



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

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Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra	Fortrolig pga	Fortrolig fra dato:
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Forfatter		Dato 1953	Bedrift Lundberg Explorations Ltd.	
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Sammendrag				

BV 1928

LUNDBERG EXPLORATIONS LIMITED
VICTORY BLDG.
80 RICHMOND ST. WEST
TORONTO 1, ONT.

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Stockholm den 5/10 1953

Ingenjör Hofseth
Orkla Grube A/S
Lökken-Verk, Norge

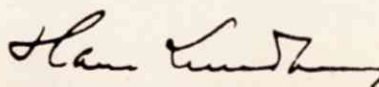
Högt ärade Ingenjör Hofseth,

Det var en högst intressant diskussion vi hade i Stockholm och jag får tacka så mycket för de många vädefulla upplysningar om Lökkengruvan såväl som de geologiska detaljer som Ingenjör Hofseth kunde meddela. Vid detta tillfälle lovade jag att skriva vad jag ansåg viktigast av resultaten vid vår elektromagnetiska flygprospektering.

På den bifogade kartan har jag lagt in de huvudsakliga elektriskt ledande zonerna. Jag har numrerat dem med 1, 2, 3, 4 och 5, vilket skall i någon mån ange deras rangordning. På samma karta har jag med streckade linjer lagt in zoner utmed vilka förskjutningar av de elektriska ledarna tyckas uppträda. Dessa förskjutningszoner äro naturligtvis mycket hypotetiska, men deras läge har markerats på kartan, då de kanske kunna få betydelse vid fortsatta prospekteringsarbeten. Beträffande de numrerade indikationerna ligger nr 1 tämligen djupt, antagligen 400 m eller mera. Indikationerna 2 och 3 tyckas indikera ledare på större djup. Vissa delar av de långa ledande zonerna 4 och 5 äro starkt markerade ledare, men deras karaktär är svår att avgöra. De tycks ligga såväl i ytan som på djupet.

Jag hoppas att dessa små anmärkningar kunna tjäna som ledning vid fortsatta prospekteringsarbeten och borrarningar. Jag behöver nog mera tid för att ingående studera Lökken-strukturerna och jag hoppas att det skall bli tillfälle litet längre fram att få besöka gruvorna och fortsätta våra intressanta diskussioner.

Med hjärtliga hälsningar
och utmärkt högaktning


Hans Lundberg

LUNDBERG EXPLORATIONS LIMITED

VICTORY BLDG
80 RICHMOND ST. WEST
TORONTO 1, ONT



April 22nd, 1954.

Orkla Grube-Aktiebolag,
Lökken Verk,
NORGE.

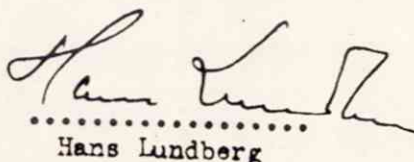
Gentlemen:

Referring to your letters of the 16th of February and the 30th of March, we send you herewith map showing anomaly recordings on Lines 20 to 13, both north and south of the cable, as you requested. On this map I also show my interpretation of the anomalies that cannot be accounted for from known artificial conductors.

It is no surprise to me that in the ground surveys they do not obtain the same anomalies as we recorded in the airborne surveys. As I already wrote you on March 24th, the effects from the ground itself many times overshadow the weaker anomalies that are obtained from conductors at greater depth.

May I suggest that a test be made by using the ore as the one electrode and stretch the cable from the shaft along Line 10 or 9 some 10 to 15 kilometers north-west from the mine and there make a grounding that is sufficiently good so that the cable could carry 4 to 5 amperes. If this is correctly made, and the ore body exists at the depth of some 400 metres, as we expect, profiles observed across the anomaly outlined by me should be possible to confirm by ground surveys, keeping in mind that such profiles should extend at least 3 kilometers on each side of the anomaly.

