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FORERUNNER RESOURCES INC

REPORT ON

SEISMIC REFRACTION INVESTIGATION

SPANISH LAKE PLACER PROJECT

PLACER CLAIM 264364 (PC 601)

LIKELY, B.C.

CARIBOO MINING DISTRICT

N T S 093 A 11W

52° 35' NORTH, 121° 27' WEST

BY

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MAY 10, 1995

FILMED

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

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1.0 INTRODUCTION

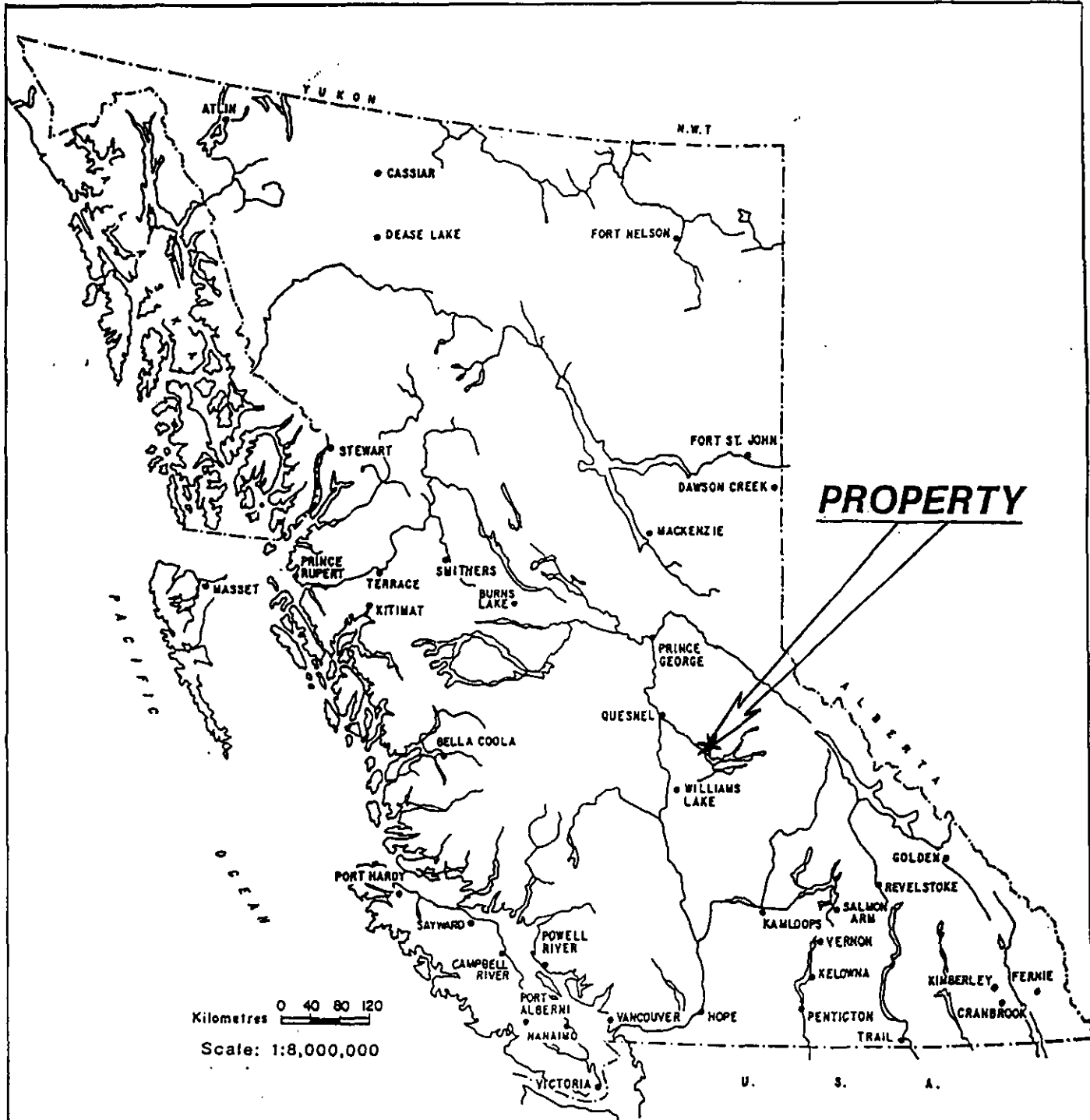
1.1 PROPERTY LOCATION

The Spanish Lake Placer Project and Placer Claim 264364 are located on the south side of Spanish Lake, approximately 7 kilometers east of Likely, B.C. on the 1300 Logging Road. Likely is a small town 70 kilometers northwest of Williams Lake which is approximately 700 kilometers north of Vancouver.

