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**GEOPHYSICAL AND GEOCHEMICAL  
REPORT ON THE  
GRAND FORTUNE NICKEL PROSPECT  
GREENWOOD MINING DIVISION, B.C.**

N.T.S. 82E/1E

BY

A.G. TROUP, P.Eng.

March 1996

FILMED

**CLAIMS WORKED**

| CLAIM NAMES   | UNITS | RECORD NUMBERS  | ANNIVERSARIES |
|---------------|-------|-----------------|---------------|
| GRAND-1 to 4  | 4     | 334631 - 334634 | MARCH 18      |
| GRAND-9 to 10 | 2     | 338896 - 338897 | AUGUST 7      |

**LOCATION:** 49°01' North Latitude  
118°10' West Longitude

**OWNER:** E. ALIONIS

**OPERATOR:** E. ALIONIS

**CONTRACTOR:** ARCHEAN ENGINEERING LTD.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

24,385

**GEOPHYSICAL AND GEOCHEMICAL  
REPORT ON THE  
GRAND FORTUNE NICKEL PROSPECT  
GREENWOOD MINING DIVISION, B.C.**

**SUMMARY:**

The Mastadon Property is a nickel prospect located in south central British Columbia approximately 18 km east of the town of Grand Forks and 5 km southeast of the community of Christina Lake. The property, situated at an elevation of 1,300 metres on the southwest shoulder of Castle Mountain, is comprised of 25 two post mineral claims.

In October 1995, a reconnaissance exploration program entailing a magnetometer survey, reconnaissance soil sampling and rock chip sampling was carried out over the property. Field work was carried out from October 27 to November 1, by a two person crew working out of the Christina Lake Motor Inn in the nearby community of Christina Lake.

Geophysical work involved running 5.0 line km of magnetometer coverage and 6.0 line km of flagged grid over the south west corner of the property. The survey succeeded in defining the contact between the Castle Mountain ultramafic body and the adjacent Rossland volcanic. The survey also showed up to 4,000 gammas of magnetic relief over the ultramafic body.

Geochemical sampling involved taking a total of 14 basal till samples, and 11 rock chip samples over the property. The soil sample results showed nickel and chrome concentrations to be typical of soil development over ultramafic rocks. Rock chip samples from two widely separated ultramafic exposures showed concentrations of approximately 0.21% nickel and 0.15% chrome in the dunite body.

Partial extraction's for nickel were carried out on six ultramafic samples. Results of this study suggest that up to 90% of the contained nickel may be present as sulfides.

**GEOPHYSICAL AND GEOCHEMICAL  
REPORT ON THE  
GRAND FORTUNE NICKEL PROSPECT  
GREENWOOD MINING DIVISION, B.C.**

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**GEOCHEMICAL AND GEOPHYSICAL  
REPORT ON THE  
GRAND FORTUNE NICKEL PROSPECT  
GREENWOOD MINING DIVISION, B.C.**

**1.0 INTRODUCTION:**

In October 1995, a reconnaissance exploration program was carried out over the Grand Fortune nickel property in southern British Columbia. The primary purpose of the program was to determine if a ground magnetometer survey could be used to map the contact between the Castle Mountain ultramafic body and the surrounding Rossland Group rocks. The program involved carrying out a detailed magnetometer survey over the southwest corner of the property. Prospecting, rock chip sampling and reconnaissance soil sampling was also carried out over several areas of high magnetic response located by the geophysical survey.

The present program was carried out from October 27 to November 1, by a two person crew working out of the Christina Lake Motor Inn in the nearby community of Christina Lake, B.C.

**1.1 LOCATION AND ACCESS:**

The Mastadon Property is located in south central British Columbia approximately 18 km east of the town of Grand Forks and 5 km southeast of the community of Christina Lake. The claims overlie an area of gently rolling relief with maximum elevation changes across the property on the order of about 200 metres.

Good access to the south end of the property is provided by a gravel, B.C. Hydro, service road that intersects Highway No.3 at the south end of Christina Lake, just 22 km east of Grand Forks. Additional access is provided by a network of abandoned but negotiable logging roads that cross the property.

**1.2 PHYSIOGRAPHY, VEGETATION AND CLIMATE:**

The claims encompass an area of gently rolling relief on a plateau like area in south central British Columbia. The property is situated at an elevation of 1,300 metres on the southeast shoulder of Castle Mountain. Maximum elevation changes across the property are on the order of 200 metres.

An extensive but thin blanket of glacial ground moraine covers most of the property. Rock exposures account for less than 10% of the property and are confined to creek beds and the flanks and crests of hills.

Timber is predominantly pine and spruce which is well spaced allowing easy movement through the forest. Scattered patches of aspen and birch occur on south and west facing slopes, and mountain alder grows in damp areas along streams.

The climate is typical of the southern interior, with hot, dry, summers and moderately long, cold, winters. Temperatures range from in excess of 30°C in August to minus 25°C in January. The average annual precipitation is 30 cm with most of this falling as snow in late fall, winter and early spring. The snow free period lasts from late April to mid-November, but due to the light snowfall geophysics and drilling can be carried out throughout the winter.

### 1.3 PROPERTY INFORMATION:

The property is located in the Greenwood Mining Division and is comprised of 25 two post mineral claims. All claims were staked in 1995. Pertinent claim information is given in Table 1 below.

**TABLE 1**

**LIST OF CLAIMS**

| <u>CLAIM NAMES</u> | <u>UNITS</u> | <u>RECORD NUMBERS</u> | <u>EXPIRY DATES</u> |
|--------------------|--------------|-----------------------|---------------------|
| GRAND 1 to 8       | 8            | 334631 - 334638       | March 18, 1999      |
| GRAND 9 TO 15      | 7            | 338896 - 338902       | August 7, 1999      |
| FORTUNE 1 to 8     | 8            | 335262 - 335269       | April 22, 1999      |
| FORTUNE 9 to 10    | 2            | 341762 - 341763       | October 30, 1999    |