Yours very truly,


.....
Hans Lundberg

LUNDBERG EXPLORATIONS LIMITED
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TORONTO 1, ONT.



Orkla Grube A/S.,
Løkken Verk,
NORGE.

Stockholm, September 23, 1953.

Dear Sirs:

In accordance with agreement dated May 12th, 1953, an airborne electric survey was carried out on a portion of your territory.

A cable 7.6 km long was first laid out (July 9th - 11th) parallel to and south of the known ore-zone.

The position of the cable (which was grounded at both ends) is shown on the attached maps. The airborne recordings were made July 24th-31st by I. Jarnald and K. Lindgren.

In all 28 parallel lines were flown at right angles to the ore-zone and the cable. The distance between the lines was 200 meters and the average altitude flown above ground was 60 meters.

Two maps are attached drawn to scale 1:20 000. On one map there are shown lines flown and all known artificial conductors such as: power-lines, water-pipes, rails etc. On this map all the anomalies are shown as obtained from the airborne recordings.

On the second map the effects of the known artificial conductors have been eliminated so that this map should show only anomalies caused by geological features, mineralized zones or ore-bodies.

Certain complications naturally were encountered in weeding out the effects of the artificial conductors near the mine but it is hoped that the anomalies left here reasonably well correspond to ore left in the mine.

Without knowing anything of the general or local geology an interpretation of the result is rather difficult. It is therefore suggested that after the maps have been studied a meeting be arranged for between the company's geologist and the writer (before October 6th when the writer returns to Canada).

A few points might be mentioned as a start. According to our interpretation the ore body being mined should extend at depths in a north-westerly direction following a course bent towards north. This course is difficult to comprehend unless the general dip of the formation flattens out towards the north.

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There occurs to the northnortheast of the town of Lökken some strong conductive zones which might be worthy of further studies. To the south near the lake Seterlitjern there are two highly conductive zones that also merit attention.

On the map red lines have been drawn across two anomalies, where exploratory drilling would intersect the best portion of the conductive zones.

We trust that you will find the maps of interest and look forward to hear from you soon.