Geographically, the property is located on the Spanish Lake Map Sheet, 93 A 11, Scale 1:50,000, in the Cariboo Land District. The latitude and longitude coordinates are 52 degrees 35 minutes North and 121 degrees 27 minutes West. The average property elevation is 945 meters above sea level.

1.2 ACCESS

Access to this property is by paved road to Likely from Williams Lake, then all weather gravel logging road to the edge of the site and 4X4 dirt roads around the site. A 400 meter long gravel airstrip, maintained by the Ministry of Transport is located 3 kilometers west of the property.



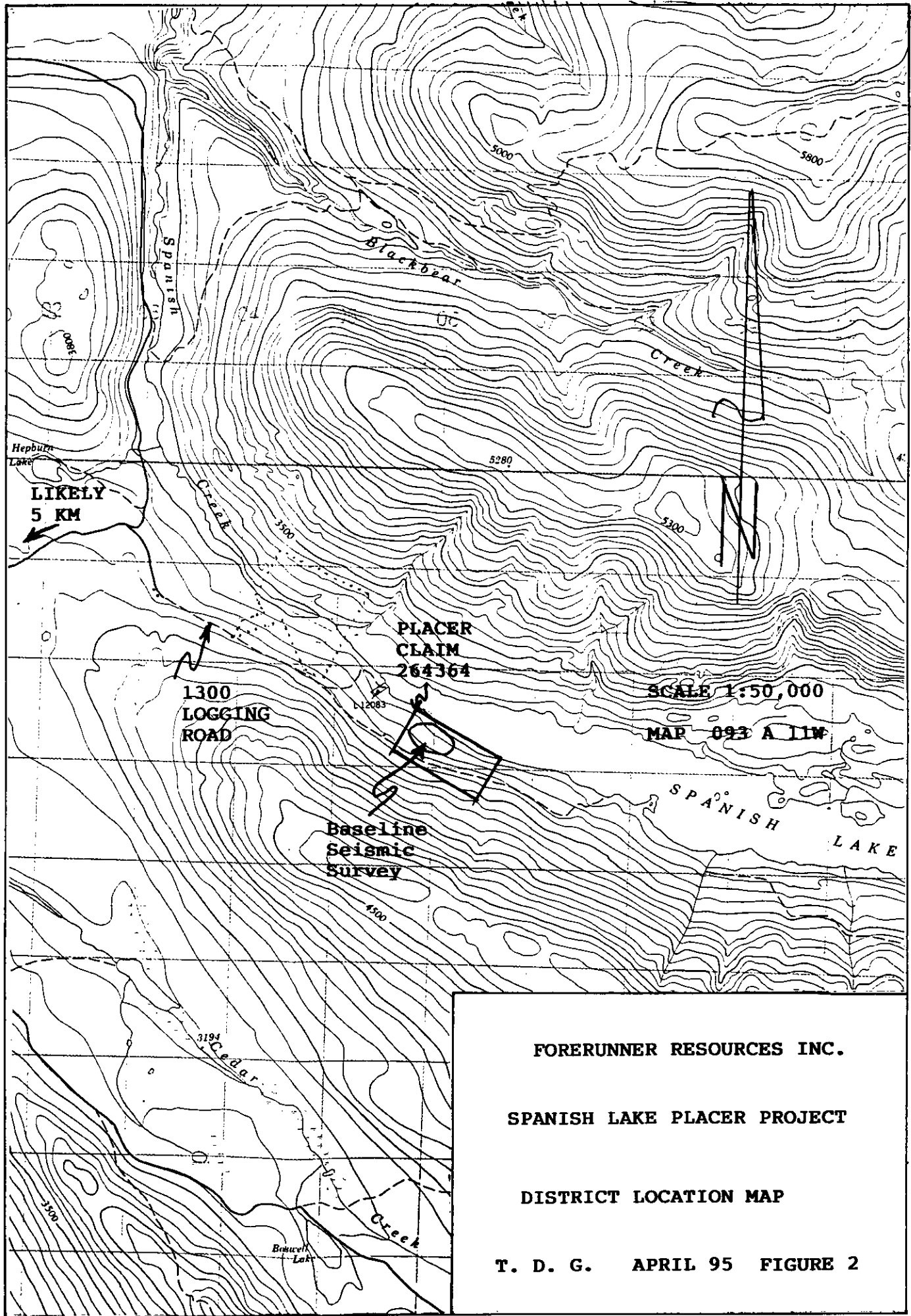
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SPANISH LAKE PLACER PROJECT