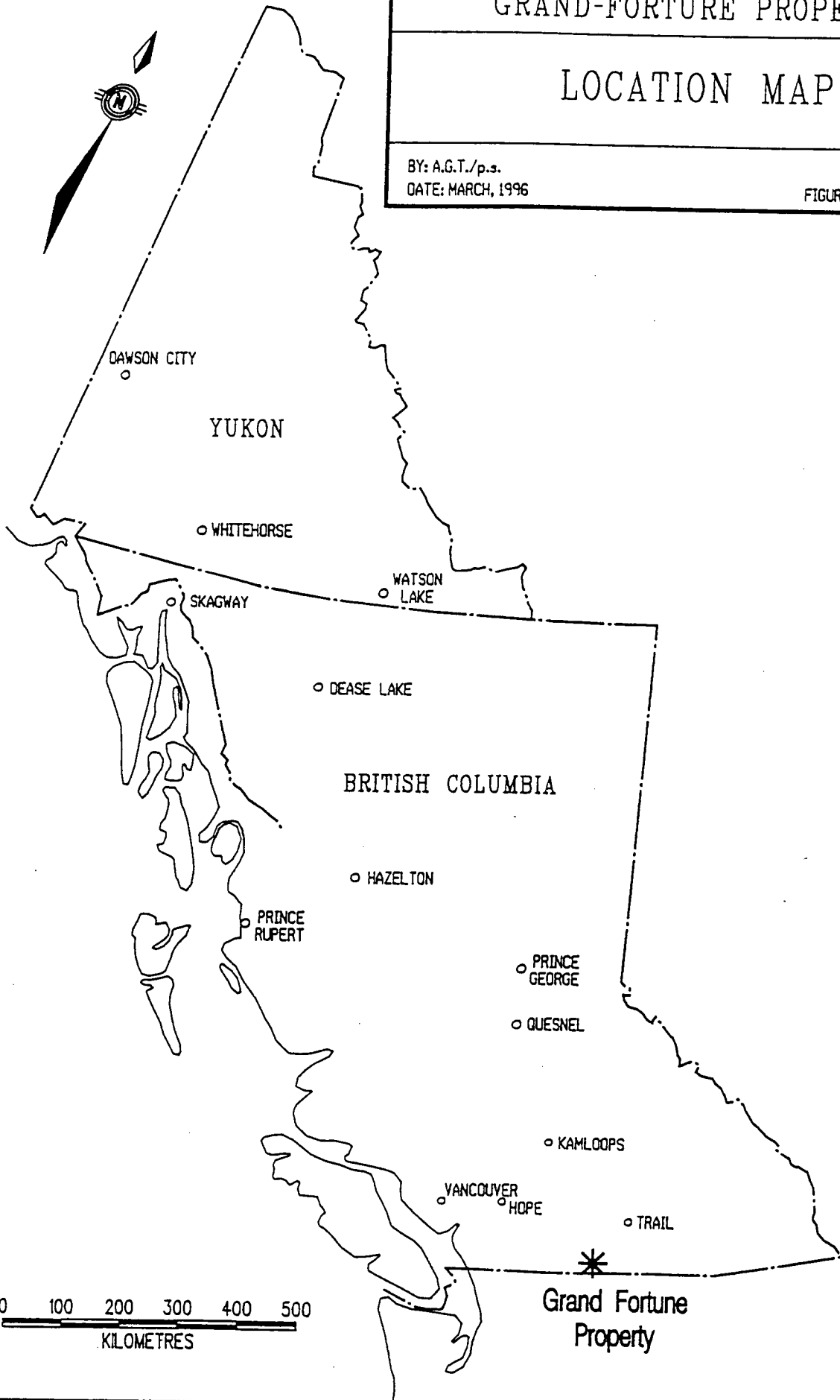
E. ALIONIS

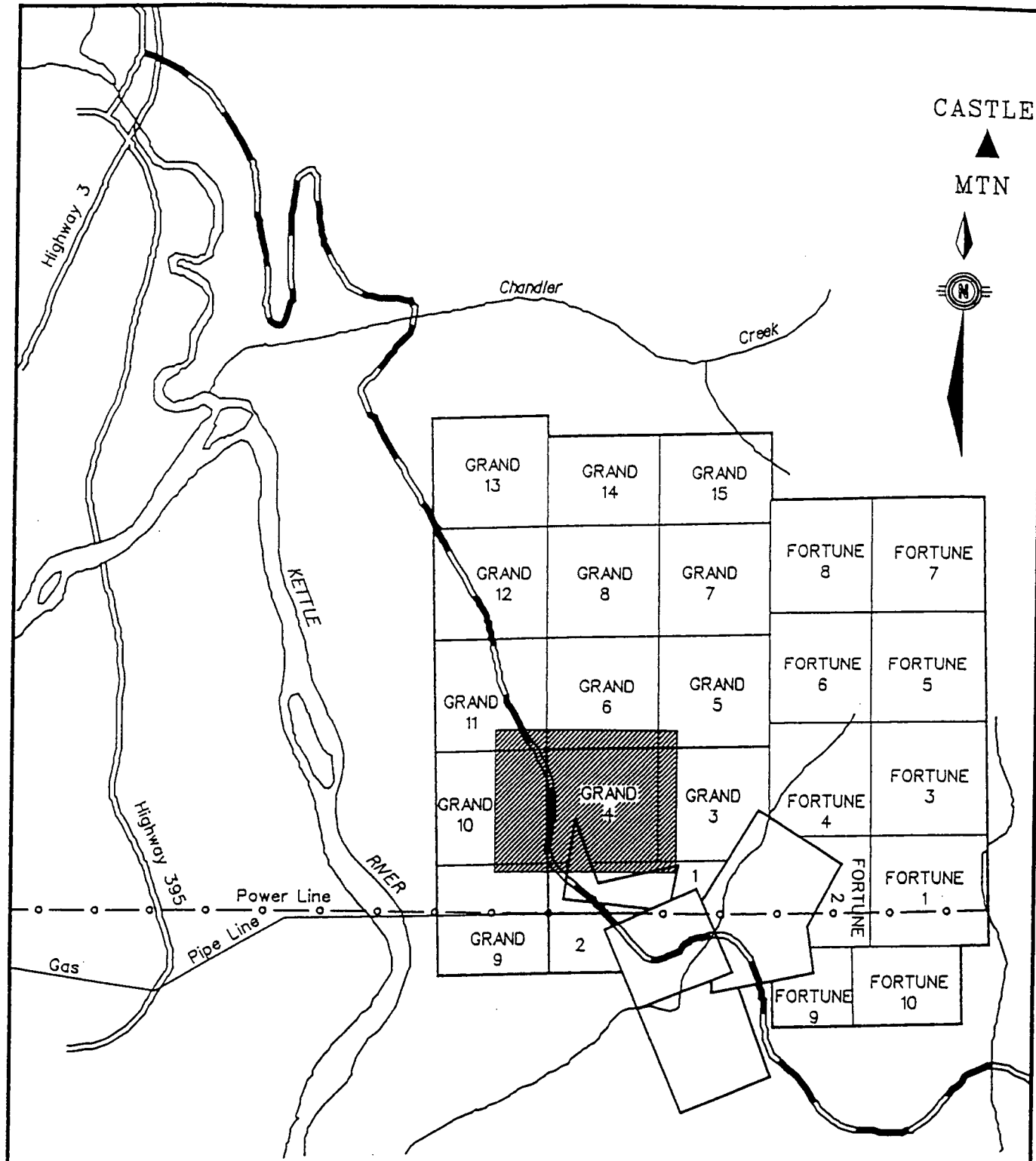
GRAND-FORTURE PROPERTY

LOCATION MAP

BY: A.G.T./p.s.  
DATE: MARCH, 1996

FIGURE: 1





CASTLE  
▲  
MTN

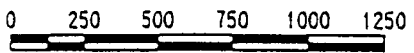


Magnetometer  
Survey Area



Gravel Road

SCALE 1:25,000



METRES

E. ALIONIS  
GRAND - FORTUNE PROPERTY  
CLAIM MAP

DATE: MARCH, 1995  
BY: A.G.T./p.s.

FIGURE: 2



#### 1.4 HISTORY:

In 1917, chromite mineralization occurring as dissemination's, streaks and lenses within the Castle Mountain dunite body was discovered on the Mastadon Crown Grant (Lot 2384) just 100 metres south of the current property. In 1918, the Stewart-Calvert Company of Oroville, Washington acquired and developed the deposit. Government records show that in 1918 the company mined and shipped 670 tons of ore averaging 39% chromium. The ore was reported to carry up to 0.015 oz/ton platinum associated with the massive chromite mineralization.

In 1968, the property was acquired by Hunter Point Exploration Ltd. of Vancouver, who tested the former chromite deposit with 1,300 metres of diamond drilling in 11 holes. The drilling encountered a large body of low-grade nickel mineralization, in altered dunite, at depths of up to 140 metres below the former chromite workings. In 1970, the property was acquired by Chromex Nickel Mines Ltd. of Vancouver who explored the property until 1973 with 6,500 metres of diamond drilling in 59 holes. In 1974, Chromex reported a drill indicated reserve of 408,000,000 tons grading 0.24% Ni. Nickel minerals are reported to be pentlandite, fine grained millerite and nickeliferous magnetite. The mineralized zone is not exposed at surface but is reported to be amenable to open pit mining methods. Because of low grade and complex metallurgy the deposit has not been developed.

In 1987, the area of the present property was staked by Nitro Resources Inc. of Vancouver. Nitro explored the property for platinum group minerals with a two year program of geological mapping, soil geochemical sampling and a magnetometer survey. No significant platinum geochemical anomalies were discovered by this work program and the property was allowed to lapse.

The Nitro mapping program showed the ultramafic body to extend two kilometres north of the area previously explored. Over this north extension geochemical results revealed a 3.0 km<sup>2</sup> nickel and chrome soil anomaly that extends 1.5 km north of the former Mastadon workings. Anomalous gold values, up to 800ppb or greater, define several smaller anomalies scattered across the large nickel-chrome soil anomaly. Locally the higher gold values show an association with higher nickel values.

In 1995, the Grand and Fortune claims were staked to cover this nickel, chrome and gold geochemical anomaly.

### **1.5 WORK DONE BY ARCHEAN ENGINEERING LTD. IN 1995:**

The following field work was completed during the period from October 27 to November 1, 1995:

- (a) Six line km of flagged grid was established over the Grand 3, 4, 5, 6,10 and 11 mineral claims.
- (b) Five line km of magnetometer coverage were run over the above grid.
- (c) Reconnaissance soil sampling was carried out over several areas of anomalous magnetic response.
- (d) Reconnaissance rock chip sampling was carried out over several outcrop areas in the vicinity of elevated magnetic readings.

## 2.0 GEOLOGY:

The property is underlain by the Castle Mountain, alpine, ultramafic body. This unit is a sill like body that is believed to have been tectonically emplaced into the surrounding Jurassic age, Rosslund Group volcano-sedimentary unit. The ultramafic body consists predominantly of massive dunite, composed of olivine with disseminated grains of chromite. Later alteration has resulted in replacement of much of the olivine by anthophyllite and fine grained antigorite. (Please refer to the petrographic description in Appendix 3.) The ultramafic appears tan, brown and gray on weathered surfaces and outcrop exposures appear uniform throughout the area worked. On fresh surfaces the rock is black or dark green in colour and is typically aphanitic to fine grained. Magnetite is a common accessory mineral. Outcroppings of ultramafic composition are generally devoid of vegetation.

The ultramafic body is intruded by a number of feldspar porphyry dykes and sills of variable composition. These bodies are probably associated with the nearby Coryell Intrusions of Eocene age. The dykes are more recessive than the surrounding dunite body and are only seen locally as small outcrops and boulder patches. Disseminated pyrite is commonly associated with these rocks.

