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82-112

CANMINE DEVELOPMENT CO. LTD.

Max-Min II Test

Rich 1-4 and Co claims

Bower Creek Area

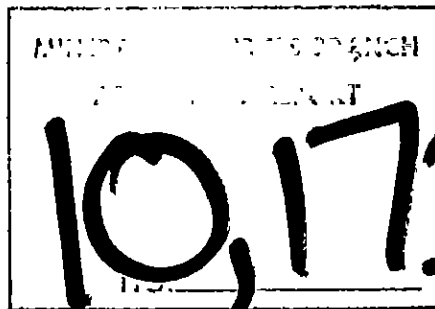
Omineca M.D., B.C., NTS 94 E/8E

Lat. $57^{\circ}25'N$, Long $126^{\circ}08'W$

AUTHOR: Glen E. White, B.Sc., P.Eng.,
Geophysicist

DATE OF WORK: September 17, 1981

DATE OF REPORT: October 16, 1981



Glen E. White

GEOPHYSICAL CONSULTING & SERVICES LTD.

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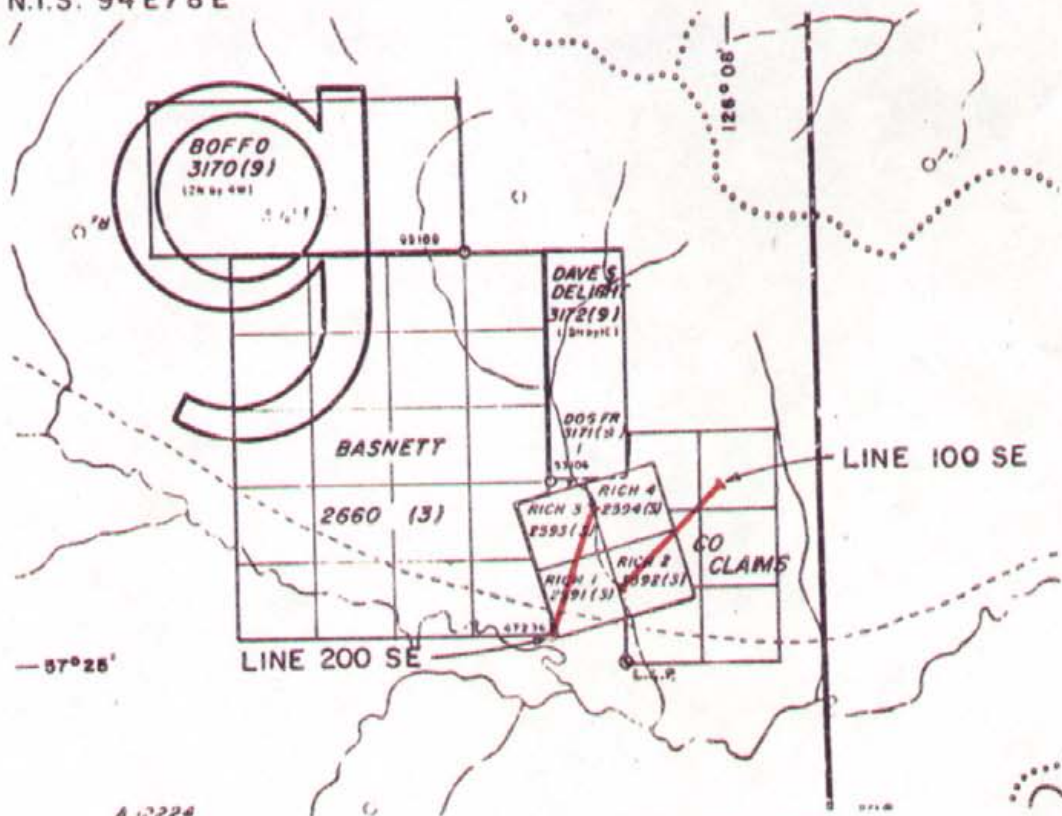
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N.T.S. 94 E/8 E



CANMINE DEVELOPMENT LTD.
RICH 1-4 & CO CLAIMS
LOCATION AND CLAIMS MAP

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geophysical consulting
&
services Ltd.

