

Geological Report

093 833

On The

**RV 66 to 92 incl. (YB12563-YB12589),
RV 110-133 incl. (YB12608-YB13631) and
RV 140-165 incl. (YB12638-YB12663) Claims**

Located on

Claim Sheets 105/K/05 and 105/K/06

at

Latitude 62°24' N Longitude 133°04' W

Owned by

Anvil Range Mining Corporation

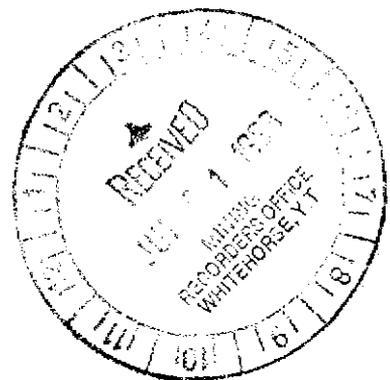
Whitehorse Mining District, Yukon

Report prepared by

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Access Mining Consultants Ltd.**

1 June 1998

Work completed 1 August 1997 to 1 December 1997



This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount

\$ 8000.00

M. Burke
for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

Table of Contents

| | |
|-----------------------------------|----|
| Introduction | 1 |
| Location and Access | 1 |
| Claims | 4 |
| Regional Setting | 6 |
| Work Program | 7 |
| Map Units | 9 |
| Structure..... | 14 |
| Intrusive History..... | 17 |
| References..... | 20 |
| Statement of Qualifications | 21 |

Appendices

| | |
|---------------|--------------------|
| Appendix..... | Statement of Costs |
|---------------|--------------------|

Maps and Figures

| | | |
|----------|--|----------------|
| Figure 1 | Location Map | |
| Figure 2 | Location of the RV claims in the Anvil District | |
| Figure 3 | Location of the Map sheets in the Anvil District | |
| Figure 4 | Stratigraphic Section | |
| Plate 1 | Map sheet C6E | scale 1:10,000 |
| Plate 2 | Map sheet D6W | scale 1:10,000 |
| Plate 3 | Map sheet D6E | scale 1:10,000 |
| Plate 4 | Claim sheet 10/5K/05 | scale 1:31,680 |

INTRODUCTION

This report describes the first phase of work on a geological compilation begun in August 1997 on behalf of Anvil Range Mining Corporation. The purpose of the project was to compile all available geological mapping covering the claims and vicinity, to coordinate the map units used, and to compile all available drill holes. Such a compilation had not been undertaken since the late 1970's; since then much additional work had been done and some fundamentally new structural concepts had been developed which were not adequately integrated with the district wide geology. An additional objective was to integrate the results of detailed airborne geophysical survey (electromagnetic and magnetic surveys) flown in 1996. The ultimate purpose of the project was to update the geological interpretation of the district preparatory to a planned phase of exploration work which was to include deep exploration drilling.

This project was planned to be a continuing project through 1997 and 1998 but was terminated in March 1998 due to financial difficulties of Anvil Range Mining Corporation. This work describes the first phase of work completed between August 1, 1997 and December 1, 1997 in the northwest part of the Anvil District including the RV claims.

LOCATION AND ACCESS

The RV claims are located 210 km northeast of Whitehorse and 25 km north of Faro Yukon at Latitude 62°24' N Longitude 133°04' W (figure 1). The center of the claim block is 12 km northwest of the Faro Mine at the northwest end of the company's large contiguous claim block (figure 2).

Access to the Anvil District is by all weather highway from Whitehorse (340 km) to the Faro mill site and then by secondary roads northwest from there.

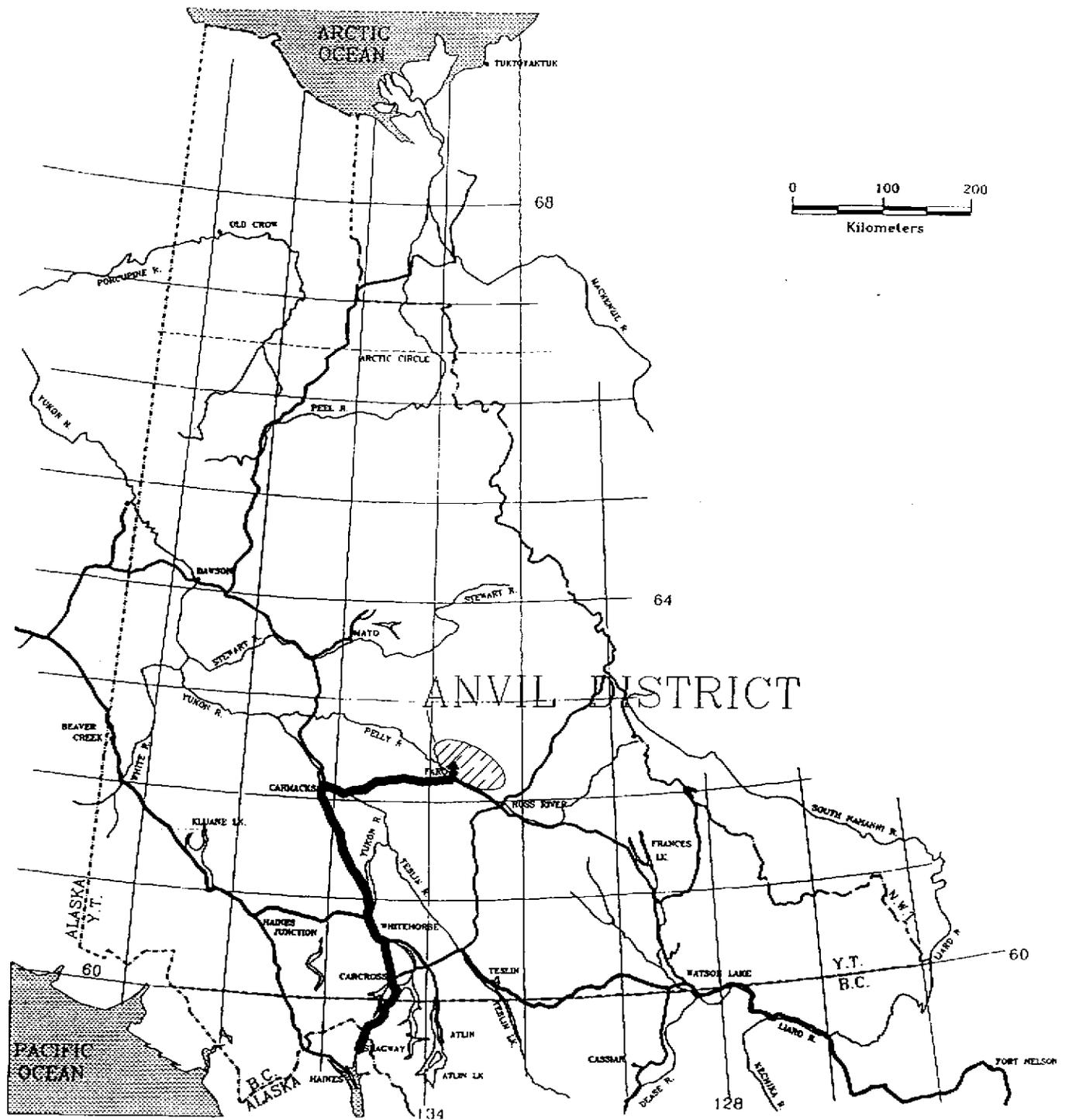


Figure 1. Location of the Anvil Range Lead-Zinc-Silver District near Faro, central Yukon. Concentrate is hauled to tidewater at Skagway, Alaska, along the Campbell and Klondike Highways; the route is shown as a heavy line.

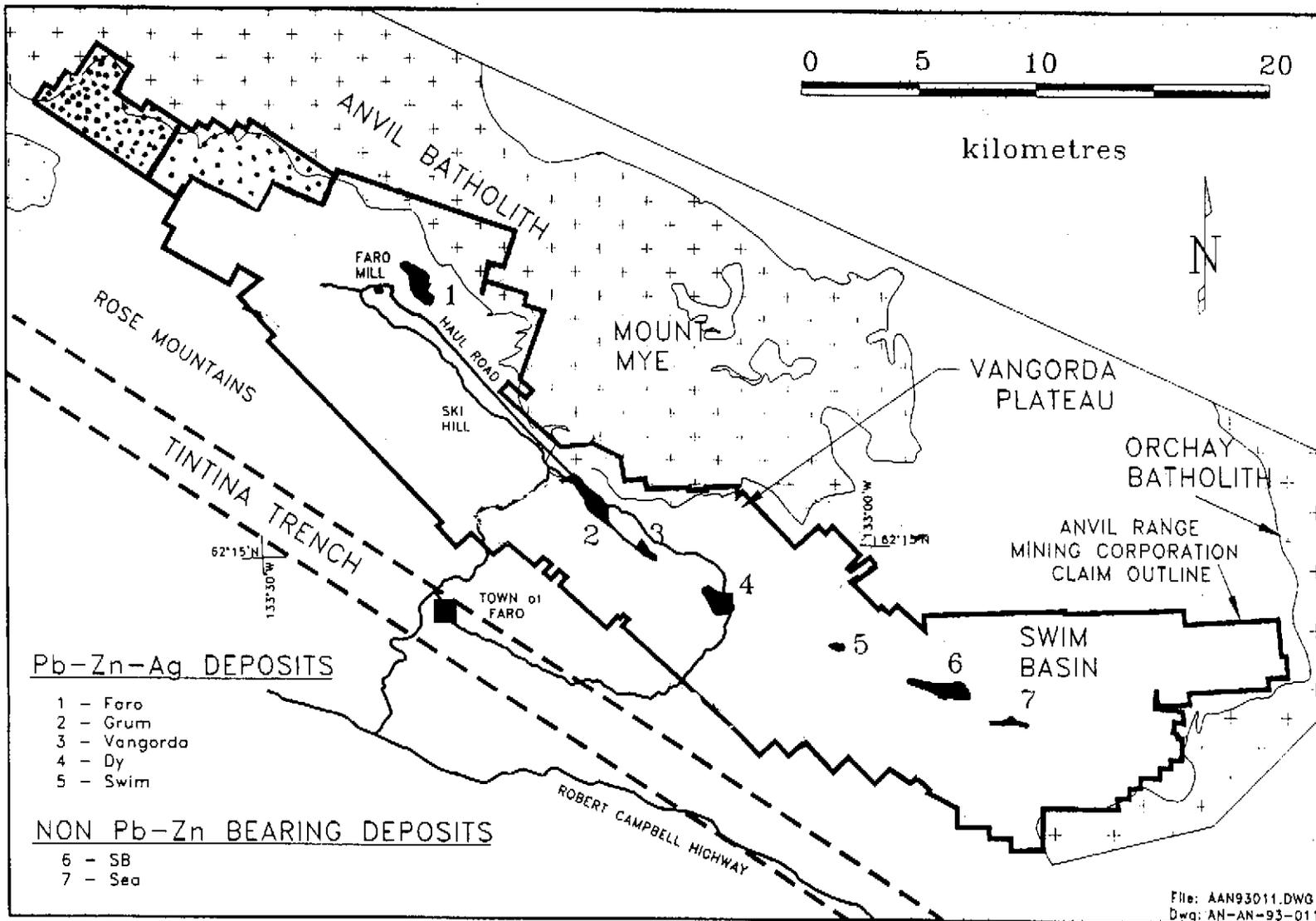


Figure 2. Location of the RV claims in the Anvil District. The RV claims are stippled, the more densely stippled portion of the claims represents the claims renewed in Dec. 1997.

Claims

The RV claims are 100% owned by Anvil Range Mining Corporation on behalf of whom the work was done. The claims are listed in table 1. The work described in this report has been applied as representation work to bring the expiry of the claims to December 1, 1998.

