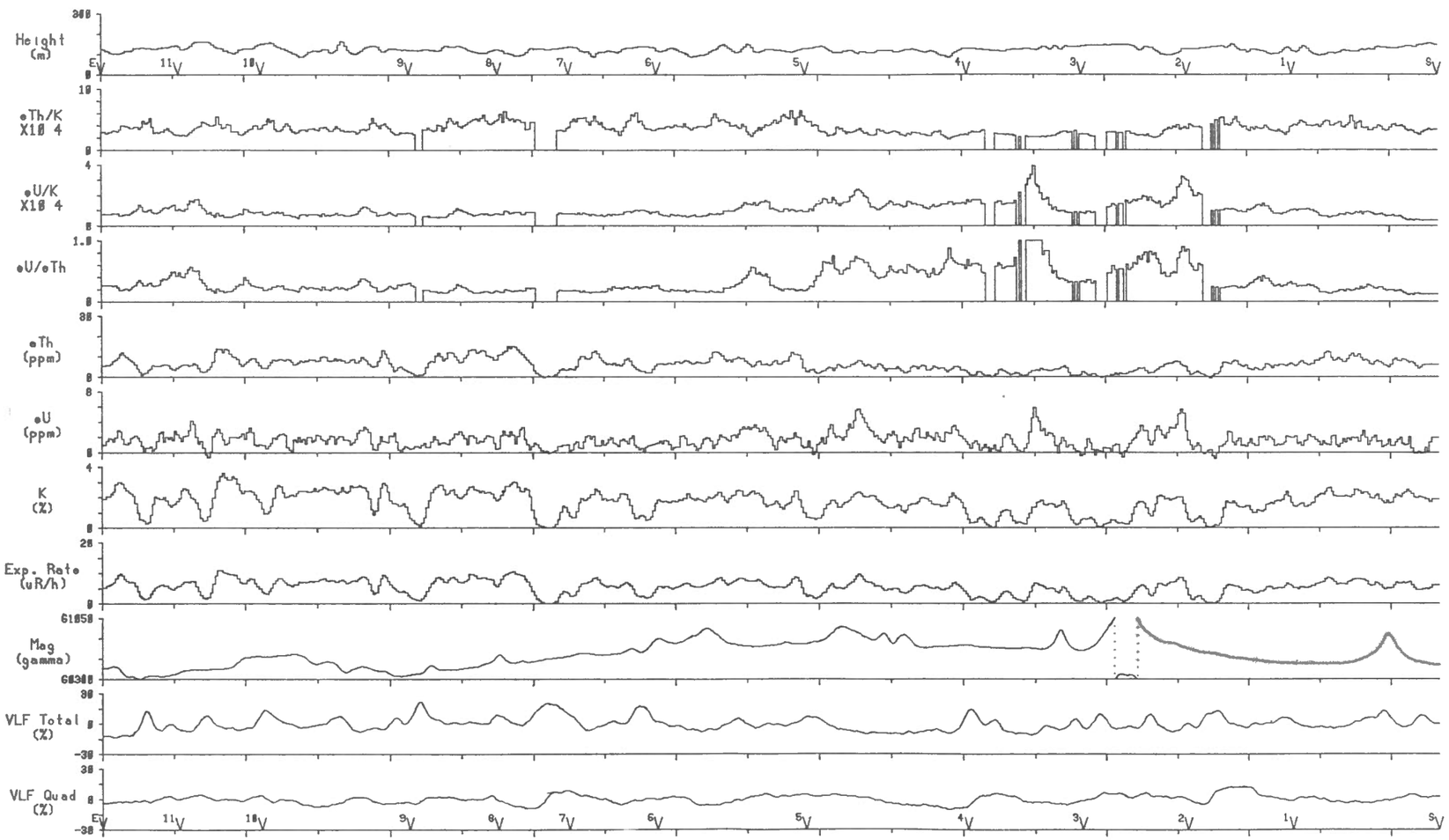
Line 47 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



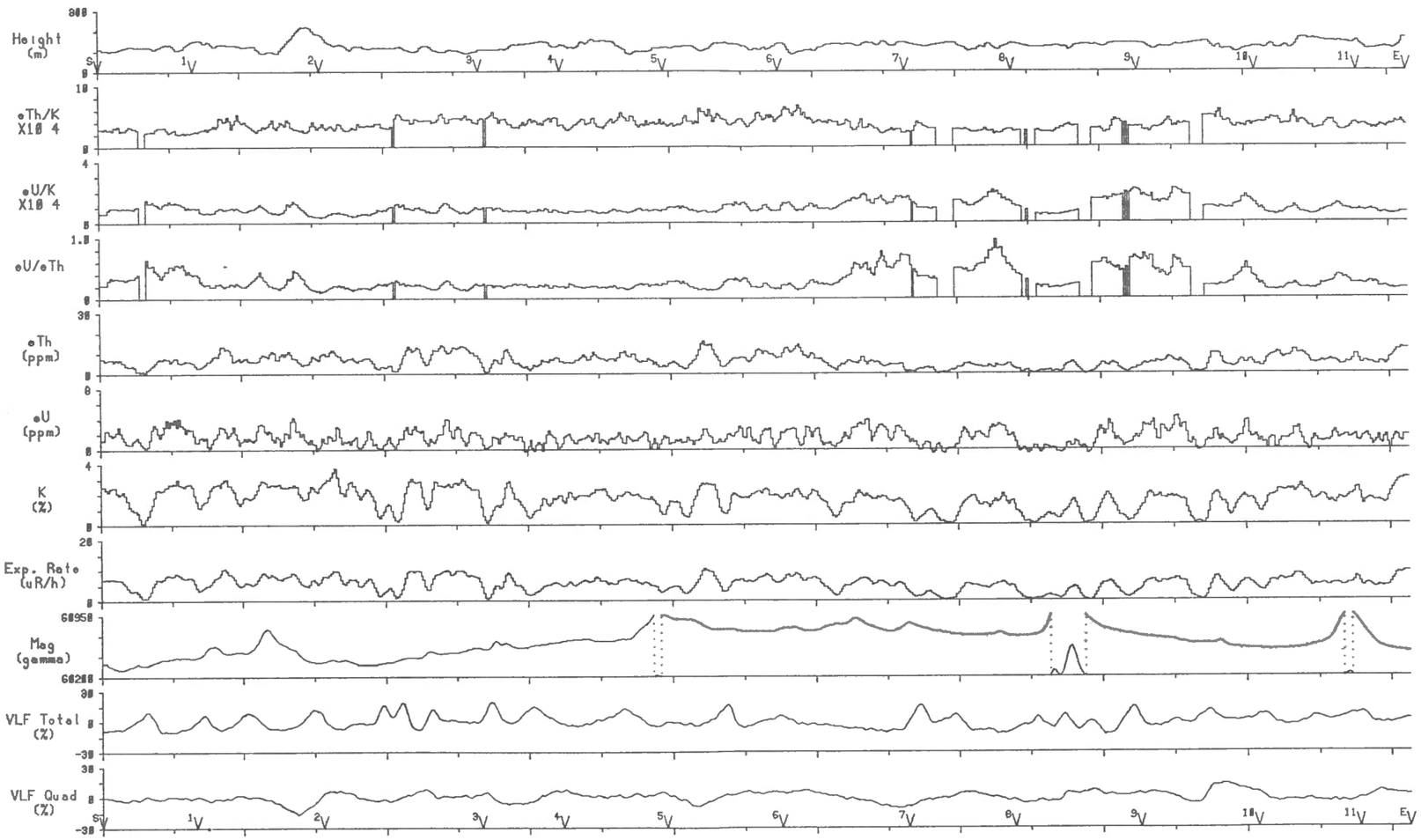
Line 49 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



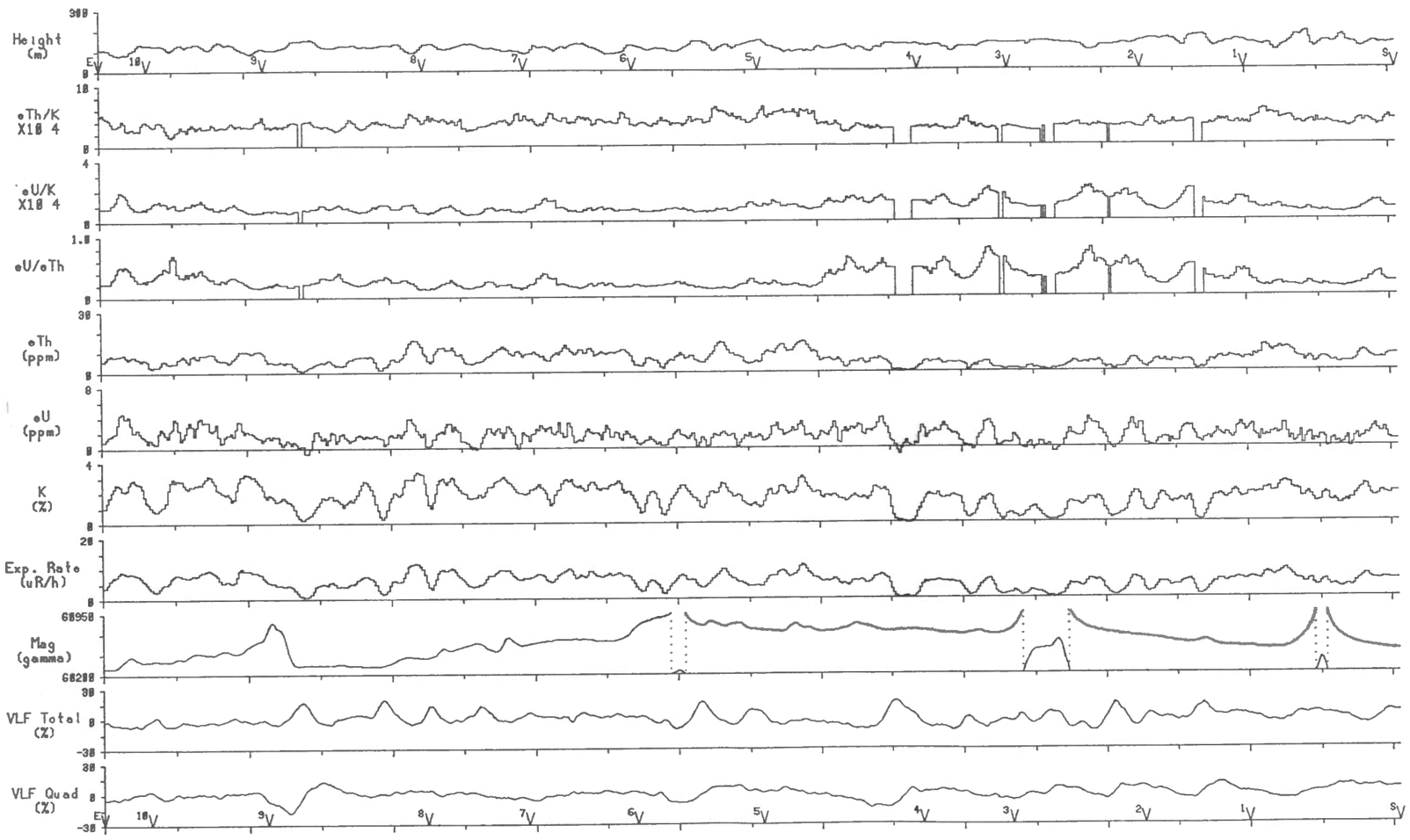
Line 51 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



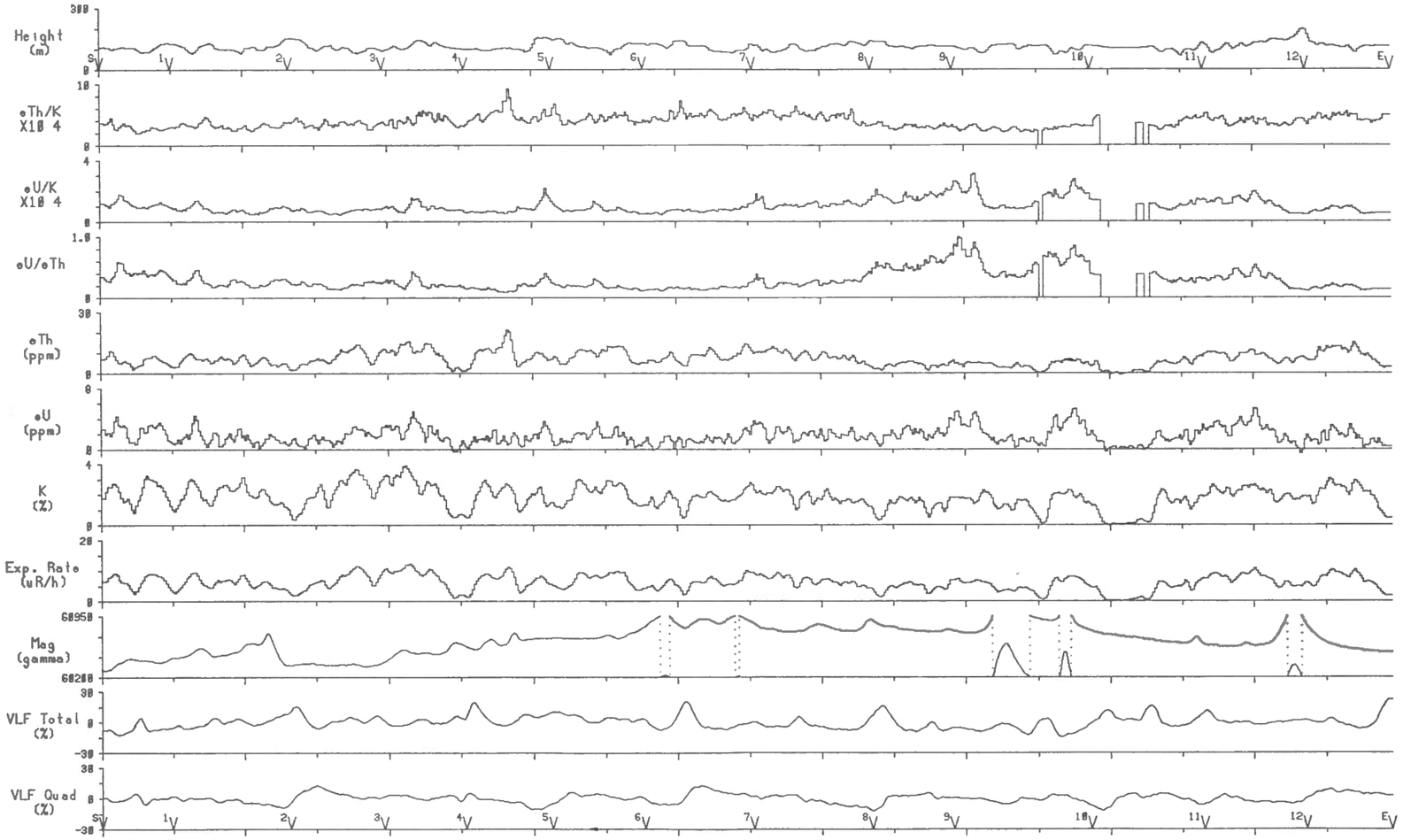
Line 53 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



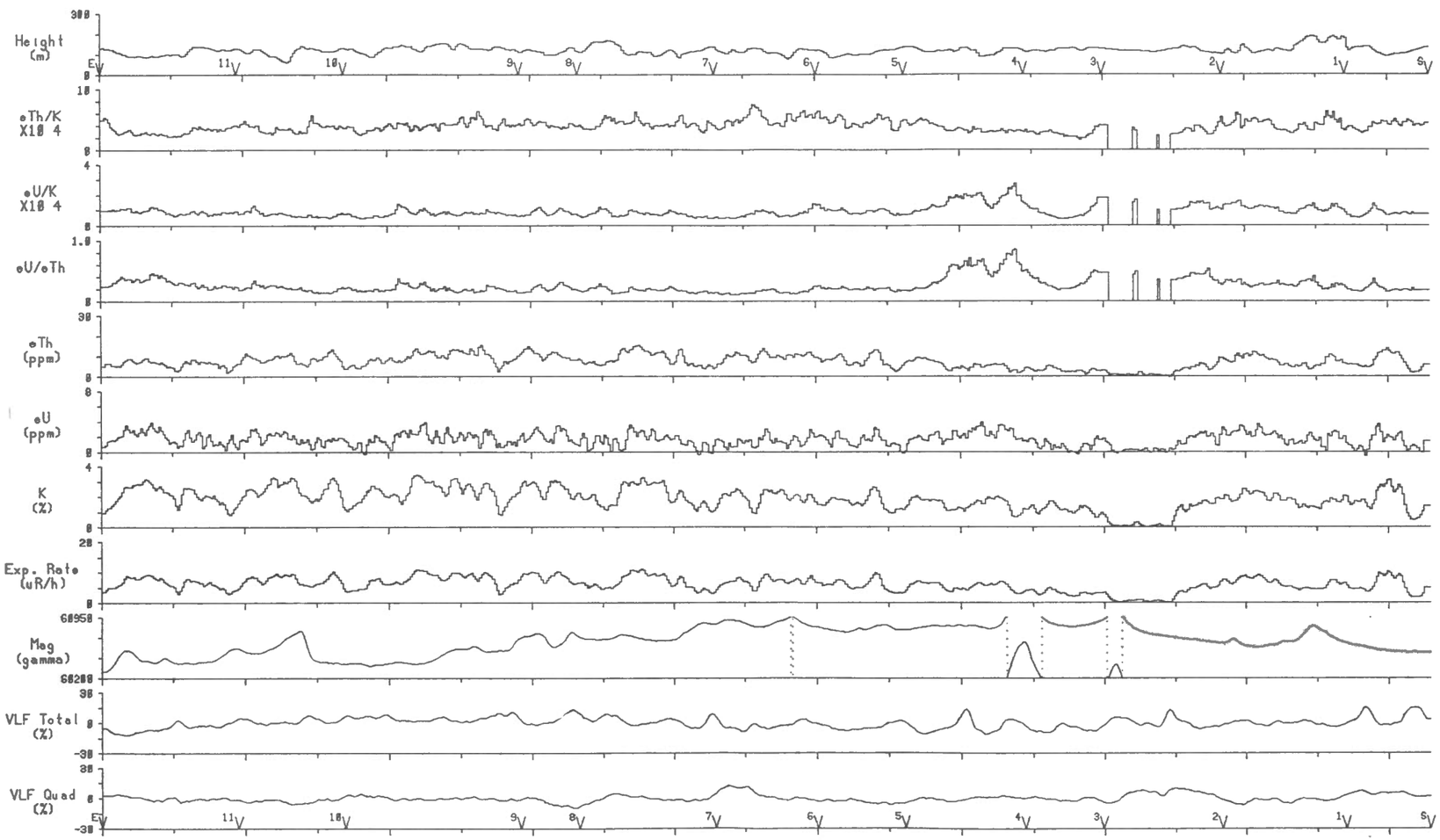
Line 55 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



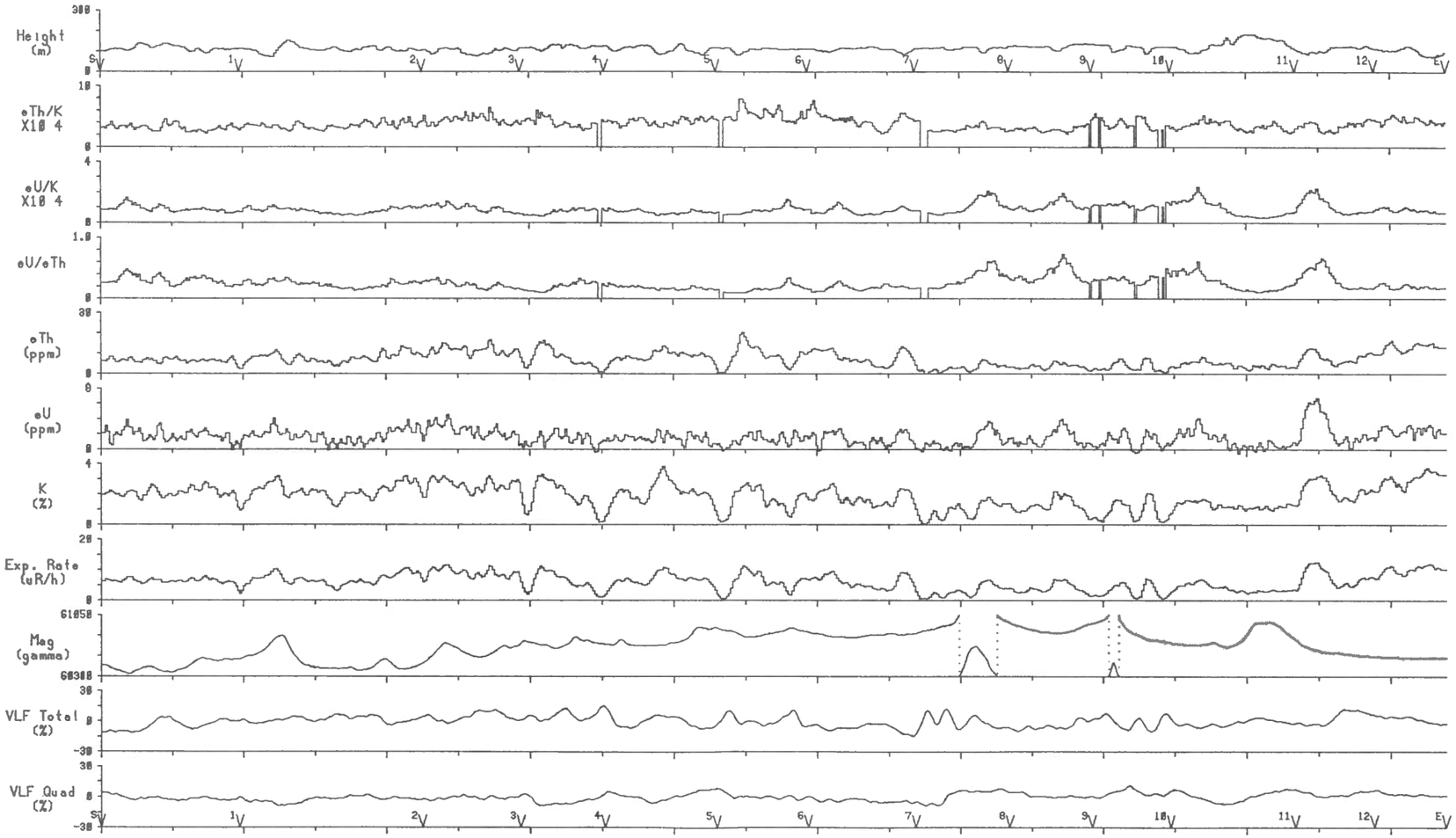
Line 57 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