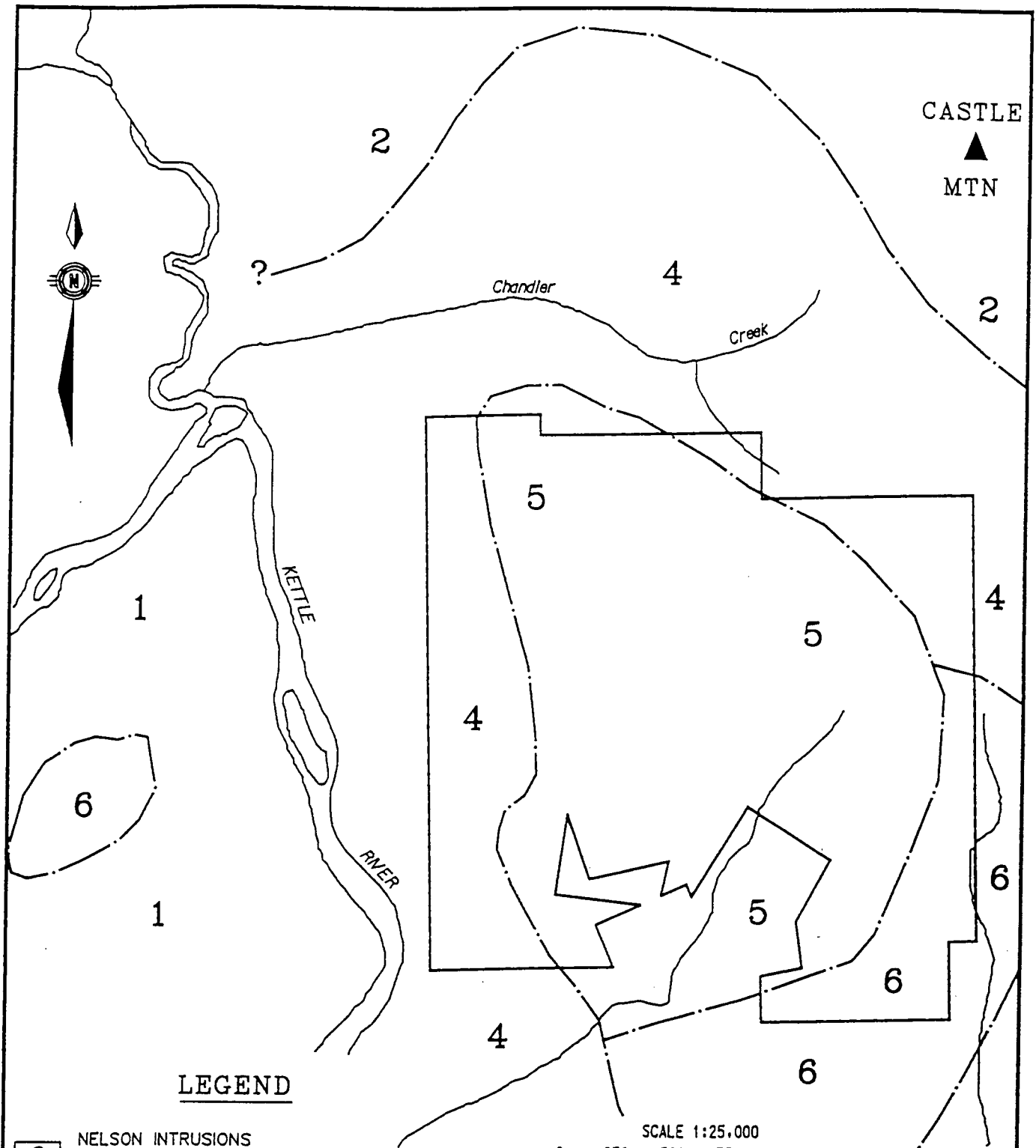
To the east and northeast the ultramafic rocks are in contact with the Archibald member of the Rosslund Group. This unit is comprised of a sequence of silicious mudstones and siltstones. The sedimentary rocks are characterized by dark brown, to pale tan, thinly bedded units that occasionally exhibit graded bedding. These rocks all exhibit greenschist facies metamorphism.

To the north and west the ultramafic body is bounded by the Elise member of the Rosslund Group. This is a sequence of andesite and andesite-agglomerate interbedded with thin argillite horizons. The rocks have undergone greenschist metamorphism and chlorite and epidote are commonly seen filling fractures and vesicles. Pyrite and pyrrhotite are often present as fine dissemination's and fracture fillings.

## 3.0 GEOPHYSICAL SURVEY:

In order to determine if geophysical methods could be used to map the contact between the ultramafic body and the surrounding country rocks, five lines of magnetometer coverage were run over the southwest corner of the property. In this area the contact between the ultramafic and the Rosslund volcanics is exposed in road cuts and in a number of small outcrops. Line locations are shown on Figure 5.

The magnetometer survey was carried out using an MP2, proton precision, magnetometer manufactured by Scintrex Ltd. of Toronto, Ont. This instrument measures variations in the earth's magnetic field to an accuracy of plus or minus one



**LEGEND**

- 6** NELSON INTRUSIONS  
Granodiorite, porphyritic granite;  
diorite
- 5** Ultrabasic intrusions:  
serpentinite, dunite
- 4** ROSSLAND GROUP  
Andesite, agglomerate,  
minor greywacke
- 2** MOUNT ROBERTS FORMATION  
Greywacke, greenstone, limestone
- 1** MONASHEE & GRAND FORKS GROUPS  
Paragneiss; minor limestone
- Geological contact

SCALE 1:25,000  
0 250 500 750 1000 1250  
METRES

|  |
|--|
| E. ALIONIS                                       |
| GRAND - FORTUNE PROPERTY                         |
| REGIONAL GEOLOGY<br>(MODIFIED AFTER LITTLE 1957) |
| DATE: MARCH, 1995<br>BY: A.G.T./p.s.             |
| FIGURE: 3  |

gamma. Corrections for diurnal variations were made by taking readings at a central base station at one hour intervals.

### **3.1 MAGNETOMETER RESULTS:**

Magnetometer results are shown on Figure 4 at a scale of 1:2,500. The results show up to 5,000 gammas of magnetic relief to exist across the survey area. The ultramafic body is characterized by a series of parallel, northwest trending magnetic anomalies, with up to 4,000 gammas of relief. The contact between the ultramafic rocks and the Rossland volcanics to the west is marked by a pronounced magnetic low. The adjacent volcanics show magnetic relief on the order of 500 gammas but appear featureless compared to the ultramafic unit.

### **4.0 GEOCHEMISTRY:**

On completion of the magnetometer survey the survey crew spent one day taking basal till samples and rock chip samples across areas of anomalous magnetic response along the west edge of the ultramafic body. This contact may represent the surface trace of the base of the ultramafic body. The sampling program was therefore intended to determine if an enrichment of nickel bearing pyrrhotite might be associated with the magnetic feature.

This program resulted in the collection of 14 soil samples and 11 rock chip samples. Sample locations are shown on figures 5 and 6.

### **4.1 GEOCHEMICAL PROCEDURES:**

Soil samples were taken from the base of the B soil horizon across the western most magnetic anomaly on lines 10N, 11N, 11+50N, and 12+50N. Samples were taken at 25 metre intervals, across the crest of the magnetic high on each of the lines sampled. The soil samples were placed in numbered kraft envelopes and sent to Chemex Labs Ltd. in North Vancouver for analysis. In the laboratory the samples were dried at 80°C then sieved to minus 80 mesh and the coarse fraction discarded. The fine fraction was analysed for 32 elements including nickel and chrome by routine ICP methods.

In the course of soil sampling the geophysical anomaly 6 reconnaissance rock chip samples, and later 5 additional follow up rock chip samples, were taken from outcrops and angular blocks of mineralized float. Wherever possible the samples were taken perpendicular to the strike of the mineralized zones. Samples were taken by hand using

hammers and chisels. On exposed faces weathered rock was removed in an attempt to minimize the affect of surface leaching. The sample locations and descriptions are given in Table 2:

**TABLE 2**  
**ROCK SAMPLE DESCRIPTIONS**

| SAMPLE.<br>NUMBER | NI/NI(a.r.)*<br>ppm | CR<br>ppm | DESCRIPTION   |
|-------------------|---------------------|-----------|---|
| 349473 H          | 20 /                | 84        | Chip sample across hornfelse outcrop with 5.0% sulfides as fracture fillings and dissemination's. Sulfides are weakly magnetic. Approximate location is 12+50N, 15+00E. |
| 349474 H          | 30 /                | 103       | Chip sample across hornfelse outcrop with 5.0% sulfides as fracture fillings and dissemination's. Sulfides are weakly magnetic. Approximate location is 12+50N, 15+35E. |
| 349475 H          | 24 /                | 69        | Chip sample across hornfelse outcrop with 8.0% sulfides as fracture fillings and dissemination's. Sulfides are weakly magnetic. Approximate location is 11+50N, 15+50E. |
| 349476 H          | 1,920 / 370         | 1,465     | Chip sample across rusty, angular ultramafic boulder. Rock is strongly magnetic. Approximate location is 12+50N, 15+35E.  |
| 349477 H          | 2,100 / 1,900       | 1,205     | Chip sample across ultramafic outcrop. Rock is veined with magnetite and is strongly magnetic. Approximate location is 7+50N, 18+00E.                                   |
| 349477 (A)        | 1,865 / 1,800       | 1,035     | Grab sample of dunite. Approximate location is 7+50N, 18+00E.   |
| 349477 (B)        | 3,040 / 3,100       | 5,390     | Grab sample of dunite. Approximate location is 7+50N, 18+00E.   |