Table 1
List of Claims

| Claim Name and Number | Grant Number | Expiry Date |
|-----------------------|--------------|-------------|
| RV 66 | YB12563 | 1-Dec-97 |
| RV 67 | YB12564 | 1-Dec-97 |
| RV 68 | YB12565 | 1-Dec-97 |
| RV 69 | YB12566 | 1-Dec-97 |
| RV 70 | YB12567 | 1-Dec-97 |
| RV 71 | YB12568 | 1-Dec-97 |
| RV 72 | YB12569 | 1-Dec-97 |
| RV 73 | YB12570 | 1-Dec-97 |
| RV 74 | YB12571 | 1-Dec-97 |
| RV 75 | YB12572 | 1-Dec-97 |
| RV 76 | YB12573 | 1-Dec-97 |
| RV 77 | YB12574 | 1-Dec-97 |
| RV 78 | YB12575 | 1-Dec-97 |
| RV 79 | YB12576 | 1-Dec-97 |
| RV 80 | YB12577 | 1-Dec-97 |
| RV 81 | YB12578 | 1-Dec-97 |
| RV 82 | YB12579 | 1-Dec-97 |
| RV 83 | YB12580 | 1-Dec-97 |
| RV 84 | YB12581 | 1-Dec-97 |
| RV 85 | YB12582 | 1-Dec-97 |
| RV 86 | YB12583 | 1-Dec-97 |
| RV 87 | YB12584 | 1-Dec-97 |
| RV 88 | YB12585 | 1-Dec-97 |
| RV 89 | YB12586 | 1-Dec-97 |
| RV 90 | YB12587 | 1-Dec-97 |
| RV 91 | YB12588 | 1-Dec-97 |
| RV 92 | YB12589 | 1-Dec-97 |
| RV 110 | YB12608 | 1-Dec-97 |
| RV 111 | YB12609 | 1-Dec-97 |
| RV 112 | YB12610 | 1-Dec-97 |
| RV 113 | YB12611 | 1-Dec-97 |
| RV 114 | YB12612 | 1-Dec-97 |
| RV 115 | YB12613 | 1-Dec-97 |
| RV 116 | YB12614 | 1-Dec-97 |
| RV 117 | YB12615 | 1-Dec-97 |

GEOLOGICAL REPORT ON CLAIMS OWNED BY ANVIL RANGE MINING CORPORATION

| Claim Name and Number | Grant Number | Expiry Date |
|------------------------------|---------------------|--------------------|
| RV 118 | YB12616 | 1-Dec-97 |
| RV 119 | YB12617 | 1-Dec-97 |
| RV 120 | YB12618 | 1-Dec-97 |
| RV 121 | YB12619 | 1-Dec-97 |
| RV 122 | YB12620 | 1-Dec-97 |
| RV 123 | YB12621 | 1-Dec-97 |
| RV 124 | YB12622 | 1-Dec-97 |
| RV 125 | YB12623 | 1-Dec-97 |
| RV 126 | YB12624 | 1-Dec-97 |
| RV 127 | YB12625 | 1-Dec-97 |
| RV 128 | YB12626 | 1-Dec-97 |
| RV 129 | YB12627 | 1-Dec-97 |
| RV 130 | YB12628 | 1-Dec-97 |
| RV 131 | YB12629 | 1-Dec-97 |
| RV 132 | YB12630 | 1-Dec-97 |
| RV 133 | YB12631 | 1-Dec-97 |
| RV 140 | YB12638 | 1-Dec-97 |
| RV 141 | YB12639 | 1-Dec-97 |
| RV 142 | YB12640 | 1-Dec-97 |
| RV 143 | YB12641 | 1-Dec-97 |
| RV 144 | YB12642 | 1-Dec-97 |
| RV 145 | YB12643 | 1-Dec-97 |
| RV 146 | YB12644 | 1-Dec-97 |
| RV 147 | YB12645 | 1-Dec-97 |
| RV 148 | YB12646 | 1-Dec-97 |
| RV 149 | YB12647 | 1-Dec-97 |
| RV 150 | YB12648 | 1-Dec-97 |
| RV 151 | YB12649 | 1-Dec-97 |
| RV 152 | YB12650 | 1-Dec-97 |
| RV 153 | YB12651 | 1-Dec-97 |
| RV 154 | YB12652 | 1-Dec-97 |
| RV 155 | YB12653 | 1-Dec-97 |
| RV 156 | YB12654 | 1-Dec-97 |
| RV 157 | YB12655 | 1-Dec-97 |
| RV 158 | YB12656 | 1-Dec-97 |
| RV 159 | YB12657 | 1-Dec-97 |
| RV 160 | YB12658 | 1-Dec-97 |
| RV 161 | YB12659 | 1-Dec-97 |
| RV 162 | YB12660 | 1-Dec-97 |
| RV 163 | YB12661 | 1-Dec-97 |
| RV 164 | YB12662 | 1-Dec-97 |
| RV 165 | YB12663 | 1-Dec-97 |

REGIONAL SETTING

The geology of the Anvil Range has been described by Roddick and Green (1961), Templeman-Kluit (1972) and most recently by Gordey (1983) and Gordey and Irwin (1987). Jennings and Jilson (1986) and Pigage (1990) summarized the geology of the district and its orebodies based on work by staff of Cyprus Anvil Mining Corporation.

The RV claims are underlain by meta-sedimentary rocks of lower Paleozoic and possibly late Hadrynian age that are typical of the Anvil District. The meta-sedimentary sequence is an outboard extension of the basinal stratigraphy much better documented toward the northeast (Gordey 1992). To the southwest of the claim block are examples of the younger Paleozoic section similar to that of Selwyn Basin including probable equivalents of the Road River Group, Earn Group and Anvil Range Group.

A short distance to the southeast of the RV claims these meta-sedimentary rocks host several stratiform massive, pyritic, lead-zinc-silver orebodies. As much of claim group is underlain by rocks younger than these orebodies there is an excellent potential for additional discoveries of similar mineralization. Despite the long exploration history of the area, there are relatively few drill holes in the area and only a fraction of these holes were drilled deep enough to test the stratigraphy currently considered favorable for occurrence of the massive sulphide orebodies.

WORK PROGRAM

Previous geologic maps were recovered from the files of Anvil Range Mining Corporation. To the extent possible, drill hole logs were also located.

Outcrops were digitized according to the available coordinate system on the source maps and converted using long standing, district-wide, grid conversion equations to the local 1979 Cyprus Anvil grid datum. The 1927 NAD 1:50,000 geological map was to be "floated" over the geologic data to provide a geographic reference. Roads and streams were taken off the 1975 Cyprus Anvil 1:12,000 maps for the district where available. The use of the 1:50,000 map base was required as it is the only map that covers the entire district. Much more detailed mapping exists on the claims. This arrangement was intended to give an accurate compilation of all the geologic features to the most current grid system and survey control. The shortcomings of the 1:50,000 topographic base were recognized but, short of new topographic mapping, there was little alternative if there was to be a consistent topographic base. In carrying out the compilation, significant local errors have been found in the grid conversion equations which required a different approach to the conversion. This approach was completed after December 1997 and will be detailed in a later report describing the second phase of the project.

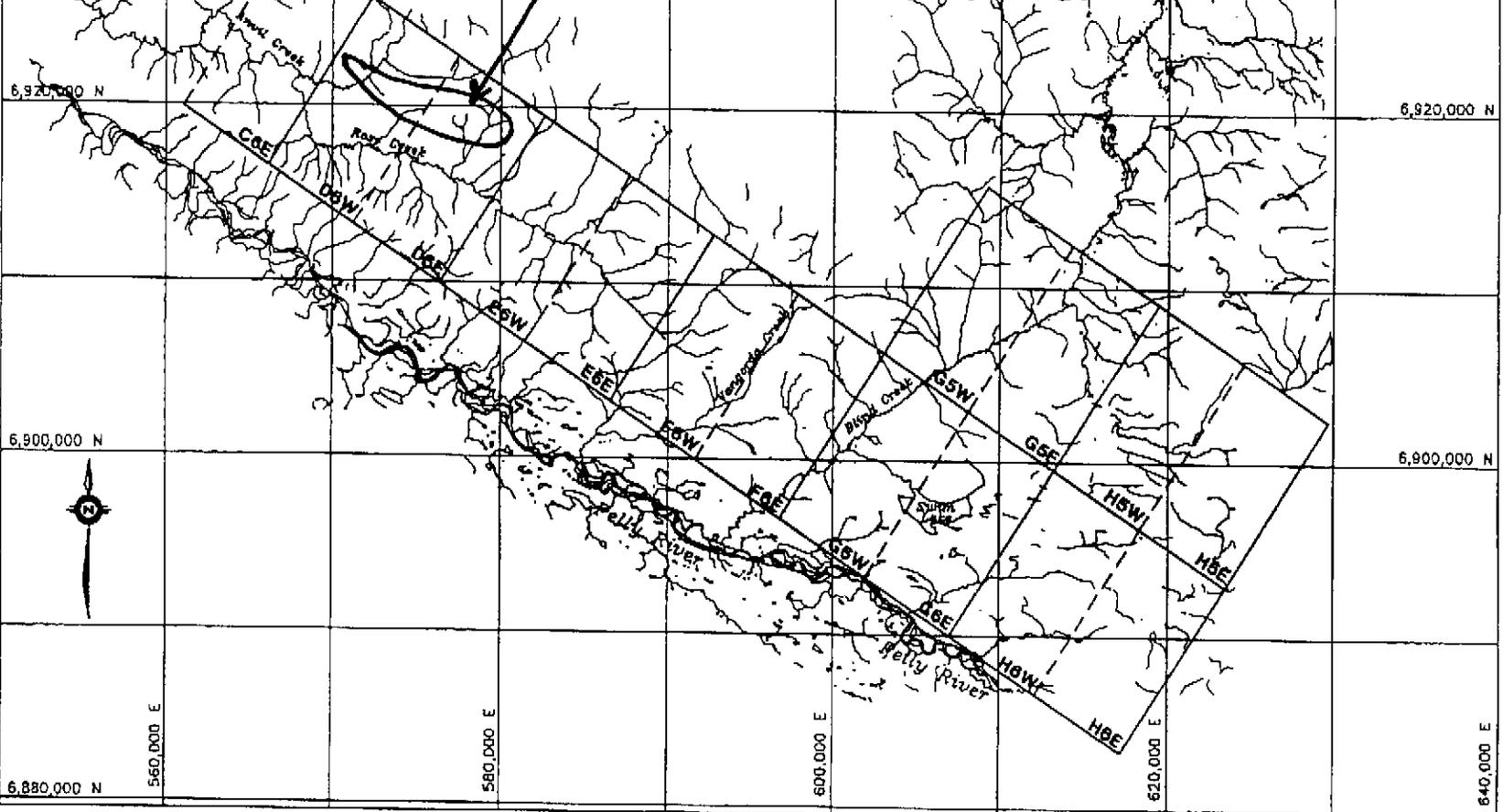
All map digitizing was done in Autocad R14. Outcrop boundaries and station locations are taken directly off the source maps. Most pre-existing contacts were not used. Shaded relief airborne geophysical electromagnetic and magnetic compilations were prepared to aid interpretation. Interpretation of the geology was initiated but not completed in this phase of the project.

Staff involved included G.A. Jilson and L.C. Pigage, geologists, and Holly and Bob Stirling, draftspeople. Shortcomings of the project and this report are solely the responsibility of the author.

Figure 3 shows the newly defined map sheets used for this compilation. Where possible the boundaries have been made common to previous maps.

A more extensive report detailing methods and the geological interpretation is in preparation in support of additional filing done on March 1, 1998 covering phase 2 of the project. Accompanying that report will be more final versions of some maps and additional drafts of new maps will be submitted along with cross sections.

**Location of the
RV Claims**



LEGEND

**ANVIL RANGE
MINING CORPORATION**

1998 COMPILATION MAPS
Anvil Range Mining Corporation

Access Mining Consultants Ltd.

| | | |
|-------------------|-------------------|----------------|
| SCALE: 1:400,000 | FILE: 09MAP04.DWG | DATE: 28/02/98 |
| DRAWN: LCP Graham | DWG: | FIGURE 3 |

MAP UNITS

The stratigraphy of the district is described in Jennings & Jilson (1986); Figure 4 is a generalized stratigraphic column of the district.

Mt. Mye formation (HC_{mm}) consists of non-calcareous, biotite-muscovite \pm andalusite \pm staurolite \pm garnet schist (HC_{mms}). It contains lesser, interlayered black carbonaceous phyllite or schist (HC_{mmgp}), calcitic marble (HC_{mmi}), calc-silicate phyllite or schist (HC_{mmcs}), greenstone or amphibolite (HC_{mmb}), and psammitic schist. The formation has a structural thickness of at least 2 km, and the base is not exposed. The reddish brown weathering color of the formation is characteristic and helps distinguish it from non-calcareous portions of the overlying Vangorda formation.

Dark grey to black carbonaceous phyllite or schist members (HC_{mmgp}) comprise about 10 percent of the formation. They are more abundant in the upper 400 m of the formation. Regionally, a distinctive assemblage of carbonaceous siliceous phyllite and black carbonaceous limestone appears to underlie, or be laterally equivalent to the lowest sulphide horizons. This unit is not exposed in the map area.