INDEX MAP PROVINCIAL LOCATION

T. D. G.

APRIL 95 FIGURE 1

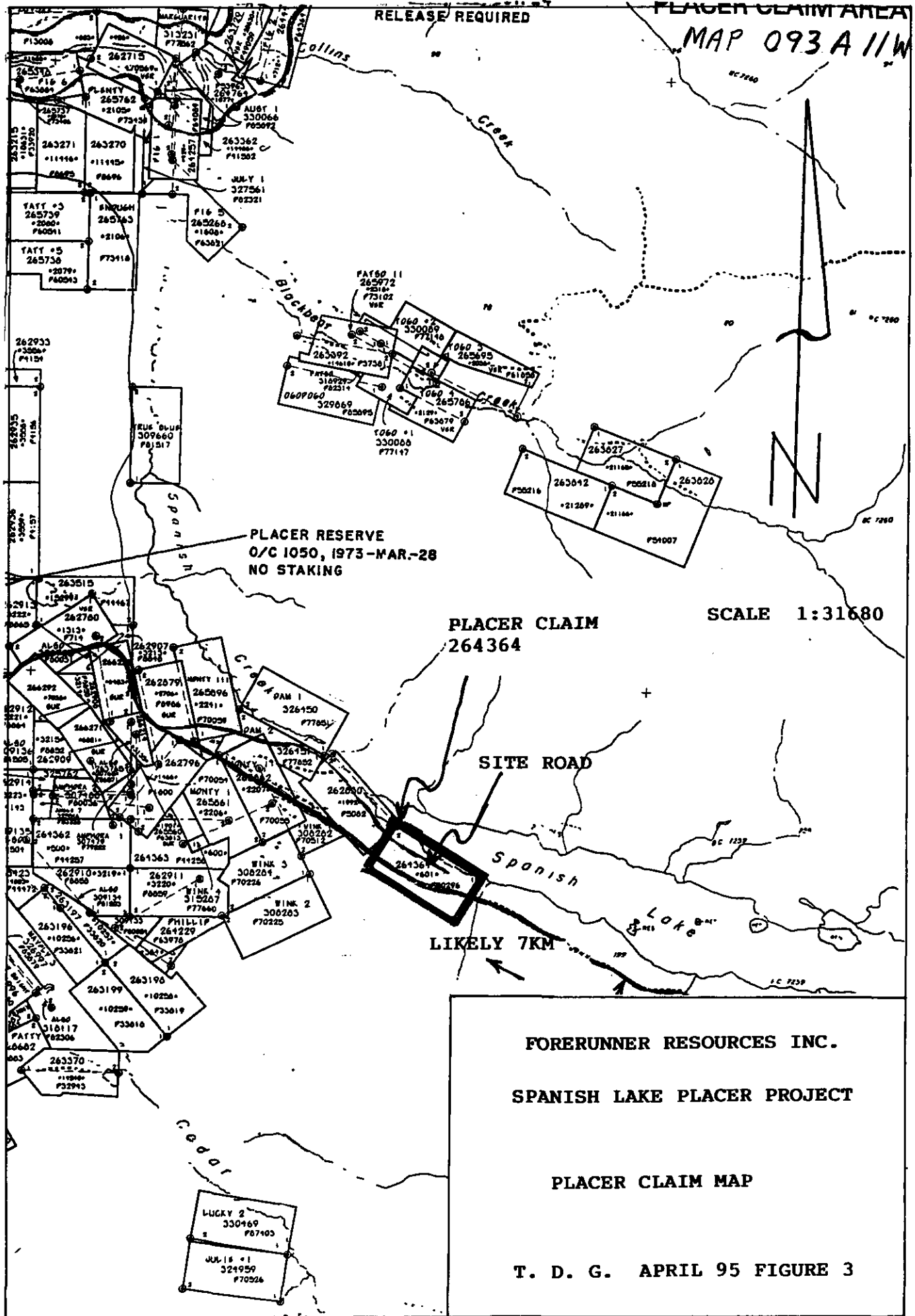


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SPANISH LAKE PLACER PROJECT
DISTRICT LOCATION MAP
T. D. G. APRIL 95 FIGURE 2

