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1990 DRILLING, GEOLOGICAL, GEOPHYSICAL

and

GEOCHEMICAL REPORT

on the

RAM-TUT-TOT PROPERTY

(RAM PROPERTY)

Atlin Mining Division - British Columbia

N.T.S. 104K/8W

Lat. 50° 17' N. Long. 132° 21' W.

for

ARMENO RESOURCES INC.

#500-1111 West Hastings Street
Vancouver, B.C.
V6E 3J3

by

Donald G. Allen, P. Eng.

December 15, 1990 Vancouver, B.C.

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SUMMARY

Armeno Resources Inc. holds an option on Chevron Minerals Ltd.'s RAM-TUT-TOT gold property which comprises 178 claim units in the active Stikine Arch Gold District. The property is situated 80 kilometres northwest of Telegraph Creek and 10 kilometres northwest of the Golden Bear Mine (1.19 million tonnes grading 11.5 grams per tonne gold). Access is by helicopter.

The RAM and TUT claims were staked in 1981 and the TOT claims in 1983 by Chevron who, along with previous joint venture partners conducted geological mapping, geochemical surveys and 674 metres of diamond drilling in 4 holes. This work delineated several gold targets which have been tested only in a preliminary manner:

1) Gold values of up to 5 grams per tonne occur in silicified zones in limestone of which the largest is exposed over a distance of 1.5 kilometres along a limestone-phyllite contact. Associated with this zone is a 900 by 400 metre gold-multielement geochemical anomaly in soil. Preliminary drilling in 1987 (2 holes from one site) encountered anomalous gold values over a true width of 100 metres including intercepts of 1 grams per tonne (g/t) and 2.4 g/t, each over 1.6 metres.

2) Gold bearing shear zones also carry values of up to 5 g/t gold. Only one hole was drilled in the TOT occurrence, which returned a value of 3.8 g/t over 2.3 metres.

3) Gold values of up to 0.3 ounces per ton occur in numerous quartz veins, carrying pyrite, chalcopyrite, and sphalerite which are associated with an alkalic intrusion of Jurassic age. A possible porphyry-type target is indicated.

In 1990 Armeno Resources Inc. conducted a program of electromagnetic surveys and diamond drilling on the TUT claims and limited geochemical sampling and mapping on the TOT claims. Drilling encountered similar gold values (up to 2.6 grams per tonne) within the thick silicified breccia unit. Work on the TOT claims partly defined several possible targets including:

1) an area underlain by limestone in which gold values in soil reach 2160 parts per billion (ppb),

2) gold-bearing shear zones as mentioned above and

3) stratabound gold-bearing horizons in a siliceous metatuff-metasedimentary unit.

Follow-up target definition and diamond drilling are proposed.

CONCLUSION

Results of exploration work conducted to date on the RAM-TUT-TOT property have been extremely encouraging. At least five target types have been identified:

1) The large area of silicified limestone at the base of a siltstone unit on the TUT claims has been tested with only six drill holes at widely spaced intervals. As postulated by Chevron personnel, hydrothermal fluids have come up along a fault zone and ponded beneath the siltstone unit. The fault manifests itself in the siltstone unit on surface as a series of quartz-sulfide veinlets. Gold mineralization would be deposited close to the feeder zone, near the top of the limestone in a "manto" deposit. The gold would typically stay near the top of the feeder, although the silica-rich fluid and trace elements may continue well beyond the fault. While anomalous gold values were obtained over considerable widths in all the drill holes, no feeder zone to date has been intersected.

2) Significant gold values occur in shear zones on the property. One hole drilled on the TOT claims intersected 2.6 metres grading 0.117 ounces per ton gold. Additional drilling is warranted to test the strike and dip continuity of mineralization. Although one hole drilled to test a silicified limestone breccia in a shear zone on the TUT claims returned only weakly anomalous gold values (up to 510 parts per billion), further drilling is warranted along the projection of this fault, particularly where it intersects the manto-style mineralization near the limestone-siltstone contact.

3) Distribution of gold values in soils on the TOT claims, suggest that the limestone-metasediment contact may also be favorable. Outcrops in the area are sparse and no detailed mapping has been conducted, so the nature of the source of the anomalies is unknown. Detailed soil and rock geochemical sampling and geophysical surveys are needed to define drilling targets.

4) Stratabound gold mineralization may be present within the siliceous metasedimentary unit on the TOT claims. A single sample returned a

gold value of 620 parts per billion. The presence of two chert beds containing pyrite and arsenopyrite have been reported by government geologists. Further mapping and sampling is warranted.

5) A fifth target is a possible porphyry-style target which will require more surface evaluation prior to drilling. Vein type and local stockwork type mineralization appears to be spatially associated with the albitite intrusion (altered quartz diorite) on the east side of the TUT claims.

Also of interest is the widespread carbonate alteration reported on the TOT claims. Carbonate alteration is an important alteration type associated with gold deposits on a worldwide scale, including the nearby Golden Bear Mine.

RECOMMENDATION

A two phase exploration program is highly recommended to further evaluate the RAM-TUT-TOT property. Geological mapping, detailed geochemical sampling and geophysical surveys are recommended to define drill targets on the TOT claims. Additional mapping and sampling should be carried out over the RAM BAA and TUT claims to evaluate the potentitial for porphyry or vein type mineralization. Diamond drilling should be carried out on targets generated and additional drilling should be carried out to routinely test the 1.5 kilometre long silicified zone on the TUT claims.

ESTIMATED COST OF RECOMMENDATION

Phase I Detailed mapping, geochemical sampling, geophysical sampling drill site preparation.

Salaries		
Senior Geologist	30 days @ $350/day	$ 10,500
Junior Geologist-Geophysicist	30 days @ $300/day	9,000
Assistants	60 Days @ $225/day	13,500
Helicopter	15 hours @ $900/hr	13,500
Drillsite Preparation	20 man days @ $300/man day	6,000
Room and Board	150 man days @ $60/day	9,000
Vehicle rental, expediting services, field supplies		8,000
Camp, radio rental		1,500
Geochemical analyses		20,000
Induced polarization survey:	10 line kilometres @ $2000/km	20,000
EM unit rental		1,000
Report		10,000
	Subtotal	122,000
	Contingencies	10,000
	Total	132,000
	GST @ 7%	9,240
	TOTAL PHASE I	**$141,240**

Phase II Diamond drilling.

Salaries		
Senior Geologist	30 days @ $350/day	$ 10,500
Assistant	30 days @ $250/day	7,500
Helicopter		100,000
Diamond drilling	2000 metres @ $150/m	300,000
Mobilization		10,000
Assays		8,000
Camp costs, vehicle & radio rentals expediting services field supplies		10,000
Report		10,000
	Subtotal	456,000
	Contingencies	24,000
	Total	480,000
	GST @ 7%	33,600
	TOTAL PHASE II	**$513,600**
	GRAND TOTAL PHASE I AND PHASE II	**$654,840**

INTRODUCTION

Armeno Resources Inc. holds an option on Chevron Minerals Ltd.'s RAM-TUT-TOT property (hereinafter referred to as the RAM property), comprising 178 claim units in the Tatsamenie Lake area of northwestern British Columbia. The claims cover gold mineralization in silicified limestone of Paleozoic age along a limestone-phyllite contact, in shear zones, and in sheeted quartz veins.

The RAM is in the Stikine Arch Gold District which includes the Stewart, Sulphurets, Iskut, Eskay Creek, Galore Creek and Tatsamenie Lake gold camps. The southern part of the district in recent years has been the focus of intense exploration activity, with major discoveries having been made in the Sulphurets-Iskut-Eskay Creek area. Exploration has been intensifying northwards, with new gold discoveries also being made in the Galore Creek area. The Tatsamenie Lake camp is the northernmost cluster of gold deposits in the district and has not yet received the attention of the other gold camps, although the nearby Golden Bear Mine (1.19 million tons grading 11.5 grams per ton gold) was recently brought into production by Homestake and Chevron.

The purpose of this report is to summarize results of an exploration program conducted in 1990 on behalf of Armeno Resources Inc. E. Sykes, geophysicist, assisted the writer in conducting the geophysical surveys and in the plotting and interpretation of the geophysical data.

LOCATION, PHYSIOGRAPHY, ACCESS

The RAM property straddles the southwestern end of Tatsamenie Lake, 80 kilometres northwest of Telegraph Creek (Figure 1). The property lies in the eastern part of the Coast Mountains in the Chechilda Range. Topography in the area is moderately rugged and locally steep. Elevations range from 790 metres (2,600 feet) on Tatsamenie Lake to 2360 metres (8,625 feet). Much of the claim area is above treeline (approximately 1200 metres).

Access is by helicopter based in Telegraph Creek, however, the Golden Bear Minesite, 10 kilometres to the southeast can be used as a staging area (Figure 2).

CLAIM DATA

The RAM property comprises 178 claim units as follows (Figure 3):

Claim Name	Record No.	No. of Units	Record Date	Expiry Date
TUT 1	1292	20	March 5, 1981	March 5, 1993
TUT 2	1293	20	March 5, 1981	March 5, 1993
TUT 3	1294	20	March 5, 1981	March 5, 1993
TUT 4	1295	20	March 5, 1981	March 5, 1993
TOT 1	1958	20	July 4, 1983	July 4, 1991
TOT 2	1959	20	July 4, 1983	July 4, 1991
TOT 3	1960	20	July 4, 1983	July 4, 1991
TOT 4	1961	20	July 4, 1983	July 4, 1991
RAM BAA	3798	15	Oct. 2, 1989	Oct. 2, 1991
YING	3025	3	July 23, 1987	July 23, 1991

The original RAM claim lapsed in 1989 and was subsequently restaked as the RAM BAA. Claims are registered in the name of Chevron Minerals Ltd.

HISTORY

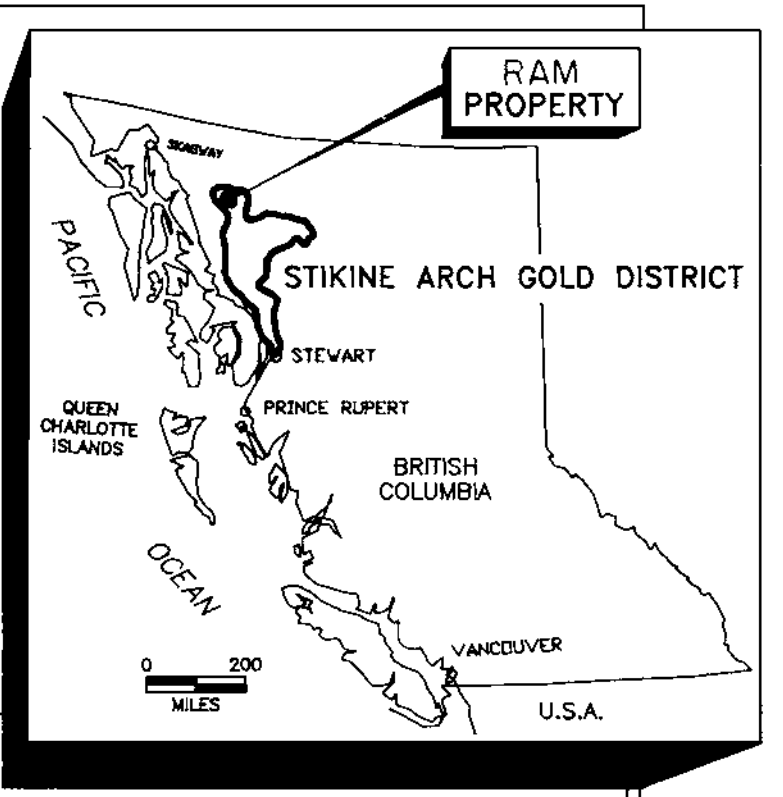
The Tatsamenie Lake area was originally explored during the porphyry copper rush of the late 1950's to late 1960's. After the porphyry boom, the area was left virtually untouched until 1980 when Chevron ventured into the area. Regional exploration in 1980 and 1981 delineated targets on the RAM property as well as on the BEAR property (now refered to as the Golden Bear Mine). The RAM and TUT claims were originally staked in 1981, about the same time as the BEAR property. The TOT claims were staked in 1983.

In 1982 to 1984 Chevron conducted a program of geological mapping; rock, soil, silt and bulk silt sampling, and hand trenching. In 1987, the property was optioned to Dia Met Minerals Ltd. and Lighting Creek Mines Ltd., who tested the property with four diamond drill holes totalling 674

ARMENO RESOURCES INC.

RAM PROPERTY

LOCATION MAPS



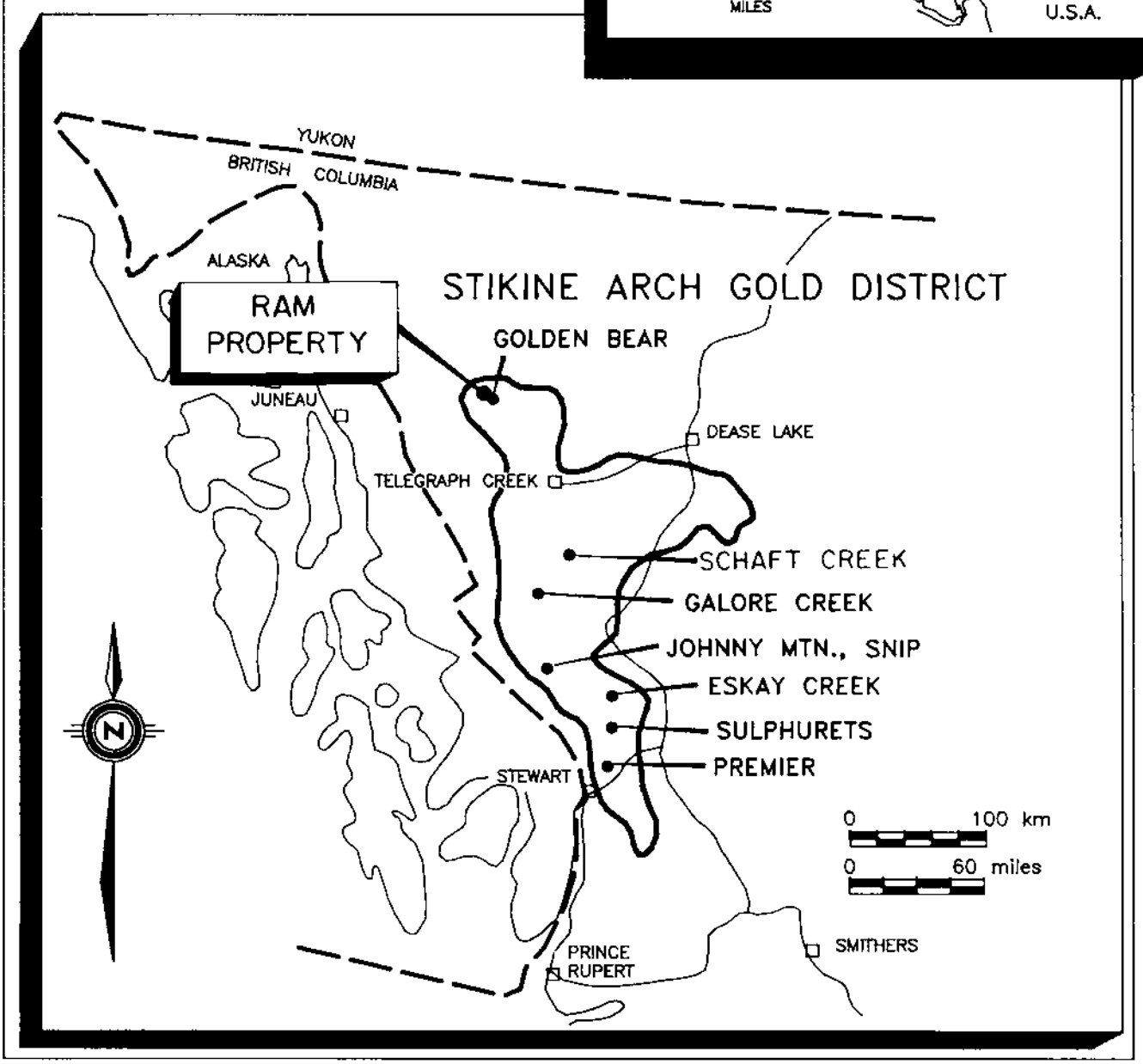


Figure 1

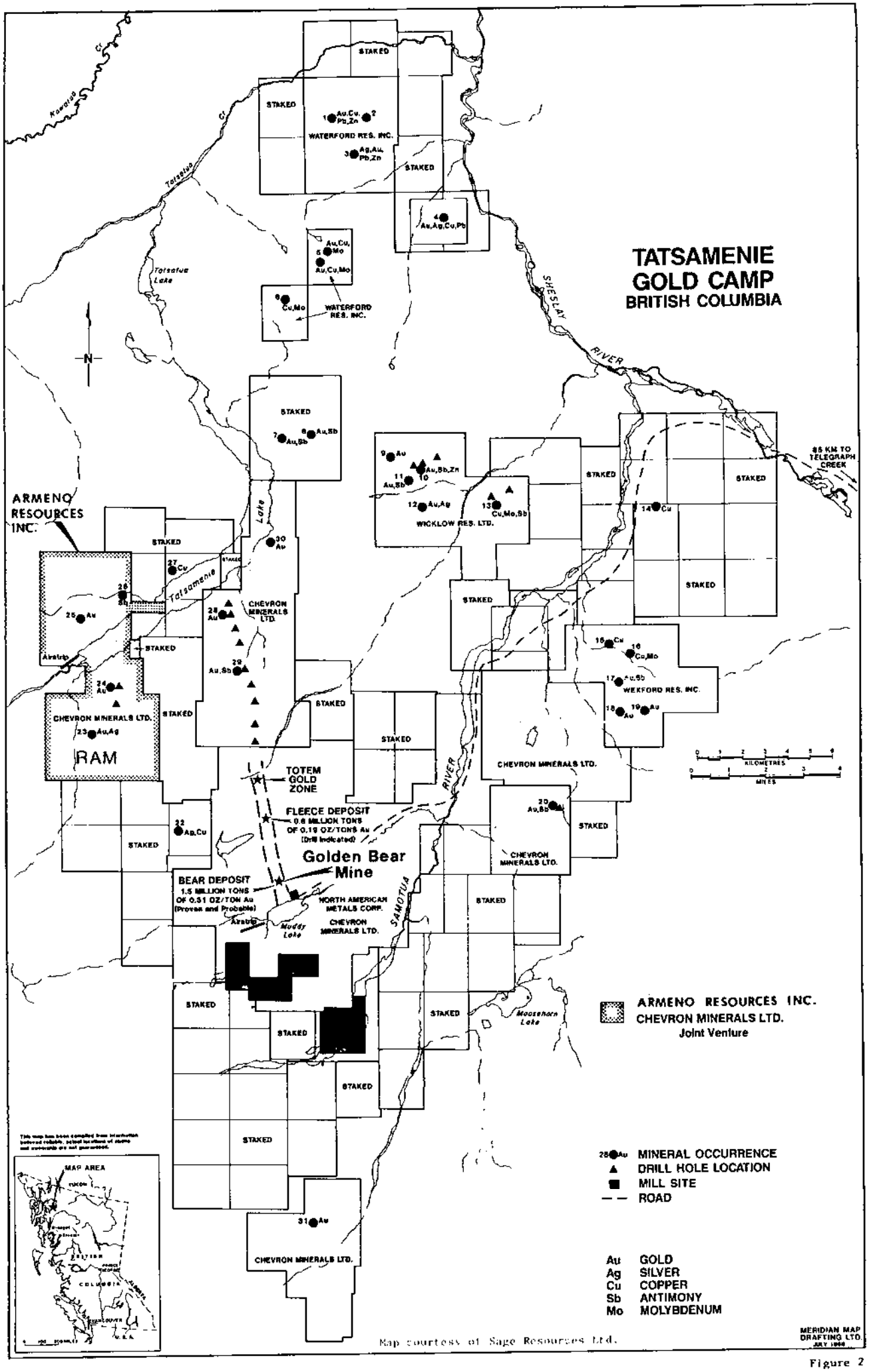
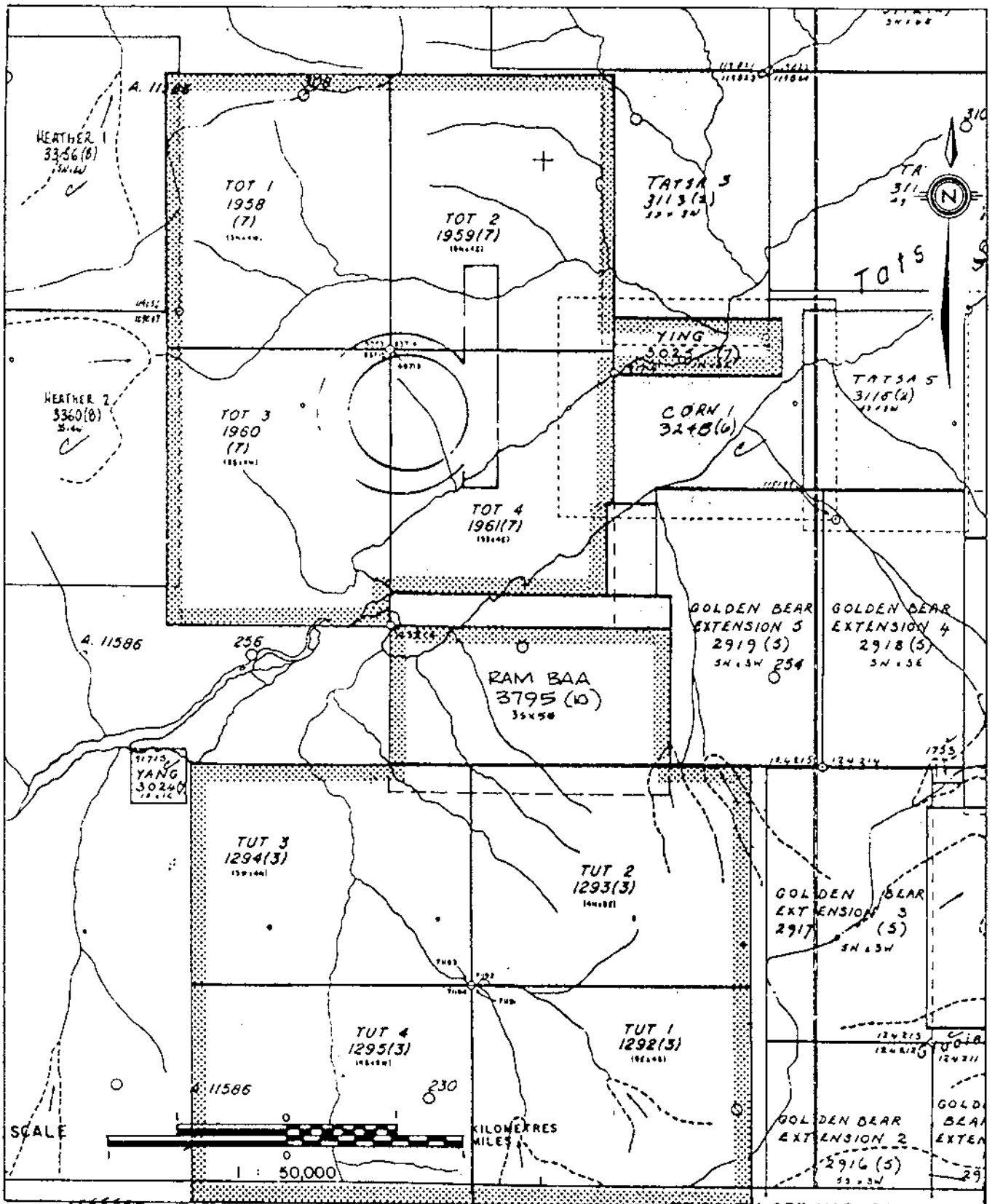

TATSAMENIE
GOLD CAMP
BRITISH COLUMBIA
STAKED
WATERFORD RES. INC.
WATERFORD RES. INC.
WICKLOW RES. LTD.
ARMENO
RESOURCES
INC.
CHEVRON
MINERALS
LTD.
CHEVRON MINERALS LTD.
RAM
TOTEM
GOLD
ZONE
FLEECE DEPOSIT
0.6 MILLION TONS
OF 0.19 OZ/TON Au
(Drill Indicated)
Golden Bear
Mine
BEAR DEPOSIT
1.5 MILLION TONS
OF 0.31 OZ/TON Au
(Proven and Probable)
NORTH AMERICAN
METALS CORP.
CHEVRON
MINERALS LTD.
WEKFORD RES. INC.
CHEVRON MINERALS LTD.
CHEVRON MINERALS LTD.
CHEVRON MINERALS LTD.
Tatsamenie Lake
Tatsatua Lake
Muddy Lake
Moosehorn Lake
Arastra
Airstrip
SHESLAY RIVER
TATSAMENIE RIVER
SAMOTUA RIVER
65 KM TO
TELEGRAPH
CREEK
KILOMETRES
MILES
ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.
Joint Venture
MINERAL OCCURRENCE
DRILL HOLE LOCATION
MILL SITE
ROAD
Au GOLD
Ag SILVER
Cu COPPER
Sb ANTIMONY
Mo MOLYBDENUM
MAP AREA
Map courtesy of Sage Resources Ltd.
MERIDIAN MAP
DRAFTING LTD.
JULY 1988

Figure 2



N.T.S. 104K/8W

ARMENO RESOURCES INC.

CLAIM MAP

RAM-TOT-TUT PROPERTY

Atlin Mining Division - British Columbia

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A.M. Exploration ltd.

Figure 3

metres, three holes on the TUT and one on the TOT claims. In 1989, Dia Met conducted bulk silt sampling from two sites on the RAM claims.

REGIONAL GEOLOGY

The RAM property is in the Tulsequah Map Area, which was mapped by Souther (1971). The geology and mineralization of the immediate Tatsamenie Lake area has been described more recently by Oliver and Hodgson (1989, 1990).

Regionally the property is in the Stikine Arch (Figures 4a and 4b) one of several tectonic elements that form the Intermontane Belt of northern British Columbia Cordillera. The Stikine Arch is a triangular-shaped area between Dease Lake, Tulsequah and the Unuk-Iskut River area that was the site of Permian to Mid-Triassic deformation and metamorphism, and localized Middle Triassic to Middle Jurassic magmatism. It remained positive throughout most of the Mesozoic age, providing the source area for sedimentation in the Bowser Basin to the south and the Whitehorse Trough to the north.

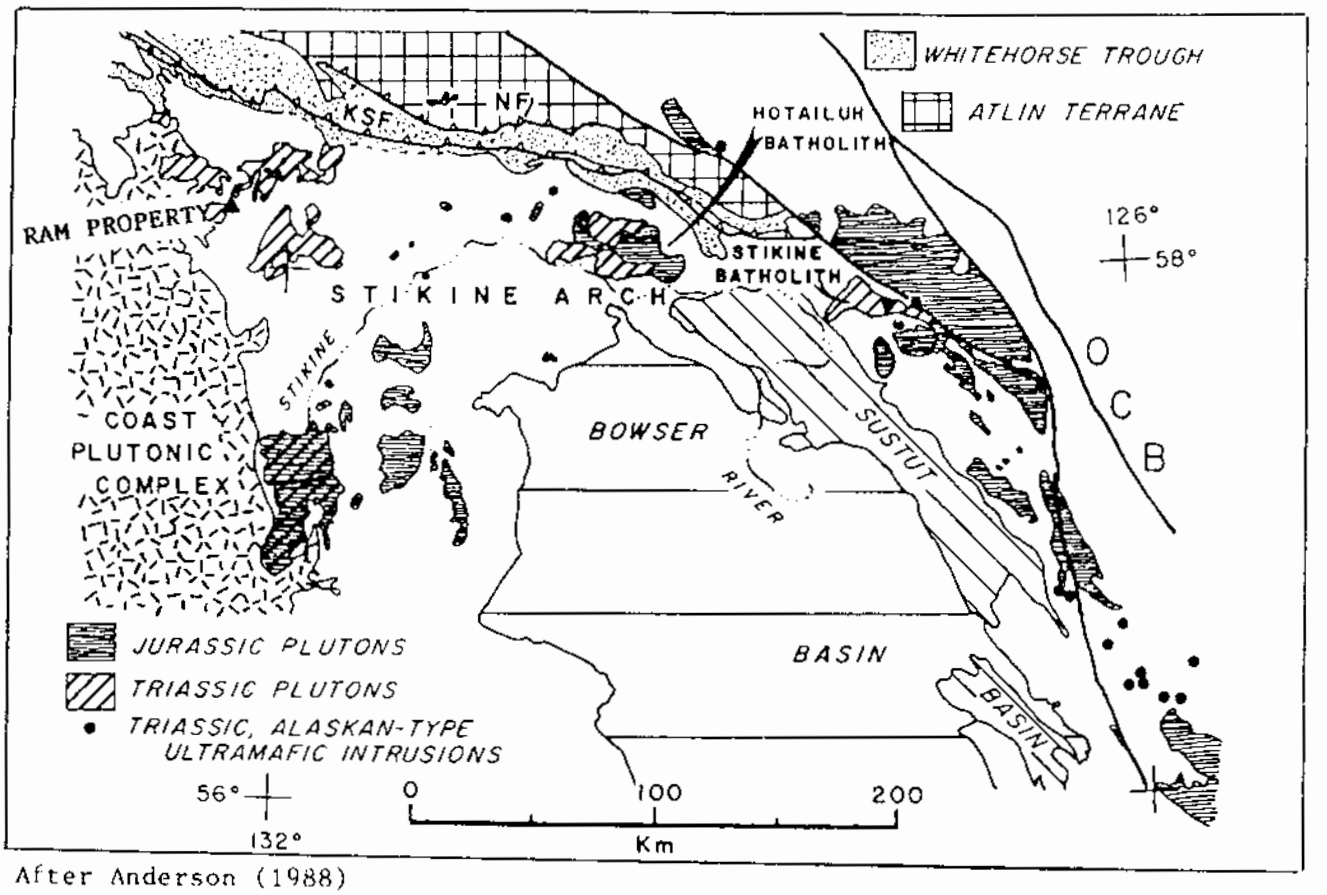
Three major lithotectonic packages make up the Stikine Arch in the Tatsamenie Lake Area:

1) Permian and Older Stikine Assemblage - an 800 metre thick sequence of felsic tuff, thick-bedded limestones and lesser interbedded chert shale and sandstone confomably overlain by;

2) Permian to Lower Triassic mafic pyroclastics and lesser flows unconformably overlain by;

3) Middle Triassic and younger volcanic rocks of the Stuhini and King Salmon Groups.

These assemblages are interpreted to be fore-arc and back-arc lithologies that evolved and amalgamated to form the Stikine Terrane or Stikinia, a composite terrane that subsequently collided and merged with the North American continental plate as a result of subduction and sea floor spreading. These assemblages are flanked to the east and south by three suites of intrusive rocks:



After Anderson (1988)

REGIONAL GEOLOGIC SETTING

RAM PROPERTY

Figure 4a

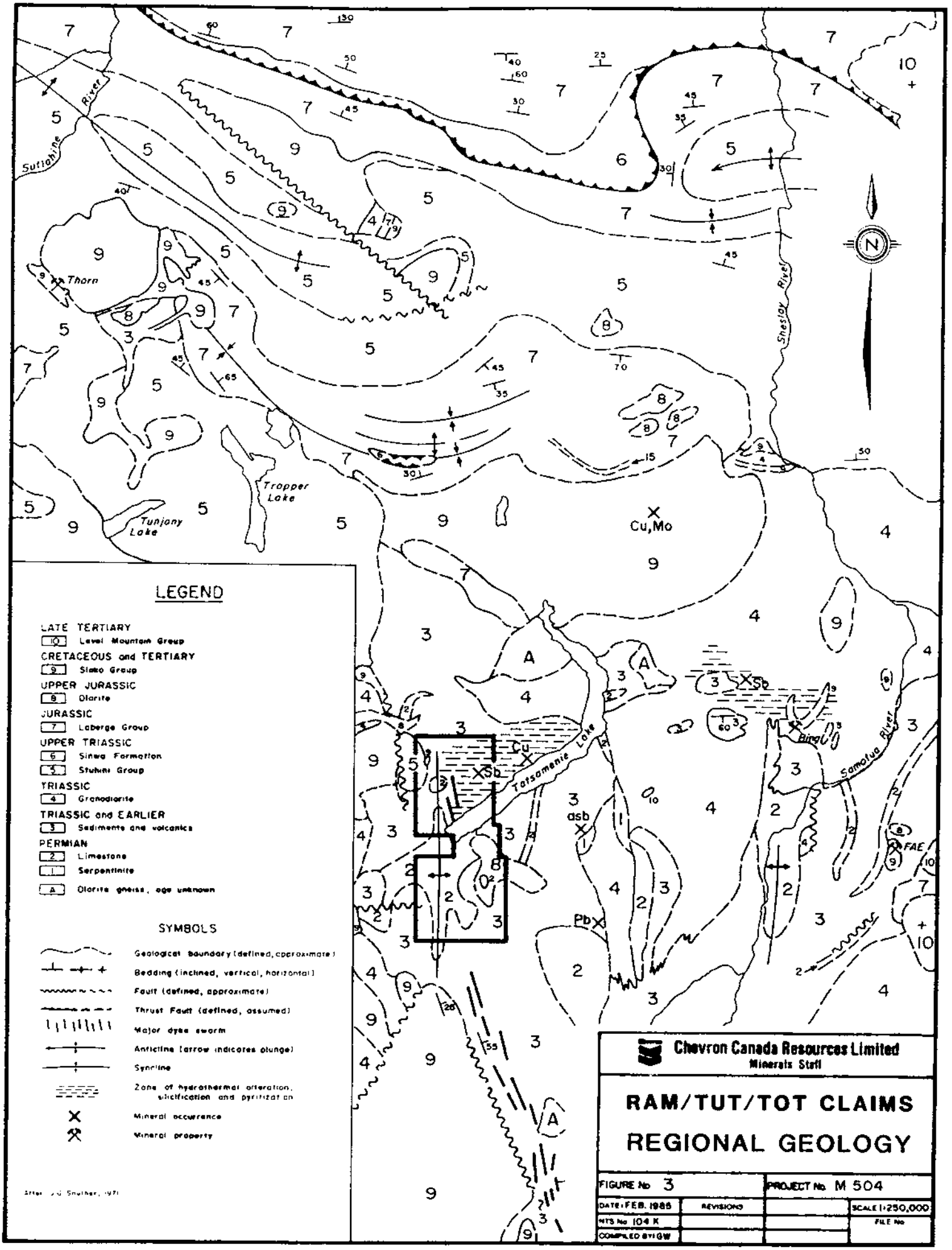

Sustut River
Thorn
Tunjany Lake
Tropper Lake
Cu,Mo
Sheslay River
Tarsamenie Lake
Cu
Sb
Sb
Bing
Samotua River
FAE
asb
Pb
LEGEND
LATE TERTIARY
Q Level Mountain Group
CRETACEOUS and TERTIARY
9 Sloko Group
UPPER JURASSIC
8 Diorite
JURASSIC
7 Laberge Group
UPPER TRIASSIC
6 Sinwa Formation
5 Stuhini Group
TRIASSIC
4 Granodiorite
TRIASSIC and EARLIER
3 Sediments and volcanics
PERMIAN
2 Limestone
Serpentinite
A Diorite gneiss, age unknown
SYMBOLS
Geological boundary (defined, approximate)
Bedding (inclined, vertical, horizontal)
Fault (defined, approximate)
Thrust Fault (defined, assumed)
Major dyke swarm
Anticline (arrow indicates plunge)
Syncline
Zone of hydrothermal alteration, silicification and pyritization
Mineral occurrence
Mineral property
After J.G. Souther, 1971
Chevron Canada Resources Limited
Minerals Staff
RAM/TUT/TOT CLAIMS
REGIONAL GEOLOGY
FIGURE No 3
PROJECT No M 504
DATE: FEB. 1985
REVISIONS
SCALE 1:250,000
NTS No 104 K
FILE No
COMPILED BY: GW

Figure 4b

1) a Triassic suite coeval with associated volcanic rocks, e.g., large plutons to west and east of property,

2) a Jurassic suite, and

3) Eocene plutonic rocks of the Coast Crystalline Belt.

Late Cretaceous to Early Tertiary felsic volcanic rocks and related dikes occur in a broad northwest trending belt throughout the Tulsequah area.

According to Oliver and Hodgson (1990), three major deformations have affected the form and distribution of rock units in the area. The oldest rocks, below the mid Triassic unconformity have been tightly folded (e.g., Tatsamenie Antiform). A second deformation was related to the mid Jurassic accretionary event and involved the formation of southwest-verging thrust faults; coupled with the development of broad open fold structures. The youngest structures are Eocene extensional faults which cut all rock types and are locally intruded by diabase and felsic dikes. A pronounced northeast lineament direction is presumably related to this youngest event. This expression is reflected in the property area by Tatsamenie Lake and observed parallel graben faults.

REGIONAL MINERALIZATION

Mineralization in the Tatsamenie Gold Camp has been described by Schroeter (1985, 1986, 1987) and by Oliver and Hodgson (1989, 1990). Gold mineralization at the nearby Golden Bear mine occurs in two main zones. The Bear Main zone, according to Schroeter, crops out in a fault bounded silicified and listwanitized block that has been traced by drilling along a strike length of nearly one kilometre, across a width of 10 metres and to a depth of at least 200 metres. A significant portion of the mineralization occurs in a gouge zone within a splay of the main Bear fault. The mineralized zone is not characterized by well defined vein structures or free quartz. The host rocks included silicified and dolomitized limestone and carbonatized tuffs (listwanites). Mineralization in the Fleece Bowl zone does not crop out, having been intersected only in drill holes. The Fleece Bowl zone is localized at the inter-

section of a major fault with the contact of a black chert and argillaceous siltstone unit within volcanic rocks. A strong correlation has been observed between gold, mercury, arsenic, antimony and silver on the property.

According to Walton (1990) mineralization on the Golden Bear property is controlled by a number of features as summarized below:

1) a suitable structural trap in stratigraphic rocks of varying competency and at changes in strike and dip of faults;

2) a suitable heat pump (Jurassic intrusions); and

3) Triassic volcanic rocks, which regionally throughout the Stikine Arch may have been the source rocks for the gold.

Walton (1990) noted the presence of large areas of silicified limestone (up to one square kilometre) on the Golden Bear property. Gold mineralization also occurs in silicified limestones along fault structures on the Misty Nie property (extension to the north of the Bear fault structure) and the Slam property (No. 20, Figure 2), as well as on the RAM property.

The large alteration zone on the north side of Tatsamenie Lake which is partly covered by the TOT claims has been investigated for its copper potential. As described by Souther (1971) the original rock textures in the alteration zone have been largely destroyed and replaced with a fine mosaic of quartz-albite and carbonate with occasional rhombs of ferrodolomite. Microscopic veinlets of quartz and carbonate are common and the entire rock is charged with finely disseminated pyrite and iron oxides. Oliver and Hodgson (1990) noted the presence of numerous intrusions, and fuchsitic and potassic alteration, and state that the presence of a highly favorable precious metal environment is indicated.

PROPERTY GEOLOGY

The following descriptions of the geology and mineralization of the RAM property is taken directly from Walton (1987). The main rock units underlying the property are Pre-Upper Triassic unit, Diorite and Sloko Group (Figure 5a).

"Pre-Upper Triassic

The RAM-TUT-TOT Claims have the best exposure of Pre-Upper Triassic rocks in the area. From the top of the hill to the first bench, the Tuff Unit occurs in outcrop, followed by an exceptionally large section of sediments (the Siltstone Unit) and then the Limestone Unit.

The mountain tops on the RAM-TUT-TOT Claims are comprised of the Tuff Unit. On the RAM-TUT, the unit is quite fresh with a dark green colour while on the TOT Claims it is generally altered. The typical alteration is quartz-carbonate which give a characteristic orange colour to the rock. The Tuff Unit was not encountered in the RAM-TUT or TOT drill holes.

The Siltstone Unit was intersected in drilling on the RAM-TUT and TOT Claims. The thickest sequence of siltstone is found on this claim group. Mapping in the region, identified two marker horizons: a pink banded limestone and some mafic sills.

In core, the siltstone is generally fine grained and medium to dark gray in colour except in bleached zones where it may vary from tan to green. Silicification is common in the drill core and may be patchy to pervasive. The siltstones are locally calcareous, hematitic, bleached and in the case of RAM-TUT very carbonaceous. Calcite and quartz veins are sporadic throughout the package. Disseminated cubic pyrite is present up to 3% in the siltstone.

The Siltstone Unit encountered in drilling and in outcrop on the RAM-TUT-TOT Claims is quite different from that on the GOLDEN BEAR and MISTY-NIE properties. The difference is in the depositional setting of the sediments. On the MISTY-NIE and GOLDEN BEAR the sediments were deposited in restricted basins while on the RAM-TUT-TOT they were deposited in a beach or deltaic environment. The sediments are generally cleaner and more siliceous on RAM-TUT-TOT. Stratigraphically above the Limestone Unit

there is a black carbonaceous limestone which may be directly correlatable with the carbonaceous silstones on the GOLDEN BEAR and MISTY-NIE properties.

The Limestone Unit is primarily comprised of gray carbonaceous limestone. Below this layer is a white coarse grained limestone (marble). The carbonaceous limestone is medium to dark gray and well laminated to thinly bedded. Coarse euhedral pyrite as well as disseminations are present in minor amounts in the more carbonaceous zones. Quartz veining is rare. The marble is typically coarsely crystalline and white to light gray in colour with darker, partially silicified bands. Generally it is thickly bedded with some graphitic laminations and fine to medium bands on a local scale.

The Limestone Unit has undergone two phases of folding which have been identified in the area (Fig. 8). The first phase is a tight isoclinal fold which has a horizontal fold axis. The second phase is an upright more open fold. This second phase is identified as the Tatsamenie fold and was mapped by Souther (1971) on the RAM-TUT-TOT Claims.

Diorite

The diorite on the RAM-TUT and adjacent ground is assigned to the Jurassic by Souther (1971). The diorite is coarse grained and locally porphyritic with 5 - 10% mafics consisting of biotite and hornblende. An albitite sill on the RAM-TUT was dated and also found to be Jurassic in age (Hewgill, 1985). The albitite is actually a sodium metasomatized variety of diorite. During albitization the mafics were removed so that the sill is composed almost completely of albite feldspar. Albitization is a late magmatic process occurring in magmatic bodies which have high volatiles and the correct chemistry.

Sloko Group

The Sloko Group is represented by feldspar porphyry basaltic dykes. On the TOT Claims, there are some rhyolite dykes which are also part of the Sloko. The basalt dykes have intruded northerly trending faults on the TOT Claims and northeasterly trending faults on the RAM-TUT. One of these dykes, intersected in hole R-37, occurs adjacent to a silicified zone with abundant arsenopyrite."

MINERALIZATION

As summarized by Walton (1985, 1987, and 1989), gold mineralization occurs in narrow veins, in pervasively silicified and locally brecciated limestone at the top of the limestone unit, and in silicified limestone and phyllite in fault zones.

Quartz veins are found in limestone, phyllite and albitite. The veins carry pyrite, stibnite, arsenopyrite, chalcopyrite and sphalerite and locally minor amounts of galena. Some spectacular gold values up to 0.3 ounces per ton have been obtained from vein specimens. Vein abundance ranges from five per metre to one per several metres. They generally parallel the north-south trend of the albitite dike, suggesting that the formation of the veins and the sodium metasomatism that altered the original diorite were related.

Gold values of up to 5 grams per tonne occur in silicified zones in limestone of 1.5 kilometres along a limestone phyllite contact. Godfrey (1987) proposed a model for mineralization as follows:

"Hydrothermal fluids have come up along a fault zone (a feeder) in the Limestone Unit and ponded below the Siltstone Unit. The fault manifests itself in the Siltstone Unit as a series of small fractures filled with quartz-sulphide veinlets which appear to be the origin of the geochemical soil anomaly. The silica-rich fluid has replaced the limestone layers that are just below the siltstones. Tectonic brecciation was observed in core where fragments of tuff, limestone and siltstone are surrounded by silica, pyrite and fine black sulphides.

The gold mineralization associated with these silica-rich fluids would be deposited close to the feeder zone, near the top of the limestone, in what is termed a manto type deposit. The gold would typically stay near the top of the feeder although the silica-rich fluid and trace elements may continue well beyond the fault.

Drill holes R-31 and R-34 did not intersect this feeder zone. However, an increase in the thickness of the silicified zone was encountered as would be expected when the feeder was approached. When combined with gold values in outcrop and good tectonic breccias in drill

core, it forms strong support for the model. Further drilling should intersect the desired feeder."

Gold values up to 5 grams per tonne also occur in silicified and brecciated zones in fault structures, e.g., 84 Trench area on the TOT claims and 84 Trench near the site of drill hole R-37.