Coarse-grained, white, calcite marble and calc-silicate also constitute about 10 percent of the Mt. Mye formation. The marble is light grey (HC_{mmi}), medium crystalline calcite marble with boudins of pelite, amphibolite and calc-silicate. Marble bodies are generally only a few tens of meters thick in the map area. They can be traced laterally for approximately a kilometer. The calc-silicate lithology (HC_{mmcs}) is a thinly interbanded sequence of purplish brown biotite pelite and pale green actinoite-epidote calc-silicates. Typically, the calc-silicates are spatially associated with the marbles. The calc-silicates

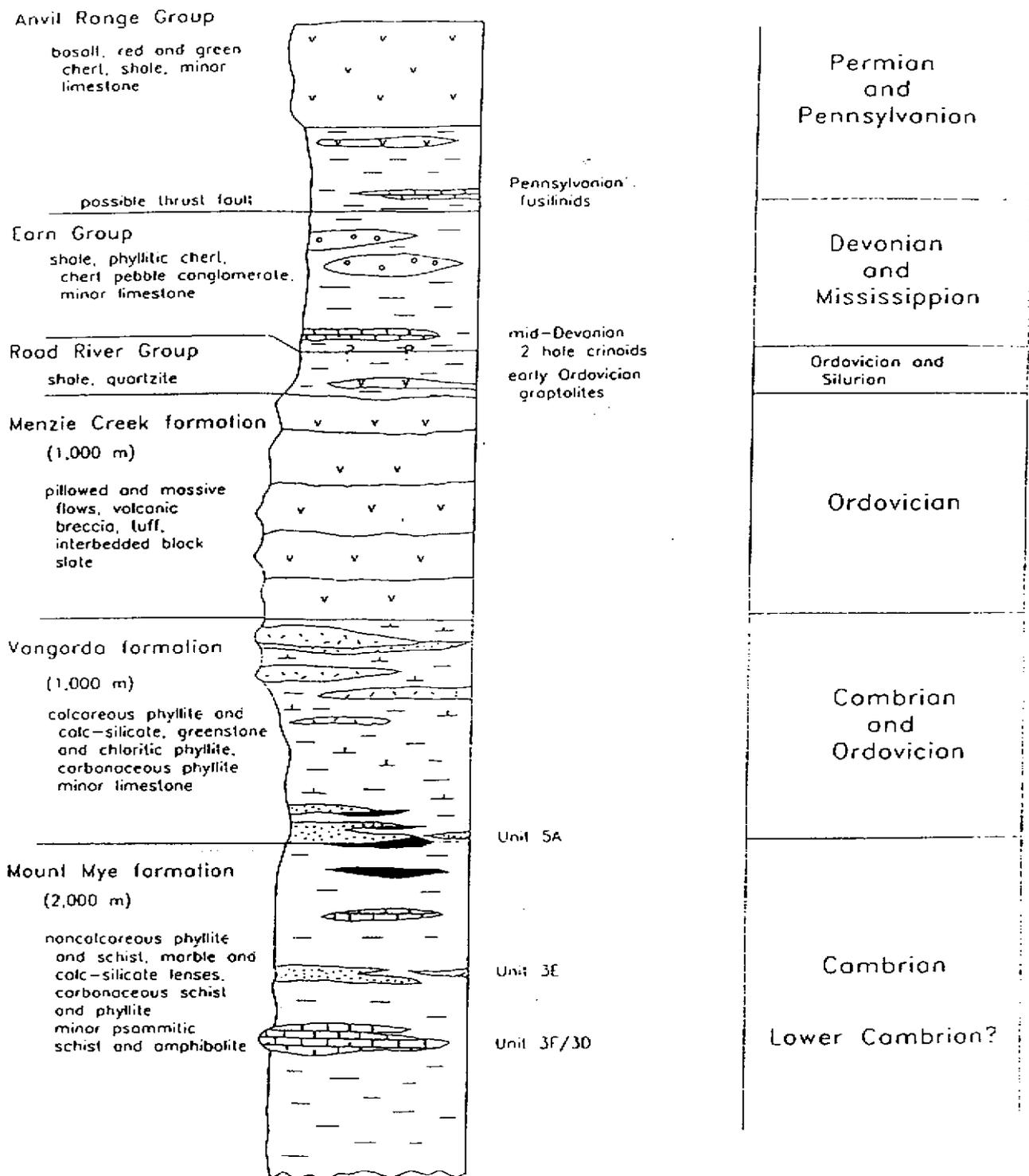


Figure 4. Schematic stratigraphic section for Anvil District. Vangorda and Mt. Mye formations contain carbonaceous phyllite (stipple-units 5A, 3E) interbanded with sulphide horizons (black). Sulphides form massive beds through a 200m stratigraphic interval straddling the Mt. Mye-Vangorda contact. Upper Vangorda formation is characterized by abundant dark green greenstone lenses (hachure pattern)

are identical to Vangorda formation calc-silicates. This map area is unusual since a protolith for the associated clean marbles, not generally found in the Vangorda formation, occurs widely in the map area. Thus the formational assignment of Mt. Mye marbles is unclear in this area. Regionally, the most persistent horizon of lenticular marble and calc-silicate bodies occurs about 500 to 700 m below the top of the Mt. Mye formation.

Metabasite bodies in the Mt. Mye formation (HC_{mmb}) are generally only a few meters thick and have small lateral dimensions. Volumetrically they constitute less than one percent of the Mt. Mye formation. They are generally strong foliated, dark green amphibolites lacking relict igneous texture. Compositions are similar to basalts of the Menzie Creek formation (Jennings and Jilson, 1986). They are interpreted as subvolcanic feeder dykes and sills of the Menzie Creek basalts.

The Vangorda formation (CO_V) is characterized by light to medium grey to greenish grey, calcareous, phyllitic rocks made up of very thin (0.1-2 cm) interlayers of medium grey, non-calcareous, weakly carbonaceous, muscovite-chlorite pelite and light grey, generally calcareous quartz-calcite \pm dolomite siltstone (CO_{Vp}). Northeast of Rose Creek, at the higher metamorphic grade of amphibolite facies, the Vangorda formation calcareous phyllites are transformed to a thinly banded, pervasively foliated, green, cream, and purplish brown, calc-silicate (CO_{VCS}). Major interbanded units include greenstone (CO_{VB}) and carbonaceous pelite (CO_{VC}). Minor phyllitic limestone occurs locally (CO_{VL}). As noted, this area is unusual in that marble is relatively prominent in the basalt part of the formation. The Vangorda formation varies between 0.5 and 2 km in apparent thickness. The formation becomes more calcareous up sections. The light

grey to tan colored, brush weathering of the formation is characteristic both within the district and elsewhere.

Regionally, the greenstone bodies (CO_{vb}) range from 1 m to 100 m in thickness and are up to several kilometres in length. They comprise approximately 15 percent of the Vangorda formation and are more prevalent near the top of the formation. Whole rock analyses show that the greenstones are compositionally similar to the overlying Menzie Creek basalts (Jennings and Jilson, 1986). Locally, the greenstones contain coarsely crystalline serpentinized pyroxenite subunits (CO_{vbp}), which may be pyroxene cumulates. This unit is particularly common near claim RV 30. Most greenstone bodies have medium-grained, equigranular centres with strongly foliated margins. Although marginal contacts of the bodies are superficially conformable, detailed inspection indicates the units are locally slightly crosscutting. The greenstones are thus interpreted as subvolcanic dykes and sills feeders to the Menzie Creek formation. Where the mafic units are thin, the entire body may be a foliated chloritic phyllite, commonly calcareous, with thin white bands of quartz and calcite. Some of these chloritic phyllites contain relict pyroxenes or feldspars, and develop a fine augen texture, while others have flat, ovoid, dark chloritic spots on the foliation after vesicles or pyroxenes.

Typically, the Vangorda formation adjacent to the greenstones is a thinly banded, hard, pale green, calcareous, chloritic phyllite (CO_{vpg}). This lithology had been interpreted as a marginal tuff adjacent to basaltic flows (as noted in Jennings and Jilson, 1986). More extensive and more recent drill core inspection and additional outcrop exposures by the author and L.C. Pigage indicate that, rather than a tuff, it represents a slight contact metamorphic aureole caused by intrusion of the greenstone bodies; further evidence that the greenstones are intrusive. Where the mafic bodies are thin, these altered phyllites

can be difficult to distinguish from the sill, and if the alteration is intense, the contact with the mafic rock may not be noticeable at all.

Black, slightly calcareous to dolomitic, carbonaceous pelite (CO_{vg}) members occur throughout the Vangorda formation. Dimensions and lateral continuity of these members are poorly known. The thickest and most extensive of these occurs at the base of the formation; it ranges from only a few tens of meters to 100 m in thickness. This basal member becomes thicker in the immediate vicinity of the ore deposits and appears to be laterally equivalent to black, sulphide-bearing, ribbon-banded, carbonaceous, quartzite ores within some of the mineral deposits. Southwest of the Grum and Vangorda deposits, the basal members is very siliceous and slightly pyritic, enhancing the impression of equivalence to the carbonaceous quartzite ores.

Overlying the Vangorda formation are several units including correlatives of the Menzie Creek formation, Road River Group, Barn Group and Anvil Range Group.

Unit O_{MC} represents the Menzie Creek formation and consists of highly flattened, medium olive green, highly amygdaloidal pillowed basalt and basaltic breccia. Black graphitic phyllite is commonly interlayered.

Unit OD_{bs} consists of black carbonaceous shale, commonly calcareous. The unit crops out poorly and is mainly traced by electromagnetic surveys. The unit contains thin two-hole crinoid bearing bioclastic limestone beds elsewhere in the district.

Eam Group correlatives cannot readily be differentiated from Anvil Range Group in the Rose Mountains, thus the two groups are combined into unit DP. Units DP_{bs} and DP_{bch}

are the dominant lithologies. The former consists of black carbonaceous siliceous shale, black chert and siltstone. The unit is not readily distinguished from the underlying unit OD_{bs}. Unit DP_{bch} consists of beige, green and black phyllitic chert.

Particularly prominent in the foothills of the Rose Mountains are strongly deformed, highly flattened, chert pebble conglomerates. These rocks resemble lenticularly bedded cherts due to the extreme flattening of the clasts. Unit DP_{ba} consists of stratiform barite that occurs at several horizons in unit DP_{bch}. Unit DP_t consists of bedded greenish rocks, possibly tuffaceous, of uncertain stratigraphic affiliation. They crop out near the base of unit DP.

At the top of unit DP, units DP_b and DP_{rch} (combined with DP_{bch}) represent the classic Anvil Range Group as redefined by Templeman-Kluit (1972). Unit DP_b consists of massive epidotized basalt. It is the uppermost unit of the Rose Mountains Paleozoic section. Underlying the basalt is a chert rich sequence characterized by red and green colors. Unit DP_{rch} represents the mappable areas of significant red or maroon chert. These appear to finger into unit DP_{bch} the background greenish chert of the upper part of unit DP. A small occurrence of limestone containing Pennsylvanian fusulinids was described in the Rose Mountains. This locality was not found but it appears to plot over the lowest significant red and green charts.

A major fault, the Vangorda Creek Fault, marked by a mafic-ultramafic complex occurs in the Rose Mountains southwest of the outcrop of Anvil Range Group basalt. The complex consists mostly of serpentinized harzburgite (P_{z sp}) with lesser massive coarse grained gabbro (P_{z g}) and diorite (P_{z di}). The serpentinites are commonly highly sheared.

STRUCTURE

Fold Deformation

The structural and metamorphic history of the Anvil District is complex and of considerable significance to present form and nature of the ore deposits, and hence exploration for them, since all of the deposits have experienced the full deformation history. Five phases of deformation have been recognized in the district. The first two are periods of intense fold deformation and concurrent metamorphism which determined the gross structure of the mineral deposits. The remaining deformations are only locally developed and do not generally form large or regionally significant structures, but can be important on a mining scale.

The first deformation (D_1) produced a regional metamorphic foliation (S_1) axial planar to tight to isoclinal mesoscopic folds (F_1) in bedding (S_0). Mesoscopic D_1 early folds are rarely preserved in the district. D_1 folds that have been observed are northeasterly inclined to upright, northeasterly verging (shaped like a "Z" in cross-section looking northwest) structures with shallow northwesterly or southeasterly plunging axes. There are very few identified first phase folds in the map area.

During the second deformation event (D_2), (S_1) was strongly crenulated and ubiquitous close to tight mesoscopic folds (F_2) in S_1 were produced. Primary bedding (S_0) and S_1 had been transposed into near parallelism with the S_2 foliation. Parallel to the axial planes of the D_2 folds is a crenulation cleavage (S_2), which imparts a well developed lithon structure to most rocks of the district, especially the strongly banded phyllites of the Vangorda formation. F_2 axial planes and S_2 axial plane foliations dip shallowly to the southwest or northeast, with fold axes subparallel to F_1 fold axes. The largest

megascopic folds known to have been formed during D_2 are those at the Grum Deposit and comparable folds in the Swim Deposit.

In the map area, S_2 surfaces dip southwest, and F_2 minor folds trend northwest. Where vergence was noted the F_2 folds have southwest vergence (shaped like an "S" in cross-section looking northwest). The shallow dip of F_2 axial planes, the isoclinal nature of F_2 folds, and the transposition of bedding into foliation results in rock units that are flat lying or shallowly southwest dipping on the average.

Three later, less intense periods of folding and associated faulting followed D_2 . The later events (D_3 through D_5) generally produced open folds and weak crenulations in S_2 related to broad, regional structures, an important exception to this general rule is found in the vicinity of the Faro deposit, where the fourth event (D_4) is intense with tight mesoscopic folds developed in nearly pervasive S_2 . D_4 minor folds have appreciable mica growth along S_4 axial plane crenulation cleavages.

METAMORPHISM

Metamorphism was concurrent with deformation and was most intense during the major D_1 and D_2 folding deformation. D_1 metamorphism has been largely overprinted by the later D_2 metamorphism. Metamorphic grades during these two events appear to be comparable since mica mineral assemblages between microlithons (i.e. S_1 foliations) are similar to those defining the S_2 foliation surfaces. The rest of the discussion will focus on the D_2 metamorphism.

Metamorphic grade ranges from upper amphibolite facies (sillimanite-muscovite zone) to lower greenschist facies (muscovite-chlorite zone) in a low pressure Buchan type facies series. In pelites adjacent to the intrusions, the typical assemblage is andalusite-staurolite-garnet-biotite-muscovite-quartz-plagioclase with local fibrolite and cordierite. Lower greenschist facies pelites contain the assemblage muscovite-chlorite-quartz-plagioclase.

The area northwest of Rose Creek (closer to the Anvil Batholith) is metamorphosed to amphibolite facies. These high grade rock grade southwest and up section into less metamorphosed rocks. To the southwest of Rose Creek, rocks are metamorphosed to lower greenschist facies and the structurally highest units in the foothills of the Rose Mountains show little if any metamorphic recrystallization.