RELEASE REQUIRED

PLACER CLAIM AREA

MAP 093A 11W



PLACER CLAIM
264364

SCALE 1:31680

SITE ROAD

LIKELY 7KM

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SPANISH LAKE PLACER PROJECT

PLACER CLAIM MAP

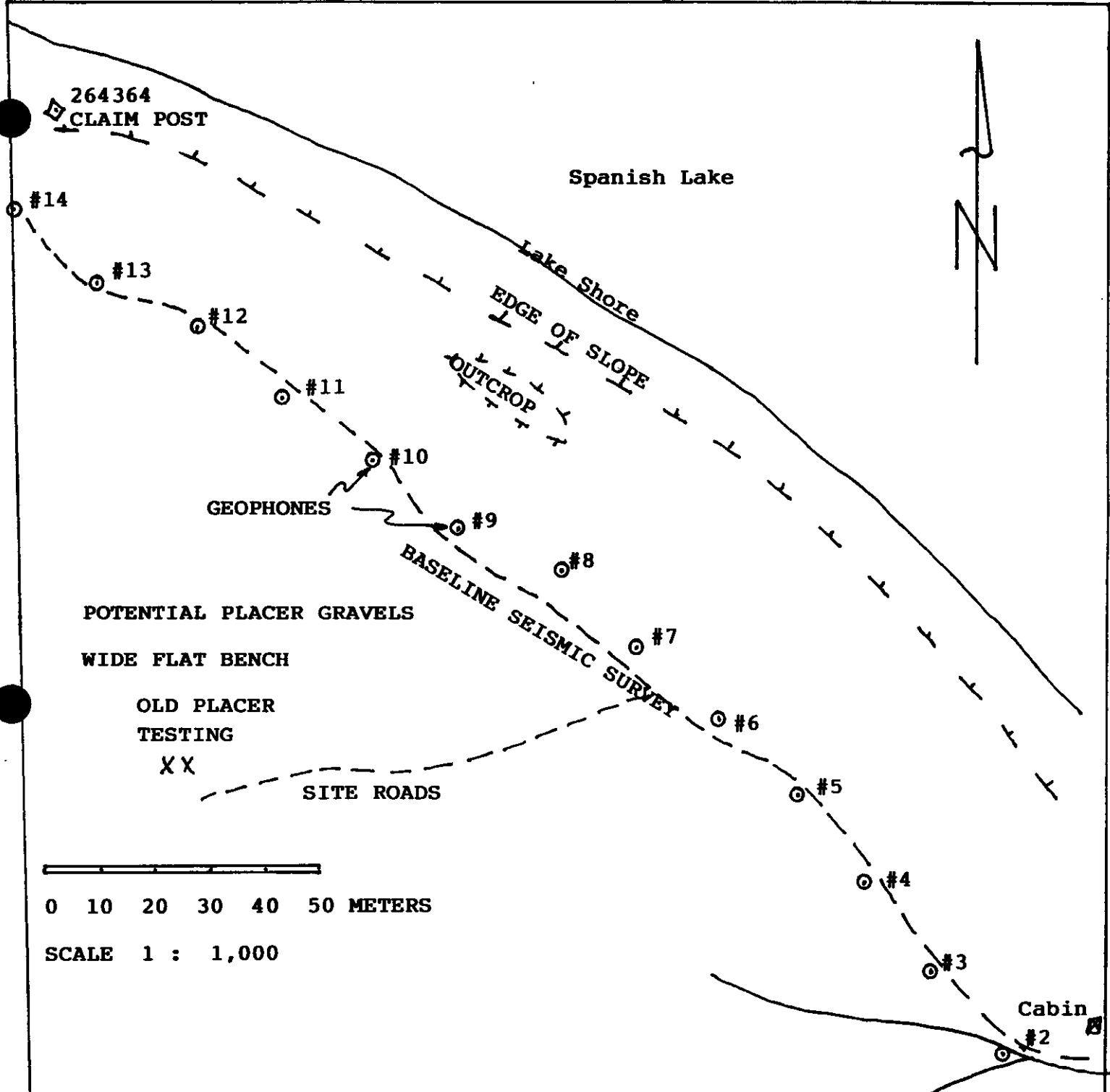
T. D. G. APRIL 95 FIGURE 3

1.3 HISTORY AND ECONOMIC ASSESSMENT

Placer Claim 264364 has had no recorded history of successful placer or hardrock gold mining; however, there are a few small testing pits located on the west end of the property. The Spanish Mountain area has been a focal point of gold production and prospecting for many years and this claim on the north side of the mountain appears to have suitable geology and shallow bench gravels to contain small high grade alluvial gold deposits in areas not scoured to bedrock by the pleistocene glaciers.

2.0 OBJECTIVE AND SCOPE OF THIS TECHNICAL STUDY

Economic evaluations by the author on several large placer gold producers in the immediate area have shown that the most significant higher grade placer channels are controlled in direction and depth by fluvial erosion along faults and shear zones in the bed rock. These bedrock channels tend to concentrate gold and other heavy metals. A brief geological mapping of the bedrock in the area of PC 264364 indicates appropriate fault directions, transverse to the major glacial direction, also there is abundant detrital quartz veining cobbles containing sulfides, these are found in small springs, watercourses and along the lakeshore on the west end of this placer claim. Completing a seismic refraction survey parallel to the major glacial direction on the property will outline bedrock depressions that contain possible gold bearing gravels.