PREVIOUS WORK

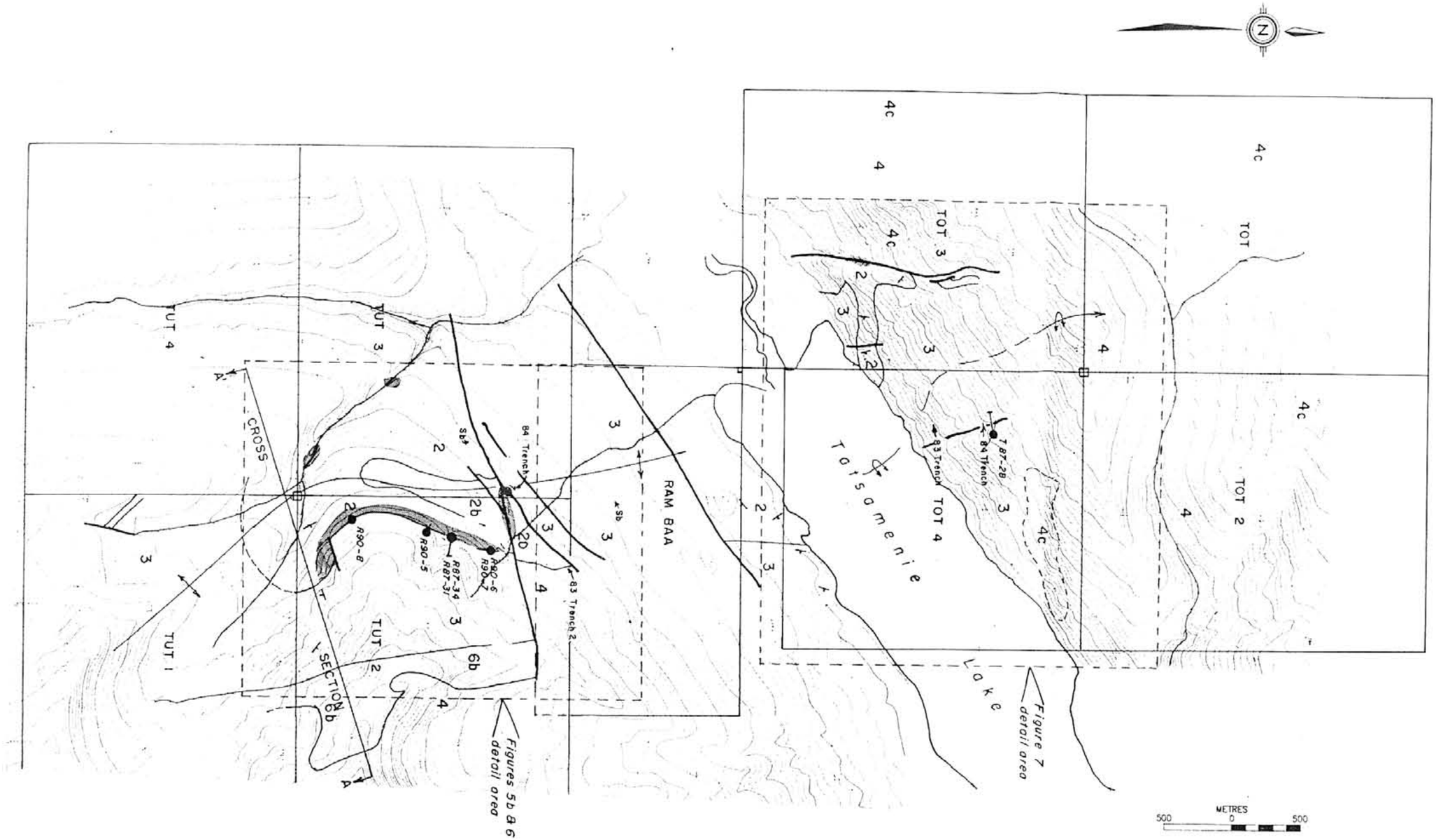
Geochemical Surveys

Results of soil geochemical surveys on the RAM property defined a large area of interest (see maps included in Appendix IV). The main area of interest is a plus 50 parts per billion gold geochemical anomaly at least 900 metres long within a larger arsenic, silver and antimony anomalous area up to 1.8 kilometres long on the TUT 2 claim. This area is roughly centred on the siliceous breccia zone along the limestone-phyllite contact.

1987 Drill Program

As summarized by Walton (1987) a total of 674 metres of diamond drilling in four holes was conducted in 1987 on the TUT and TOT claims. Drill hole data are as follows:

Holes R-34 and R-31 were drilled to test manto-type mineralization consisting of considerable silicification and brecciation at the top of the limestone unit. The silica is presumed to have been deposited from hydrothermal fluids that came up along a fault and spread laterally, replacing the limestone below the impermeable sediments. The two holes, drilled in the same section intersected a significant width (30m+ true width) of silicified limestone. Anomalous gold values were obtained throughout most of hole R-34 (up to 2.4 g/tonne over 1.6 metres) and in the upper 150 metres of hole R-31. Also encountered were scattered highly anomalous values of silver (scattered values up to 265 ppm), bismuth (up to 10 ppm), cadmium (up to 720 ppm), arsenic (up to 2100 ppm) antimony (up to 1000 ppm), molybdenum (up to 93 ppm), along with sparse highly anomalous values of copper (up to 2939 ppm), tungsten (up to 1190 ppm), lead (up to 1%) and zinc (up to 1%). The true thickness of silicified



LEGEND

JURASSIC – CRETACEOUS
6 Diorite; 6b albitite

TRIASSIC
5 Foliated diorite

PRE–UPPER TRIASSIC
4 Intermediate to mafic volcanics
3 Phyllite

PALEOZOIC
2 Limestone; 2a carbonaceous limestone

Silicified zone
D Dolomitic alteration
C Carbonate alteration
Fault
Antiform

Geological contact; defined, inferred
Bedding attitude
R31 Drill hole site, hole number
Legal corner post, claim boundary
Topographic contours; contour interval: 25 metres

ARMENO RESOURCES INC.
RAM–TOT–TUT PROPERTY
ATLIN MINING DIVISION – BRITISH COLUMBIA
SUMMARY
GEOLOGICAL MAP

Figure 5a

core, it forms strong support for the model. Further drilling should intersect the desired feeder."

Gold values up to 5 grams per tonne also occur in silicified and brecciated zones in fault structures, e.g., 84 Trench area on the TOT claims and 84 Trench near the site of drill hole R-37.

PREVIOUS WORK

Geochemical Surveys

Results of soil geochemical surveys on the RAM property defined a large area of interest (see maps included in Appendix IV). The main area of interest is a plus 50 parts per billion gold geochemical anomaly at least 900 metres long within a larger arsenic, silver and antimony anomalous area up to 1.8 kilometres long on the TUT 2 claim. This area is roughly centred on the siliceous breccia zone along the limestone-phyllite contact.

1987 Drill Program

As summarized by Walton (1987) a total of 674 metres of diamond drilling in four holes was conducted in 1987 on the TUT and TOT claims. Drill hole data are as follows:

Holes R-34 and R-31 were drilled to test manto-type mineralization consisting of considerable silicification and brecciation at the top of the limestone unit. The silica is presumed to have been deposited from hydrothermal fluids that came up along a fault and spread laterally, replacing the limestone below the impermeable sediments. The two holes, drilled in the same section intersected a significant width (30m+ true width) of silicified limestone. Anomalous gold values were obtained throughout most of hole R-34 (up to 2.4 g/tonne over 1.6 metres) and in the upper 150 metres of hole R-31. Also encountered were scattered highly anomalous values of silver (scattered values up to 265 ppm), bismuth (up to 10 ppm), cadmium (up to 720 ppm), arsenic (up to 2100 ppm) antimony (up to 1000 ppm), molybdenum (up to 93 ppm), along with sparse highly anomalous values of copper (up to 2939 ppm), tungsten (up to 1190 ppm), lead (up to 1%) and zinc (up to 1%). The true thickness of silicified

limestone intersected in hole R-34 was greater than intersected in hole R-31, suggesting proximity to a feeder zone.

Hole R-37, a short hole, was drilled to test a southeasterly trending fault containing abundant scorodite (arsenic oxides) and silica. Fine arsenopyrite was encountered in silicified limestone and weakly to moderately anomalous values of gold (up to 570 ppb) were obtained. Walton states that this fault zone strikes southeasterly up the hill and intersects the contact between the limestone and siltstone. The intersection between the mineralized fault and the silicified limestone at its contact with the siltstone is considered to have extremely high potential to host some significant mineralization.

Hole T-28 on the TOT claims was drilled across a fault zone and it intersected anomalous arsenic values (up to 10,000 ppm) associated with each fault intersection. Six intersections with gold values, ranging from 1 to 3 g/t over 1 to 3.5 metres were encountered. Although the core was only weakly silicified, with 1% pyrite, numerous anomalous values were obtained, along with moderately anomalous values of bismuth (up to 8 ppm), cadmium (up to 13 ppm) and antimony (up to 60 ppm).

1990 EXPLORATION PROGRAM

In 1990 a program of 437 metres of diamond drilling in 4 holes was conducted on the TOT claims. Prior to drilling, a 10.75 kilometre VLF-electromagnetic survey, 0.85 kilometre Genie SE-88 electromagnetic survey, a 7.2 kilometre magnetic survey, and rock geochemical sampling were carried out to assist in defining drilling targets. In addition, a limited program of soil and rock geochemical sampling, geological mapping and prospecting (mainly for assessment purposes) was carried out on the TOT claims.

GEOCHEMICAL SURVEY - TUT CLAIMS

A total of 30 rock samples were collected from the TUT claims in an attempt to define any possible zoning trends with respect to gold and its pathfinder elements in the silicified breccia unit, as well as to investigate the content of such elements in a variety of rock types.

Samples generally comprised 1 to 2 kilograms of representative rock chips collected from float or outcrop over an area of 5 to 20 square metres. Samples were shipped to Rossbacher Laboratory Ltd. for analyses for gold by atomic absorption (A.A.) techniques and 30 elements by inductively coupled plasma (I.C.P.) spectrometry. Descriptions of samples are presented in Table I. Analytical results are included in Appendix I and sites and selected results plotted on Figure 6.

Although no obvious zoning trends are evident, anomalous values of gold and pathfinder elements occur throughout the breccia unit.

GEOCHEMICAL SURVEY - TOT CLAIMS

Method

On the TOT claims, four flagged lines were established with compass and hip chain, and tied into physiographic features to provide control for geochemical sampling and mapping. Lines were run in areas not previously sampled to further define geochemical anomaly trends obtained by Chevron Minerals Ltd. (Bruaset, 1984). A total of 110 soil and 35 rock samples were collected at 50 metre intervals along these lines. Soil samples mainly comprised talus fines or glacial till taken from the "B" horizon at depths of 5 to 30 centimetres. Rock samples comprised 1 to 2 kilograms of representative rock chips of float or outcrop gathered over an area of 2 to 20 square metres. Samples were shipped to Rossbacher Laboratory Ltd. and were analyzed for gold by atomic absorption spectrometry and for 30 additional elements by inductively coupled plasma spectrometry. Analytical results are presented in Appendix I.

Statistical analyses of selected elements (for the soils) are included in Appendix II. Using this data, background and ranges of anomalous values were established as follows:

Element*	Observed Range of Values	Background	Weakly Anomalous	Anomalous	Highly Anomalous
Gold	5 - 2160	5 - 10	11 - 20	21 - 40	+ 40
Arsenic	2 - 3901	2 - 80	81 - 160	161 - 320	+320
Antimony	2 - 180	2 - 10	11 - 20	21 - 40	+ 40
Lead	40 - 153	1 - 30	31 - 60	61 - 120	+120
Zinc	21 - 2046	24 - 150	151 - 300	301 - 600	+600

*Gold values are in parts per billion (ppb) and other elements in parts per million (ppm).

Analytical data for the above elements for both rock and soil were computer processed, using the General Mapping System of D. Muir and Associates, and are presented as symbol plots on Figures 11a through 11g.

Results

The most striking results are the generally high levels of arsenic throughout much of the survey area. Highest levels occur in the southwest corner of the TOT 2 claim and northwest corner of the TOT 4 claim. Associated with arsenic in this area are enhanced levels of gold, antimony and to a lesser extent, lead and zinc. Inspection of the analytical data also reveals weakly anomalous values of bismuth (up to 14 ppm) and molybdenum (up to 13 ppm). Although the I.C.P. method is relatively insensitive to mercury, two highly anomalous values, 19 and 119 ppm are reported, suggesting that mercury levels in the area are also enhanced. Arsenic, antimony and mercury, in particular, are considered to be good pathfinder elements for gold.

Of particular interest is the cluster of anomalous gold values of up to 260 ppb, including one value of 2160 ppb in the northwest corner of the TOT 4 claim. These results confirm the presence of a trend of anomalous values, initially discovered by Chevron. This trend originates near the mountain peak near the TOT 1 to 4 legal corner post and extends southeasterly, a distance of at least 600 metres. Some of the anomalous values are undoubtedly related to pyritic shears (e.g. sample number

006320: 90 ppb Au and 006321: 50 ppb) and may reflect a northwest-southeast trend of fracturing and shearing. Drill hole T-28, encountered six intervals with gold values ranging from 1 to 3 g/t over 1 to 3.5 metre intervals along this trend to the southeast. The bulk of this cluster of anomalous values appears to be spatially associated with a body of limestone or possibly its' contact area.

Parts of another cluster of gold anomalies on the western part of the survey lines also appear to be related to a limestone contact.

Also of interest is a gold value of 620 ppb obtained on a sample of a felsic volcanic float (Sample No. 901233). Along with an observation by Oliver (1990) of an occurrence of two 20 to 30 chert beds containing arsenopyrite in the area, this suggests potential for stratabound gold mineralization.

Anomalous gold values are also found locally in areas underlain by unit 3 (siliceous phyllite) and unit 4c (carbonatized basalt).

More detailed sampling is warranted to fully delineate the area of interest.

VLF-ELECTROMAGNETIC SURVEY

Method and Instrumentation

A total of 10.5 kilometres of VLF-electromagnetic surveying was conducted across the main zone of silicification on the TUT claims. The marked lines established in 1982 and 1983 were used for survey control (Figure 6). The purpose of the survey was to assist in defining any possible structures which might host mineralization. Readings were taken at 25 metre intervals on lines spaced 100 metres apart.

The VLF-electromagnetic method utilizes an electromagnetic field transmitted from radio stations in the 12 to 24 kilohertz range (long range submarine communication signals). The signals are propagated with the magnetic component of the field horizontal in undisturbed areas. Conductivity contrasts in the earth's crust (reflecting the presence of sulphides, fault structures or other conductive rock types), produce a local vertical component to the electromagnetic field and changes in field

strength or amplitude. These conductive areas may be located, and to a degree evaluated, by measuring the various parameters of this electromagnetic field. A Sabre Model 27 VLF-electromagnetic receiver, tuned to Seattle and Hawaii transmitting stations, was used for all observations. This instrument was manufactured by Sabre Electronic Instruments. It measures the dip angle of the resultant field (in degrees) and the normalized horizontal component of the field strength (in relative percent). Dip angle measurements are filtered by a technique described by Fraser (1969 - Geophysics, Vol. 34, No. 6, pp. 958-967). Conductive zones are interpreted to underlie the point on a traverse line where changes in dip angle of the resultant field (from negative to positive - operator facing transmitter station) are associated with increased field strength. Fraser filtered values show high positive values at this point. Dip angle and field strength values are presented in profile form on Figures 12a and 12c, while the Fraser filtered values are presented on Figures 12b and 12d. Interpreted conductors are shown on Figures 12a to 12d and included in Figure 6.

The optimum signal source was considered to be the Hawaii station, but it was not transmitting throughout most of the survey period. In spite of the necessity of using the Seattle station, a good electromagnetic response was obtained.

Results

The VLF-electromagnetic (VLF-EM) survey conducted over the RAM property indicates the presence of two significant conductors and several isolated weak anomalies.

The strongest conductor has a strike length of over one kilometre. This conductor is located on lines 0 to 2S and 12S to 17S. The conductor strikes in a north-northeast direction while becoming much stronger at the north end. The total strike length of this conductor is unknown as it extends beyond the survey limits to both the north and south. Drilling near the northern end of this conductor revealed scattered shear zones with abundant graphite which may account for the VLF-EM response.

The second significant conductor is a weak to moderate anomaly on lines 1N and 2N. This anomaly coincides with a known fault zone.

There are also five weak isolated anomalies scattered along lines 17S, 18S, and 20S. They are considered to be of significance in that they may define fault structures.

GENIE SE-88 ELECTROMAGNETIC SURVEY

Method and Instrumentation

A total of 950 metres of "GENIE" surveying was conducted two selected lines on the TUT claims. The purpose of the survey was to confirm and to gain a more definitive interpretation of a strong conductor detected with the VLF-EM survey.

The survey equipment used was a Scintrex "GENIE" SE-88 portable electromagnetic system. The "GENIE" system is manufactured by Scintrex Limited of Concord, Ontario. This system is comprised of a transmitter and a receiver. The transmitter sends two independent electromagnetic waves at separate frequencies from horizontal coils. The two frequencies are the reference frequency (112.5 or 337.5 kilohertz) and the signal frequency (112.5, 337.5 or 3037.5 kilohertz). Two frequencies are received in a single coil within the receiver. The receiver then separates the reference frequency from the signal frequency and calculates a percentage change in the ratio of the measured amplitude of the signal frequency (Afs) over that of the reference frequency (Rfs).

$$\text{Ratio change} = (Afs/Rfs-1) \times 100\%$$

This procedure is based on the differential attenuation of EM waves with different frequencies in a conductive medium. The more conductive a medium the greater the difference in attenuation of the EM waves. The difference in attenuation also increases with a greater spearation in the frequency of the electromagnetic waves.

The "GENIE" system thus will generate a smaller error due to misalignment in the geometry of the transmitter and receiver coils than will other EM systems which are based on the phase shift of the waves (i.e. Horizontal Loop EM).

Results

A strong electromagnetic response was obtained on both lines surveyed (on the wider loop separation). This response coincided closely with the anomaly detected in the VLF-electromagnetic survey. Because these are only two non-parallel lines which have been surveyed using the "GENIE" system a full interpretation would be difficult. The "GENIE" survey only detected the conductor with the widest possible separation between signal frequency and reference frequency (3037.5/112.5) and was much clearer with a coil spacing of 50 metres. The need for large coil spacing is probably due to the presence of a 3-5 metre thick covering of conductive overburden.

The traverse on line 4+50S indicate a shallow dipping conductor which, after taking into account the steep topography of the survey line, is near horizontal and so appears to be conformable with the bedding. The traverse along line 13+50S crosses the conductor at too shallow an angle to interpret dip direction.

The conductor responsible for the "GENIE" anomalies may be the graphitic zones encountered in drill hole R 90-6, however, they do not appear to contain enough graphite to account for such a strong anomaly.

MAGNETIC SURVEY

Method and Instrumentation

A total of 7.2 kilometres of magnetic surveying was carried out on the 1982 grid on the TUT claims. The purpose of the survey was to aid in geological mapping of the area, as well as to locate sulphide deposits by the magnetic high caused by pyrrhotite or magnetite. A Scintrex MP-2 proton precession magnetometer with a resolution of 1 gamma was used for the survey. Readings of total magnetic field were taken at 25 metre intervals on lines 100 metres apart. Magnetic readings were corrected for diurnal variation using the loop method. Data is presented in profile form on Figure 14.

Results

The magnetic survey on the Ram property shows no significant variation in the magnetic field except for a gradual increase at the end of Line 18S. A number of mafic volcanic units are most likely responsible for the increased magnetic field strength in this area.

GEOLOGICAL MAPPING

Geological mapping conducted on both the RAM-TUT and TOT claim group did not result in any major changes to the overall knowledge of the geology of the area. New data was added to maps prepared in 1984 to 1987 by Walton and others (Figures 5 and 7). Previously unmapped dikes of coarse grained pyroxenite, gabbro and quartz monzonite (units 6d to 6e) were identified in the northwest corner of the TUT 2 claim and southwest corner of the RAM BAA claim.

1990 DRILLING PROGRAM

Method

A total of 437.79 metres of diamond drilling in 4 holes was conducted. Drill hole data (including 1987 data) are as follows:

Drill Hole Data

Hole	Azimuth	Dip	Length
R87-31	100°	-64.5°	197.82m.
R87-34	100	-40	181.36
R87-37	147	-45	55.47
R90- 5	236	-66	92.05
R90- 6	337	-56	179.83
R90- 7	-	-90	119.79
R90- 8	235	-60	45.72

Drilling was conducted by Tonto Drilling, with a Hagby Bruk 1000 drill rig using thin wall BQ-size rods. Drill core is stored at the drill sites shown on Figures 5 and 6). Selected sections of drill core were split and shipped to Rossbacher Laboratory Ltd. for gold analyses by atomic absorption spectrometry and 30 elements by inductively coupled plasma

spectrometry. Sample results are included in Appendix I and drill logs included in Appendix III. Analytical data, geological data, and drill hole survey data were computer processed and plotted using the General Mapping System of D. Muir and Associates. Geological data and selected element plots are presented on drill hole profiles on Figures 8a through 10g.

Purpose of the drilling was to test a zone of silicification and brecciation at several localities in an attempt to locate any concentration of gold mineralization within the zone or within a "feeder" structure.

Results

Drill hole R 90-5 was drilled to test a strong electromagnetic anomaly in the vicinity of the silicified horizon. Although the hole had to be abondoned before reaching its target depth, it should have intersected the source of the electromagnetic anomaly which was interpreted to dip to the east.

The drill hole encountered the silicified zone between 62 metres and 92 metres. The zone of interest comprises massive dark grey silicified limestone or argillite that is weakly brecciated. Brecciated sections comprise angular fragments up to 10 centimetres in diameter cemented either with fine grained dark grey silica (silicified comminuted rock) or by a later stage coarse drusy quartz. Minor amounts of pyrite, 0 to 2% and locally up to 5%, occur as disseminated cubes in the silicified limestone/argillite. Pyrite is more abundant in the quartzose siltstone above the zone of silicification. Also encountered was a zone of abundant disseminated arsenopyrite and pyrite at a depth of 40 to 44 metres. Gold values in this zone unfortunately are negligible.

The source of the electromagnetic anomaly is somewhat enigmatic. It can only be attributed to the presence of graphite. Graphite is concentrated in a few scattered shear zones up to 2 metres wide, and some of the dark grey argillite and silicified argillite beds above the limestone contact appear to be graphitic.

Drill holes R 90-6 and R 90-7, drilled from the same site, were also drilled to test the strong electromagnetic anomaly and to test the

silicified zone in the vicinity of a prominent east-west trending fault which may have been a possible feeder structure. Both holes penetrated the full thickness of the zone (72 and 45 metres, respectively). A comparison of the thickness of the two intersections suggest that indeed the fault to the west may be a feeder structure (thickness increasing to the northwest toward the fault), however, multielement values do not appear to be greater toward the fault. Geology of the horizon is identical to that encountered in drill hole R 90-5. Graphite also occurs in scattered narrow shear zones.

Hole R 90-8 was drilled in an attempt to test the same horizon to the south. A number of weak VLF-EM anomalies and widespread silicification in float and outcrops, with associated relatively high multielement values, occur in this area. Unfortunately, after penetrating only a few metres of the silicified horizon, the hole had to be abandoned, because of drilling problems and severe winter conditions.

All holes, as with previous drill holes encountered locally highly anomalous multielement values throughout the silicified zone. Examination of the geochemical results on the drill hole profiles indicates that element distribution is erratic. Best precious metal values obtained are as follows:

		Gold		Silver	
Drill hole	Metres	g/t	oz/ton	g/t	oz/ton
R 90-5	2.0	1.1	0.032	16.6	0.49
R 90-6	2.0	1.3	0.038	68.0	1.98
R 90-7	4.0	1.1	0.034	30.3	0.88

DISCUSSION OF RESULTS

Diamond drilling conducted to date on the TUT claims partly tested the 1.5 kilometre long zone of silicification and brecciation along the limestone-phyllite contact. Analytical results confirm the presence of highly anomalous gold and silver values and pathfinder element values (arsenic up to 400 ppm; antimony up to 450 ppm) and locally anomalous amounts of molybdenum, lead and zinc. Although results are less than

spectacular and two of the four drill holes failed to fully penetrate the zone, anomalous gold and multielement values were obtained over considerable thicknesses of silica-saturated and brecciated limestone-argillite zones - up to 70 metres (true thickness 50 metres). Similar zones of silicification in limestone occur adjacent to high grade veins at the nearby Golden Bear Mine and their occurrences on the RAM-TUT property are considered to be highly encouraging. A program of diamond drilling to fully test this horizon is warranted to routinely test this zone in search of higher grade zones.

Although not all holes, because of drilling difficulties, fully penetrated the silicified zone, 2 or 3 out of the 4 holes drilled should have intersected the source of the electromagnetic anomalies. Narrow graphitic shear zones within weakly graphitic sedimentary rocks are assumed to be the source. However the anomalies are considered to be extremely strong and some question remains as to whether or not they are truly the source.

Work on the TOT claims, while only of a reconnaissance nature, confirmed the presence of gold and multielement geochemical anomalies in soil and rock. The anomalies appear to be related to several sources.

1) Drill hole T-28, drilled under a prominent curvilinear gulley, encountered a number of zones of fracturing and shearing which carry anomalous gold vlaues. Two shear zones at 1425 to 1450 metres elevation in the same gully also were found to carry anomalous gold values, confirming the presence of a northwest trending structure.

2) Siliceous or chert horizons within the metasedimentary unit locally may contain anomalous gold values. One float sample of a felsic metatuff collected from the TOT claim returned a gold value of 620 ppb (0.02 ounces per ton). Oliver and Hodgson (1990) and Oliver (1990, personal communication) report the presence of two 20 to 30 metre thick chert horizons containing disseminated arsenopyrite and pyrite. Oliver and Hodgson note that they may be lateral equivalents of massive sulfides similar and equivalent in age to those mined at Tulsequah.

3) At least two clusters of gold soil geochemical anomalies appear to be related to the limestone or possibly the limestone-phyllite contact.

More detailed mapping, sampling at 25 metre intervals, and VLF-electro-

magnetic surveys are warranted to fully define these areas of interest. Induced polarization surveys should be conducted in selected areas to detect any presence of sulfides.

Respectfully submitted,

Donald G. Allen, P. Eng. (B.C.)

Table I SAMPLE DESCRIPTIONS

TUT CLAIMS

Sample No.	Description
006251	Phyllite, phyllitic siliceous silstsone with white quartz veins lying along foliation.
006252	Siliceous phyllite with irregular disseminated pyrite.
006253	Dolomite fraught with dense network of quartz veinlets.
006254	Siliceous siltstone with abundant disseminated pyrite.
006255	Sericite phyllite with " " "
006257	Brecciated and quartz cemented dark grey siliceous hornsfel.
006258	As above.
006259	Silicified limestone bed several metres thick.
006260	Dark grey siliceous breccia-float.
006261	As above.
006262	As above.
006263	As above.
006264	Carbonate-altered brecciated siliceous siltstone.
006265	Quartz cemented breccia-float.
006266	Black siliceous breccia.
006267	
006268	Silicified limestone along fault.
006269	Dolomite with weakly to moderately well developed network of fine quartz veinlets. Minor pyrite in some veinlets.
006270	Limestone fraught with quartz veinlets.
006271	Dark grey silicified and brecciated limestone.
006272	As above.
006273	As above.
006281	Grey silicified limestone.
006282	Gabbro containing abundant disseminated pyrite.
006283	Quartz monzonite and diorite rubble - limonite stained.
006284	Selected chips of light grey quartz-veined limestone.
006285	Black siliceous breccia.
003261	Limonite-stained limestone with fine grained disseminated pyrite.

SAMPLE DESCRIPTIONS (Cont'd.)

TOT CLAIMS

Sample No.	Description
006302	Siliceous tuff containing scattered barren milky white quartz veins, limonite on fractures.
006303	As above.
006307	Siliceous metatuff. Trace disseminated pyrite.
006314	Carbonate-altered feldspar phorphyritic adnesite minor amounts of disseminated pyrtite.
006319	Carbonate alteration zone 4m wide along with 10cm quartz vein in siliceous phyllite. Trace copper stain.
006320	3m wide zone of fracturing and shearing with minor quartz veining.
006321	As above.
903500	Carbonatized altered felsic volcanic. Weathered surface is limonite stained.
903503	Limonite stained felsic volcanic with finely disseminated pyrite and some limonite.
903505	Limonite stained felsic volcanic.
903509	Felsic volcanic with quartz veins up to 30cm thick.
903510	Felsic volcanic with limonite staining on fracture surfaces.
903532	Quartz vein 20cm thick with 1% pyrite.
903534	Quartz vein with pyrite.
903541	Limonite stained quartz vein with 1% disseminated pyrite.
903545	Quartz vein with pyrite.
901206	Fine grained siliceous metasediment.
901207	As above.
901209	As above.
901216	Siliceous metasediment, ankeritic alteration along fracture. Trace to 5% disseminated pyrrhotite.
901217	Felsic volcanic, minor pyrrhotite on fractures.
901220	Sheared felsic volcanic, fine grained, tuff weathering.
901221	As above.
901224	
901225	Felsic metasediment with minor sulfides.
901231	Moderately silicified metasediment.
901232	Felsic metasediment.
901237	Thin bedded crystalline limestone.
901243A	Mafic volcanic.
901243B	
901246	Massive andesite.

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CERTIFICATE

I, Donald G. Allen, certify that:

1. I am a Consulting Geological Engineer, at A & M Exploration Ltd., with offices at Suite 704, 850 West Hastings Street, Vancouver, British Columbia, V6C 1E1.

2. I am a graduate of the University of British Columbia with degrees in Geological Engineering (B.A.Sc., 1964; M.A.Sc., 1966).

3. I have been practising my profession since 1964 in British Columbia, the Yukon, Alaska and various parts of the western United States and Africa.

4. I am a member in good standing of the Association of Professional Engineers of British Columbia.

5. This report is based on fieldwork carried out personally on the RAM property during the period August to October, 1990.

6. I have no interest, nor do I expect to receive any in the RAM property, in Armeno Resources Inc. or in Chevron Minerals Ltd.

7. I consent to the use of my name and this report in a Prospectus or Statement of Material Facts in connection with the raising of funds for the project covered by this report.

December 15, 1990
Vancouver, B.C.

Donald G. Allen
P. Eng. (B.C.)

OB Overburden

6 Andesite, dacite, felsite dikes

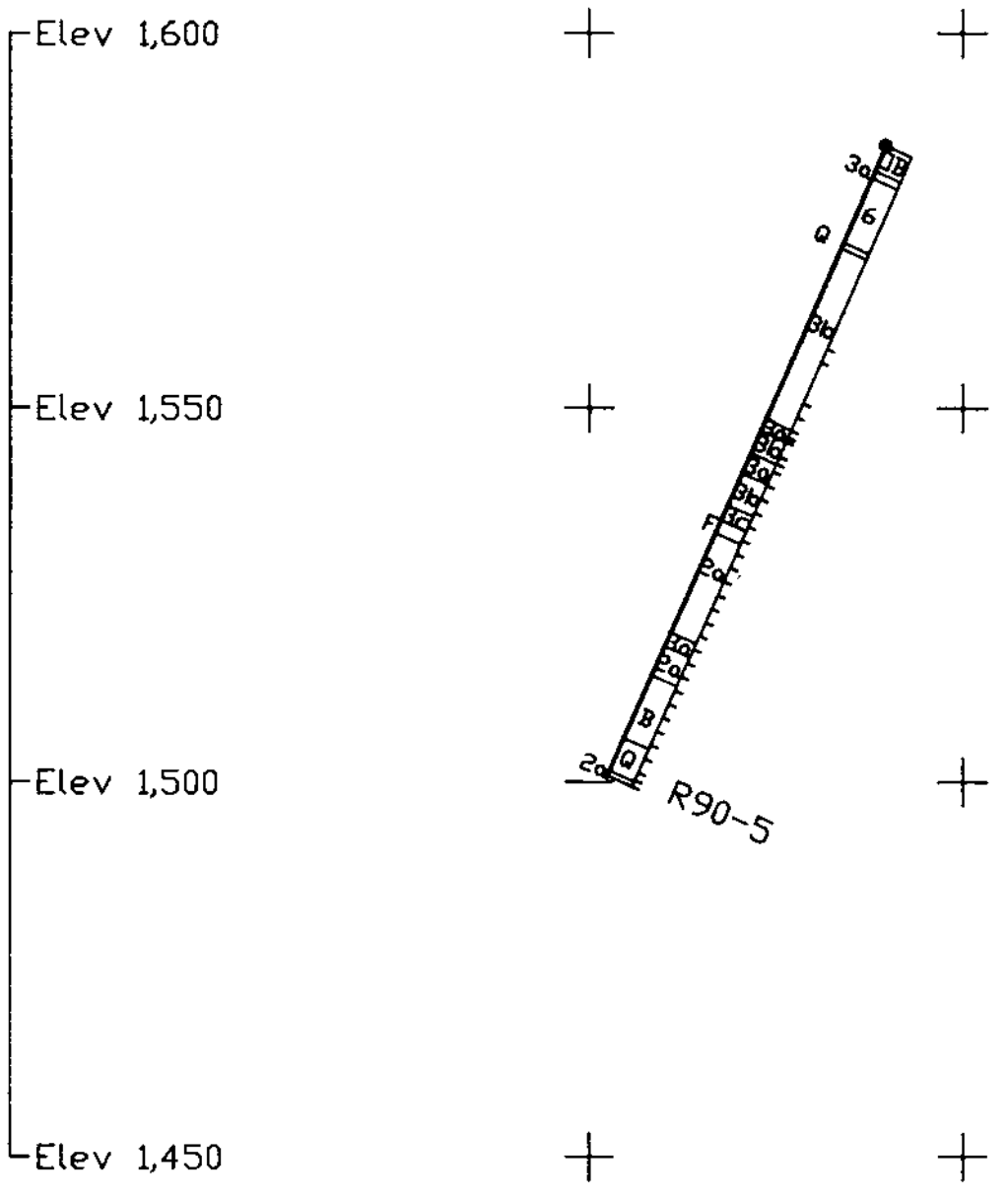
3 Argillite-phyllite unit
- 3a Argillite
- 3b Quartzose Siltstone
- 3c Calcareous Siltstone
- 3d Limestone

2 Limestone
- 2a Argillaceous or Silty Limestone
- 2b Calcareous Argillite

Geological Contact

B	Breccia
S	Silicified
G	Graphitic
C	Calcareous
F	Fault

LEGEND & SYMBOLS FOR DRILL SECTIONS (Figures 8, 9 and 10)



SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

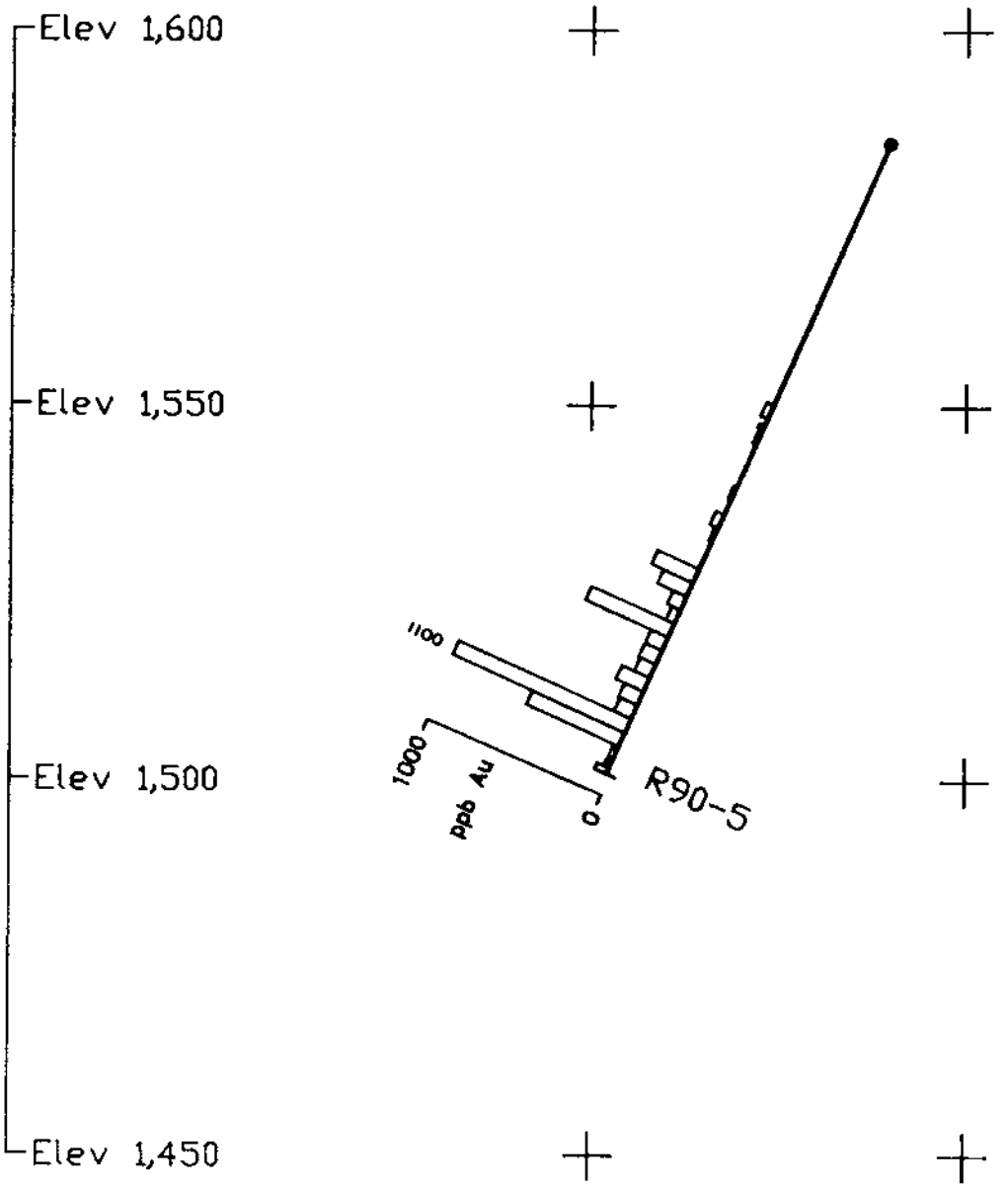
DRILL HOLE PROFILES R90–5

GEOLOGY

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A·M exploration ltd

Figure 8a

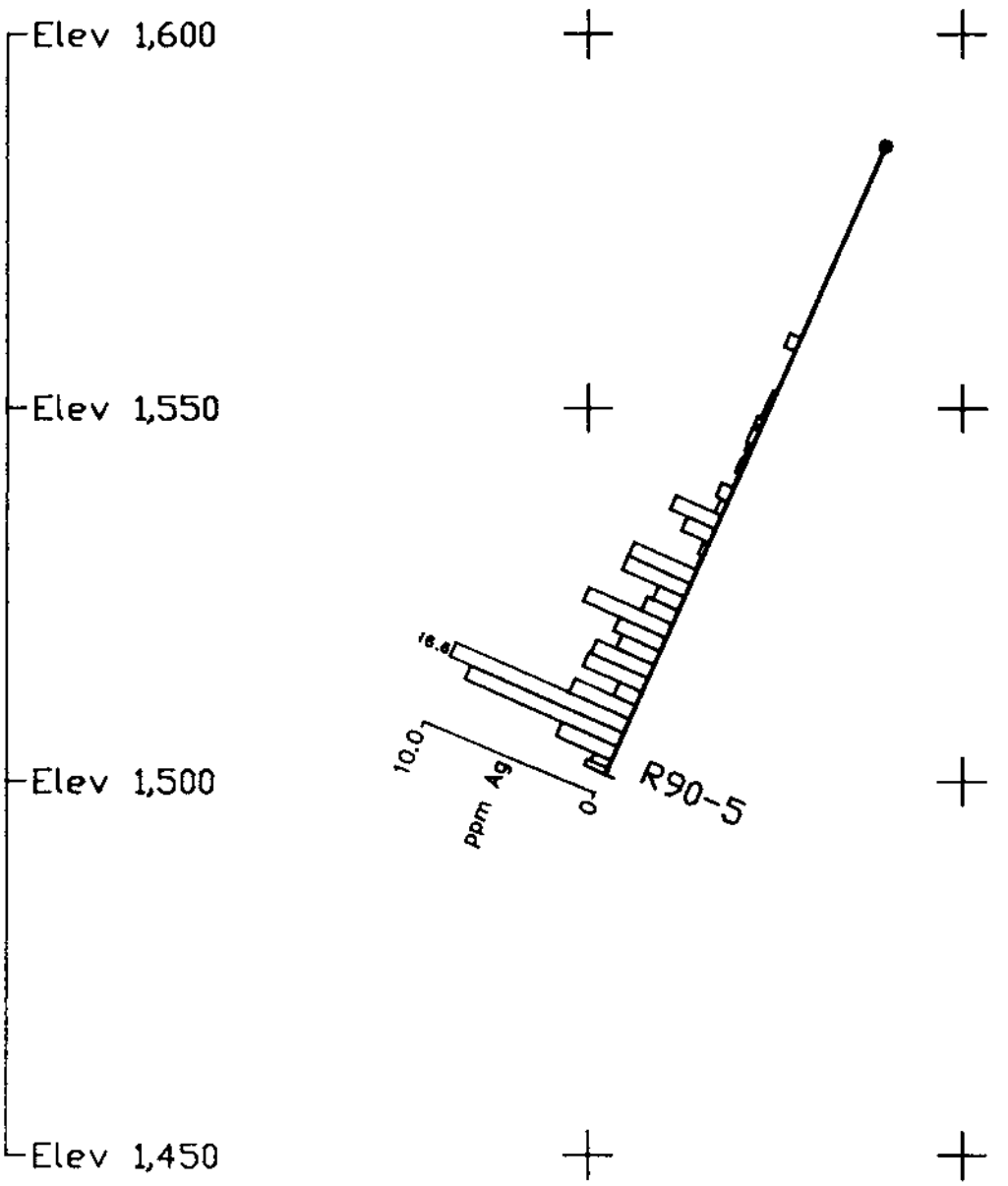


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
GOLD

Figure 8b

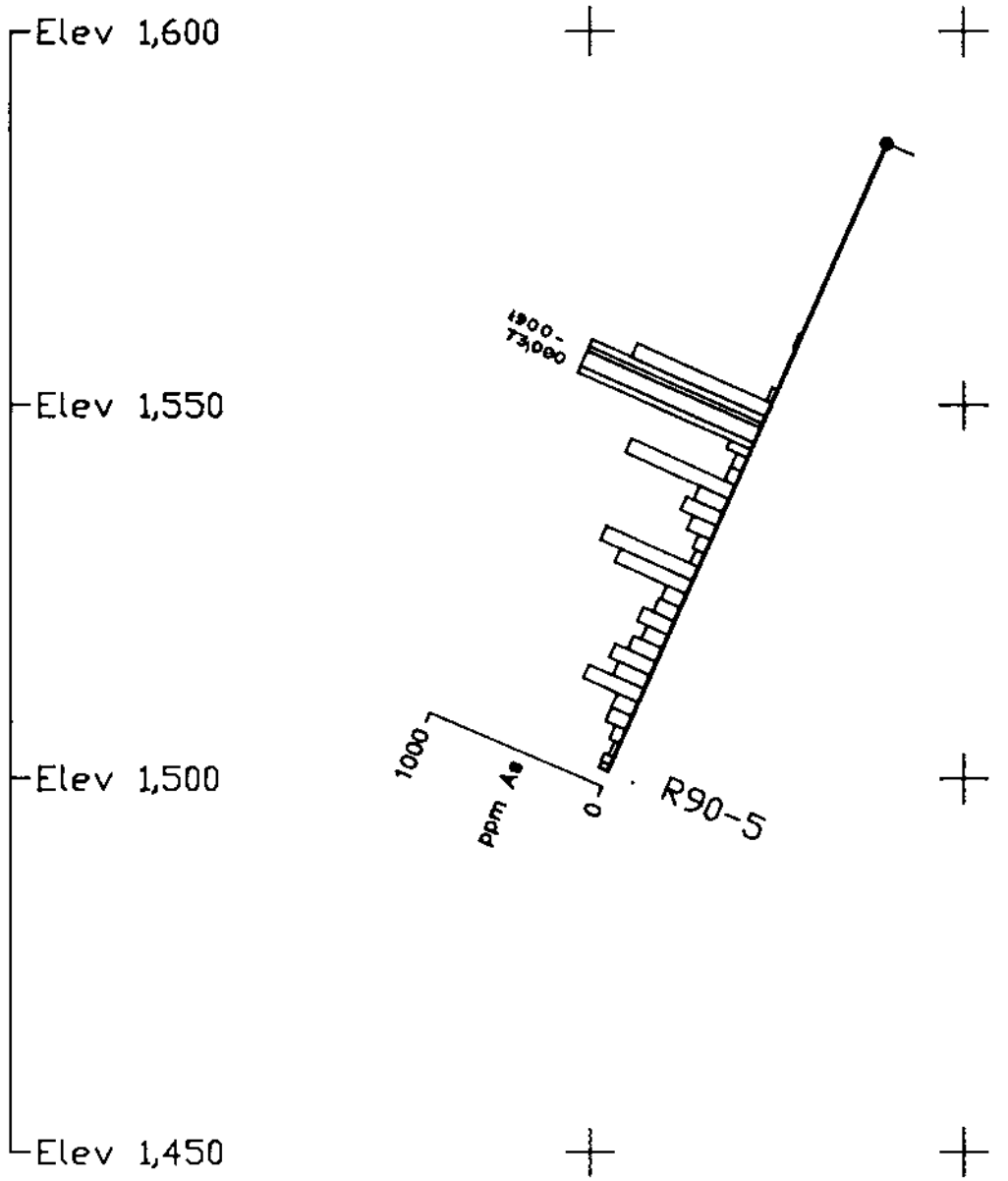


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
SILVER

Figure 8c

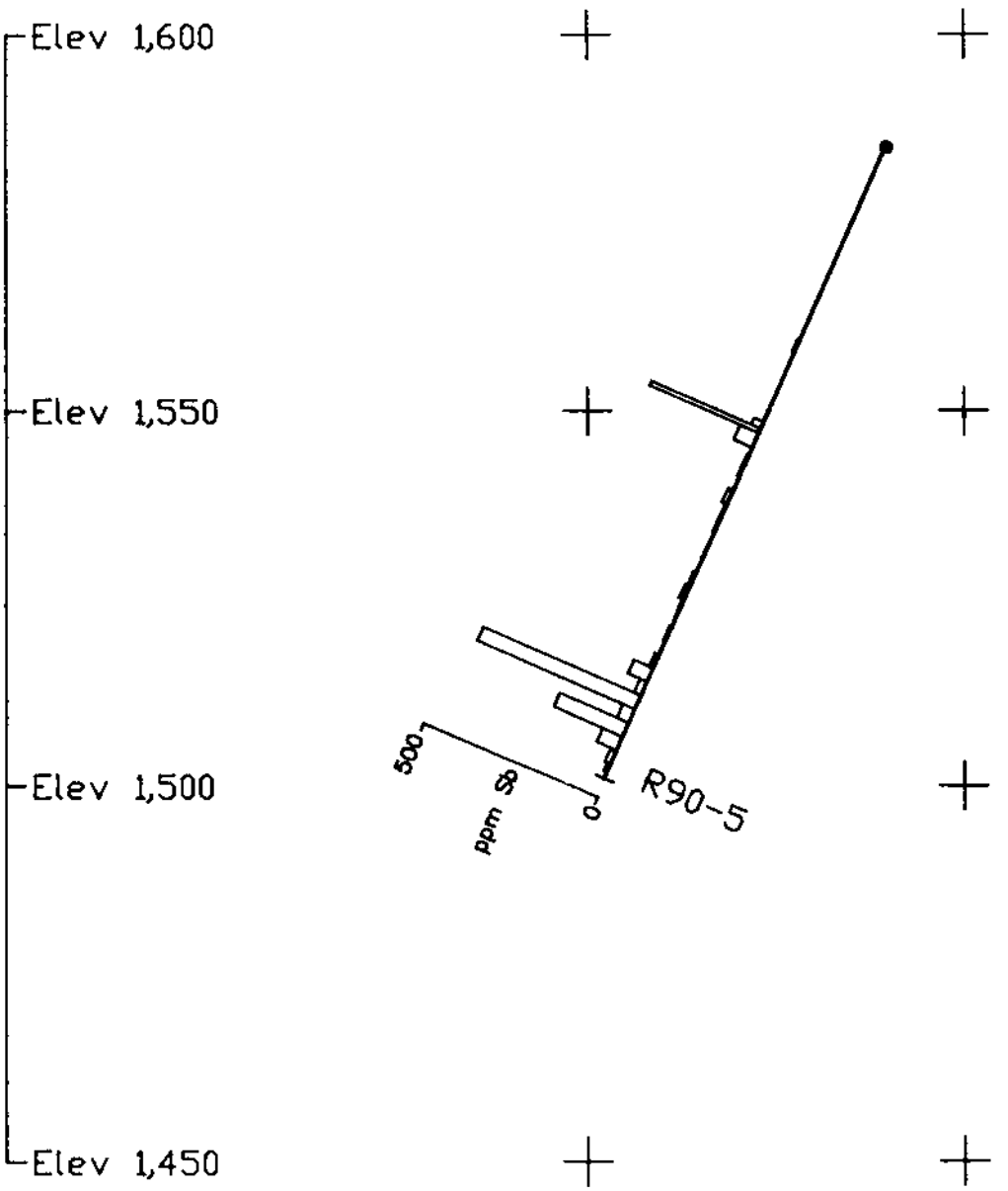


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
ARSENIC

Figure 8d

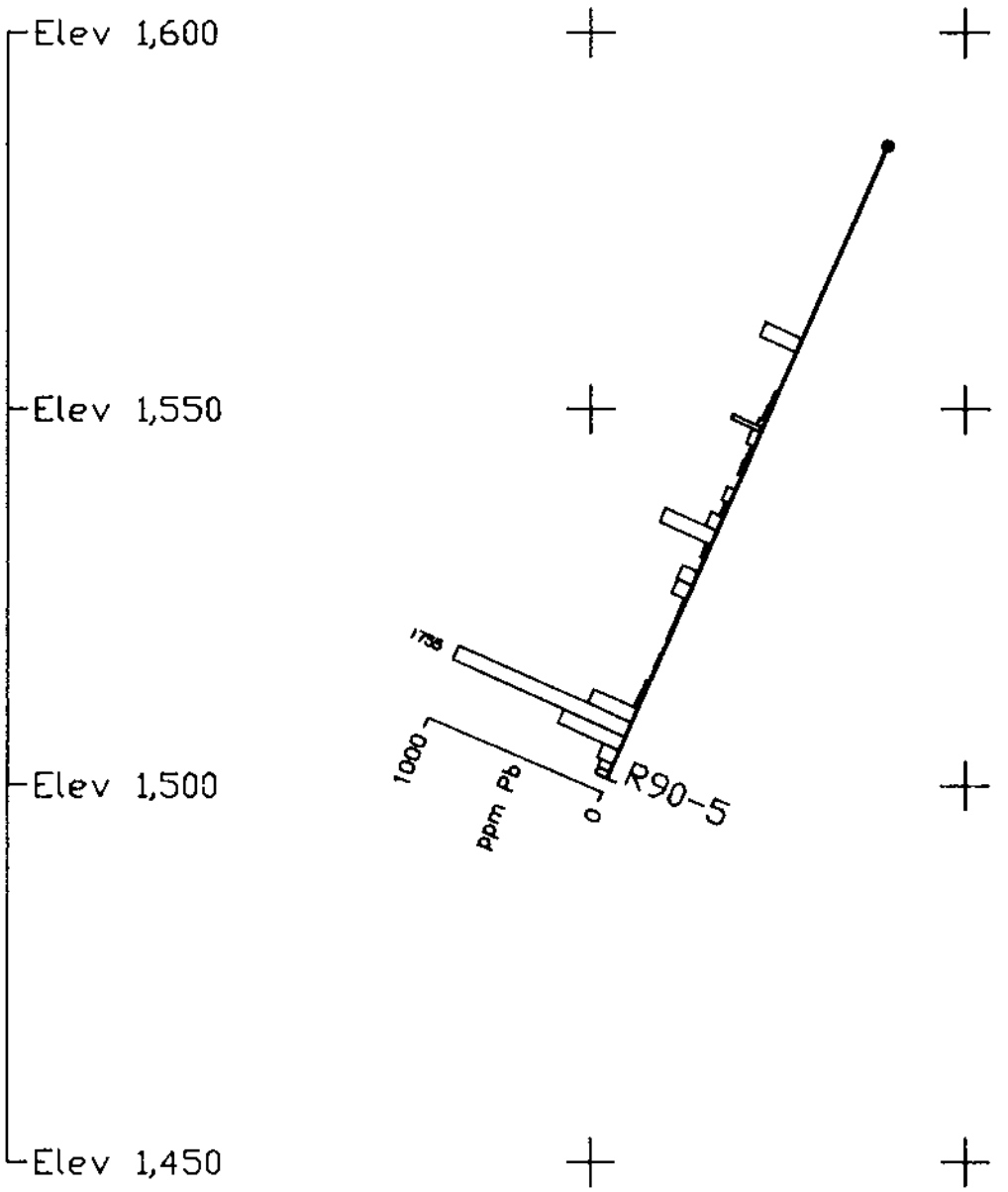


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
ANTIMONY

Figure 8e

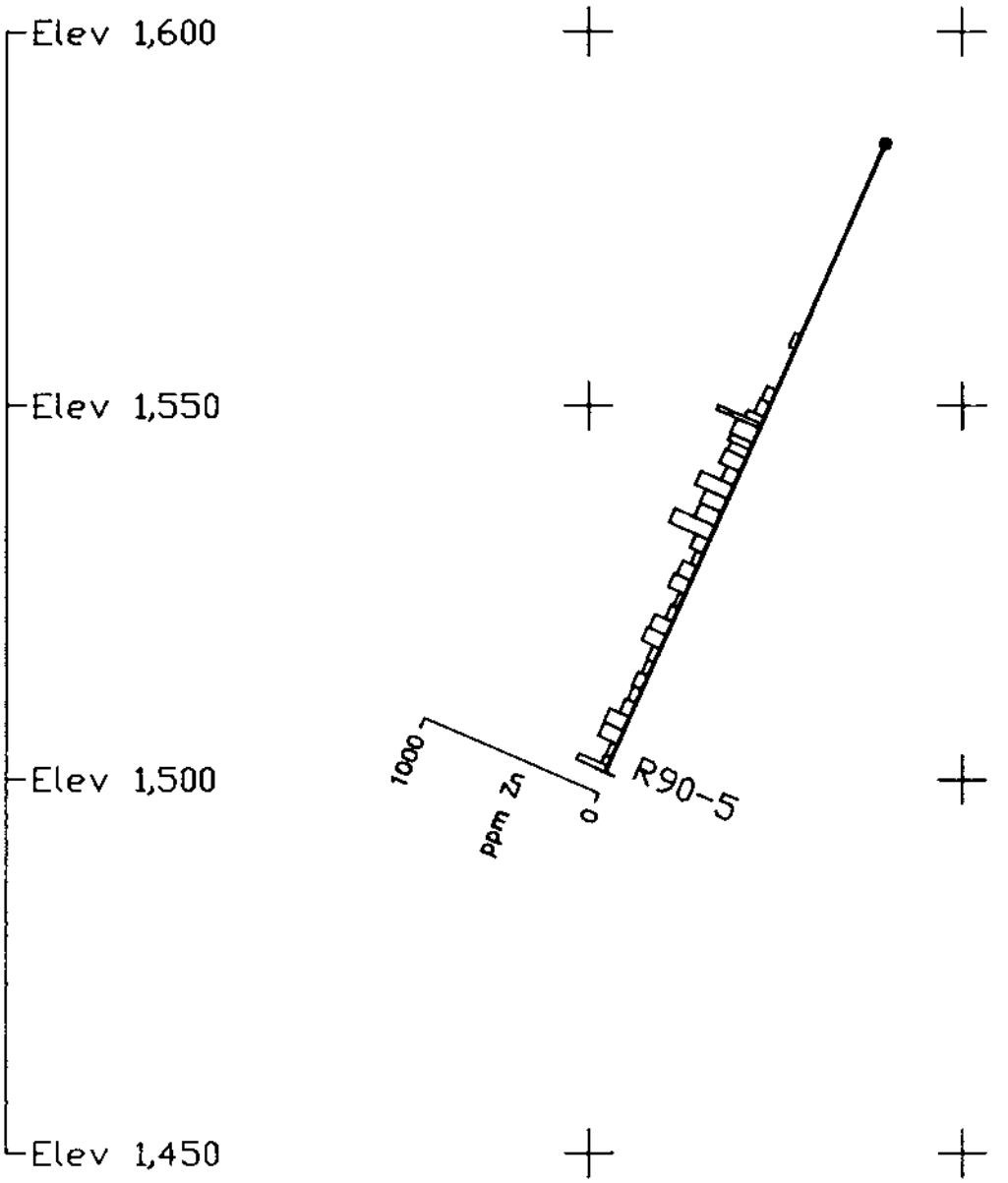


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
LEAD

Figure 8f

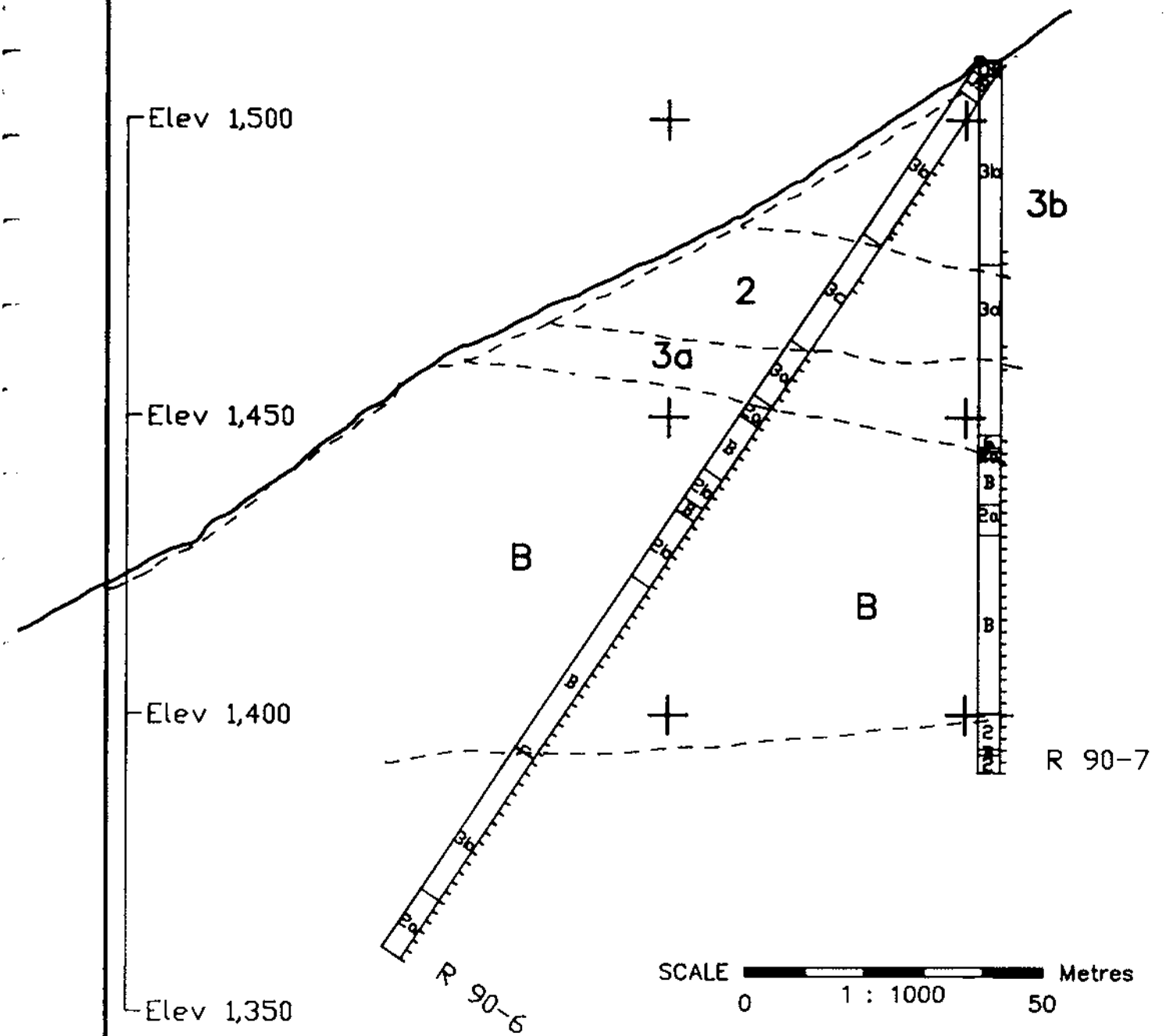


SCALE Metres
0 1 : 1000 50

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–5
ZINC

Figure 8g



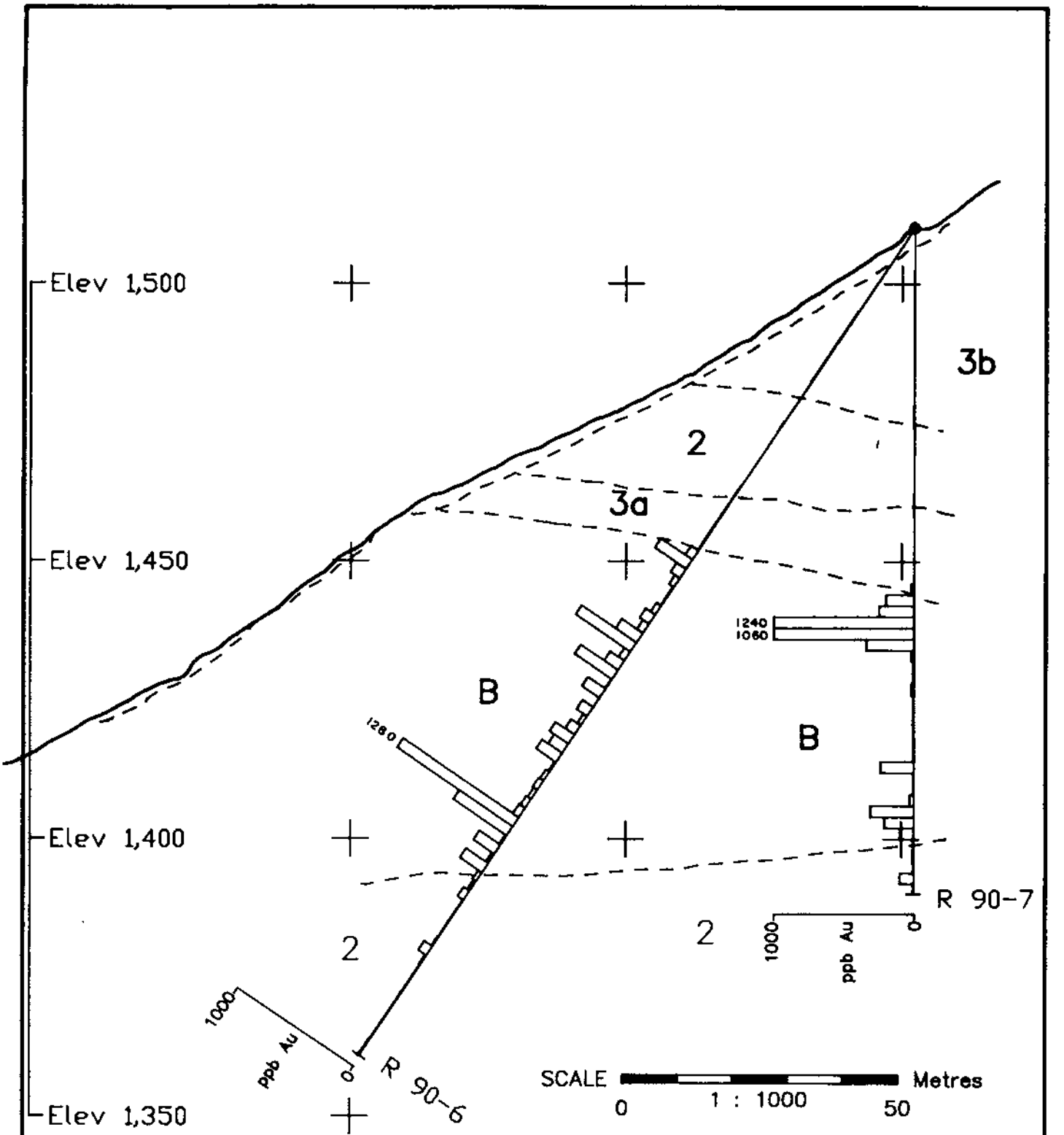
RAM – TUT PROPERTY

DRILL HOLE PROFILES R90–6, R90–7

GEOLOGY

A·M exploration ltd

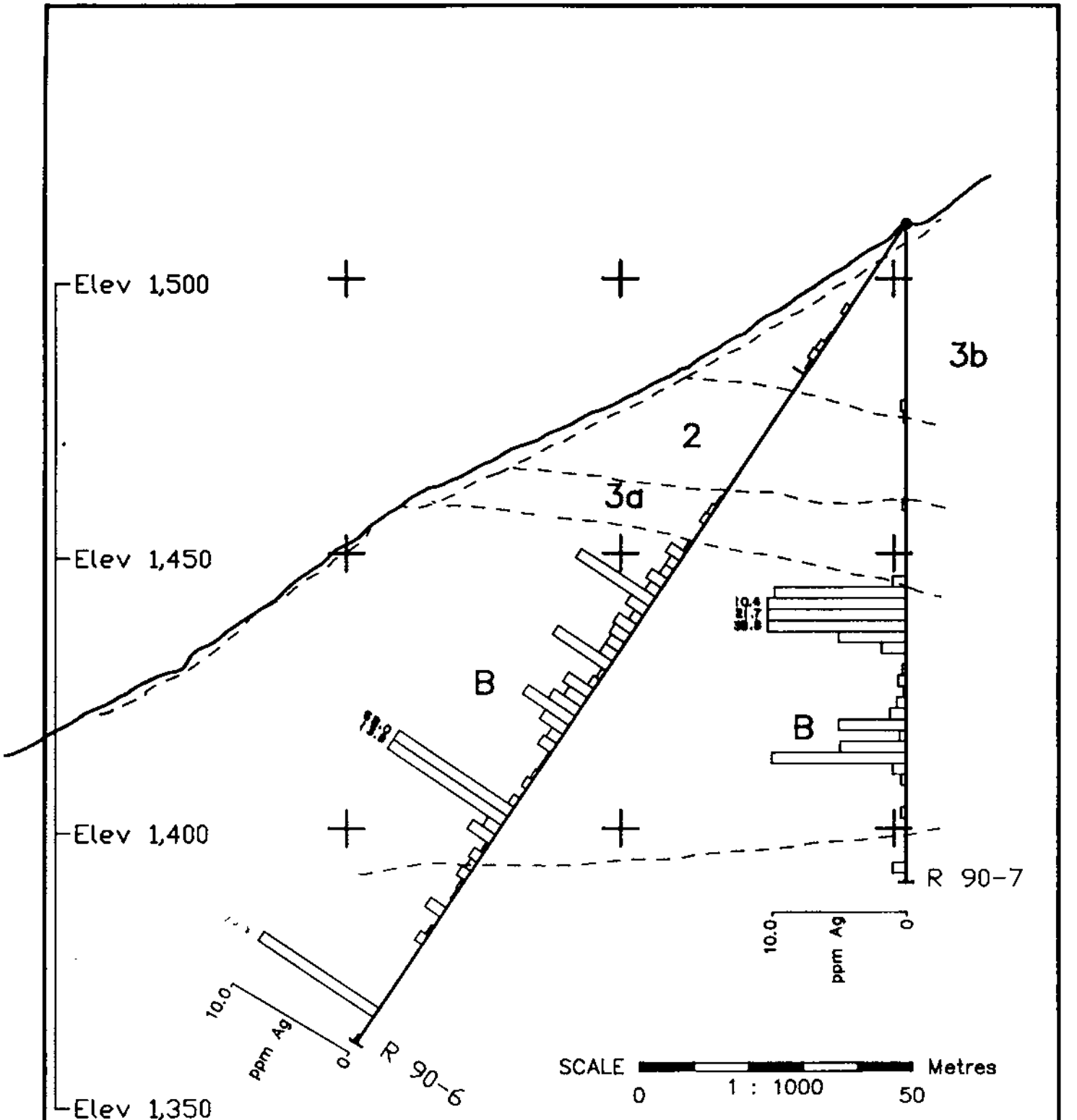
Figure 9a



RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–6, R90–7
GOLD DISTRIBUTION

Figure 9b

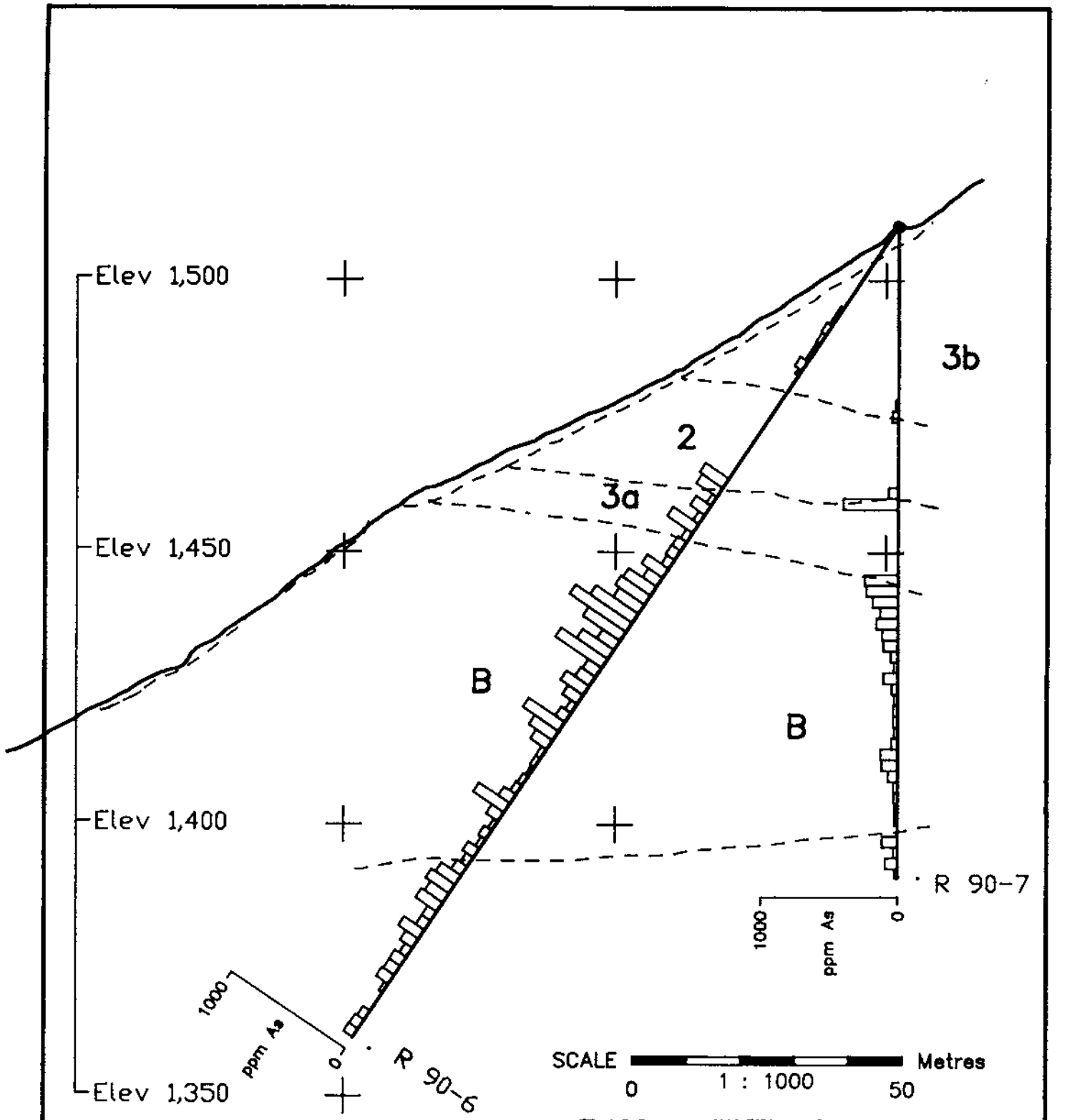


RAM – TUT PROPERTY

DRILL HOLE PROFILES R90–6, R90–7

SILVER DISTRIBUTION

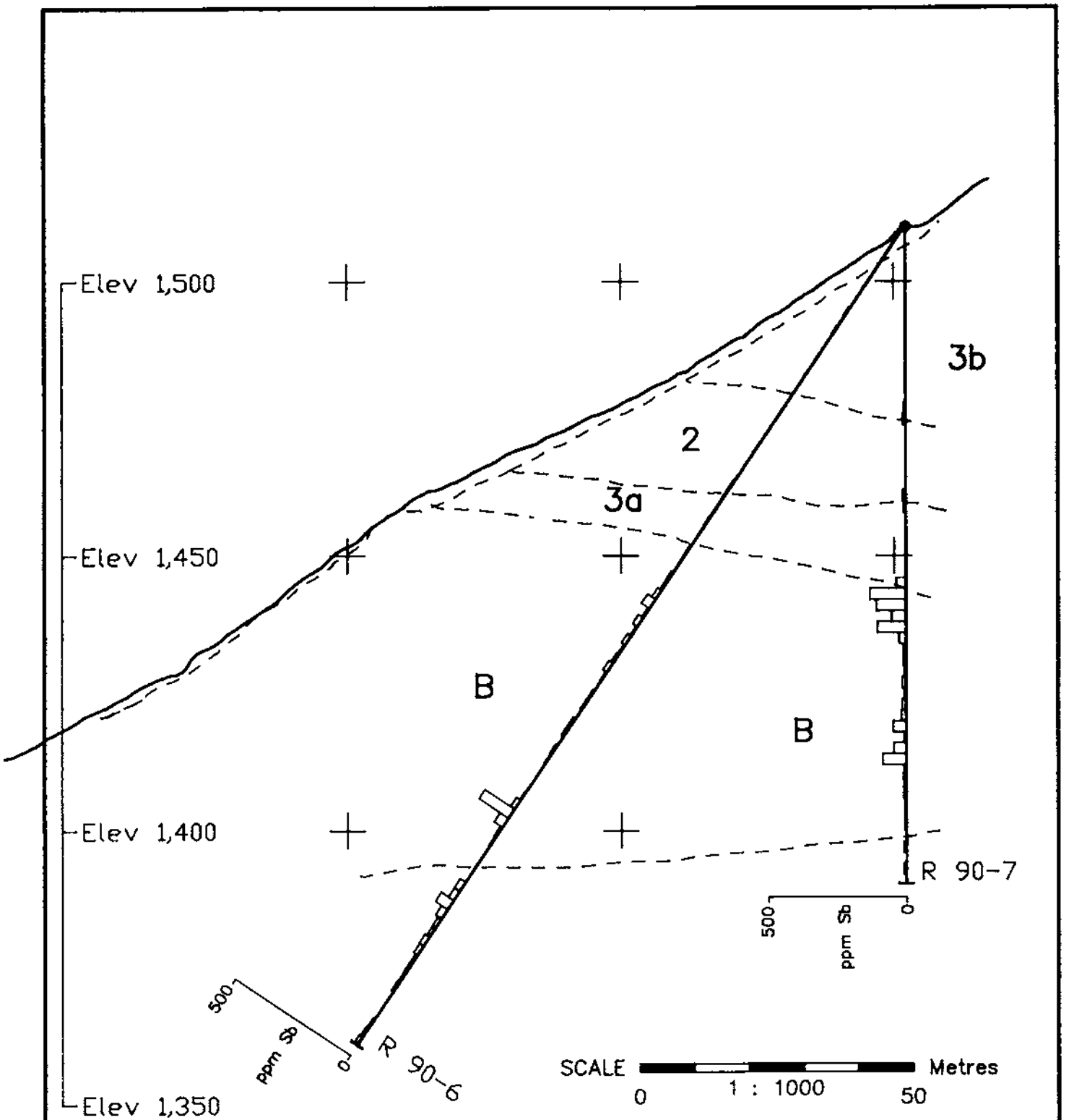
Figure 9c



RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–6, R90–7
ARSENIC DISTRIBUTION

Figure 9d

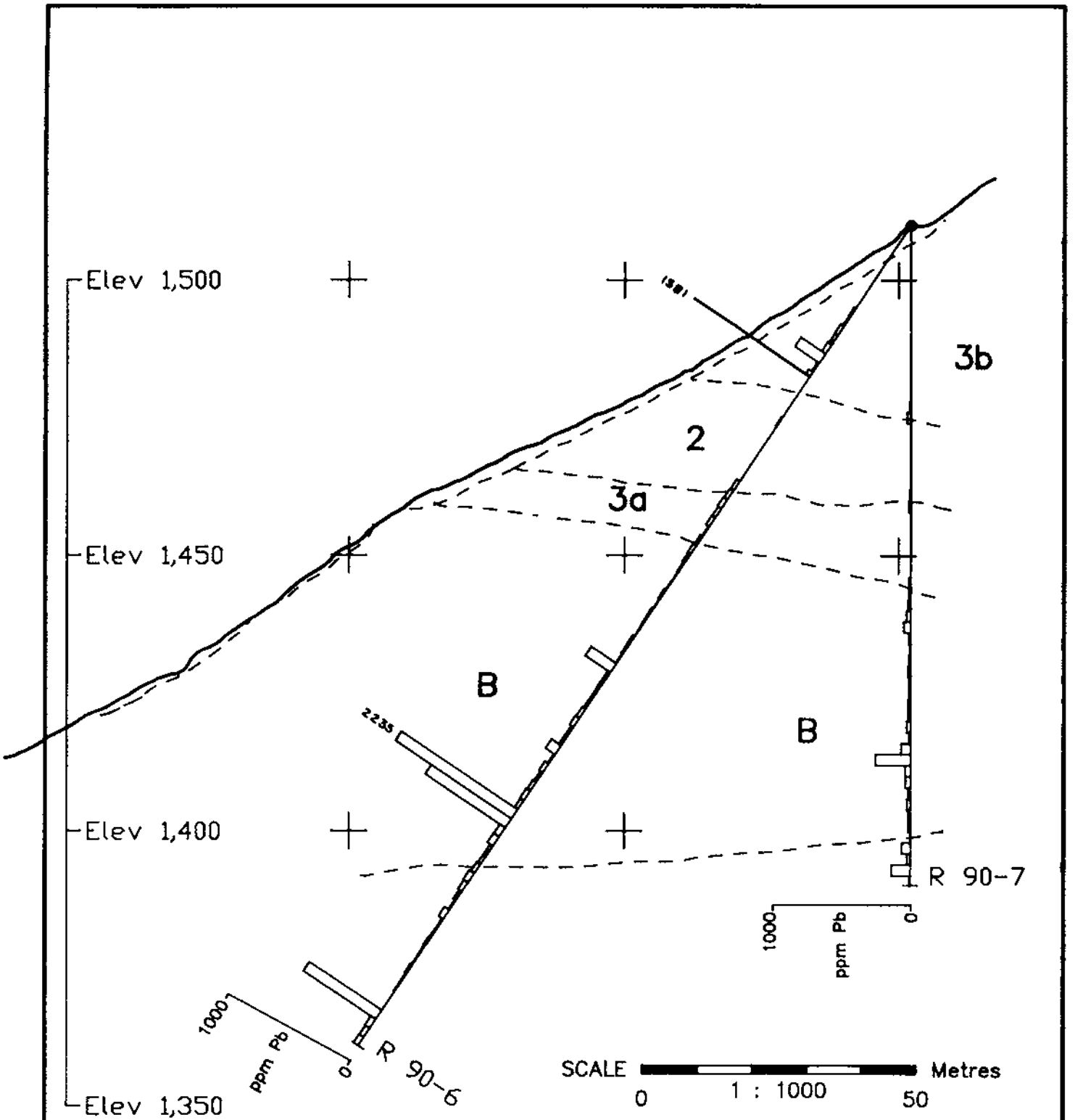


RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–6, R90–7

ANTIMONY DISTRIBUTION

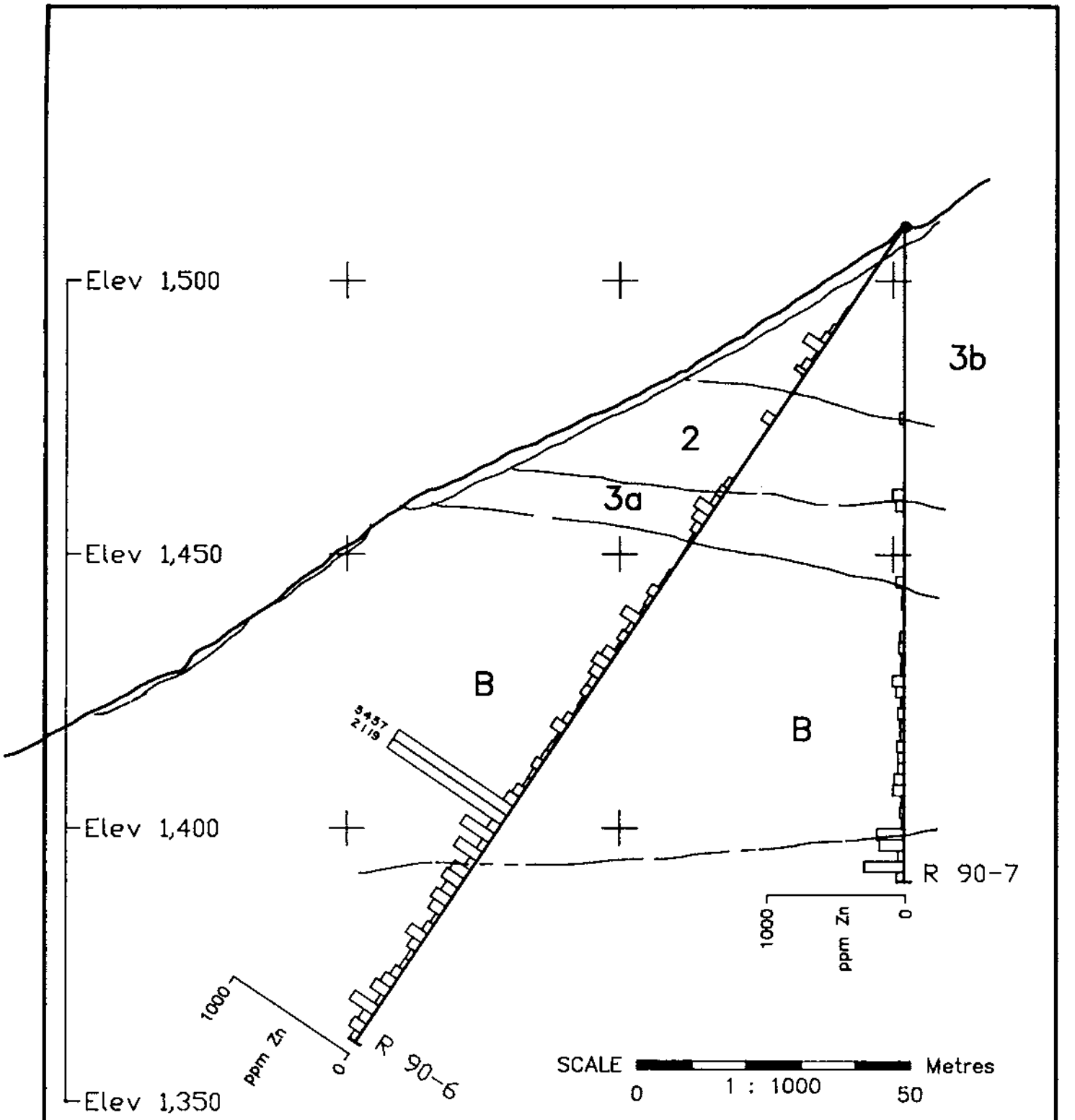
Figure 9e



RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–6, R90–7
LEAD DISTRIBUTION