FAULTING

During the first and second phases of deformation, low angle faulting appears to have occurred, but the details are as yet poorly understood. Thrust faulting during the first phase of folding is likely and several candidates have been found. The most obvious of these are along the north flank of the district (Gordey, 1983; Jennings and Jilson, 1986), but additional, smaller thrusts may occur in the vicinity of the ore deposits. Gordey and Irwin (1987) have indicated a major thrust through the center of this map area (the Faro Thrust). It is not likely that such a structure crops out in the area as it would have to cross well defined lithologic trends.

Post folding and post metamorphism faulting is widespread and of great significance for exploration in the district. Intrusion of the Anvil Batholith further deformed the

metamorphic sequence so that the overall structure of the district is an elongate dome cored by the Batholith. In the later stages of emplacement, large extensional fault displacement occurred along the margins of the Batholith (Pigage and Jilson, 1985). Currently, these structures have not been recognized with certainty in the map area; however, a candidate is under examination and will be evaluated as interpretation is completed.

The youngest faults of the district are steeply dipping the diversely oriented. One of the most prominent sets strikes northeast. A second important set strikes approximately north south. The northeast striking set is subvertical and commonly shows left lateral strike slip offset. This set may represent second order structures to the Tintina Fault. The best example of such a fault is the Blind Creek Fault which offsets the favorable trend of deposits by 1.3 km. A group of faults belonging to this set, through the center of the map, may have similarly offset the favorable trend there; however, this concept has not yet been drill tested. Many late faults show subhorizontal slickenslides, suggesting the last displacements were strike slip. This is true even of structures in the Faro Pit, which are well constrained to have small horizontal displacement compared to the vertical component of movement.

INTRUSIVE HISTORY

Anvil Batholith

During the later stages of the deformation history a large granitic body, the Anvil Batholith was intruded into the metamorphic sequence. Anvil Batholith ranges in composition from a biotite-muscovite peraluminous granite to a metaluminous to peraluminous hornblende-biotite granodiorite (Pigage and Anderson, 1985). Textures

include equigranular massive and megacrystic massive. The latter being more abundant toward the southeast in the map area.

A second pluton similar to Anvil Batholith occurs west of the mouth of Rose Creek.

Anvil Dyke Suite

Anvil Batholith and surrounding metasedimentary rocks are crosscut by two families of post-tectonic dykes. Only one of these dykes suites occurs in the area. These are northeast-trending, medium to dark green, porphyritic, unfoliated, hornblende-biotite quartz diorite. These quartz diorite dykes appear to be associated with late extensional faults elsewhere in the district.

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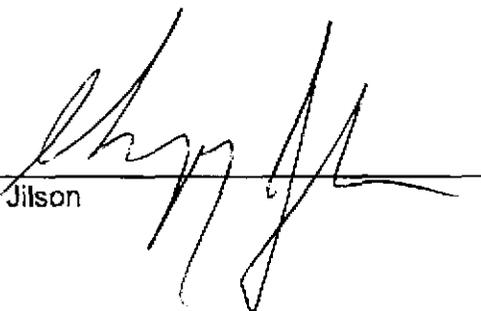
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- Pigage, L.C., 1990, *Field Guide anvil Pb-Zn-Ag District, Yukon Territory, Canada*. Geological Survey of Canada, Open File 2169, Field Trip 14, 283-308.
- Pigage, L.C. and Anderson, R.G., 1985. *The Anvil Plutonic Suite, Faro, Yukon Territory*. Canadian Journal Earth Sciences, 22, 1204-1216.
- Roddick, J.A. and Green, L.H. (1961), *Tay River, Yukon Territory*, Geological Survey Canada, Map 13-1961.
- Tempelman-Kluit, D.J., 1972, *Geology and Origin of the Faro, Vangorda and Swim Concordant Zinc-Lead Deposits, Central Yukon Territory*. Geological Survey Canada, Bulletin 208, 73 p.

Statement of Qualifications

1. I, Gregg A. Jilson, am a resident of the Yukon Territory, living at 38 Dawson Road, Whitehorse, Yukon Territory, Y1A 5T6.
2. I graduated from the University of California at Davis in 1972 with a Bachelor of Science degree in Geology.
3. I have worked in mineral exploration and mining geology continuously since 1971.
4. I have carried out exploration programs in and near the Anvil District since 1972 and am fully familiar with the geology and exploration data for the District.
5. I do not have any investment interest in any of the quartz claims described in this report.

Dated June 1, 1998

Gregg A. Jilson

A handwritten signature in black ink, appearing to read 'Gregg A. Jilson', is written over a horizontal line. The signature is stylized and cursive.

Appendix

Statement of Cost

And

Copies of Invoices

Geological compilation and reinterpretation of Anvil District, map sheets C6E, D6W and D6E work from August 1, 1997 to November 30, 1997, by Access Mining Consultants Ltd., as summarized in the following table.

| Project Component | Component Cost to Date | Portion Applicable | complexity of geology | applicable cost |
|-----------------------------|---------------------------|-----------------------|--------------------------|--------------------|
| 1. Topography | \$ 18,355 | 8% | 1 | \$ 1,504 |
| 2. Geology Compilation | \$ 25,522 | 8% | 3 | \$ 6,272 |
| 3. Geological Database | \$ 772 | 8% | 1 | \$ 63 |
| 4. Geophysical Manipulation | \$ 2,796 | 8% | 1 | \$ 229 |
| 5. Claim Compilation | \$ 358 | 8% | 1 | \$ 29 |
| 6. Claims Database | \$ - | 8% | 1 | \$ - |
| 7. Report Writing | \$ - | 8% | 1 | \$ - |
| Total to Date | \$ 47,803 | | | \$ 8,097 |

RV claims 66-92, 110-133 and 140-165 occupy 8% of mapsheets C6E, D6W and D6E; thus, 8% of costs to date for map preparation applied. Geology is 3 times more complicated on claims compared to off claims, thus 24% of geology work applied as representation.



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
Phone (403) 668-6463

INVOICE
G.S.T # 89899 7689

To: Anvil Range Mining Corporation
Box 1000
Faro, YT
Y0B 1K0

| |
|------------|
| ARMCOMP697 |
| 03-Sep-97 |
| 31-Aug-97 |

Attention: Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| DATE | PERSON | DISENSE | RATE | AMOUNT | GST |
|-------|-------------|--------------------|-----------|------------|----------|
| 18.50 | G.A. Jilson | Project Management | \$110 /hr | \$2,035.00 | \$142.45 |
| 17.50 | R. McIntyre | Project Management | \$85 /hr | \$1,487.50 | \$104.13 |
| 1.25 | R. Snider | AutoCAD Drafting | \$55 /hr | \$68.75 | \$4.81 |
| 58.25 | H. Stirling | AutoCAD Drafting | \$55 /hr | \$3,203.75 | \$224.26 |
| 1.00 | K. Borden | Secretarial | \$40 /hr | \$40.00 | \$2.80 |

| | | |
|-----------|------------|----------|
| Sub-total | \$6,835.00 | \$478.45 |
|-----------|------------|----------|

| | | |
|----------------------|------------|-----------|
| Total Prof. Services | \$7,313.45 | incl. GST |
|----------------------|------------|-----------|

Disbursements (CHARGED AT COST)

| DATE | DESCRIPTION | AMOUNT | GST |
|-----------|--|---------|--------|
| 13-Aug-97 | MicroAge Computers, Invoice 8710, Recordable CD - to back up computers | \$25.90 | \$1.81 |
| 15-Aug-97 | GL Electronics, Invoice 21214, Iomega Zip Disk | \$25.00 | \$1.75 |
| 31-Aug-97 | Fax charges, 17 pages @ \$0.25/ | \$4.25 | \$0.30 |
| 31-Aug-97 | Photocopying charges, 30 copies @ \$0.25/copy | \$7.50 | \$0.53 |
| 31-Aug-97 | Plotting fees on HP 750C, bond check plots - 2 B size @ \$3 | \$6.00 | \$0.42 |
| 31-Aug-97 | Plotting fees on HP 750C, bond check plots - 9 D Size @ \$6 | \$54.00 | \$3.78 |
| 31-Aug-97 | Plotting fees on HP 750C, bond check plots - 3 E Size @ \$12 | \$36.00 | \$2.52 |

| | | |
|-----------|----------|---------|
| Sub-total | \$158.65 | \$11.11 |
|-----------|----------|---------|

| | | |
|---------------------|----------|-----------|
| Total Disbursements | \$169.76 | incl. GST |
|---------------------|----------|-----------|

Thank You

| | | |
|------------------|-------------|----------|
| Invoice Subtotal | without GST | GST |
| | \$6,993.65 | \$489.56 |

| | |
|---------------|--------|
| Less Advances | \$0.00 |
|---------------|--------|

| | | |
|------------------|-------------------|------------------|
| Total Due | \$7,483.21 | incl. GST |
|------------------|-------------------|------------------|

Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

PAID

Oct 3/97
903

ACCESS MINING CONSULTANTS LTD.
AUGUST 1997 BILLING

| | | | | |
|----|------------|--------------|-------|---|
| GJ | 12-Aug-97 | ARM - compil | 2.00 | go to Anvil office to find maps and pull out of files |
| GJ | 13-Aug-97 | ARM - compil | 3.00 | goto Anvil office to find maps, talk w/ Mars re project, mark areas for topo scanning, call Robertson re topo they did |
| GJ | 14-Aug-97 | ARM - compil | 2.50 | get topo files from Robertson, get geophysics maps from ARM, meet w/ Power re geophysical review, return maps, get CD of data |
| GJ | 20-Aug-97 | ARM - compil | 2.00 | call w/ B. Nobe re backup and Autocad files needed., check maps and coords, discuss w/ L. Pigage |
| GJ | 22-Aug-97 | ARM - compil | 1.00 | look at test plots w/ Holly, plan next approach |
| GJ | 24-Aug-97 | ARM - compil | 3.00 | organize and send fax re exploration program - to P. Kennedy |
| GJ | 25-Aug-97 | ARM - compil | 0.50 | review maps w/ Holly, discuss Anvil budget for 97-98 |
| GJ | 26-Aug-97 | ARM - compil | 2.50 | telecon w/ P. Kennedy, R. Hall re geophysics, revise budget further |
| GJ | 28-Aug-97 | ARM - compil | 2.00 | meeting re scanning results, set up procedure for coordinate shift, comments and budget to P. Mars |
| | | | 18.50 | |
| KB | 13-Aug-97 | ARM - compil | 1.00 | locating and ordering map via internet |
| | | | 1.00 | |
| RM | Aug-12-97 | ARM - compil | 2.00 | search data, discuss availability of digital topo data w/ NRCAN, search internet for maps |
| RM | Aug-14-97 | ARM - compil | 1.00 | mtg. w/ M. Power, G. Jilson to review strategy for geophysical manipulation portion of compilation project |
| RM | Aug-14-97 | ARM - compil | 0.50 | download NTS 105k/7 digital from internet, zip for H. Stirling, mtg. w/ Stirling to set objectives |
| RM | Aug-19-97 | ARM - compil | 0.50 | mapping discussion w/ H. Stirling |
| RM | Aug-20-97 | ARM - compil | 2.00 | mtg. w/ Mining Recorder (D. Welbe) to obtain approval of comp. project for assessment; NAD 27 - NAD 83 conversions |
| RM | Aug-22-97 | ARM - compil | 2.50 | sort out technical data in regards to topo digitizing, discuss w/ Jilson/Stirling |
| RM | Aug-25-97 | ARM - compil | 0.50 | discuss w/ L. Pigage, set up timing for Dbase production, technical questions regarding topo base mapping |
| RM | Aug-27-97 | ARM - compil | 0.50 | review topo digitizing w/ H. Stirling |
| RM | Aug-27-97 | ARM - compil | 0.50 | budget & review/edit comm. to P. Mars |
| RM | Aug-28-97 | ARM - compil | 0.50 | mtg. w/ GAJ, L. Pigage, H. Stirling, YES (R. Slade, D. Noelle) re: topo base digitizing issues |
| RM | Aug 11- 97 | ARM - compil | 1.00 | discuss compilation project w/ Jilson, H. Stirling |
| RM | Aug 13-97 | ARM - compil | 1.00 | order NTDBS 1:50k topo maps, deliver mylar maps to YES for scanning, vectorizing, discuss w/ Slade, Noelle @ YES |
| RM | Aug 25-97 | ARM - compil | 5.00 | develop monthly spreadsheet of GRP budget, milestones, completion schedule |
| | | | 17.50 | |
| RS | 14-Aug-97 | ARM - compil | 0.75 | Geological resource program - printing AutoCad layers |
| RS | 29-Aug-97 | ARM - compil | 0.50 | Printing budget spreadsheet |
| | | | 1.25 | |
| HS | 11-Aug-97 | ARM - compil | 3.00 | Meet with Access, preliminary work at Anvil office |
| HS | 12-Aug-97 | ARM - compil | 3.00 | Meet with Access, preliminary work at Anvil office |
| HS | 13-Aug-97 | ARM - compil | 3.00 | Meet with Access, preliminary work at Anvil office |
| HS | 19-Aug-97 | ARM - compil | 2.25 | Compile 105 K/7 file from government |
| HS | 20-Aug-97 | ARM - compil | 5.50 | Create plots for G. Jilson, pick up drawings from Anvil |
| HS | 21-Aug-97 | ARM - compil | 4.50 | Create compilation project map for R. McIntyre |
| HS | 22-Aug-97 | ARM - compil | 5.00 | Create compilation project map for R. McIntyre |
| HS | 23-Aug-97 | ARM - compil | 0.50 | Check Yukon Engineering 105 K/5, 8 file |
| HS | 25-Aug-97 | ARM - compil | 5.00 | Digitize sheets 6,7,8 & D6-4 E 1/2 |
| HS | 26-Aug-97 | ARM - compil | 6.00 | Digitize sheets 6,7,8 & D6-4 E 1/2 |
| HS | 27-Aug-97 | ARM - compil | 6.50 | Digitize sheets 6,7,8 & D6-4 E 1/2 |
| HS | 28-Aug-97 | ARM - compil | 6.50 | Run plots, meet at Access, pick up drawings from Anvil, meet with L. Pigage |
| HS | 30-Aug-97 | ARM - compil | 4.00 | Digitize 1:5,000 sheet data for L. Pigage |
| HS | 31-Aug-97 | ARM - compil | 3.50 | Digitize 1:5,000 sheet data for L. Pigage |
| | | | 58.25 | |

MicroAge
 OPERATED BY
 NOR-DAT COMPUTER SERVICES LTD
 211B Elliott Street
 Whitehorse, YT Y1A 2A1
 (403) 668-6677



InterNORTH
 Internet Services
 GST# R103901948

Computer

INVOICE

008710
 INVOICE

CUSTOMER NO.

