W-2226-01

GEO-RECON Explorations Ltd.

September 30, 1971

International Resources
1 Palmo Court
Novato, CA 94947

Attn: Mr. John Morrison

RE: Geophysical Investigation
P.M.C. 1796, Olivine Creek
P.M.L. 1840, Tulameen River
Princeton Mining District

Gentlemen:

This letter report contains the results of the geophysical investigation of P.M.C. 1796, Olivine Creek, and P.M.L. 1840, Tulameen River, Princeton Mining District, British Columbia. The purpose of the investigation was to determine the depth and configuration of the buried bedrock surface by seismic refraction methods and to locate concentrations of metallic minerals by a magnetic survey.

Field investigations were conducted during September 14-16, 1971. Survey locations were selected by Mr. H.C. Morrison of International Resources. Geophysical operations and interpretations were administered by Mr. Robert Kenly, Senior Geophysicist.

The location of the exploration traverses on P.M.C. 1796 may be found on Fig. 1, Exploration Plan. Results are depicted on Fig. 2, Seismic Velocity and Magnetic Intensity Profiles. The seismic velocity profile indicates the depth of refracting interfaces between materials exhibiting contrasting and increasingly higher seismic velocities with depth. The following suggested classification of materials is based upon the correlation of seismic velocities with visual observation of exposures or a comparison

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with velocities that we have encountered at other locations but in a similar geologic environment.

Seismic velocity, feet per second	Suggested Classification
1000 - 2500	Loose alluvial material or talus
3000 - 5000	Alluvium or talus
7500	Denser alluvium or glacial debris
13,000 - 15,000	Bedrock

Distribution of the various materials is shown on Fig. 2. Following the traverse in its northerly direction, it will be noted that the bedrock surface plunges abruptly from the out-cropping at Station 0+00, then ranges from 30 to 50 feet below the ground surface to Station 5+00, where it becomes fairly shallow up to Station 6+75, at which point it begins a locally erratic but general decline. An abrupt change in the overburden material also occurs at Station 6+75: to the south, the material ranges in velocity from 4000 - 5000 fps, probably representing the alluvium that can be observed in the cut; to the north, where the bedrock surface dips, the main mass of overburden increases in velocity to 7500 fps. It is obscured by a relatively thin covering of 3000 fps alluvium but the 7500 fps may represent either a denser phase of the alluvium or glacial debris; this velocity is commonly exhibited by glacial materials, the presence of which has been reported in the area.

The two cross-traverses were intended to further delineate the configuration of the bedrock surface. ST-3 indicates that the old channel underlies the easterly portion of the present valley while at ST-2, the depth to bedrock is fairly uniform, with the exception of the bedrock rise noted in the center of the valley.

The magnetic survey was conducted to determine whether concentrations or metallic minerals might be detected. The general trend of the magnetic

intensity profile indicates that the primary effect may be the thickness of overburden with the thicker overburden registering a higher intensity.

A magnetic survey was also conducted on the north-trending centerline of P.M.L. 1840, Tulameen River. The magnetic intensity profile is shown on Fig. 3. The higher values at the northern end of the traverse indicate an anomalous condition approximately 150 feet below the ground surface and may correspond to the reported rise in the bedrock surface in that area.

The magnetic intensity profiles were developed with an Elsec proton precession magnetometer.

The seismic refraction method employed on Electro-Tech Model ER-75 portable seismic refraction seismograph, Mark Products seismic detectors at 25-foot spacings along a seismic cable, and light explosive charges to provide seismic energy. The accuracy of the method depends to a large extent upon the ability to distinguish between the various velocities encountered. In the area investigated in this report the velocities varied locally but were generally uniform; thus while the depth determination at one point may be adversely affected by a velocity change, it is our opinion that the overall profile is a reasonably true representation of existing subsurface conditions.

Very truly yours,
GEO-RECON EXPLORATIONS LTD.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. O. BUSH