Figure 9f

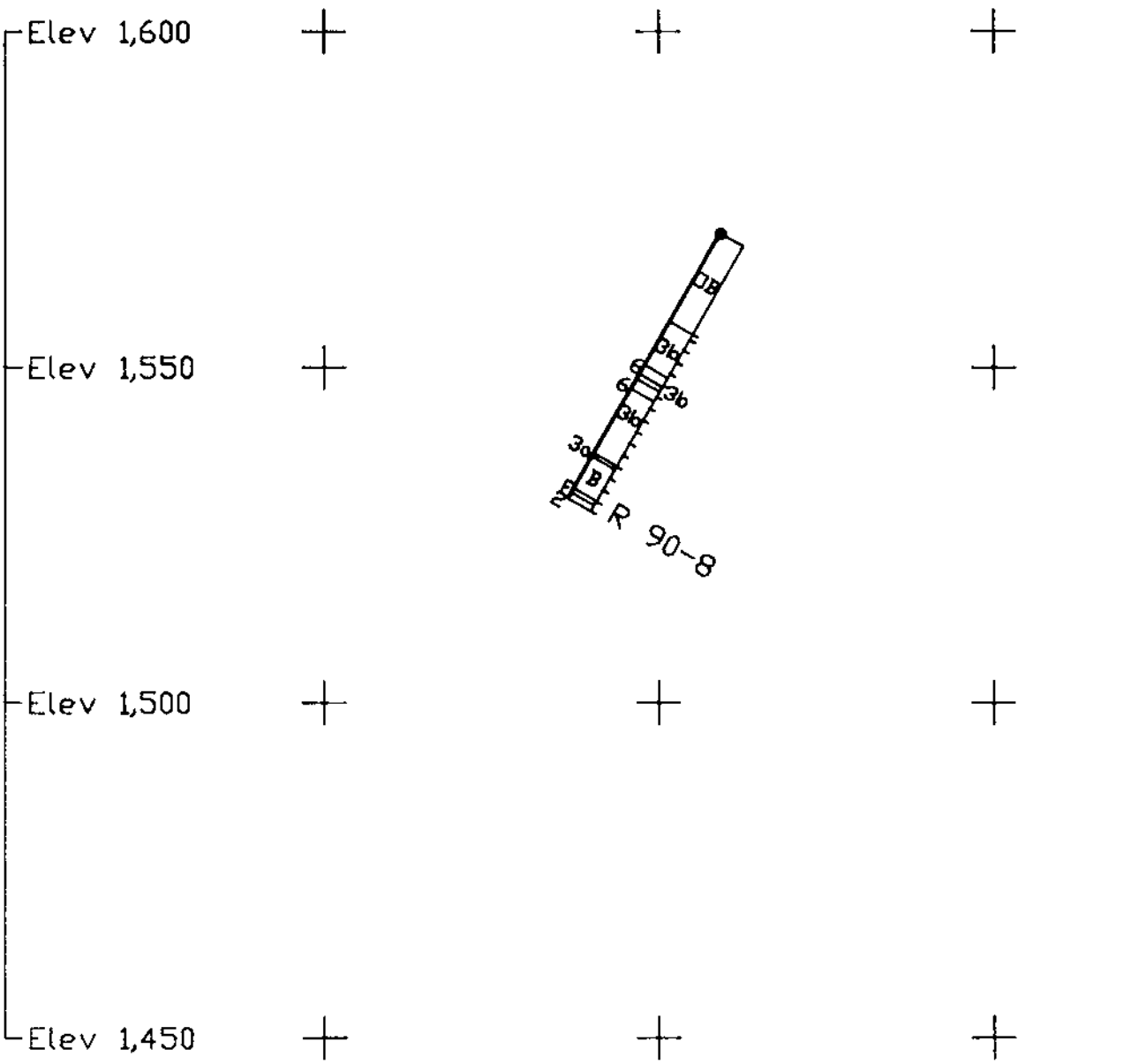


RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–6, R90–7

ZINC DISTRIBUTION

Figure 9g



SCALE 1 : 1000

0 Metres 50

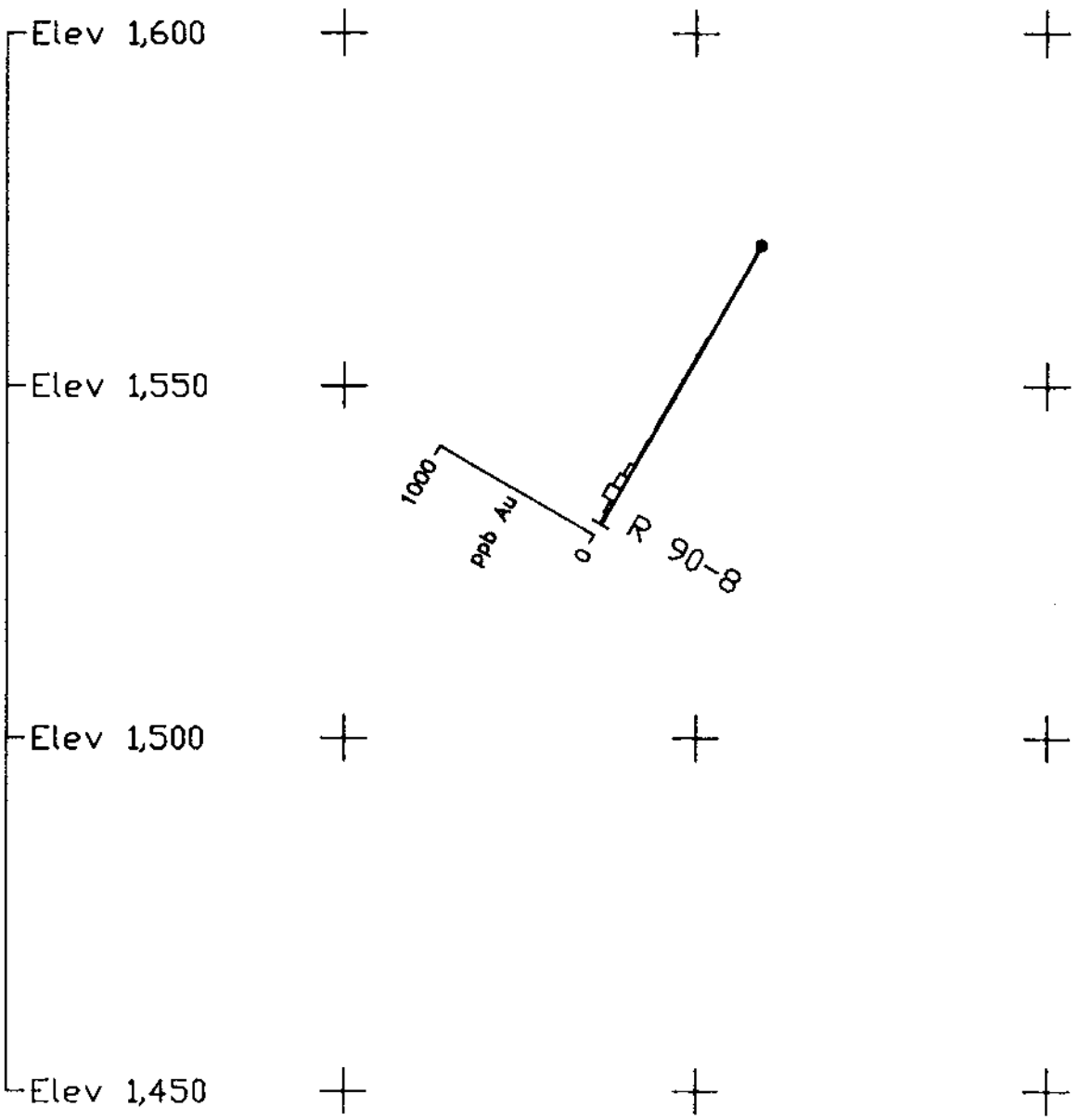
RAM – TUT PROPERTY

DRILL HOLE PROFILES R90–8

GEOLOGY

A·M exploration ltd

Figure 10a

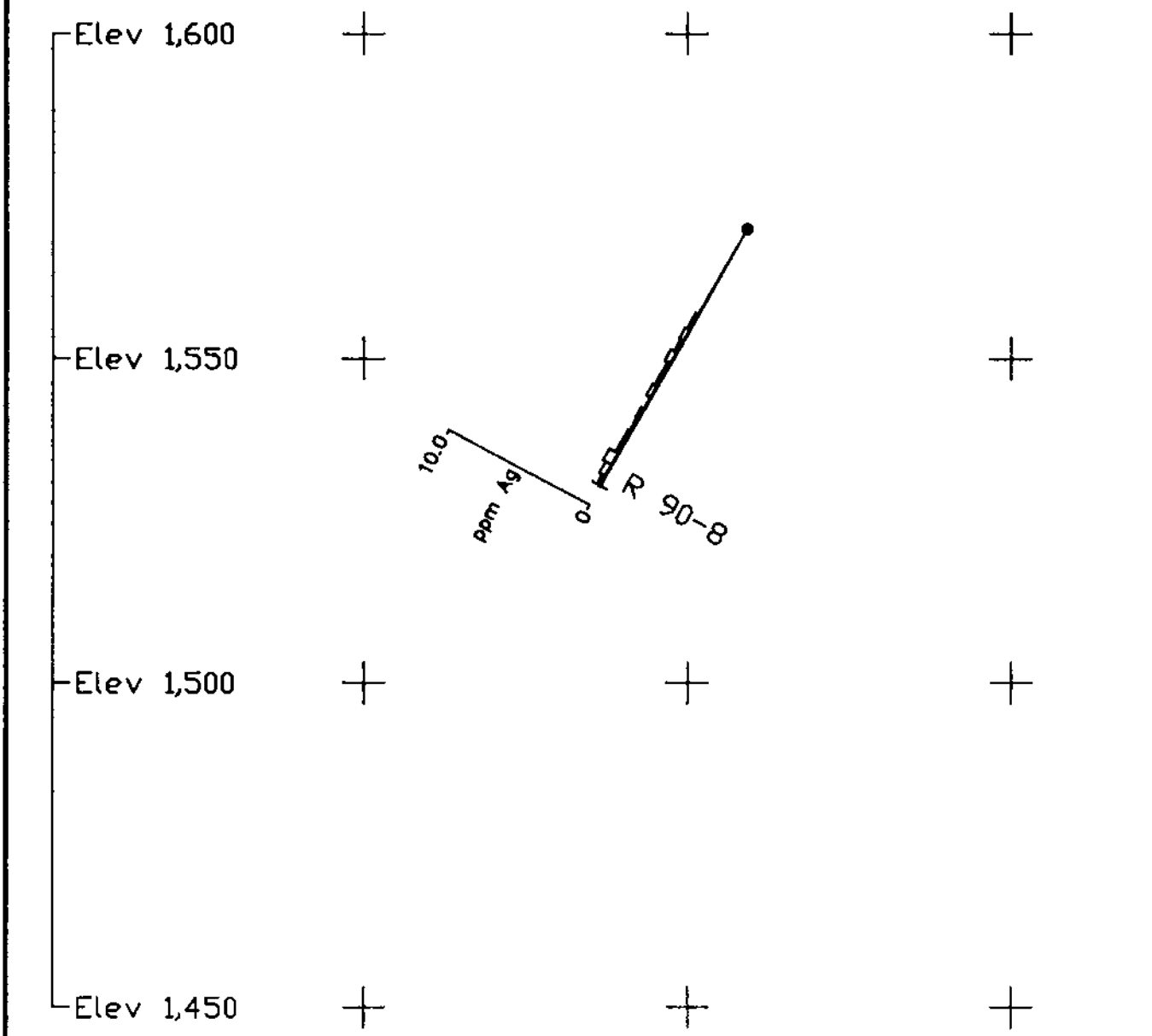


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–8
GOLD

Figure 10b



SCALE 0 1 : 1000 50 Metres

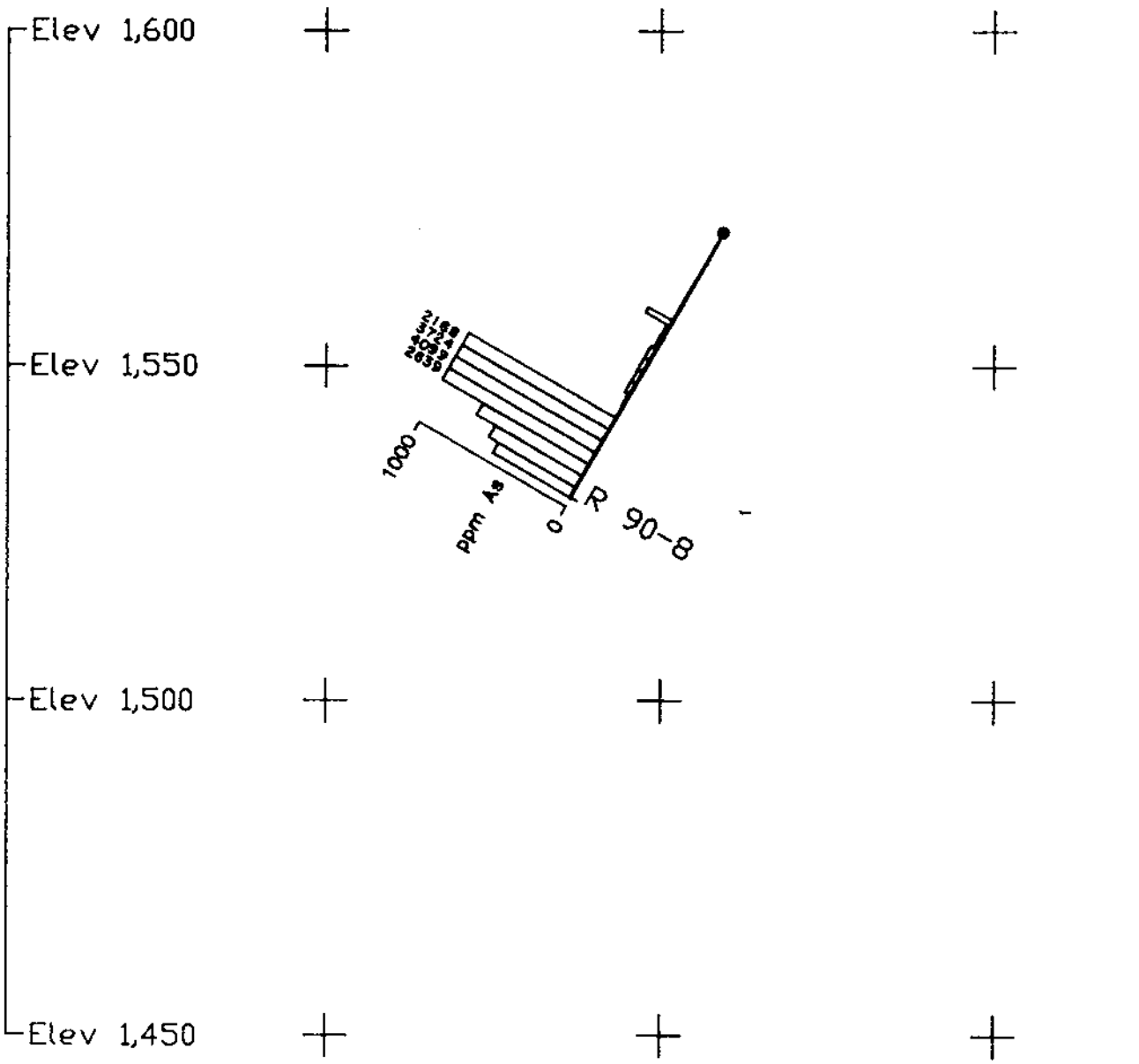
RAM – TUT PROPERTY

DRILL HOLE PROFILES

R90–8

SILVER

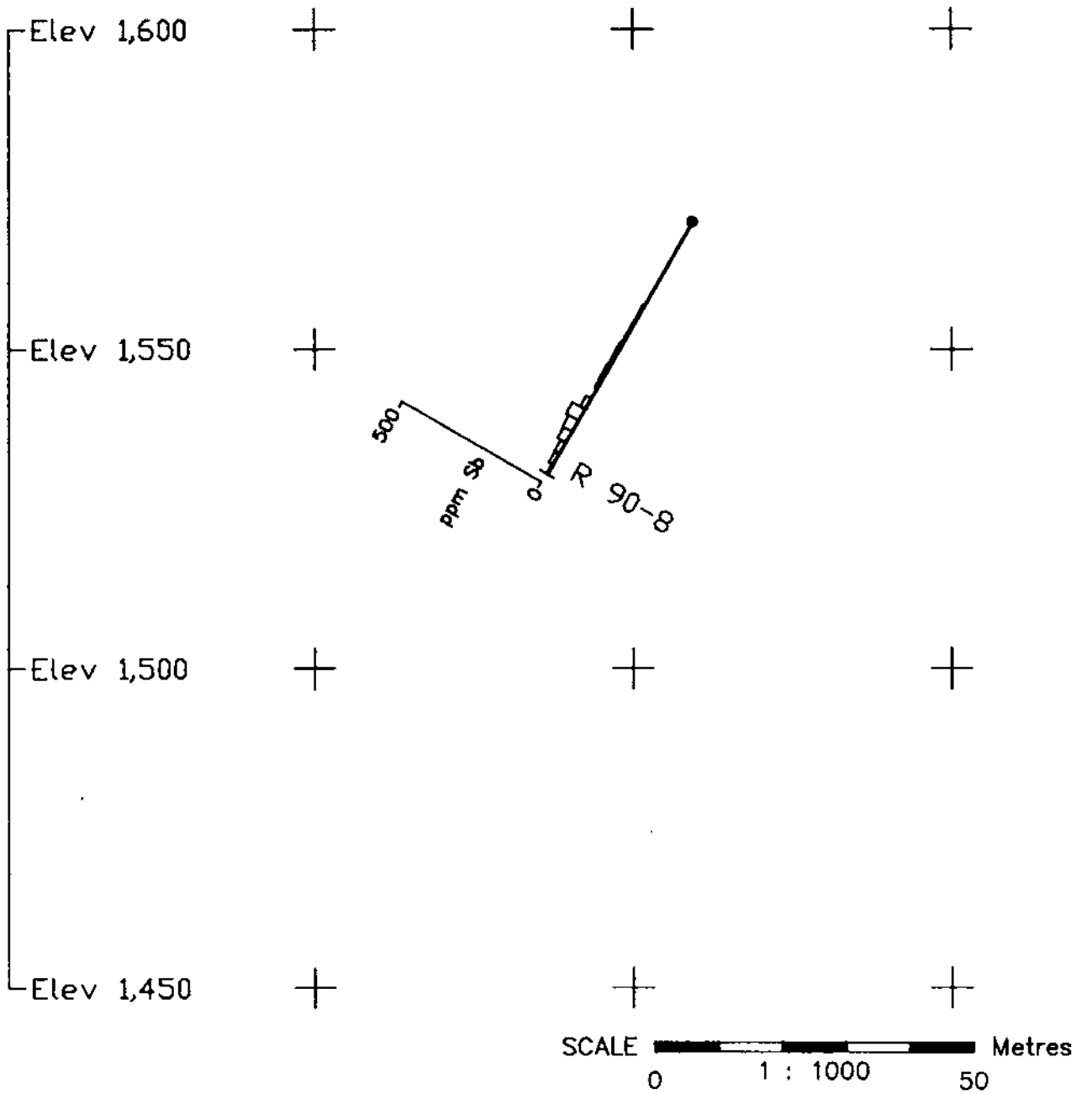
Figure 10c



RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–8
ARSENIC

Figure 10d

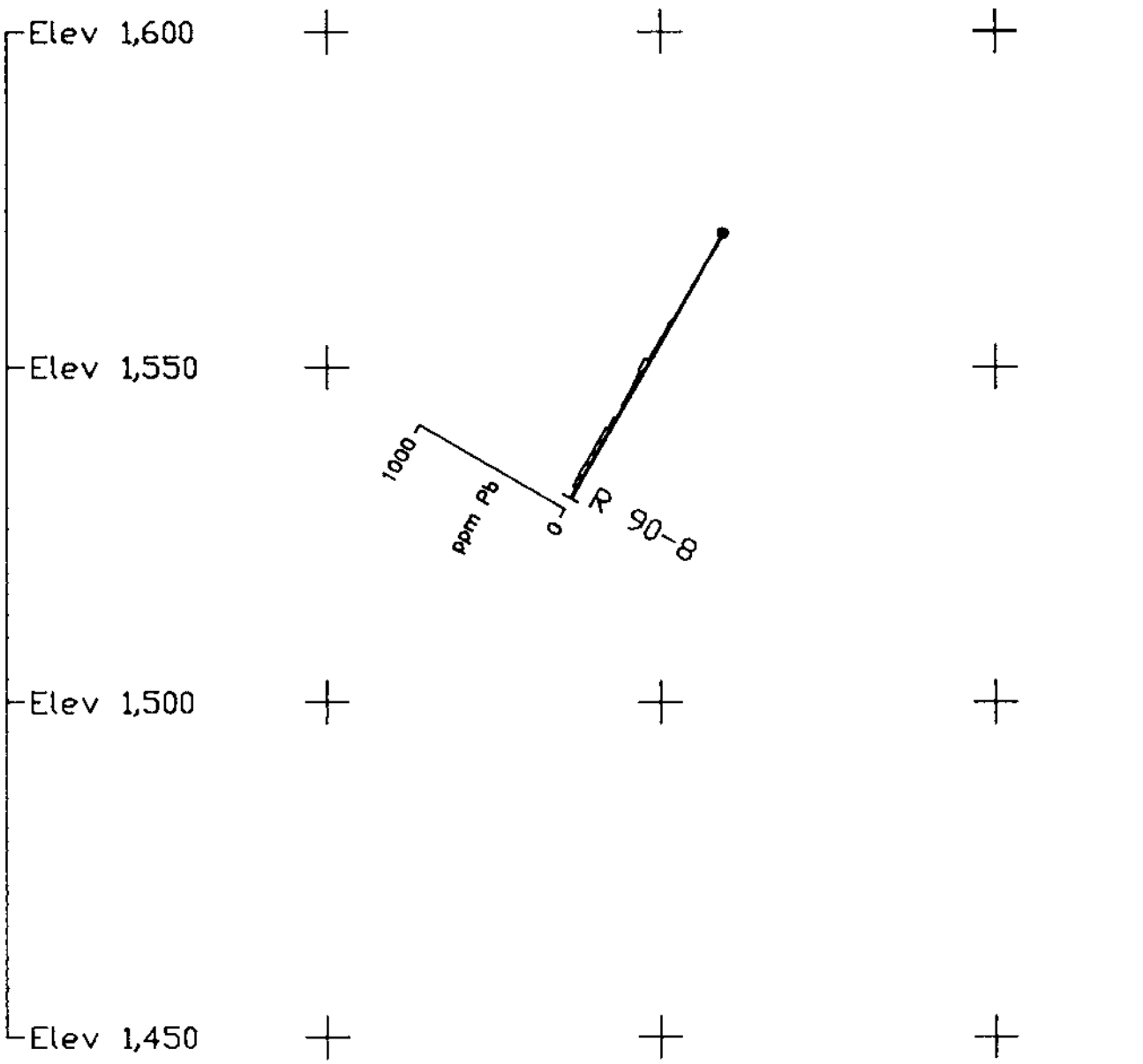


SCALE 0 1 : 1000 50 Metres

RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–8
ANTIMONY

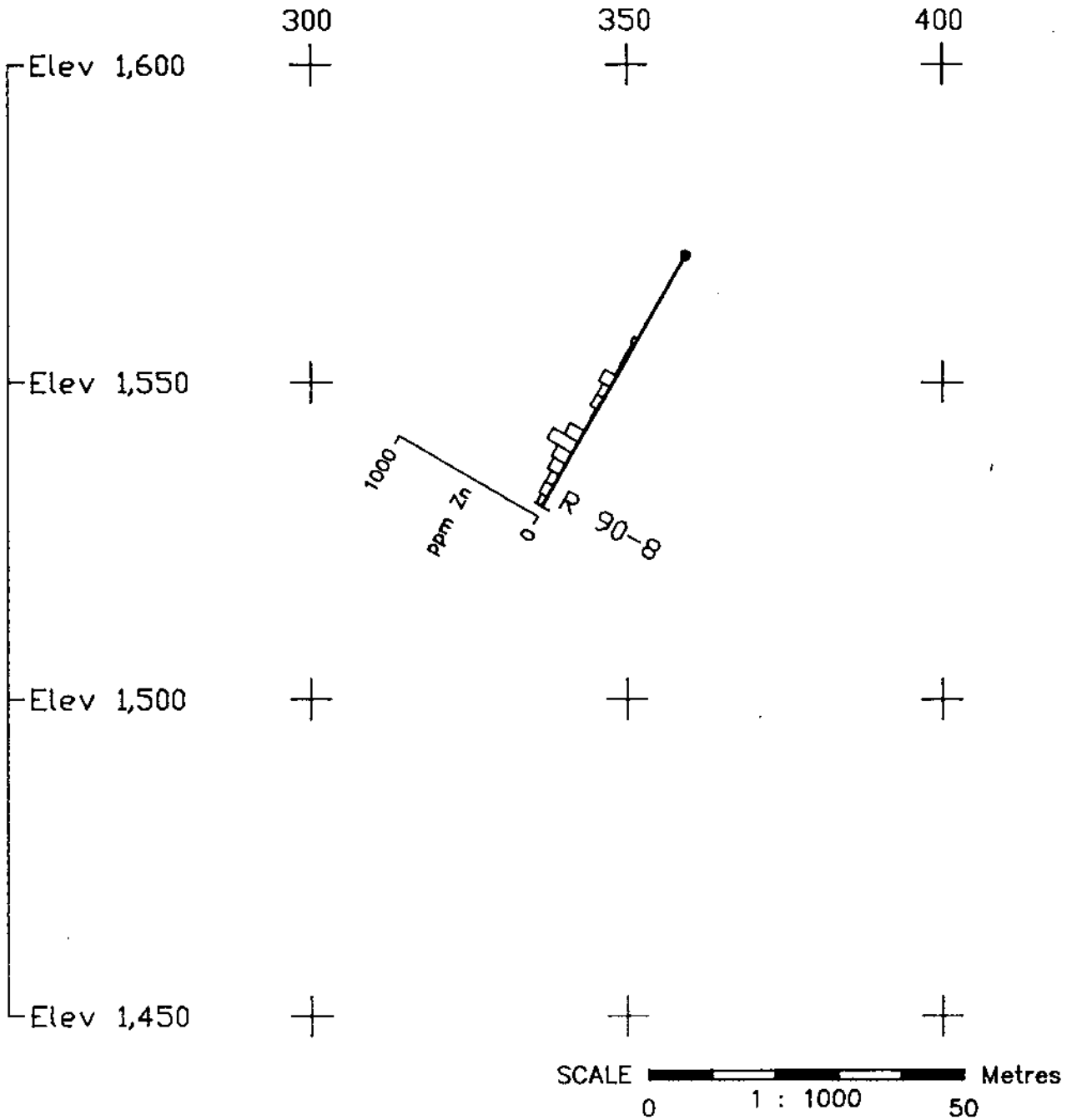
Figure 10e



RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–8
LEAD

Figure 10f

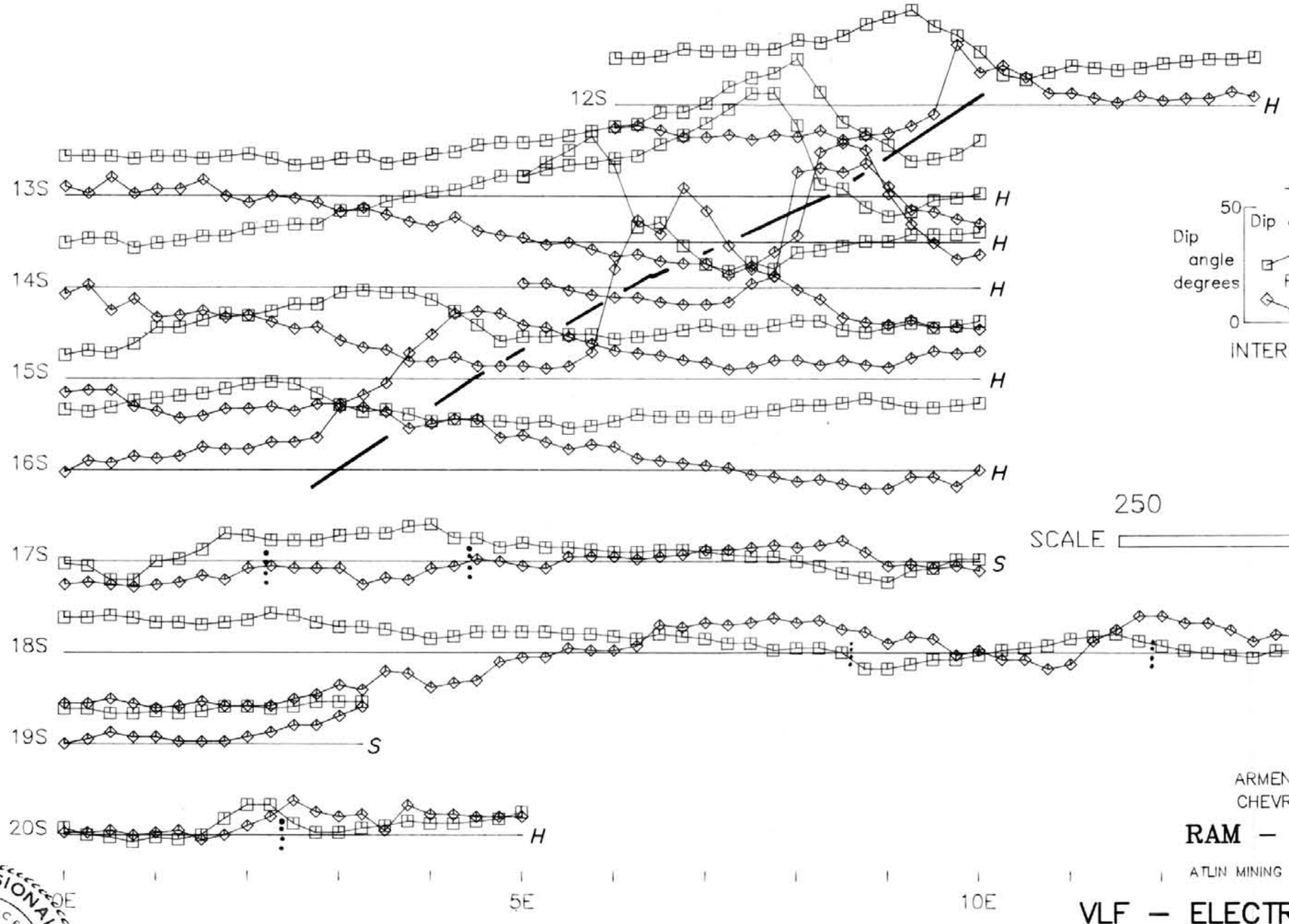


SCALE 0 1 : 1000 50 Metres

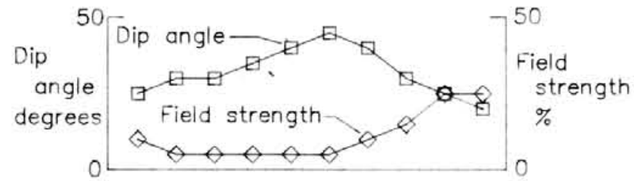
RAM – TUT PROPERTY

DRILL HOLE PROFILES
R90–8
ZINC

Figure 10g



LEGEND



INTERPRETED CONDUCTOR STRENGTH

- Strong
- Moderate
- Weak

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

VLF – ELECTROMAGNETIC PROFILES

DIP ANGLE & FIELD STRENGTH

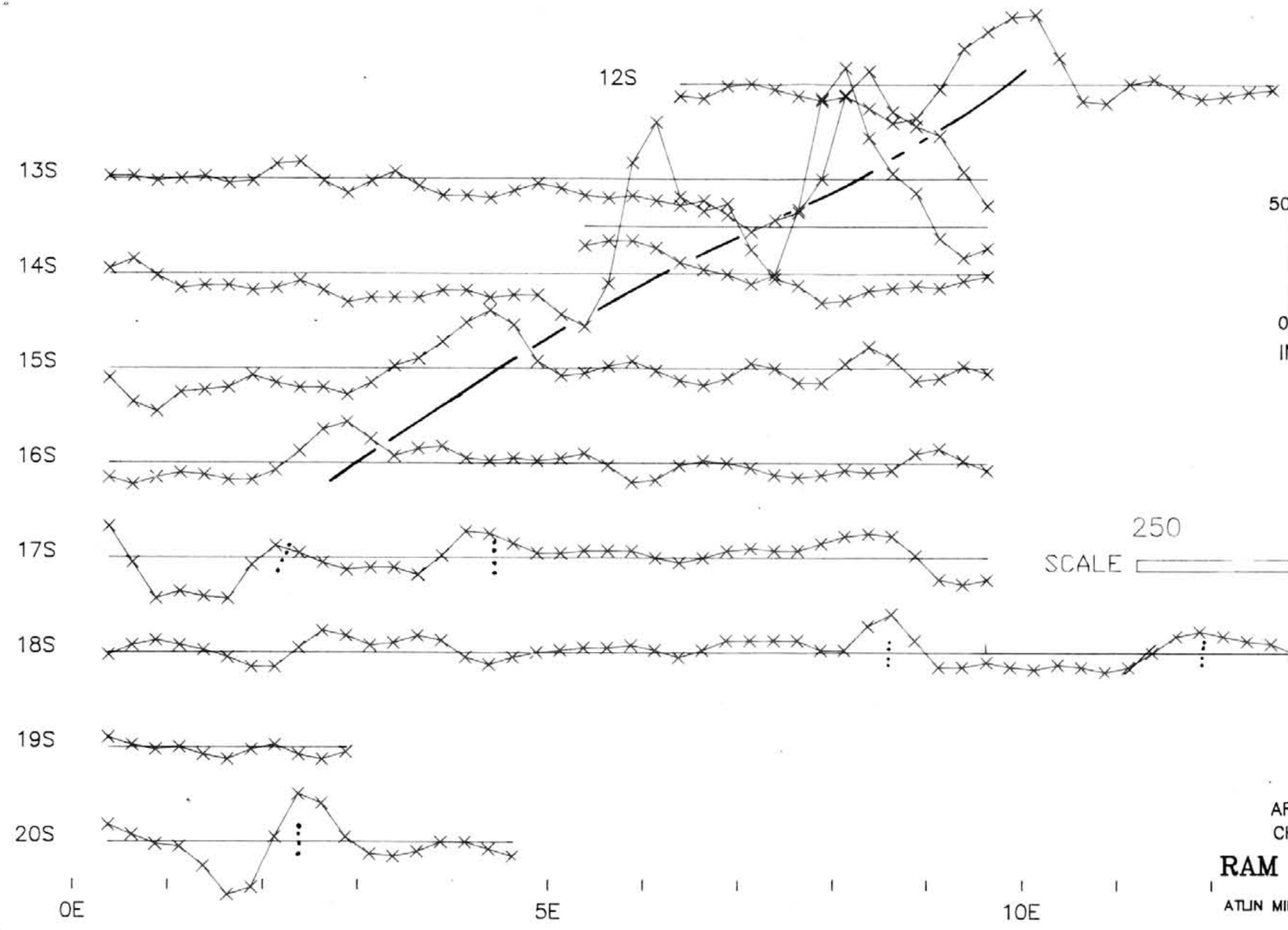
LINES 12 to 20 South

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

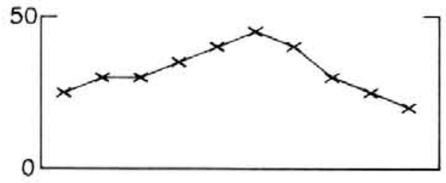
A·M exploration ltd

Instrument: Sabre Model 27 VLF – EM Receiver
Survey date: August, September, 1990
Transmitter station: Hawaii (H), Seattle (S)

Figure 12a



LEGEND



INTERPRETED CONDUCTOR STRENGTH

Strong

Moderate

Weak

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

VLF – ELECTROMAGNETIC PROFILES

FRASER FILTER

LINES 12 to 20 South

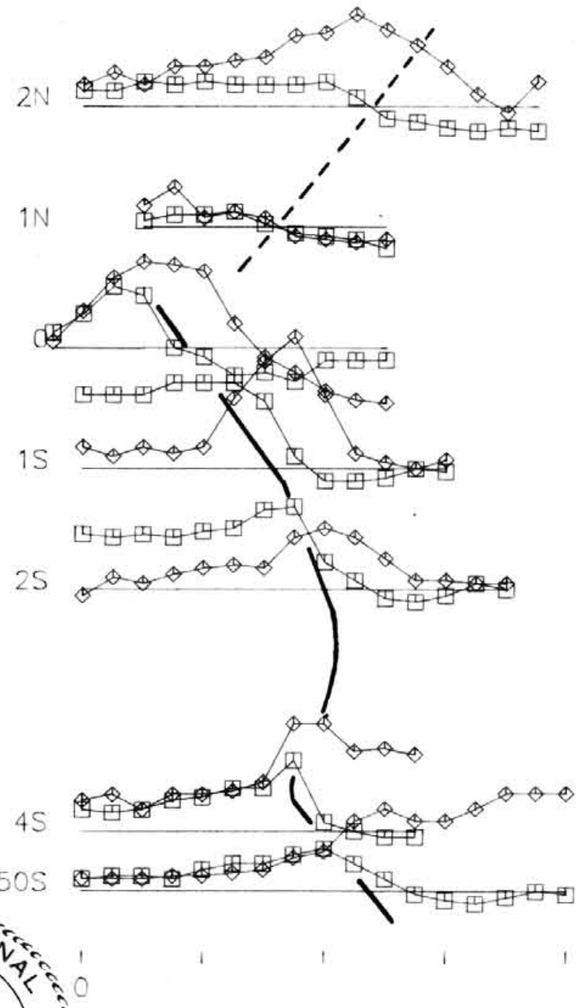
Instrument: Sabre Model 27 VLF – EM Receiver
Survey date: August, September, 1990
Transmitter station: Hawaii (H), Seattle (S)

PROFESSIONAL ENGINEER – PROVINCE OF BRITISH COLUMBIA – D. G. ALLEN

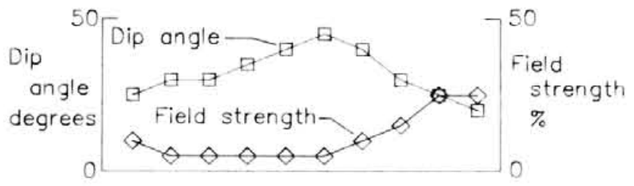
D.G. Allen

A·M exploration ltd.

Figure 12b

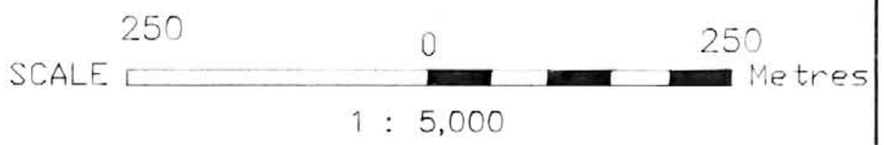


LEGEND



INTERPRETED CONDUCTOR STRENGTH

- ..Strong
- — — Moderate
- ..... Weak



1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

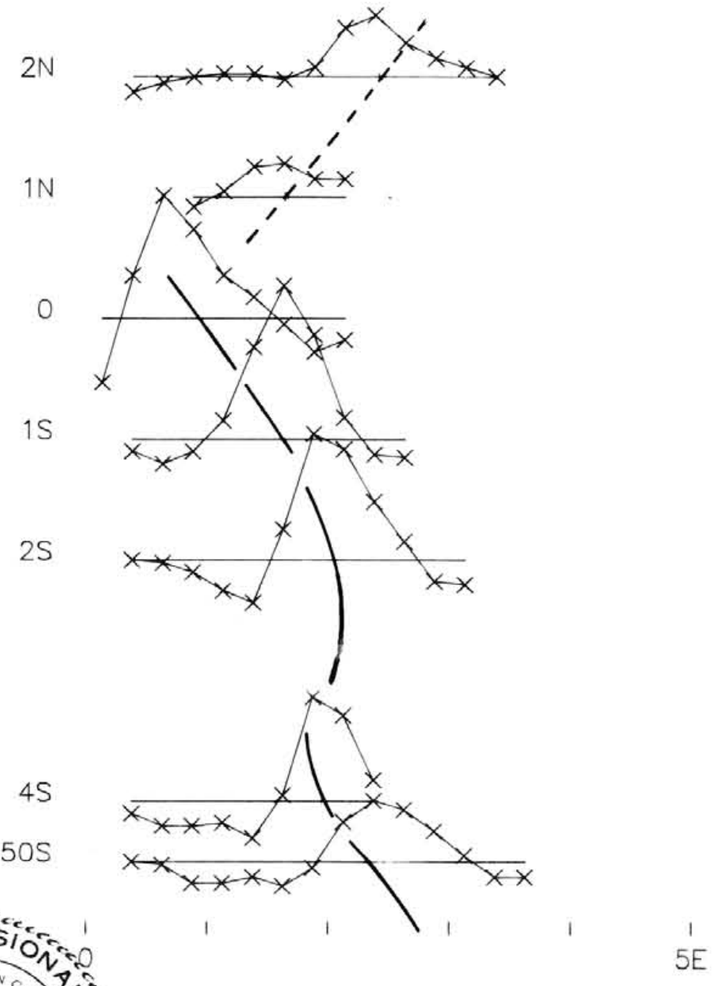
VLF – ELECTROMAGNETIC PROFILES
DIP ANGLE & FIELD STRENGTH
LINES 4+50S to 2N

Figure 12c

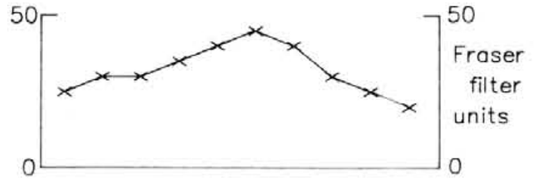
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

Instrument: Sabre Model 27 VLF – EM Receiver
Survey date: August, September, 1990
Transmitter station: Seattle

A·M exploration ltd.



LEGEND



INTERPRETED CONDUCTOR STRENGTH

- Strong
- Moderate
- Weak

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

VLF – ELECTROMAGNETIC PROFILES

FRASER FILTER

LINES 4+50S to 2N

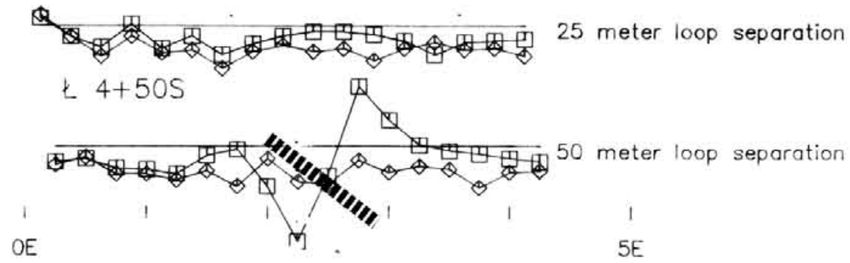
Figure 12d

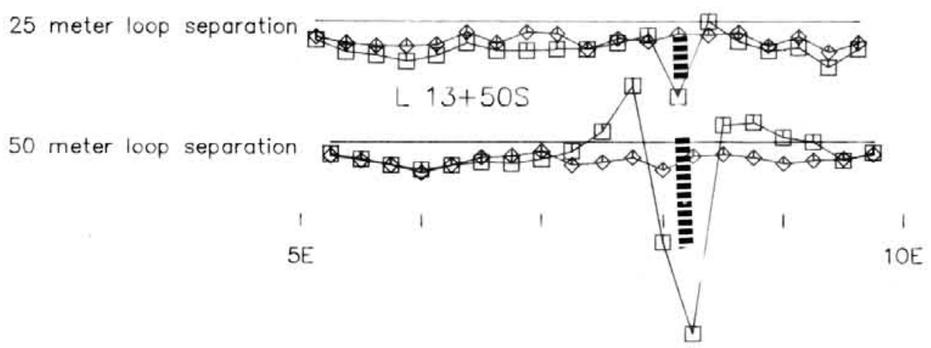
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

D. G. Allen

A·M exploration ltd.

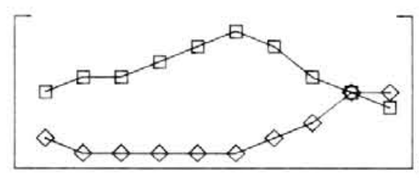
Instrument: Sabre Model 27 VLF – EM Receiver
Survey date: August, September, 1990
Transmitter station: Seattle





250 0 250
SCALE Metres
1 : 5,000

LEGEND



FREQUENCY PAIRS

- □ 3037/112
- ◇ 337/112

INTERPRETED CONDUCTOR STRENGTH

- Strong
- Moderate
- Weak

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GENIE SE–88
ELECTROMAGNETIC PROFILES
LINES 4+50S & 13+50S

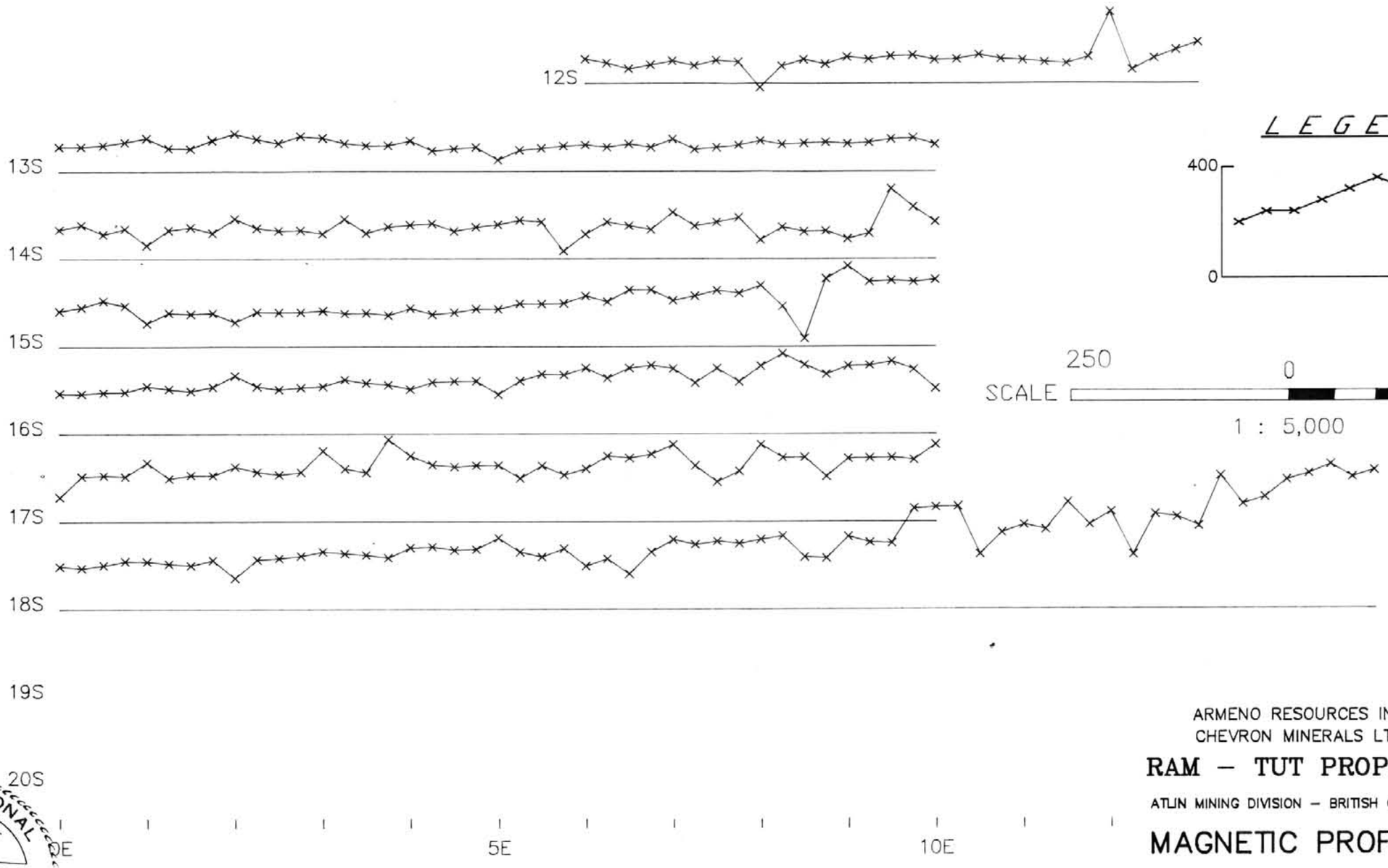
Figure 13

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

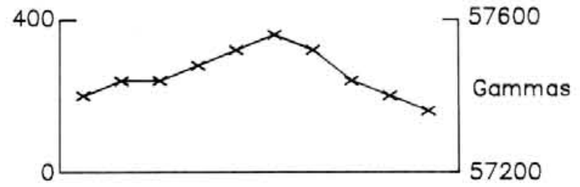
D. G. Allen

A·M exploration ltd.

Instrument: Scintrex Genie SE–88
Survey date: August, September, 1990



LEGEND



SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM – TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

MAGNETIC PROFILES

LINES 12 to 20 South

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A·M exploration ltd.

Instrument: Scintrex MP–2 Magnetometer

Survey date: August, September, 1990

Figure 14

APPENDIX I

Analytical Results

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : 535
TYPE OF ANALYSIS : ASSAY

CERTIFICATE # : 90475A
INVOICE # : 10615
DATE ENTERED : 90-09-24
FILE NAME : A&M90475.A
PAGE # : 1

E FIX	SAMPLE NAME	oz/t Au
	009001	0.001
A	009002	0.001
A	009003	0.001
	009004	0.001
	009005	0.002
A	009006	0.002
	009007	0.001
	009008	0.001
A	009009	0.001
A	009010	0.001
	009011	0.002
A	009012	0.001
A	009013	0.003
	009014	0.002
	009015	0.001
	009016	0.001
	009017	0.010
	009018	0.009
A	009019	0.003
A	009020	0.003
	009021	0.024
	009022	0.007
A	009023	0.005
	009024	0.004
	009025	0.006
A	009026	0.005
	009027	0.004
	009028	0.033
A	009029	0.019
A	009030	0.002
	009031	0.002
	009032	0.004

CERTIFIED BY :

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3B1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : 535
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90475A
INVOICE # : 10615
DATE ENTERED : 90-09-24
FILE NAME : A&M90475.1
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% SI	PPM W	PPM BE	PPB Au	PPB AA
A	009001	1	10	211	76	0.6	3	1	210	0.82	12	5	ND	ND	14	1	9	6	2	0.57	0.01	12	19	0.15	78	0.01	173	0.14	0.15	0.01	1	1	5	
A	009002	1	27	17	54	0.2	3	1	3524	0.78	28	5	ND	ND	78	1	2	2	2	12.16	0.01	9	49	5.28	58	0.01	64	0.13	0.11	0.01	1	1	5	
A	009003	1	24	22	61	0.2	7	5	3732	2.03	772	5	ND	ND	86	1	2	2	9	12.63	0.07	6	62	7.11	43	0.01	186	0.13	0.13	0.01	1	1	40	
A	009004	2	14	37	99	0.4	23	26	629	7.14	3832	5	ND	ND	67	2	30	2	29	4.27	0.30	6	18	1.93	44	0.01	1739	0.47	0.23	0.01	2	2	5	
A	009005	5	57	176	249	0.4	29	35	518	7.62	73430	5	ND	ND	68	3	312	2	45	3.96	0.27	5	21	2.27	37	0.01	1211	0.75	0.18	0.01	13	2	30	
A	009006	2	22	52	152	0.4	19	14	1939	3.53	31187	5	ND	ND	101	1	57	2	7	9.21	0.08	7	45	5.22	64	0.01	459	0.41	0.22	0.01	6	1	20	
A	009007	1	15	17	126	0.3	7	5	2228	2.10	1944	5	ND	ND	159	1	2	2	10	13.97	0.03	10	62	7.13	54	0.01	100	0.78	0.10	0.01	1	1	5	
A	009008	2	17	21	109	0.2	31	34	364	3.98	120	5	ND	ND	52	1	8	2	53	2.18	0.05	14	44	3.37	130	0.02	159	2.53	0.32	0.01	5	2	5	
A	009009	1	46	28	121	0.3	36	35	401	5.11	60	5	ND	ND	88	1	10	2	118	2.56	0.14	6	48	3.99	84	0.03	522	2.55	0.32	0.01	5	2	5	
A	009010	1	22	4	77	0.1	3	1	3052	1.07	62	5	ND	ND	180	1	2	2	5	19.81	0.01	9	55	6.70	29	0.01	58	0.18	0.01	0.01	1	1	5	
A	009011	2	24	48	190	0.7	6	4	1161	1.65	599	5	ND	ND	76	3	18	2	4	8.25	0.01	5	32	2.87	37	0.01	266	0.21	0.17	0.01	5	1	20	
A	009012	1	32	26	128	0.4	12	10	638	1.60	169	5	ND	ND	108	1	7	2	14	8.75	0.03	6	22	0.97	49	0.01	234	0.31	0.17	0.01	4	1	5	
A	009013	7	25	71	123	2.6	17	7	1718	2.55	209	5	ND	ND	68	2	8	2	24	7.49	0.03	5	41	3.06	29	0.01	329	0.19	0.17	0.01	4	1	50	
A	009014	4	29	276	234	1.6	37	12	1217	2.44	136	5	ND	ND	86	2	4	2	9	9.88	0.05	6	25	1.32	30	0.01	346	0.37	0.18	0.01	2	1	20	
A	009015	2	36	28	79	0.3	52	15	514	2.26	69	5	ND	ND	96	1	6	2	12	10.30	0.05	5	21	1.09	33	0.01	290	0.26	0.17	0.01	2	1	5	
A	009016	1	26	8	40	0.1	30	7	488	1.47	50	5	ND	ND	193	1	2	2	4	17.10	0.03	8	10	0.58	32	0.01	251	0.21	0.16	0.01	1	1	5	
A	009017	14	25	93	84	3.6	36	8	6434	3.14	532	5	ND	ND	123	1	11	2	7	8.61	0.05	6	48	3.83	36	0.01	610	0.16	0.12	0.01	5	1	240	
A	009018	9	18	68	98	3.6	37	8	3606	2.57	415	5	ND	ND	48	1	17	2	7	4.95	0.05	4	44	2.58	26	0.01	429	0.19	0.17	0.01	7	1	170	
A	009019	1	12	14	32	1.5	15	4	403	1.25	112	5	ND	ND	10	1	7	6	4	1.60	0.02	4	37	0.74	10	0.01	139	0.11	0.09	0.01	4	1	80	
A	009020	2	9	13	45	1.8	17	3	288	1.12	122	5	ND	ND	6	1	5	6	4	0.83	0.02	4	41	0.34	13	0.01	140	0.13	0.11	0.01	1	1	50	
A	009021	4	9	13	103	4.8	20	1	127	1.51	179	5	ND	ND	5	1	9	9	4	0.34	0.04	1	39	0.16	13	0.01	238	0.12	0.14	0.01	1	1	490	
A	009022	10	12	5	111	2.7	31	1	57	1.60	121	5	ND	ND	10	1	6	2	4	0.11	0.04	2	53	0.06	155	0.01	183	0.14	0.10	0.01	2	1	100	
A	009023	5	13	12	44	2.2	21	2	224	1.42	165	5	ND	ND	10	1	15	3	5	1.05	0.04	4	32	0.38	43	0.01	194	0.10	0.09	0.01	5	1	100	
A	009024	11	12	5	40	3.3	22	3	455	1.57	235	5	ND	ND	6	1	58	12	6	0.56	0.02	6	49	0.27	36	0.01	87	0.12	0.09	0.01	1	1	90	
A	009025	41	9	22	59	3.4	23	4	319	1.61	181	5	ND	ND	11	1	23	2	5	0.98	0.02	4	35	0.08	54	0.01	22	0.12	0.10	0.01	1	1	180	
A	009026	29	15	25	51	1.3	33	9	270	1.99	315	5	ND	ND	23	1	454	3	6	2.33	0.06	3	40	0.22	59	0.01	107	0.15	0.11	0.01	2	1	110	
A	009027	36	9	256	61	3.5	11	2	63	0.77	118	5	ND	ND	13	1	37	8	3	0.07	0.03	2	35	0.02	32	0.01	5	0.07	0.04	0.01	1	1	100	
A	009028	116	29	1755	118	16.6	12	1	162	0.78	116	5	ND	ND	23	4	200	8	4	1.41	0.05	2	49	0.03	45	0.01	14	0.05	0.01	0.01	3	1	1100	
A	009029	47	22	358	115	9.8	6	1	155	0.45	60	5	ND	ND	17	7	60	10	3	1.96	0.02	1	28	0.01	21	0.01	5	0.03	0.01	0.01	6	1	540	
A	009030	18	8	95	36	3.2	6	1	27	0.31	28	5	ND	ND	1	1	19	10	2	0.06	0.01	1	41	0.01	6	0.01	5	0.01	0.01	0.01	1	1	30	
A	009031	8	5	73	43	1.0	4	1	174	0.28	53	5	ND	ND	25	1	13	8	3	3.86	0.01	1	34	0.02	15	0.01	5	0.02	0.01	0.01	5	1	20	
A	009032	9	15	71	167	1.2	10	1	556	0.44	49	5	ND	ND	103	7	2	2	1	17.11	0.01	6	14	0.08	37	0.01	5	0.02	0.01	0.01	1	1	70	

CERTIFIED BY :

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 904867
INVOICE # : 20063
DATE ENTERED : 90-10-05
FILE NAME : A&M904867.1
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au AA
A	009055	3	136	24	155	0.3	8	1	310	0.41	170	5	ND	ND	32	3	26	2	2	0.94	0.01	6	9	0.05	16	0.01	12	0.05	0.01	0.01	1	1	50
A	009056	3	97	23	106	0.2	10	1	119	0.42	204	5	ND	ND	19	2	25	2	3	3.90	0.02	5	23	0.03	44	0.01	5	0.04	0.01	0.01	6	1	5
A	009057	3	37	8	140	0.1	20	1	59	0.43	158	5	ND	ND	17	3	56	2	3	2.79	0.03	4	16	0.03	12	0.01	5	0.04	0.01	0.01	6	1	5
A	009058	4	23	41	109	1.4	10	1	38	0.47	186	5	ND	ND	2	2	29	4	3	0.09	0.03	2	25	0.01	9	0.01	5	0.04	0.01	0.01	3	1	5
A	009059	2	8	10	38	0.1	5	1	83	0.25	78	5	ND	ND	5	1	17	2	2	1.03	0.01	3	19	0.01	5	0.01	5	0.01	0.01	0.01	4	1	5
A	009060	2	8	12	59	0.3	8	1	71	0.27	76	5	ND	ND	15	1	15	2	1	2.71	0.05	7	17	0.02	9	0.01	5	0.02	0.01	0.01	3	1	10
A	009061	3	11	18	144	0.7	10	3	154	0.57	176	5	ND	ND	19	2	22	9	5	2.56	0.04	3	21	0.02	13	0.01	5	0.05	0.01	0.01	5	1	70
A	009062	2	10	11	83	0.1	9	2	190	0.28	108	5	ND	ND	31	1	19	2	3	5.19	0.01	3	19	0.04	14	0.01	5	0.03	0.01	0.01	1	1	10
A	009063	2	6	9	43	0.1	6	1	66	0.21	61	5	ND	ND	15	1	11	2	3	2.89	0.01	2	20	0.02	6	0.01	5	0.02	0.01	0.01	1	1	5
A	009064	1	9	17	44	0.1	6	2	177	0.21	96	5	ND	ND	21	1	11	2	3	4.35	0.01	3	18	0.03	12	0.01	5	0.02	0.01	0.01	2	1	5
A	009065	1	5	8	71	0.1	8	2	70	0.34	93	5	ND	ND	4	1	9	2	4	0.54	0.03	3	23	0.01	9	0.01	5	0.04	0.01	0.01	1	1	5
A	009066	2	8	9	103	0.1	9	2	105	0.34	105	5	ND	ND	22	1	11	2	3	3.25	0.02	3	26	0.03	11	0.01	5	0.04	0.01	0.01	2	1	5
A	009067	1	14	1	135	0.1	3	1	352	0.18	30	5	ND	ND	89	1	2	2	1	15.25	0.01	6	2	0.10	16	0.01	5	0.02	0.01	0.01	1	1	5
A	009068	1	13	1	44	0.1	1	1	375	0.12	2	5	ND	ND	97	1	2	2	1	17.13	0.01	6	2	0.10	15	0.01	5	0.01	0.01	0.01	1	1	5
A	009069	4	24	623	212	10.8	2	1	3120	0.23	2	5	ND	ND	125	1	2	2	1	22.06	0.01	8	1	0.13	20	0.01	5	0.01	0.01	0.01	1	1	5
A	009070	1	11	42	83	0.1	4	1	344	0.20	57	5	ND	ND	55	3	10	2	2	10.04	0.01	6	10	0.07	18	0.01	5	0.03	0.01	0.01	1	1	5
A	009071	1	12	37	103	0.1	5	1	460	0.25	74	5	ND	ND	46	3	13	2	2	6.89	0.02	5	9	0.05	15	0.01	5	0.03	0.01	0.01	1	1	10
A	009072	1	10	39	55	0.3	5	1	233	0.20	76	5	ND	ND	30	1	17	2	2	5.10	0.01	4	17	0.04	15	0.01	5	0.03	0.01	0.01	1	1	10
A	009073	1	9	16	9	0.4	3	2	155	0.39	20	5	ND	ND	24	1	5	5	2	1.88	0.01	13	14	0.19	23	0.01	20	0.15	0.16	0.01	1	1	5
A	009074	1	16	27	41	0.2	6	8	993	1.14	43	5	ND	ND	84	1	13	2	10	5.66	0.05	8	17	0.39	115	0.01	239	0.35	0.18	0.01	1	1	5
A	009075	1	26	7	91	0.1	11	8	985	1.46	67	5	ND	ND	133	1	10	2	26	12.49	0.02	8	11	1.23	36	0.01	10	0.57	0.09	0.01	1	2	5
A	009076	7	24	15	69	0.2	26	20	261	3.08	406	5	ND	ND	62	1	11	2	11	2.93	0.04	4	17	1.24	24	0.01	50	1.23	0.17	0.01	1	1	5
A	009077	2	192	10	64	1.0	76	25	372	3.65	242	5	ND	ND	39	1	36	2	18	2.51	0.02	6	22	1.25	26	0.01	30	0.41	0.17	0.01	2	1	20
A	009078	2	98	16	21	9.5	14	5	38	0.59	230	5	ND	ND	7	1	132	2	3	0.15	0.02	2	27	0.03	15	0.01	15	0.07	0.02	0.01	1	1	200
A	009079	4	177	35	26	10.4	11	3	36	0.60	182	5	ND	ND	17	1	108	10	3	0.07	0.03	2	24	0.02	124	0.01	15	0.08	0.03	0.01	1	1	250
A	009080	3	65	32	17	21.7	10	4	30	0.53	129	5	ND	ND	22	1	55	2	3	0.04	0.02	3	26	0.01	10	0.01	20	0.09	0.09	0.01	1	1	1240
A	009081	9	70	59	16	38.2	19	2	29	0.67	155	5	ND	ND	75	1	105	2	2	0.04	0.02	3	15	0.01	17	0.01	10	0.10	0.12	0.01	1	1	1060

CERTIFIED BY : T. Rossbacher

ROSSBACHER LABORATORY LTD.