ACCESS

AR
 Next
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BILL TO:
 Access Mining Consultants
 204D Strickland St.
 Whitehorse, YT
 Y1A 2J8
 Colette

SHIP TO:
 SAME



PLEASE RETAIN INVOICE, BOX & PACKAGING FOR WARRANTY SERVICE, RETURNS & EXCHANGE

| DATE | SHIP VIA | F.O.B. | TERMS | | |
|--|------------|-------------|------------------|------------|----------------|
| 08-13-97 | U.P.S. | Your dock | Net 20 days | | |
| PURCHASE ORDER NUMBER | ORDER DATE | SALESPERSON | OUR ORDER NUMBER | | |
| | 08-13-97 | BR0 | 002873 | | |
| ITEM NO. / DESCRIPTION / SERIAL NO. / UNIT | QUANTITY | | | UNIT PRICE | EXTENDED PRICE |
| | REQ | SHIPPED | BO | | |
| 095625 ea CD RECORDABLE, CM-74, 74 MINUTES, MAXELL | 2 | 2 | | 12.95 | 25.90 |

| Access Mining Consultants Ltd. | | |
|--------------------------------|--------|---------------|
| CLIENT | CODING | AMOUNT |
| ARM | 5060 | 25.90 |
| | | |
| | | |
| | | |
| | GST: | 1.81 |
| | TOTAL: | 27.71 |
| Approved: | | Date: 8/13/97 |

Discount
 Net amount 25.90
 Shipping
 G.S.T. 1.81

 Total due: \$27.71

RECEIVED BY: Holly D. Saurby DATE: Aug 13/97

I understand and accept the terms and conditions stated herein.

RETURN POLICY We will credit or refund any unopened product within 14 days of purchase. For Software, please ensure your system meets the hardware requirements before opening. Special order products are not returnable. Notification of shortages or incorrect products must be made within 7 days of receipt. A \$25.00 service charge will be applied to any request for return or warranty service without a copy of the original invoice.

WARRANTY INFO MicroAge makes no implied or written warranties about the performance of any product. All warranties are as stated by the manufacturer. Please contact the manufacturer directly for assistance where applicable. Shipping and handling charges may apply to warranty repairs or exchanges.

NOR-DAT COMPUTER SERVICES LTD IS A DIVISION OF THE TELECOMMUNICATIONS GROUP OF MICROAGE LTD.

Completion

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#208 Strickland Street
Whitehorse, YT Y1A 2J8
Ph:(403)668-2225 Fax:(403)668-3555
GST Reg'n #898008271RT

ACCESS MINING CONSULTANTS LTD
204D STRICKLAND ST.
Whitehorse, YT
Y1A 2J8

SAME

08-15-97

SALE 021214
On Account (A/R)

P.O.

DISKZIP1 DISK ZIP 100MB IOMEGA

2

25.00

50.00

(1 ANVIL + 1 AMC)

| Access Mining Consultants Ltd. | | |
|--------------------------------|--------|---------|
| CLIENT | CODING | AMOUNT |
| AMC | 5060 | 25 |
| ARM | 5060 | 25 |
| | | |
| | | |
| | | 3.5 |
| | | 33.50 |
| Approved | | 8/19/97 |

| | |
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| Net amount | 50.00 |
| G.S.T. | 3.50 |
| | ===== |
| Total Due: | \$53.50 |

| | |
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| Am't Tndrd | 0.00 |
| Change Due | |
| On Account | 53.50 |



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
Phone (403) 668-6463

INVOICE
G.S.T # 89899 7689

To: Anvil Range Mining Corporation
Box 1000
Faro, YT
Y0B 1K0

| | |
|-----------|---------------|
| Invoice # | ARMCOMP997 |
| Date | 18-Sep-97 |
| Period | Sept. 1-15/97 |

Attention: Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| Hours | Name | Description | Rate | Amount | GST |
|-------|-------------|--------------------|-----------|------------|----------|
| 4.50 | G.A. Jilson | Project Management | \$110 /hr | \$495.00 | \$34.65 |
| 3.00 | R. McIntyre | Project Management | \$85 /hr | \$255.00 | \$17.85 |
| 45.50 | H. Stirling | AutoCAD Drafting | \$55 /hr | \$2,502.50 | \$175.18 |

| | | |
|-----------|------------|----------|
| Sub-total | \$3,252.50 | \$227.68 |
|-----------|------------|----------|

| | | |
|-----------------------------|-------------------|------------------|
| Total Prof. Services | \$3,480.18 | incl. GST |
|-----------------------------|-------------------|------------------|

Disbursements (CHARGED AT COST)

| Date | Description | Amount | GST |
|-----------|--|----------|--------|
| 14-Aug-97 | Long distance telephone and fax charges | \$20.20 | \$1.41 |
| 20-Aug-97 | Jim's Toy & Gift - Map Sales, Invoice 9956, topographical maps | \$89.50 | \$6.27 |
| 29-Aug-97 | Arctic Star Printing Inc., Invoice 15428, blue prints | \$16.92 | \$1.18 |
| Sub-total | | \$126.62 | \$8.86 |

| | | |
|----------------------------|-----------------|------------------|
| Total Disbursements | \$135.48 | incl. GST |
|----------------------------|-----------------|------------------|

| | without GST | GST |
|------------------|-------------|----------|
| Invoice Subtotal | \$3,379.12 | \$236.54 |

| | |
|---------------|--------|
| Less Advances | \$0.00 |
|---------------|--------|

| | | |
|--------------------|-------------------|------------------|
| Grand Total | \$3,615.66 | incl. GST |
|--------------------|-------------------|------------------|

Thank You

Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

ACCESS MINING CONSULTANTS LTD.
SEPTEMBER 15, 1997 BILLING

| Person | Date | Client | Total Hours | Description of work done |
|--------|-----------|------------|-------------|--|
| RM | 2-Sep-97 | ARM - comp | 1.00 | review progress w/ H. Stirling |
| RM | 3-Sep-97 | ARM - comp | 0.50 | discuss mapping progress w/ H. Stirling |
| RM | 3-Sep-97 | ARM - comp | 1.00 | mtg. w/Abbott, S. Abercrombie to discuss possible government support for anvil project |
| RM | 9-Sep-97 | ARM - comp | 0.50 | check progress, review goals w/ H. Stirling |
| | | | 3.00 | |
| GJ | 3-Sep-97 | ARM - comp | 1.00 | meet Abott and Abercrombie re YTG support, budget |
| GJ | 4-Sep-97 | ARM - comp | 1.50 | Go to Anvil office to find map source data for geology digitizing |
| GJ | 5-Sep-97 | ARM - comp | 1.00 | discuss digitizing w/ H. Sterling - order blueines of geology maps |
| GJ | 8-Sep-97 | ARM - comp | 1.00 | meet w/ P. Mars re project direction, timing and funding |
| | | | 4.50 | |
| HS | 2-Sep-97 | ARM - comp | 3.00 | Digitize 1:5,000 sheet data for L. Pigage |
| HS | 3-Sep-97 | ARM - comp | 6.00 | Digitize topo for G6-5 & G6-6 |
| HS | 4-Sep-97 | ARM - comp | 4.25 | Meet G.A. Jilson @ Anvil/digitize Sheet 6 outcrops 1:5,000 |
| HS | 5-Sep-97 | ARM - comp | 2.00 | Digitize Sheet 6 outcrops 1:5,000 |
| HS | 6-Sep-97 | ARM - comp | 2.00 | Digitize Sheet 6 outcrops 1:5,000 |
| HS | 7-Sep-97 | ARM - comp | 2.00 | Digitize Sheet 6 outcrops 1:5,000 |
| HS | 8-Sep-97 | ARM - comp | 1.25 | Digitize Sheet 6 outcrops 1:5,000 |
| HS | 9-Sep-97 | ARM - comp | 6.00 | Digitize Sheet 7 outcrops 1:5,000 |
| HS | 10-Sep-97 | ARM - comp | 5.00 | Digitize Sheet 7 outcrops 1:5,000 |
| HS | 11-Sep-97 | ARM - comp | 3.00 | Digitize sheets D6-4-E 1/2 & Sheet 8 outcrops 1:5,000 |
| HS | 12-Sep-97 | ARM - comp | 5.50 | Digitize sheets D6-4-E 1/2 & Sheet 8 outcrops 1:5,000; digitize 105K/5 outcrops 1:50,000 |
| HS | 13-Sep-97 | ARM - comp | 5.50 | Digitize 105K/5 outcrops 1:50,000 |
| | | | 45.50 | |

Access Mining Consultants Ltd.
August 17 Phone Bill

| Date | From: | Number called: | Amount: | Person called: | Bill to: |
|------|-------------|----------------|---------|---------------------------------|----------|
| 7 21 | ph 668-6463 | 416-348-8955 | \$0.92 | Anvil Range Toronto switchboard | ARM |
| 7 21 | ph 668-6463 | 416-348-9353 | \$2.76 | Anvil Range - Executive fax | ARM |
| 7 31 | ph 668-6463 | 416-348-9353 | \$1.84 | Anvil Range - Executive fax | ARM |
| 7 18 | ph 668-6463 | 416-408-5232 | \$0.92 | Anvil Range - Patrick Mars | ARM |
| 7 21 | ph 668-6463 | 416-408-5232 | \$0.92 | Anvil Range - Patrick Mars | ARM |
| 8 13 | ph 668-6463 | 604-684-8072 | \$8.12 | Robertson Geo, ph | ARM |
| 8 14 | ph 668-6463 | 604-684-8072 | \$3.08 | Robertson Geo, ph | ARM |
| 8 14 | ph 668-6463 | 604-684-8072 | \$1.64 | Robertson Geo, ph | ARM |

\$20.20

8/11

ARCTIC STAR PRINTING INC.

204 Strickland St. Whitehorse, Y.T., Y1A 2J8 Phone: (403) 668-4733

INVOICE NUMBER **Nº 15428**

SOLD TO: Access Mining
ADDRESS: 204-D Strickland St
Whitehorse, Yt Y1A 2J8

DATE: Aug 29/97
ORDER #: _____

Aug 40
Aug 12

| NUMBER OF ORIGINALS | NUMBER OF COPIES | TOTAL | DESCRIPTION | UNIT PRICE | AMOUNT |
|---------------------|------------------|-------|--------------------------------|------------|--------|
| 8 | 1 | 8 | 8 1/2 x 11 } <i>Quartz</i> | .18 | 1 44 |
| 2 | 1 | 2 | 8 1/2 x 11 } <i>Quartz</i> | .10 | 20 |
| 2 | 2 | 4 | 24 x 58 1/2 <i>Blow prints</i> | | 8 58 |
| 12 | 2 | 2 | 24 x 59 <i>Blow prints</i> | | 4 33 |
| 1 | 2 | 2 | A-1 | | 2 37 |



| QUANTITY ORDERED | QUANTITY SHIPPED | | | |
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| | | | SUB TOTAL | 16 92 |

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G.S.T. 1 18

TOTAL \$ 18 10



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
Phone (403) 668-6463

INVOICE

G.S.T # 89899 7689

To: Anvil Range Mining Corporation
145 Wellington St. W., 6th Floor
Toronto, Ontario
M5J 1H8

| | |
|-----------|----------------|
| Invoice # | ARMCOMP997-B |
| Date | 02-Oct-97 |
| Due Date | Sept. 16-30/97 |

Attention: Mr. Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| Name | Hours | Rate | Amount | GST |
|--------------------------|--------------------------------|-----------|------------|----------|
| 1.25 G.A. Jilson | Project Management | \$110 /hr | \$137.50 | \$9.63 |
| 16.50 R. McIntyre | Land Issues | \$85 /hr | \$1,402.50 | \$98.18 |
| 12.80 L. Pigage, P. Geol | Database Layout - Coordination | \$65 /hr | \$832.00 | \$58.24 |
| 57.00 H. Stirling | AutoCAD Drafting | \$55 /hr | \$3,135.00 | \$219.45 |

| | | |
|-----------|------------|----------|
| Sub-total | \$5,507.00 | \$385.49 |
|-----------|------------|----------|

| | | |
|----------------------|------------|-----------|
| Total Prof. Services | \$5,892.49 | incl. GST |
|----------------------|------------|-----------|