BY Robert G. Kenly
Robert G. Kenly

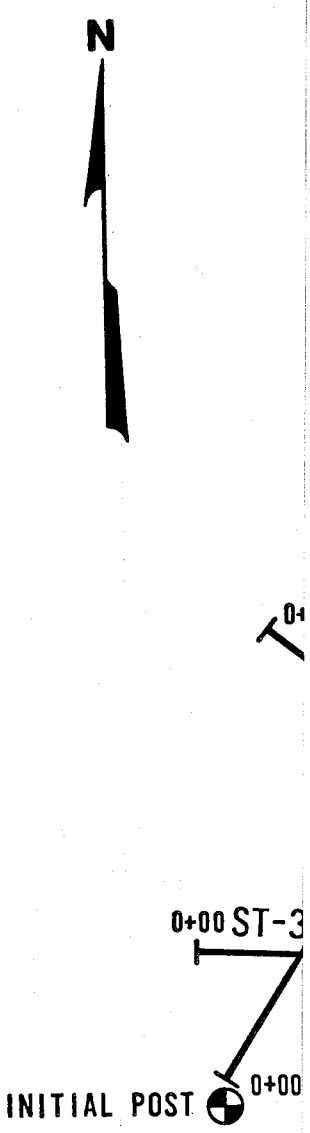
BY
Boyd O. Bush, P. Eng.

RGK:mw

ccs: Morrison w/report (1)
Morhardt w/ reports (3)

Maps

1. Exploration Plan
2. Seismic velocity and magnetic intensity profiles
3. Magnetic intensity profile
4. Exploration plan - PML 1840
5. Exploration plan - PML 1796



SCALE IN FEET

INTERNATIONAL RESOURCES
TULAMEEN, B.C.
GEOPHYSICAL INVESTIGATION, P.M.C. 1796

EXPLORATION PLAN

SEPTEMBER, 1971 W-2226-01

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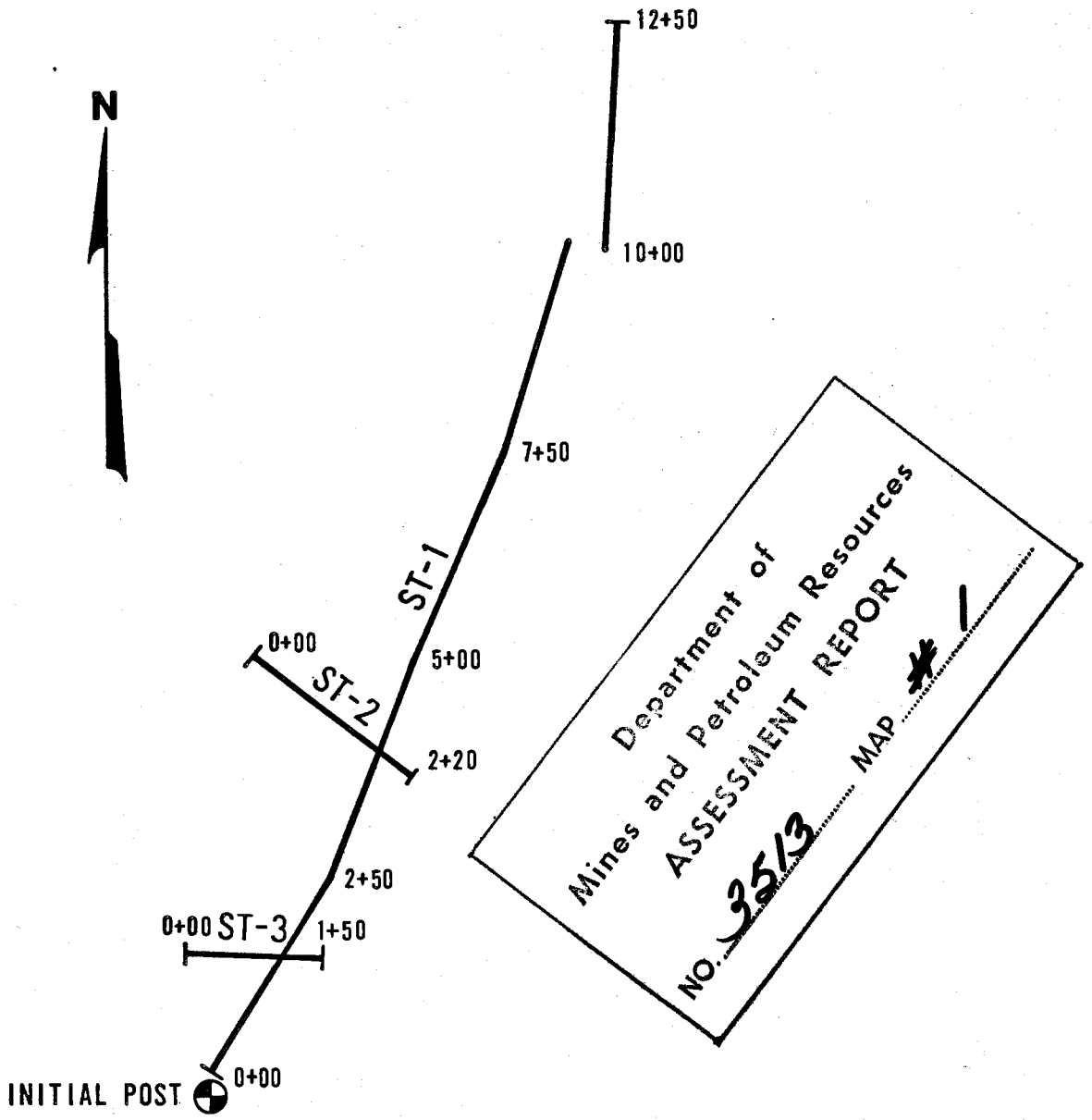
FIG. 1