**TABLE 2 (Cont'd)**  
**ROCK SAMPLE DESCRIPTIONS**

| SAMPLE.<br>NUMBER | NI/NI(a.r.)*<br>ppm | CR<br>ppm | DESCRIPTION   |
|-------------------|---------------------|-----------|---|
| 349477 (C)        | 2,050 / 1,900       | 1,185     | Grab sample of dunite. Approximate location is 7+50N, 18+00E.   |
| 349477 (D)        | 1,895 / 1,800       | 944       | Grab sample of dunite. Approximate location is 7+50N, 18+00E.   |
| 349477 (E)        | 5,060 /             | 31,400    | Magnetite veinlets from site 349477 H. Approximate location is 7+50N, 18+00E.   |
| 349478 H          | 24 /                | 78        | Chip sample across hornfelse outcrop with 5.0% sulfides as fracture fillings and dissemination's. Sulfides are weakly magnetic. Approximate location is 11+50N, 15+75E. |

NI(a.r.)\* = nickel by aqua regia extraction

Rock samples were placed in numbered plastic bags and sent to Chemex Laboratories Ltd. in North Vancouver. In the laboratory the samples were crushed and pulverized to minus 150 mesh, then analysed for 24 elements including nickel and chrome. Analysis was by routine ICP methods after digestion in aqua-regia and hydrofluoric acid. The samples were also assayed for gold by atomic absorption after fire assay fusion of a 30g sample. Six samples showed important total nickel concentrations. These samples were later re-analysed for nickel after aqua-regia digestion. The Aqua-regia extraction is believed to dissolve sulfide held nickel but little silicate or oxide nickel (Appendix 2).

#### 4.2 GEOCHEMICAL RESULTS:

Soil sample results are given in Appendix 1 and nickel and chrome values are plotted on figure 5. The results show elevated nickel and chrome values in most of the samples. Nickel values range from 80 ppm to 600 ppm and chrome values range from 25 ppm to 374 ppm. These values are consistent with the metal concentrations expected over ultramafic rocks.

Rock sample results are given in Appendix 1 and nickel and chrome values are plotted on Figure 6. Nickel and chrome values are also given in Table 2. Six ultramafic

samples, 349476H, 34977H and 349477A-D, contained elevated nickel and chrome concentrations. The six samples averaged 0.21% nickel, and 0.15% chrome.


Nickel concentrations as determined by aqua-regia extraction, are given in Appendix 2 and are compared with total nickel content in Table 2. These data suggest that up to 90% of the nickel content of the ultramafic samples may be present as sulfides.

## 6.0 CONCLUSIONS:

The results of work completed over the Grand Fortune Property during the present program may be summarized as follows:

- (a) The geophysical results show that the contact between the ultramafic body and the adjacent Rossland Group volcanics can be readily traced with a ground magnetometer survey.
- b) The magnetometer results show up to 4,000 gammas of magnetic relief over the ultramafic body. This suggests that the body is of variable composition, and thus zones of high grade nickel and chrome mineralization may remain to be discovered on the property.
- (c) Soil sample results showed nickel and chrome concentrations to be typical of soil development over ultramafic rocks. The results confirm that soil sampling may be effective in tracing the ultramafic body beneath overburden covered areas.
- (d) Rock chip sample results showed concentrations of approximately 0.21% nickel and 0.15% chrome in the ultramafic body. These concentration levels are consistent with values obtained during previous exploration of the property.
- e) Petrographic studies show that the ultramafic body is an altered Dunite.
- f) Partial extraction studies for nickel, carried out on six dunite samples from two widely separated locations, show that up to 90% of the contained nickel can be extracted with a simple aqua-regia leach. These results suggest that the metal may be present in the form of fine grained sulfides.

Submitted at Vancouver, British Columbia,  
this 4<sup>th</sup> day of March, 1996.

  
A.G. Troup, P. Eng.





## 7.0 REFERENCES:


- Dispirito, F., 1987: Geological, Geophysical and Geochemical Report on the Castle Project for Nitro Resources Inc.: Assessment Report No. 16,358 dated March 31, 1987.
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- Rublee, V.J., 1986: Occurrence and Distribution of Platinum Group Elements in British Columbia.: B.C. Ministry of Energy Mines and Petroleum Resources, Mineral Resources Division., Open File 1986-7.
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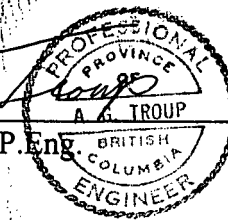
## 8.0 STATEMENT OF QUALIFICATIONS:

I, Arthur G. Troup, do hereby certify that:

- 1) I am a consulting geologist with Archean Engineering Ltd. of 3605 Creery Avenue, West Vancouver, B.C.
- 2) I am a graduate of McMaster University in Hamilton, Ontario with an M.Sc. in Geology.
- 3) I am a registered member of the Association of Professional Engineers of the Province of British Columbia.
- 4) I have practiced my profession in Canada and abroad since 1964.
- 5) I have based this report on work done by myself or under my supervision. I was physically on the property for the purpose of carrying out the program from October 27 to November 1, 1995. Data obtained from the Geological Survey of Canada, B.C. Dept. of Mines, and British Columbia assessment reports were also used as background and reference data.

Submitted at Vancouver, British Columbia,  
this 4<sup>th</sup> day of March, 1996.

  
A.G. Troup, P. Eng.



**9.0 COST STATEMENT**  
**GRAND FORTUNE PROPERTY**  
 October 27, 1995 - November 1, 1995

|  |   |                          |
|--|---|--------------------------|
| <b>CONTRACT GEOPHYSICAL PROGRAM:</b>       |   |                          |
| Archean engineering Ltd.,                  |   | \$4,262.88               |
| <b>CONTRACT GEOCHEMICAL PROGRAM:</b>       |   |                          |
| Archean engineering Ltd.,                  |   | \$1,065.72               |
| <b>ASSAYS &amp; ANALYSES: Chemex Labs.</b> |   |                          |
| 14 Soil Samples:                           | 32 El. ICP @ \$8.83                         | 123.59                   |
| 6 Rock Samples:                            | Au & 24 El. ICP @ \$23.91                   | 143.49                   |
| 2 Rock Samples:                            | Ni by Aqua-Regia & AA @ \$3.49              | 6.96                     |
| 4 Rock Samples:                            | 24 El. ICP, Ni by Aqua-Regia & AA @ \$17.75 | 75.90                    |
| 1 Rock Sample:                             | 24 El. ICP, Ni & Cr by Assay @ \$40.20      | 40.20                    |
| <b>PETROGRAPHIC STUDY:</b>                 |   |                          |
| Vancouver Petrographics Ltd.               |   | 135.09                   |
| <b>DRAFTING:</b>                           |   |                          |
| Digital Geographics Ltd.,                  |   | 342.00                   |
| <b>REPORT PREPARATION:</b>                 |   |                          |
| Archean engineering Ltd.,                  |   | <u>1,200.00</u>          |
| <b>TOTAL COSTS</b>                         |   | <b><u>\$7,395.83</u></b> |

**APPENDIX 1**



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: ARCHEAN ENGINEERING LIMITED

3605 CREEZY AVE.  
WEST VANCOUVER, B.C.  
V7V 2M3

Project: GRAND FORTUNE  
Comments: CC: E. ALIONIS

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 06-NOV-95  
Invoice No. : 19532886  
P.O. Number :  
Account : KQ