Disbursements (CHARGED AT COST)

| Date | Description | Amount | GST |
|-----------|---|---------|--------|
| 30-Sep-97 | Plotting fees, No. 2-E bond check plots @ \$12/each | \$24.00 | \$1.68 |
| Sub-total | | \$24.00 | \$1.68 |

| | | |
|---------------------|---------|-----------|
| Total Disbursements | \$25.68 | incl. GST |
|---------------------|---------|-----------|

| | | |
|------------------|-------------|----------|
| Invoice Subtotal | without GST | GST |
| | \$5,531.00 | \$387.17 |

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|---------------|--------|
| Less Advances | \$0.00 |
|---------------|--------|

| | | |
|---------------------|------------|-----------|
| Total Invoice Total | \$5,918.17 | incl. GST |
|---------------------|------------|-----------|

Thank You


Please make cheque payable to Access Mining Consultants Ltd. at the above address. Thank You
Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

PAID

#939
Dec 5/97

**Access Mining Consultants Ltd.
September 1997 Hours**

| Person | Date | Client | Total Hours | Description of work done |
|--------|-----------|------------|--------------|--|
| GJ | 17-Sep-97 | ARM-comp | 0.75 | derive coordinate conversion equation TPC to UTM |
| GJ | 24-Sep-97 | ARM-comp | 0.50 | Meet w/ Lee Pigage and review coordinate conversion options for topo maps, give instructions |
| | | | 1.25 | |
| RM | 24-Sep-97 | Anv - comp | 0.50 | mtg. W/ LCP re; topo coordinate shifts |
| | | | 0.50 | |
| LP | 27-Aug-97 | ARM-comp | 2.50 | Access meeting to discuss coordinate systems, topography contours, mapping geology data |
| LP | 28-Aug-97 | ARM-comp | 2.00 | Access meeting to discuss coordinate systems, topography contours, mapping geology data |
| LP | 28-Aug-97 | ARM-comp | 0.50 | Select hydro features to digitize from 1:50,000 federal maps & 1:5,000 CAMC maps to comp. Coord. Systems |
| LP | 1-Sep-97 | ARM-comp | 1.50 | Memo to Access on variables for Anvil District exploration compilation databases |
| LP | 24-Sep-97 | ARM-comp | 0.80 | Access meeting to discuss coordinate systems, topography contours, mapping geology database design |
| LP | 25-Sep-97 | ARM-comp | 1.00 | Meeting with B. Stirling to discuss coordinate systems and corrections |
| LP | 25-Sep-97 | ARM-comp | 3.00 | Check conversion equation YTP to 1979 UTM/compare federal UTM and 1979 CAMC UTM |
| LP | 26-Sep-97 | ARM-comp | 1.50 | Memo to Stirling on UTP to 1979 UTM conversion/correct conversion spreadsheet |
| | | | 12.80 | |
| HS | 16-Sep-97 | ARM-comp | 3.50 | Digitize 1:50,000/plot 1:10,000/meet with Gregg and Rob |
| HS | 17-Sep-97 | ARM-comp | 6.00 | Digitize sheet C6 outcrops 1:12,000 |
| HS | 18-Sep-97 | ARM-comp | 5.00 | Digitize sheet C6 outcrops 1:12,000 |
| HS | 19-Sep-97 | ARM-comp | 6.00 | Digitize sheet D6 outcrops 1:12,000 |
| HS | 22-Sep-97 | ARM-comp | 6.00 | Digitize sheet D6 outcrops 1:12,000 |
| HS | 23-Sep-97 | ARM-comp | 6.00 | Digitize sheet D6 outcrops 1:12,000 |
| HS | 24-Sep-97 | ARM-comp | 6.00 | Digitize sheet E6 outcrops 1:12,000/meet with Lee/locate drawings and take to printers |
| HS | 26-Sep-97 | ARM-comp | 6.00 | Digitize sheet E6 outcrops 1:12,000/meet with Lee/locate drawings and take to printers |
| HS | 29-Sep-97 | ARM-comp | 6.00 | Digitize sheet E6 outcrops 1:12,000/meet with Lee/locate drawings and take to printers |
| HS | 30-Sep-97 | ARM-comp | 6.50 | Digitize sheet E6 outcrops 1:12,000/meet with Lee/locate drawings and take to printers |
| | | | 57.00 | |

L.C. Pigage Consulting

| Date | Property | Time (hours) | Activity |
|-----------|----------------|--------------|--|
| 27-Aug-97 | Anvil District | 2.5 | Access meeting to discuss coordinate systems, topography contours, mapping geology data |
| 28-Aug-97 | Anvil District | 2.0 | Access meeting to discuss coordinate systems, topography contours, mapping geology data |
| 28-Aug-97 | Anvil District | 0.5 | select hydro features to digitize from 1:50,000 federal maps and 1:5,000 CAMC maps to compare coordinate systems |
| 01-Sep-97 | Anvil District | 1.5 | memo to Access on variables for Anvil District exploration compilation databases |
| 24-Sep-97 | Anvil District | 0.8 | Access meeting to discuss coordinate systems, topography contours, mapping geology database design |
| 25-Sep-97 | Anvil District | 1.0 | meeting with Bob Stirling to discuss coordinate systems and corrections |
| 25-Sep-97 | Anvil District | 3.0 | check conversion equation YTP to 1979 UTM / compare federal UTM and 1979 CAMC UTM |
| 26-Sep-97 | Anvil District | 1.5 | memo to Stirlings on UTP to 1979 UTM conversion / correct conversion spreadsheet |
| | Total | 12.8 | |

early Nov →



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
 Phone (403) 668-6463

INVOICE
 G.S.T # 89899 7689

To: Anvil Range Mining Corporation
 145 Wellington St. W., 6th Floor
 Toronto, ON
 M5J 1H8

| | |
|----------------|-----------------|
| Invoice # | ARMCOMP1097-A |
| Invoice Date | 20-Oct-97 |
| Invoice Period | Oct. 1-15, 1997 |

Attention: Mr. Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| DATE | DESCRIPTION | RATE | AMOUNT | GST |
|-------|--|-----------|----------|---------|
| 3.25 | G.A. Jilson Project Management | \$110 /hr | \$357.50 | \$25.03 |
| 1.25 | L. Pigage, P. Geol. Database Layout - Coordination | \$85 /hr | \$81.25 | \$5.89 |
| 15.75 | H. Stirling AutoCAD Drafting | \$55 /hr | \$966.25 | \$80.84 |

| | | |
|-----------------------------|-------------------|------------------|
| Sub-total | \$1,305.00 | \$91.35 |
| Total Prof. Services | \$1,396.35 | incl. GST |

Disbursements (CHARGED AT COST)

| DATE | DESCRIPTION | AMOUNT | GST |
|-----------|---|------------|---------|
| 30-Sep-97 | Arctic Star Printing Inc., Invoice 15520, blueprints | \$24.18 | \$1.69 |
| 01-Oct-97 | Yukon Engineering Services, Invoice 97-032-01-1479, Scan and Vectorize NTS Maps | \$1,200.00 | \$84.00 |
| 15-Oct-97 | Plotting fees, 4-E bond check plots @ \$12/ea | \$48.00 | \$3.36 |

| | | |
|----------------------------|-------------------|------------------|
| Sub-total | \$1,272.18 | \$89.05 |
| Total Disbursements | \$1,361.23 | incl. GST |

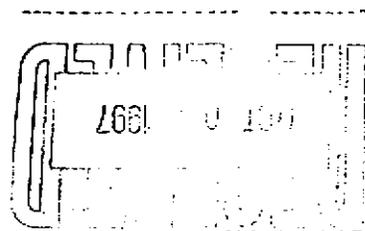
Thank You

| | | |
|-------------------|-------------------|------------------|
| Invoice Subtotal | without GST | GST |
| | \$2,577.18 | \$180.40 |
| Less Advances | \$0.00 | |
| Amount Due | \$2,757.58 | incl. GST |

Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
 Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

ACCESS MINING CONSULTANTS LTD.
OCTOBER 15, 1997 BILLING
ANVIL RANGE MINING CORPORATION

| Person | Date | Client | Total Hours | Description of work done |
|--------|-----------|----------|-------------|--|
| GJ | 1-Oct-97 | ARM-comp | 0.25 | discuss geological map digitizing w/ Holly |
| GJ | 2-Oct-97 | ARM-comp | 0.50 | review topo maps on home computer re coordinate shift |
| GJ | 3-Oct-97 | ARM-comp | 0.50 | Go over map options w/ Lee Pigage |
| GJ | 14-Oct-97 | ARM-comp | 1.50 | meet w/ lee Pigage re map coordinates, give further instructions, travel time |
| GJ | 15-Oct-97 | ARM-comp | 0.50 | review budget and actual costs, discuss Holly's objectives for week |
| | | | 3.25 | |
| LP | 7-Oct-97 | ARM-comp | 0.50 | Meeting with G. Jilson to discuss coordinate change |
| LP | 14-Oct-97 | ARM-comp | 0.75 | Review AutoCad drawings with G. Jilson and discuss coordinate change |
| | | | 1.25 | |
| HS | 6-Oct-97 | ARM-comp | 3.00 | Digitize outcrops 1:12,000/move outcrops to new locations due to change in formula |
| HS | 6-Oct-97 | ARM-comp | 1.00 | Meet with Lee Pigage/map set up/digitize contours for shift |
| HS | 10-Oct-97 | ARM-comp | 3.00 | Digitize outcrops 1:12,000/move outcrops to new locations due to change in formula |
| HS | 14-Oct-97 | ARM-comp | 3.00 | Digitize outcrops 1:12,000/move outcrops to new locations due to change in formula |
| HS | 14-Oct-97 | ARM-comp | 0.75 | Meet with Lee Pigage/map set up/digitize contours for shift |
| HS | 15-Oct-97 | ARM-comp | 0.50 | Meet with Lee Pigage/map set up/digitize contours for shift |
| HS | 15-Oct-97 | ARM-comp | 4.50 | Digitize outcrops 1:12,000/move outcrops to new locations due to change in formula |
| | | | 15.75 | |



10/15 ✓

1 Calcite Business Centre
151 Industrial Road, Whitehorse, Yukon Y1A 2V3

Tel. (403) 668-2000 Fax. (403) 667-2220

GST 106361645

October 1, 1997

Access Mining Consultants Ltd.
204D Strickland Street
Whitehorse, Yukon
Y1A 2J8

Invoice #97-032-01-1479

Re: Scan and Vectorize NTS Maps
Anvil Range Area

| | |
|--------------------|--------------------------|
| Total Fees | \$1,200.00 |
| GST | \$ 84.00 |
| BALANCE DUE | <u>\$1,284.00</u> |

TERMS:
NET 30 DAYS FROM DATE OF INVOICE
2% INTEREST CHARGED PER MONTH ON OVERDUE ACCOUNTS



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
Phone (403) 668-6463

INVOICE
G.S.T # 89699 7689

To: Anvil Range Mining Corporation
145 Wellington St. W., 6th Floor
Toronto, ON
M5J 1H8

| |
|---------------|
| ARMCOMP1097-B |
| 04-Nov-97 |
| Oct. 18-31/97 |

Attention: Mr. Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| Hours | Name | Description | Rate | Amount | GST |
|-----------------------------|---------------------|--------------------------------|-----------|-------------------|------------------|
| 2.75 | G.A. Jilson | Project Management | \$110 /hr | \$302.50 | \$21.18 |
| 36.00 | L. Pigage, P. Geol. | Database Layout - Coordination | \$65 /hr | \$2,340.00 | \$163.80 |
| 29.85 | B. Stirling | AutoCAD Drafting | \$55 /hr | \$1,641.75 | \$114.82 |
| 36.75 | H. Stirling | AutoCAD Drafting | \$55 /hr | \$2,021.25 | \$141.49 |
| 3.25 | C. MacMillan | Secretarial | \$40 /hr | \$130.00 | \$9.10 |
| Sub-total | | | | \$6,435.50 | \$450.49 |
| Total Prof. Services | | | | \$6,885.99 | incl. GST |

Disbursements (CHARGED AT COST)

| Date | Description | Amount | GST |
|----------------------------|---|-------------------|------------------|
| 31-Oct-97 | Plotting fees, 5 opaque bond, 63.75 ft ² @ \$1.00/ft ² , 1 colour-opaque bond, 9.5 ft ² @ \$1.00/ft ² | \$73.25 | \$5.13 |
| 31-Oct-97 | Fax page charges, 66 pages @ \$0.25/page | \$16.50 | \$1.16 |
| 31-Oct-97 | Photocopier charges, 389 pages @ \$0.15/page | \$58.35 | \$4.08 |
| 31-Oct-97 | Laser printer pages, 40 pages @ \$0.25/page | \$10.00 | \$0.70 |
| Sub-total | | \$158.10 | \$11.07 |
| Total Disbursements | | \$169.17 | incl. GST |
| Invoice Subtotal | | \$8,593.60 | \$461.55 |
| Less Advances | | \$0.00 | |
| Total Payable | | \$7,055.15 | incl. GST |

Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

Thank You
[Signature]

Access Mining Consultants Ltd.