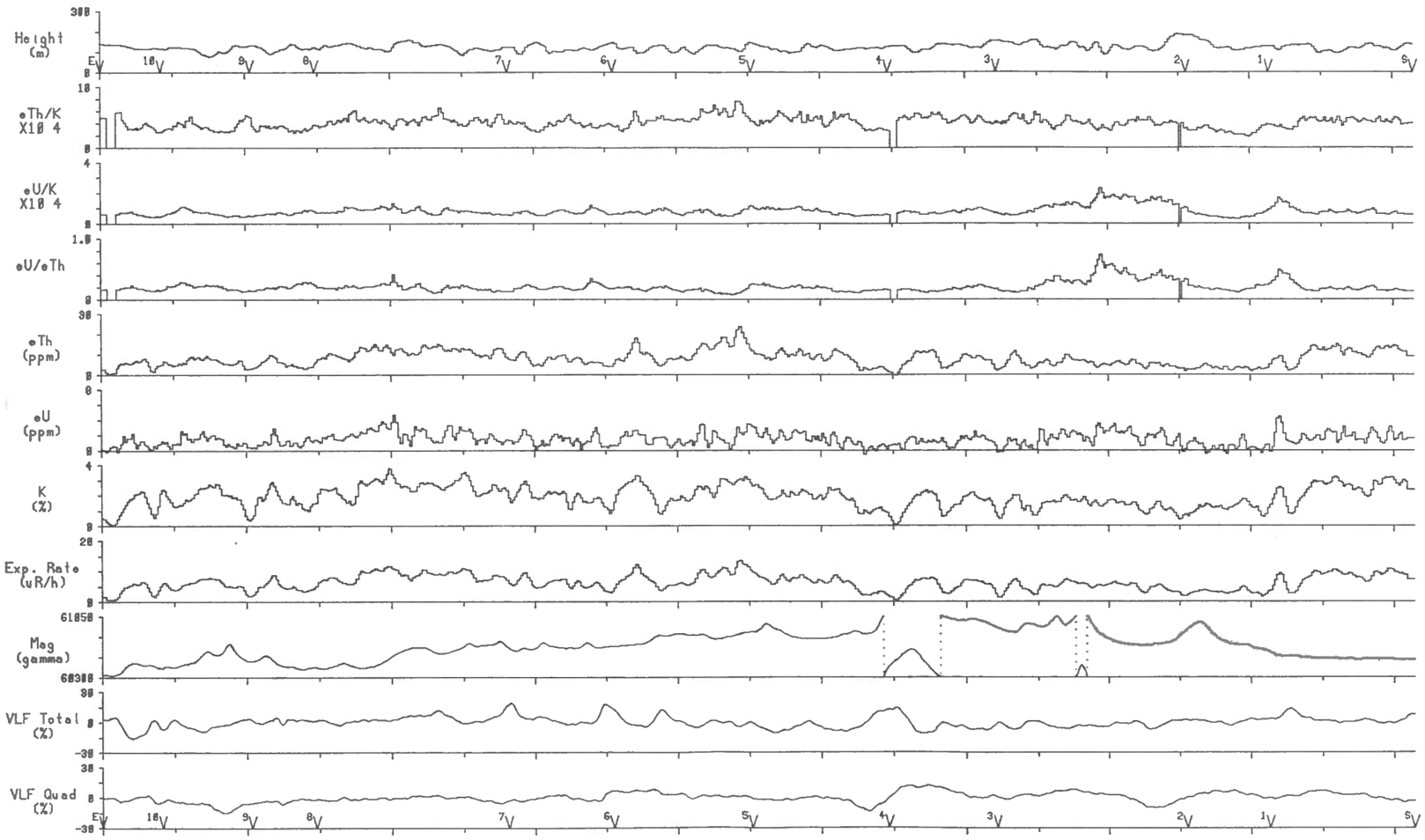
Line 59 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



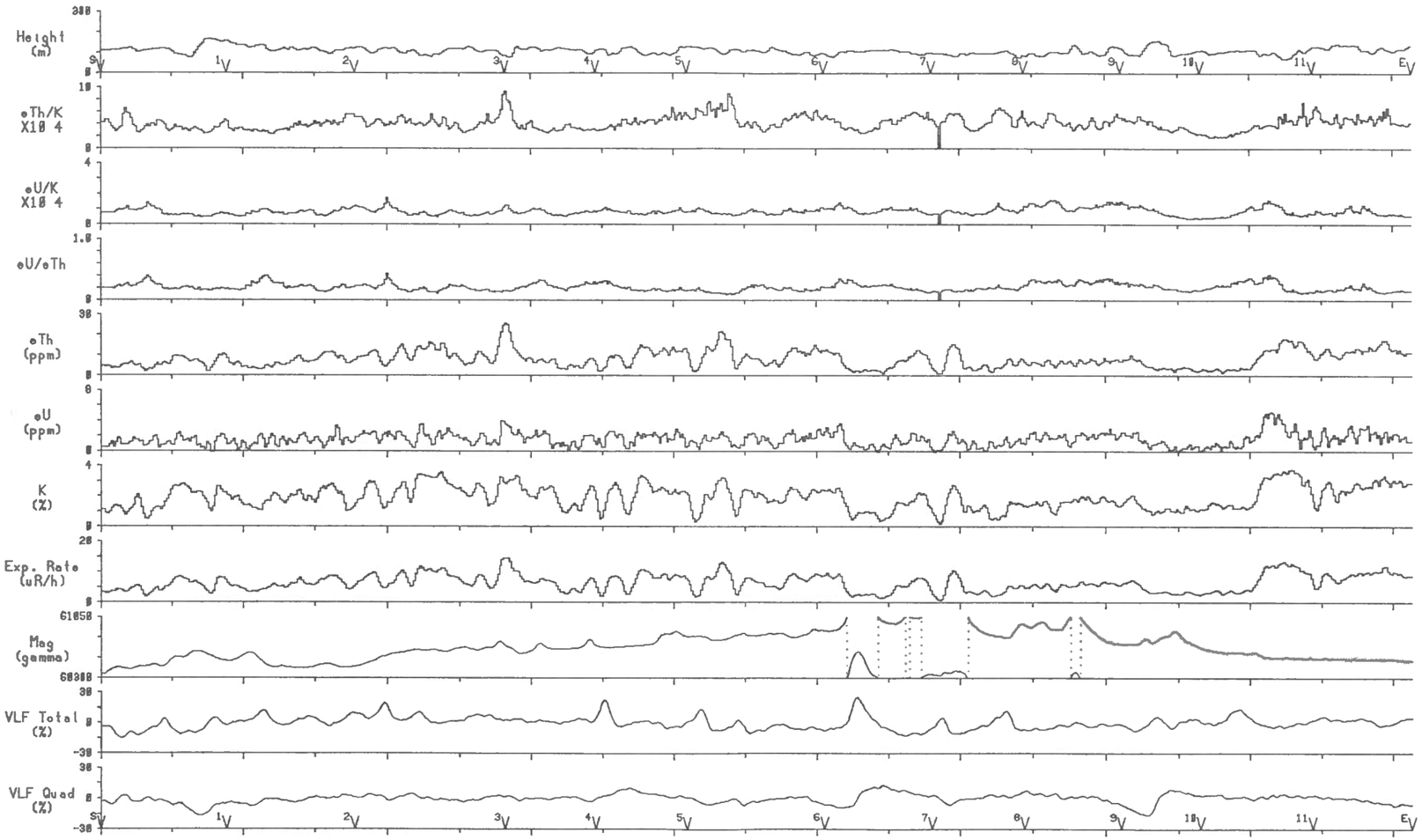
Line 61 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



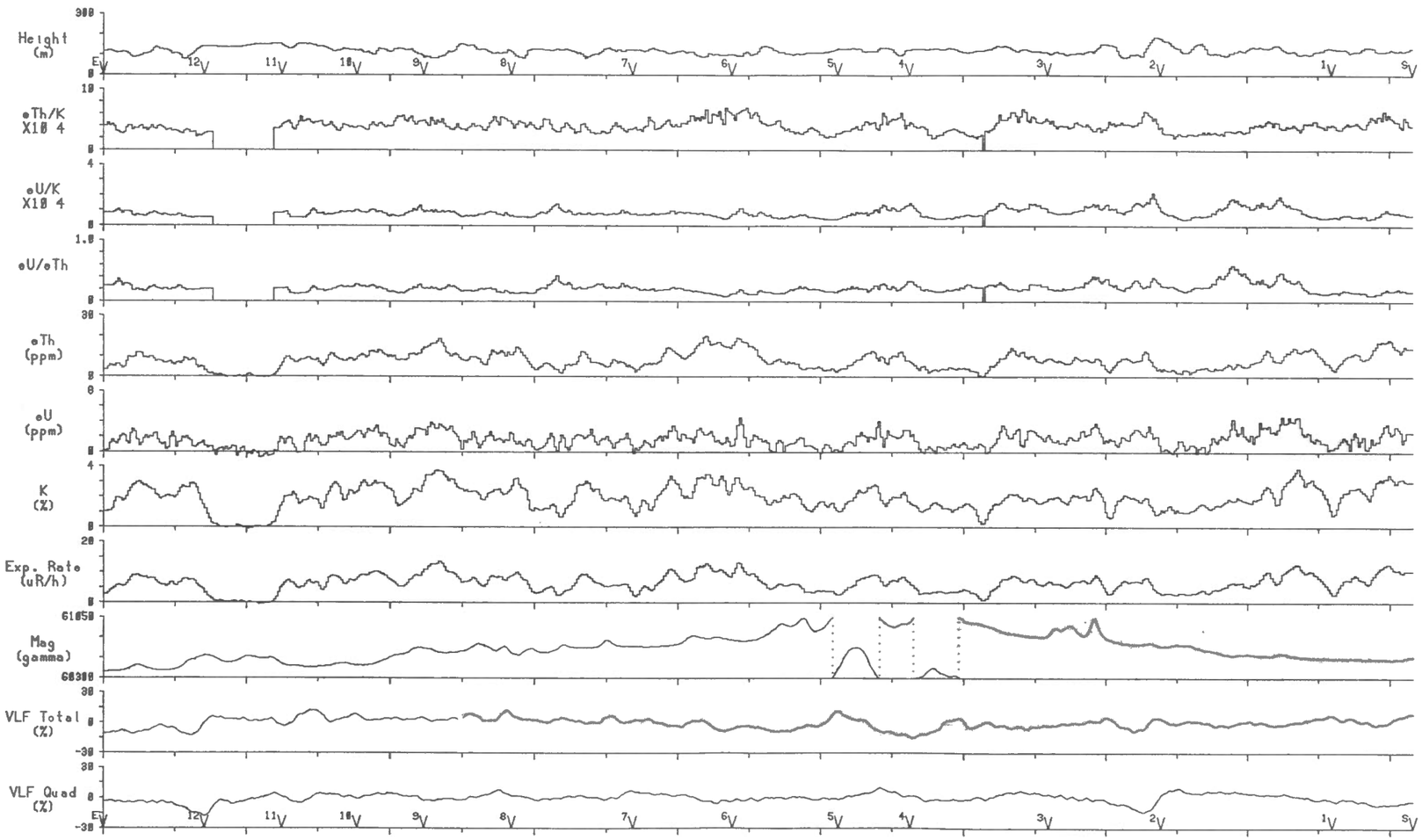
Line 63 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



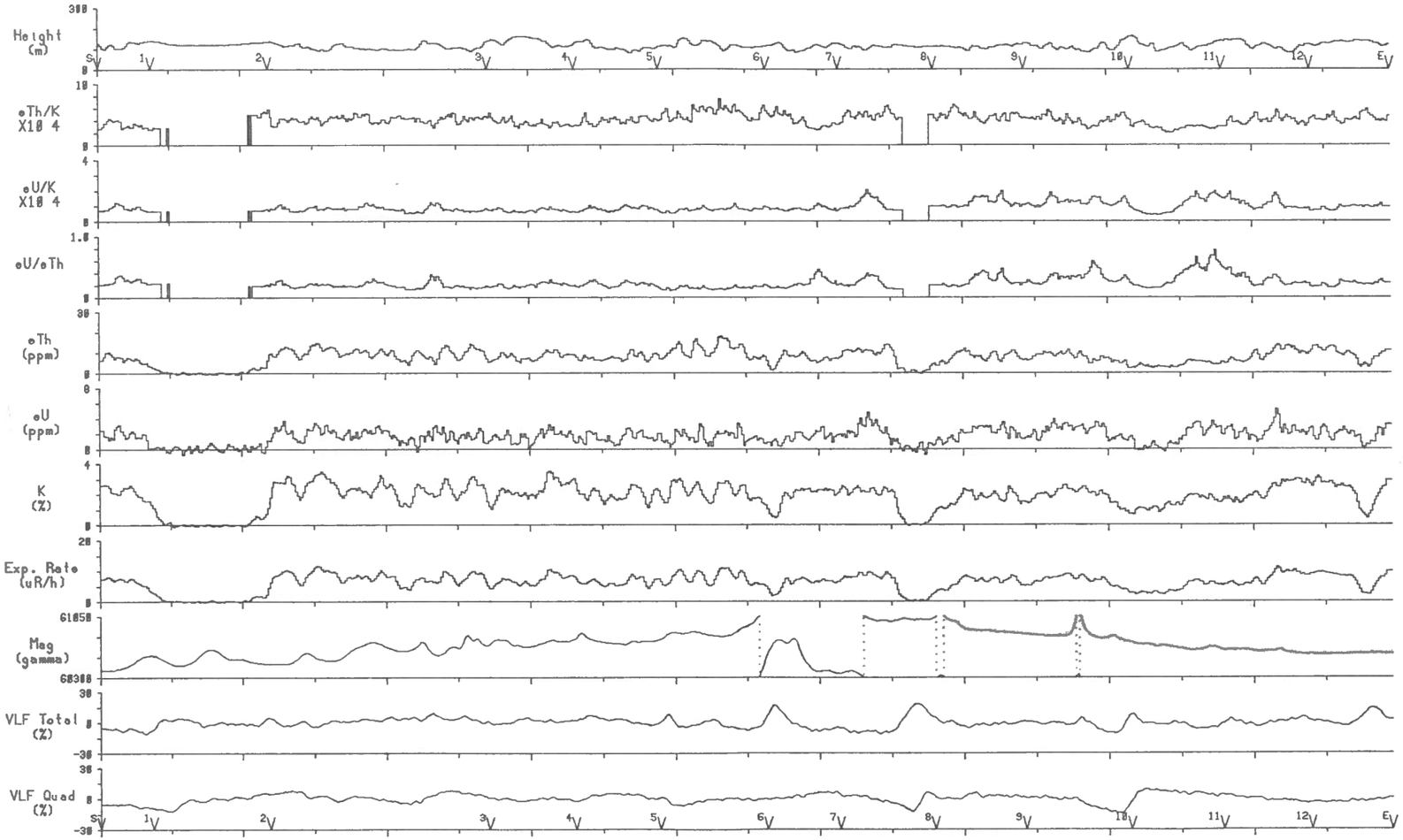
Line 65 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



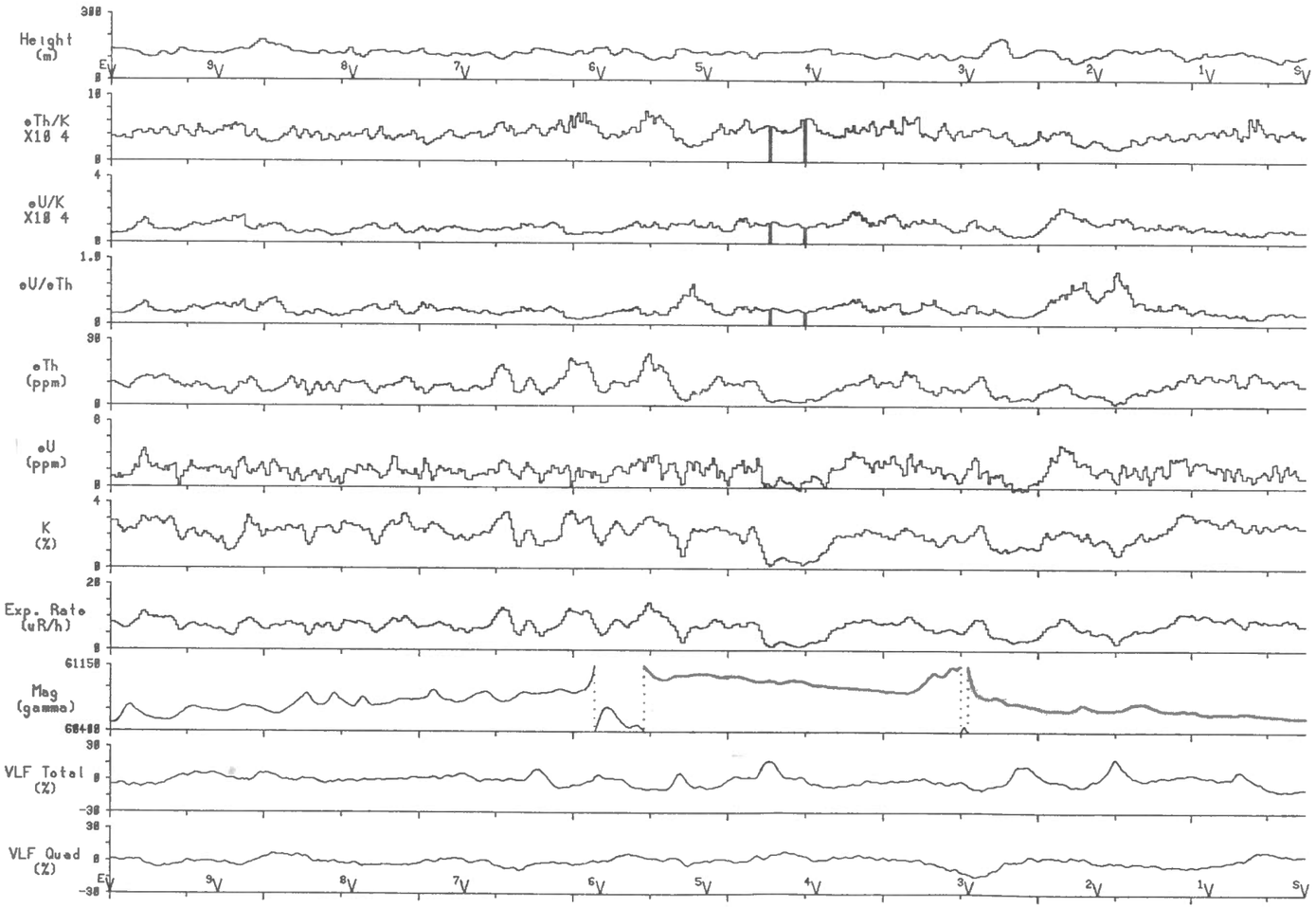
Line 67 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



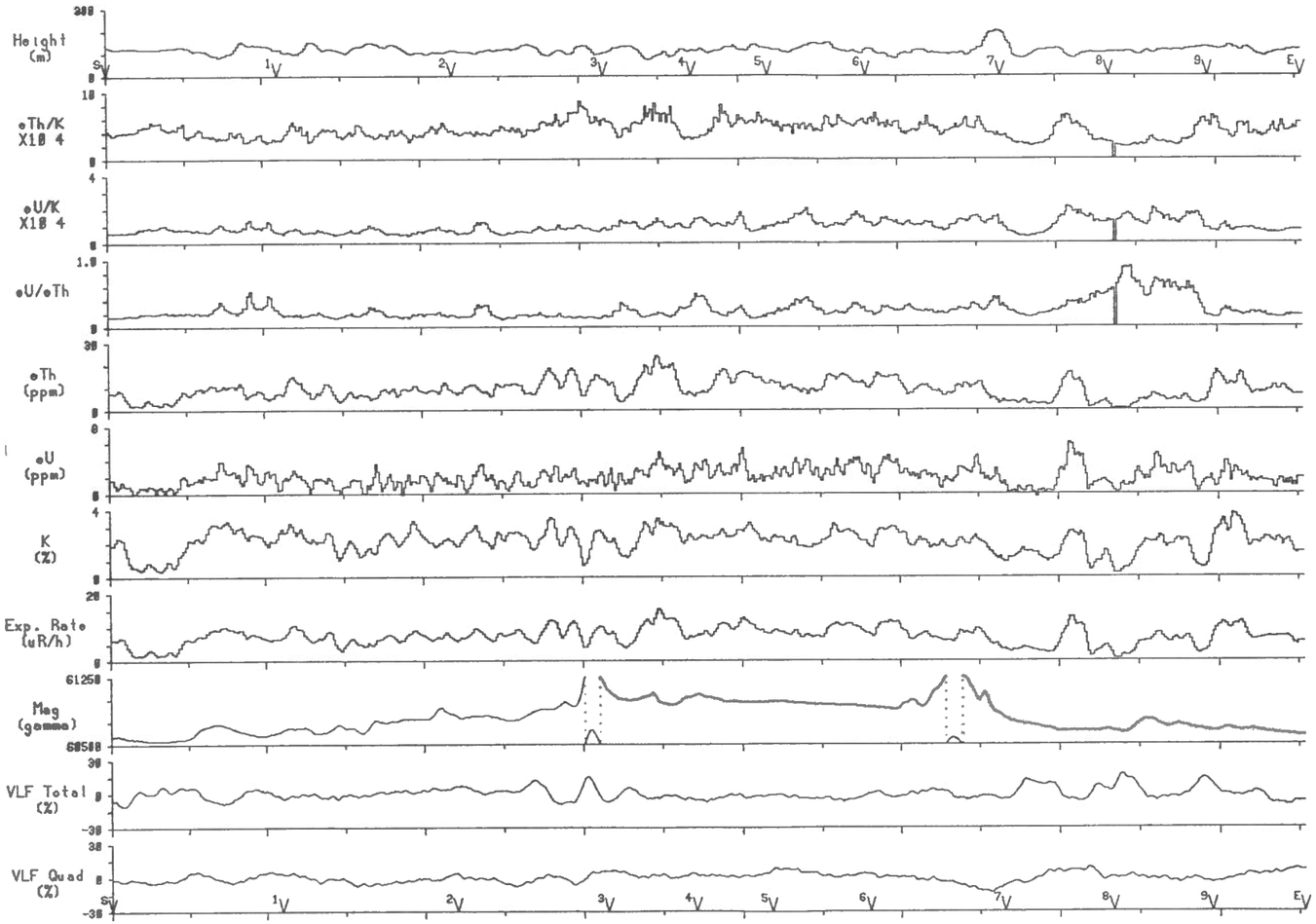
Line 69 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