FORERUNNER RESOURCES INC.
 SPANISH LAKE PLACER PROJECT
 DETAILED SITE PLAN
 T.D.G. APRIL 1995 FIGURE 4



3.0 SEISMIC REFRACTION SURVEY METHOD

3.1 SEISMIC EQUIPMENT UTILIZED

The geophysical survey completed on Placer Claim 264364 utilized a Geometrics Nimbus ES-1210 Multichannel Signal Enhancement Seismograph. A 240 meter multicord cable with 12 geophone takeouts spaced at 20 meters each, was used for seismic line coverage. A 5 kilo sledge hammer equipped with an electronic hammer switch connected by cable to the seismograph, was pounded upon a steel striker plate to initiate the acoustic energy signal that was sensed by each geophone and recorded by the seismograph.

3.2 SURVEY PROCEDURES

For this survey, the 250 meter multicord cable was stretched out in a strait line with an azimuth of 315 degrees that approximately followed an access road on the claim. The 12 pin type geophones were implanted in solid subsoil at 20 meter intervals and connected to the multicord cable. The striker plate was placed securely on solid soil below any loose detritus and was struck with the sledge hammer at four equally spaced locations between each geophone and at each geophone and the resultant first arrival of energy at each geophone was recorded. A Time-Distance Graph was draw in the field, using the first energy arrival data for each geophone. Later in the office, the velocities of the energy propagated in each layer and the depth of each layer to bedrock was calculated from the Time-Distance Graph. A Clinometer survey recorded the change of surface elevation for each geophone.