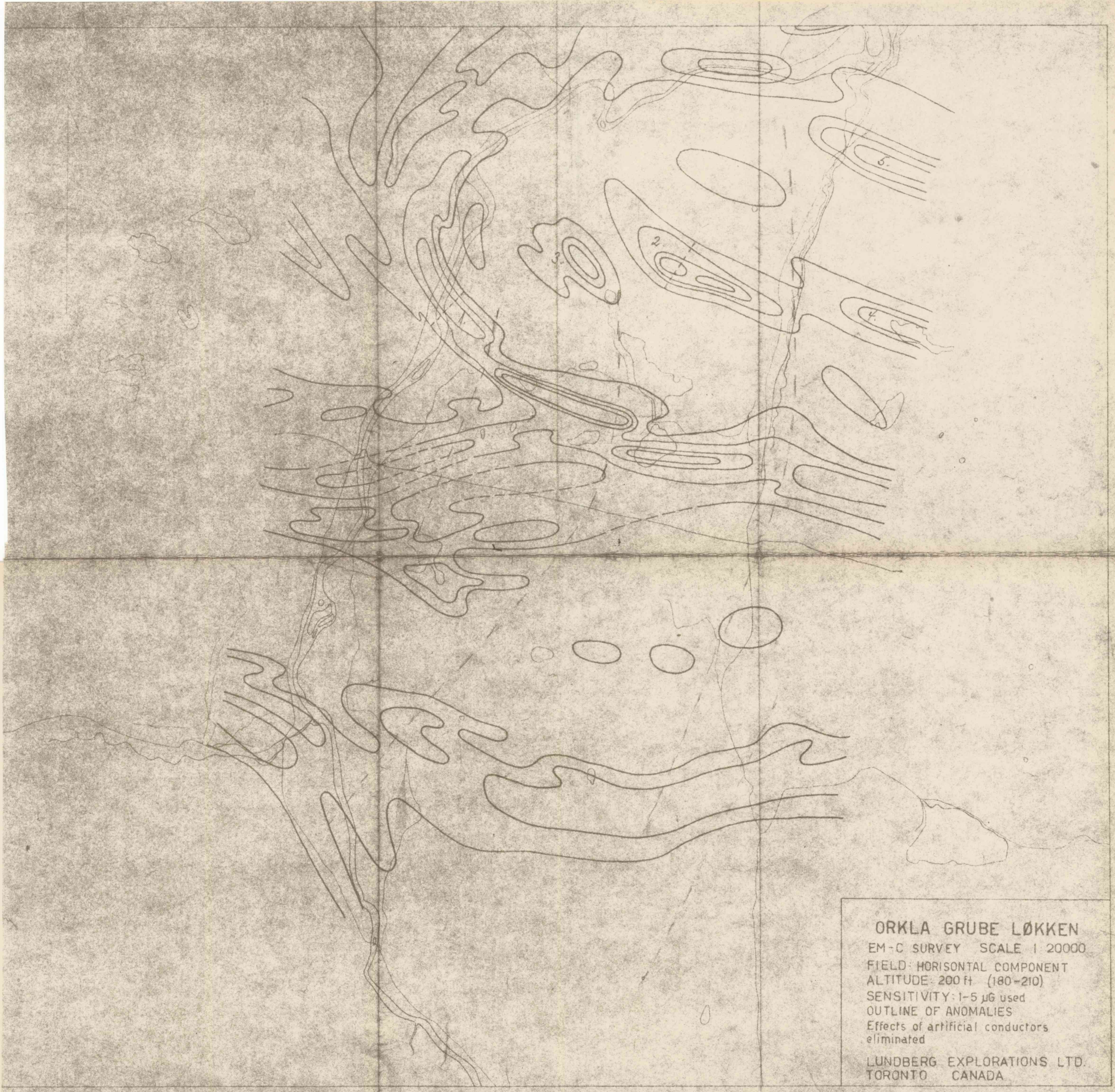
Yours very truly,

LUNDBERG EXPLORATIONS LTD.

Hans Lundberg
Hans Lundberg

P.S.

The airphoto mosaik, other map material and transparent prints of our two maps are forwarded separately.



ORKLA GRUBE LØKKEN

EM-C SURVEY SCALE 1:20000

FIELD: HORIZONTAL COMPONENT

ALTITUDE: 200 ft (180-210)