## CERTIFICATE OF ANALYSIS

### A9532886

| SAMPLE        | PREP CODE | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K %  | La ppm | Mg % | Mn ppm | Mo ppm |
|---------------|-----------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|------|--------|------|--------|--------|
| 10N 16+25E    | 201 229   | < 0.2  | 1.93 | < 2    | 290    | < 0.5  | < 2    | 0.36 | < 0.5  | 8      | 25     | 17     | 1.38 | < 10   | < 1    | 0.10 | < 10   | 0.32 | 630    | < 1    |
| 10N 16+50E    | 201 229   | < 0.2  | 2.15 | 2      | 260    | < 0.5  | < 2    | 0.47 | < 0.5  | 18     | 97     | 17     | 2.59 | < 10   | 1      | 0.14 | < 10   | 0.94 | 620    | < 1    |
| 10N 16+75E    | 201 229   | < 0.2  | 2.21 | < 2    | 200    | < 0.5  | < 2    | 0.44 | < 0.5  | 15     | 102    | 12     | 2.37 | < 10   | < 1    | 0.12 | < 10   | 0.80 | 385    | < 1    |
| 11N 15+25E    | 201 229   | 0.2    | 3.29 | < 2    | 230    | < 0.5  | < 2    | 0.47 | 0.5    | 35     | 196    | 49     | 3.64 | < 10   | < 1    | 0.39 | < 10   | 3.04 | 900    | < 1    |
| 11N 15+25E A  | 201 229   | < 0.2  | 2.76 | 6      | 280    | < 0.5  | < 2    | 0.55 | < 0.5  | 39     | 198    | 34     | 3.03 | < 10   | < 1    | 0.21 | < 10   | 2.79 | 1030   | < 1    |
| 11N 15+50E    | 201 229   | 0.2    | 3.22 | 16     | 260    | < 0.5  | < 2    | 0.68 | 0.5    | 39     | 188    | 60     | 3.67 | < 10   | < 1    | 0.52 | < 10   | 3.52 | 990    | < 1    |
| 11N 15+75E    | 201 229   | < 0.2  | 2.06 | 16     | 210    | < 0.5  | 2      | 0.33 | < 0.5  | 33     | 172    | 21     | 3.10 | < 10   | < 1    | 0.08 | < 10   | 2.12 | 790    | < 1    |
| 11+50N 15+25E | 201 229   | < 0.2  | 2.40 | < 2    | 240    | < 0.5  | 2      | 0.37 | < 0.5  | 21     | 224    | 21     | 3.63 | < 10   | < 1    | 0.24 | 10     | 1.30 | 575    | < 1    |
| 11+50N 15+50E | 201 229   | < 0.2  | 2.12 | < 2    | 140    | < 0.5  | < 2    | 0.30 | < 0.5  | 12     | 146    | 17     | 3.18 | < 10   | < 1    | 0.13 | 10     | 0.94 | 385    | < 1    |
| 11+50N 15+75E | 201 229   | < 0.2  | 1.70 | 2      | 160    | < 0.5  | < 2    | 0.27 | < 0.5  | 9      | 98     | 15     | 2.97 | < 10   | < 1    | 0.36 | 10     | 0.98 | 285    | < 1    |
| 12+50N 14+75E | 201 229   | 1.0    | 3.07 | 40     | 240    | 0.5    | 2      | 0.76 | 0.5    | 38     | 295    | 218    | 4.83 | < 10   | < 1    | 0.36 | < 10   | 4.74 | 815    | < 1    |
| 12+50E 15+00E | 201 229   | < 0.2  | 2.34 | 14     | 200    | < 0.5  | < 2    | 0.29 | < 0.5  | 40     | 374    | 27     | 3.84 | < 10   | < 1    | 0.08 | < 10   | 1.78 | 695    | < 1    |
| 12+50E 15+25E | 201 229   | < 0.2  | 3.44 | 4      | 220    | 0.5    | < 2    | 0.34 | < 0.5  | 10     | 94     | 16     | 2.72 | < 10   | < 1    | 0.09 | < 10   | 0.69 | 665    | < 1    |
| 12+50E 15+50E | 201 229   | < 0.2  | 2.21 | < 2    | 320    | < 0.5  | < 2    | 0.28 | < 0.5  | 10     | 95     | 19     | 2.47 | < 10   | 1      | 0.13 | < 10   | 0.66 | 625    | < 1    |

CERTIFICATION: Hunter Bechler



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: ARCHEAN ENGINEERING LIMITED

3605 CREERY AVE.  
 WEST VANCOUVER, B.C.  
 V7V 2M3

Project: GRAND FORTUNE  
 Comments: CC: E. ALIONIS

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date: 06-NOV-95  
 Invoice No. : 19532886  
 P.O. Number :  
 Account : KQ

## CERTIFICATE OF ANALYSIS

A9532886

| SAMPLE        | PREP CODE |     | Na     | Ni  | P    | Pb  | Sb  | Sc  | Sr  | Ti   | Tl   | U    | V   | W    | Zn  |
|---------------|-----------|-----|--------|-----|------|-----|-----|-----|-----|------|------|------|-----|------|-----|
|               |           |     | %      | ppm | ppm  | ppm | ppm | ppm | ppm | %    | ppm  | ppm  | ppm | ppm  | ppm |
| 10N 16+25E    | 201       | 229 | 0.01   | 115 | 2470 | 6   | 4   | 2   | 49  | 0.06 | < 10 | < 10 | 18  | < 10 | 44  |
| 10N 16+50E    | 201       | 229 | 0.01   | 323 | 840  | 12  | 2   | 4   | 43  | 0.07 | < 10 | < 10 | 35  | < 10 | 74  |
| 10N 16+75E    | 201       | 229 | 0.01   | 286 | 1140 | 12  | < 2 | 3   | 35  | 0.08 | < 10 | < 10 | 34  | < 10 | 44  |
| 11N 15+25E    | 201       | 229 | < 0.01 | 392 | 530  | 8   | 6   | 7   | 52  | 0.16 | < 10 | < 10 | 65  | < 10 | 74  |
| 11N 15+25E A  | 201       | 229 | 0.01   | 478 | 780  | 8   | 2   | 6   | 62  | 0.11 | < 10 | < 10 | 52  | < 10 | 66  |
| 11N 15+50E    | 201       | 229 | < 0.01 | 415 | 830  | 8   | 6   | 7   | 75  | 0.16 | < 10 | < 10 | 70  | < 10 | 80  |
| 11N 15+75E    | 201       | 229 | 0.01   | 601 | 440  | 20  | 2   | 5   | 45  | 0.09 | < 10 | < 10 | 49  | < 10 | 60  |
| 11+50N 15+25E | 201       | 229 | < 0.01 | 232 | 320  | 12  | 4   | 7   | 41  | 0.12 | < 10 | < 10 | 62  | < 10 | 56  |
| 11+50N 15+50E | 201       | 229 | 0.02   | 116 | 580  | 8   | < 2 | 4   | 36  | 0.12 | < 10 | < 10 | 60  | < 10 | 54  |
| 11+50N 15+75E | 201       | 229 | 0.01   | 81  | 470  | 6   | < 2 | 4   | 32  | 0.12 | < 10 | < 10 | 68  | < 10 | 54  |
| 12+50N 14+75E | 201       | 229 | 0.01   | 423 | 480  | 22  | 10  | 10  | 73  | 0.06 | < 10 | < 10 | 77  | < 10 | 72  |
| 12+50E 15+00E | 201       | 229 | 0.01   | 444 | 960  | 10  | 2   | 6   | 31  | 0.09 | < 10 | < 10 | 56  | < 10 | 60  |
| 12+50E 15+25E | 201       | 229 | 0.01   | 103 | 1050 | 8   | 2   | 3   | 35  | 0.12 | < 10 | < 10 | 46  | < 10 | 60  |
| 12+50E 15+50E | 201       | 229 | 0.02   | 94  | 1130 | 6   | < 2 | 3   | 33  | 0.09 | < 10 | < 10 | 40  | < 10 | 70  |

CERTIFICATION:

*Hart Bichler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
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 PHONE: 604-984-0221 FAX: 604-984-0218

To: ARCHEAN ENGINEERING LIMITED  
 3605 CREEERY AVE.  
 WEST VANCOUVER, B.C.  
 V7V 2M3

Project: GRAND FORTUNE  
 Comments: CC: E. ALIONIS

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 08-NOV-95  
 Invoice No. : 19532888  
 P.O. Number :  
 Account : KQ

\*PLEASE NOTE

## CERTIFICATE OF ANALYSIS A9532888

| SAMPLE   | PREP CODE | Au ppb FA+AA | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) | Mg % (ICP) |
|----------|-----------|--------------|------------|------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|------------|-----------|------------|
| 349473 H | 205 226   | 30           | < 0.2      | 8.40       | 800          | < 0.5        | < 2          | 4.26       | 1.0          | 16           | 84           | 37           | 4.37       | 1.99      | 1.41       |
| 349474 H | 205 226   | < 5          | < 0.2      | 6.57       | 640          | < 0.5        | < 2          | 6.52       | 0.5          | 12           | 103          | 24           | 4.45       | 1.41      | 1.25       |
| 349475 H | 205 226   | 30           | < 0.2      | 9.65       | 1230         | < 0.5        | < 2          | 3.59       | 1.0          | 18           | 69           | 35           | 6.03       | 3.22      | 1.73       |
| 349476 H | 205 226   | 10           | < 0.2      | 0.35       | 140          | < 0.5        | Intf*        | 0.09       | < 0.5        | 77           | 1485         | 4            | 4.73       | 0.02      | >15.00     |
| 349477 H | 205 226   | < 5          | < 0.2      | 0.17       | 10           | < 0.5        | Intf*        | 0.55       | < 0.5        | 80           | 1205         | 2            | 5.16       | < 0.01    | >15.00     |
| 349478 H | 205 226   | 25           | < 0.2      | 7.50       | 860          | < 0.5        | < 2          | 6.69       | 0.5          | 16           | 78           | 18           | 4.36       | 2.29      | 1.50       |

CERTIFICATION: *Yhai J Ma*

INTERFERENCE: Mg ON P AND Bi



# Chemex Labs Ltd.

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TO: ARCHEAN ENGINEERING LIMITED

3605 CREERY AVE.  
 WEST VANCOUVER, B.C.  
 V7V 2M3

Project: GRAND FORTUNE  
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Page Number : 1-B  
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 Certificate Date: 08-NOV-95  
 Invoice No. : 19532888  
 P.O. Number :  
 Account : KQ