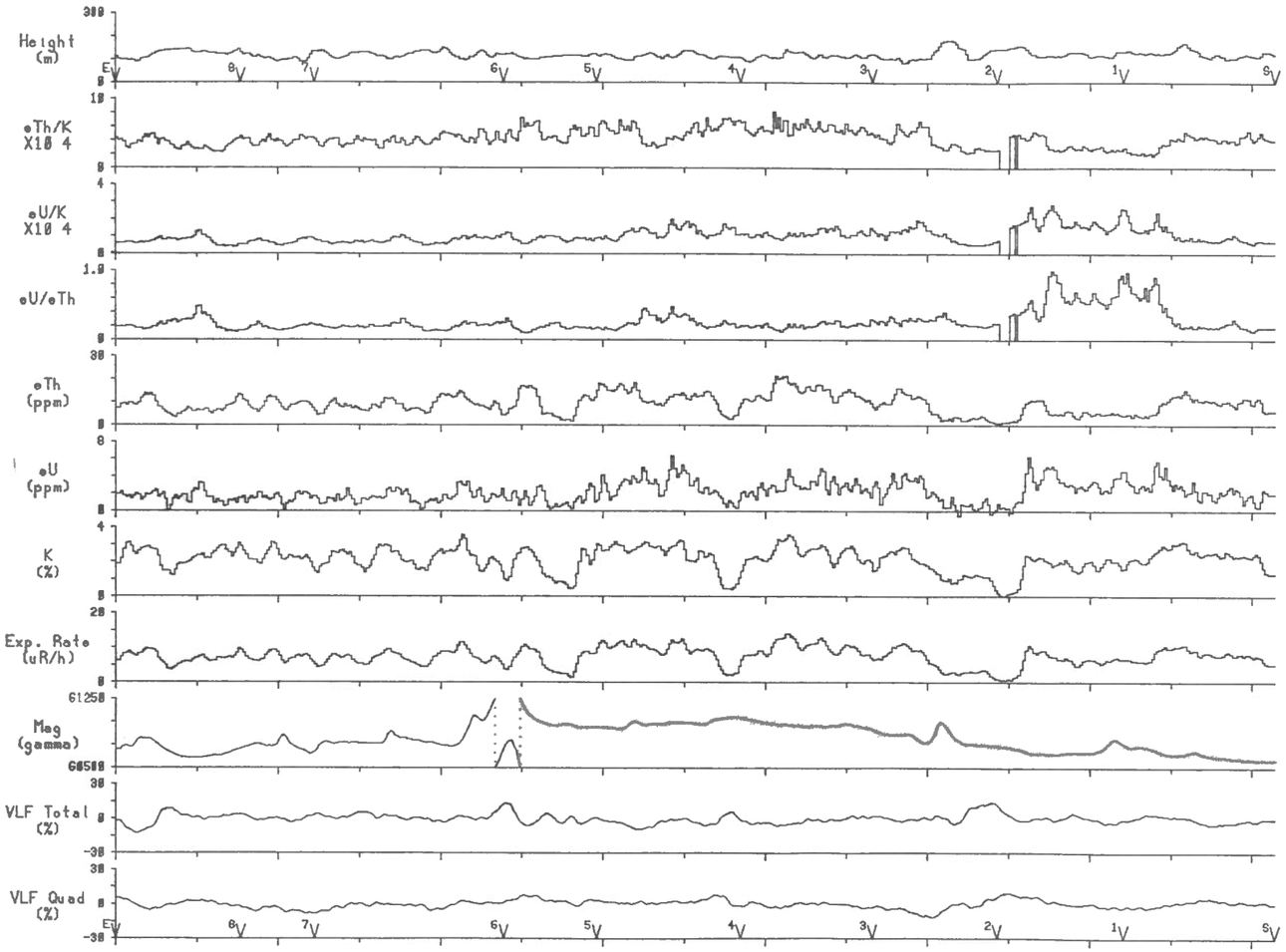
Line 71 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



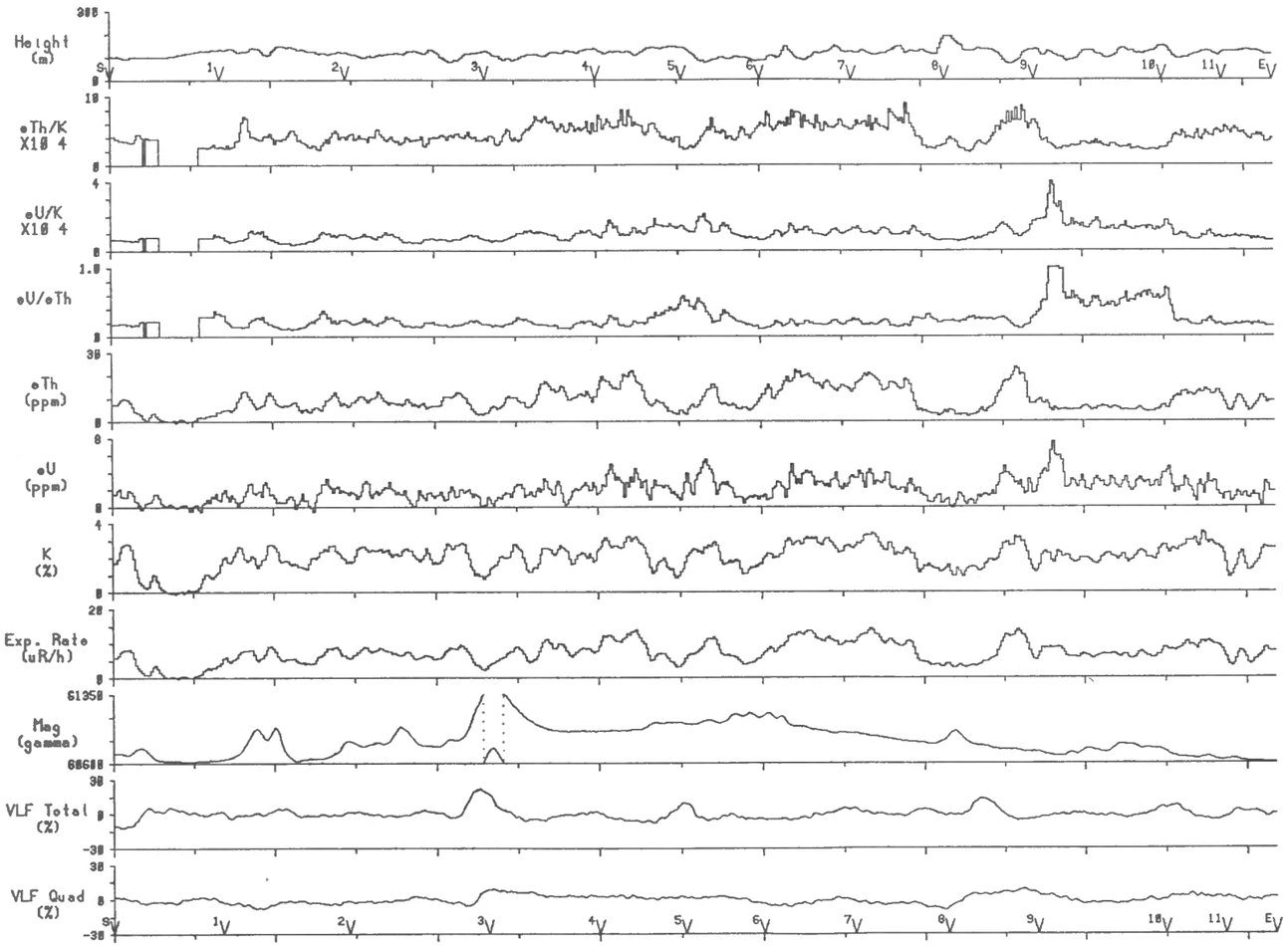
Line 73 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



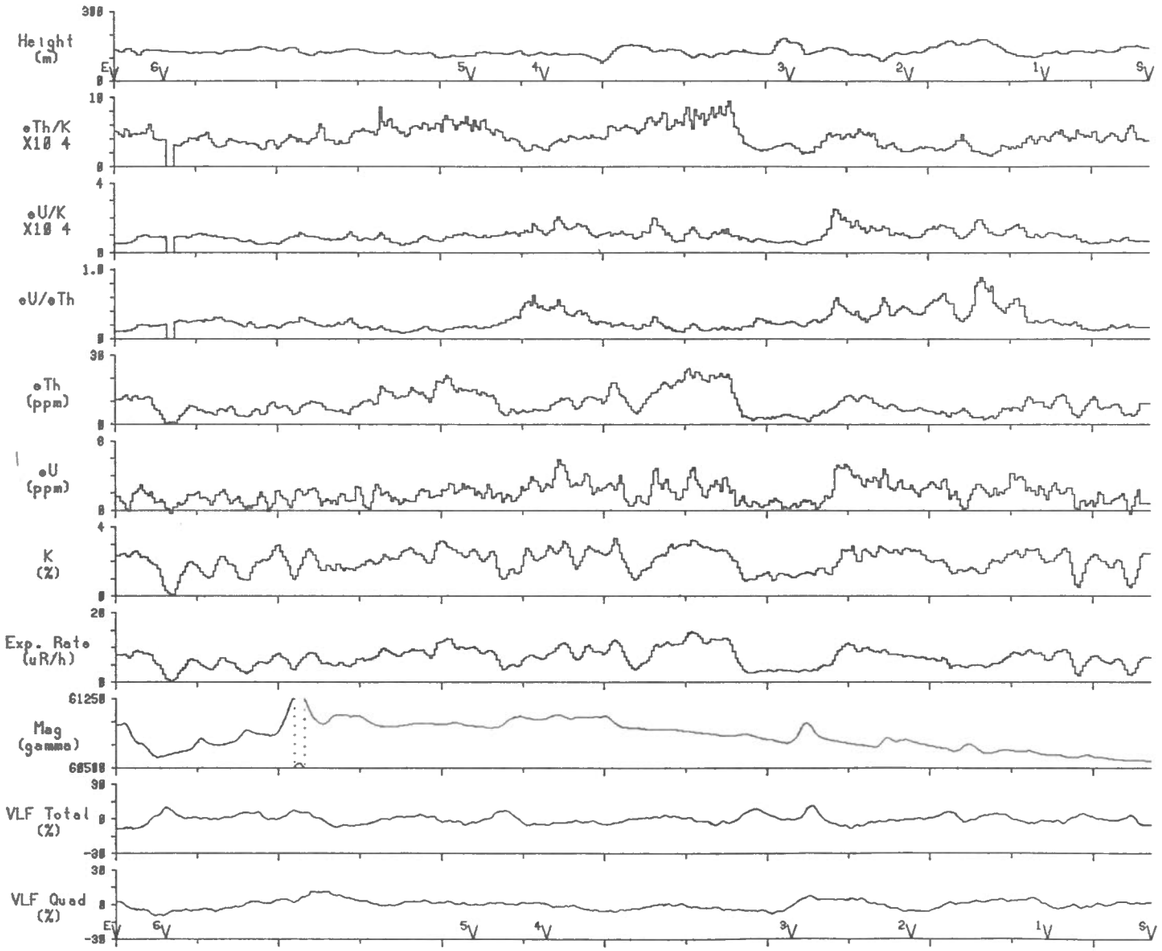
Line 75 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



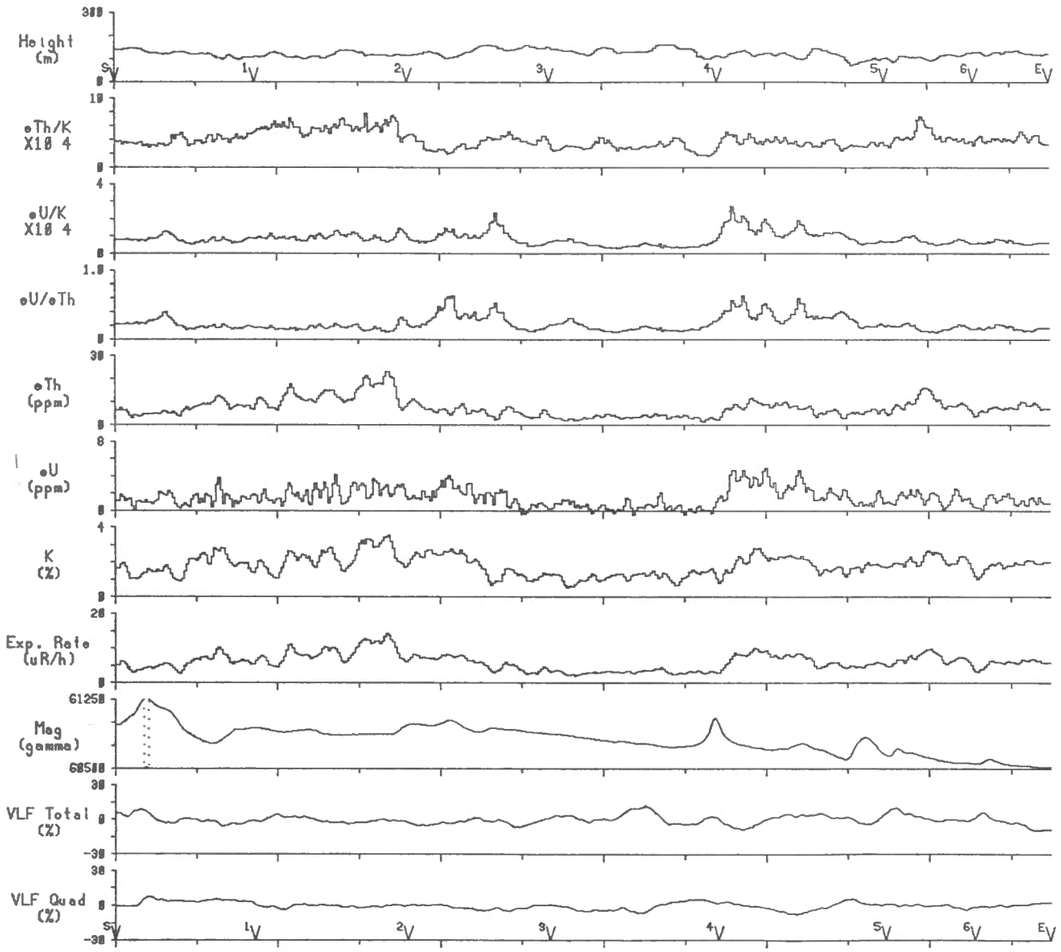
Line 77 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



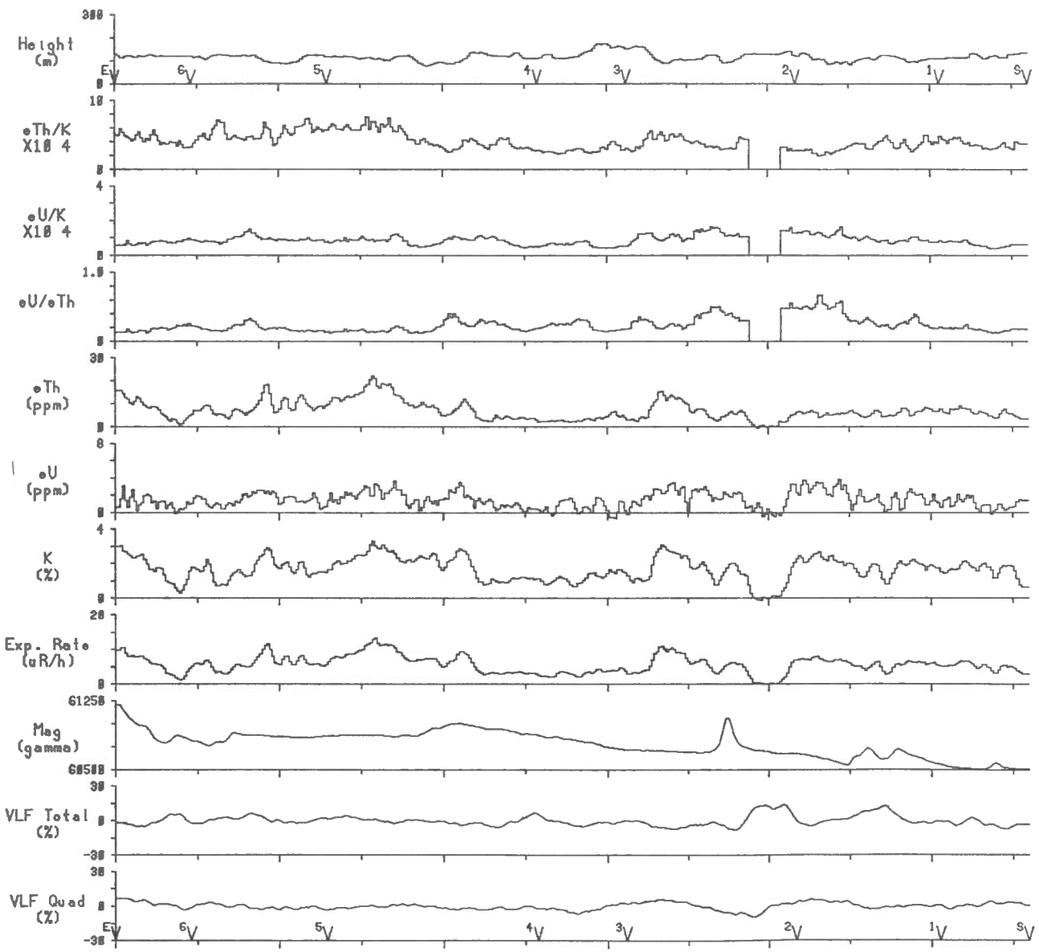
Line 79 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



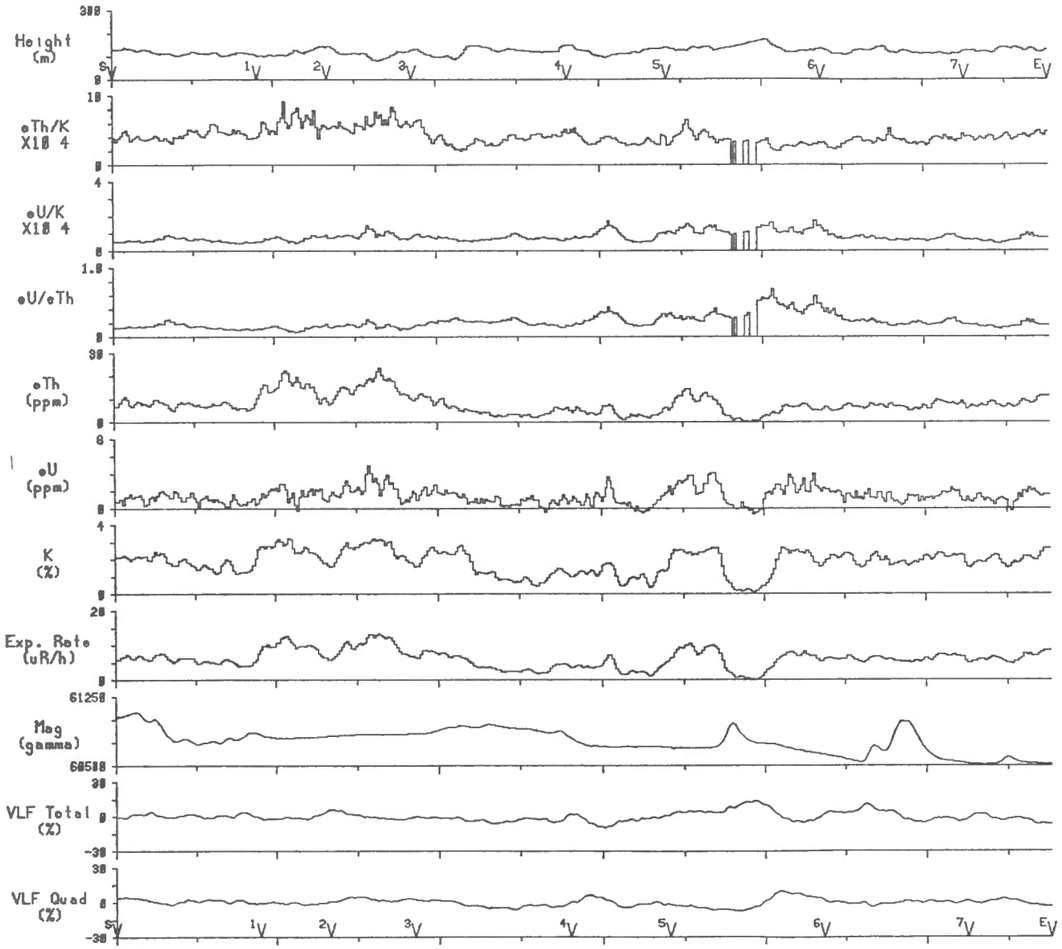
Line 81 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