INTRODUCTION

During the period Sept. 9-19/81 Canmine Development Company Ltd. performed a test program of Max-Min II horizontal loop electromagnetometer surveying on several properties in the Finlay River - Mt. Basnett area. The work was performed on this group of claims on Sept. 17, 1981.

The purpose of the survey was to try and locate any electromagnetic conductors for future follow-up work.

PROPERTY

The claims and two lines surveyed are illustrated on Figure 1. The area surveyed consists of the Rich 1-4 and Co claim comprising a total of 10 units.

LOCATION AND ACCESS

The claims are located SW of Mt. Bower, Lat. $57^{\circ}25'N$ Long. $126^{\circ}08'W$, NTS 94 E/8E, Omineca Mining Division, B.C. Facile access to the area is by helicopter.

GENERAL GEOLOGY

The Rich claims overlay a northwesterly trending belt of Cambrian and Ordovician Kechika group of limestone, phyllite and calcareous shale and lower Cambrian Atlin group of limestone, siltstone, dolomite, quartzite, shale, sandstone and conglomerate.

The mineralization consists of chalcopyrite, galena and sphalerite occurring in a series of quartz veins which appear conformable to the local bedding.

SURVEY GRID

The survey grid was established coincident with the electromagnetometer survey. The lines are flagged and numbered at 50 m intervals. The position of the lines with respect to the claims is shown on Figure 1. Line 1 is at N45°E and line 2 at N20°E.

MAX-MIN II

The Max-Min II horizontal loop system was used for this survey. The system was used in the Max mode where the transmitter coil plane and receiver coil plane are coplanar and parallel to the terrain. Separation between the transmitter and receivers was 50 meters and the monitoring frequency was 1777 hz and 888 hz.

In-phase and quadrature voltage measurements are induced in the receiver relative to like quantities induced in a reference coil. The reference voltage and the receiver voltage are compared in a bridge or ratiometer circuit and the output is calibrated to read in percent of normal field. Thus, a zero reading indicates no conductors present.

DISCUSSION OF RESULTS

LINE 1 The in-phase readings show some variation which is not substantiated by the out-of-phase data. The in-phase change at 800 SW is likely due to a change in lithology or overburden.

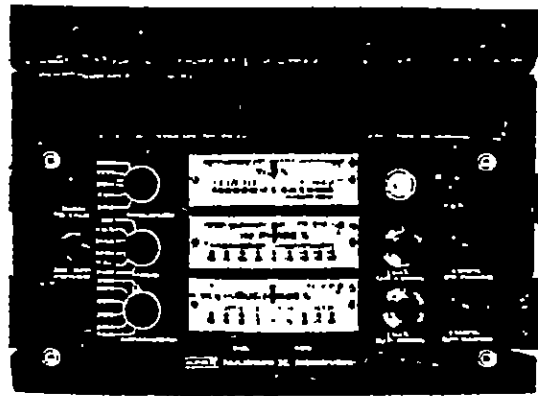
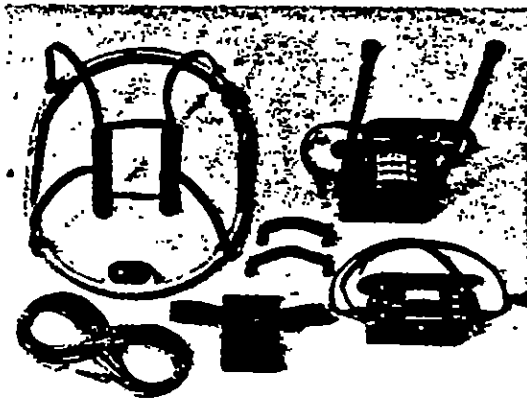
LINE 2 Suggests a weak conductor at 450 SW. This zone should be prospected and soil sampled.

CONCLUSION AND RECOMMENDATIONS

A one day test electromagnetometer survey on the Rich and Co claims located a weak conductor on reconnaissance line #2. This anomaly should be investigated for its geological significance preliminary to any further geophysical surveying.