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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
8714-850 W. HASTINGS ST.
VANCOUVER, B.C.
PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90506
INVOICE # : 20627
DATE ENTERED : 90-10-12
FILE NAME : A&M90501.I
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S1	PPM W	PPM BE	PPB Au AA
A	009082	5	51	15	36	4.9	14	2	34	0.82	114	5	ND	ND	49	1	27	2	6	0.10	0.03	1	55	0.03	513	0.01	15	0.13	0.11	0.01	2	1	340
A	009083	5	25	7	45	1.8	34	9	139	1.65	104	5	ND	ND	9	1	13	2	7	0.52	0.07	2	53	0.19	116	0.01	20	0.21	0.17	0.01	5	1	20
A	009084	5	32	13	30	0.1	19	2	252	0.93	50	5	ND	ND	133	1	13	2	6	11.24	0.03	6	28	0.32	49	0.01	10	0.12	0.08	0.01	1	1	5
A	009085	9	19	18	31	0.3	13	3	56	0.57	29	5	ND	ND	31	1	10	6	6	0.29	0.03	1	74	0.01	23	0.01	10	0.05	0.01	0.01	5	1	10
A	009086	11	51	12	31	0.6	43	7	51	2.03	104	5	ND	ND	34	1	17	2	8	0.10	0.04	3	55	0.02	21	0.01	15	0.18	0.13	0.01	3	1	20
A	009087	9	25	12	66	0.2	23	4	40	1.17	42	5	ND	ND	36	1	10	2	7	0.07	0.04	1	53	0.01	21	0.01	10	0.17	0.15	0.01	4	1	5
A	009088	7	50	16	30	0.7	15	3	29	0.62	28	5	ND	ND	9	1	17	2	6	0.05	0.03	2	81	0.01	17	0.01	5	0.08	0.05	0.01	3	1	5
A	009089	9	64	15	51	1.2	17	5	80	0.54	33	5	ND	ND	5	1	19	2	4	0.34	0.02	1	67	0.01	11	0.01	5	0.05	0.05	0.01	1	1	5
A	009090	11	147	30	33	4.9	16	6	42	0.62	33	5	ND	ND	6	1	49	2	4	0.40	0.03	4	63	0.01	12	0.01	15	0.07	0.03	0.01	2	1	5
A	009091	7	31	11	35	0.5	22	7	79	0.86	27	5	ND	ND	5	1	10	2	6	0.22	0.03	2	63	0.05	15	0.01	15	0.12	0.10	0.01	2	1	5
A	009092	23	45	68	59	4.8	16	7	41	0.72	45	5	ND	ND	7	1	47	2	6	0.22	0.03	1	50	0.02	14	0.01	20	0.08	0.07	0.01	1	1	5
A	009093	16	81	253	48	9.7	17	6	44	0.94	124	5	ND	ND	14	1	86	2	8	0.05	0.04	1	68	0.01	20	0.01	30	0.15	0.11	0.01	3	1	240
A	009094	8	13	41	50	1.0	23	11	175	1.23	115	5	ND	ND	16	1	13	2	9	0.42	0.06	3	45	0.11	21	0.01	40	0.15	0.15	0.01	1	1	5
A	009095	10	8	38	76	0.4	16	3	107	0.91	68	5	ND	ND	14	1	13	2	7	0.32	0.03	3	57	0.01	13	0.01	5	0.09	0.05	0.01	1	1	5

CERTIFIED BY : F. Rossbacher

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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90506
INVOICE # : 20027
DATE ENTERED : 90-10-12
FILE NAME : A&M90506.1
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au
A	009096	4	28	15	86	0.1	10	3	94	0.40	29	5	ND	ND	12	1	12	5	4	1.22	0.01	4	87	0.02	10	0.01	5	0.04	0.01	0.01	4	1	30
A	009097	9	9	28	27	0.1	14	3	92	0.47	27	5	ND	ND	12	1	9	2	4	1.85	0.03	1	95	0.01	8	0.01	5	0.04	0.01	0.01	4	1	310
A	009098	8	10	20	35	0.4	13	2	54	0.45	23	5	ND	ND	16	1	7	2	3	0.56	0.02	1	65	0.01	6	0.01	5	0.04	0.01	0.01	3	1	210
A	009099	10	8	20	26	0.1	17	2	111	0.33	24	5	ND	ND	25	1	6	2	4	3.57	0.01	2	58	0.16	8	0.01	5	0.04	0.01	0.01	2	1	100
A	009100	1	13	1	206	0.1	7	1	693	0.46	2	5	ND	ND	114	1	2	2	4	21.97	0.01	7	12	0.69	20	0.01	10	0.03	0.01	0.01	1	1	5
A	009101	5	12	62	185	0.1	22	3	670	0.73	112	5	ND	ND	48	1	12	2	7	8.48	0.01	6	46	0.67	17	0.01	10	0.07	0.01	0.01	1	1	10
A	009102	23	16	26	51	0.1	5	1	765	0.35	30	5	ND	ND	191	1	2	2	4	17.12	0.01	8	17	0.84	16	0.01	5	0.03	0.01	0.01	1	1	5
A	009103	45	14	139	295	1.0	10	2	1449	0.80	89	5	ND	ND	81	4	11	2	4	9.82	0.01	7	43	1.37	17	0.01	20	0.08	0.01	0.01	1	1	100
A	009104	4	14	8	60	0.1	6	2	637	0.45	19	5	ND	ND	91	1	2	2	2	12.89	0.01	9	21	1.53	18	0.01	25	0.09	0.03	0.01	1	1	5
A	009105	2	5	10	28	0.2	2	1	206	1.11	161	5	ND	ND	56	1	5	2	2	7.27	0.01	43	15	0.16	273	0.01	20	0.23	0.24	0.01	1	1	5
A	009106	2	6	5	15	0.2	2	1	161	0.84	16	5	ND	ND	66	1	3	3	4	1.90	0.01	42	27	0.11	781	0.01	5	0.25	0.28	0.01	1	1	5
A	009107	2	6	9	16	0.3	2	1	233	0.93	20	5	ND	ND	59	1	4	5	5	2.19	0.01	45	38	0.16	353	0.01	5	0.28	0.27	0.01	1	1	5
A	009108	3	7	9	13	0.2	2	1	319	0.80	35	5	ND	ND	60	1	4	5	4	3.04	0.01	31	33	0.21	167	0.01	5	0.22	0.24	0.01	1	1	5
A	009109	2	23	30	80	0.4	6	6	750	3.10	36	5	ND	ND	169	1	8	2	42	4.03	0.07	24	43	1.16	675	0.01	5	1.48	0.22	0.01	1	2	5
A	009110	3	17	16	49	0.2	5	5	564	2.33	31	5	ND	ND	63	1	6	2	38	2.21	0.05	42	36	0.81	611	0.01	10	1.25	0.19	0.01	1	1	5
A	009111	4	21	11	49	0.2	6	6	425	2.60	32	5	ND	ND	73	1	9	2	45	1.44	0.04	26	45	0.70	1411	0.01	5	1.20	0.17	0.01	1	1	5
A	009112	3	13	9	7	0.3	3	1	37	0.88	8	5	ND	ND	22	1	7	4	4	0.11	0.01	18	34	0.07	2137	0.01	5	0.29	0.14	0.01	1	1	5
	009113		MISSING																														
A	009114	3	32	14	101	0.2	31	19	1091	3.45	2160	5	ND	ND	49	1	16	2	20	2.62	0.13	10	52	1.11	220	0.01	10	0.65	0.17	0.02	2	1	5
A	009115	3	39	24	180	0.1	24	24	744	5.09	3724	5	ND	ND	38	1	42	2	35	3.54	0.14	7	38	0.75	52	0.01	5	0.59	0.16	0.01	27	1	5
A	009116	4	20	25	161	0.2	13	9	225	3.17	4099	5	ND	ND	19	1	31	5	23	0.44	0.05	8	39	0.09	48	0.01	10	0.32	0.21	0.01	13	1	30
A	009117	3	18	24	84	0.2	18	10	943	1.46	2639	5	ND	ND	36	1	27	4	13	3.77	0.05	6	57	1.06	59	0.01	5	0.17	0.10	0.01	2	1	50
A	009118	4	6	27	55	0.6	10	3	105	0.60	721	5	ND	ND	16	1	16	9	7	0.21	0.01	7	54	0.07	31	0.01	5	0.12	0.12	0.01	4	1	70
A	009119	4	10	22	56	0.4	9	3	159	0.74	593	5	ND	ND	24	1	13	5	6	0.24	0.02	5	50	0.04	45	0.01	5	0.14	0.12	0.01	4	1	20
A	009120	1	18	1	40	0.2	10	2	185	0.82	524	5	ND	ND	238	1	2	2	7	16.09	0.01	10	19	0.26	76	0.01	7	0.26	0.05	0.01	1	1	5

CERTIFIED BY : T. Rossbacher

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90A84
INVOICE # : 20003
DATE ENTERED : 90-04-28
FILE NAME : A&M90484.1
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au AA
A	009001A	6	43	15	21	0.4	4	3	173	1.13	25	5	ND	ND	19	1	8	2	7	0.49	0.01	16	36	0.08	64	0.01	20	0.12	0.10	0.01	2	1	5
A	009002A	4	34	11	19	0.1	4	5	193	1.31	23	5	ND	ND	28	1	2	2	7	0.63	0.01	17	24	0.13	137	0.01	25	0.15	0.11	0.01	1	1	5
A	009003A	4	47	28	36	0.1	7	7	175	1.84	42	5	ND	ND	25	1	7	6	7	0.78	0.01	18	30	0.25	43	0.01	40	0.18	0.17	0.01	1	1	5
A	009004A	4	10	24	54	0.2	5	4	175	1.08	52	5	ND	ND	7	1	2	5	8	0.25	0.01	28	30	0.06	39	0.01	14	0.21	0.20	0.01	1	1	5
A	009005A	4	10	33	152	0.5	2	5	327	0.69	24	5	ND	ND	17	3	2	2	8	1.16	0.01	25	32	0.06	36	0.01	15	0.12	0.12	0.01	1	1	5
A	009006A	3	11	210	25	0.6	3	2	472	0.37	24	5	ND	ND	34	1	4	2	5	2.88	0.01	19	35	0.07	34	0.01	5	0.18	0.17	0.01	1	1	5
A	009007A	3	11	13	63	0.3	3	4	347	0.49	62	5	ND	ND	31	1	4	2	6	2.54	0.01	20	34	0.09	29	0.01	5	0.18	0.15	0.01	1	1	5
A	009008A	3	14	38	90	0.1	5	3	315	0.62	24	5	ND	ND	21	1	5	6	10	1.65	0.01	23	42	0.18	28	0.01	15	0.21	0.16	0.01	3	1	5
A	009009A	5	12	1581	27	1.0	8	5	567	1.56	30	5	ND	ND	29	1	5	11	10	2.45	0.01	8	63	0.13	36	0.01	40	0.12	0.08	0.01	1	1	5
A	009010A	1	34	7	85	0.1	5	3	3620	0.84	2	5	ND	ND	Inc	1	2	2	30	16.68	0.01	13	60	7.44	85	0.01	15	0.64	0.15	0.01	1	2	5
A	009011A	5	34	26	43	0.1	32	10	187	2.58	203	5	ND	ND	34	1	8	2	23	2.56	0.01	7	38	1.14	33	0.01	20	0.41	0.16	0.01	1	1	5
A	009012A	5	25	29	56	0.1	40	14	144	3.52	181	5	ND	ND	25	1	7	6	41	1.87	0.04	7	42	1.55	28	0.01	20	1.33	0.13	0.01	1	2	5
A	009013A	9	27	34	52	0.2	35	13	131	3.25	39	5	ND	ND	34	1	6	5	69	2.59	0.03	7	39	1.50	28	0.01	20	1.52	0.16	0.01	1	2	5
A	009014A	17	30	27	138	0.4	97	19	197	3.10	128	5	ND	ND	46	1	6	2	27	2.96	0.03	7	58	1.74	27	0.01	25	1.42	0.16	0.01	1	1	5
A	009015A	5	32	29	103	0.5	58	17	181	2.91	50	5	ND	ND	40	1	7	2	21	3.83	0.02	8	34	1.28	25	0.01	25	1.31	0.15	0.01	1	1	5
A	009016A	4	69	6	62	0.1	63	15	787	2.98	222	5	ND	ND	157	1	2	2	48	11.48	0.02	11	55	2.90	33	0.01	30	1.28	0.10	0.01	1	2	5
A	009017A	5	32	19	29	0.1	16	7	613	0.98	53	5	ND	ND	102	1	4	2	14	3.10	0.01	8	53	5.05	26	0.01	10	0.12	0.04	0.01	1	1	5
A	009018A	5	13	26	16	0.3	14	4	86	0.44	75	5	ND	ND	14	1	7	5	11	0.32	0.02	4	42	0.14	9	0.01	5	0.12	0.08	0.01	1	1	60
A	009019A	4	4	20	13	1.3	4	1	20	0.32	78	5	ND	ND	10	1	6	6	7	0.06	0.02	2	35	0.05	12	0.01	5	0.09	0.06	0.01	1	1	270
A	009020A	4	6	13	4	0.8	4	1	21	0.23	62	5	ND	ND	10	1	2	2	6	0.02	0.01	1	49	0.01	27	0.01	5	0.05	0.02	0.01	1	1	80
A	009021A	6	16	5	24	0.8	14	1	45	0.54	184	5	ND	ND	16	1	12	2	6	0.04	0.03	1	49	0.01	170	0.01	5	0.05	0.02	0.01	1	1	40
A	009022A	8	18	6	24	1.4	12	2	22	0.58	121	5	ND	ND	33	1	10	2	8	0.05	0.02	5	51	0.02	878	0.01	5	0.15	0.12	0.01	1	1	5
A	009023A	7	85	15	72	1.0	39	6	100	1.26	241	5	ND	ND	24	1	19	2	11	0.69	0.06	6	58	0.18	28	0.01	5	0.19	0.14	0.01	1	1	5
A	009024A	16	30	5	43	6.4	29	5	47	1.70	256	5	ND	ND	9	1	37	2	8	0.06	0.02	4	46	0.02	45	0.01	20	0.15	0.16	0.01	1	1	40
A	009025A	9	21	13	32	1.6	26	4	39	1.04	219	5	ND	ND	7	1	10	2	7	0.06	0.01	3	49	0.02	11	0.01	15	0.15	0.12	0.01	1	1	80
A	009026A	11	33	10	140	0.8	43	5	337	1.68	367	5	ND	ND	20	1	24	2	9	2.98	0.05	5	45	0.34	17	0.01	20	0.18	0.10	0.01	1	1	50
A	009027A	6	26	4	46	1.6	31	6	194	2.26	490	5	ND	ND	13	1	8	6	9	1.07	0.04	4	34	0.27	16	0.01	20	0.19	0.14	0.01	2	1	180
A	009028A	7	35	17	64	1.4	27	8	32	1.90	323	5	ND	ND	43	1	19	5	11	0.09	0.06	3	48	0.02	21	0.01	30	0.16	0.10	0.01	1	1	470
A	009029A	8	21	14	32	1.2	19	1	19	1.29	149	5	ND	ND	13	1	8	2	7	0.05	0.02	6	42	0.01	11	0.01	25	0.12	0.08	0.01	1	1	50
A	009030A	7	32	7	95	1.2	26	1	39	1.58	268	5	ND	ND	39	1	12	2	7	0.07	0.04	2	45	0.02	9	0.01	20	0.15	0.08	0.01	1	1	120
A	009031A	11	41	216	124	4.7	13	4	33	1.40	403	5	ND	ND	17	1	20	8	7	0.05	0.03	3	46	0.02	14	0.01	15	0.10	0.07	0.01	2	1	320
A	009032A	6	18	20	94	0.4	17	3	46	0.71	113	5	ND	ND	18	1	7	2	8	0.07	0.03	4	55	0.01	10	0.01	10	0.11	0.04	0.01	1	1	5
A	009033A	4	14	21	60	0.6	12	3	53	0.59	125	5	ND	ND	9	1	4	2	5	0.36	0.03	2	46	0.01	5	0.01	10	0.06	0.01	0.01	1	1	150
A	009034A	4	27	16	63	2.2	28	9	44	1.57	196	5	ND	ND	3	1	9	2	6	0.19	0.04	1	45	0.04	12	0.01	35	0.18	0.13	0.01	1	1	80
A	009035A	5	26	18	29	1.6	19	7	19	1.26	128	5	ND	ND	3	1	9	2	3	0.08	0.03	1	42	0.01	5	0.01	25	0.12	0.09	0.01	1	1	90
A	009036A	32	15	28	19	2.4	16	1	28	0.37	48	5	ND	ND	1	1	4	2	5	0.05	0.02	1	55	0.01	3	0.01	10	0.03	0.01	0.01	1	1	30
A	009037A	31	21	34	59	4.1	22	7	119	0.98	82	5	ND	ND	4	1	13	2	8	0.37	0.03	1	41	0.17	9	0.01	25	0.19	0.07	0.01	1	1	90
A	009038A	8	37	19	105	2.1	29	17	553	2.21	312	5	ND	ND	16	1	13	2	15	1.75	0.05	2	39	0.72	21	0.01	40	0.22	0.17	0.01	2	1	160
A	009039A	4	21	19	29	1.0	18	11	26	0.95	206	5	ND	ND	3	1	2	5	10	0.09	0.04	1	38	0.03	15	0.01	20	0.17	0.13	0.01	1	1	120
A	009040A	8	11	82	37	1.2	12	4	31	0.72	140	5	ND	ND	15	1	11	2	9	0.05	0.03	1	53	0.02	17	0.01	5	0.12	0.12	0.01	1	1	170

CERTIFIED BY : C. Rossbach

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90484
INVOICE # : 20005
DATE ENTERED : 90-09-28
FILE NAME : A&M90484.I
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	% B	% AL	% K	% SI	PPM W	PPM BE	PPB Au AA
A	0090441A	4	8	10	40	0.2	7	3	22	0.31	29	5	ND	ND	4	1	6	2	7	0.02	0.02	1	52	0.01	4	0.01	5	0.02	0.01	0.01	1	1	10
A	0090442A	6	15	32	65	0.2	13	2	60	0.36	37	5	ND	ND	29	1	2	2	6	2.94	0.01	3	49	0.02	8	0.01	5	0.03	0.01	0.01	2	1	30
A	0090443A	7	7	19	37	0.3	14	2	33	0.40	23	5	ND	ND	7	1	2	2	5	0.97	0.02	1	49	0.01	4	0.01	5	0.03	0.01	0.01	2	1	40
A	0090444A	12	3	27	32	0.5	15	1	35	0.45	39	5	ND	ND	5	1	2	2	5	0.65	0.02	1	56	0.01	3	0.01	5	0.02	0.01	0.01	1	1	30
A	0090445A	13	7	34	72	0.1	16	2	39	0.43	50	5	ND	ND	3	1	6	2	6	0.27	0.02	1	46	0.06	10	0.01	5	0.04	0.01	0.01	3	1	40
A	0090446A	7	24	28	93	0.6	17	3	57	0.56	102	5	ND	ND	5	2	20	5	7	0.48	0.02	3	56	0.25	8	0.01	10	0.04	0.01	0.01	1	1	50
A	0090447A	57	194	2235	5457	68.0	16	3	456	0.76	269	5	ND	ND	17	73	130	6	11	3.56	0.01	4	44	0.64	10	0.01	5	0.04	0.01	0.01	27	1	1260
A	0090448A	32	63	690	2119	13.8	14	2	137	0.45	102	5	ND	ND	5	31	38	12	9	0.92	0.02	3	56	0.14	4	0.01	10	0.03	0.01	0.01	9	1	460
A	0090449A	7	10	45	82	1.2	9	1	42	0.26	33	5	ND	ND	8	2	11	2	7	1.21	0.01	1	44	0.07	6	0.01	5	0.02	0.01	0.01	1	1	10
A	0090450A	12	19	47	256	2.0	14	3	61	0.68	63	5	ND	ND	12	4	8	3	8	0.31	0.01	4	51	0.41	11	0.01	5	0.05	0.06	0.01	2	1	160
A	0090514	6	12	23	60	0.3	9	2	50	0.31	35	5	ND	ND	8	1	2	15	8	0.96	0.01	1	51	0.07	5	0.01	5	0.03	0.01	0.01	1	1	20
A	0090520	9	22	24	205	0.8	17	5	677	0.61	94	5	ND	ND	74	4	2	2	10	7.66	0.01	9	46	1.14	25	0.01	5	0.08	0.01	0.01	1	1	190
A	0090526A	4	14	30	63	0.6	10	3	1937	0.52	60	5	ND	ND	85	1	2	6	9	10.71	0.01	13	25	0.57	28	0.01	20	0.07	0.01	0.01	1	1	30
A	0090540A	6	17	42	137	0.8	11	2	1080	0.38	86	5	ND	ND	64	3	2	3	8	9.70	0.01	10	28	0.13	18	0.01	5	0.05	0.01	0.01	1	1	20

CERTIFIED BY : R. Rossbach

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
PROJECT : 532
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90386
INVOICE # : 10518
DATE ENTERED : 90-08-26
FILE NAME : A&M90386.I
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM TH	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au AA
A	006251	3	17	24	25	0.2	5	6	531	1.27	33	5	ND	ND	25	1	12	12	3	1.76	0.01	26	44	0.04	82	0.01	26	0.15	0.14	0.01	5	1	5
A	006252	8	36	19	249	0.4	5	9	203	1.63	38	5	ND	ND	10	2	17	10	2	0.37	0.01	22	34	0.01	205	0.01	30	0.16	0.11	0.01	1	1	5
A	006253	4	26	1	26	0.1	7	2	2375	1.56	15	5	ND	ND	57	1	2	2	11	12.10	0.03	3	16	6.77	8	0.01	5	0.06	0.01	0.01	1	2	5
A	006254	10	28	8	32	0.2	30	24	712	2.49	53	5	ND	ND	41	1	10	2	39	6.48	0.10	2	32	0.97	112	0.03	32	1.94	0.15	0.02	1	2	5
A	006255	4	226	1	66	0.2	8	9	1161	2.24	14	5	ND	ND	111	1	9	2	35	12.51	0.08	4	19	1.36	113	0.01	30	0.85	0.16	0.01	1	2	5
A	006256	2	19	1	34	0.1	7	3	755	1.46	2	5	ND	ND	79	1	2	2	40	15.43	0.05	2	17	1.74	38	0.01	20	1.28	0.01	0.01	1	3	5
A	006257	6	18	46	31	2.4	7	1	54	0.43	438	5	ND	ND	30	1	26	9	4	0.20	0.02	2	65	0.03	42	0.01	5	0.09	0.01	0.01	1	1	30
A	006258	7	33	21	37	2.0	7	1	41	0.44	64	5	ND	ND	9	1	16	5	4	0.05	0.02	1	60	0.01	11	0.01	5	0.06	0.01	0.01	1	1	660
A	006259	7	11	49	76	1.0	5	3	287	0.61	125	5	ND	ND	5	1	10	7	4	0.18	0.01	5	57	0.07	29	0.01	21	0.15	0.06	0.01	1	1	40
A	006260	2	11	20	29	1.8	4	1	32	0.24	58	5	ND	ND	2	1	18	7	3	0.04	0.01	2	52	0.01	13	0.01	5	0.07	0.01	0.01	1	1	80
A	006261	6	136	919	67	66.0	23	5	127	0.76	182	5	ND	ND	29	2	148	11	5	3.43	0.05	1	57	0.06	16	0.01	30	0.07	0.01	0.01	8	1	420
A	006262	3	11	22	39	0.1	7	1	253	0.37	38	5	ND	ND	43	1	6	5	3	4.88	0.03	3	48	0.03	22	0.01	5	0.03	0.01	0.01	4	1	10
A	006263	5	12	28	73	0.5	25	2	159	0.65	947	5	ND	ND	21	2	8518	8	5	0.16	0.04	9	57	0.01	54	0.01	10	0.13	0.05	0.01	1	1	30
A	006264	2	36	21	68	1.3	7	4	1603	1.63	12424	5	ND	ND	44	1	180	2	14	5.79	0.07	5	26	3.41	25	0.01	12	0.15	0.10	0.01	4	2	170
A	006265	5	11	10	57	2.0	11	2	91	0.63	311	5	ND	ND	5	1	54	3	4	0.27	0.03	1	65	0.05	11	0.01	5	0.06	0.01	0.01	1	1	1240
A	006266	3	8	8	28	0.3	11	2	54	0.42	56	5	ND	ND	5	1	14	3	4	0.04	0.02	6	52	0.01	7	0.01	5	0.05	0.01	0.01	1	1	5
	006267	NO SAMPLE																															
A	006268	70	12	62	70	9.2	6	1	323	0.46	195	5	ND	ND	21	1	37	2	3	2.72	0.04	2	45	0.06	128	0.01	5	0.06	0.01	0.01	5	1	80
A	006269	2	24	1	18	0.1	1	1	2635	1.18	2	5	ND	ND	61	1	2	2	1	15.07	0.03	1	9	9.05	3	0.01	5	0.01	0.01	0.01	1	2	5
A	006270	1	12	1	12	0.2	3	1	225	0.16	2	5	ND	ND	55	1	2	2	1	13.49	0.02	1	25	0.67	222	0.01	5	0.01	0.01	0.01	1	1	5
A	006271	7	21	161	67	5.4	4	1	67	0.41	166	5	ND	ND	13	1	16	8	4	0.07	0.01	2	71	0.02	21	0.01	5	0.08	0.04	0.01	1	1	540
A	006272	7	12	13	55	0.4	13	2	69	0.66	300	5	ND	ND	10	1	8	3	4	0.12	0.03	3	75	0.04	29	0.01	20	0.05	0.01	0.01	1	1	5
A	006273	4	7	6	36	0.3	7	2	41	0.59	113	5	ND	ND	16	1	5	7	4	0.05	0.03	2	62	0.01	60	0.01	5	0.06	0.01	0.01	3	1	5
A	006274	2	7	2	45	0.1	3	1	300	1.34	14	5	ND	ND	29	1	2	3	3	0.69	0.01	33	62	0.12	621	0.01	11	0.11	0.10	0.01	4	1	5
A	003261	1	5	19	68	0.2	2	1	48	1.18	156	5	ND	ND	5	1	2	2	2	0.01	0.01	13	44	0.01	264	0.01	5	0.17	0.11	0.01	1	1	5

CERTIFIED BY : Rossbach

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3B1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : RAM-TOT
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90503
INVOICE # : 20029
DATE ENTERED : 90-10-10
FILE NAME : A&M90503.I
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au AA
A	903500	2	21	16	26	0.1	7	5	774	1.62	20	5	ND	ND	31	1	12	6	14	3.73	0.04	7	66	1.10	62	0.01	5	0.36	0.10	0.01	3	1	5
S	903501	4	75	21	154	0.2	38	19	1638	5.25	75	5	ND	ND	19	1	15	2	96	1.22	0.19	14	104	0.94	396	0.02	10	1.45	0.24	0.01	1	2	5
S	903502	3	82	19	139	0.1	52	24	1941	5.51	115	5	ND	ND	19	1	18	2	89	1.62	0.19	14	94	0.93	340	0.01	10	1.24	0.23	0.01	1	2	5
A	903503	1	30	1	52	0.1	5	2	2585	1.82	2	5	ND	ND	61	1	2	2	8	14.64	0.01	5	146	8.59	30	0.01	5	0.07	0.01	0.01	1	1	5
S	903504	6	107	20	223	0.8	71	40	1187	8.18	82	5	ND	ND	13	1	40	2	116	1.00	0.07	13	90	0.79	391	0.01	5	1.13	0.32	0.01	1	3	120
A	903505	2	5	7	12	0.1	5	1	47	0.91	1522	5	ND	ND	2	1	11	12	6	0.08	0.01	20	25	0.64	26	0.01	25	0.29	0.32	0.01	4	1	70
S	903506	7	14	14	44	0.2	7	4	444	2.97	178	5	ND	ND	8	1	10	4	10	0.57	0.01	75	17	0.23	688	0.01	15	0.32	0.24	0.01	2	2	100
S	903507	10	17	16	57	0.2	8	4	505	2.80	1364	5	ND	ND	14	1	24	7	10	0.61	0.01	77	20	0.33	681	0.01	5	0.31	0.16	0.01	2	2	270
S	903508	5	52	17	117	0.4	42	14	1323	4.64	349	5	ND	ND	14	1	13	2	72	0.53	0.05	73	85	1.05	876	0.02	5	1.81	0.30	0.01	2	3	5
A	903509	2	6	10	20	0.2	2	2	160	1.16	35	5	ND	ND	15	1	6	7	4	1.71	0.01	46	14	0.24	894	0.01	5	0.32	0.28	0.01	2	1	5
A	903510	2	4	8	16	0.2	3	1	59	1.21	18	5	ND	ND	2	1	7	14	6	0.06	0.01	55	39	0.02	66	0.01	5	0.14	0.13	0.01	3	1	5
S	903511	3	56	15	131	0.1	41	13	1227	4.87	166	5	ND	ND	8	1	14	2	88	0.31	0.11	8	98	0.80	168	0.02	5	1.60	0.19	0.01	1	2	5
S	903512	1	72	21	106	0.2	47	17	1112	3.36	139	5	ND	ND	36	1	13	2	61	2.42	0.10	10	76	1.22	416	0.04	10	1.36	0.32	0.01	1	2	20
S	903513	3	67	21	167	0.3	44	18	1785	4.34	647	5	ND	ND	16	1	23	2	57	1.18	0.12	16	63	1.07	432	0.04	15	1.38	0.55	0.01	1	2	50
S	903514	4	111	29	159	0.2	40	18	3118	4.39	358	5	ND	ND	14	1	46	2	57	2.29	0.16	13	73	1.81	386	0.02	10	1.36	0.25	0.01	3	2	60
S	903515	3	42	45	174	0.8	19	8	2563	3.44	149	5	ND	ND	12	1	25	2	40	1.42	0.12	25	42	1.01	206	0.03	5	1.87	0.23	0.01	1	2	110
S	903516	2	76	141	572	0.2	28	11	2300	3.47	302	5	ND	ND	34	2	180	2	41	5.60	0.14	10	62	2.22	319	0.02	15	1.03	0.24	0.01	57	2	2160
S	903517	1	42	18	94	0.4	88	29	962	5.10	80	5	ND	ND	14	1	13	2	117	1.39	0.09	8	144	3.72	133	0.11	5	2.72	0.82	0.01	1	3	5
S	903518	3	65	25	132	0.3	37	20	1317	4.77	167	5	ND	ND	16	1	23	2	57	1.39	0.14	13	56	1.12	213	0.03	15	1.39	0.48	0.01	1	2	5
S	903519	4	148	34	268	0.8	50	29	2264	4.47	318	5	ND	ND	14	1	61	4	55	1.12	0.10	19	52	0.74	333	0.02	10	1.19	0.19	0.01	1	2	20
S	903520	3	70	39	195	0.2	68	24	1289	4.62	195	5	ND	ND	15	2	16	2	66	1.35	0.09	18	81	1.42	320	0.06	5	1.76	0.35	0.01	1	2	20
S	903521	2	84	16	77	0.4	40	17	1177	4.41	59	5	ND	ND	16	1	5	2	94	2.38	0.08	12	98	3.07	224	0.16	5	2.83	1.01	0.01	1	2	5
S	903522	1	101	17	73	0.3	46	24	1110	4.86	32	5	ND	ND	21	1	4	2	97	1.87	0.09	11	105	3.37	182	0.20	5	2.97	1.05	0.01	1	2	5
S	903523	3	58	17	93	0.2	49	23	1233	4.83	251	5	ND	ND	10	1	8	2	101	0.64	0.10	27	99	2.71	392	0.12	5	2.62	0.54	0.01	1	3	30
S	903524	3	52	13	93	0.2	50	15	822	4.17	104	5	ND	ND	9	1	8	2	76	0.37	0.07	46	80	0.93	746	0.03	5	1.53	0.24	0.01	1	3	10
S	903525	1	63	13	65	0.3	59	16	631	3.63	56	5	ND	ND	12	1	11	2	80	0.47	0.03	31	87	1.08	210	0.04	5	1.62	0.17	0.01	1	3	5
S	903526	3	72	29	142	0.4	47	22	6833	4.71	95	5	ND	ND	12	2	10	2	76	1.21	0.20	18	59	0.56	583	0.02	15	1.64	0.17	0.01	1	3	5
S	903527	4	43	15	116	0.3	36	11	1034	4.14	391	5	ND	ND	9	1	9	2	56	0.69	0.14	30	50	0.49	363	0.01	5	1.26	0.23	0.01	1	3	5
S	903528	2	68	16	86	0.2	63	24	1031	4.67	70	5	ND	ND	58	1	16	2	85	1.93	0.10	10	87	2.21	251	0.06	5	1.75	0.51	0.01	1	2	5
S	903529	1	52	14	73	0.2	45	16	760	3.39	42	5	ND	ND	12	1	7	2	79	0.27	0.07	19	70	0.85	395	0.02	5	1.69	0.16	0.01	1	2	80
S	903530	3	30	10	111	0.3	31	10	335	3.44	48	5	ND	ND	12	1	9	6	45	0.39	0.02	34	60	0.72	322	0.01	5	1.25	0.20	0.01	2	3	120
S	903531	3	67	11	76	0.2	42	16	851	3.62	147	5	ND	ND	17	1	14	7	61	0.41	0.05	49	70	0.81	745	0.01	5	1.41	0.20	0.01	1	3	170
A	903532	4	10	12	17	0.2	4	2	136	1.79	22	5	ND	ND	25	1	6	7	4	0.59	0.01	14	46	0.22	127	0.01	35	0.17	0.16	0.01	4	1	5
S	903533	3	89	29	210	0.4	56	19	1561	4.03	107	5	ND	ND	17	1	16	3	57	0.62	0.10	100	71	0.69	597	0.01	5	1.22	0.23	0.01	3	3	70
A	903534	3	17	4	11	0.8	4	2	49	1.50	19	5	ND	ND	10	1	7	9	4	0.07	0.01	14	39	0.02	421	0.01	15	0.25	0.20	0.01	4	1	160
S	903535	3	137	10	147	0.2	44	21	826	6.80	238	5	ND	ND	13	1	17	2	131	0.52	0.09	11	56	0.97	176	0.01	5	1.37	0.14	0.01	1	3	5
S	903536	3	138	19	205	0.3	54	29	1108	7.13	496	5	ND	ND	13	1	20	2	127	0.45	0.11	10	55	0.68	226	0.01	5	1.07	0.18	0.01	1	3	20
S	903537	5	91	20	170	0.2	45	26	1752	7.28	337	5	ND	ND	9	1	15	2	105	0.36	0.10	16	38	0.34	343	0.01	5	0.85	0.18	0.01	2	3	5
S	903538	10	154	47	2046	0.2	58	28	1556	9.13	3901	5	ND	19	24	11	59	2	85	0.95	0.10	11	41	0.55	200	0.01	20	0.72	0.15	0.01	1	3	5
S	903539	8	122	17	145	0.4	38	32	2899	8.31	1226	5	ND	ND	8	1	13	2	105	0.31	0.12	15	50	0.42	645	0.01	5	0.88	0.14	0.01	1	3	120

CERTIFIED BY :

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3M1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : RAM-TOT
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 9050S
INVOICE # : 20029
DATE ENTERED : 90-10-10
FILE NAME : A&MP050S.I
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM PE	PPB Au AA
S	903540	7	92	22	397	0.4	37	26	1999	7.10	3196	5	ND	ND	24	1	34	2	55	1.07	0.12	15	38	0.60	497	0.01	15	0.59	0.23	0.01	1	2	60
S	903541	2	34	8	122	0.3	10	11	1611	3.94	80	5	ND	ND	81	1	8	2	41	8.08	0.07	13	71	3.29	43	0.01	15	0.46	0.23	0.01	1	2	5
S	903542	6	152	17	88	0.2	37	39	1299	6.67	432	5	ND	ND	24	1	14	2	127	1.20	0.14	8	49	0.87	178	0.01	20	0.93	0.19	0.01	1	3	40
S	903543	5	246	23	206	0.6	107	39	1922	5.28	1109	5	ND	ND	43	1	45	2	63	2.90	0.09	11	59	2.04	476	0.01	20	0.65	0.19	0.01	1	2	270
S	903544	1	68	23	77	0.3	47	21	1330	3.16	250	5	ND	ND	36	1	25	2	61	5.71	0.05	8	112	4.82	206	0.06	15	1.33	0.37	0.01	1	2	20
A	903545	1	4115	17	78	3.2	17	11	664	1.82	1445	5	ND	116	66	1	546	2	15	6.00	0.03	10	64	5.16	135	0.01	20	0.50	0.47	0.01	1	1	5
S	903546	2	109	11	91	0.2	58	28	1027	4.65	222	5	ND	ND	20	1	24	2	85	2.21	0.07	11	108	3.28	157	0.09	5	1.97	0.51	0.01	1	2	5
S	903547	1	39	17	93	0.2	76	27	888	4.61	129	5	ND	ND	23	1	2	2	104	1.70	0.08	10	150	5.05	243	0.19	5	3.29	1.15	0.01	1	2	5
S	903548	2	42	9	71	0.2	70	28	632	4.05	66	5	ND	ND	31	1	6	2	79	2.21	0.07	11	112	3.26	123	0.10	5	2.15	0.83	0.01	1	2	5
S	903549	3	33	3	64	0.2	29	17	660	2.75	39	5	ND	ND	66	1	13	2	42	7.97	0.04	19	35	0.88	130	0.01	5	0.52	0.35	0.01	1	2	5
S	903550	3	59	18	79	0.3	41	20	1221	5.28	154	5	ND	ND	15	1	11	3	99	0.85	0.12	9	67	0.99	363	0.02	5	1.61	0.14	0.01	1	2	5
S	903551	13	301	31	344	0.2	99	49	2130	8.93	924	5	ND	ND	21	2	46	2	123	1.47	0.13	18	64	0.88	284	0.01	20	1.11	0.11	0.02	1	3	5
S	903552	3	66	14	151	0.4	25	17	1668	6.66	249	5	ND	ND	11	1	19	2	82	0.64	0.22	7	35	0.26	278	0.01	9	0.86	0.14	0.01	1	2	5
S	903553	4	52	13	106	0.3	18	8	808	4.30	162	5	ND	ND	5	1	21	3	81	0.09	0.14	7	28	0.15	111	0.01	5	0.84	0.12	0.01	1	2	5
S	903554	4	88	7	91	0.3	23	12	1080	5.77	172	5	ND	ND	5	1	23	2	120	0.07	0.14	7	36	0.24	114	0.01	5	1.34	0.09	0.01	1	2	5
S	903555	4	85	14	77	0.2	23	11	731	5.51	208	5	ND	ND	6	1	12	2	112	0.13	0.10	11	39	0.31	192	0.01	5	1.65	0.09	0.01	1	3	5
S	903556	3	59	13	62	0.4	22	8	281	4.47	804	5	ND	ND	6	1	11	3	94	0.06	0.11	12	46	0.53	84	0.01	5	1.71	0.11	0.01	1	2	5
S	903557	3	61	6	101	0.3	19	12	1398	4.95	204	5	ND	ND	6	1	12	5	123	0.07	0.14	9	41	0.30	126	0.01	5	1.27	0.12	0.01	1	2	5
S	903558	3	33	18	84	0.2	20	9	808	3.87	161	5	ND	ND	8	1	6	5	104	0.25	0.14	11	39	0.40	456	0.01	5	1.36	0.11	0.01	1	2	5
S	903559	2	46	33	101	0.5	18	15	2541	5.28	117	5	ND	ND	9	1	5	3	145	0.20	0.18	6	60	0.70	194	0.02	5	1.93	0.12	0.01	1	3	5
S	903560	2	40	16	50	0.3	17	6	377	3.49	105	5	ND	ND	5	1	5	4	109	0.06	0.12	9	48	0.44	88	0.01	5	1.84	0.07	0.01	1	2	5
S	903561	3	37	14	41	0.2	25	6	286	2.36	80	5	ND	ND	8	1	8	10	78	0.16	0.13	9	73	0.42	174	0.01	5	1.47	0.08	0.01	1	2	5
S	903562	2	30	16	53	0.4	23	6	460	3.47	114	5	ND	ND	6	1	8	5	90	0.09	0.13	5	57	0.63	105	0.02	5	1.90	0.08	0.01	1	2	5
S	903563	2	39	11	61	0.3	22	8	471	3.84	86	5	ND	ND	7	1	5	8	92	0.07	0.06	9	57	0.82	65	0.02	5	1.32	0.10	0.01	1	2	5
S	903564	3	41	20	72	0.4	39	12	732	4.31	123	5	ND	ND	6	1	8	3	68	0.07	0.07	9	57	1.17	67	0.04	5	2.38	0.17	0.01	1	2	5
S	903565	4	143	16	102	0.6	54	25	1034	5.81	280	5	ND	ND	18	1	22	4	101	1.44	0.08	19	45	0.69	184	0.01	8	0.89	0.16	0.01	1	2	5
S	903566	5	621	16	179	2.0	28	19	624	6.30	392	5	ND	ND	14	1	161	4	94	1.19	0.08	9	35	0.53	245	0.01	15	0.80	0.15	0.01	1	2	5

CERTIFIED BY :