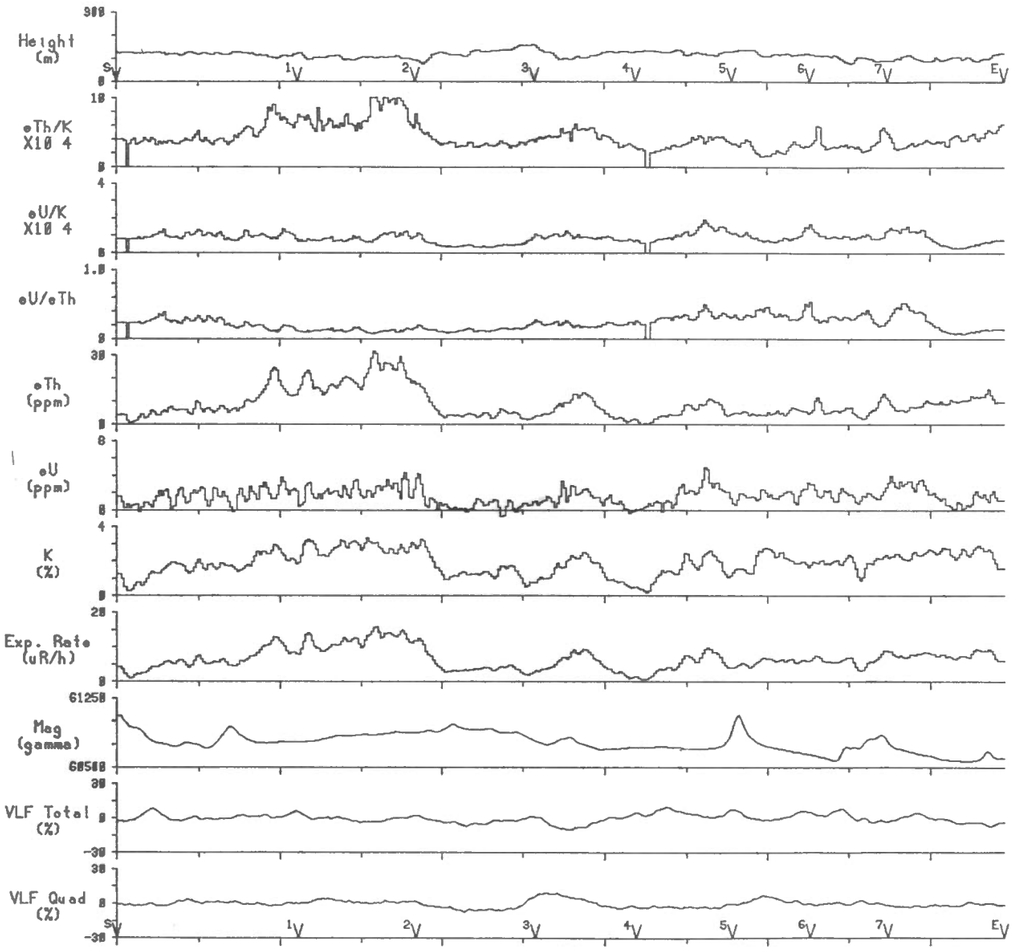
Line 83 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



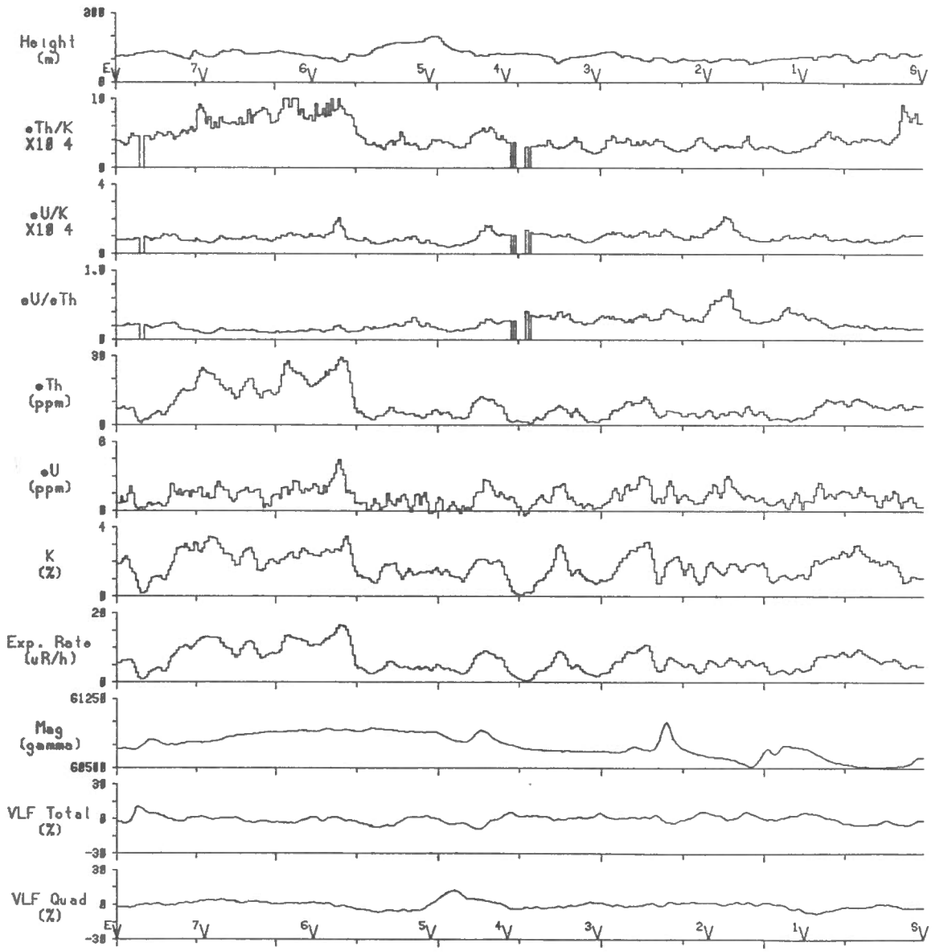
Line 85 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



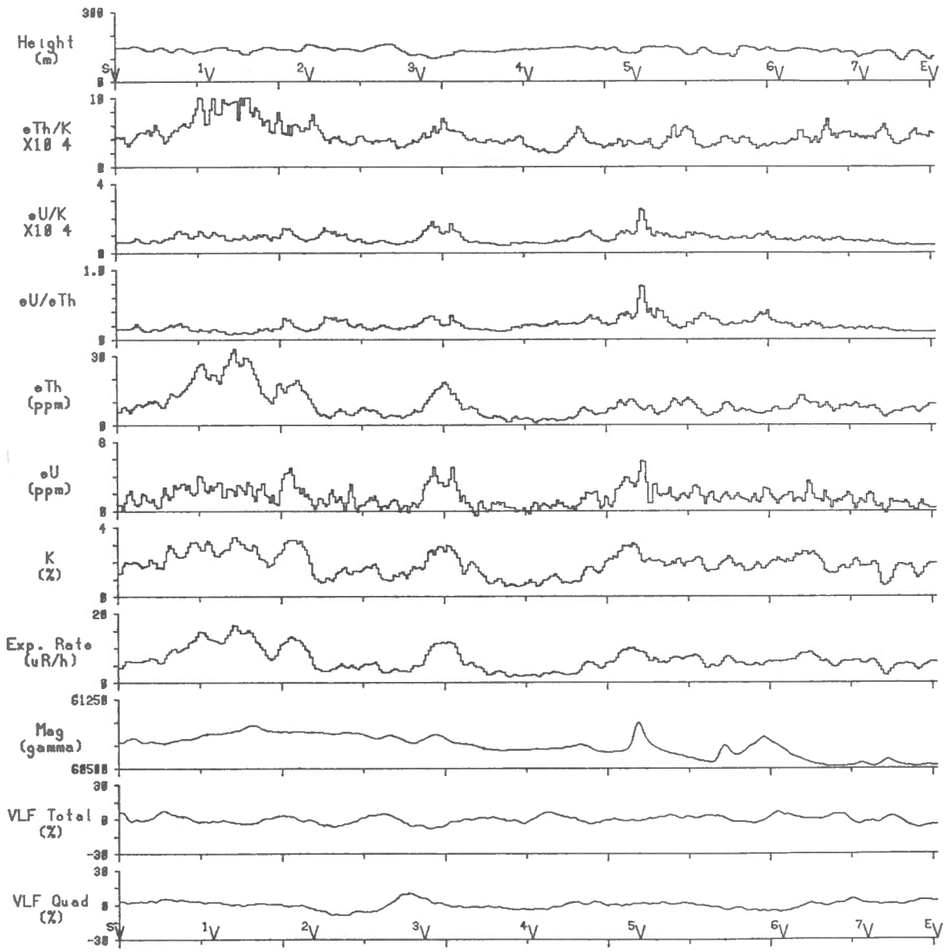
Line 87 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



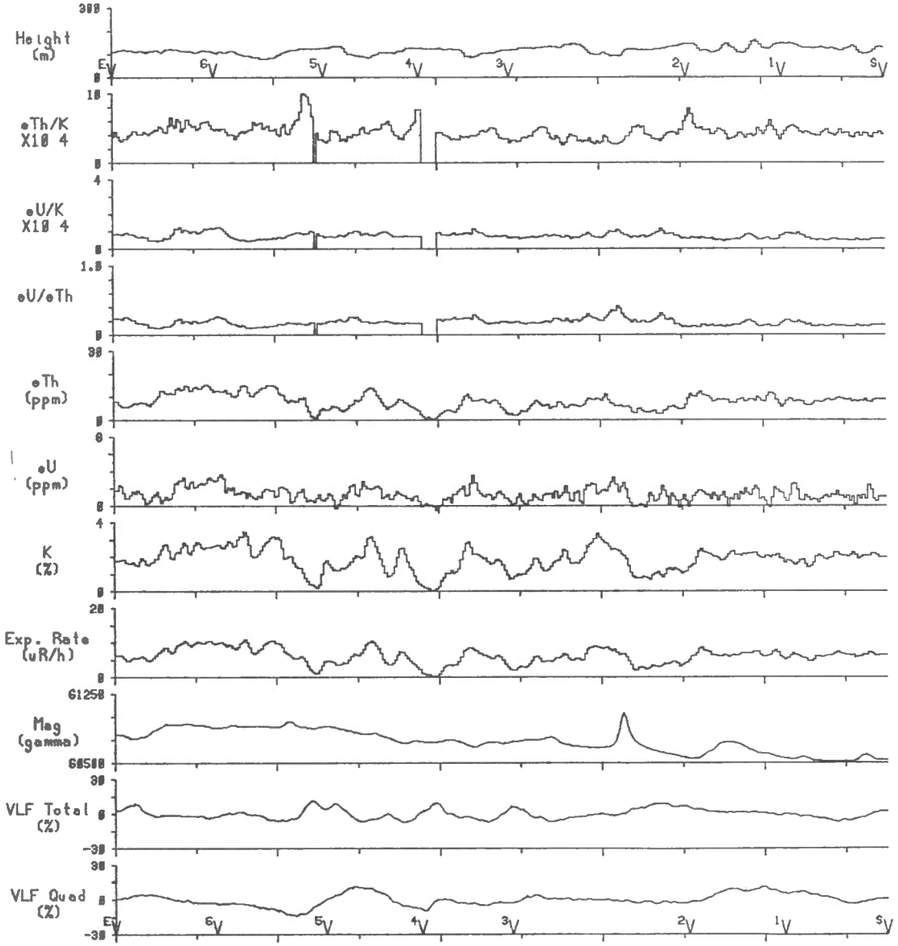
Line 89 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)

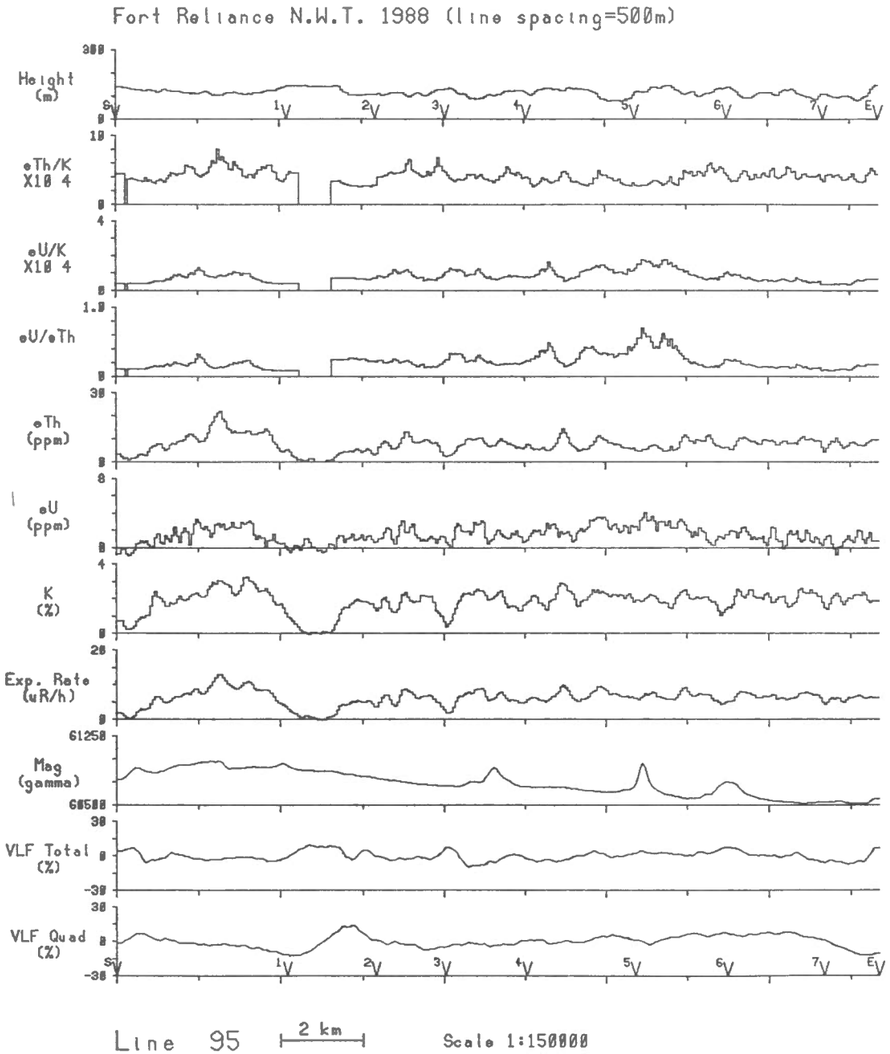


Line 91 2 km Scale 1:150000

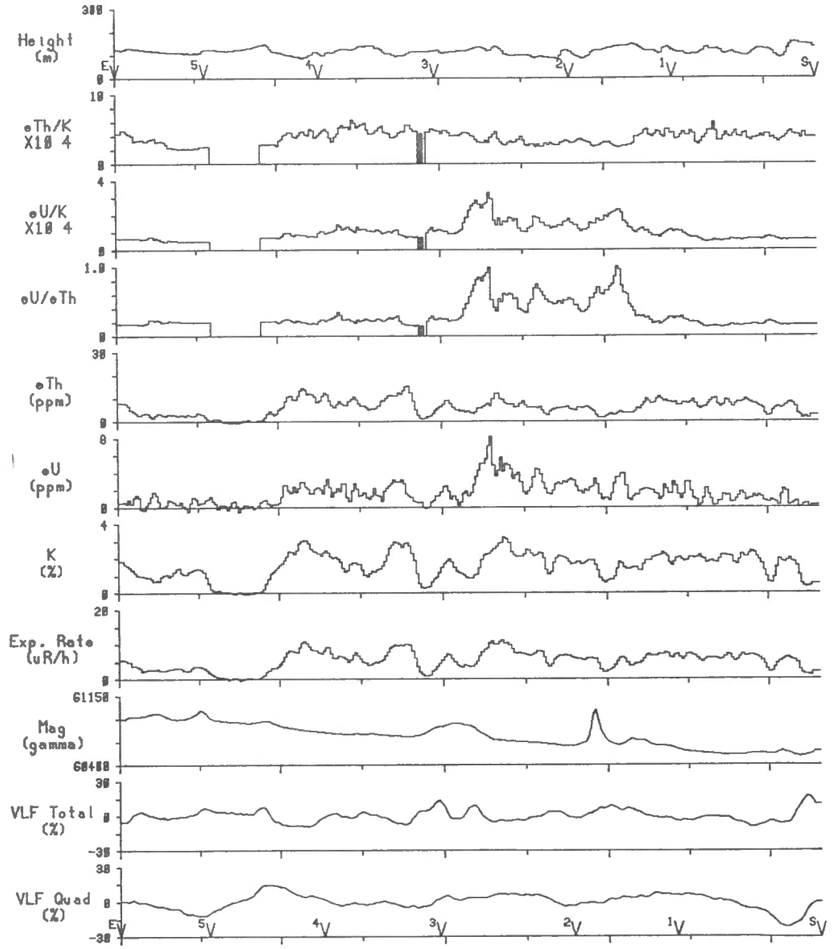
Fort Reliance N.W.T. 1988 (line spacing=500m)



Line 93 2 km Scale 1:150000

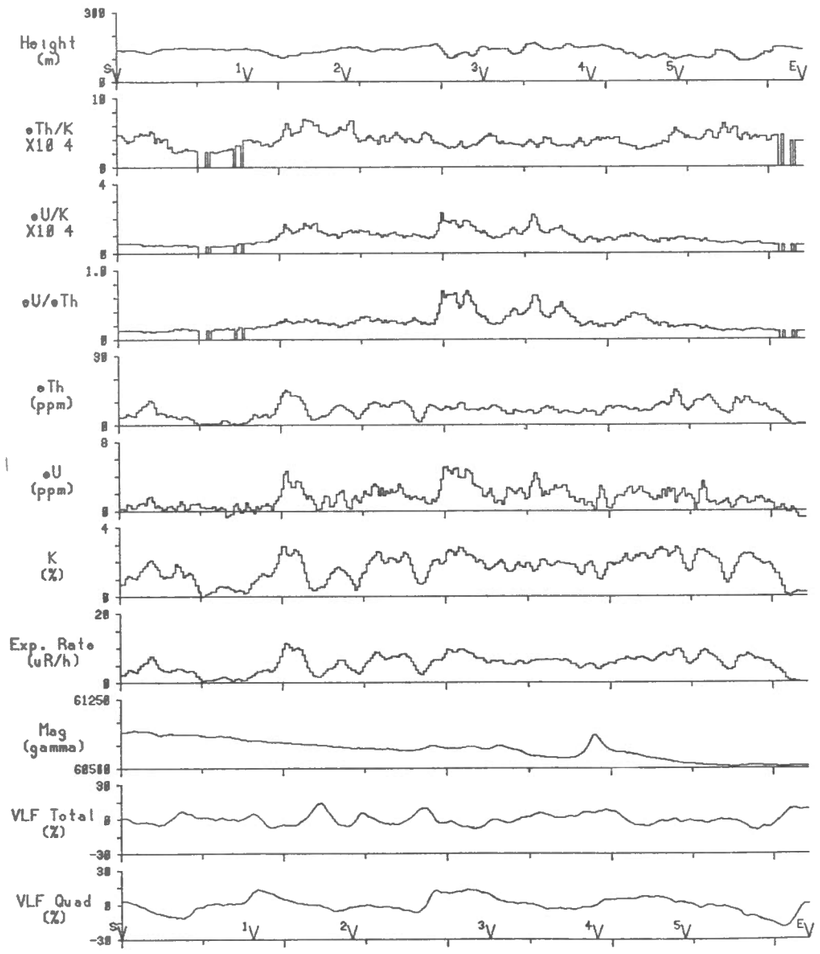

Fort Reliance N.W.T. 1988 (line spacing=500m)
Height (m)
eTh/K X10 4
eU/K X10 4
eU/eTh
eTh (ppm)
eU (ppm)
K (%)
Exp. Rate (uR/h)
Mag (gamma)
VLF Total (%)
VLF Quad (%)
S
1
2
3
4
5
6
7
E
Line 95
2 km
Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