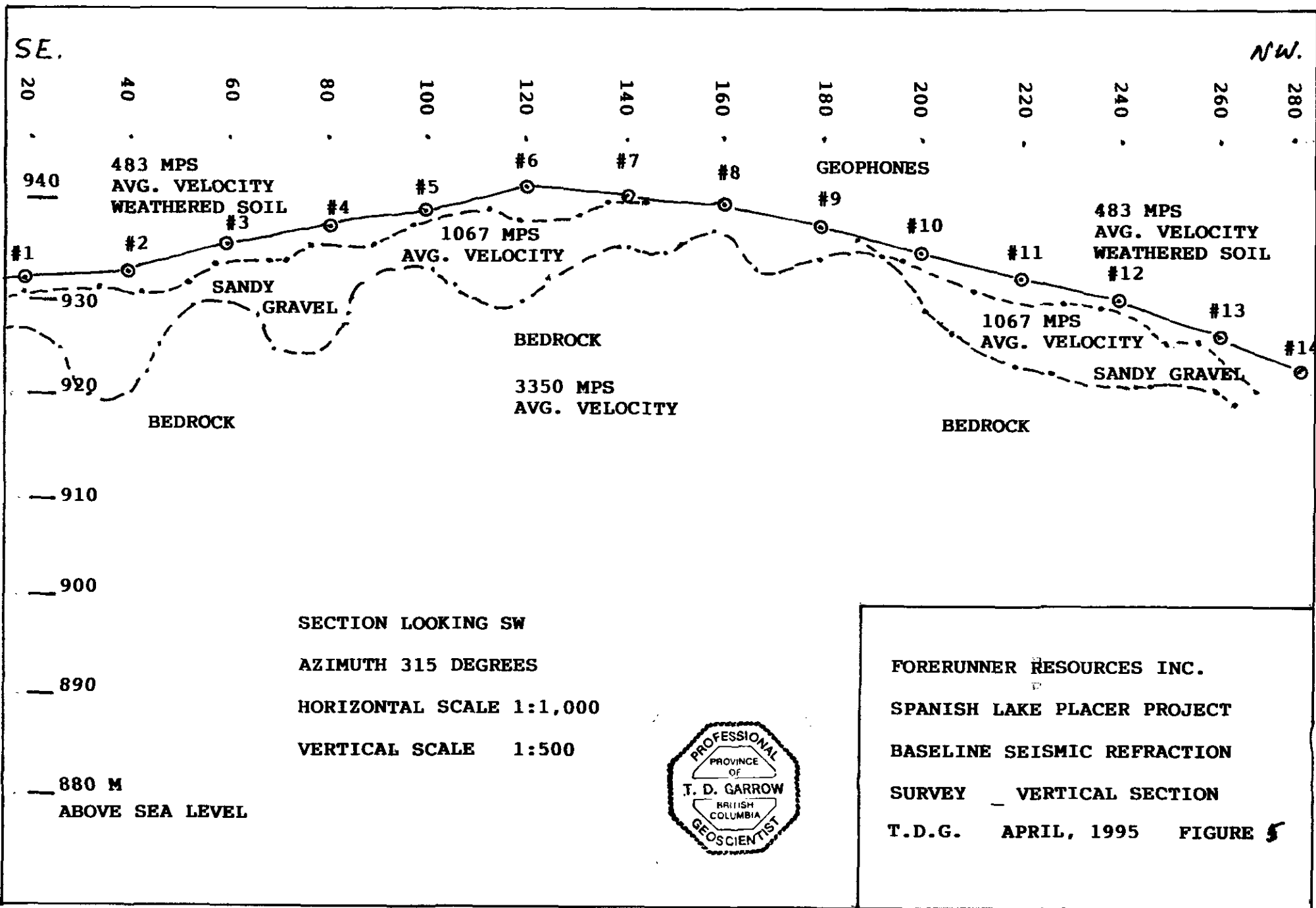
4.0 SEISMIC REFRACTION ANALYSIS

4.1 INTERPRETATION

Completion of this seismic refraction survey along the baseline of Placer Claim 264364 is the first survey of its type to be done on this property. This type of equipment has been very successful in outlining river like depressions eroded into the bedrock of this claim. These depressions contain densely packed sandy gravels which experience has shown are the host for placer gold of economic value in this area.

Interpretation of the vertical seismic section indicates that two distinct unconsolidated sediment layers have been deposited over a strongly eroded and uneven bedrock. The top layer (from 0.9 to 6.23 meters thick) consists of a weathered sandy topsoil with roots and organic debris with an average velocity of 483 mps. The second layer reaching depths (from 4.8 to 11.0 meters) consists of saturated or unsaturated densely packed sandy gravels with boulders resting directly on bedrock. This sandy gravel has an average velocity of 1067 mps with a low reading of 640 mps and a high reading of 1433 mps. The bedrock velocities are typical for fractured argillites and andesites in the Likely area, with average velocities of 3353 mps., high readings of 6096 mps. and low readings of 2164 mps (meters per sec).

It is interesting to note that no obvious layers of glacial boulder clay were outlined on this section which reduces projected mining costs.



4.2 INTERPRETIVE METHOD

When a seismic refraction survey is done, the seismograph records the time between the initiation of the shock wave by the hammer blow on the striker plate and its first arrival (shortest time path) at each geophone located at measured distances from the hammer blow. A Time-Distance Graph can be constructed to outline the changes of velocity of the shock waves as they traverse layers of different density. In this case, the survey on the base line of Claim 264364 shock waves were initiated at 70 locations along the line and the resultant first arrivals were recorded at 14 geophone stations.