Respectfully submitted,

A circular professional seal for the Province of Ontario, British Columbia. The seal contains the text "PROFESSIONAL ENGINEER" around the top edge, "PROVINCE OF ONTARIO" in the center, and "BRITISH COLUMBIA" at the bottom. A signature is written across the seal.
Glen E. White, B.Sc., P.Eng.,
Geophysicist



SPECIFICATIONS :

Frequencies:	222, 444, 888, 1777 and 3553 Hz.	Repeatability:	±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.
Modes of Operation:	<p>MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.</p> <p>MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.</p> <p>V.L.: Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.</p>	Transmitter Output:	<ul style="list-style-type: none"> - 222 Hz : 220 Acm² - 444 Hz : 200 Acm² - 888 Hz : 120 Acm² - 1777 Hz : 80 Acm² - 3553 Hz : 30 Acm²
Coil Separations:	25, 50, 100, 150, 200 & 250m (MM) or 100, 200, 300, 400, 600 and 800 ft. (MMIF). Coil separations in VL mode not restricted to fixed values.	Receiver Batteries:	6V trans. radio type batteries (4). Life: approx. 35 hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.
Parameters Read:	<ul style="list-style-type: none"> - In-Phase and Quadrature components of the secondary field in MAX and MIN modes. - Tilt-angle of the total field in VL mode. 	Transmitter Batteries:	12V 5Ah Gel-type rechargeable battery. (Charger supplied).
Readouts:	<ul style="list-style-type: none"> - Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary. - Tilt angle and null in 90mm edgewise meters in VL mode. 	Reference Cable:	Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.
Scale Ranges:	<p>In-Phase: ±20%, ±100% by push-button switch.</p> <p>Quadrature: ±20%, ±100% by push-button switch.</p> <p>Tilt: ±75% slope.</p> <p>Null (VL): Sensitivity adjustable by separation switch.</p>	Voice Link:	Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.
Readability:	In-Phase and Quadrature: 0.25% to 0.5% ; Tilt: 1%.	Indicator Lights:	Built-in signal and reference warning lights to indicate erroneous readings.
		Temperature Range:	-40°C to +60°C (-40°F to +140°F).
		Receiver Weight:	8kg (18 lbs.)
		Transmitter Weight:	13kg (29 lbs.)
		Shipping Weight:	Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.
			Specifications subject to change without notification.

APEX PARAMETRICS LIMITED

200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1812

Cables: APEX/PARA TORONTO

Telex: NOTE OUR NEW TELETYPE NUMBER: 06-966775 APEX/PARA MKHM

Glen E. White

GEOPHYSICAL CONSULTING & SERVICES LTD.

STATEMENT OF QUALIFICATIONS

NAME: WHITE, Glen E., P.Eng.

PROFESSION: Geophysicist

EDUCATION: B.Sc. Geophysics - Geology
University of British Columbia

PROFESSIONAL ASSOCIATIONS: Registered Professional Engineer,
Province of British Columbia

Associate member of Society of Exploration Geophysicists.

Past President of B.C. Society of Mining Geophysicists

EXPERIENCE: Pre-Graduate experience in Geology -
Geochemistry - Geophysics with Anaconda
American Brass

Two years Mining Geophysicist with Sulmac
Exploration Ltd. and Airborne Geophysics
with Spartan Air Services Ltd.

One year Mining Geophysicist and Technical
Sales Manager in the Pacific north-west
for W.P. McGill and Associates

Two years Mining Geophysicist and super-
visor Airborne and Ground Geophysical
Divisions with Geo-X Surveys Ltd.