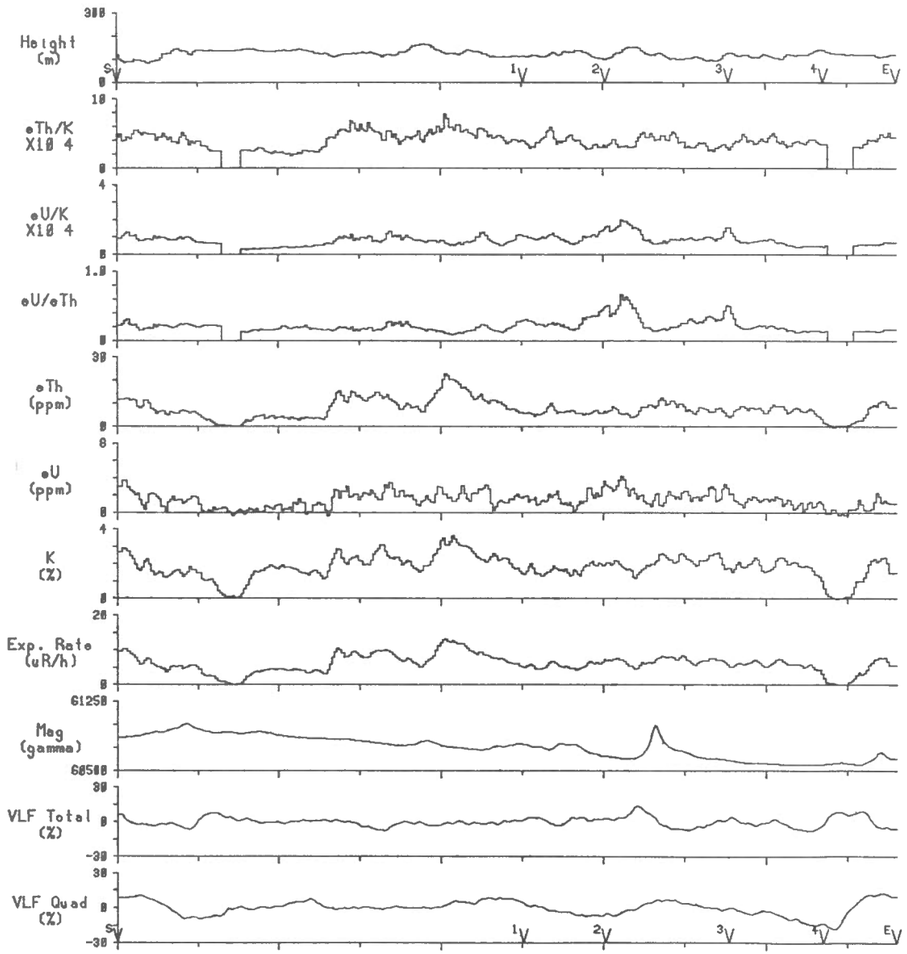
Line 97 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



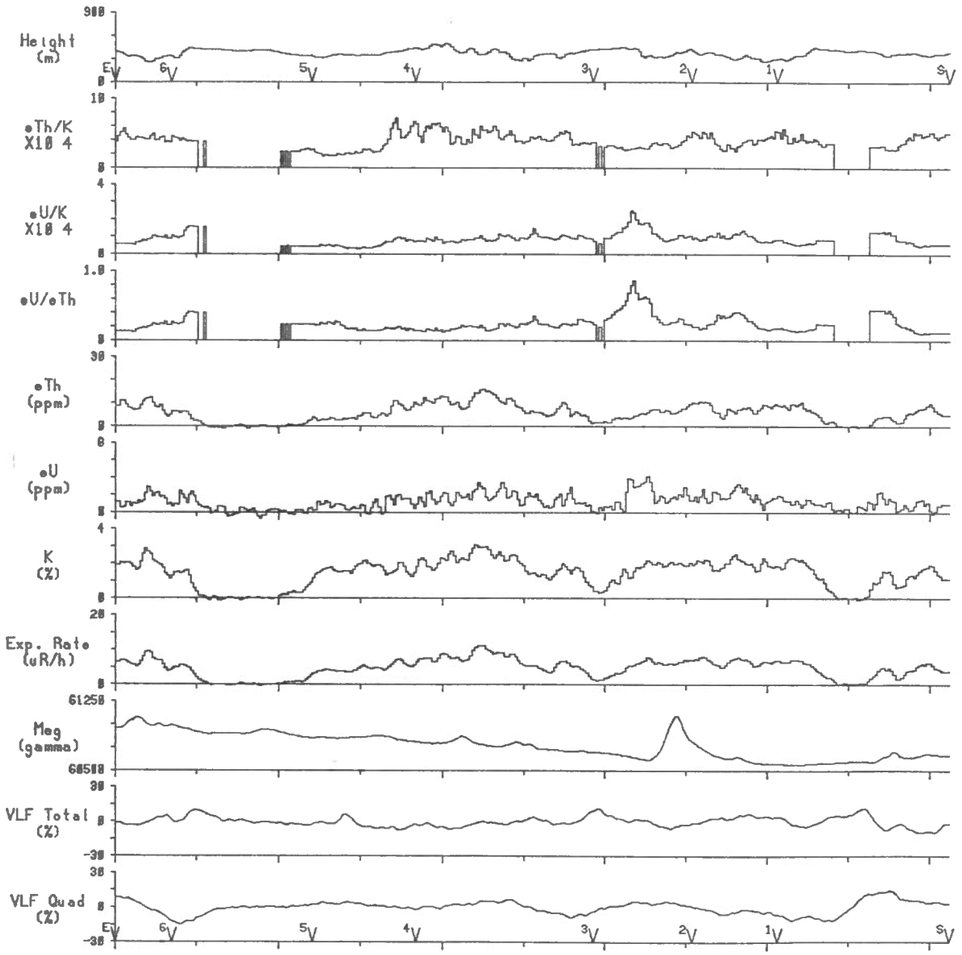
Line 99 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



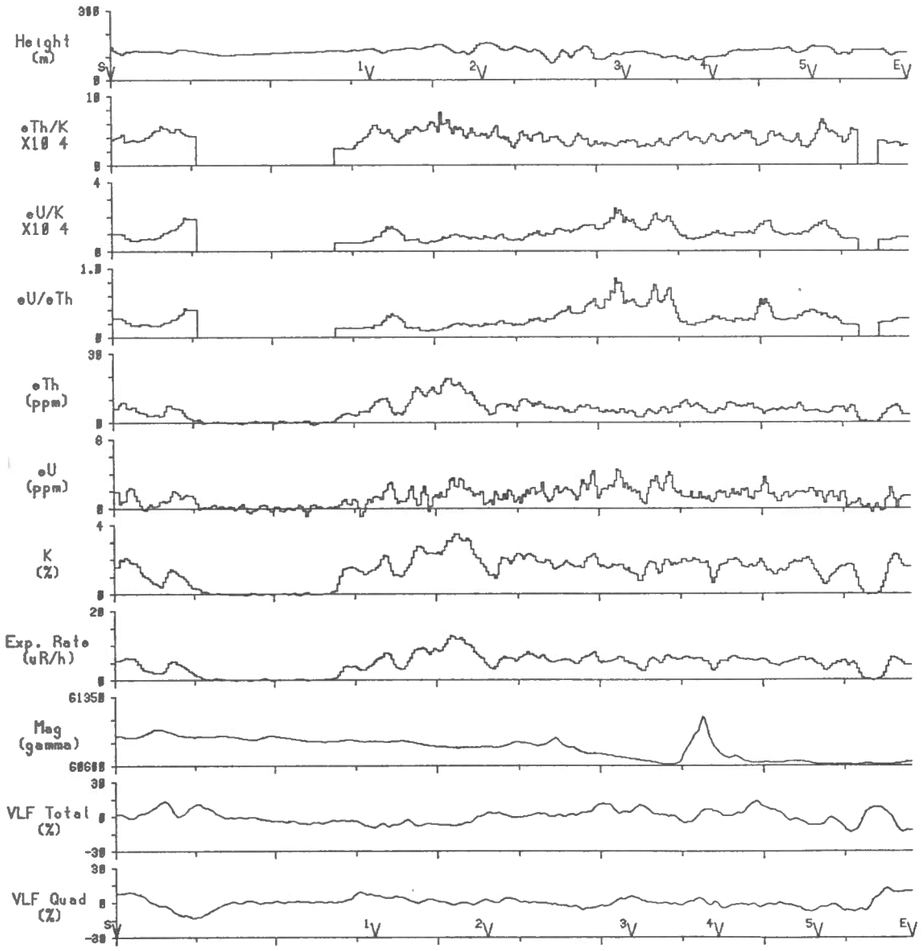
Line 101 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



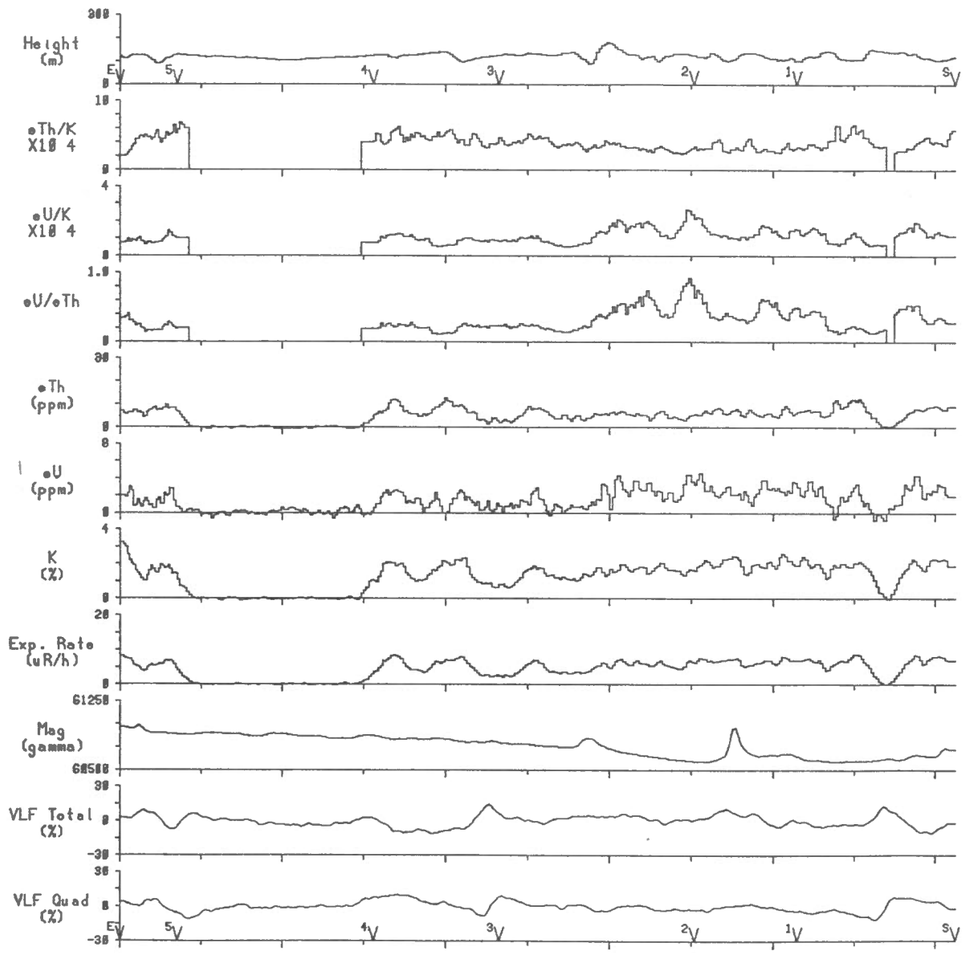
Line 103 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



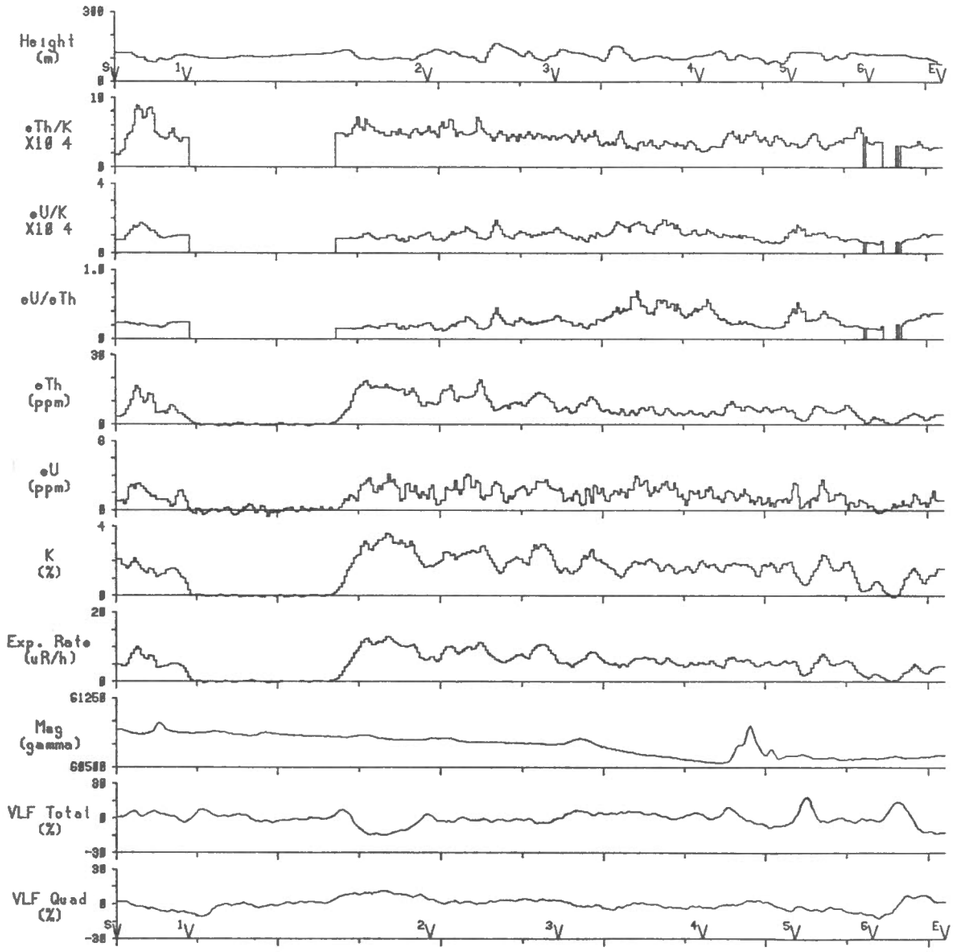
Line 105 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



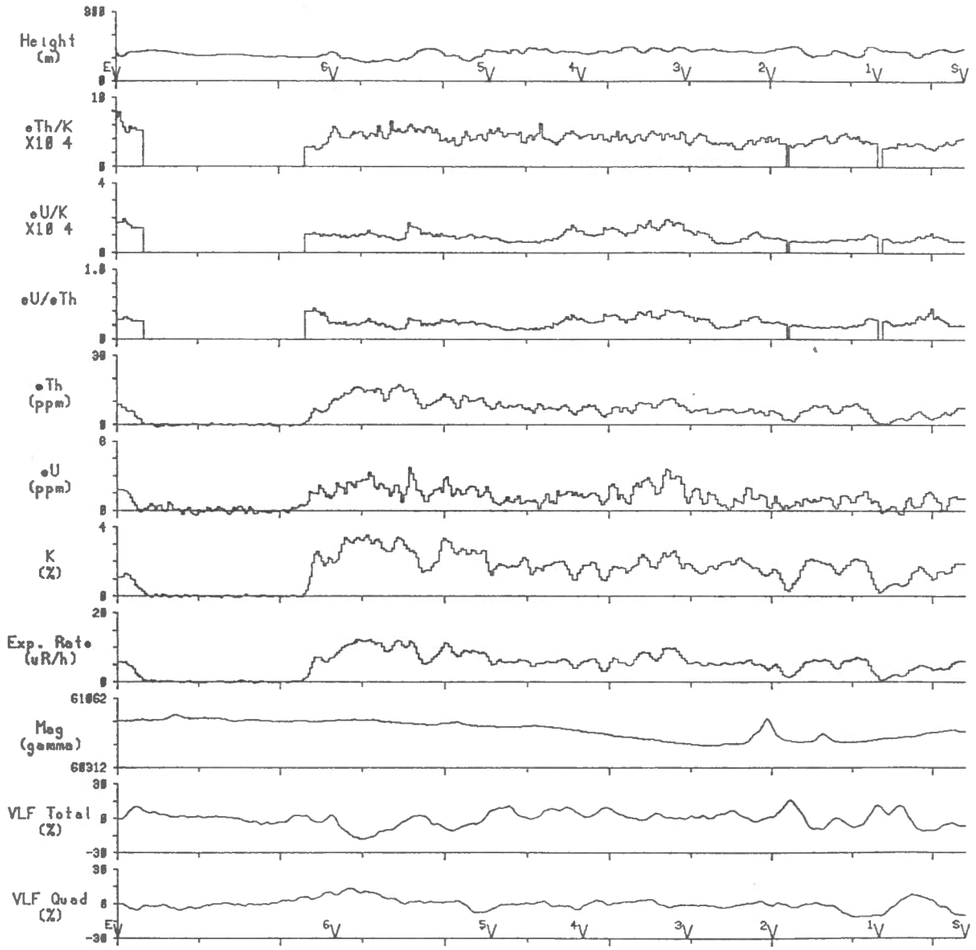
Line 107 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



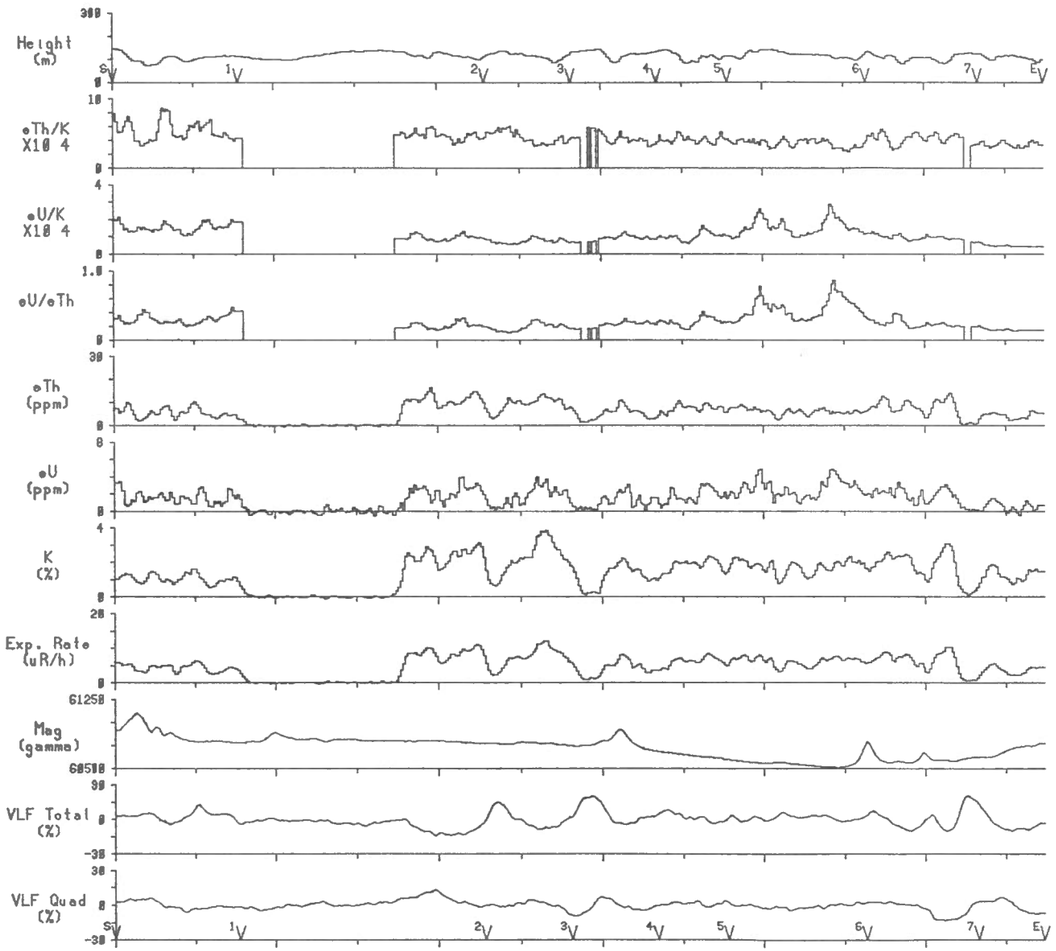
Line 109 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



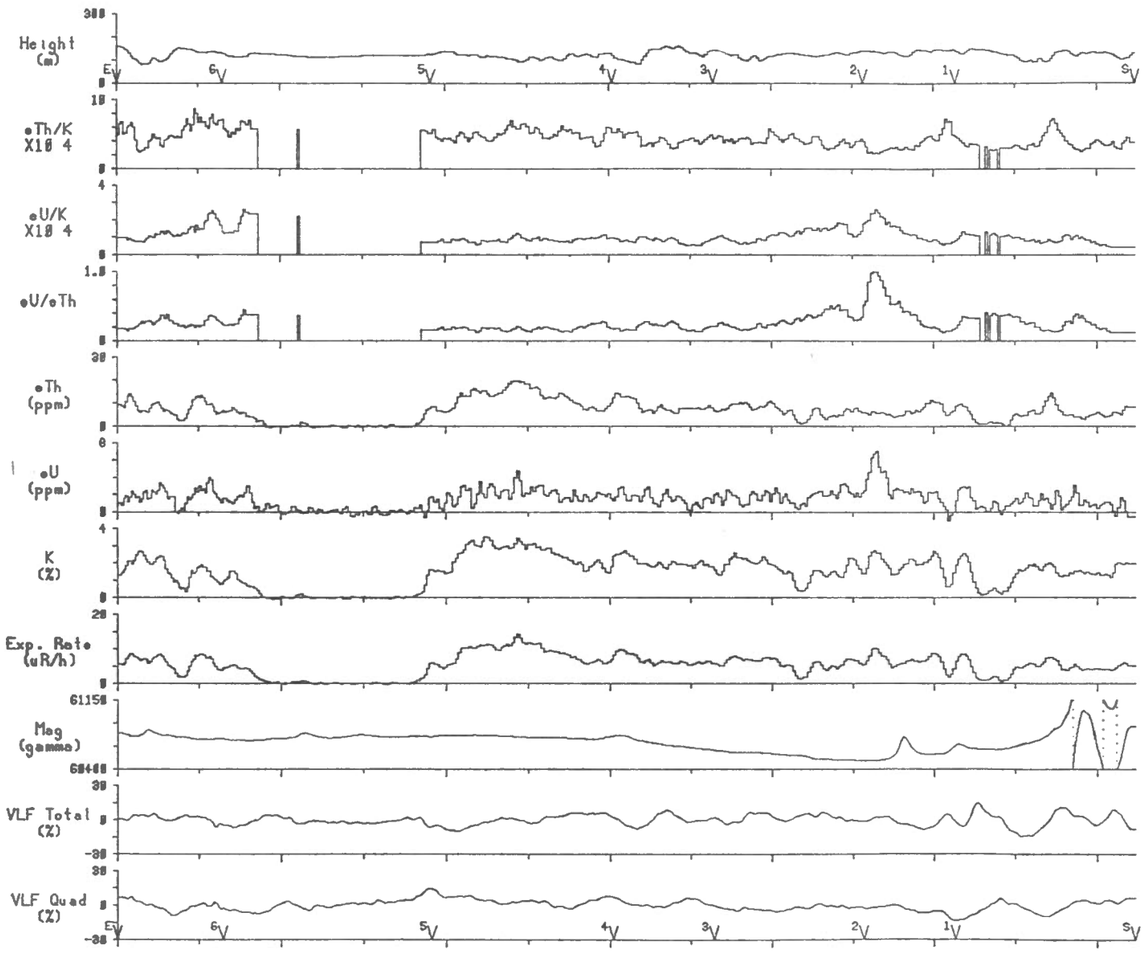
Line 111 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