The field data consisting of times recorded in milliseconds and distances measured from the hammer point to each geophone are plotted on a graph, velocities are calculated by; $Velocity = Distance/Time$.

The thickness of a layer is calculated by;

$Thickness = \frac{1}{2} \text{ distance between velocity changes } \times$
 $\text{Square Root of } [(velocity\ 2 - velocity\ 1) / (velocity\ 2 +$
 $velocity\ 1)]$

Shock waves travel through earth materials with specific and known velocities.

In general, the velocity contrast between refractive layers was more than adequate for a good interpretation from the data of this survey.

4.3 LIMITATIONS

The depths to subsurface boundaries derived from seismic refraction surveys are generally accepted as accurate to within ten percent of the true depths to the boundaries. In some cases, unusual geological conditions may produce false or misleading seismic arrivals. Because this is the first seismic refraction survey done on Claim 264364, there is nothing to compare the results to. An on site investigation confirmed that bedrock appears to be very close to surface between geophones 9 and 10 as indicated by the seismic.

5.0 GEOPHYSICAL RESULTS RELATIVE TO PROPERTY GEOLOGY

The results of the seismic refraction survey are presented on the Baseline Vertical Section at the horizontal scale of 1:1000 and the vertical scale of 1:500. The geophysical interpretation appears to agree with brief surface inspection; however, no drilling or excavation has been done to confirm any subsurface interpretation. Inspection of local bedrock outcrops confirm that there are highly sheared sulfide rich andesites on this property as the seismic outlines. Geological Survey mapping of this area suggests that there is a regional fault striking at approx. 110 degrees passing through Spanish Lake, with less significant fault directions at 50 and 170 degrees. The bedrock depressions outlined on the Baseline Section would appear to relate to the 50 degree faulting direction.

6.0 CONCLUSIONS

This preliminary seismic survey has been an inexpensive, successful method of predicting the subsurface geology of the test area, to ultimately locate potentially economic gold bearing gravels. Just this one line of seismic suggests that the previous excavation and testing in the area of Geophone 2 was not deep enough to have reached bedrock.

The information from this survey should be tested by excavation to confirm the results, and additional seismic lines should be completed parallel and perpendicular to the preliminary baseline survey to develop a three dimensional pattern of potential gold gravels to be evaluated on the property.

7.0 RECOMMENDATIONS

Preliminary testing utilizing seismic surveys has been successful; therefore, I recommend additional seismic surveys and bulk testing of gravels to further evaluate the placer gold potential.

- complete a second seismic line parallel to the Baseline, 800 meters long at azimuth 315 degrees and approx. 150 meters northeast

- complete three seismic lines, each 500 meters long, at azimuth 225 degrees, intersecting the base line at geophones 4, 9 & 14

- excavate several bulk tests of several hundred cubic meters each in the areas of best potential for placer gold



8.0 QUALIFICATION

I, Terry D. Garrow, of Likely, British Columbia, DO HEREBY
CERTIFY:

1. THAT I am a Consulting Geologist with offices at Box 197 Likely, British Columbia.
2. THAT I am a graduate of Sir Wilfred Laurier University-1966, and the University of Saskatchewan-1969 with an Advanced Bachelor of Science degree in Geology.
3. THAT I am registered as a Professional Geoscientist in the Association of Professional Engineers and Geoscientists of British Columbia 1995.
4. THAT my 24 years of continuous geological experience exposed me to a wide range of geological environments and have allowed considerable familiarization with the exploration and production of both lode and placer deposits.
5. THAT this assessment report is based on the seismic field work completed on placer claim 264364 on April 17 & 18 by myself and an assistant.
6. THAT I have been actively involved in the field work and office interpretations of seismic surveys for 10 years operating my own seismograph for the last 2 years.

DATED at LIKELY, B. C., this 1st day of June, 1995.


TERRY DAVID GARROW

9.0 STATEMENT OF COSTS

1.5 DAYS SEISMIC REFRACTION SURVEY ON PLACER CLAIM 264364

MOBILIZATION - DEMOB. VANCOUVER TO LIKELY	\$200
FIELD EQUIPMENT & OPERATOR CHARGE	475
FIELD ASSISTANT	150
FOOD & ACCOMMODATION	150
OFFICE REPORT & DRAFTING	300

TOTAL COSTS OF SEISMIC SURVEY	\$1,275.00