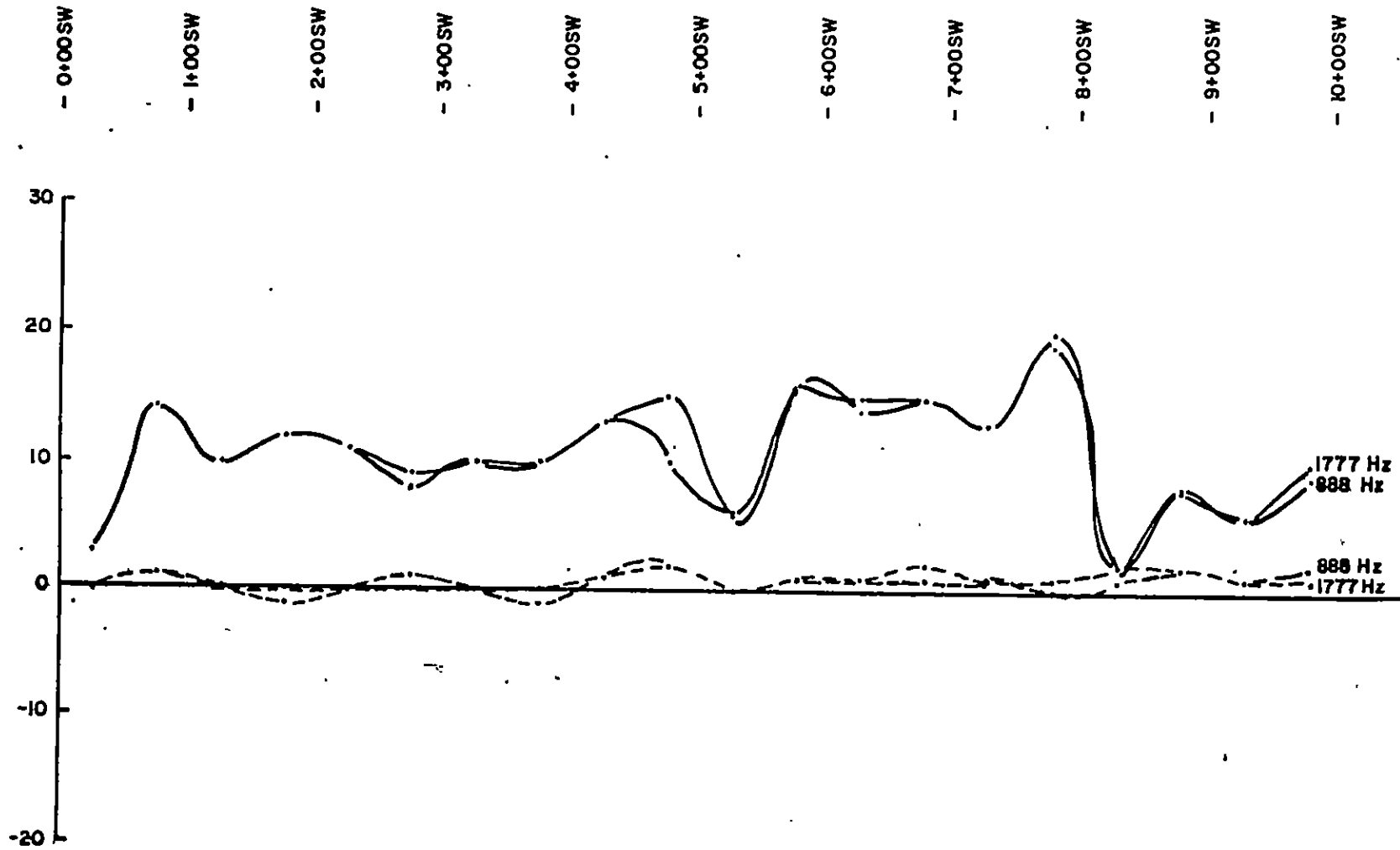
Two years Chief Geophysicist Tri-Con
Exploration Surveys Ltd.

Ten years Consulting Geophysicist

Active experience in all Geologic provinces
of Canada

COST BREAKDOWN

<u>PERSONNEL</u>	<u>DATE</u>	<u>WAGES</u>	<u>TOTAL</u>
M. Gray	Sept. 17/81	\$175.00	\$ 175.00
O. Aareskjold	Sept. 17/81	\$165.00	\$ 165.00
J. Merrill	Sept. 17/81	\$155.00	\$ 155.00
Meals and Accommodations			
5 men (helicopter pilot and supervisor) ...			\$ 200.00
Instrument lease			\$ 125.00
Drafting and report			\$ 450.00
Helicopter Total \$13,527.90 pro-rated			\$2,000.00
Aircraft Total \$3,692.00 pro-rated			<u>\$1,000.00</u>
Total			\$4,270.00