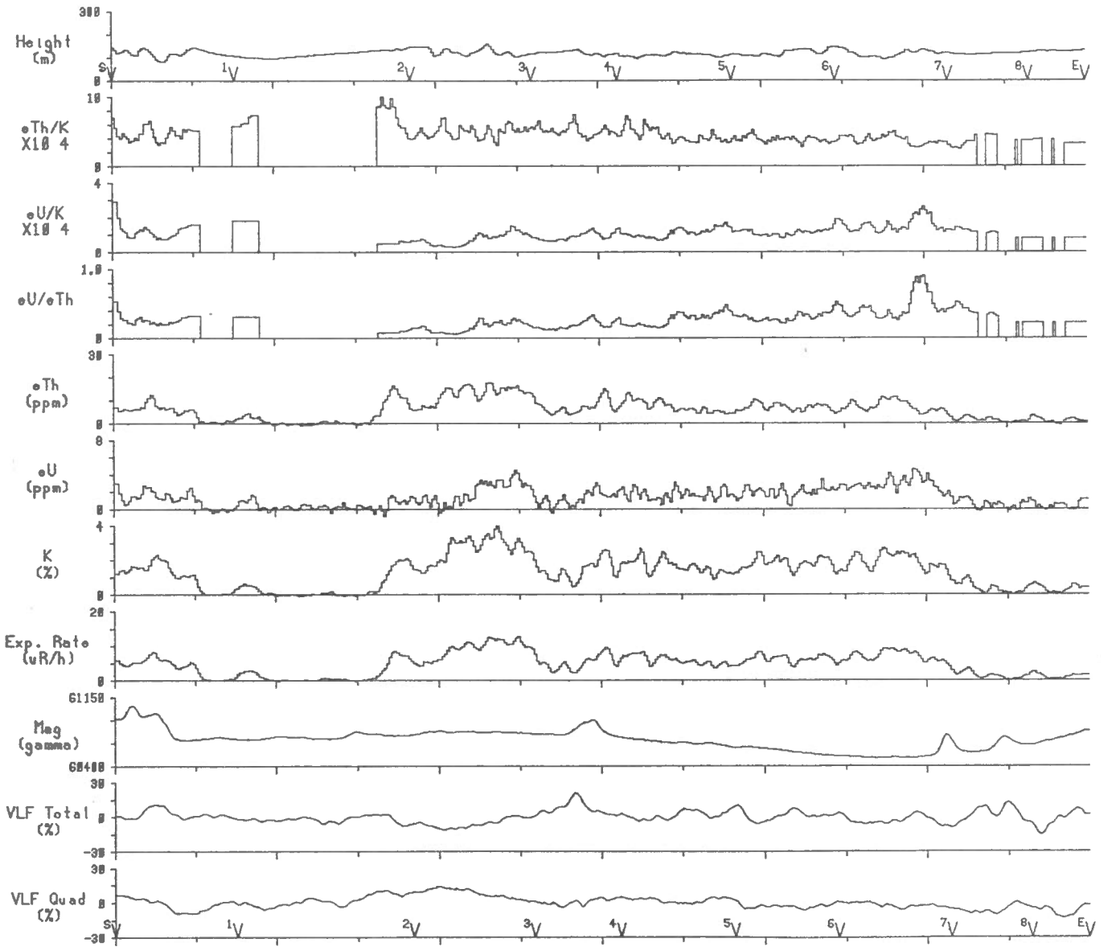
Line 113 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



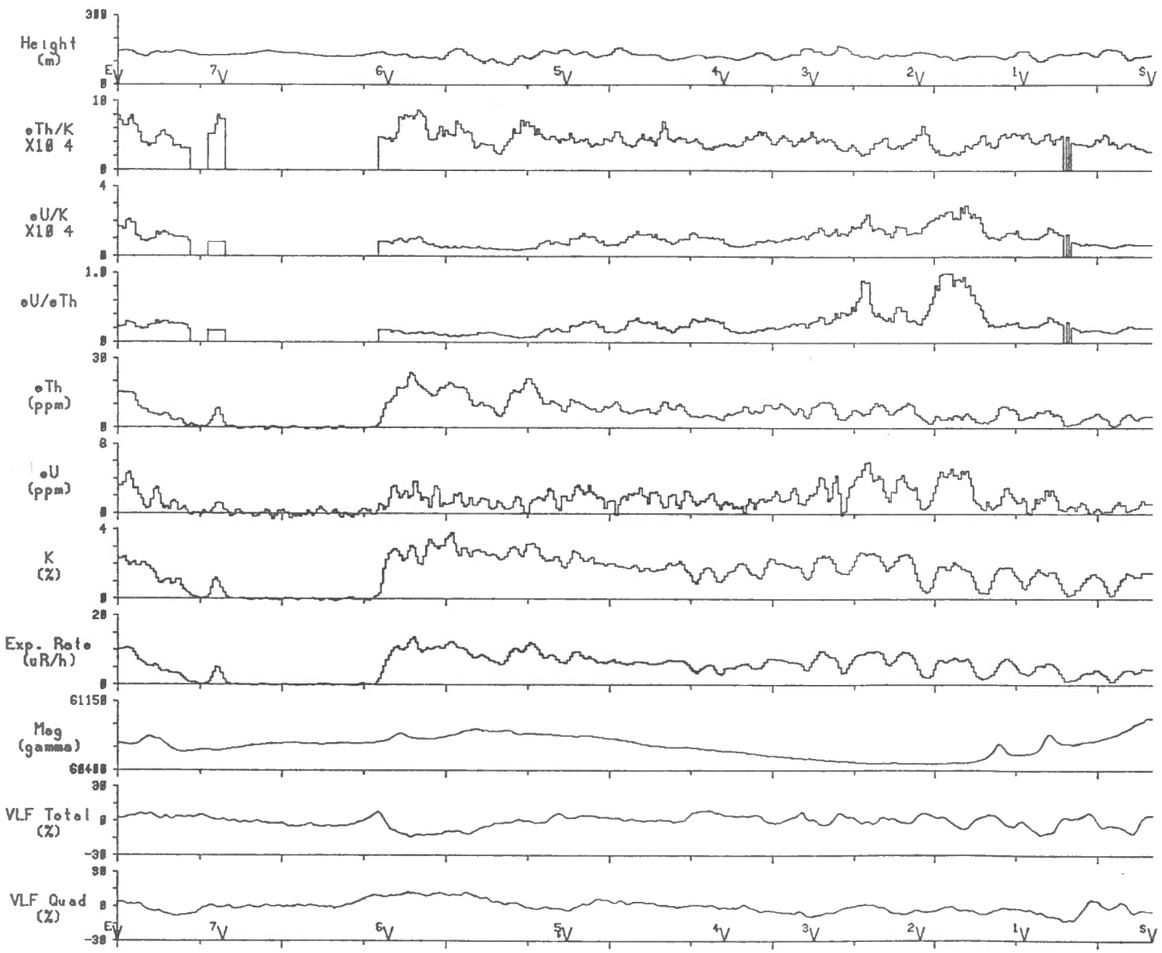
Line 115 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



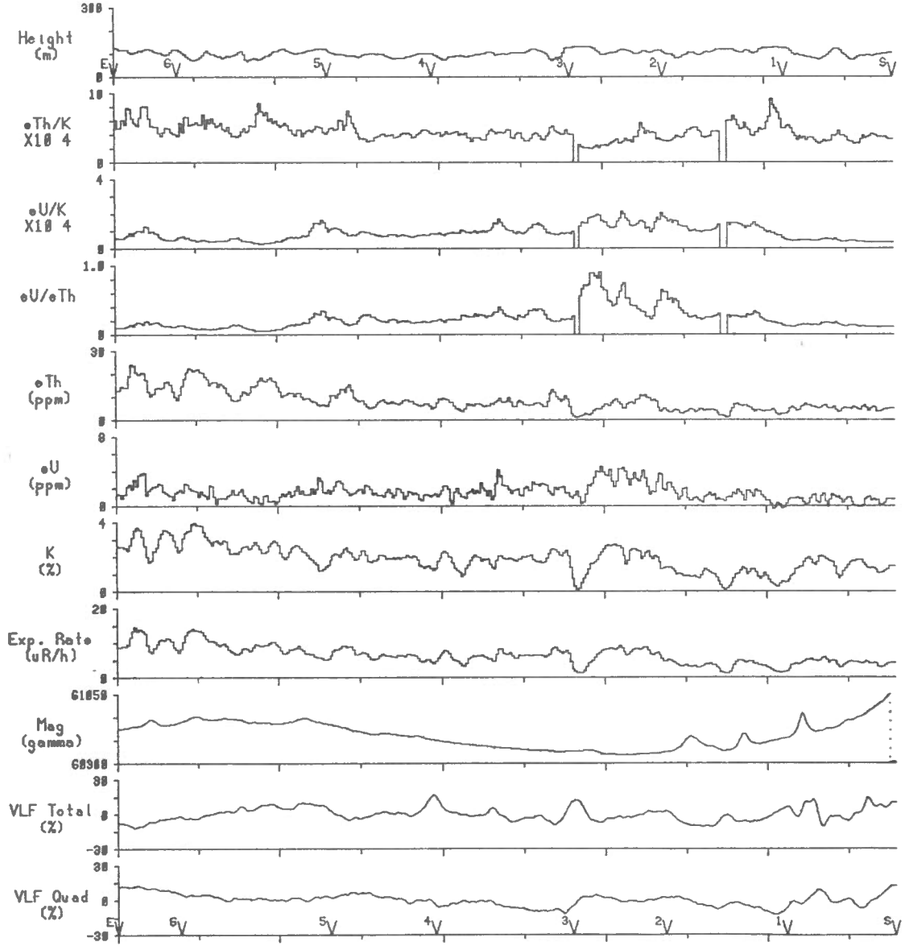
Line 117 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



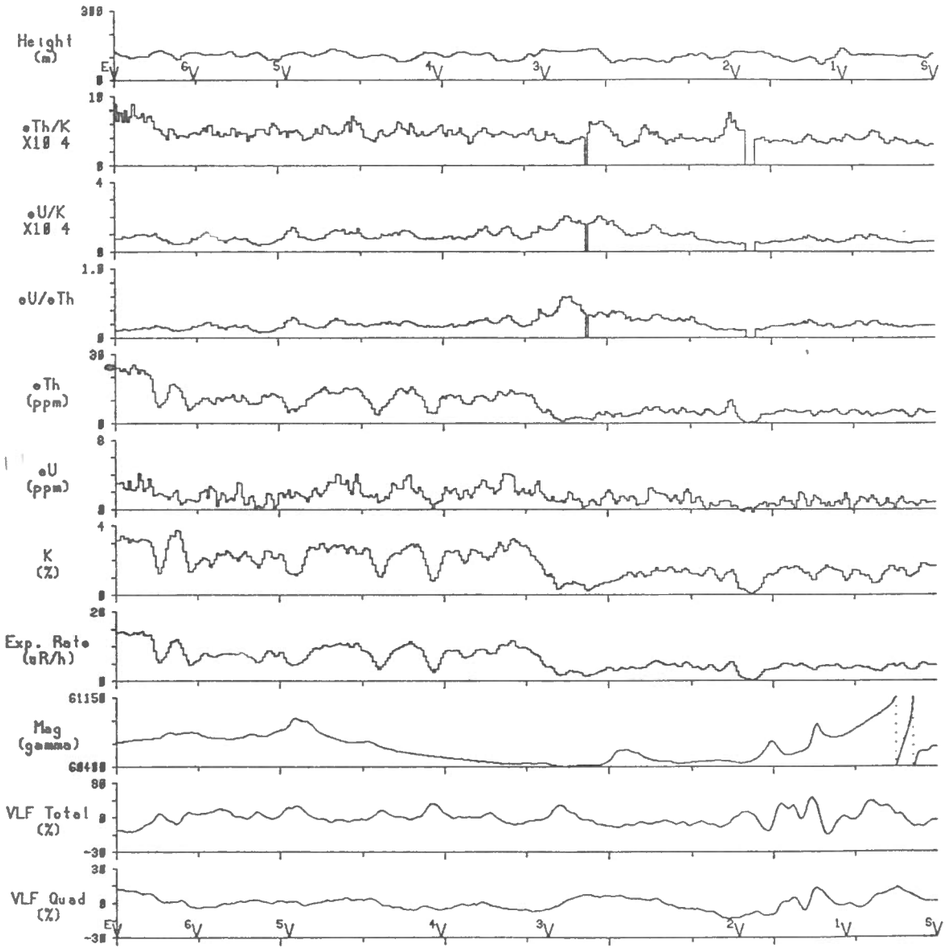
Line 119 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



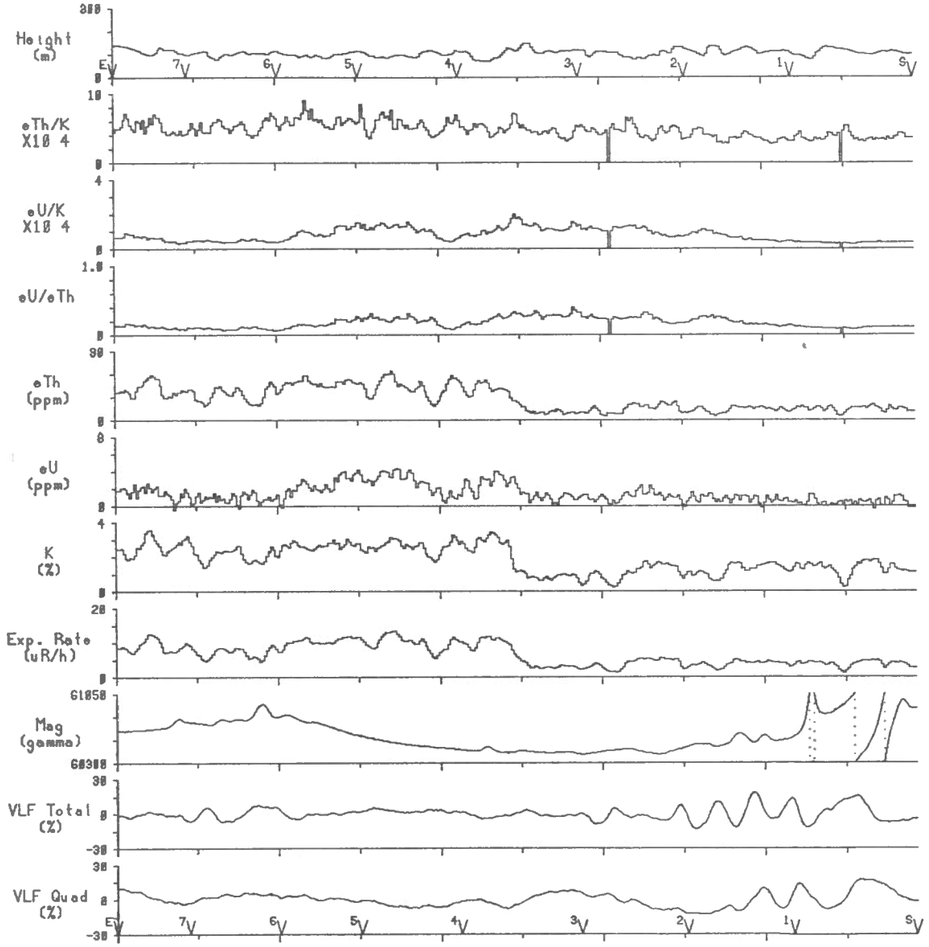
Line 121 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



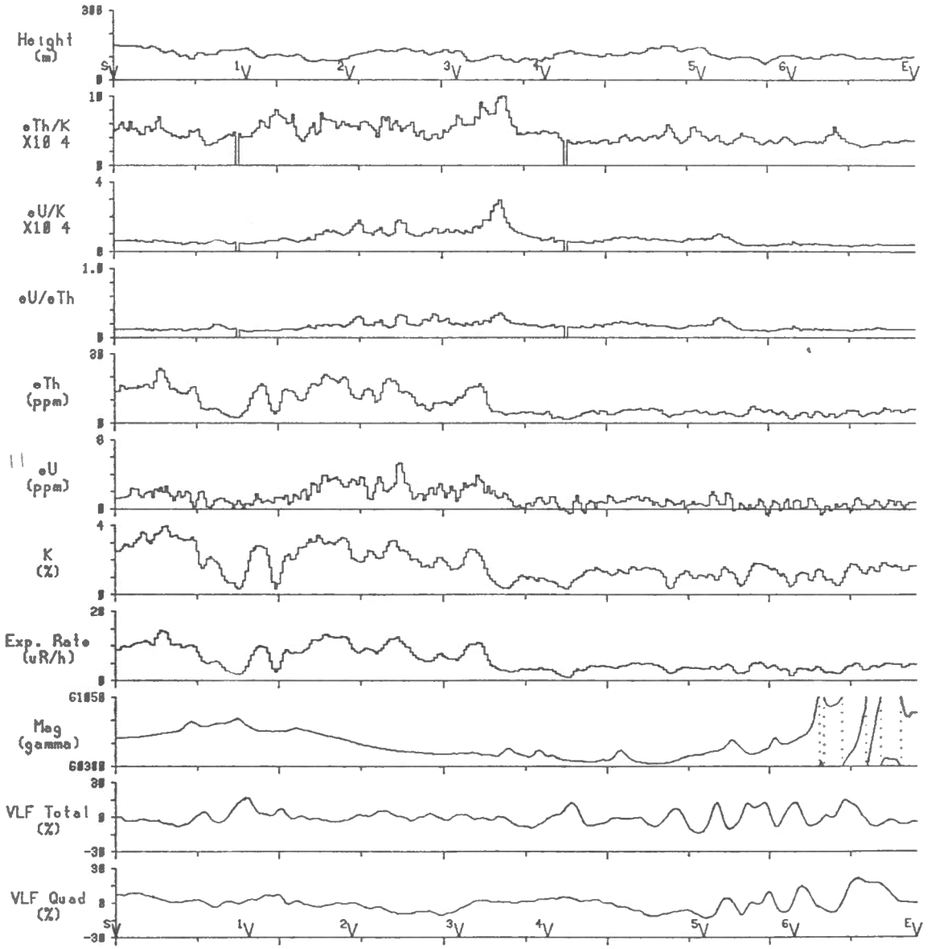
Line 123 ⊢ 2 km ⊣ Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



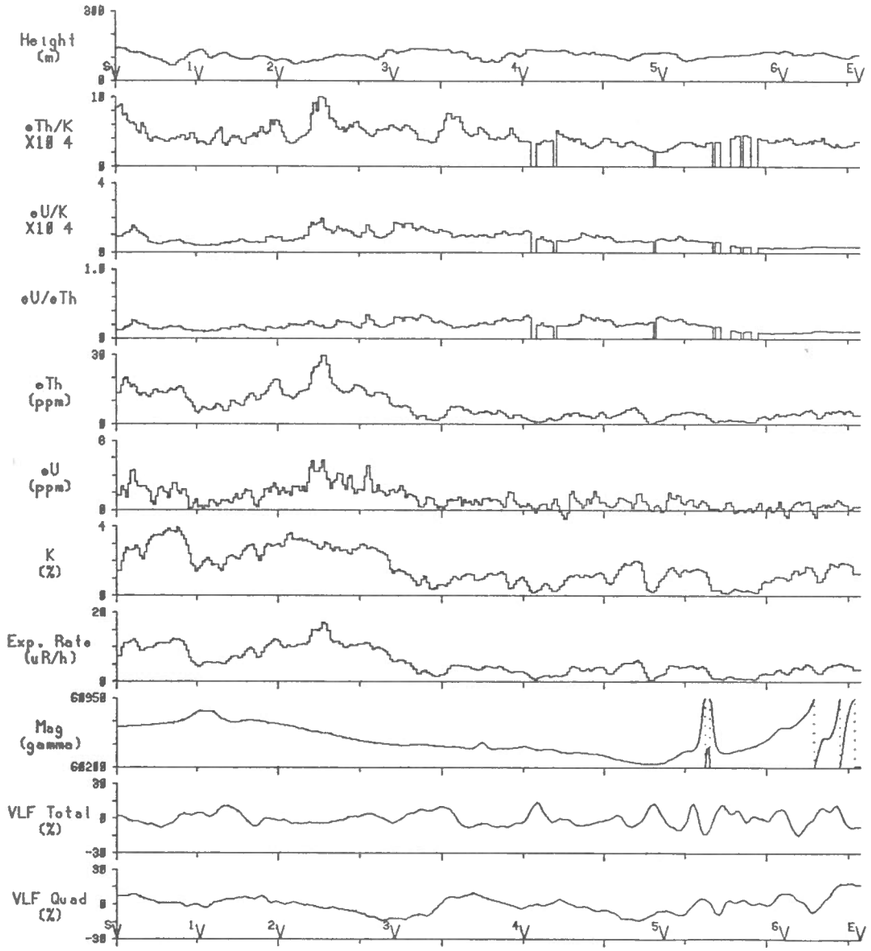
Line 125 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