SENSITIVITY: 1-5 μ G used

OUTLINE OF ANOMALIES

Effects of artificial conductors
eliminated

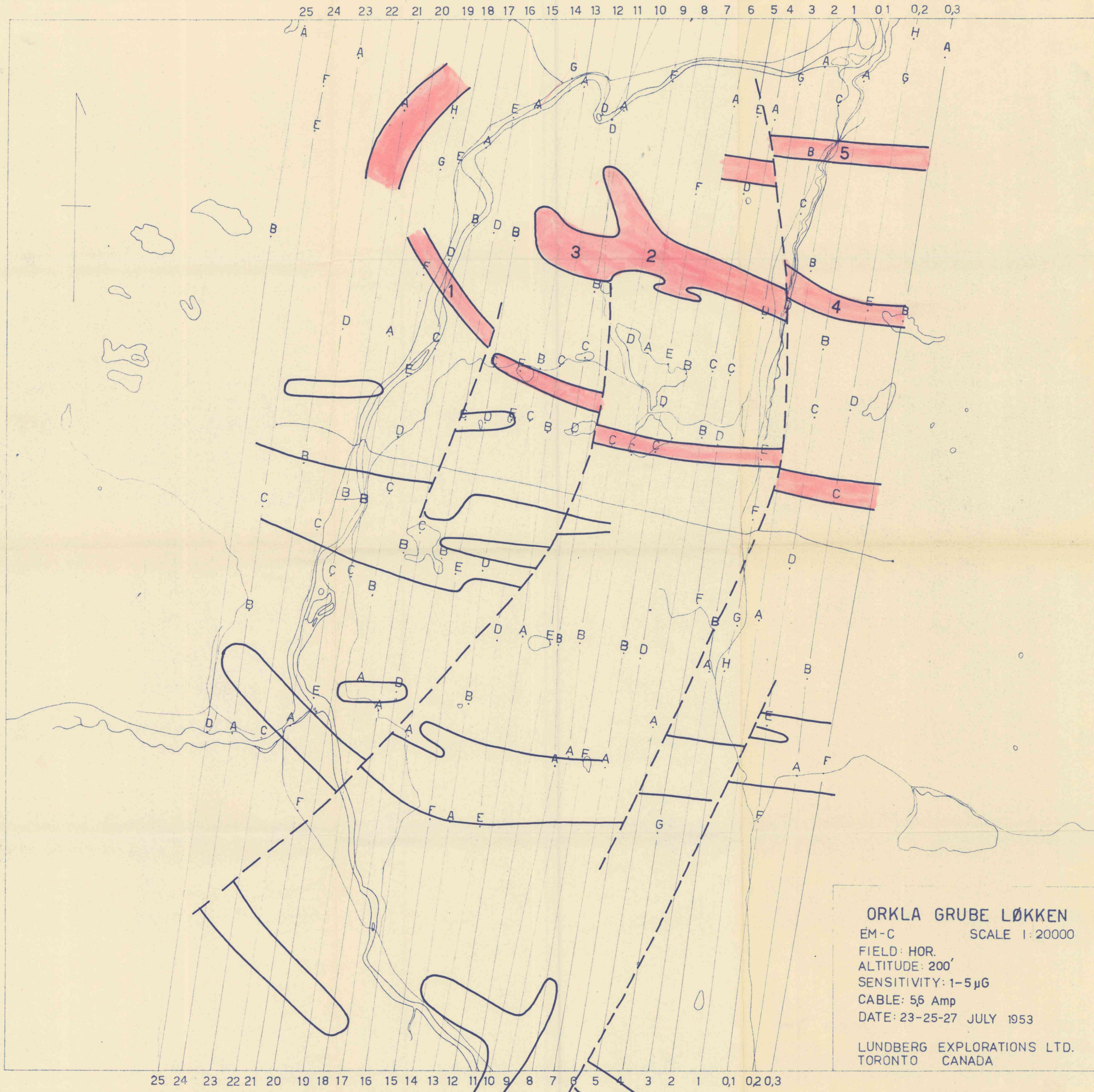
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TORONTO CANADA



ARTIFICIAL CONDUCTORS

- Power line (ground)
- .-.- Power line
- Water pipeline
- Railroad

ORKLA GRUBE LØKKEN
 EM-C SURVEY SCALE 1:20000
 FIELD HORIZONTAL COMPONENT
 ALTITUDE 200ft (60-210)
 SENSITIVITY 1-5µG used
 CABLE 50 Amp and 30 Amp
 DATE 23-25-27 JULY 1953
 Anomalies as recorded



ORKLA GRUBE LØKKEN

EM-C SCALE 1:20000

FIELD: HOR.