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SCALE IN FEET

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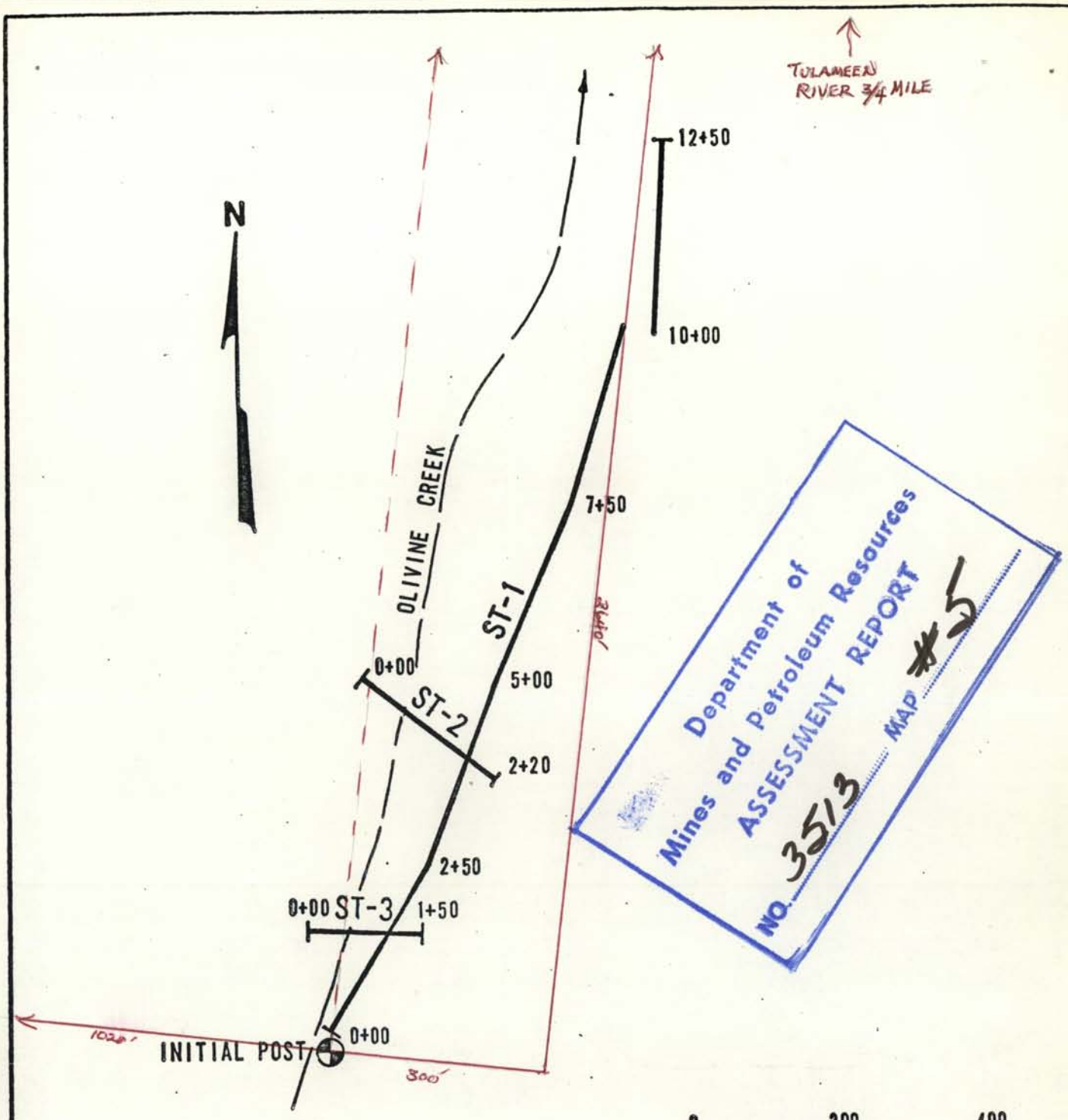
FIG. 1