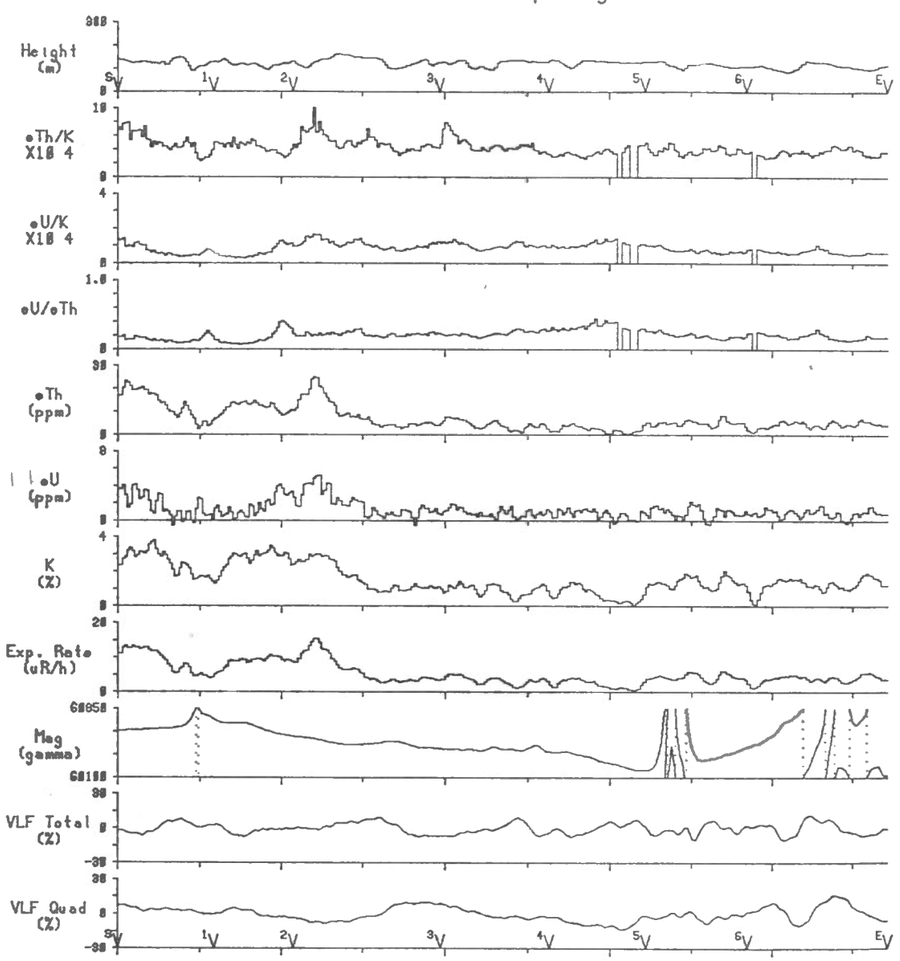
Line 127 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



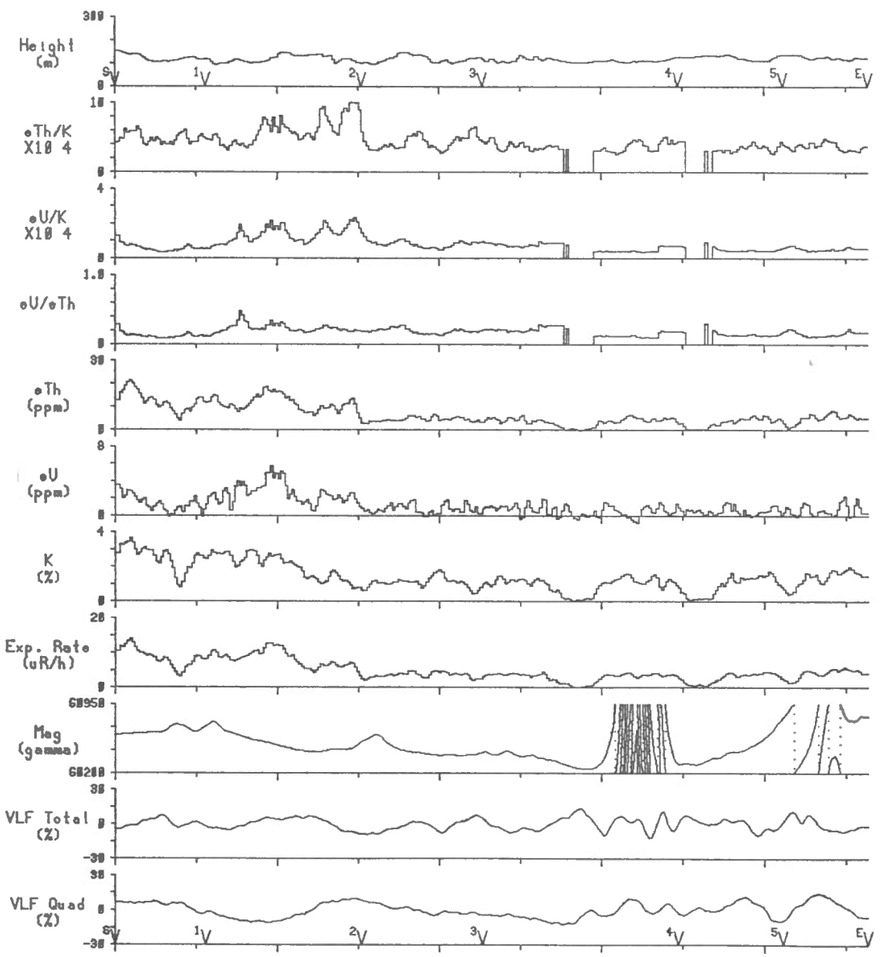
Line 129 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



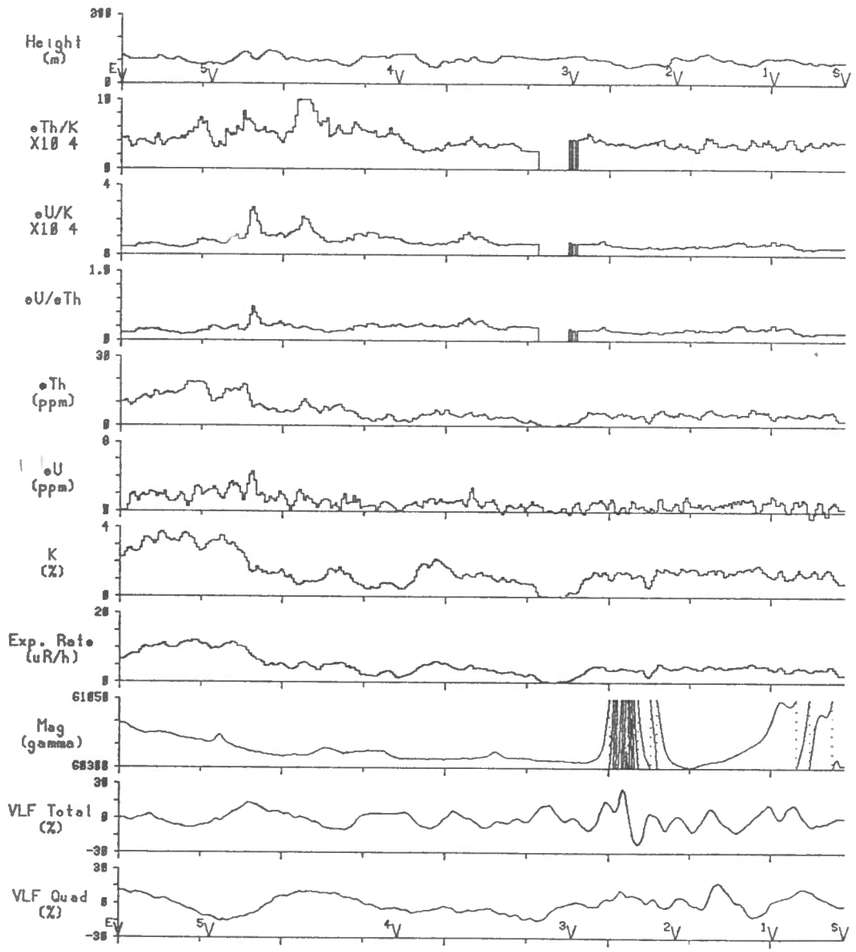
Line 131 — 2 km — Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



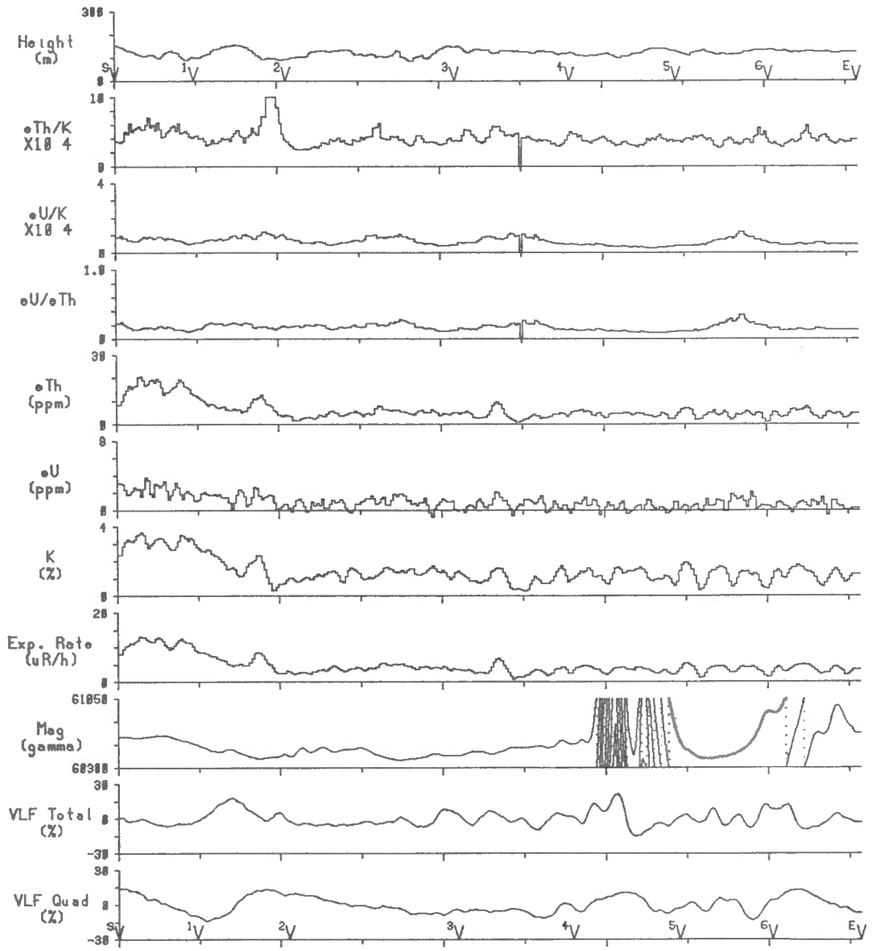
Line 133 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



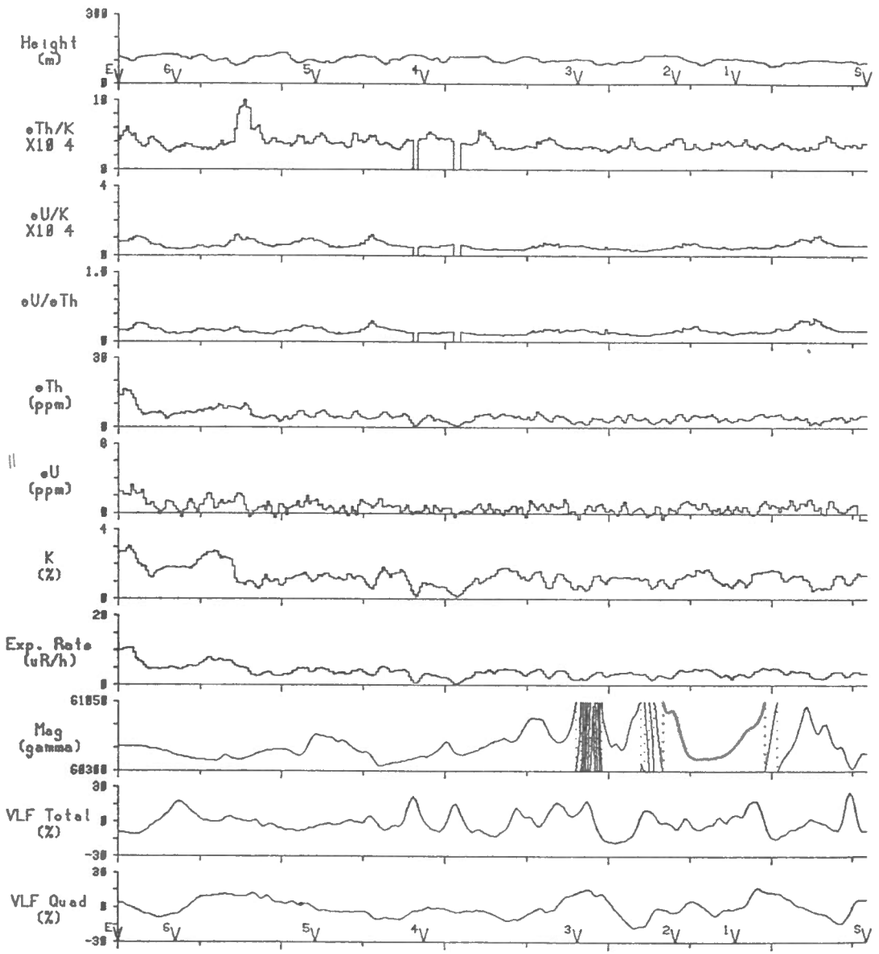
Line 135 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



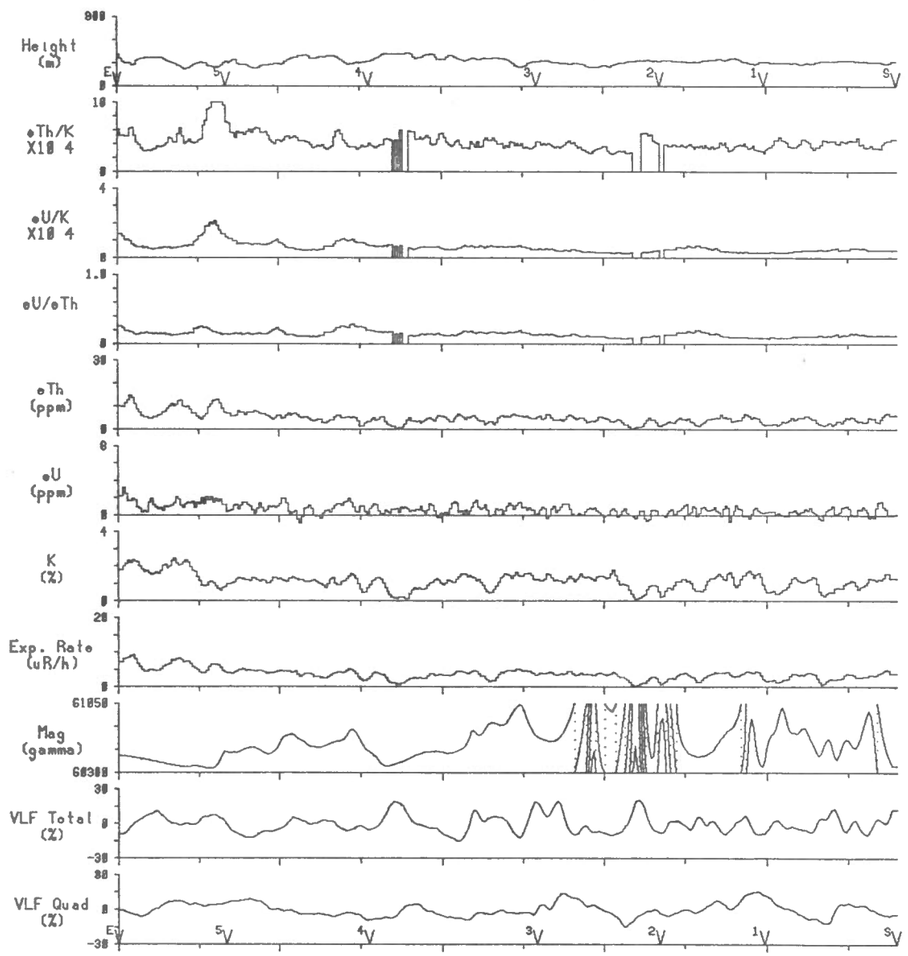
Line 137 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



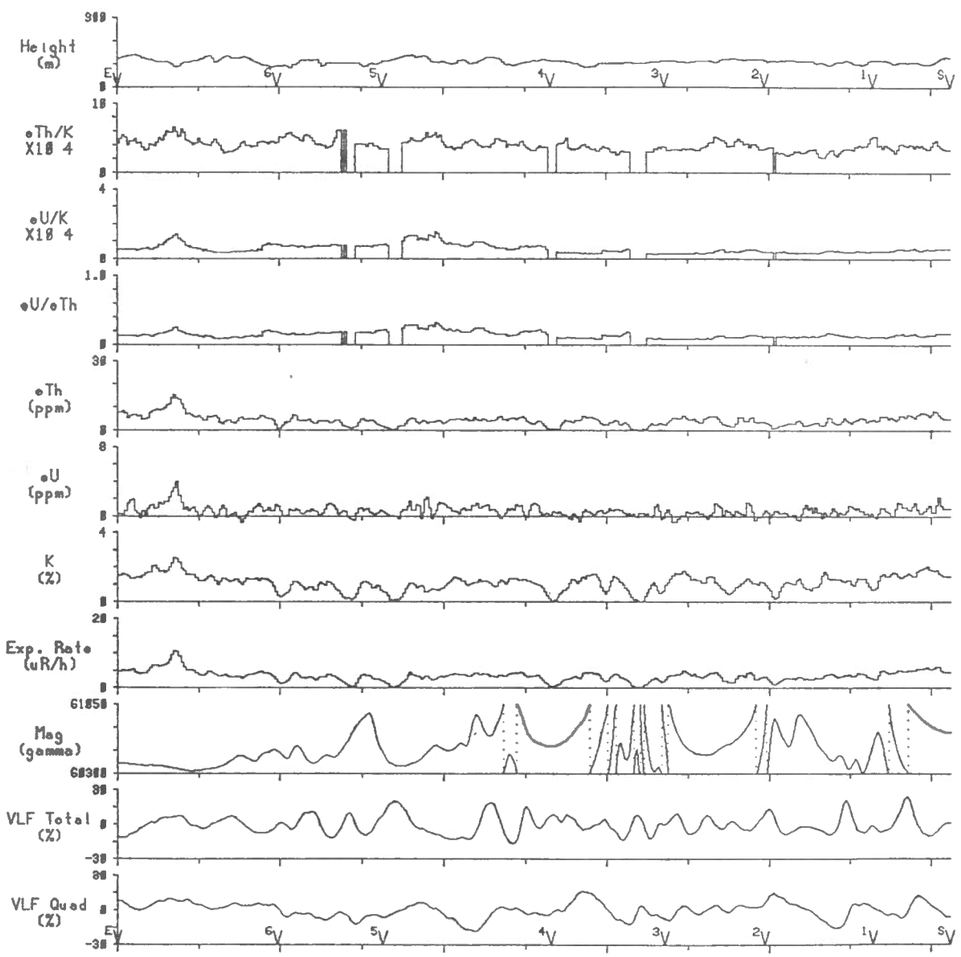
Line 139 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



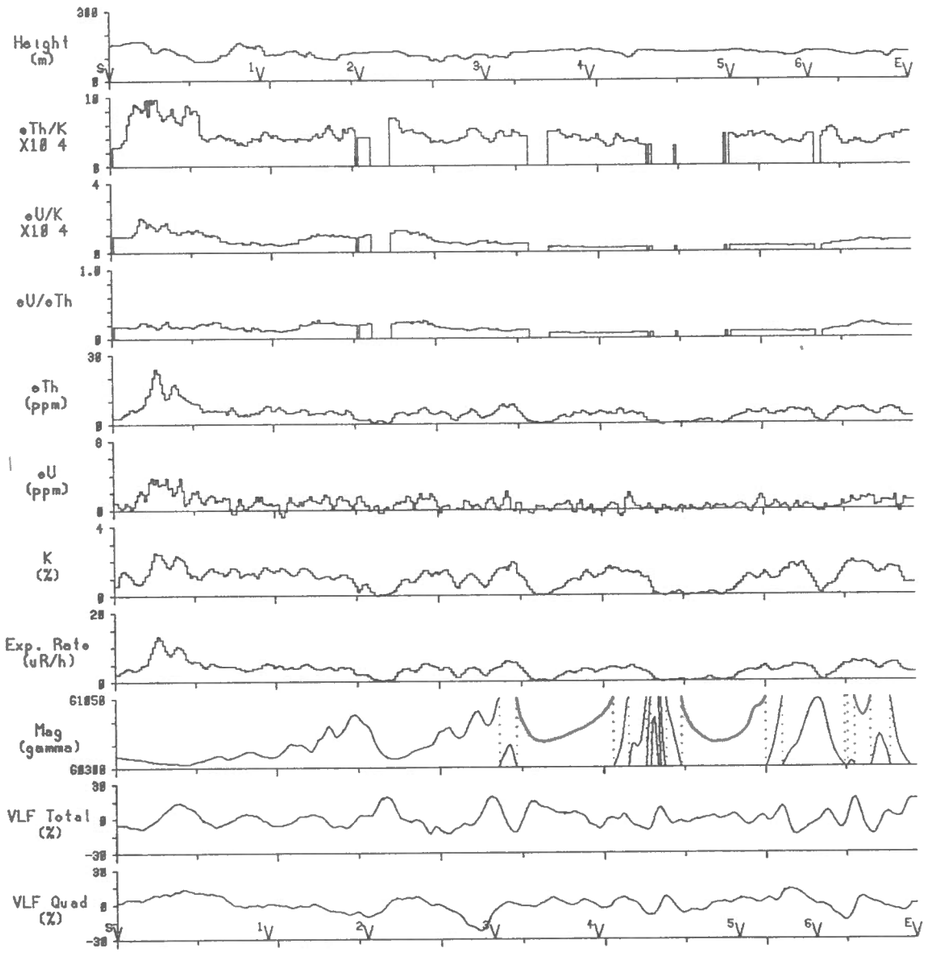
Line 141 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