October 1997 Hours

| Person | Date | Client | Total Hours | Description of work done |
|------------------|-----------|----------|-------------|--|
| BS | 16-Oct-97 | ARM-comp | 2.75 | Digitize topo for shift/query topo for MAD/FTP file/meet with Lee/generate topo plot |
| BS | 17-Oct-97 | ARM-comp | 2.75 | Digitize topo for shift/query topo for MAD/FTP file/meet with Lee/generate topo plot |
| BS | 19-Oct-97 | ARM-comp | 2.75 | Digitize topo for shift/query topo for MAD/FTP file/meet with Lee/generate topo plot |
| BS | 20-Oct-97 | ARM-comp | 2.75 | Digitize topo for shift/query topo for MAD/FTP file/meet with Lee/generate topo plot |
| BS | 21-Oct-97 | ARM-comp | 2.75 | Digitize topo for shift/query topo for MAD/FTP file/meet with Lee/generate topo plot |
| BS | 26-Oct-97 | ARM-comp | 3.50 | Digitize water and roads D6E & W |
| BS | 27-Oct-97 | ARM-comp | 3.50 | Digitize water and roads D6E & W |
| BS | 28-Oct-97 | ARM-comp | 4.50 | Break out topo and set up C6E, D6E & D6W |
| BS | 29-Oct-97 | ARM-comp | 4.60 | Break out topo and set up C6E, D6E & D6W |
| BS Total | | | 29.85 | |
| CMM | 15-Oct-97 | ARM-comp | 1.50 | Work on budget reconciliation |
| CMM | 16-Oct-97 | ARM-comp | 0.75 | Type letter to P. Mars from G. Jilson and send out |
| CMM | 20-Oct-97 | ARM-comp | 1.00 | Enter new numbers for Compilation budget |
| CMM Total | | | 3.25 | |
| GJ | 21-Oct-97 | ARM-comp | 1.25 | review project status and topo situation with Lee Pigage |
| GJ | 22-Oct-97 | ARM-comp | 1.50 | meet with geophysicist and pigage re geology and geophysics for compilation |
| GJ Total | | | 2.75 | |
| HS | 16-Oct-97 | ARM-comp | 2.75 | Digitize outcrops 1:120,000/move outcrops to new locations due to change in formula |
| HS | 20-Oct-97 | ARM-comp | 2.75 | Digitize outcrops 1:120,000/move outcrops to new locations due to change in formula |
| HS | 21-Oct-97 | ARM-comp | 2.75 | Digitize outcrops 1:120,000/move outcrops to new locations due to change in formula |
| HS | 22-Oct-97 | ARM-comp | 6.75 | Digitize outcrops 1:120,000/move outcrops to new locations due to change in formula; pull maps for contour digitizing/meet with Lee/digitize water C6E & W |
| HS | 23-Oct-97 | ARM-comp | 4.00 | Pull maps for contour digitizing/meet with Lee/digitize water C6E & W |
| HS | 28-Oct-97 | ARM-comp | 4.00 | Title block and legend/make plot for Lee |
| HS | 29-Oct-97 | ARM-comp | 4.00 | Title block and legend/make plot for Lee |
| HS | 30-Oct-97 | ARM-comp | 5.50 | Title block and legend/make plot for Lee; locate structure maps |
| HS | 31-Oct-97 | ARM-comp | 4.25 | Digitize suboutcrops and drillhole locations |
| HS Total | | | 36.75 | |
| LP | 20-Oct-97 | ARM-comp | 4.00 | Comparison of CAMC UTM elevation contours and federal UTM contours |
| LP | 21-Oct-97 | ARM-comp | 4.50 | Comparison of CAMC UTM and federal UTM maps |
| LP | 22-Oct-97 | ARM-comp | 3.00 | Access meeting to discuss geophysics and coordinate systems |
| LP | 22-Oct-97 | ARM-comp | 1.75 | Meeting with Geological Drafting Services on map conventions |
| LP | 23-Oct-97 | ARM-comp | 2.00 | Prepare DXF file to forward to Mike Power/Amerok |
| LP | 24-Oct-97 | ARM-comp | 1.50 | Determine UTM coordinates for Anvil District map sheets |
| LP | 27-Oct-97 | ARM-comp | 6.00 | Determine corners of map sheets, prepare memo on map sheet coordinates |
| LP | 28-Oct-97 | ARM-comp | 3.25 | Spreadsheet and memo on map sheet corners |
| LP | 29-Oct-97 | ARM-comp | 7.25 | New map sheet coordinates, revised memo on map sheet corners, memo on Autocad conventions |
| LP | 30-Oct-97 | ARM-comp | 1.25 | Access meeting to discuss appearance of map sheets |
| LP | 30-Oct-97 | ARM-comp | 1.50 | ARM office searching through archives for maps and drill logs |
| LP Total | | | 36.00 | |

10/31 - Comp.

| Client Name | | Fax Copies | | Photocopier Copies | | Laser Copies |
|-------------|-------|------------|-------|--------------------|-------|--------------|
| ARM | TOTAL | 66 | TOTAL | 389 | TOTAL | 40 |



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
Phone (403) 668-6463

INVOICE
G.S.T # 89899 7689

To: Anvil Range Mining Corporation
145 Wellington St. W., 6th Floor
Toronto, ON
M5J 1H8

| | |
|--|---------------|
| | ARMCOMP1197-A |
| | 18-Nov-97 |
| | Nov. 1-15/97 |

Attention: Mr. Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| Hours | Name | Description | Rate | Amount | GST |
|-------|----------------------|--------------------------------|-----------|------------|----------|
| 5.00 | G.A. Jilson | Project Management | \$110 /hr | \$550.00 | \$38.50 |
| 25.50 | L. Pigeage, P. Geol. | Database Layout - Coordination | \$65 /hr | \$1,657.50 | \$116.03 |
| 40.25 | H. Stirling | AutoCAD Drafting | \$55 /hr | \$2,213.75 | \$154.96 |
| 29.85 | B. Stirling | AutoCAD Drafting | \$55 /hr | \$1,641.75 | \$114.92 |

| | | |
|-----------|------------|----------|
| Sub-total | \$8,063.00 | \$424.41 |
|-----------|------------|----------|

| | | |
|----------------------|------------|-----------|
| Total Prof. Services | \$6,487.41 | incl. GST |
|----------------------|------------|-----------|

Disbursements (CHARGED AT COST)

| Date | Description | Amount | GST |
|-----------|--|------------|---------|
| 01-Nov-97 | Plotting fees: 5 x 83.75 ft ² opaque bond @ \$1/ft ² | \$63.75 | \$4.46 |
| 01-Nov-97 | Plotting fees: 1 x 9.5 ft ² colour-opaque bond @ \$1/ft ² | \$9.50 | \$0.67 |
| 15-Nov-97 | Amerok Geosciences Ltd., Invoice No. 97100, Airborne Geophysical Data Processing and Imaging | \$1,310.00 | \$91.70 |
| | Sub-total | \$1,383.25 | \$96.83 |

| | | |
|---------------------|------------|-----------|
| Total Disbursements | \$1,480.08 | incl. GST |
|---------------------|------------|-----------|

| | | |
|------------------|-------------|----------|
| | without GST | GST |
| Invoice Subtotal | \$7,446.25 | \$521.24 |

| | |
|---------------|--------|
| Less Advances | \$0.00 |
|---------------|--------|

| | | |
|--|------------|-----------|
| | \$7,967.49 | incl. GST |
|--|------------|-----------|

Thank You
[Signature]

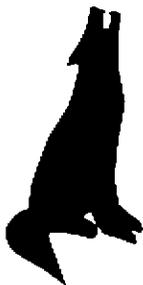
Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

Access Mining Consultants Ltd.

November 1-15, 1997 Hours

Anvil Range Mining Corporation

| Person | Date | Client | Total Hours | Description of work done |
|-----------------|-----------|----------|--------------|---|
| GJ | 07-Nov-97 | ARM-comp | 1.5 | Meeting with L. Pigage re: topo maps |
| GJ | 12-Nov-97 | ARM-comp | 3.5 | Meeting with geophysicist and review data - discuss approach to geophysics with L. Pigage |
| GJ Total | | | 5.0 | |
| LP | 3-Nov-97 | ARM-comp | 0.75 | District survey control coordinates |
| LP | 4-Nov-97 | ARM-comp | 4.75 | Topography contour fitting for D6; meeting Geological Drafting Services to discuss maps |
| LP | 5-Nov-97 | ARM-comp | 1.00 | Research Faro NW reports |
| LP | 6-Nov-97 | ARM-comp | 4.00 | Digitize Eva geology and insert into regional maps |
| LP | 7-Nov-97 | ARM-comp | 5.75 | Access meeting to discuss C6E topo gap; memo on additional changes to C6E |
| LP | 10-Nov-97 | ARM-comp | 3.75 | Research Faro NW reports; meeting Geological Drafting Services to discuss maps |
| LP | 11-Nov-97 | ARM-comp | 2.25 | Research Faro NW reports |
| LP | 12-Nov-97 | ARM-comp | 3.25 | Amerok meeting to view Faro NW geophysics; discuss Anvil geophysics/geology with Jilson |
| LP Total | | | 25.50 | |
| HS | 3-Nov-97 | ARM-comp | 3.00 | Drill hole & LCP locations 1:5000 & 1:12,000 |
| HS | 4-Nov-97 | ARM-comp | 6.50 | Drill hole & LCP locations 1:5000 & 1:12,000; develop blocks for DDH's, survey & geological stations; meet with L. Pigage |
| HS | 5-Nov-97 | ARM-comp | 11.00 | Develop blocks for DDH's, Survey & geological stations; insert station locations C6E, D6E/W. Sheet 6,7,8 & D6. locate claim map/update title page |
| HS | 6-Nov-97 | ARM-comp | 2.50 | Locate claim map/update title page |
| HS | 10-Nov-97 | ARM-comp | 9.00 | Meet with L. Pigage; insert station locations C6E, D6E/W, sheet 6,7,8 & D6 |
| HS | 11-Nov-97 | ARM-comp | 7.00 | Changes re: L. Pigage's memo "anvilchanges1" insert station locations C6E, D6E/W, sheet 6,7,8 & D6 |
| HS | 12-Nov-97 | ARM-comp | 1.25 | Develop structure symbols/insert on C6E & Sheet 6 |
| HS Total | | | 40.25 | |
| BS | 03-Nov-97 | ARM-comp | 4.00 | Digitize contours C6E & float in/edit C6E topo |
| BS | 04-Nov-97 | ARM-comp | 7.50 | Survey station database & location; topo; meet with L. Pigage |
| BS | 05-Nov-97 | ARM-comp | 5.50 | Survey station database & location; topo |
| BS | 06-Nov-97 | ARM-comp | 6.00 | Topo; RV claims |
| BS | 07-Nov-97 | ARM-comp | 4.75 | RV claims |
| BS | 10-Nov-97 | ARM-comp | 2.10 | Meet with L. Pigage |
| BS Total | | | 29.85 | |



Amerok Geosciences Ltd.

11 Canyon Cres.
Whitehorse, Yukon Y1A 5V8
Phone: (867) 668-7672
Fax: (867) 393-3577
E-mail: amerok@yknet.yk.ca

11/15

INVOICE

GST No.: RT89493 8588
File: 97-35

Invoice 97100
November 15, 1997

In account with: **Access Mining Consultants Ltd.**
204D Strickland Street.
Whitehorse, YT
Y1A 2J8

Re: **Airborne Geophysical Data Processing and Imaging - Anvil Range**
(November 1-15, 1997)

Professional Services:

| | | | |
|------------------------|---|--|----------|
| 5790 Subs- Other | } | Data Processing | |
| | | Downloading, grid conversion -3.0 hrs @ \$60 | \$180.00 |
| | | EM gridding - setup charge (per contract) | \$600.00 |
| | | Imaging and consultation: 2.5 hrs @ \$60 | \$150.00 |
| | | RTICadd - 2 shaded plots 2.0 hrs @ \$60 | \$120.00 |
| | | CADD | |
| | | 4.5 hours @ \$40/hour | \$180.00 |

Other Charges:

| | |
|---|-------------------------|
| 140 Plotting 2 E-size full colour plots | <u>\$80.00</u> |
| Subtotal | \$1310.00 |
| Federal GST | <u>\$91.70</u> |
| TOTAL | <u>\$1401.70</u> |

| Access Mining Consultants Ltd. | | |
|--------------------------------|----------------|-----------|
| CLIENT | CODING | AMOUNT |
| ARM | ARM-Comp | \$80.00 |
| | 5140 | \$1230.00 |
| | 5790 | |
| | | |
| | GST: | \$91.70 |
| | TOTAL: | 1,401.70 |
| Approved: | Date: 11/17/97 | |

Terms: Net 30 days. Interest charged at 2% per month on overdue accounts



ACCESS MINING CONSULTANTS LTD.