\*PLEASE NOTE

## CERTIFICATE OF ANALYSIS A9532888

| SAMPLE   | PREP CODE | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) |  |  |  |
|----------|-----------|--------------|--------------|------------|--------------|-------------|------------|--------------|------------|-------------|-------------|--------------|--|--|--|
| 349473 H | 205 226   | 1230         | < 1          | 2.85       | 20           | 890         | 12         | 295          | 0.34       | 152         | 20          | 100          |  |  |  |
| 349474 H | 205 226   | 1380         | 1            | 1.88       | 30           | 740         | 4          | 315          | 0.35       | 142         | 10          | 90           |  |  |  |
| 349475 H | 205 226   | 1000         | < 1          | 1.09       | 24           | 1460        | 8          | 334          | 0.48       | 213         | 10          | 74           |  |  |  |
| 349476 H | 205 226   | 505          | 1            | 0.11       | 1920         | Intf*       | 2          | 9            | < 0.01     | 34          | < 10        | 60           |  |  |  |
| 349477 H | 205 226   | 895          | < 1          | 0.02       | 2100         | Intf*       | < 2        | 6            | < 0.01     | 28          | < 10        | 48           |  |  |  |
| 349478 H | 205 226   | 1445         | < 1          | 1.04       | 48           | 1070        | 6          | 337          | 0.37       | 165         | 10          | 60           |  |  |  |

CERTIFICATION:

*Yhai D Ma*

INTERFERENCE: Mg ON P AND Bi





# Chemex Labs Ltd.

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To: ARCHEAN ENGINEERING LIMITED

3605 CREERY AVE.  
WEST VANCOUVER, B.C.  
V7V 2M3

Project: GRAND FORTUNE  
Comments: CC: E. ALIONIS

Page Number : 1  
Total Pages : 1  
Certificate Date: 03-DEC-95  
Invoice No. : I9534727  
P.O. Number :  
Account : KQ

## CERTIFICATE OF ANALYSIS

A9534727

| SAMPLE   | PREP CODE |     | Ni ppm |  |  |  |  |  |  |  |  |  |  |
|----------|-----------|-----|--------|--|--|--|--|--|--|--|--|--|--|
|          |           |     |        |  |  |  |  |  |  |  |  |  |  |
| 349476 H | 244       | 238 | 370    |  |  |  |  |  |  |  |  |  |  |
| 349477 H | 244       | 238 | 1900   |  |  |  |  |  |  |  |  |  |  |

CERTIFICATION: H. + B. [Signature]



# Chemex Labs Ltd.

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 PHONE: 604-984-0221 FAX: 604-984-0218

Client: ARCHEAN ENGINEERING LIMITED

3605 CREEERY AVE.  
 WEST VANCOUVER, B.C.  
 V7V 2M3

Project: GRAND FORTUNE  
 Comments: ATTN:ART TROUP

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date: 01-MAR-96  
 Invoice No. : I9612626  
 P.O. Number :  
 Account : KQ

\* PLEASE NOTE

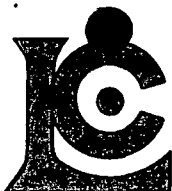
## CERTIFICATE OF ANALYSIS A9612626

| SAMPLE    | PREP CODE | Mg % (ICP) | Mn ppm (ICP) | Mo ppm (ICP) | Na % (ICP) | Ni ppm (ICP) | P ppm (ICP) | Pb ppm AAS | Sr ppm (ICP) | Ti % (ICP) | V ppm (ICP) | W ppm (ICP) | Zn ppm (ICP) |  |  |
|-----------|-----------|------------|--------------|--------------|------------|--------------|-------------|------------|--------------|------------|-------------|-------------|--------------|--|--|
| 349477- A | 248 238   | >15.00     | 740          | < 1          | 0.06       | 1865         | Intf*       | 4          | 3            | < 0.01     | 22          | 30          | 32           |  |  |
| 349477- B | 248 238   | >15.00     | 1200         | 1            | 0.01       | 3040         | Intf*       | < 2        | 5            | 0.03       | 44          | 130         | 112          |  |  |
| 349477- C | 248 238   | >15.00     | 820          | < 1          | 0.06       | 2050         | Intf*       | < 2        | 5            | < 0.01     | 25          | 1670        | 36           |  |  |
| 349477- D | 248 238   | >15.00     | 740          | < 1          | 0.05       | 1895         | Intf*       | < 2        | 3            | < 0.01     | 22          | 1240        | 30           |  |  |
| 349477- E | 248 285   | 12.00      | 2270         | 3            | 0.04       | 5060         | < 10        | < 2        | 9            | 0.01       | 107         | Intf*       | 282          |  |  |

CERTIFICATION:

*Hart Buchler*

\* INTERFERENCE: Mg on Bi and P. INTERFERENCE: Cr on W



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
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Client: ARCHEAN ENGINEERING LIMITED

3605 CREEERY AVE.  
WEST VANCOUVER, B.C.  
V7V 2M3

Project: GRAND FORTUNE  
Comments: ATTN:ART TROUP

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 01-MAR-96  
Invoice No. : 19612626  
P.O. Number :  
Account : KQ

\* PLEASE NOTE

## CERTIFICATE OF ANALYSIS A9612626

| SAMPLE    | PREP CODE | Ni ppm | Ni %  | Ag ppm AAS | Al % (ICP) | Ba ppm (ICP) | Be ppm (ICP) | Bi ppm (ICP) | Ca % (ICP) | Cd ppm (ICP) | Co ppm (ICP) | Cr ppm (ICP) | Cu ppm (ICP) | Fe % (ICP) | K % (ICP) |
|-----------|-----------|--------|-------|------------|------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|--------------|------------|-----------|
| 349477- A | 248 238   | 1800   | ----- | < 0.2      | 0.17       | < 10         | < 0.5        | Intf*        | 0.28       | < 0.5        | 78           | 1035         | 12           | 4.41       | 0.02      |
| 349477- B | 248 238   | 3100   | ----- | < 0.2      | 0.27       | < 10         | 0.5          | Intf*        | 0.44       | 1.5          | 150          | 5390         | 29           | 11.70      | < 0.01    |
| 349477- C | 248 238   | 1900   | ----- | < 0.2      | 0.18       | < 10         | < 0.5        | Intf*        | 0.47       | < 0.5        | 89           | 1185         | 9            | 5.34       | 0.03      |
| 349477- D | 248 238   | 1800   | ----- | < 0.2      | 0.15       | < 10         | < 0.5        | Intf*        | 0.30       | < 0.5        | 80           | 944          | 14           | 4.52       | < 0.01    |
| 349477- E | 248 285   | -----  | 0.64  | < 0.2      | 0.71       | < 10         | < 0.5        | < 2          | 1.02       | 1.0          | 298          | >10000       | 14           | >25.0      | 0.03      |

CERTIFICATION:

*Hart Buchler*

\* INTERFERENCE: Mg on Bi and P. INTERFERENCE: Cr on W



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: ARCHEAN ENGINEERING LIMITED

3605 CREERY AVE.  
WEST VANCOUVER, B.C.  
V7V 2M3

Project : GRAND FORTUNE  
Comments: ATTN:ART TROUP

Page Number : 1  
Total Pages : 1  
Certificate Date: 15-MAR-96  
Invoice No. : I9613503  
P.O. Number :  
Account : KQ

## CERTIFICATE OF ANALYSIS

A9613503

| SAMPLE   | PREP<br>CODE | Cr203<br>% |      |  |  |  |  |  |  |  |  |  |
|----------|--------------|------------|------|--|--|--|--|--|--|--|--|--|
| 349477-E | 244          | --         | 3.14 |  |  |  |  |  |  |  |  |  |

CERTIFICATION: Walter Buchler

**APPENDIX 2**



## CHEMEX FAX MESSAGE

**Chemex Labs Ltd.**  
**212 Brooksbank Avenue**  
**North Vancouver, British Columbia**  
**Canada, V7J 2C1**

**FAX: (604) 984-0218**  
**Phone: (604) 984-0221**

**Page 1 of 3**

**TO:** Mr. Art Troup

**FAX #:** 687-4212

**FROM:** Hart Bichler

**DATE:** January 11, 1996

---

### **MESSAGE:**

Dear Art:

Enclosed are the digestion procedures for the nickel determinations with a brief explanation.

I apologize for the long delay. If you have any questions, please call me.

Best regards,

Hart Bichler

HB/sky

## Chromium, Lithium, Rubidium, Strontium, Beryllium, Germanium

### Atomic Absorption Spectroscopy

Chemex Codes: 12, 27, 30, 32, 34, 41

A prepared sample (1.00g) is weighed into a teflon beaker and digested with hydrofluoric, nitric and perchloric acids to dryness. The residue is taken up with 25 ml of 10% hydrochloric acid and the elements are determined by standard atomic absorption spectroscopy.

| Chemex Code | Element        | Detection Limit | Upper Limit |
|-------------|----------------|-----------------|-------------|
| 12          | Chromium       | 2 ppm           | 1%          |
| 27          | Lithium        | 1 ppm           | 0.1%        |
| 30          | Rubidium       | 1 ppm           | 1%          |
| 32          | Strontium      | 1 ppm           | 1%          |
| 34          | Beryllium      | 0.1 ppm         | 0.1%        |
| 41          | Germanium      | 5 ppm           | 0.1%        |
| 8           | Nickel (total) | 1 ppm           | 1%          |

The tri-acid digestion is a "total" digestion. Only the most resistant minerals - spinels, rutile, tourmaline, topaz, zircons, etc. are not put into solution. All nickel silicates as well as all minerals effectively attacked by the nitric-aqua regia digestion dissolve. The "total" nickel content is determined. Therefore, the difference between the nickel concentration of the total digestion and the nitric-aqua regia is a good approximation of the amount of nickel silicate in the sample.