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90506
INVOICE # : 20027
DATE ENTERED : 90-10-12
FILE NAME : A&N90506.I
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CD	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% SI	PPM W	PPM BE	PPB Au
A	906281	3	10	50	9	4.3	5	2	46	0.16	29	5	ND	ND	14	1	18	4	3	1.75	0.02	3	43	0.02	8	0.01	5	0.03	0.01	0.01	3	1	5
A	906282	2	144	22	28	0.4	9	13	234	4.08	9	5	ND	ND	38	1	21	2	122	1.10	0.09	4	24	0.65	24	0.16	20	1.58	0.25	0.03	1	2	5
A	906283	3	137	15	25	0.3	41	9	185	4.51	17	5	ND	ND	34	1	16	2	98	1.01	0.16	4	78	1.23	51	0.19	20	1.73	0.63	0.03	1	2	5
A	906284	1	22	1	72	0.2	1	1	537	0.19	2	5	ND	ND	106	1	2	1	2	27.68	0.01	2	8	1.14	18	0.01	5	0.05	0.05	0.01	1	1	5
A	906285	5	7	10	46	0.4	13	4	115	0.62	915	5	ND	ND	19	1	70	9	6	0.88	0.11	2	25	0.07	41	0.01	5	0.16	0.06	0.01	3	1	60
S	906301	3	58	17	77	0.4	34	10	655	3.60	107	5	ND	ND	10	1	5	2	71	0.42	0.05	11	57	1.08	267	0.04	5	1.54	0.12	0.01	1	2	20
A	906302	2	9	8	22	0.2	4	1	103	1.44	49	5	ND	ND	6	1	2	5	8	0.16	0.01	31	18	0.06	222	0.01	5	0.24	0.15	0.01	1	1	70
A	906303	4	4	7	39	0.2	3	1	91	1.26	27	5	ND	ND	8	1	2	6	4	0.19	0.01	27	29	0.06	246	0.01	5	0.30	0.15	0.01	1	1	100
S	906304	3	27	7	156	0.3	15	6	1585	2.71	50	5	ND	ND	6	1	4	2	29	0.22	0.05	71	35	0.25	661	0.01	5	0.87	0.18	0.01	1	3	5
S	906305	4	46	14	145	0.2	24	10	883	3.15	83	5	ND	ND	7	1	10	2	47	0.28	0.02	23	37	0.67	839	0.01	5	1.08	0.18	0.01	1	3	5
S	906306	3	40	21	107	0.2	37	17	1526	4.30	118	5	ND	ND	9	1	6	2	64	0.66	0.07	19	56	1.41	368	0.06	5	1.72	0.49	0.01	1	2	5
S	906308	3	62	17	114	0.1	33	15	935	4.62	53	5	ND	ND	8	1	6	2	78	0.51	0.07	17	51	1.28	302	0.04	5	1.80	0.24	0.01	1	2	80
S	906309	2	60	18	109	0.3	45	20	1238	4.17	43	5	ND	ND	11	1	7	2	88	0.84	0.06	18	69	2.44	471	0.09	5	2.35	0.56	0.01	1	2	5
S	906310	4	52	13	162	0.2	38	12	814	3.24	65	5	ND	ND	17	1	5	2	59	0.64	0.07	18	40	0.77	610	0.02	5	1.36	0.17	0.01	1	3	5
S	906311	1	28	1	62	0.1	2	1	99	0.37	2	5	ND	ND	370	1	2	2	3	19.66	0.01	18	8	0.58	295	0.01	5	0.21	0.13	0.01	1	2	10
S	906312	2	69	18	214	0.2	13	5	677	2.30	37	5	ND	ND	158	1	7	2	27	6.12	0.03	39	27	0.57	685	0.01	5	0.75	0.46	0.01	1	3	10
S	906313	2	111	9	103	0.3	29	24	1510	6.49	193	5	ND	ND	10	1	11	2	145	0.41	0.08	15	47	0.53	227	0.01	5	1.31	0.16	0.01	1	3	20
A	906314	1	109	16	32	0.2	8	23	664	5.02	20	5	ND	ND	52	1	5	2	169	2.33	0.13	9	46	1.46	166	0.01	10	0.66	0.11	0.01	1	3	5
S	906315	2	99	15	140	0.2	30	16	942	5.01	242	5	ND	ND	10	1	21	2	87	0.54	0.09	12	32	0.36	240	0.01	5	0.85	0.17	0.01	1	2	20
S	906316	3	74	14	90	0.2	35	19	773	5.64	145	5	ND	ND	21	1	11	2	111	1.59	0.10	11	38	0.49	269	0.01	20	0.80	0.16	0.01	1	3	20
S	906317	3	69	14	92	0.1	24	16	829	4.34	181	5	ND	ND	22	1	11	2	75	1.83	0.08	22	28	0.61	448	0.01	10	0.67	0.22	0.01	1	2	30
S	906318	2	46	17	97	0.1	21	11	645	3.59	131	5	ND	ND	20	1	10	2	65	1.83	0.09	23	29	0.79	446	0.02	5	1.07	0.36	0.01	1	2	30
A	906319	1	13	14	43	0.2	10	4	240	1.72	23	5	ND	ND	30	1	8	4	10	3.65	0.01	16	37	1.23	512	0.01	5	0.29	0.20	0.01	1	1	5
P	906320	5	6	4	36	0.3	11	3	308	2.77	293	5	ND	ND	9	1	4	2	7	0.32	0.01	27	29	0.09	840	0.01	5	0.28	0.21	0.02	1	1	90
A	906321	2	5	4	17	0.4	3	2	98	1.08	19	5	ND	ND	32	1	5	8	4	1.10	0.01	33	34	0.23	699	0.01	5	0.22	0.18	0.01	1	1	50
S	906322	2	42	16	130	0.2	68	25	1085	4.84	448	5	ND	ND	11	1	10	2	77	1.10	0.07	10	30	1.72	299	0.05	5	1.79	0.33	0.01	1	2	70
S	906323	5	115	67	596	0.2	71	28	4765	6.46	706	5	ND	ND	12	1	56	2	60	2.28	0.12	12	56	1.71	541	0.01	8	1.24	0.29	0.01	1	2	260
S	906324	2	59	27	110	0.2	40	21	1077	4.53	557	5	ND	ND	19	1	29	2	57	2.20	0.07	13	46	1.67	206	0.03	5	1.04	0.32	0.01	1	2	110
S	906325	2	49	17	79	0.4	46	19	1053	5.69	312	5	ND	ND	30	1	16	2	56	4.17	0.07	11	57	2.51	220	0.03	5	1.12	0.42	0.01	1	2	40
S	906326	1	33	21	64	0.1	40	14	1827	2.44	105	5	ND	ND	39	1	4	2	43	7.48	0.05	7	79	4.80	159	0.02	5	1.42	0.21	0.01	1	2	30
A	906327	3	35	12	12	0.3	3	2	36	0.69	22	5	ND	ND	5	1	19	6	5	0.03	0.01	34	14	0.02	81	0.01	5	0.16	0.15	0.01	2	1	5
S	906328	1	39	13	90	0.4	90	25	724	5.00	46	5	ND	ND	16	1	3	2	122	1.77	0.06	7	119	4.38	108	0.16	5	3.32	1.09	0.01	1	3	5
S	906329	1	65	22	76	0.4	40	17	881	3.98	66	5	ND	ND	45	1	6	2	61	3.78	0.09	14	46	1.95	171	0.06	5	1.69	0.65	0.01	1	2	5
A	906329	2	6	13	21	0.2	5	2	91	1.21	121	5	ND	ND	11	1	5	10	6	0.49	0.01	40	19	0.06	741	0.01	15	0.35	0.27	0.01	1	1	5

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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
PROJECT : ARMENO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90506
INVOICE # : 20027
DATE ENTERED : 90-10-12
FILE NAME : A&M90506.1
PAGE # : 3

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM TH	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au
S	901200	5	37	17	122	0.3	29	13	740	3.52	142	5	ND	ND	18	1	10	4	44	1.28	0.11	9	22	0.38	238	0.01	8	0.92	0.40	0.01	1	2	5
S	901201	2	73	23	150	0.2	28	10	1137	3.76	158	5	ND	ND	11	1	9	2	57	0.91	0.10	18	45	1.66	184	0.09	5	2.07	0.52	0.01	1	2	5
A	901202	1	45	13	60	0.3	22	6	192	3.31	21	5	ND	ND	4	1	2	2	33	0.21	0.05	10	66	1.91	166	0.20	5	2.38	1.92	0.02	1	1	5
S	901203	11	69	39	244	0.3	26	21	2573	6.06	644	5	ND	ND	8	1	21	2	58	0.53	0.14	13	33	0.31	296	0.01	5	0.89	0.24	0.01	1	2	5
S	901204	2	42	45	230	0.2	35	13	1090	2.56	88	5	ND	ND	42	1	20	2	44	7.27	0.09	10	45	1.88	359	0.03	10	1.05	0.48	0.01	1	2	30
S	901205	1	44	23	113	0.4	67	23	1134	4.10	50	5	ND	ND	10	1	7	2	95	0.91	0.09	8	88	3.10	116	0.13	5	2.49	0.72	0.01	1	2	5
A	901206	2	6	8	45	0.1	6	2	83	1.50	6	5	ND	ND	3	1	4	10	7	0.05	0.01	46	34	0.09	62	0.02	5	0.35	0.17	0.01	4	1	5
A	901207	2	5	13	80	0.2	4	1	116	1.41	3	5	ND	ND	2	1	2	6	4	0.14	0.01	44	21	0.03	55	0.02	5	0.19	0.15	0.01	4	1	5
S	901208	3	44	23	184	0.5	37	19	2133	4.59	80	5	ND	ND	9	1	7	2	69	0.45	0.14	29	47	1.09	279	0.05	5	1.66	0.46	0.01	1	2	5
A	901209	2	51	24	129	0.4	49	21	829	4.47	139	5	ND	ND	10	1	18	2	70	0.77	0.07	23	56	1.44	300	0.07	5	1.81	0.32	0.01	1	2	5
S	901210	2	56	20	127	0.4	36	16	1557	3.16	30	5	ND	ND	16	1	4	2	68	1.53	0.15	9	50	1.97	206	0.08	10	1.88	0.50	0.01	1	2	5
S	901211	2	92	23	79	0.4	42	19	933	4.39	25	5	ND	ND	14	1	3	2	86	1.48	0.08	12	63	2.97	141	0.17	10	2.67	1.03	0.01	1	2	5
S	901212	1	9	20	24	0.4	48	14	216	1.49	12	5	ND	ND	47	1	5	2	42	1.45	0.04	1	64	1.46	11	0.17	5	1.24	0.01	0.01	2	1	5
S	901213	4	30	21	118	0.3	29	14	808	3.31	330	5	ND	ND	9	1	5	2	46	0.42	0.09	27	37	0.60	598	0.02	5	1.05	0.31	0.01	1	3	20
A	901214	2	27	15	86	0.2	23	8	1361	2.43	41	5	ND	ND	6	1	5	2	39	0.27	0.08	45	29	0.38	486	0.01	5	1.07	0.19	0.01	1	3	5
S	901215	2	54	18	112	0.2	40	14	912	3.56	49	5	ND	ND	13	1	4	2	73	0.46	0.07	25	52	0.89	557	0.02	5	1.62	0.20	0.01	1	3	5
A	901216	2	8	14	44	0.3	4	3	226	1.40	14	5	ND	ND	64	1	4	7	6	0.63	0.01	47	27	0.12	618	0.01	5	0.19	0.15	0.01	3	1	100
A	901217	1	61	13	72	0.4	3	2	155	0.69	14	5	ND	ND	23	1	18	2	5	0.55	0.01	44	23	0.05	578	0.01	10	0.22	0.19	0.01	3	1	5
S	901218	3	55	20	234	0.2	26	14	2272	2.40	52	5	ND	ND	41	1	9	2	39	2.01	0.21	16	27	0.34	1255	0.01	10	0.77	0.18	0.01	1	2	5
S	901219	7	89	27	157	0.4	37	15	900	3.40	54	5	ND	ND	24	1	9	2	74	0.36	0.06	24	45	0.86	364	0.04	5	1.52	0.18	0.01	1	3	5
A	901220	2	15	18	637	0.3	4	2	426	0.84	21	5	ND	ND	64	3	8	2	5	2.34	0.01	28	24	0.15	356	0.01	20	0.22	0.18	0.01	2	1	5
A	901221	3	22	12	55	0.6	5	4	153	0.63	15	5	ND	ND	19	1	7	8	4	0.45	0.01	19	32	0.02	276	0.01	20	0.23	0.22	0.01	2	1	10
S	901222	2	72	15	98	0.2	45	15	606	3.72	69	5	ND	ND	19	1	3	2	99	0.37	0.07	9	67	0.97	220	0.06	5	1.62	0.08	0.01	1	2	5
S	901223	4	74	28	434	0.4	37	20	2554	3.47	92	5	ND	ND	29	4	9	2	52	1.19	0.16	23	36	0.44	714	0.01	12	1.04	0.20	0.01	1	2	20
A	901224	1	31	1	47	0.1	1	1	2949	0.53	2	5	ND	ND	195	1	2	2	1	21.57	0.01	9	77	6.71	71	0.01	5	0.08	0.01	0.01	1	1	5
A	901225	2	22	20	28	0.3	32	12	989	2.85	447	5	ND	ND	109	1	18	2	24	3.99	0.02	23	58	1.90	181	0.01	20	1.02	0.25	0.01	1	2	160
S	901226	1	49	13	77	0.4	42	16	893	3.43	33	5	ND	ND	25	1	6	2	95	0.52	0.05	5	54	1.00	218	0.05	5	1.68	0.15	0.01	1	2	5
S	901227	2	68	18	136	0.3	56	21	1255	4.14	75	5	ND	ND	16	1	4	2	82	0.55	0.08	13	59	0.73	60	0.02	5	1.44	0.15	0.01	1	2	5
S	901228	5	90	29	211	0.4	76	31	715	4.45	754	5	ND	ND	48	1	12	2	62	2.83	0.19	11	29	0.67	124	0.01	20	0.87	0.16	0.01	3	2	10
S	901229	4	64	12	225	0.2	55	17	789	2.75	56	5	ND	ND	88	1	6	2	53	1.69	0.14	6	45	0.63	143	0.02	20	0.83	0.28	0.01	1	1	5
S	901230	5	87	20	317	0.2	74	21	416	3.56	77	5	ND	ND	27	2	25	2	41	1.34	0.13	9	35	0.62	95	0.01	15	0.65	0.20	0.01	1	2	50
A	901231	1	3	5	9	0.2	4	1	27	0.30	9	5	ND	ND	3	1	3	4	3	0.07	0.01	31	24	0.02	69	0.01	5	0.32	0.39	0.01	4	1	5
A	901232	2	10	15	11	0.4	3	3	116	0.56	17	5	ND	ND	14	1	5	7	3	0.24	0.01	37	39	0.62	417	0.01	20	0.12	0.16	0.01	3	1	5
A	901233	2	3	5	4	0.3	4	2	12	0.40	128	5	ND	ND	4	1	2	6	2	0.03	0.01	40	26	0.01	151	0.01	30	0.25	0.27	0.01	4	1	620
S	901234	4	29	18	191	0.4	20	12	2480	1.37	36	5	ND	ND	33	4	4	2	24	1.57	0.10	16	19	0.22	662	0.01	25	0.45	0.21	0.01	3	1	5
S	901235	3	35	21	196	0.2	23	19	1071	2.17	32	5	ND	ND	21	6	5	2	54	0.66	0.06	16	26	0.19	484	0.01	5	0.89	0.18	0.01	4	1	30
S	901236	4	28	16	98	0.4	17	9	290	2.21	50	5	ND	ND	12	1	7	2	43	0.34	0.04	13	24	0.18	198	0.01	5	0.58	0.18	0.01	3	1	5
A	901237	1	17	1	8	0.2	1	1	66	0.16	2	5	ND	ND	183	1	2	2	1	22.67	0.01	7	10	0.15	22	0.01	5	0.04	0.01	0.01	1	1	5
S	901238	2	41	10	90	0.2	32	12	265	3.29	41	5	ND	ND	16	1	3	2	89	0.74	0.04	9	50	0.61	124	0.02	5	1.87	0.09	0.01	2	2	5
S	901239	3	21	17	94	0.4	23	9	543	2.97	41	5	ND	ND	13	1	4	2	73	0.45	0.05	6	34	0.31	176	0.01	5	1.26	0.12	0.01	1	2	5

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CERTIFICATE OF ANALYSIS

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

PROJECT : ARNEHO
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90506
INVOICE # : 20027
DATE ENTERED : 90-10-12
FILE NAME : A&M90506.F
PAGE # : 4

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% K	% S	PPM W	PPM BE	PPB Au
S	901240	4	22	20	101	0.2	23	11	276	3.03	47	5	ND	ND	8	1	8	2	68	0.19	0.04	5	35	0.29	91	0.01	5	1.33	0.10	0.01	3	2	5
S	901241	1	27	14	77	0.2	25	12	1467	2.90	23	5	ND	ND	8	1	7	2	86	0.14	0.10	4	43	0.45	109	0.04	5	1.18	0.10	0.01	2	2	5
S	901242	5	120	153	204	2.0	41	35	1005	6.24	660	5	ND	ND	85	1	68	2	16	8.03	0.10	8	29	0.39	161	0.01	20	0.31	0.21	0.02	1	2	1600
A	901243R	1	13	22	63	0.3	23	24	412	4.45	208	5	ND	ND	40	1	15	2	14	3.33	0.15	7	23	0.55	77	0.01	30	0.43	0.43	0.02	1	1	80
A	901243A	1	16	19	80	0.4	33	31	890	5.73	23	5	ND	ND	59	1	8	2	95	2.47	0.15	6	63	2.61	37	0.17	5	2.43	0.23	0.01	1	2	5
S	901244	3	56	16	178	0.2	43	21	731	2.69	62	5	ND	ND	38	1	15	2	52	1.68	0.16	7	23	0.37	126	0.01	30	0.54	0.21	0.01	1	2	5
S	901245	3	65	19	95	0.1	51	24	582	3.47	82	5	ND	ND	30	1	18	2	62	2.27	0.15	5	33	0.40	121	0.01	20	0.79	0.22	0.01	2	2	10
A	901246	2	33	15	60	0.2	25	24	561	3.53	10	5	ND	ND	86	1	7	2	85	1.96	0.16	7	50	1.28	29	0.14	5	2.32	0.16	0.02	1	2	5
S	901247	2	61	12	103	0.1	43	15	717	3.27	46	5	ND	ND	19	1	10	2	61	0.74	0.11	16	36	0.85	119	0.03	5	1.33	0.19	0.01	2	2	5

CERTIFIED BY : D. Rossbacher

APPENDIX II

Statistical Treatment of Soil Analytical Results

ROSSBACHER LABORATORY LTD.

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British Columbia, Can. V5B 3N1
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STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : AU
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-12-10
PROJECT : RAM-TOT

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 14.0	71	5.35	65.74	65.74
14.0 - 28.0	12	20.00	11.11	76.85
28.0 - 42.0	7	32.86	6.48	83.33
42.0 - 56.0	2	50.00	1.85	85.19
56.0 - 70.0	2	60.00	1.85	87.04
70.0 - 84.0	4	75.00	3.70	90.74
84.0 - 98.0	0	0.00	0.00	90.74
98.0 - 112.0	3	106.67	2.78	93.52
112.0 - 126.0	3	120.00	2.78	96.30
126.0 - 140.0	0	0.00	0.00	96.30
140.0 - 154.0	0	0.00	0.00	96.30
154.0 - 168.0	0	0.00	0.00	96.30
168.0 - 182.0	1	170.00	0.93	97.22
182.0 - 196.0	0	0.00	0.00	97.22
196.0 - 210.0	0	0.00	0.00	97.22
210.0 - 224.0	0	0.00	0.00	97.22
224.0 - 238.0	0	0.00	0.00	97.22
238.0 - 252.0	0	0.00	0.00	97.22
252.0 - 266.0	1	260.00	0.93	98.15
266.0 - 280.0	2	270.00	1.85	100.00
280.0 - 294.0	0	0.00	0.00	100.00

	For Statistics	For All Data
Number Of Samples :	108	110
Arithmetic Mean :	27.96	N/A
Standard Deviation :	51.58	N/A
Minimum Value :	5.00	5.00
Maximum Value :	270.00	2160.00

FILES USED FOR STATISTICS

A&M90503.I A&M90506.I

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

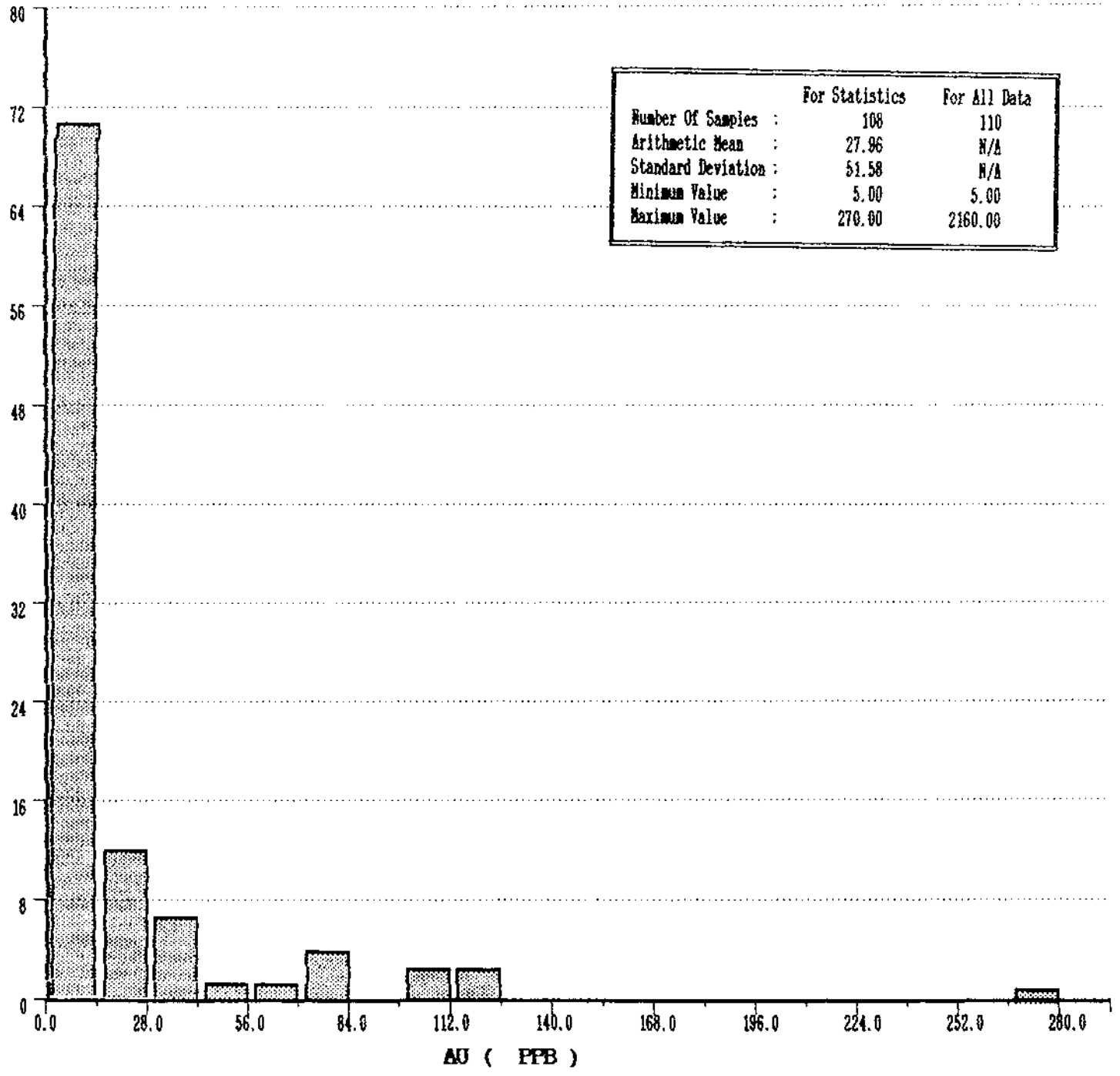
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : AU
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-12-10
PROJECT : RAM-TOT

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	108	110
Arithmetic Mean :	27.96	N/A
Standard Deviation :	51.58	N/A
Minimum Value :	5.00	5.00
Maximum Value :	270.00	2160.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

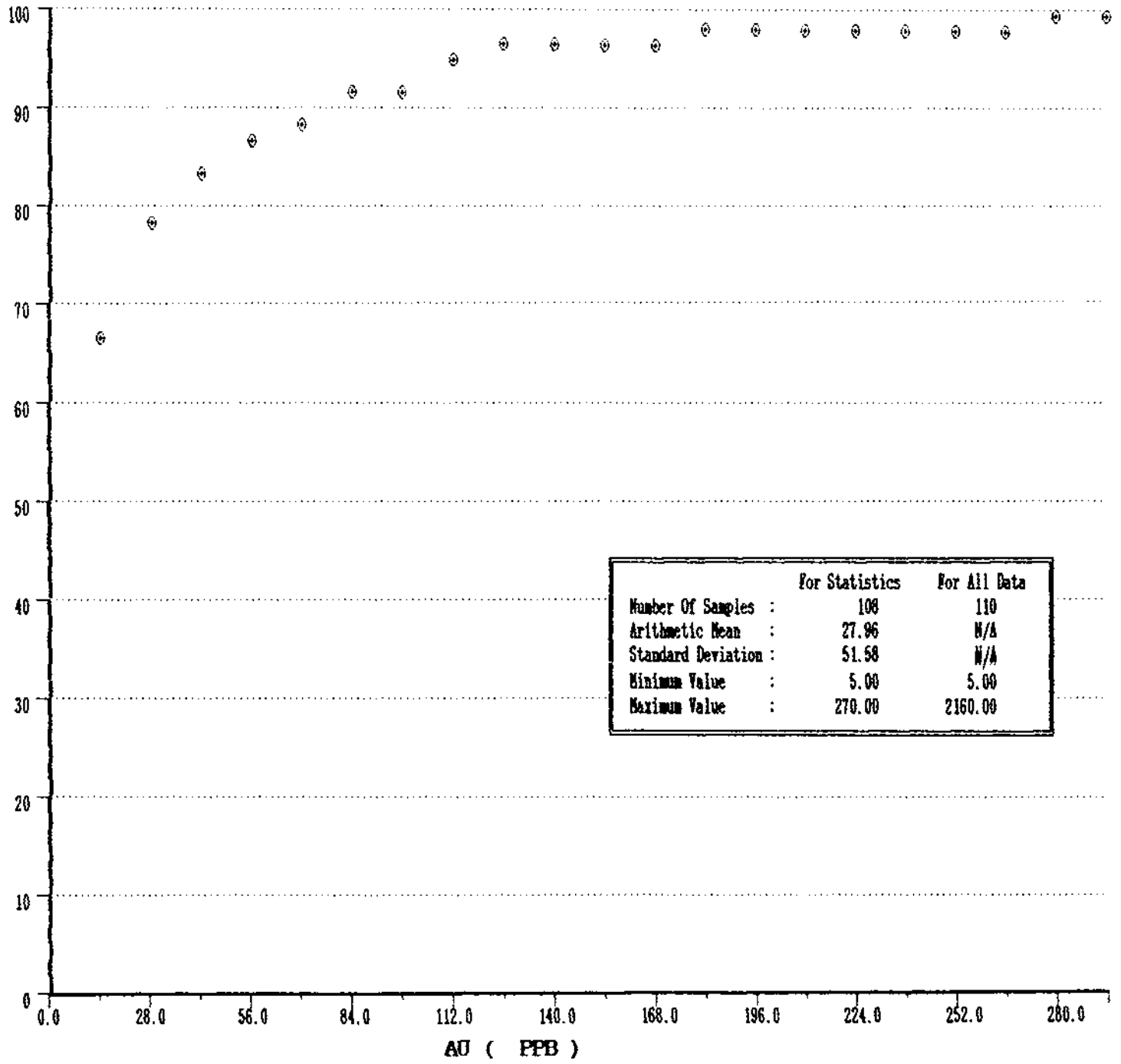
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : AU
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-12-10
PROJECT : RAM-TOT

CUMULATIVE FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	108	110
Arithmetic Mean :	27.96	N/A
Standard Deviation :	51.58	N/A
Minimum Value :	5.00	5.00
Maximum Value :	270.00	2160.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

STATISTICAL REPORT

TO : *A&M EXPLORATION LTD.*
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
ELEMENT : *AS*
SAMPLE TYPE : *SOIL*

CERTIFICATE # : *VARIOUS*
INVOICE # : *NA*
DATE ENTERED : *90-11-13*
PROJECT : *535*

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 46.0	15	31.20	14.29	14.29
46.0 - 92.0	31	64.39	29.52	43.81
92.0 - 138.0	14	111.57	13.33	57.14
138.0 - 184.0	14	158.64	13.33	70.48
184.0 - 230.0	5	204.40	4.76	75.24
230.0 - 276.0	4	247.00	3.81	79.05
276.0 - 322.0	4	303.00	3.81	82.86
322.0 - 368.0	4	343.50	3.81	86.67
368.0 - 414.0	2	391.50	1.90	88.57
414.0 - 460.0	2	440.00	1.90	90.48
460.0 - 506.0	1	496.00	0.95	91.43
506.0 - 552.0	0	0.00	0.00	91.43
552.0 - 598.0	0	0.00	0.00	91.43
598.0 - 644.0	0	0.00	0.00	91.43
644.0 - 690.0	4	652.00	3.81	95.24
690.0 - 736.0	2	705.50	1.90	97.14
736.0 - 782.0	1	754.00	0.95	98.10
782.0 - 828.0	1	804.00	0.95	99.05
828.0 - 874.0	0	0.00	0.00	99.05
874.0 - 920.0	0	0.00	0.00	99.05
920.0 - 966.0	1	924.00	0.95	100.00

	For Statistics	For All Data
Number Of Samples :	105	110
Arithmetic Mean :	185.74	N/A
Standard Deviation :	197.53	N/A
Minimum Value :	2.00	2.00
Maximum Value :	924.00	3901.00

FILES USED FOR STATISTICS

A&M90503.I A&M90506.I

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

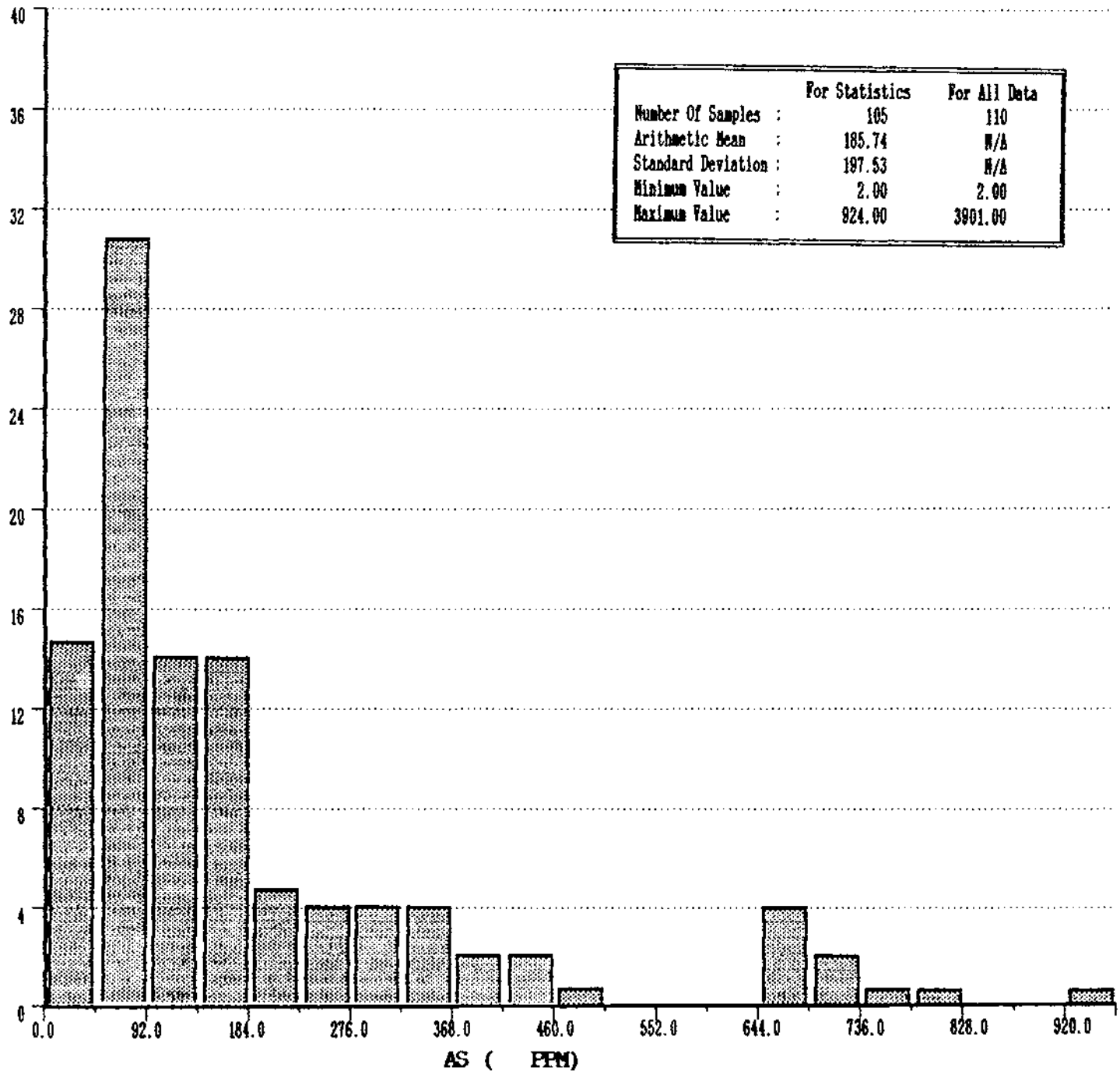
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : AS
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	105	110
Arithmetic Mean :	185.74	N/A
Standard Deviation :	197.53	N/A
Minimum Value :	2.00	2.00
Maximum Value :	924.00	3901.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

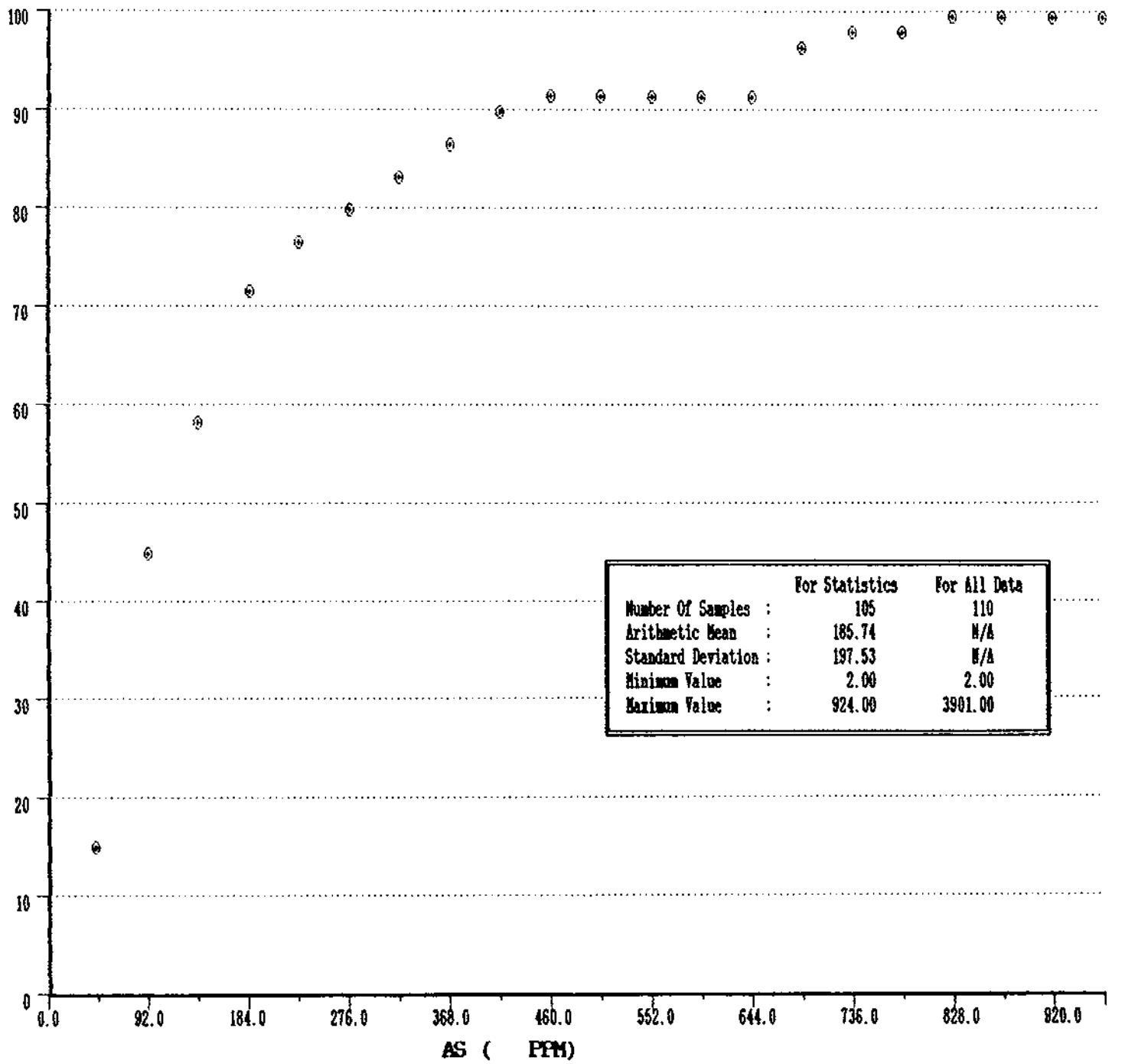
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : AS
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

CUMULATIVE FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	105	110
Arithmetic Mean :	185.74	N/A
Standard Deviation :	197.53	N/A
Minimum Value :	2.00	2.00
Maximum Value :	924.00	3901.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

STATISTICAL REPORT

TO : *A&M EXPLORATION LTD.*
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.
ELEMENT : *SB*
SAMPLE TYPE : *SOIL*

CERTIFICATE # : *VARIOUS*
INVOICE # : *NA*
DATE ENTERED : *90-11-13*
PROJECT : *535*

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 9.0	43	5.40	39.09	39.09
9.0 - 18.0	38	12.08	34.55	73.64
18.0 - 27.0	17	21.88	15.45	89.09
27.0 - 36.0	2	31.50	1.82	90.91
36.0 - 45.0	1	40.00	0.91	91.82
45.0 - 54.0	3	45.67	2.73	94.55
54.0 - 63.0	3	58.67	2.73	97.27
63.0 - 72.0	1	68.00	0.91	98.18
72.0 - 81.0	0	0.00	0.00	98.18
81.0 - 90.0	0	0.00	0.00	98.18
90.0 - 99.0	0	0.00	0.00	98.18
99.0 - 108.0	0	0.00	0.00	98.18
108.0 - 117.0	0	0.00	0.00	98.18
117.0 - 126.0	0	0.00	0.00	98.18
126.0 - 135.0	0	0.00	0.00	98.18
135.0 - 144.0	0	0.00	0.00	98.18
144.0 - 153.0	0	0.00	0.00	98.18
153.0 - 162.0	1	161.00	0.91	99.09
162.0 - 171.0	0	0.00	0.00	99.09
171.0 - 180.0	0	0.00	0.00	99.09
180.0 - 189.0	1	180.00	0.91	100.00

	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	17.16	N/A
Standard Deviation :	24.63	N/A
Minimum Value :	2.00	2.00
Maximum Value :	180.00	180.00

FILES USED FOR STATISTICS

A&M90503.I A&M90506.I

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

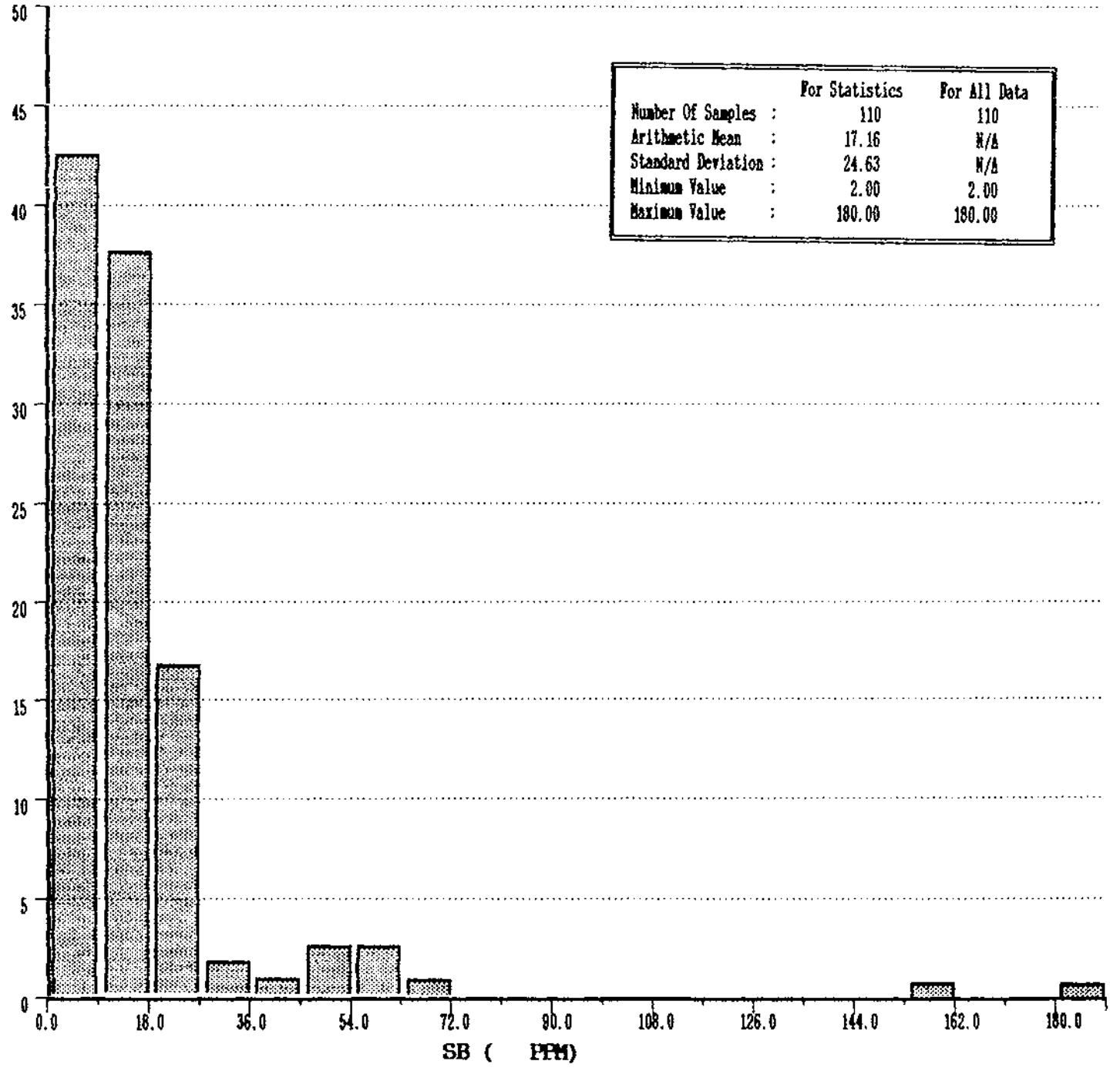
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : SB
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	17.16	N/A
Standard Deviation :	24.63	N/A
Minimum Value :	2.00	2.00
Maximum Value :	180.00	180.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

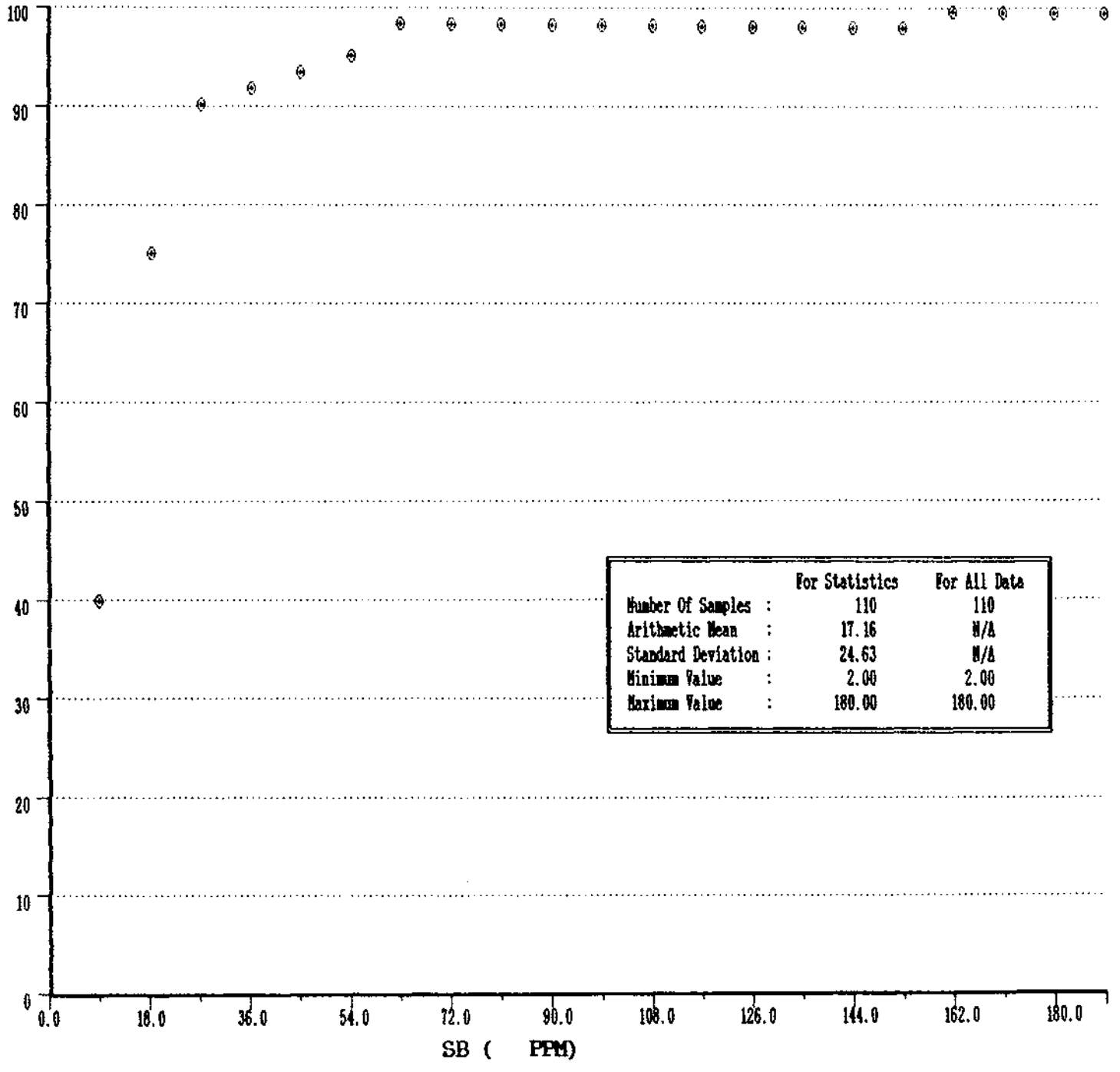
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : SB
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