INPHASE COMPONENT ———
 QUADRATURE COMPONENT - - - -

CANMINE DEVELOPMENT LTD.
 RICH 1-4 & CO CLAIMS
 APEX PARAMETRICS MAX.- MIN. II
 LINE 100 SE

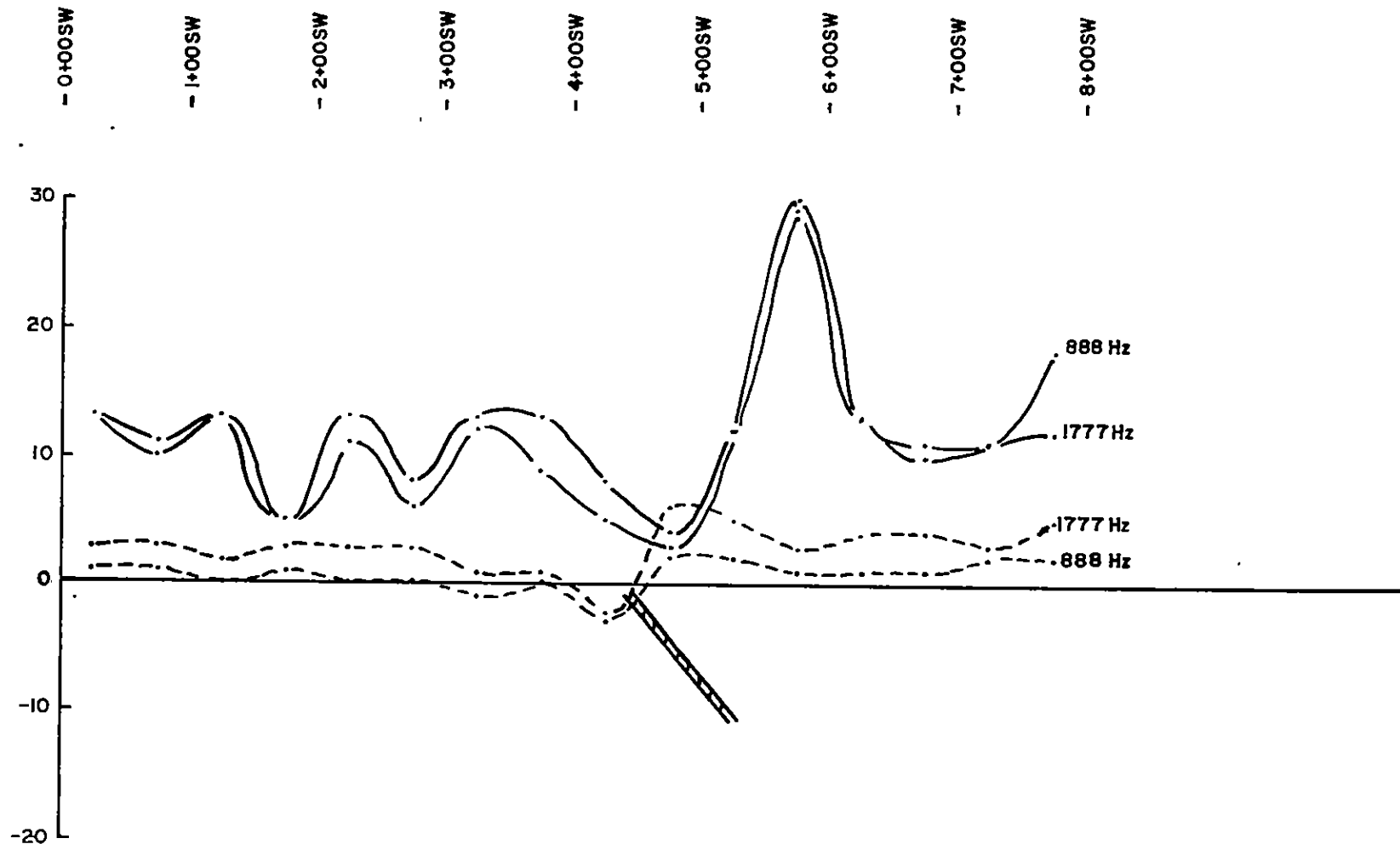


SEPARATION = 50m

DATE: OCT./81
 FIG. 2

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 Vancouver, B.C.

1 cm = 50 metres



INPHASE COMPONENT . — .
 QUADRATURE COMPONENT . - - - .

CANMINE DEVELOPMENT LTD.
 RICH 1-4 & CO CLAIMS
 APEX PARAMETRICS MAX.-MIN.II
 LINE 200 SE



SEPARATION = 50m

DATE: OCT./81

FIG. 3

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 2
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1 cm = 50 metres