## Nickel - Atomic Absorption Spectroscopy (AAS)

A prepared sample (1.00g) is digested with nitric-aqua regia acids for two hours. The digested sample is cooled and diluted to 25 ml with demineralized water. The resulting solution is mixed and the solids allowed to settle. Nickel is then determined using atomic absorption spectroscopy with correction for background absorption.

| Chemex Code | Element | Detection Limit | Upper Limit |
|-------------|---------|-----------------|-------------|
| 8           | Nickel  | 1 ppm           | 1%          |

The nitric-aqua regia digestion dissolves all sulfides, carbonates and most common transition element oxides. Therefore, for all practical means it is a "total" digestion for Cu, Pb, Zn, Ag, Hg, Cd, Co, Mn, etc. However, silicates and resistate oxides and chromites are only leached on the surface of the grains. Nickel silicates are **not** effectively solubilized. The nickel determined via this digestion procedure is therefore a good approximation of the concentration of the element occurring as a sulfide or arsenide.



**APPENDIX 3**



# Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V3A 4P9  
PHONE (604) 888-1323 • FAX (604) 888-3642

Report # 960119 for:

**Spurlin Edwards,  
Archean Engineering, Limited,  
1610- 777 Dunsmuir Street,  
Vancouver, B.C., V7Y 1K5  
Fax: 687-4212**

February 1996

**Sample:      Altered Dunite: Antigorite-Magnetite-Anthophyllite-(Magnesite)**

**Summary:**

The sample is a massive dunite composed of olivine with disseminated grains of chromite. Olivine was fractured strongly and altered moderately to strongly to antigorite with patches, seams, and veinlets of magnetite. Chromite was replaced partly by magnetite. Later replacement is to irregular patches of very fine grained anthophyllite; the distribution of anthophyllite is very irregular. One late vein is of magnesite with much less magnetite, and a few veins of uncertain (probably late) age are of magnetite with much less magnesite; some of the latter have patchy envelopes containing abundant, fine to medium grained anthophyllite.

**John G. Payne, PhD.,  
Tel: (604)-986-2928  
Fax: (604)-983-3318**

**Sample 1      Altered Dunite: Antigorite-Magnetite, Anthophyllite;  
Veins of Magnesite-(Magnetite) with Envelopes of Anthophyllite**

The sample is a massive dunite composed of olivine with disseminated grains of chromite. Olivine was fractured strongly and altered moderately to strongly to antigorite with patches, seams, and veinlets of magnetite. Chromite was replaced partly by magnetite. Later replacement is to irregular patches of very fine grained anthophyllite; the distribution of anthophyllite is very irregular. One late vein is of magnesite with much less magnetite, and a few veins of uncertain (probably late) age are of magnetite with much less magnesite; some of the latter have patchy envelopes containing abundant, fine to medium grained anthophyllite.

|                        |        |
|------------------------|--------|
| olivine                | 10-12% |
| chromite               | 3- 4   |
| antigorite             | 35-40  |
| magnetite              | 3- 4   |
| anthophyllite          | 35-40  |
| magnesite              | minor  |
| pyrrhotite             | 0.1    |
| chalcopyrite           | trace  |
| <b>veins, veinlets</b> |        |
| magnesite              | 2- 3   |
| magnetite              | 2- 3   |

Original olivine grains probably averaged 0.5-1.5 mm in size. They were fractured strongly and replaced slightly to strongly to antigorite along and outwards from fractures, leaving relic olivine cores between fractures averaging 0.02-0.05 mm in size and a few up to 0.08 mm across. Antigorite is cryptocrystalline to extremely fine grained and very pale green in colour.

Magnetite forms disseminated patches and seams up to a few mm across of extremely fine grains, commonly intergrown with antigorite or anthophyllite.

Chromite forms disseminated grains ranging from 0.2-0.8 mm in size. It is replaced along margins by magnetite, and cores are replaced less strongly to an opaque phase intermediate between chromite and magnetite. This has a much lower reflectivity than magnetite.

Pyrrhotite forms disseminated, equant grains averaging 0.04-0.06 mm in size.

Chalcopyrite forms a few disseminated patches up to 0.05 mm in size.

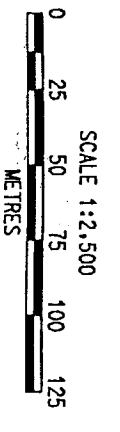
Anthophyllite forms patches of ragged to locally subhedral, prismatic grains averaging 0.1-0.2 mm in length, with a few coarser patches with grains up to 1 mm long. Some are in subparallel orientation and others are interlocking to felted. Identification of all grains is not certain, because some appear to have slightly inclined extinction, suggesting that some tremolite may be present. Most coarser patches of anthophyllite are in envelopes bordering the magnetite-(magnesite) veins.

Magnesite forms disseminated grains and clusters of a few grains averaging 0.1-0.2 mm in size.

A vein up to 0.7 mm across consists of very fine to fine grained magnesite with minor disseminated magnetite averaging 0.02-0.05 mm in size. A few veins up to 0.5 mm wide are dominated by extremely fine to very fine grained magnetite with minor patches and lenses of magnesite. Some of these have irregular, patchy envelopes containing moderately abundant fine to medium grained patches of prismatic to slightly feathery anthophyllite in variable orientation.