CUMULATIVE FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	17.16	N/A
Standard Deviation :	24.63	N/A
Minimum Value :	2.00	2.00
Maximum Value :	180.00	180.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

STATISTICAL REPORT

TO : *A&M EXPLORATION LTD.*
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : *ZN*
SAMPLE TYPE : *SOIL*

CERTIFICATE # : *VARIOUS*
INVOICE # : *NA*
DATE ENTERED : *90-11-13*
PROJECT : *535*

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 29.0	1	24.00	0.92	0.92
29.0 - 58.0	5	49.00	4.59	5.50
58.0 - 87.0	23	73.39	21.10	26.61
87.0 - 116.0	31	99.55	28.44	55.05
116.0 - 145.0	12	129.33	11.01	66.06
145.0 - 174.0	12	155.25	11.01	77.06
174.0 - 203.0	7	185.29	6.42	83.49
203.0 - 232.0	9	214.22	8.26	91.74
232.0 - 261.0	2	239.00	1.83	93.58
261.0 - 290.0	1	268.00	0.92	94.50
290.0 - 319.0	1	317.00	0.92	95.41
319.0 - 348.0	1	344.00	0.92	96.33
348.0 - 377.0	0	0.00	0.00	96.33
377.0 - 406.0	2	396.50	1.83	98.17
406.0 - 435.0	1	434.00	0.92	99.08
435.0 - 464.0	0	0.00	0.00	99.08
464.0 - 493.0	0	0.00	0.00	99.08
493.0 - 522.0	0	0.00	0.00	99.08
522.0 - 551.0	0	0.00	0.00	99.08
551.0 - 580.0	1	572.00	0.92	100.00
580.0 - 609.0	0	0.00	0.00	100.00

	For Statistics	For All Data
Number Of Samples :	109	110
Arithmetic Mean :	136.60	N/A
Standard Deviation :	85.75	N/A
Minimum Value :	24.00	24.00
Maximum Value :	572.00	2046.00

FILES USED FOR STATISTICS

A&M90503.I A&M90506.I

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

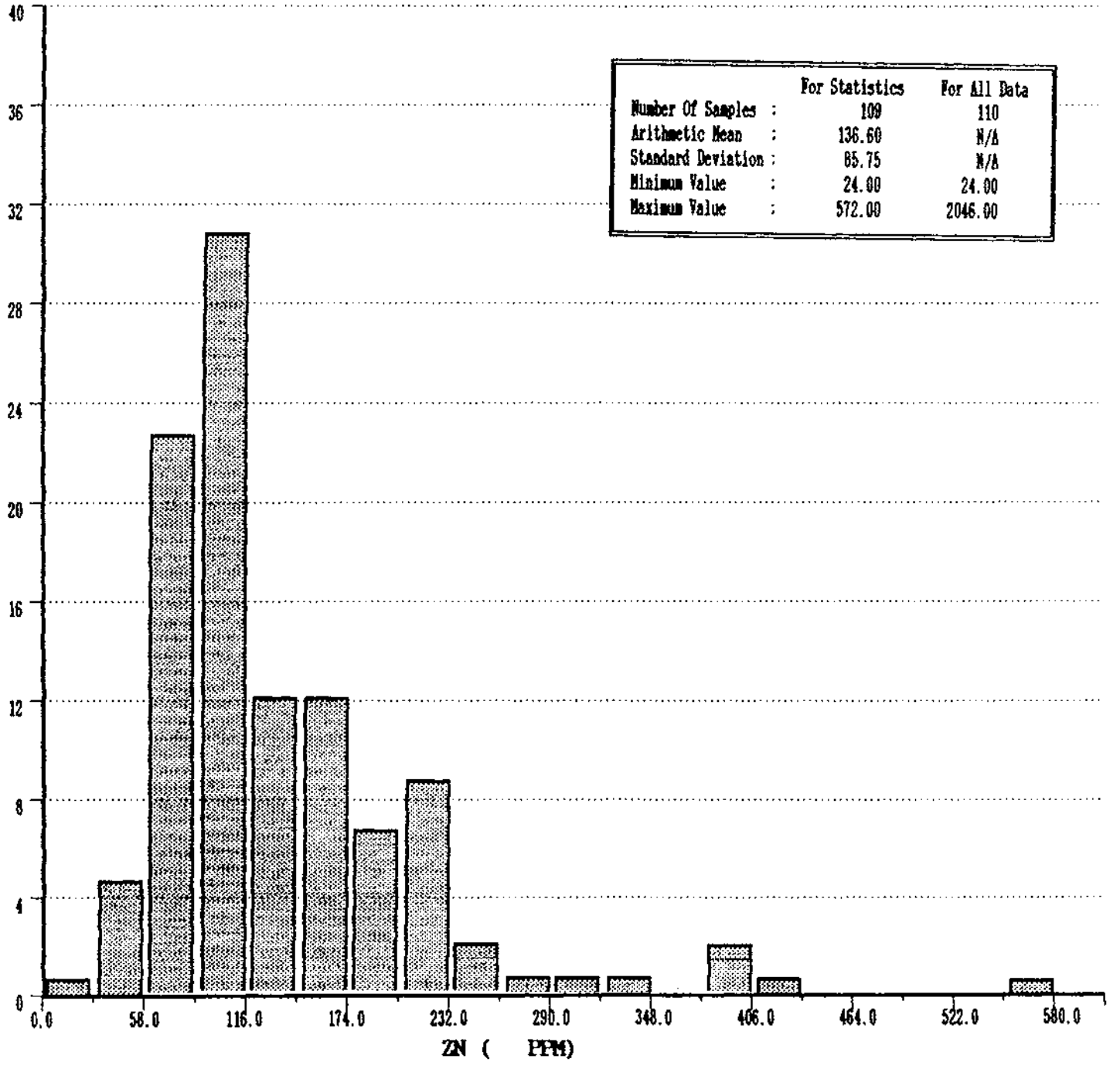
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : ZN
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	109	110
Arithmetic Mean :	136.60	N/A
Standard Deviation :	85.75	N/A
Minimum Value :	24.00	24.00
Maximum Value :	572.00	2046.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

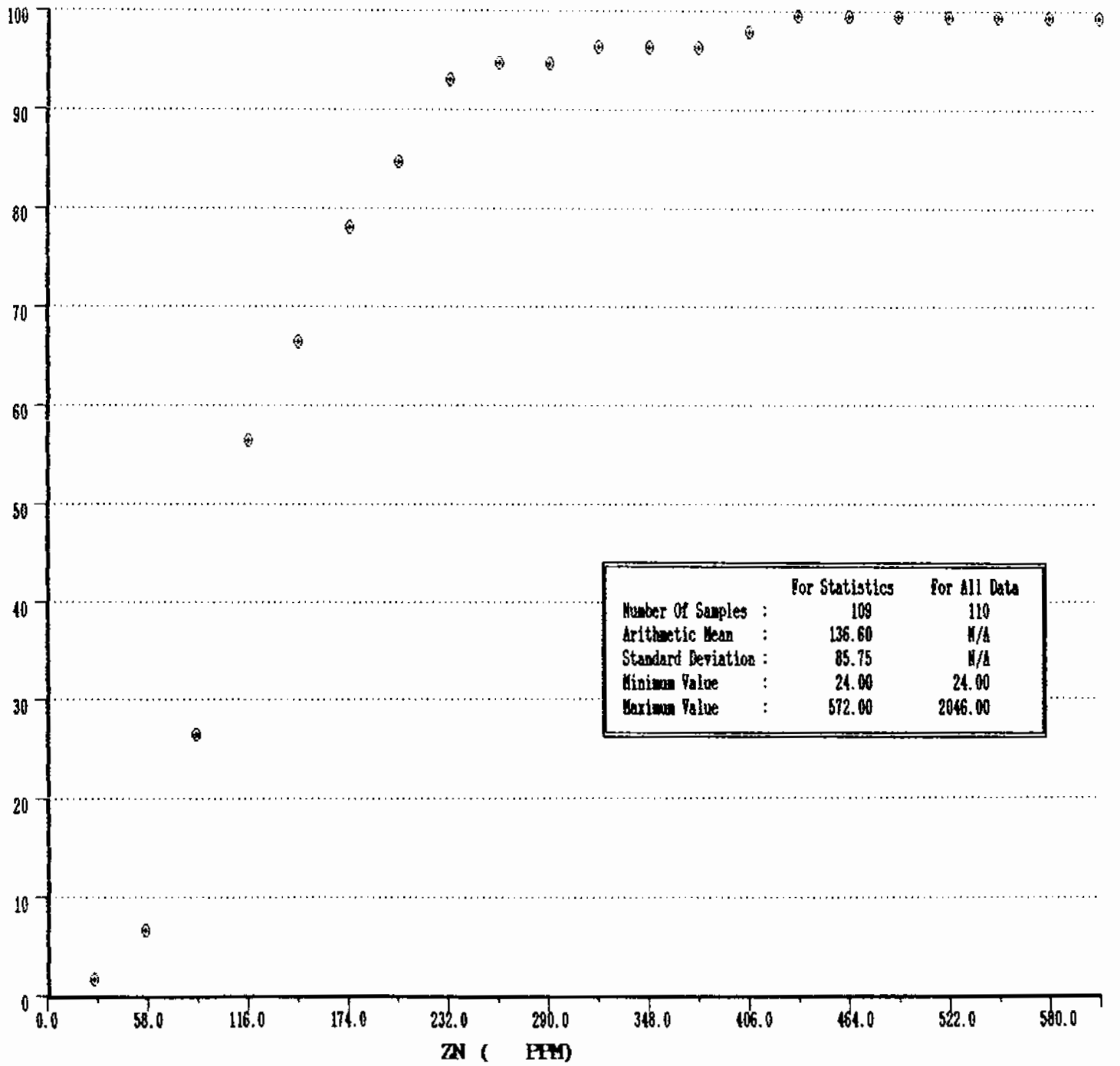
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : ZN
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

CUMULATIVE FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	109	110
Arithmetic Mean :	136.60	N/A
Standard Deviation :	85.75	N/A
Minimum Value :	24.00	24.00
Maximum Value :	572.00	2046.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

STATISTICAL REPORT

TO : *A&M EXPLORATION LTD.*
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : *PB*
SAMPLE TYPE : *SOIL*

CERTIFICATE # : *VARIOUS*
INVOICE # : *NA*
DATE ENTERED : *90-11-13*
PROJECT : *535*

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 8.0	5	4.80	4.55	4.55
8.0 - 16.0	31	12.81	28.18	32.73
16.0 - 24.0	55	18.78	50.00	82.73
24.0 - 32.0	9	28.22	8.18	90.91
32.0 - 40.0	4	36.25	3.64	94.55
40.0 - 48.0	3	45.67	2.73	97.27
48.0 - 56.0	0	0.00	0.00	97.27
56.0 - 64.0	0	0.00	0.00	97.27
64.0 - 72.0	1	67.00	0.91	98.18
72.0 - 80.0	0	0.00	0.00	98.18
80.0 - 88.0	0	0.00	0.00	98.18
88.0 - 96.0	0	0.00	0.00	98.18
96.0 - 104.0	0	0.00	0.00	98.18
104.0 - 112.0	0	0.00	0.00	98.18
112.0 - 120.0	0	0.00	0.00	98.18
120.0 - 128.0	0	0.00	0.00	98.18
128.0 - 136.0	0	0.00	0.00	98.18
136.0 - 144.0	1	141.00	0.91	99.09
144.0 - 152.0	0	0.00	0.00	99.09
152.0 - 160.0	1	153.00	0.91	100.00
160.0 - 168.0	0	0.00	0.00	100.00

	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	21.37	N/A
Standard Deviation :	19.47	N/A
Minimum Value :	1.00	1.00
Maximum Value :	153.00	153.00

FILES USED FOR STATISTICS

A&M90503.1 A&M90506.1

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

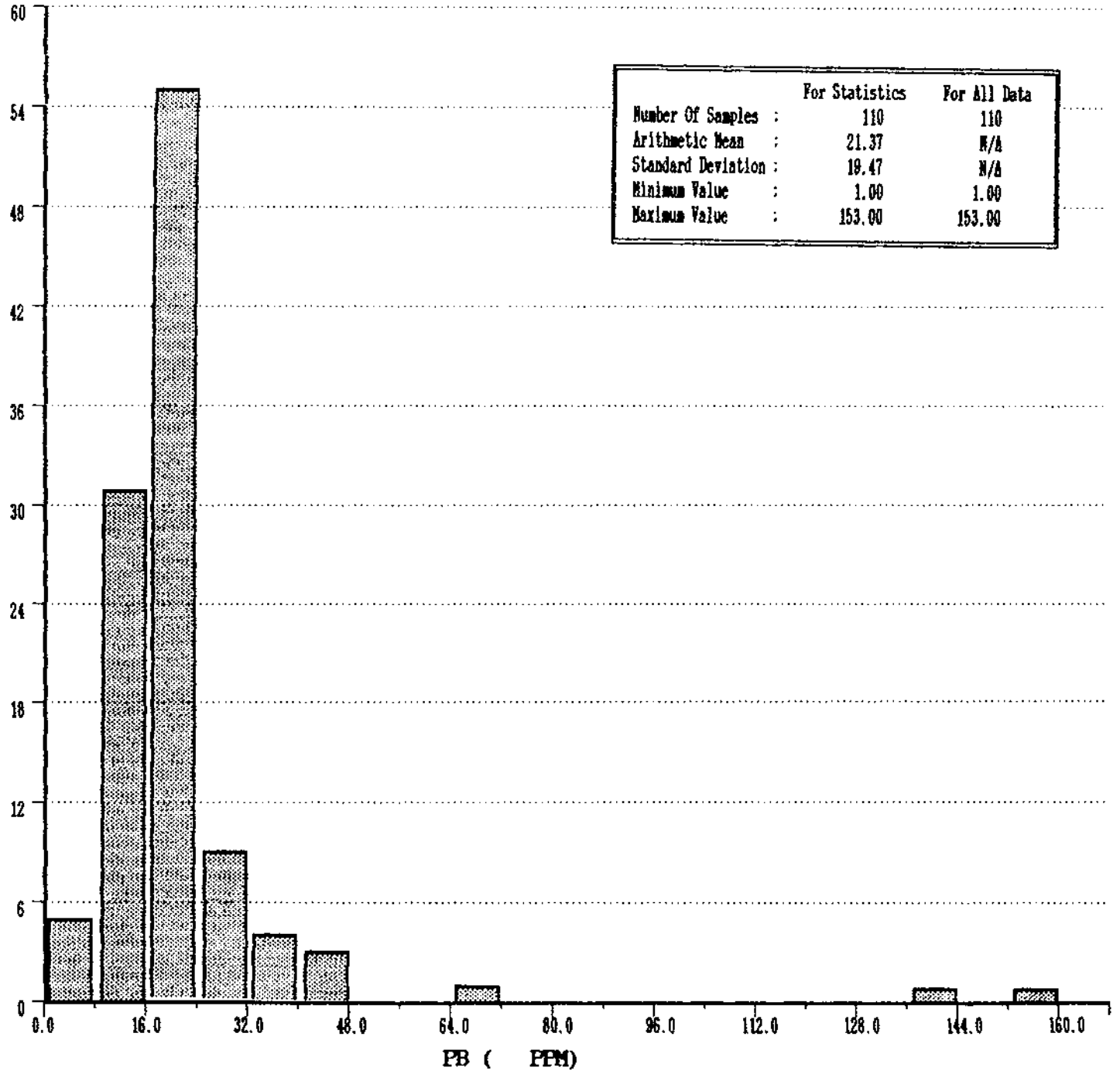
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : PB
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	21.37	N/A
Standard Deviation :	19.47	N/A
Minimum Value :	1.00	1.00
Maximum Value :	153.00	153.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

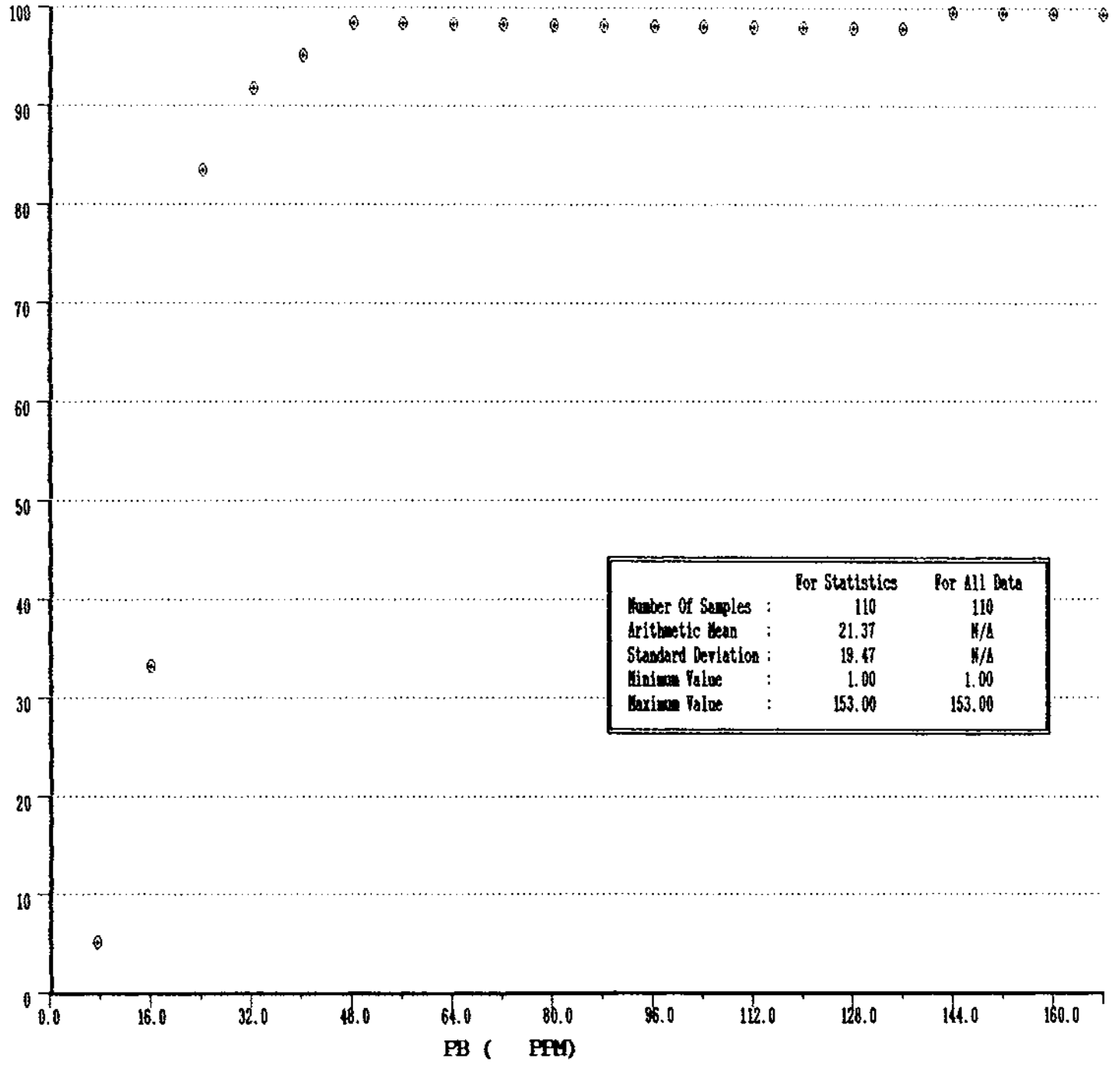
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : PB
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

CUMULATIVE FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	21.37	N/A
Standard Deviation :	19.47	N/A
Minimum Value :	1.00	1.00
Maximum Value :	153.00	153.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

STATISTICAL REPORT

TO : *A&M EXPLORATION LTD.*
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : *CU*
SAMPLE TYPE : *SOIL*

CERTIFICATE # : *VARIOUS*
INVOICE # : *NA*
DATE ENTERED : *90-11-13*
PROJECT : *535*

CLASS INTERVAL	CLASS FREQUENCY	CLASS MEAN	REL. FREQUENCY	CUM. FREQUENCY
0.0 - 31.0	13	24.00	11.82	11.82
31.0 - 62.0	44	47.93	40.00	51.82
62.0 - 93.0	35	74.77	31.82	83.64
93.0 - 124.0	9	109.78	8.18	91.82
124.0 - 155.0	6	145.33	5.45	97.27
155.0 - 186.0	0	0.00	0.00	97.27
186.0 - 217.0	0	0.00	0.00	97.27
217.0 - 248.0	1	246.00	0.91	98.18
248.0 - 279.0	0	0.00	0.00	98.18
279.0 - 310.0	1	301.00	0.91	99.09
310.0 - 341.0	0	0.00	0.00	99.09
341.0 - 372.0	0	0.00	0.00	99.09
372.0 - 403.0	0	0.00	0.00	99.09
403.0 - 434.0	0	0.00	0.00	99.09
434.0 - 465.0	0	0.00	0.00	99.09
465.0 - 496.0	0	0.00	0.00	99.09
496.0 - 527.0	0	0.00	0.00	99.09
527.0 - 558.0	0	0.00	0.00	99.09
558.0 - 589.0	0	0.00	0.00	99.09
589.0 - 620.0	0	0.00	0.00	99.09
620.0 - 651.0	1	621.00	0.91	100.00

	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	73.33	N/A
Standard Deviation :	67.21	N/A
Minimum Value :	9.00	9.00
Maximum Value :	621.00	621.00

FILES USED FOR STATISTICS

A&M90503.I A&M90506.I

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

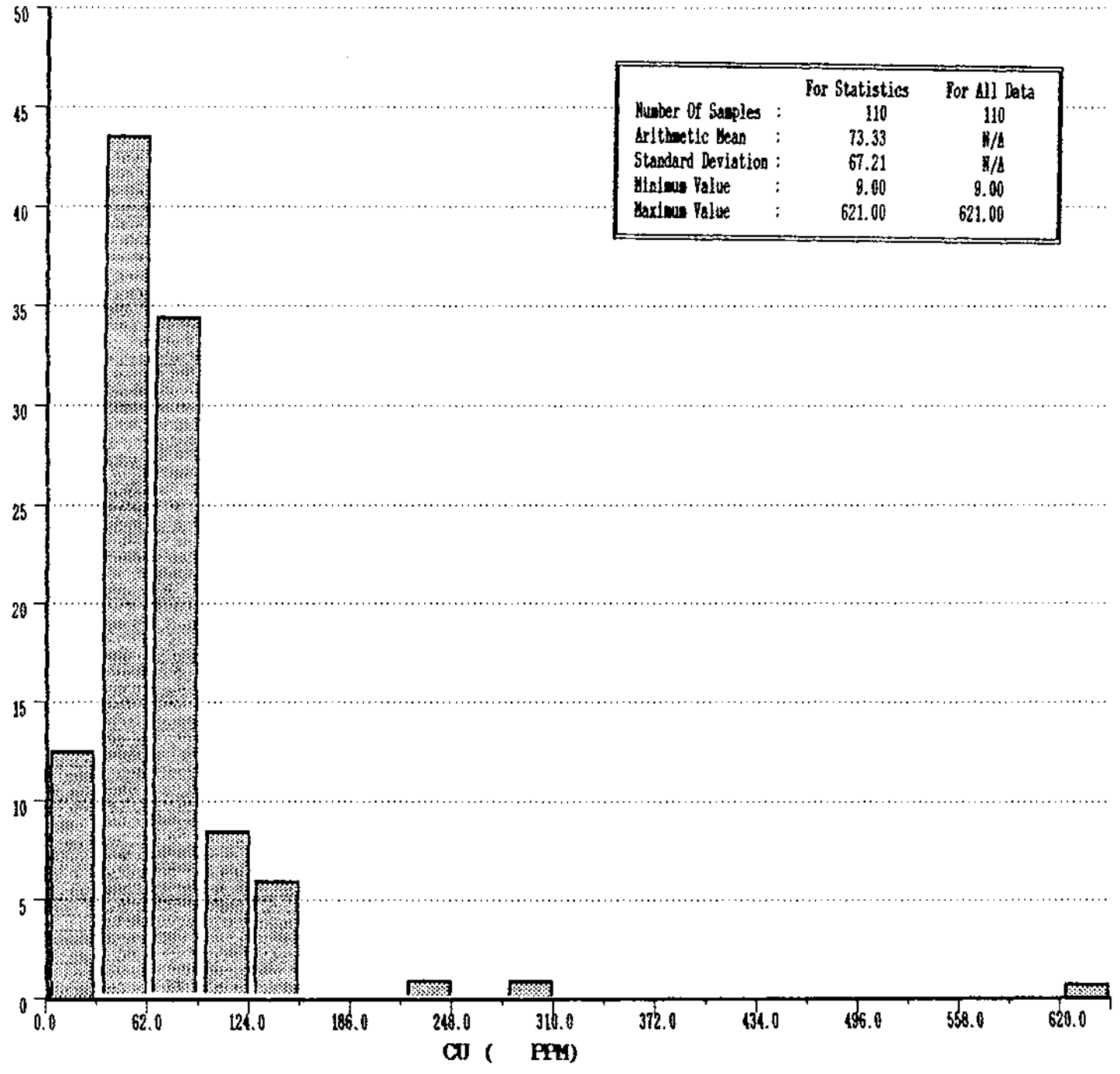
STATISTICAL REPORT

TO : A&M EXPLORATION LTD.
#714-850 W. HASTINGS ST.
VANCOUVER, B.C.

ELEMENT : CU
SAMPLE TYPE : SOIL

CERTIFICATE # : VARIOUS
INVOICE # : NA
DATE ENTERED : 90-11-13
PROJECT : 535

FREQUENCY HISTOGRAM



	For Statistics	For All Data
Number Of Samples :	110	110
Arithmetic Mean :	73.33	N/A
Standard Deviation :	67.21	N/A
Minimum Value :	9.00	9.00
Maximum Value :	621.00	621.00

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
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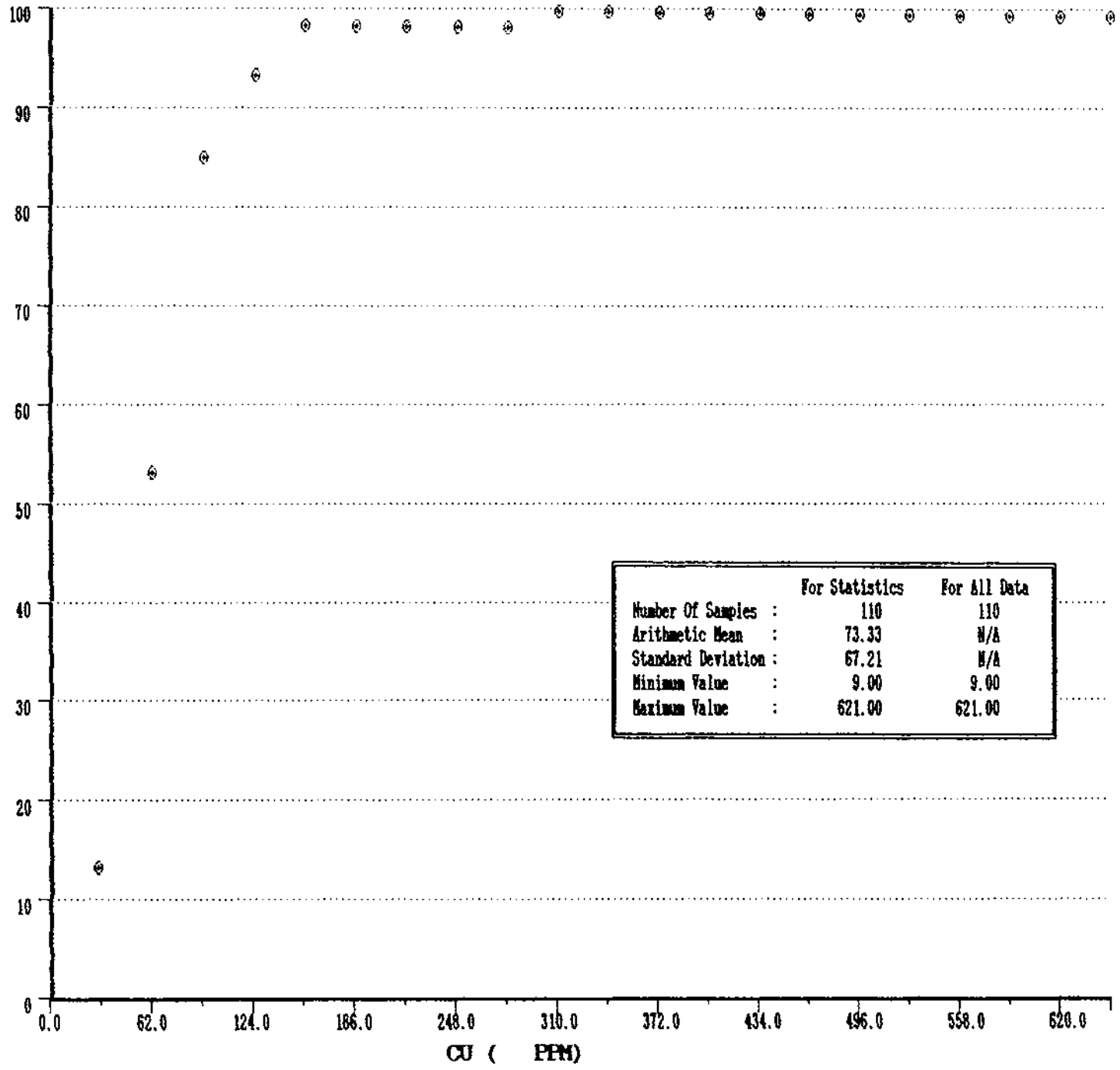
CUMULATIVE FREQUENCY HISTOGRAM



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APPENDIX III

Drill Logs

HOLE NO. R 90-5

A·M exploration ltd.

LOCATION: 6462015N, 651319E (U.T.M.)

AZIMUTH: 298°

PROPERTY: RAM-TUT

DIP: -66° LENGTH: 92.05m ELEVATION: 1585m CLAIM NO: TUT NO. 2

STARTED: September 9, 1990 CORE SIZE: BQ-TW DATE LOGGED: September, 1990 SECTION:

COMPLETED: September 12, 1990 DIP TESTS: LOGGED BY:

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
0	3.66	Overburden.							
3.66	4.73	Argillite, bluish grey in color; bedding @ 45-60°; scattered carbonate filled fractures.							
4.73	14.10	Andesite dike, greenish grey in color; variable textures, fine-medium grained locally with 1mm feldspar and chloritized augite phenocrysts. Trace to 2% disseminated pyrite. Scattered 1-2mm carbonate-filled fractures.							
14.10	14.97	Quartz containing seams of cream-colored feldspar with disseminated pyrite.							
14.97	36.20	Phyllitic quartzose siltstone; sericite along foliation planes; foliation @ 52-78°. Contains abundant disseminated cubes of pyrite, commonly concentrated along foliation planes. Scattered thin calcareous beds and patches. Contains irregular veins quartz 5 to 10cm wide mainly parallel to foliation, local pink calcite and a few cubes of pyrite in veins. 24.0 foliation @ 79° 26.0 " @ 66° 28.4 " @ 58°	009001	28	30	2	5	0.6	12
36.20	39.37	Siltstone, variably silicified, feldspathized and dolomitized. Several vugs lined with quartz crystals @ 37.13.	009002	36	38	2	5	0.2	28
			009003	38	40	2	40	0.2	772
39.37	39.90	Fractured and tightly sheared grey siliceous siltstone; limonite on fracture.							
39.90	41.65	Siliceous argillite, grey in color, with abundant disseminated pyrite (up to 10%) and locally abundant arsenopyrite (40.4 - 41.65). Foliation @ 73°.	009004	40	41	1	5	0.4	3832
			009005	41	41.65	0.65	30	0.4	73430
			009006	41.65	43.80	2.15	20	0.4	31187
			009007	43.80	44.80	1	5	0.3	1944
			009008	44.80	46.00	1.2	5	0.2	120
41.65	42.52	Sericitic phyllitic siltstone.							

HOLE NO. R 90-5

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
42.52	43.80	Laminated siltstone, mottled grey to brownish grey in color. Abundant disseminated pyrite and arsenopyrite, locally to 20%. Foliation @ 75°.							
43.80	44.91	Siliceous siltstone, locally calcareous and with chloritic phyllite layers. 44.1 - 44.5 irregular disseminated pyrite and arsenopyrite.							
44.91	47.83	Chlorite phyllite, dark greenish grey in color; approx 5% disseminated pyrite; foliation @ 78°.	009009	46	48	2	5	0.3	60
			009010	48	50	2	5	0.1	62
			009011	50	52	2	20	0.7	599
47.83	52.50	Calcareous siliceous siltstone; light to medium in color; massive to locally foliated, with sericite along foliation planes. Approx. 5% disseminated pyrite. 52.3 5cm fault gouge @ 50°.	009012	52	54	2	5	0.4	169
			009013	54	56	2	50	2.6	209
			009014	56	58	2	20	1.6	136
			009015	58	60	2	5	0.3	69
			009016	60	62	2	5	0.1	50
			009017	62	64	2	240	3.6	532
52.50	54.72	Laminated calcareous siltstone, dark grey in color with medium grey limestone beds up to 5cm thick, 1-2% disseminated pyrite. Foliation @ 76°.	009018	64	66	2	170	3.6	415
54.72	56.50	Fault zone; black graphitic.							
56.50	65.80	Laminated argillaceous limestone, dark grey to black in color, with 5% disseminated pyrite. A few seams of pyrite up to 2mm wide. Calcite stringers common. 57.8-59.1 dolomitized section with some coarse calcite. 61.0 foliation @ 76°. 62.5-62.7 silicified zone with abundant disseminated cubes of pyrite, and a few vugs lined with fine quartz crystals. 62.5 - 2cm calcite vein in shear with abundant pyrite and minor fuchsite. 62.55 1.5 cm fault gouge with some semi miassive pyrite and clots of emerald green fuchsite. 63.0-63.8, 64.7-65.3 silicified and brecciated sections, cemented with grey silica and black graphitic material, pyrite disseminated in matrix and fragments.							
65.80	71.10	Silicified argillaceous limestone. Micro fractures with minor displacements common, healed with silica and brown ankeritic carbonate. 70.1-71.0 rotated breccia fragments. Vugs in some quartz lined fractures. 70.1 Foliation @ 80°.	009019	66	68	2	80	1.5	115
			009020	68	70	2	50	1.8	122
			009021	70	72	2	480	4.8	179
			009022	72	74	2	100	2.7	121
			009023	74	76	2	100	2.2	165
71.10	73.15	Black graphitic argillite, bedding @ 69°.	009024	76	78	2	90	3.3	235
			009025	78	80	2	90	3.4	181

HOLE NO. R 90-5

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
73.15	77.40	Laminated silicified argillite and/or argillaceous limestone, dark grey incolor. Variable amounts of disseminated pyrite (usually pyritohedrons). Some displacement along silica-cemented microveinlets. Soft brown talc? cementing some fractures. 73.5 10cm black fault gouge.	009026	80	82	2	160	1.3	315
			009027	82	84	2	110	3.5	118
77.40	79.25	Silicified and irregularly brecciated laminated argillite. Bedding @ 65°.							
79.25	86.56	Breccia - light grey to black fragments up to 7cm in diameter. Water lost @ 81m. cemented with black silica and lighter colored silica with vugs lined with fine stubby quartz crystals up to 2mm in diameter. 80-81 dolomite fragments.	009028	84	86	2	1100	16.6	116
			009029	86	88	2	540	8.8	60
			009030	88	90	2	30	3.2	28
			009031	90	91.14	1.14	30	1.0	53
			009032	91.14	92.05	0.91	70	1.2	49
86.56	91.29	Massive vuggy quartz, fine granular texture; numerous irregular vugs lined with fine quartz crystals (2mm). Light grey to brownish grey in color.							
91.29	92.05	Black argillaceous limestone cut by numerous calcite stringers.							
	End of hole	Average recovery 96.6%							
		Hole abandoned because of lost water and casing.							

HOLE NO. R 90-6

A·M exploration ltd.

LOCATION: 6462433N, 651457E (U.T.M.)

AZIMUTH: 337°

PROPERTY: RAM-TUT

DIP: -56° LENGTH: 179.83m ELEVATION: 1510m CLAIM NO: TUT NO. 2

STARTED: CORE SIZE: BQ-TW DATE LOGGED: September, 1990 SECTION:

COMPLETED: September 20, 1990 DIP TESTS: LOGGED BY:

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
0	6.1	Overburden.							
6.1	35.0	Quartzose siltstone, medium grey in color; 3-5% pyrite as disseminated grains and streaks along foliation planes. Minor amounts of sericite concentrated along foliation planes. Calcite commonly occurs as fracture coatings and in places as irregular 0.5 - 3mm fine grained clots. 10.5 Foliation @ 59°. Scattered irregular veinlets milky quartz up to 4cm wide, locally with a few cubes of pyrite near the vein margin. 12.3-13.0 carbonate and limonite coated fractures. 13.1-140 chlorite phyllite. 20.0 Foliation @ 44°. 19.5-19.6 irregular 2 - 5cm quartz vein with disseminated pyrite, minor chalcopyrite, malachite and trace sphalerite. 23.2-24.7 sericite phyllite. 28.2 15cm quartz vein subparallel to foliation @ 55°. 28.6-29.0, 30.0-30.4 local pervasive brown ankeritic alteration. 32.95-33.15 quartz vein with massive blob pyrite and minor galena. 34.0 Foliation @ 45°.	009001A	18	20	1	5	0.4	25
			009002A	20	22	2	5	0.1	23
			009003A	22	24	2	5	0.1	42
			009004A	24	26	2	5	0.2	32
			009005A	26	28	2	5	0.5	24
			009006A	28	30	2	5	0.6	24
			009007A	30	32	2	5	0.3	62
			009008A	32	32.95	0.95	5	0.1	24
			009009A	32.95	33.15	0.2	5	1.0	30
35.0	56.7	Silty limestone - light to medium grey in color. 1-5% disseminated pyrite Locally finely laminated, locally massive. 36.0 Bedding @ 45°. 38.5-40.4 sericite phyllite; abundant disseminated cubes of pyrite. 42.4-42.9 light brownish grey silicification? 46.0 limestone becomes somewhat argillaceous medium grey in color. 50.0-50.8, 51.4-52.7, sericite phyllite, abundant disseminated pyrite. 53.6-54.2 Bedding locally parallels core axis.	009010A	42	44	2	5	0.1	2

HOLE NO. R 90-6

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
56.7	67.8	Finely laminated argillite, locally calcareous, dark grey in color, graphitic in places. Calcite and pyrite in seams. Pyrite also platered along foliation planes. 58.0 Foliation @ 50°. 67.8 Slip plane contact @ 39°, 2cm quartz vein along contact.	009011A	56	58	2	5	0.1	203
			009012A	58	60	2	5	0.1	181
			009013A	60	62	2	5	0.2	39
			009014A	62	64	2	5	0.4	128
			009015A	64	66	2	5	0.5	50
			009016A	66	68	2	5	0.1	222
67.8	69.0	Weakly silicified limestone-siltstone containing 8-10 irregular milky white quartz veins up to 3cm wide.	009017A	68	70	2	5	0.1	53
			009018A	70	72	2	60	0.3	75
69.0	72.0	Generally intensely silicified siltstone-limestone. Dark grey in color. Locally vuggy. Scattered fractures lined with fine quartz crystals and limonite. Quartz veinlets with drusy vugs common. Pyrite nil.							
72.0	82.8	Breccia - abundant matrix supported fragments; angular light to dark grey silicified fragments in dark grey silicified groundmass, which contains 1-4mm vugs lined with tiney quartz crystals. Scattered limonite-coated fractures. 75 Pyrite increases from trace to 1-2% disseminated 75.3-77.1 Non brecciated section, intensely silicified. 77.0-78.0 Several quartz-lined vugs up to 3cm diameter. 78.5-80.5 Non brecciated section, foliation @ 0-38°. 82.2 5cm vein milky quartz, brownish grey in color.	009019A	72	74	2	80	1.3	78
			009020A	74	76	2	40	0.8	62
			009021A	76	78	2	40	0.8	184
			009022A	78	80	2	5	1.4	121
			009023A	80	82	2	5	1.0	241
			009024A	82	84	2	40	6.4	256
82.8	88.6	Laminated argillite and locally calcareous argillite, dark grey in color, variably silicified, locally veined and brecciated by light grey quartz; 2-3% disseminated pyrite. 82.6-83.4 Soft graphite-rich section; graphite coated slip planes 2 33-40°, abundant disseminated cubes of pyrite. 87.4-88.3 Breccia-cemented with light grey quartz. 86.7-88.0 Calcareous section, bedding @ 44°. 88.0-88.3 Brecciated, with black siliceous matrix.	009025A	84	86	2	80	1.6	219
			009026A	86	88	2	50	0.8	367
88.6	91.15	Breccia - light to dark grey angular fragments 3-5% disseminated pyrite in matrix and in some short non brecciated sections of graphitic argillite. 89.8 2cm graphitie-rich fault gouge with disseminated pyrite 91.1-91.3 Black graphitic laminated argillite. Scattered quartz veins and local brecciated sections cemented with light grey quartz.	009027A	88	90	2	180	1.6	490
			009028A	90	92	2	470	1.4	323

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
91.15	104.50	Dark grey laminated argillite-siltstone; local brecciated sections, 5% disseminated pyrite, scattered light grey vuggy quartz veins and quartz-cemented breccia zones. Scattered graphite-coated fractures or slip planes parallel to bedding. Bedding @ 60-74°.	009029	92	94	2	50	1.2	149
			009030	94	96	2	120	1.2	268
			009031	96	98	2	320	4.7	403
			009032	98	100	2	5	0.4	113
			009033	100	102	2	150	0.6	125
		103.62-103.65 Two dikes light green sericitized latite? cut by quartz-pyrite veins with trace chalcopyrite, parallel to bedding @ 44-73°.	009034	102	104	2	80	2.2	196
		104.0-104.5 Several greeenish grey dikelets as above.							
104.50	110.50	Breccia - medium to dark grey angular fragments of laminated siltstone, and graphitic argillite cemented both by black silicified comminuted rock and light grey vuggy quartz. 3-5% disseminated in black groundmass. Short sections of graphitic argillite. Graphite locally on fractures.	009035	104	106	2	90	1.6	128
			009036	106	108	2	30	2.4	48
			009037	108	110	2	80	4.1	82
		108 10cm quartz-rich fragment surrounded by graphite and emerald green sericite (fuchsite?).							
110.50	139.25	Breccia - increase in quartz-cemented breccia. 1-2% disseminated pyrite.	009038	110	112	2	160	2.1	312
			009039	112	114	2	120	1.0	206
		110.5-111.3; 111.95-112.7, 113.6-113.8, 114.15-114.8: felsite dikelets cut and brecciated by light grey quartz and containing abundant pyrite, disseminated and in seams. Light to emerald green sericite, pervasive and as scattered clots.	009040	114	116	2	170	1.2	140
			009041	116	118	2	10	0.2	39
			009042	118	120	2	30	0.2	37
			009043	120	122	2	40	0.3	23
		113.3-112.0 A few veinlets light brown carbonate? Fragments are generally laminated siltstone - argillite and a few are of previously brecciated material.	009044	122	124	2	30	0.5	39
			009045	124	126	2	40	0.1	50
			009046	126	128	2	50	0.6	102
		120 Pyrite becomes relatively sparse, mainly disseminated in black fragments. Trace to 0.5%.	009047	128	130	2	1280	68.0	269
			009048	130	132	2	460	13.8	102
		125.5-127.0 Light pinkish grey felsite cut by numerous quartz veinlets.	009049	132	134	2	10	1.2	33
			009050	134	136	2	180	2.0	63
		128.0-130.0 Local box work textures, presumably where relict calcareous fragments have weathered out.	009051	136	138	2	20	0.3	38
		130.5 Local coarse pinkish orange calcite interstitial to drusy quartz.							
		134.0-134.4 Local rusty weathering quartz box work.							
139.25	139.30	Fault gouge @ 43°.	009052	138	140	2	190	0.8	94
139.40	139.45	Fault gouge							
139.30	146.30	Calcareous quartzose siltstone, medium grey in color, thinly laminated @ 35-50° carbonate coated fractures common. 1-2% disseminated cubes pyrite.	009053	140	142	2	30	0.6	60
			009054	142	144	2	20	0.8	86
			009055	144	146	2	50	0.3	170
			009056	146	148	2	5	0.2	204

HOLE NO. R 90-6

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
146.30	168.0	Moderately to intensely silicified siltstone with scattered drusy quartz veinlets and 1-2mm drusy quartz-lined vugs in groundmass of rock. 0.5% disseminated cubes pyrite.	009057	148	150	2	5	0.1	158
			009058	150	152	2	5	1.4	186
			009059	152	154	2	5	0.1	78
		146.3-147.5 Intensely silicified with drusy quartz veinlet parallel to core axis.	009060	154	156	2	10	0.3	76
			009061	156	158	2	70	0.5	176
		153.0-157.0 Intensely silicified and brecciated section, drusy vugs up to 5cm long.	009062	158	160	2	10	0.1	108
			009063	160	162	2	5	0.1	61
		157.3-157.4 Relict calcareous section, bedding @ 31°.	009064	162	164	2	5	0.1	98
		160 Bedding @ 36°.	009065	164	166	2	5	0.1	93
			009066	166	168	2	5	0.1	105
			009067	168	170	2	5	0.1	30
			009068	170	172	2	5	0.1	123
168.0	179.83	Silty limestone, laminated, grey in color. Locally silicified, trace pyrite; scattered drusy quartz veinlets.	009069	172	174	2	5	10.8	55
			009070	174	176	2	5	0.1	46
		Moderately silicified 175.0-179.83	009071	176	178	2	10	0.1	30
		172.0 Bedding @ 55°.	009072	178	179.83	1.83	10	0.3	24
	End of Hole								

HOLE NO. R 90-7

LOCATION: 6462433N, 651457E

AZIMUTH:

DIP: Vertical LENGTH: 119.79m ELEVATION: 1510m

STARTED: September 20, 1990 CORE SIZE: BQ-TW DATE LOGGED: September, 1990

COMPLETED: September 24, 1990 DIP TESTS:

A·M exploration ltd

PROPERTY: RAM-TUT

CLAIM NO: TUT NO. 2

SECTION:

LOGGED BY:

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
0	2.7	Overburden.							
2.7	34.3	Quartzose siltstone; light grey in color, weakly bedded with 3-5% disseminated pyrite. A few widely scattered veins of milky quartz with trace pyrite.							
		6.0 Bedding @ 68°.							
		9.1-9.2 Barren milky quartz vein.							
		13.5 Bedding @ 64°.							
		11.0-11.35 Chlorite-sericite phyllite.							
		11.35-34.3 Calcite coats fractures and occurs in scattered narrow veinlets. Sericite-rich laminae.							
		18.0 Foliation @ 68°.							
		27.5 Foliation @ 67°, pyrite 2-3%							
		30.48-31.0 Barren milky quartz vein @ 57°.							
		32.0 Foliation @ 75°.	009073	32	34	2	5	0.4	20
34.3	49.0	Limestone, light grey to brownish grey in color. Sericite-rich laminae common to 38m.	009074	34	36	2	5	0.2	43
		3-5% disseminated pyrite to approx. 37m, 1-2% 37-49m	009075	48	50	2	5	0.1	67
		Black copper oxide? on some fractures.	009076	50	52	2	5	0.3	400
		37.0 Foliation @ 53°.							
		41.0-41.76, 42.8-44.0 Chlorite phyllite with abundant disseminated cubes of pyrite; greenish grey in color.							
		44.1 Bedding @ 61°.							
		45.2-47.2 Chlorite-sericite phyllite.							
		44.33-46.7 Barren milky quartz vein.							
		47.2-49.0 Finely laminated @ 52-63°.							
49.0	63.0	Slaty argillaceous limestone, dark grey in color, weakly graphitic. Some non-calcareous sections. -5% pyrite as disseminated grains and clots along foliation planes @78-80°.							
		49.4 4cm black graphitic fault gouge.							
		58.0 Foliation @ 79°.							