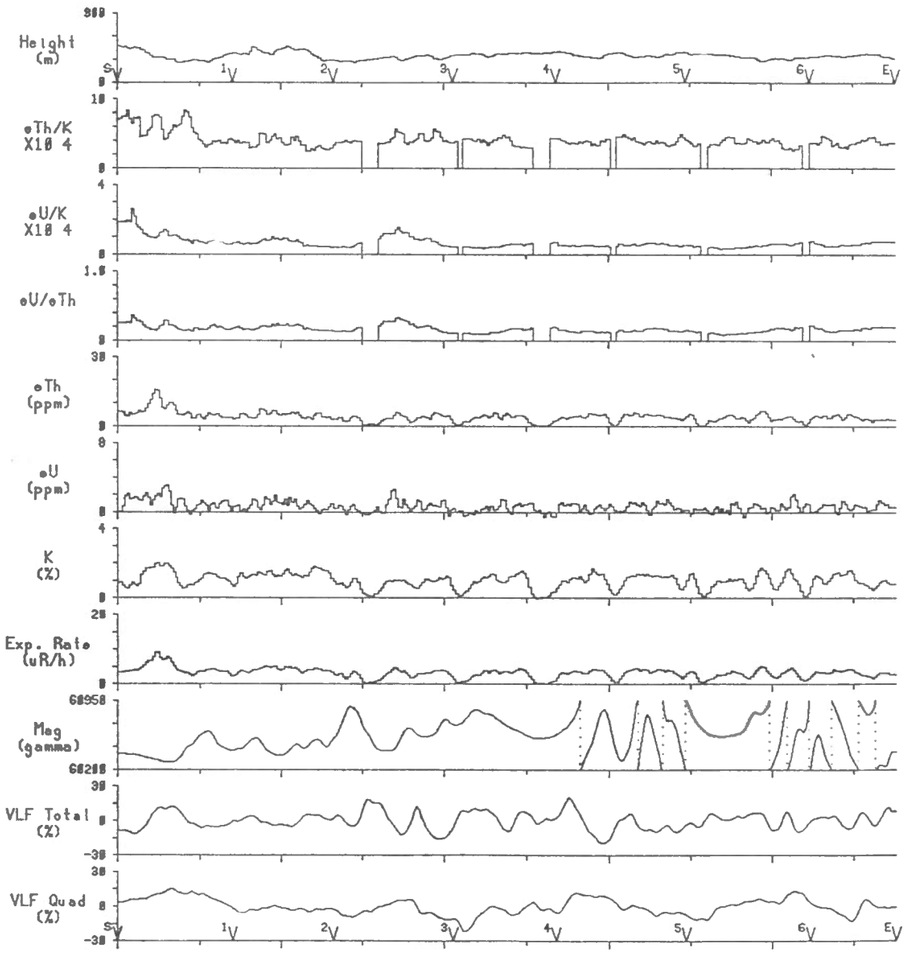
Line 143 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



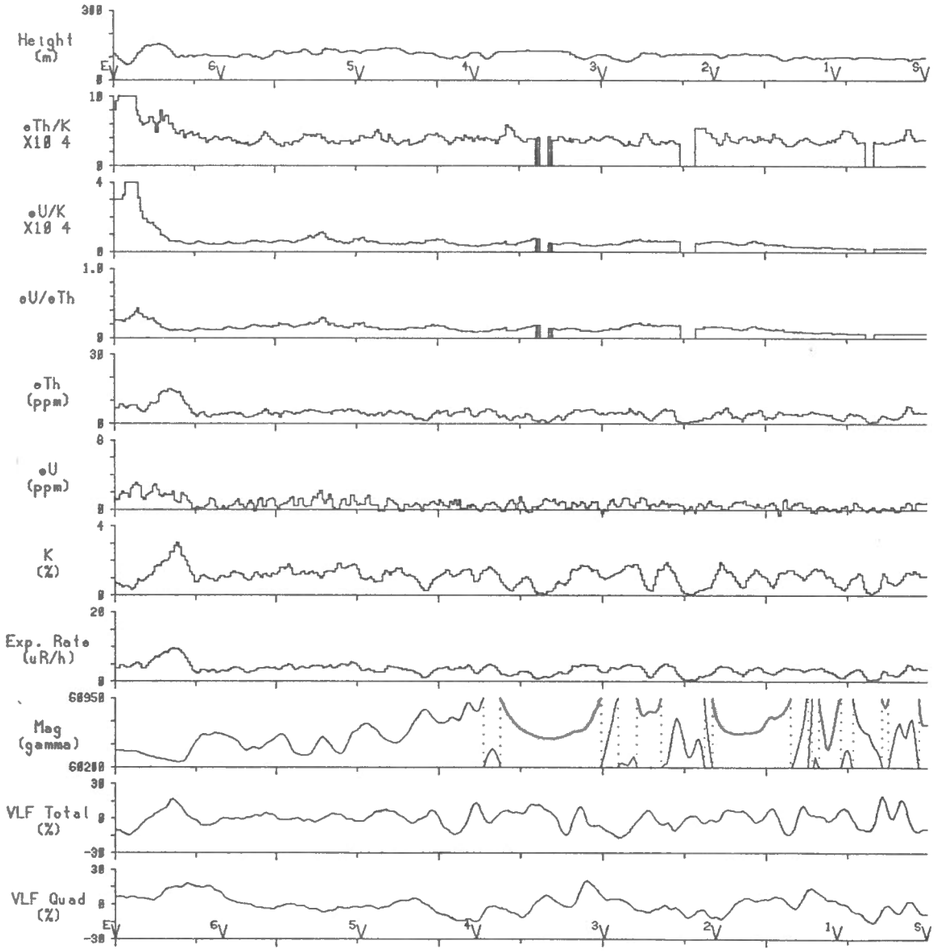
Line 145 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



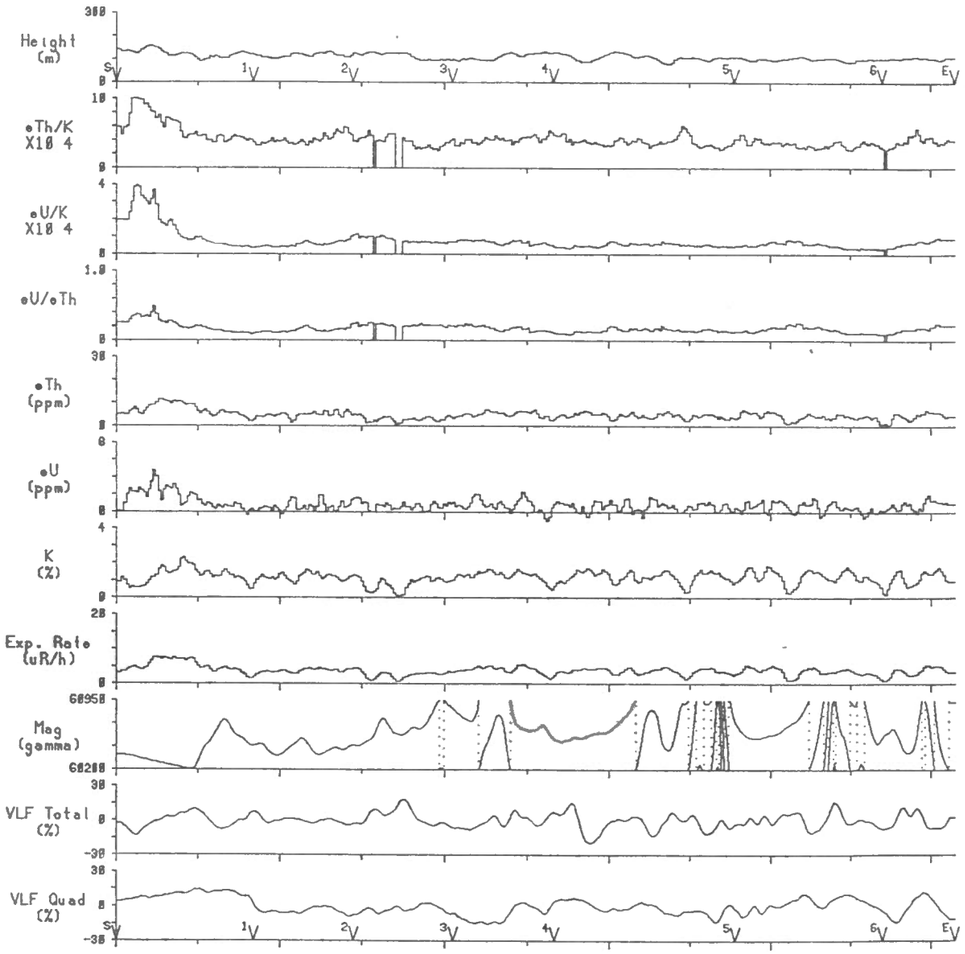
Line 147 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



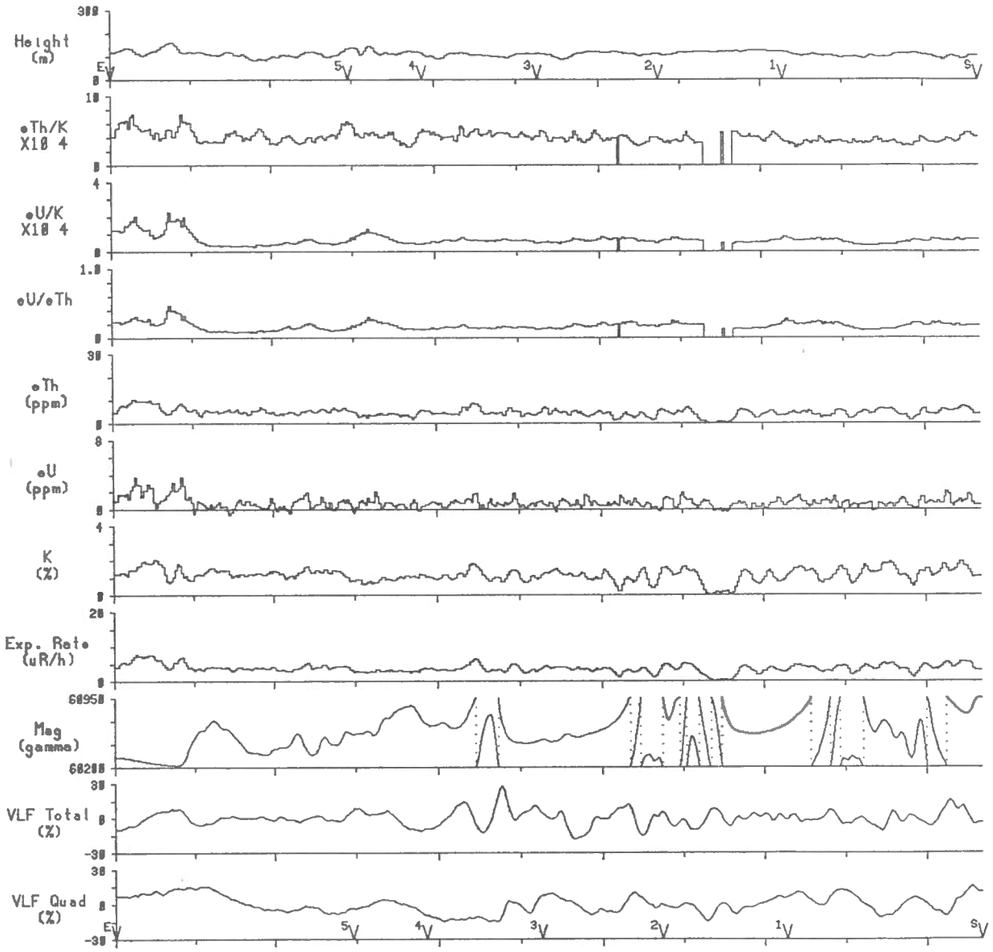
Line 149 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



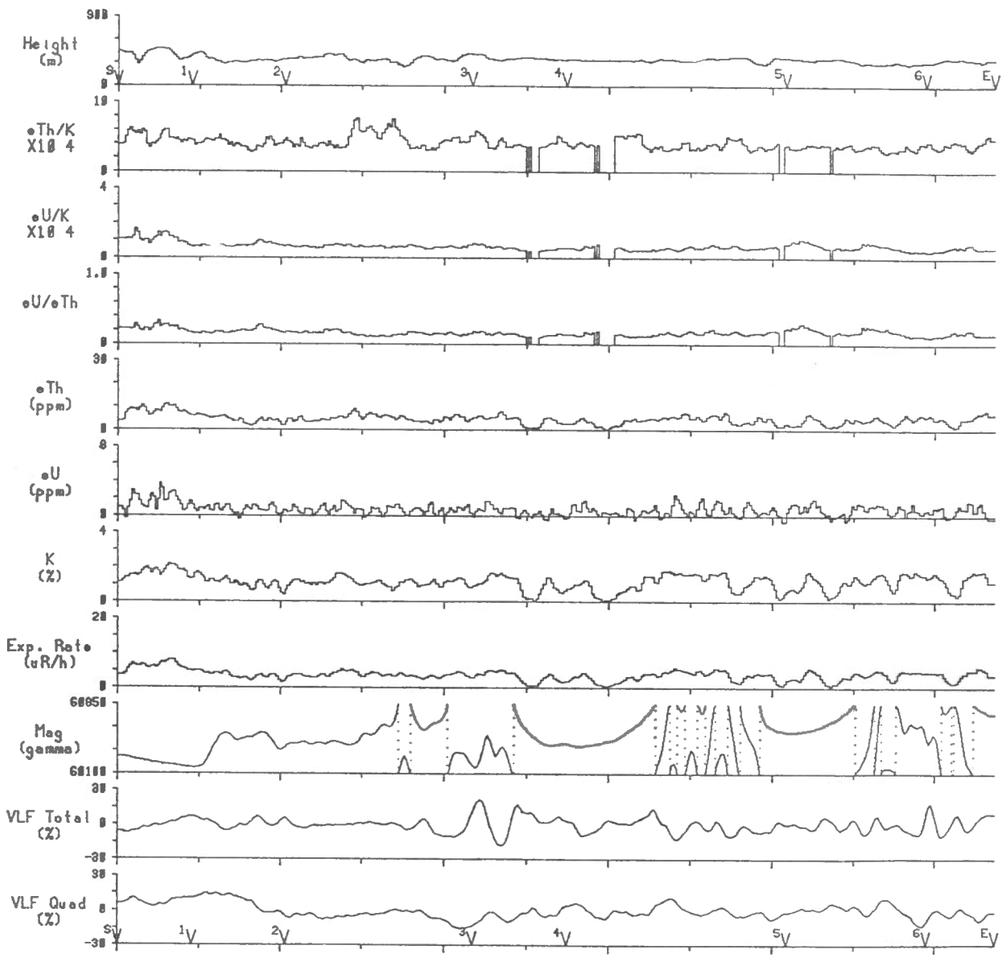
Line 151 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



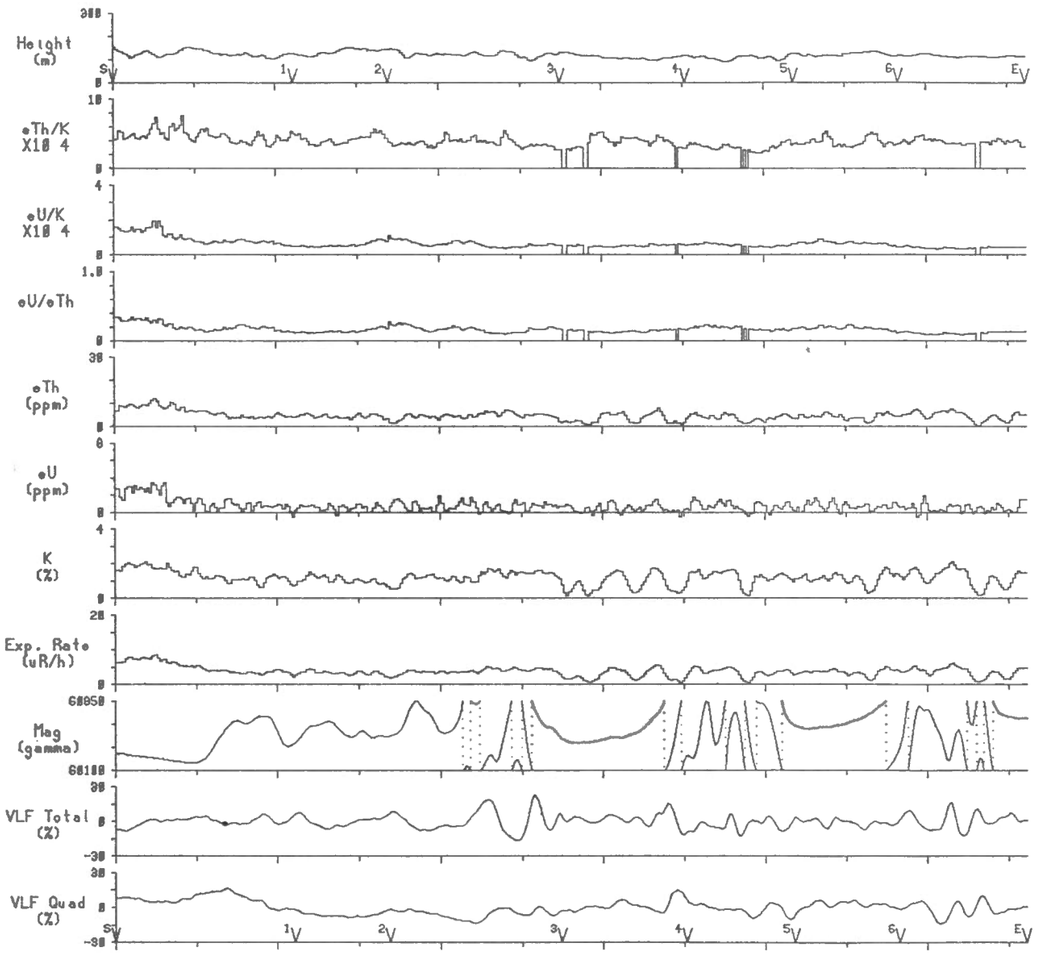
Line 153 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



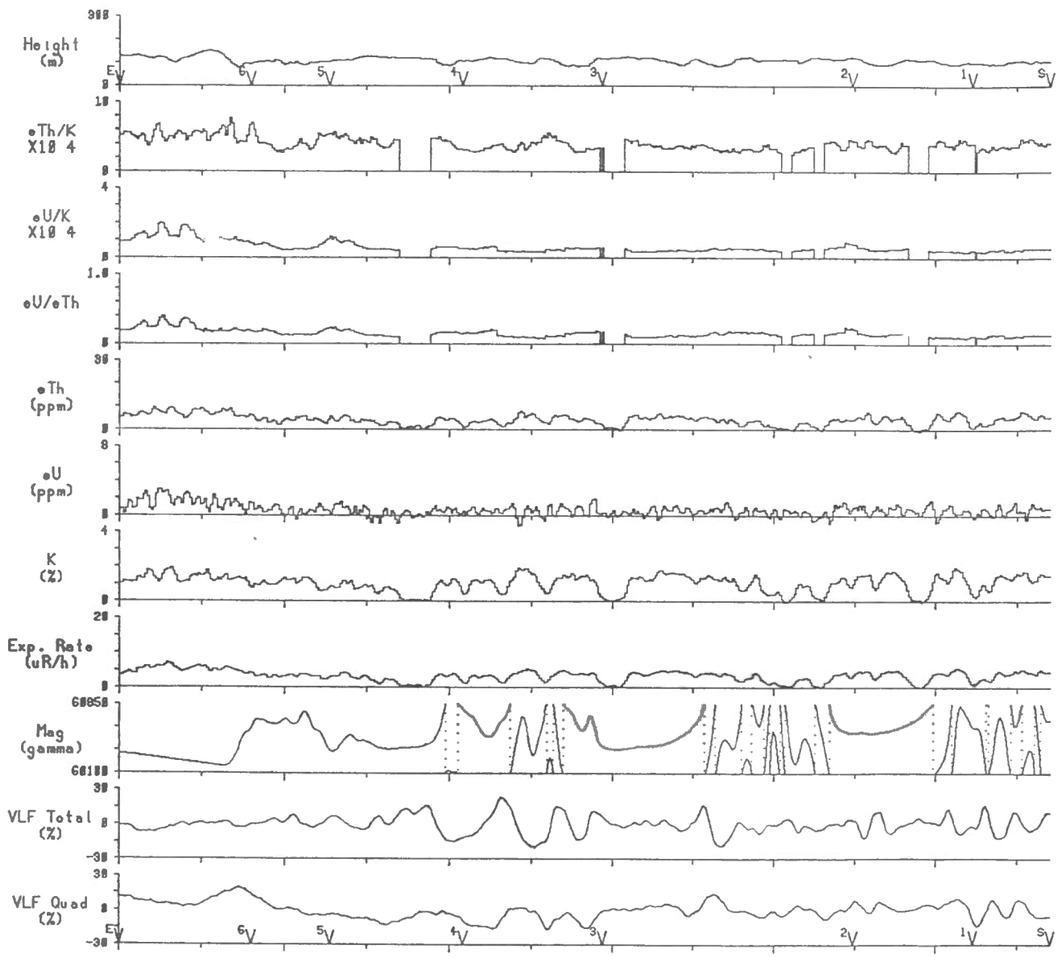
Line 155 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



Line 157 2 km Scale 1:150000

Fort Reliance N.W.T. 1988 (line spacing=500m)



Line 159 2 km Scale 1:150000