INTERNATIONAL RESOURCES
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EXPLORATION PLAN

PML 1796

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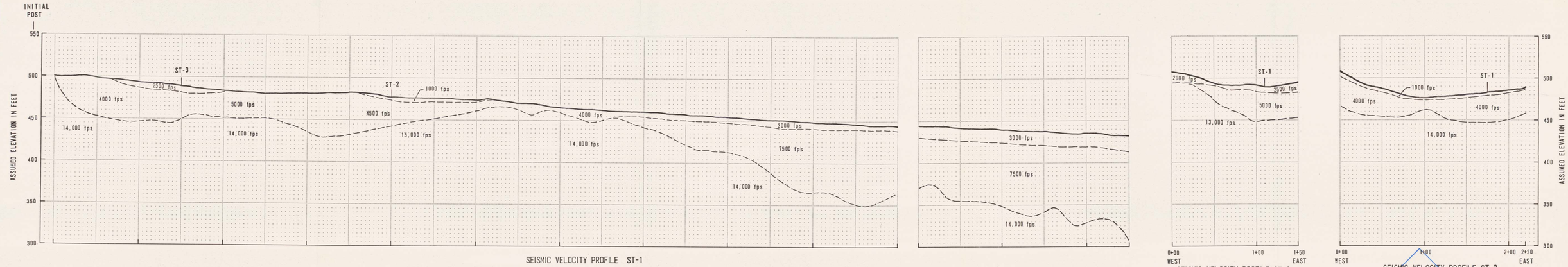
FIG. 1



INTERNATIONAL RESOURCES
TULAMEEN, B.C.
GEOPHYSICAL INVESTIGATION, P.M.C. 1796

SEISMIC VELOCITY AND MAGNETIC INTENSITY PROFILES

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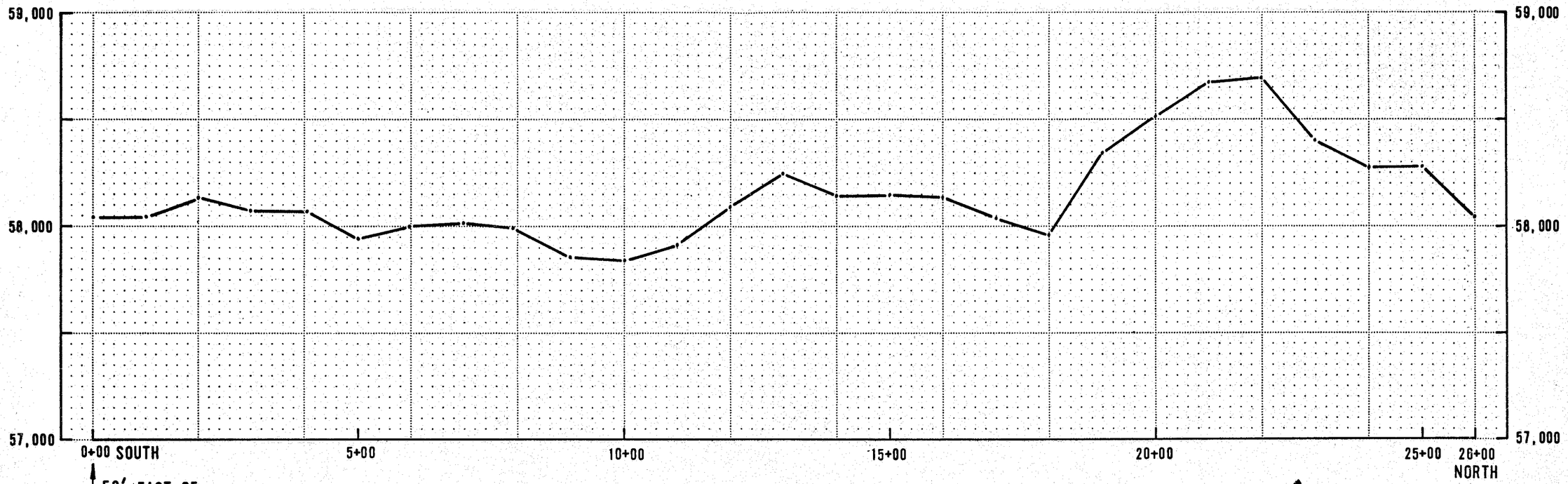
FIG. 2