HOLE NO. R 90-7

METRES From	METRES To	DESCRIPTION	SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
49.0	63.0	58.3-58-95, 60.35-60.95 Carbonatized andesite? dike. 63.0 Foliation @ 79°.							
63.0	65.2	Slaty argillite, dark grey in color, abundant disseminated pyrite, finely disseminated crystals of sphene? 63.8-64.1 Dacite dike, chloritized and sericitized, and in middle by 3cm quartz vein with disseminated pyrite and streaks of green sericite.	009077	64	66	2	20	1.0	242
65.2	65.8	Bleached and broken up section.	009078	66	68	2	200	9.5	230
		65.55-65.89 Dacite dike with disseminated clots green sericite. 65.7 1-2cm seam pyrite.	009079	68	70	2	250	10.4	182
		65.8 1cm black graphitic fault gouge.	009080	70	72	2	1240	21.7	129
65.8	67.0	Silicified and quartz veined limestone-argillite 3% disseminated pyrite. 66.9 Foliation @ 80°.	009081	72	74	2	1060	38.8	155
			009082	74	76	2	340	4.9	114
			009083	76	78	2	20	1.8	104
67.0	74.68	Breccia - light to dark grey fragments in black siliceous matrix. 3-5% disseminated pyrite in dark matris veined and brecciated by light grey vuggy quartz.							
74.68	78.1	Silicified slaty argillite, scattered vuggy quartz veinlets. 1-2% disseminated pyrite. Foliation @ 60°. Locally disseminated crystals of sphene. Fractures commonly coated with graphite.							
78.1	79.7	Laminated argillaceous limestone with numerous stringers of calcite, 2-3% disseminated pyrite.							
79.7	109.8	Brecciated and silicified argillaceous limestone. Local disseminated crystals of sphene.	009084	78	80	2	5	0.1	56
			009085	80	82	2	10	0.3	29
		80.0-82-2 cemented with light grey to honey-colored coarse quartz.	009086	82	84	2	20	0.6	104
			009087	84	86	2	5	0.2	42
		83.4 Bedding @ 74°.	009088	86	88	2	5	0.7	28
		85.0-90.8 Intensely brecciated and quartz-veined, drusy vugs common.	009089	88	90	2	5	1.2	33
			009090	90	92	2	5	4.9	33
		91.5-91.75 Barren milky white quartz vein.	009091	92	94	2	5	0.5	27
		90.8-93.6 Non-brecciated section, foliation @ 53-78°.	009092	94	96	2	5	4.8	45
		97.35-97.45, 99.8-98.1, 98.35-98.45, 99.1-99.2, 99.7-99.5 Narrow felsite dikelets, intensely quartz veined.	009093	96	98	2	240	9.7	124
			009094	98	100	2	5	1.0	115
		Sericitized with local clots emerald green sericite. Clots and cubes of pyrite are abundant in the quartz veins cutting felsite, whereas it is rare in veins and breccia matrix elsewhere.	009095	100	102	2	5	0.4	68
			009096	102	104	2	30	0.1	29
			009097	104	106	2	310	0.1	27
			009098	106	108	2	210	0.4	23
			009099	108	110	2	100	0.1	24
			0090100	110	112	2	5	0.1	2

HOLE NO. R 90-7

METRES From	METRES To	DESCRIPTION
109.8	115.8	Limestone, massive with vague bedding @ 75°. 111.6 Dolomitized and silicified section, locally brecciated and cemented with calcite. Styolites coated with graphite fairly abundant. Minor amounts of disseminated pyrite approx. 0.5%
115.8	116.8	Silicified limestone breccia, 3% disseminated pyrite.
116.8	119.79	Limestone, laminated, medium grey in color. Bedding @ 45-75°. Variable amounts disseminated pyrite 0.5-3%.
	End of Hole	

SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
009101	112	114	2	10	0.1	112
009102	114	116	2	5	0.1	30
009103	116	118	2	100	1.0	89
009104	118	119.79	1.79	5	0.1	19

HOLE NO. R 90-8

LOCATION: 6461432N, 651331E

AZIMUTH: 235°

DIP: -60° LENGTH: 45.72m ELEVATION: 1570m

STARTED: September 26, 1990 CORE SIZE: BQ-TW DATE LOGGED: September, 1990

COMPLETED: September 29, 1990 DIP TESTS:

A·M exploration ltd.

PROPERTY: RAM-TUT

CLAIM NO: TUT NO. 2

SECTION:

LOGGED BY:

METRES From	METRES To	DESCRIPTION
0	15.24	Overburden.
15.24	22.70	Siliceous sericite phyllite, grey to brownish grey in color Thin calcareous patches and layers common. Trace disseminated pyrite. Foliation @ 50°.
22.70	24.20	Felsite dike, probably dacitic in composition medium grey in color.
24.20	25.10	Siliceous sericite phyllite; foliation @ 54° 0.5% disseminated pyrite. 25.02-25.10 fault gouge.
25.10	26.80	Dacite dike, similar to above
26.8	34.0	Siliceous sericite phyllite, strongly broken up. Locally bleached. Trace pyrite, limonite on fractures. 33.53-34.0 Mostly fault gouge
34.0	37.90	Soft weathered sericite phyllite, locally abundant disseminated pyrite, gypsum on factures. Foliated @ 58-80°. 36.25-38.0 Strongly broken up, with fault gouge.
37.90	38.50	Silicified phyllitic siltstone, strongly broken up.
38.50	43.89	Intensely silicified and brecciated siltstone; generally with grey angular fragments up to 6-7cm in diameter in black siliceous matrix.
43.89	44.65	Broken up material, fault gouge, caved material.
44.65	45.72	Dark grey limestone, trace disseminated pyrite, foliation @ 62°.
	End of Hole	Average recovery 61%

SAMPLE NO.	METRES From	METRES To	METRES Length	Au ppb	Ag ppm	As ppm
009105	15.74	16.19	.45	5	0.2	161
009106	16.19	18.0	1.81	5	0.2	16
009107	18	20	2	5	0.3	20
009108	20	22	2	5	0.2	35
009109	22	24	2	5	0.4	36
009110	24	26	2	5	0.2	31
009111	26	28	2	5	0.2	32
009112	28	30	2	5	0.3	8
009113	30	32	2			
009114	32	34	2	5	0.2	2160
009115	34	36	2	5	0.1	3724
009116	36	38	2	30	0.2	4099
009117	38	40	2	50	0.2	2639
009118	40	42	2	70	0.6	721
009119	42	44	2	20	0.4	593
009120	44	45.72	1.72	5	0.2	524

APPENDIX V

Affidavit of Expenses

AFFIDAVIT OF EXPENSES

This will certify that geochemical sampling, geophysical surveys and diamond drilling were conducted on the TUT and RAM BAA claims, Tatsamenic Lake Area, Atlin Mining Division, British Columbia during the period August 10 to October 4, 1990 to the value of the following:

Preparation and Fieldwork

Salaries		
D.G. Allen		$ 11,200.00
M. Pierce		6,800.00
E. Sykes		4,000.00
J. Bosher		3,600.00
Travel expenses		
Vehicle, truck rental		1,678.28
Room and board		899.69
Field supplies, stationery		718.44
Telephone, courier		435.16
Expediting services		1,240.95
Assay		2,758.36
Camp, radio rental		1,140.00
Camp, helicopter fuel	(estimated, final invoices not yet received)	10,000.00
Road access fees	(payable to Golden Bear Operating Company)	3,000.00
Freight		1,808.40
Helicopter		67,727.67
Drilling	(Tonto Drilling Invoices)	76,868.02
	Subtotal	$193,874.97

Report (apportioned)

Salaries		
E. Sykes		350.00
D. Allen		800.00
Draughting, computer processing typing, compilation		1,760.00
Contract commputer services		200.00
Maps, photocopying		298.16
	Subtotal	$ 3,408.16
	TOTAL	**$197,283.13**

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

D. G. Allen

D.G. Allen, P. Eng. (B.C.)

AFFIDAVIT OF EXPENSES

This will certify that geological mapping and geochemical sampling was conducted on the TOT claims, Tatsamenie Lake Area, Atlin Mining Division, British Columbia during the period September 10 to September 30, 1990 to the value of the following:

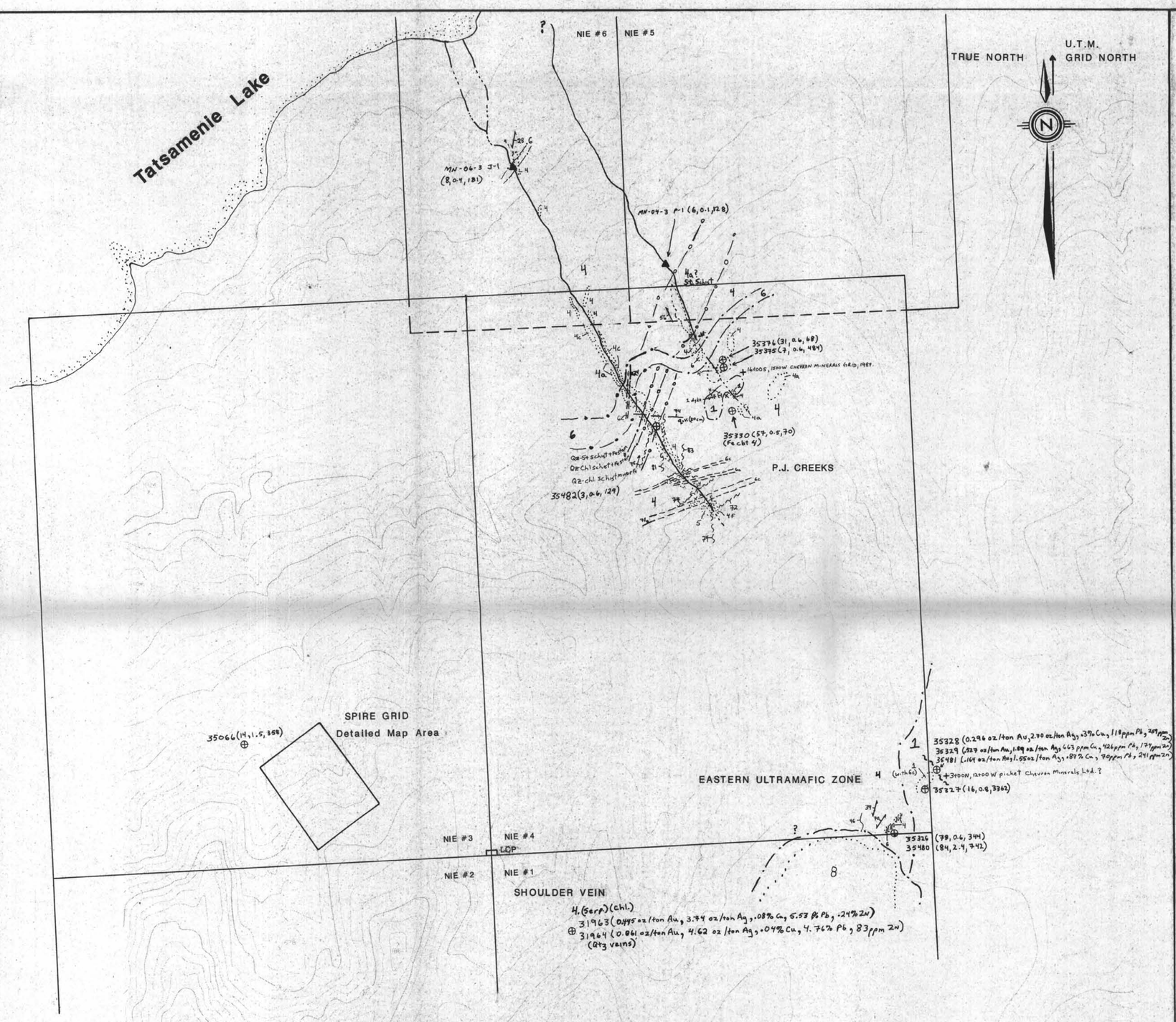
Mobilization and Fieldwork

Salaries		
M. Smith		$ 1,225.00
E. Sykes		875.00
D. Allen		770.00
Travel expense, road access fees, vehicle rental		984.44
Room and Board		690.00
Field supplies		50.00
Expediting services		88.64
Geochemical analysis		1,646.25
Radio rental, telephone		249.34
Helicopter		3,684.60
	Subtotal	$10,263.27

Report (apportioned)

Salaries		
E. Sykes		400.00
D.G. Allen		700.00
Draughting, computer processing, typing, compilation		880.00
Contract computer services		340.00
Maps, photocopying		99.39
	Subtotal	$ 2,419.39
	TOTAL	**$12,682.66**

D.G. Allen, P. Eng. (B.C.)



LEGEND*

MIOCENE

8 — Level Mountain - plateau basalts

TERTIARY - CRETACEOUS

7 — Sloko Group
- a - feldspar porphyry
- b - rhyolite dykes, stocks
- c - basalt dykes

JURASSIC - CRETACEOUS

6 — Non-foliated Diorite
- a - diorite non-foliated dyke
- b - albitite sill
- c - porphyritic diorite (feldspar porphyry)

TRIASSIC

5 — Foliated Diorite

PRE - UPPER TRIASSIC

4 — Intermediate to Mafic Volcanics: tuffs, flows and sediments derived from volcanics occasional calcareous siltstone beds
- a - augite porphyry
- b - tuff, thinly bedded
- c - massive flows
- d - lapilli tuff
- e - chlorite schist
- f - porphyroblastic mafic volcanic **

3 — Siltstone to Limestone: siltstone, calcareous siltstone and limestone
- a - siliceous siltstone
- b - calcareous to carbonaceous siltstone
- c - limestone
- d - white to light grey limestone
- e - black highly carbonaceous
- f - intraformational breccia

PERMIAN

2 — Limestone
- a - carbonaceous
- b - white

1 — Ultramafic

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,655

SYMBOLS

- 31118 (4,0.5,150) — Rock Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31118 (4,0.5,150) — Silt Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31118 (4,0.5,150) — Soil Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31119 (200,1.1,2000) (500,2.0,4000) — Heavy Mineral Sample (sample no. Au ppb, Ag ppm, Cu ppm 150 mesh) (sample no. Au ppb, Ag ppm, Cu ppm 60+150 mesh)
- Mapping Station
- Claim Post (LCP: Legal Corner Post) (CP: Corner Post) (ID: Identification Post)
- Geologic Contact (defined, approximate, assumed)
- Fault (with dip direction) (defined, assumed, possible)
- Shear (with dip direction)
- Outcrop
- Outcrop (too small at scale)
- Bedding (with dip)
- Foliation (with dip)
- Dyke or Sill (with dip)
- Joints (with dip)
- Zone of alteration
- Crenulation (with dip direction)

ABBREVIATIONS

Bi:	Biotite
Cbt:	Carbonate
Chl:	Chlorite
Cp:	Chalcopyrite
c.g.:	Coarse-grained
Ep:	Epidote
Frac:	Fracture
f.g.:	Fine-grained
Ga:	Galena
m.g.:	Medium-grained
Mag:	Magnetic
Mt:	Magnetite
Musc:	Muscovite
Po:	Pyrrhotite
Py:	Pyrite
q.v.:	Quartz Vein
R/C:	Rubble Crop
Serp.:	Serpentinite
Sil:	Silicified
Sph:	Sphalerite
St:	Sericite

* Based on Chevron Minerals Ltd. 1987 Legend

** Porphyroblastic Mafic Volcanic added to Chevron Minerals limited 1987 Legend

SCALE 1 : 10000

0 100 200 300 400 600 800

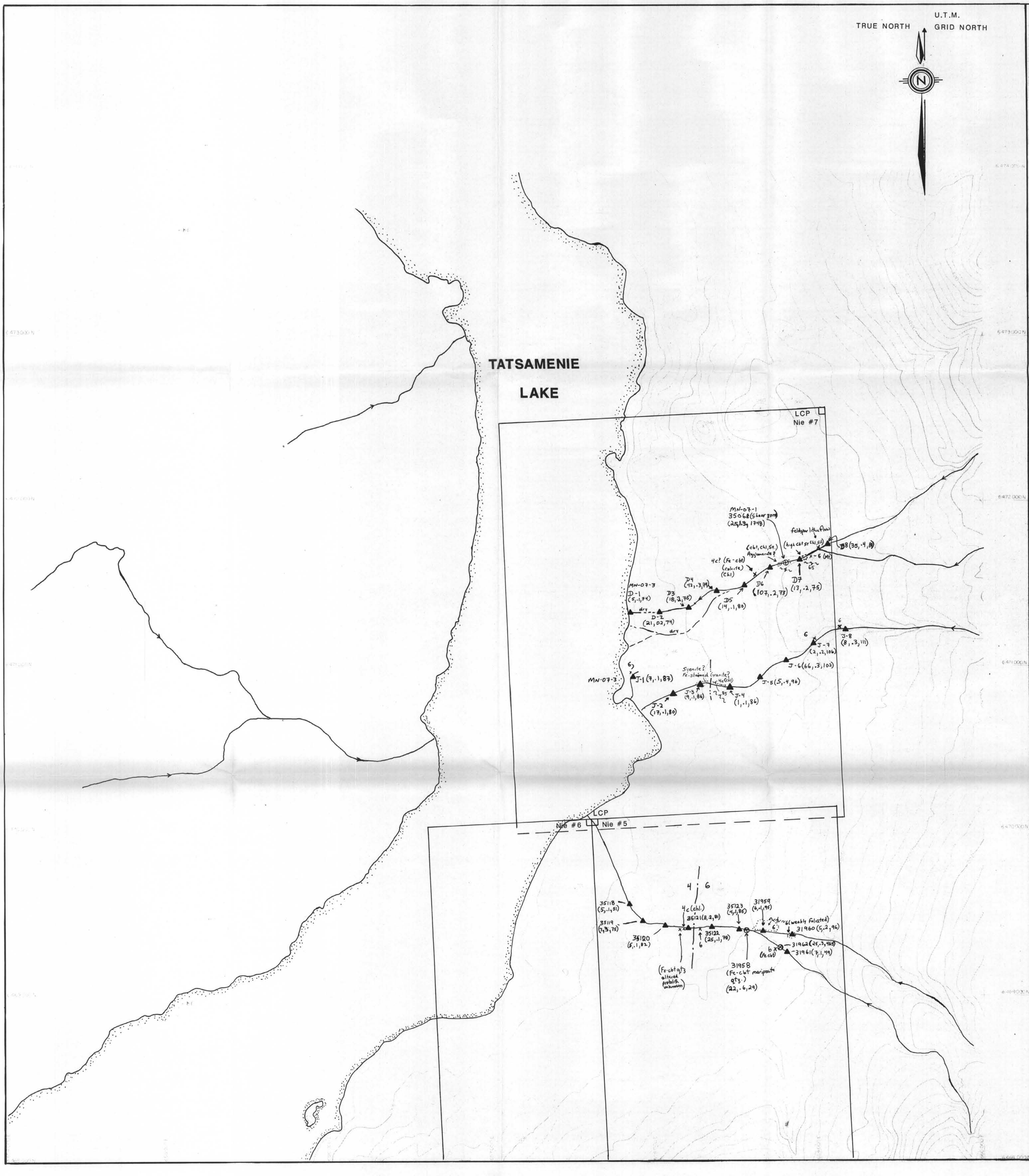
METERS

HOMESTAKE MINERAL DEVELOPMENT COMPANY

Golden Bear Road J.V. Project
NIE GROUP PROPERTY
(Nie #3 Nie #4 Nie #5 Nie #6)

GEOLOGY AND GEOCHEMISTRY

DRAWN	DATE	FILE CODE	
DAM	NOV. 30,1990	104K/8W	Fig. 4.1
REVISED			



LEGEND*

MIOCENE

8 — Level Mountain - plateau basalts

TERTIARY - CRETACEOUS

7 — Sloko Group
- a - feldspar porphyry
- b - rhyolite dykes, stocks
- c - basalt dykes

JURASSIC - CRETACEOUS

6 — Non-foliated Diorite
- a - diorite non-foliated dyke
- b - albitite sill
- c - porphyritic diorite (feldspar porphyry)

TRIASSIC

5 — Foliated Diorite

PRE - UPPER TRIASSIC

4 — Intermediate to Mafic Volcanics: tuffs, flows and sediments derived from volcanics occasional calcareous siltstone beds
- a - augite porphyry
- b - tuff, thinly bedded
- c - massive flows
- d - lapilli tuff
- e - chlorite schist
- f - porphyroblastic mafic volcanic **

3 — Siltstone to Limestone: siltstone, calcareous siltstone and limestone
- a - siliceous siltstone
- b - calcareous to carbonaceous siltstone
- c - limestone
- d - white to light grey limestone
- e - black highly carbonaceous
- f - intraformational breccia

PERMIAN

2 — Limestone
- a - carbonaceous
- b - white

1 — Ultramafic

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,655

SYMBOLS

- 31118 (4,0.5,150) — Rock Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31118 (4,0.5,150) — Silt Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31118 (4,0.5,150) — Soil Sample (sample no. Au ppb, Ag ppm, Cu ppm)
- 31119 (200,1.1,2000) (500,2.0,4000) — Heavy Mineral Sample (sample no. Au ppb, Ag ppm, Cu ppm 150 mesh) (sample no. Au ppb, Ag ppm, Cu ppm 60+150 mesh)
- Mapping Station
- Claim Post (LCP: Legal Corner Post) (CP: Corner Post) (ID: Identification Post)
- Geologic Contact (defined, approximate, assumed)
- Fault (with dip direction) (defined, assumed, possible)
- Shear (with dip direction)
- Outcrop
- Outcrop (too small at scale)
- Bedding (with dip)
- Foliation (with dip)
- Dyke or Sill (with dip)
- Joints (with dip)

ABBREVIATIONS

Bi:	Biotite
Cbt:	Carbonate
Chl:	Chlorite
Cp:	Chalcopyrite
c.g.:	Coarse-grained
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Ga:	Galena
m.g.:	Medium-grained
Mag:	Magnetic
Mt:	Magnetite
Musc:	Muscovite
Po:	Pyrrhotite
Py:	Pyrite
q.v.:	Quartz Vein
R/C:	Rubble Crop
Sil:	Silicified
Sph:	Sphalerite
St:	Sericite

* Based on Chevron Minerals Ltd. 1987 Legend

** Porphyroblastic Mafic Volcanic added to Chevron Minerals limited 1987 Legend

SCALE 1 : 10000

0 100 200 300 400 600 800

METERS

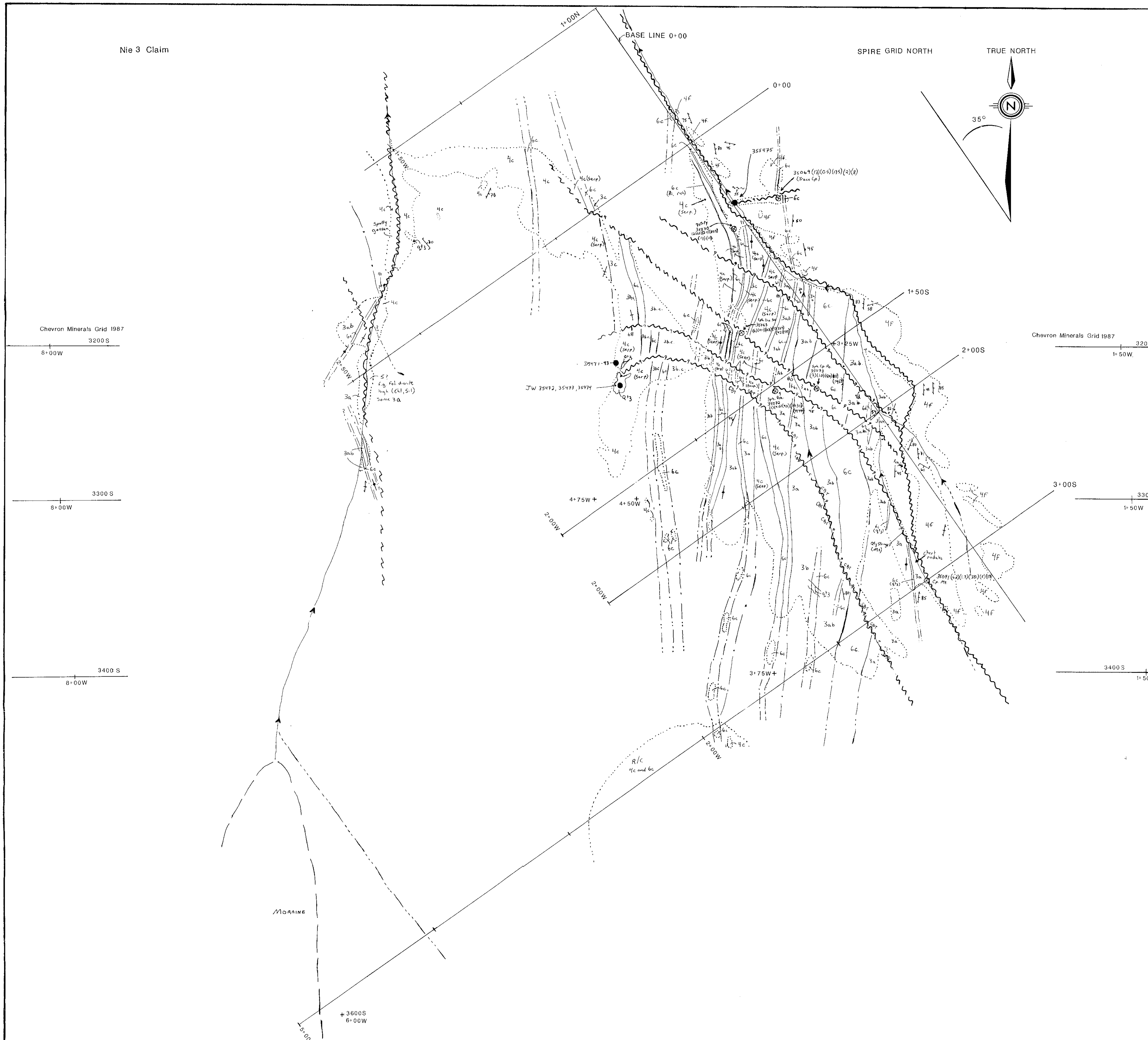
HOMESTAKE MINERAL DEVELOPMENT COMPANY

Golden Bear Road J.V. Project
NIE GROUP PROPERTY
(Nie #5 Nie #6 Nie #7)

GEOLOGY AND GEOCHEMISTRY

DRAWN	DATE	FILE CODE	
DAM	NOV. 30,1990	104K/8W	Fig. 4.2

REVISED



LEGEND *

MIOCENE

8 — Level Mountain - plateau basalts

TERTIARY - CRETACEOUS

7 — Sloko Group
- a - feldspar porphyry
- b - rhyolite dykes, stocks
- c - basalt dykes

JURASSIC - CRETACEOUS

6 — Non-foliated Diorite
- a - diorite non-foliated dyke
- b - albitite sill
- c - porphyritic diorite (feldspar porphyry)

TRIASSIC

5 — Foliated Diorite

PRE - UPPER TRIASSIC

4 — Intermediate to Mafic Volcanics: tuffs, flows and sediments derived from volcanics occasional calcareous siltstone beds
- a - augite porphyry
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- f - intraformational breccia

PERMIAN

2 — Limestone
- a - carbonaceous
- b - white

1 — Ultramafic

GEOLOGICAL BRANCH ASSESSMENT REPORT

20,655

ABBREVIATIONS

Bi:	Biotite
Cbt:	Carbonate
Chl:	Chlorite
Cp:	Chalcopyrite
c.g.:	Coarse-grained
Ep:	Epidote
Frac:	Fracture
f.g.:	Fine-grained
Ga:	Galena
m.g.:	Medium-grained
Mag:	Magnetic
Mt:	Magnetite
Musc:	Muscovite
Po:	Pyrrhotite
Py:	Pyrite
q.v.:	Quartz Vein
R/C:	Rubble Crop
Sil:	Silicified
Sph:	Sphalerite
St:	Sericite

SYMBOLS

- 31118 (62,1,7,853,1730,2764) — Rock Sample (sample no. Au ppb, Ag ppm, Cu ppm, Pb ppm, Zn ppm)
- JW35472 — Rock Sample Chevron Minerals Ltd.
- Geologic Contact (defined, approximate, assumed)
- Fault (with dip direction) (defined, assumed, possible)
- Quartz Carbonate Breccia Fault Zone
- Outcrop
- Bedding (with dip)
- Foliation (with dip)
- Dyke or Sill (with dip)
- Joints (with dip)
- Creek (wet, dry)
- + Chevron Minerals Ltd. grid location

* Based on Chevron Minerals Ltd. 1987 Legend
** Porphyroblastic Mafic Volcanic added to Chevron Minerals limited 1987 Legend

SCALE 1 : 1000

0 10 20 30 40 50

METERS

HOMESTAKE

MINERAL DEVELOPMENT COMPANY

Golden Bear Road J.V. Project

MISTY NIE PROPERTY

(Nie 3 Claim)

SPIRE GRID GEOLOGY

DRAWN	DATE	FILE CODE	
DAM	Nov. 28, 1990	104K/8W	Fig. 5
REVISED			

DRILL HOLE DATA

Hole	Azimuth	Dip	Length
R87-31	100°	-64.5°	197.82m.
R87-34	100	-40	181.36
R87-37	147	-45	55.47
R90- 5	236	-66	92.05
R90- 6	337	-56	179.83
R90- 7	-	-90	119.79
R90- 8	235	-60	45.72

LEGEND

JURASSIC - CRETACEOUS

6 Diorite; 6a diorite dikes, 6b Albitite sill, 6c porphyritic diorite, 6d quartz monzonite, 6e pyroxenite, gabbro

TRIASSIC

5 Diorite; foliated

PRE-UPPER TRIASSIC

4 Intermediate to mafic volcanic rocks
4a augite porphyry, 4b thin bedded tuff, 4c massive flows, 4d lapilli tuff, 4e chlorite schist, 4f limestone

3 Phyllite; 3a Thick pink banded limestone, 3b siliceous siltstone, 3c thin pink banded limestone, 3d buff weathering limestone, 3e mafic flows, 3f conglomerate

PERMIAN

2 Limestone; 2a carbonaceous, 2b white

ALTERATION

C Iron carbonate and quartz veins
SK Skarn
Q Quartz stockwork
D Dolomitization
S Massive silica replacement

SYMBOLS

- Bedding, foliation attitude
- Breccia
- Fracture attitude
- Vein attitude
- Fault, shear orientation
- Outcrop
- Float
- Geological contact; defined, inferred
- 1500 Topographic contours; contour interval 50 metres
- 50 S Survey grid line
- Legal corner post, claim boundary
- Drill site

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM - TUT PROPERTY

ATLIN MINING DIVISION - BRITISH COLUMBIA

DRILL HOLE LOCATION & GEOLOGICAL MAP

November, 1990

Figure 5

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,929

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D. G. ALLEN

A·M exploration ltd

Sample number	Au ppb	Ag ppm	As ppm	Sb ppm
006251	5	0.2	33	12
006252	5	0.4	38	17
006253	5	0.4	15	2
006254	5	0.2	53	10
006255	5	0.2	14	9
006256	5	0.1	2	2
006257	30	2.4	438	26
006258	660	2.0	64	16
006259	40	1.0	125	10
006260	80	1.8	58	18
006261	420	66.0	182	148
006262	10	0.1	38	6
006263	30	0.5	947	8518
006264	170	1.3	12424	180
006265	1240	2.0	311	54
006266	5	0.3	56	14
006268	80	9.2	195	37
006269	5	0.1	2	2
006270	5	0.2	2	2
006271	540	5.4	166	16
006272	5	0.4	300	8
006273	5	0.3	113	5
006281	5	4.3	29	18
006282	5	0.4	9	21
006283	5	0.3	17	16
006284	5	0.2	2	2
006285	60	0.4	915	76

RAM BAA

TUT 3 TUT 2

TUT 4 TUT 1

LEGEND

- △006254 Rock sample site, sample number
- Genie SE-88 electromagnetic anomaly
- VLF – electromagnetic anomaly
  - Strong
  - Moderate
  - Weak
- 90-5 Drill hole site, hole number
- 1500 Topographic contours, contour interval 25 metres
- 50 S Survey grid line
- Legal corner post, claim boundary

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

RAM–TUT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

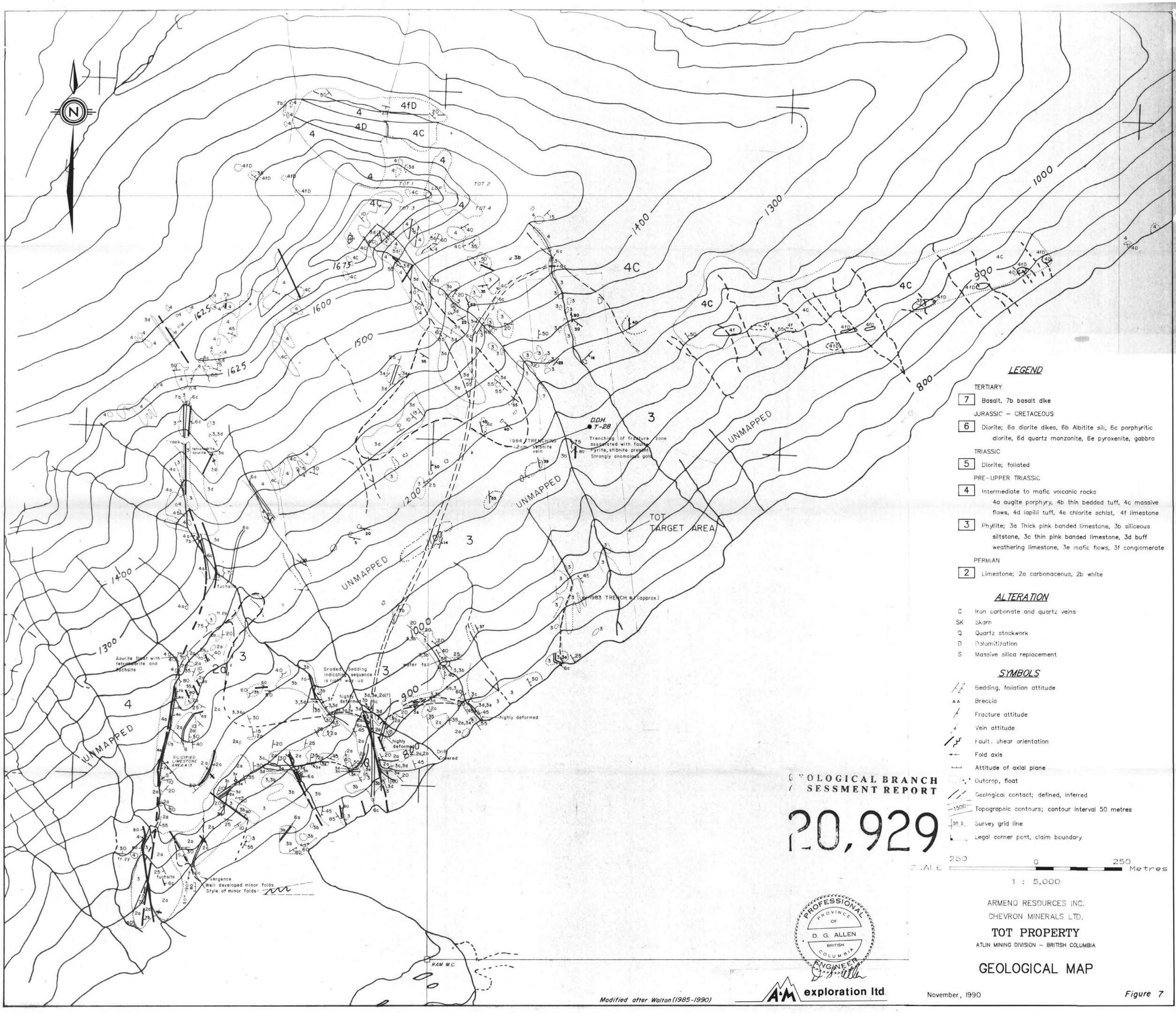
SUMMARY MAP

SAMPLE SITES, DRILL HOLE SITES
&
ELECTROMAGNETIC ANOMALIES

November, 1990

Figure 6

A·M exploration ltd



LEGEND

TERTIARY

7 Basalt, 7b basalt dike

JURASSIC – CRETACEOUS

6 Diorite; 6a diorite dikes, 6b Albitite sill, 6c porphyritic diorite, 6d quartz monzonite, 6e pyroxenite, gabbro

TRIASSIC

5 Diorite; foliated

PRE–UPPER TRIASSIC

4 Intermediate to mafic volcanic rocks
4a augite porphyry, 4b thin bedded tuff, 4c massive flows, 4d lapilli tuff, 4e chlorite schist, 4f limestone

3 Phyllite; 3a Thick pink banded limestone, 3b siliceous siltstone, 3c thin pink banded limestone, 3d buff weathering limestone, 3e mafic flows, 3f conglomerate

PERMIAN

2 Limestone; 2a carbonaceous, 2b white

ALTERATION

C Iron carbonate and quartz veins
SK Skarn
Q Quartz stockwork
D Dolomitization
S Massive silica replacement

SYMBOLS

- Bedding, foliation attitude
- Breccia
- Fracture attitude
- Vein attitude
- Fault, shear orientation
- Fold axis
- Attitude of axial plane
- Outcrop, float
- Geological contact; defined, inferred
- 1500 Topographic contours; contour interval 50 metres
- 50 S Survey grid line
- Legal corner post, claim boundary

SCALE 250 0 250 Metres

1 : 5,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,929

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

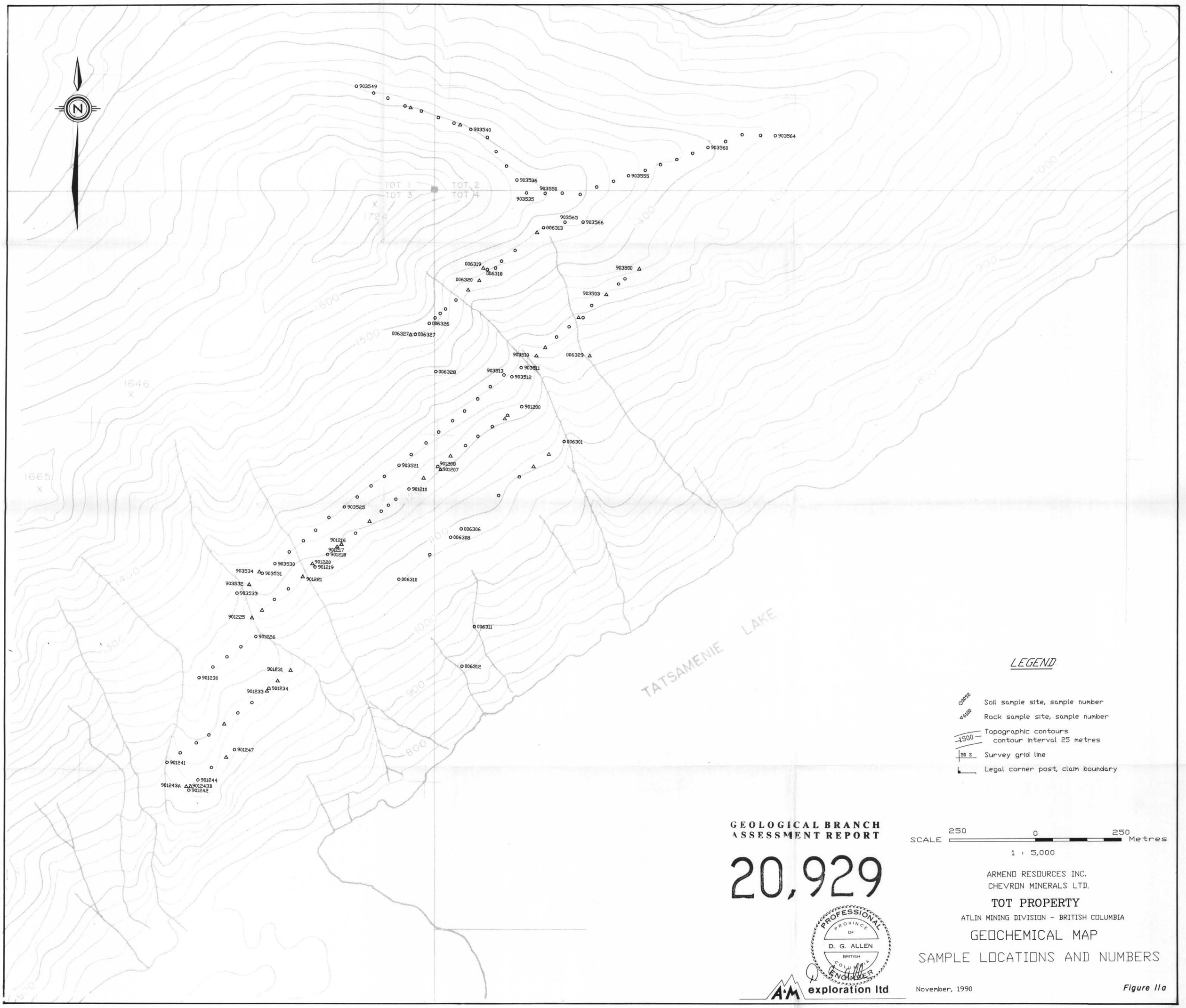
GEOLOGICAL MAP

Modified after Walton (1985-1990)

A·M exploration ltd.

November, 1990

Figure 7



LEGEND

- Soil sample site, sample number
- Rock sample site, sample number
- Topographic contours, contour interval 25 metres
- Survey grid line
- Legal corner post, claim boundary

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,929

SCALE 250 0 250 Metres

1 : 5,000

ARMEND RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION - BRITISH COLUMBIA

GEOCHEMICAL MAP

SAMPLE LOCATIONS AND NUMBERS

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A·M exploration ltd

November, 1990

Figure IIa

TOT 1
TOT 2
TOT 3
TOT 4
1724
1646
1665
TATSAMENIE LAKE

LEGEND

Range of values in ppm

Soil		Rock	Silt
o	1 to 10	△	□
●	11 to 20	△	□
●	21 to 40	△	□
●	+40	△	□

1500 Topographic contours
contour interval 25 metres

50 S Survey grid line

Legal corner post, claim boundary

GEOLOGICAL BRANCH
ASSESSMENT REPORT

SCALE 250 0 250 Metres
1 : 5,000

20,929

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GEOCHEMICAL MAP

GOLD

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A·M exploration ltd.

November, 1990

Figure IIb

TOT 1
TOT 3
TOT 2
TOT 4

1724

1646

1685

TATSAMENIE LAKE

LEGEND

Range of values in ppm

Soil		Rock	Silt
o	1 to 40	△	□
●	41 to 80	△	□
●	81 to 160	△	□
●	161 to 320	△	□
●	+320	△	□

1500 Topographic contours, contour interval 25 metres

50 S Survey grid line

Legal corner post, claim boundary

20,929

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GEOCHEMICAL MAP

ARSENIC

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A·M exploration ltd.

November, 1990

Figure IIc

TOT 1
TOT 2
TOT 3
TOT 4

1724

1646

1665

TATSAMENIE LAKE

LEGEND

Range of values in ppm

Soil		Rock	Silt
o	1 to 10	△	□
●	11 to 20	△	□
●	21 to 40	△	□
●	+40	△	□

1500 Topographic contours, contour interval 25 metres

50 S Survey grid line

Legal corner post, claim boundary

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,929

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
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TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GEOCHEMICAL MAP

ANTIMONY

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

A&M exploration ltd.

November, 1990

Figure IId

TOT 1
TOT 2
TOT 3
TOT 4

1724

1646

1665

206
397
2046
170
205
344
151
179
154
223
396
167
159
174
572
244
230
268
195
184
156
234
157
637
162
210
434
211
225
317
191
196
214
178
204

1600
1500
1400
1300
1200
1100
1000
900
800
700

TATSAMENIE LAKE

LEGEND

Range of values in ppm

	Soil	Rock	Silt
○	1 to 150	△	□
●	151 to 300	△	□
●	301 to 600	△	□
●	+600	△	□

1500 Topographic contours, contour interval 25 metres

50 S Survey grid line

Legal corner post, claim boundary

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,929

SCALE 250 0 250 Metres

1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GEOCHEMICAL MAP

ZINC

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

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Figure IIe

TOT 1 TOT 2
TOT 3 TOT 4

1724

47 31 33

67

45 141 39 45 34 39

153

TATSAMENIE LAKE

LEGEND

Range of values in ppm

Soil		Rock	Silt
○	1 to 30	△	□
●	31 to 60	△	□
●	61 to 120	△	□
●	+120	△	□

1500 Topographic contours
contour interval 25 metres

50 S Survey grid line

Legal corner post, claim boundary

SCALE 250 0 250 Metres
1 : 5,000

ARMENO RESOURCES INC.
CHEVRON MINERALS LTD.

TOT PROPERTY

ATLIN MINING DIVISION – BRITISH COLUMBIA

GEOCHEMICAL MAP
LEAD

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. G. ALLEN

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November, 1990

Figure IIf