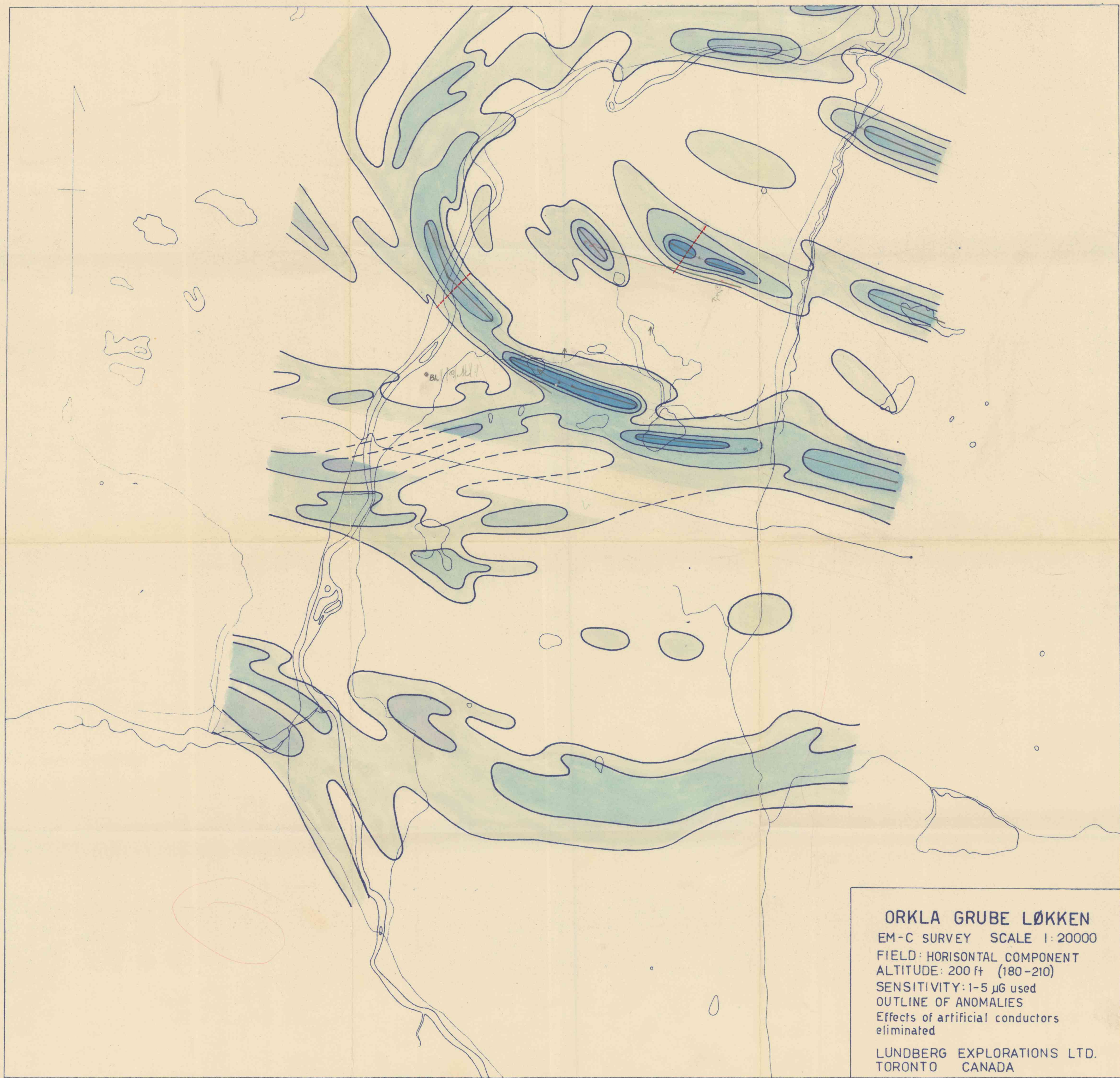
ALTITUDE: 200'

SENSITIVITY: 1-5 μ G

CABLE: 56 Amp

DATE: 23-25-27 JULY 1953

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ORKLA GRUBE LØKKEN
EM-C SURVEY SCALE 1:20000
FIELD: HORIZONTAL COMPONENT
ALTITUDE: 200 ft (180-210)
SENSITIVITY: 1-5 μ G used
OUTLINE OF ANOMALIES
Effects of artificial conductors
eliminated
LUNDBERG EXPLORATIONS LTD.
TORONTO CANADA