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SCALE IN FEET

INTERNATIONAL RESOURCES
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MAGNETIC INTENSITY PROFILE

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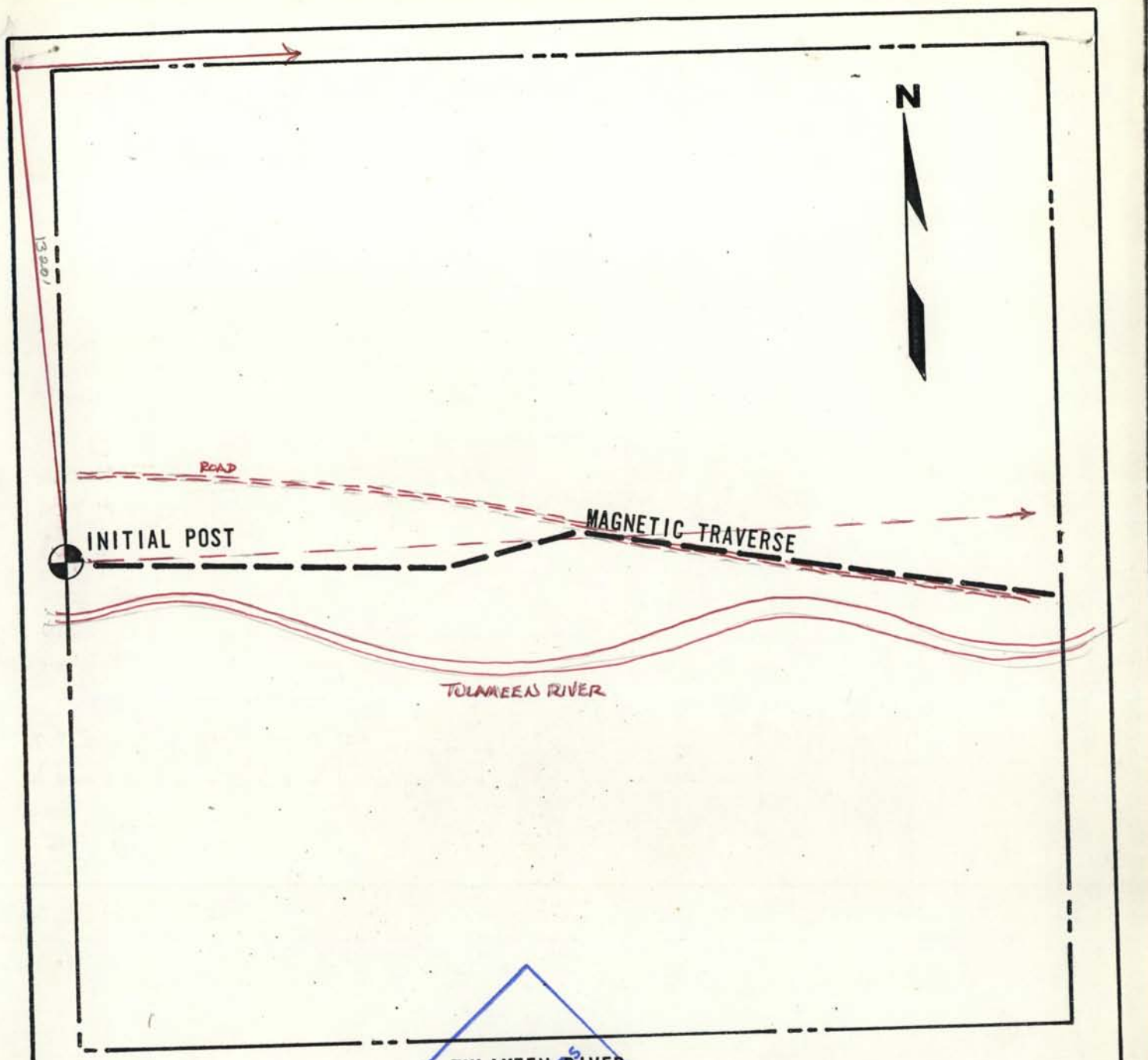
FIG. 3



INTERNATIONAL RESOURCES
TULAMEEN, B.C.
GEOPHYSICAL INVESTIGATION, P.M.L. 1840

EXPLORATION PLAN

PML 1840

SEPTEMBER, 1971

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FIG. 4