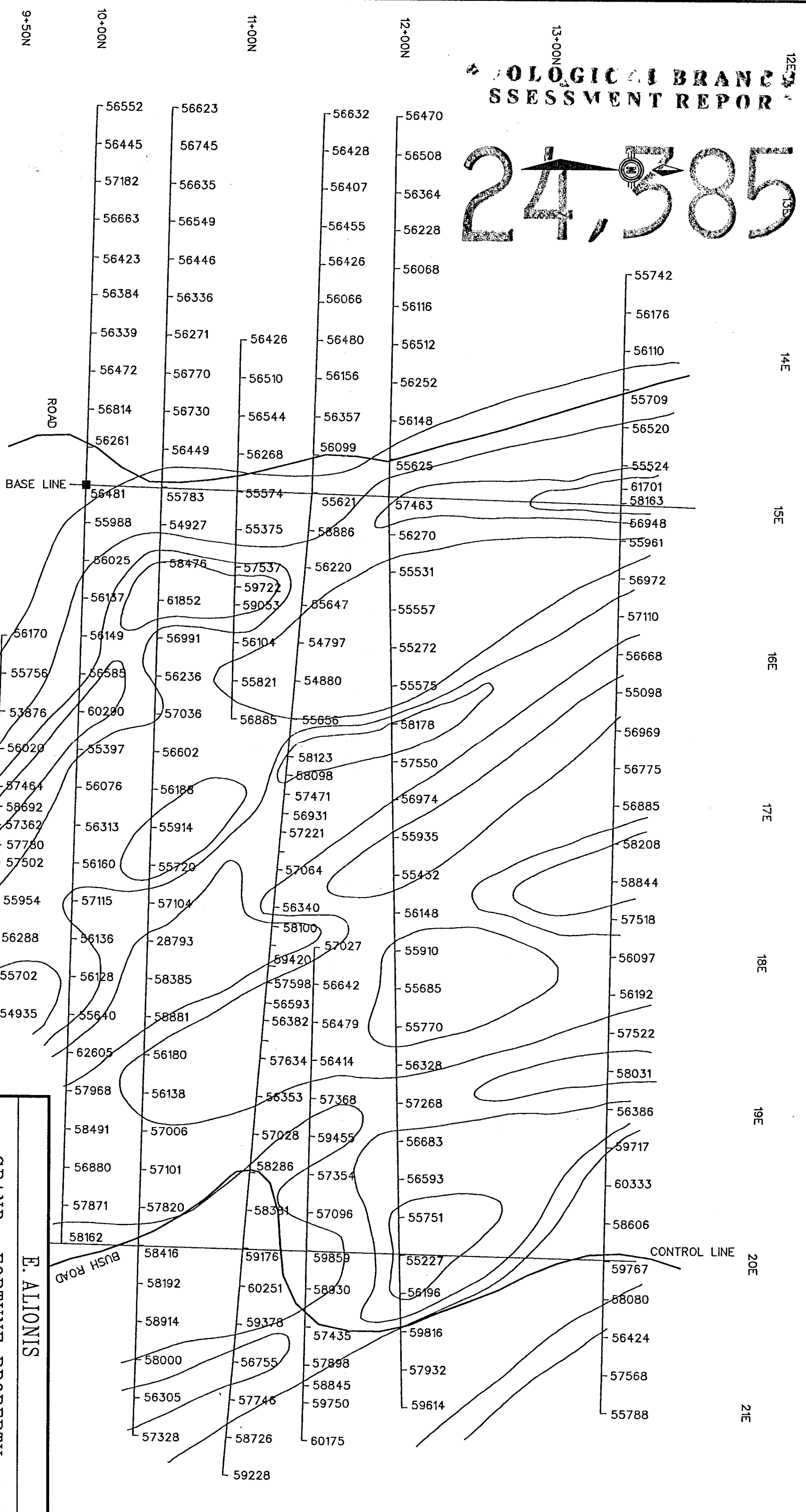
LOGICAL BRANC  
ASSESSMENT REPOR

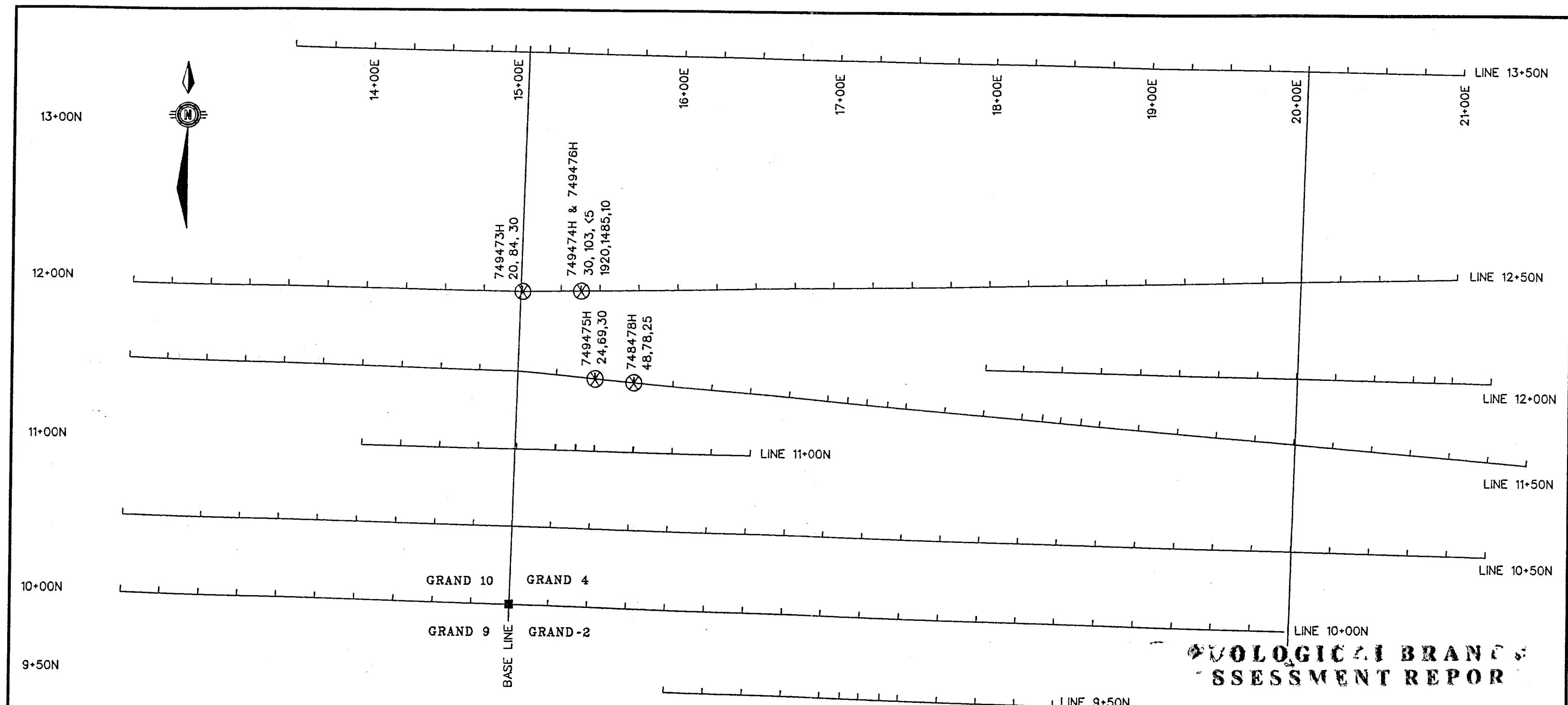
24,385



**LEGEND**  
 Grid line & stations  
 Contour Interval 1,000 gammas  
 Claim post

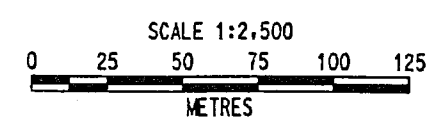
**E. ALIONIS**  
**GRAND - FORTUNE PROPERTY**  
**MAGNETOMETER RESULTS**  
 DATE: MARCH, 1996  
 BY: A.G.T./D.S.  
 FIGURE: 4





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

24,385



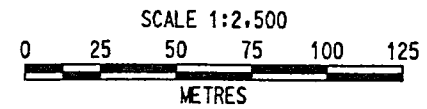
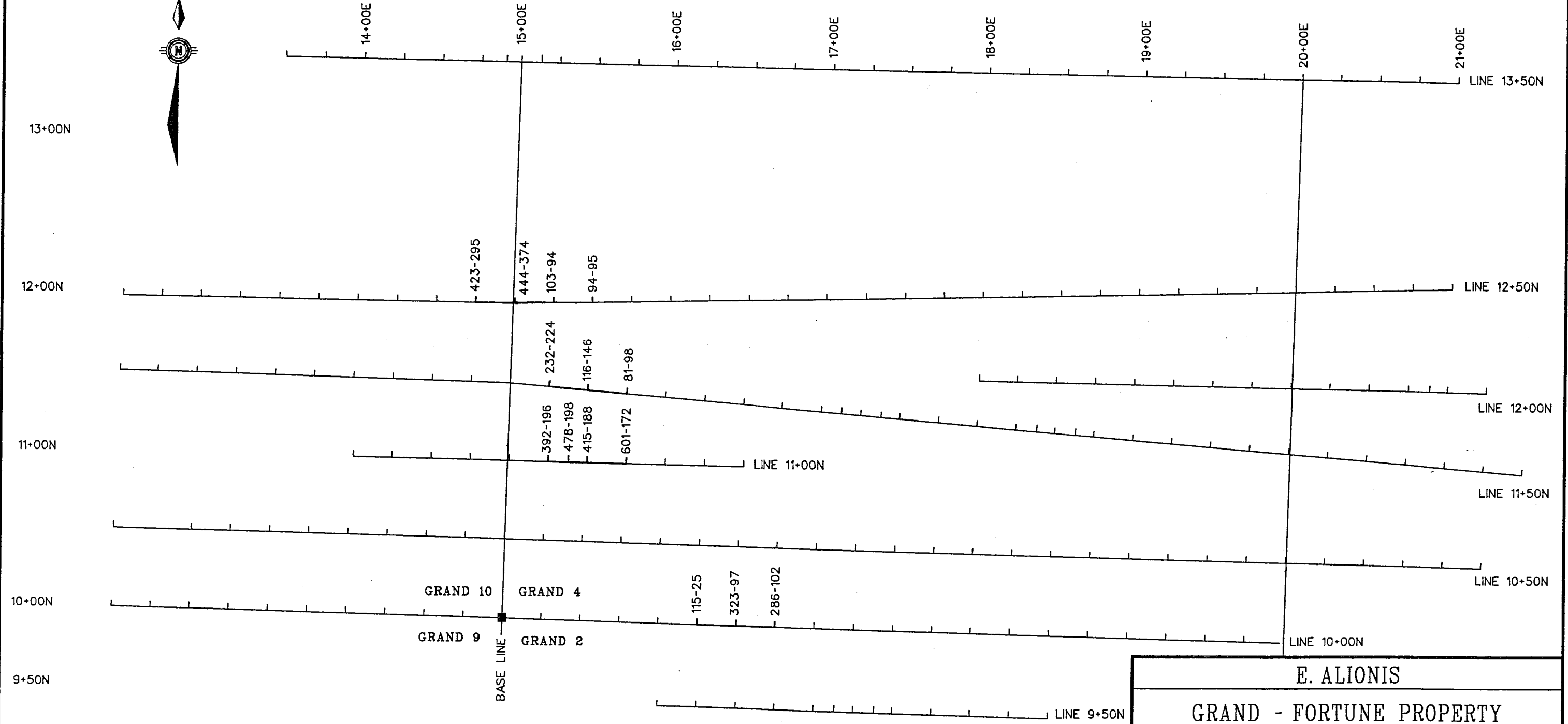
LEGEND

- ⊗ Rock chip sample site
- ⊗ 749473H - Sample number  
1920, 1485, 10 - Ni (ppm), Cr (ppm), Au (ppb)
- Claim post

749477H, 749477H-A to E  
2100/1205/<5  
1865/1035/--  
3040/5390/--  
2050/1185/--  
1895/944/--  
5060/>10,000/--

|                          |           |
|--------------------------|-----------|
| E. ALIONIS               |           |
| GRAND - FORTUNE PROPERTY |           |
| ROCK SAMPLE RESULTS      |           |
| DATE: MARCH, 1996        | FIGURE: 6 |
| BY: A.G.T./p.s.          |           |

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- LEGEND**
- Grid line & stations
  - 445-95 Ni (ppm), Cr (ppm)
  - Claim post

|                                      |
|--------------------------------------|
| E. ALIONIS                           |
| GRAND - FORTUNE PROPERTY             |
| SOIL SAMPLE RESULTS                  |
| DATE: MARCH, 1996<br>BY: A.G.T./p.s. |
| FIGURE: 5                            |