204 D Strickland Street, Whitehorse, Yukon Y1A 2J8
 Phone (403) 668-6463

INVOICE
 G.S.T # 89899 7689

To: Anvil Range Mining Corporation
 145 Wellington St. W., 6th Floor
 Toronto, ON
 M5J 1H8

| |
|---------------|
| ARMCOMP1197-B |
| 01-Dec-97 |
| Nov. 16-30/97 |

Attention: Mr. Patrick Mars, President

Re: GEOLOGICAL COMPILATION

Professional Services (see attached breakdown)

| AMOUNT | NAME | DESCRIPTION | RATE | AMOUNT | GST |
|--------|---------------------|---------------------------|-----------|------------|----------|
| 64.50 | G.A. Jilson | Geological Interpretation | \$110 /hr | \$7,095.00 | \$496.65 |
| 53.25 | L. Pigage, P. Geol. | Geological Interpretation | \$65 /hr | \$3,461.25 | \$242.29 |
| 62.90 | H. Stirling | AutoCAD Drafting | \$55 /hr | \$3,458.50 | \$242.17 |
| 18.00 | B. Stirling | AutoCAD Drafting | \$55 /hr | \$880.00 | \$61.60 |

| | | |
|-----------|-------------|------------|
| Sub-total | \$14,895.75 | \$1,042.70 |
|-----------|-------------|------------|

| | | |
|----------------------|-------------|-----------|
| Total Prof. Services | \$16,938.45 | incl. GST |
|----------------------|-------------|-----------|

Disbursements (CHARGED AT COST)

| DATE | DESCRIPTION | AMOUNT | GST |
|-----------|---|----------|---------|
| 27-Nov-97 | Amerok Geosciences Ltd., Invoice 97105, Data Processing and Imaging | \$290.00 | \$20.30 |
| 30-Nov-97 | Plotting, No. 3 opaque bond, 14.55 ft ² @ \$1.5/ft ² | \$21.83 | \$1.53 |
| 30-Nov-97 | Plotting, No. 1 color line, 11.50 ft ² @ \$1.00/ft ² | \$11.50 | \$0.81 |
| 30-Nov-97 | Plotting, No. 3 light color bond, 38.75 ft ² @ \$1.5/ft ² | \$55.13 | \$3.86 |
| 30-Nov-97 | Plotting, No. 1 black & white bond, 7.25 ft ² @ \$1.00/ft ² | \$7.25 | \$0.51 |

| | | |
|-----------|----------|---------|
| Sub-total | \$385.70 | \$27.00 |
|-----------|----------|---------|

| | | |
|---------------------|----------|-----------|
| Total Disbursements | \$412.70 | incl. GST |
|---------------------|----------|-----------|

| | | |
|------------------|-------------|------------|
| Invoice Subtotal | without GST | GST |
| | \$15,281.45 | \$1,069.70 |

| | |
|---------------|--------|
| Less Advances | \$0.00 |
|---------------|--------|

| | | |
|--------------------|--------------------|-----------|
| GRAND TOTAL | \$16,351.15 | incl. GST |
|--------------------|--------------------|-----------|

Thank You

Please make cheque payable to Access Mining Consultants Ltd. at the above address, Thank You
 Terms: Payable 30 days from date of invoice, 1.5% interest per month charged on overdue accounts

Access Mining Consultants Ltd.
November 1997 Hours

| Person | Date | Client | Total Hours | Description of work done |
|--------------------|-----------|----------|--------------|---|
| H. Stirling | 14-Nov-97 | ARM-comp | 4.00 | Develop structure symbol/s insert on C6E & Sheet 6 |
| H. Stirling | 15-Nov-97 | ARM-comp | 3.90 | Meet with L. Pigage; insert station locations C6E,D6E/W, sheet 6,7,8 & D6 |
| H. Stirling | 17-Nov-97 | ARM-comp | 6.00 | Structure for Sheet 6 1:5000 |
| H. Stirling | 18-Nov-97 | ARM-comp | 4.50 | Change layer names and colors/plots for L. Pigage; Structure for Sheets 7 & D-6-4 |
| H. Stirling | 19-Nov-97 | ARM-comp | 2.50 | Change layer names and colors/plots for L. Pigage |
| H. Stirling | 20-Nov-97 | ARM-comp | 6.00 | Structure for Sheets 7 & D-6-4 |
| H. Stirling | 21-Nov-97 | ARM-comp | 4.00 | Meet with L. Pigage/Structure on D6 E&W 1:12,000 |
| H. Stirling | 24-Nov-97 | ARM-comp | 9.00 | Structure on D6 E&W 1:12,000, title block changes/check station # & move |
| H. Stirling | 25-Nov-97 | ARM-comp | 5.00 | Title block changes/check station # & move |
| H. Stirling | 26-Nov-97 | ARM-comp | 6.00 | Meet with L. Pigage, update structure, changes to Sheet C6E |
| H. Stirling | 27-Nov-97 | ARM-comp | 6.00 | Geology C6E 1:12,000 |
| H. Stirling | 28-Nov-97 | ARM-comp | 6.00 | Geology D6E 1:12,000 |
| H. Stirling | | | 62.90 | |
| B Stirling | 17-Nov-97 | ARM-comp | 3.00 | Set up colors/set up fills/plot/meet with L. Pigage |
| B Stirling | 19-Nov-97 | ARM-comp | 2.00 | Set up colors/set up fills/plot/meet with L. Pigage |
| B Stirling | 21-Nov-97 | ARM-comp | 2.00 | Set up colors/set up fills/plot/meet with L. Pigage |
| B Stirling | 26-Nov-97 | ARM-comp | 2.00 | Meet with L. Pigage/Claims on D6E & W |
| B Stirling | 27-Nov-97 | ARM-comp | 4.50 | Meet with L. Pigage/Claims on D6E & W/update logo add to title page/fill in legend/topo D6W |
| B Stirling | 28-Nov-97 | ARM-comp | 2.50 | Update logo, add to title page/fill in legend/topo D6W |
| B Stirling | | | 16.00 | |
| L. Pigage | 16-Nov-97 | ARM-comp | 1.50 | Autocad rock type colours |
| L. Pigage | 17-Nov-97 | ARM-comp | 3.25 | Structural data from L. Pigage (1988) mapping |
| L. Pigage | 18-Nov-97 | ARM-comp | 5.75 | Coordinate conversion, Autocad lithology colours, geology review |
| L. Pigage | 19-Nov-97 | ARM-comp | 2.75 | Autocad layer conventions, map editing |
| L. Pigage | 20-Nov-97 | ARM-comp | 4.50 | Access meeting for map review |
| L. Pigage | 21-Nov-97 | ARM-comp | 4.50 | GDS meeting for map revisions, Anvil office for information search |
| L. Pigage | 22-Nov-97 | ARM-comp | 4.00 | Edit map C6E, geology D6W |
| L. Pigage | 26-Nov-97 | ARM-comp | 7.00 | Geology C6E, D6W, D6E |
| L. Pigage | 27-Nov-97 | ARM-comp | 7.00 | Geology C6E, D6W, D6E |
| L. Pigage | 28-Nov-97 | ARM-comp | 7.00 | Geology C6E, D6W, D6E |
| L. Pigage | 29-Nov-97 | ARM-comp | 3.00 | Geology C6E, D6W, D6E |
| L. Pigage | 30-Nov-97 | ARM-comp | 3.00 | Geology C6E, D6W, D6E |
| L. Pigage | | | 53.25 | |
| Total | | | | |
| G. Jilson | 15-Nov-97 | ARM-comp | 8.00 | review old interpretation and new geophysics |
| G. Jilson | 17-Nov-97 | ARM-comp | 6.00 | new preliminary contacts for C6 and D6 (at 1:24,000) |
| G. Jilson | 18-Nov-97 | ARM-comp | 6.00 | check geophysics against interpretation |
| G. Jilson | 19-Nov-97 | ARM-comp | 7.00 | review field notes, check outcrops, revise preliminary interpretation, review budget |
| G. Jilson | 20-Nov-97 | ARM-comp | 8.00 | meet w/ Amerok re maps, meet L. Pigage, goto Anvil office look for maps and notes |

**Access Mining Consultants Ltd.
November 1997 Hours**

| Person | Date | Client | Total Hours | Description of work done |
|------------------------|-----------|----------|-------------|--|
| G. Jilson | 21-Nov-97 | ARM-comp | 7.50 | join new geophysics and geology maps, preliminary interpretation |
| G. Jilson | 22-Nov-97 | ARM-comp | 8.00 | interpret D6W in more detail, cross check notes |
| G. Jilson | 27-Nov-97 | ARM-comp | 6.50 | check interpretation, revise as needed |
| G. Jilson | 28-Nov-97 | ARM-comp | 7.50 | lay out cross section lines on C6E and D6E |
| G. Jilson Total | | | 64.50 | |
| Grand Total | | | 196.65 | |

11/30



Amerok Geosciences Ltd.

11 Canyon Cres.
Whitehorse, Yukon Y1A 5V8
Phone: (867) 668-7672
Fax: (867) 393-3577
E-mail: amerok@yknnet.yk.ca

COPY

INVOICE

GST No.: RT69493 8588
File: 97-35

Invoice 97105
November 27, 1997

In account with: **Access Mining Consultants Ltd.**
204D Strickland Street.
Whitehorse, YT
Y1A 2J8

Re: **Airborne Geophysical Data Processing and Imaging - Anvil Range**
(November 16 - 22, 1997)

Professional Services:

Data Processing
Imaging and consultation: 3.0 hours @ \$60/hour \$180.00

Other Charges:

2 E-size full colour plots @ \$40/plot \$80.00

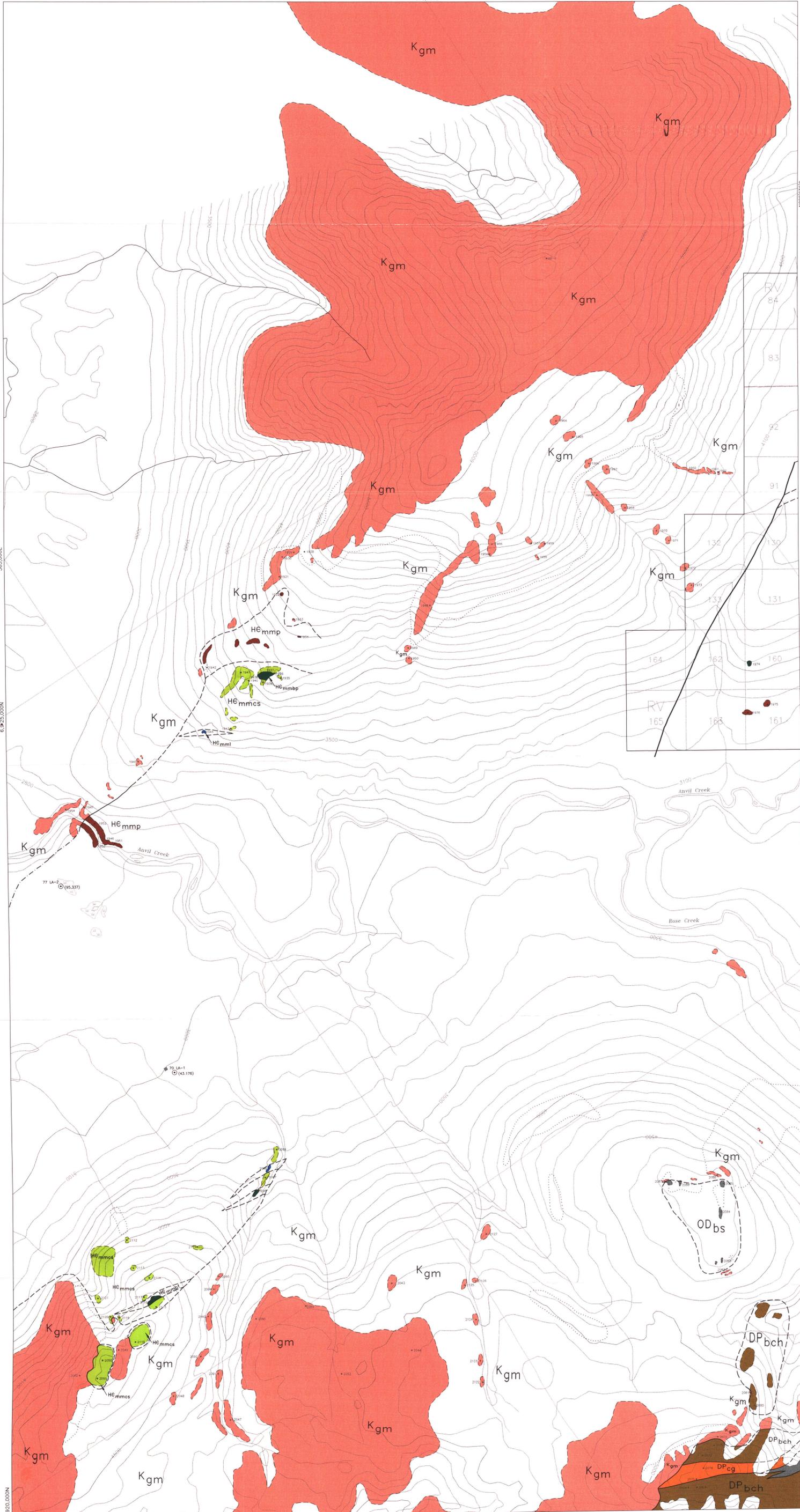
1 E-size B/W shade plot \$30.00

Subtotal \$290.00

Federal GST \$20.30

TOTAL \$310.30

Terms: Net 30 days. Interest charged at 2% per month on overdue accounts



ROCK UNITS

- CRETACEOUS**
- INTRUSIVE ROCKS**
- Anvil Dyke Suite
 - K_{qf} Smoky Quartz - feldspar porphyry
 - K_{qe} Hornblende - biotite granite
 - Anvil Plutonic Suite
 - K_{gm} Mt. Mye phase: biotite-muscovite granite
 - K_{go} Orchard phase: biotite-hornblende granite
 - K_{gn} Marjorie phase: biotite-hornblende granite with quartz phenocrysts
 - K_{gp} Pegmatite to aplite dykes
- PALEOZOIC**
- P_z Vangoria Creek Fault Zone-mafic-ultramafic complex
 - g-gabbro, di-diorite, sp-serpentine, h-harzburgrite, r-rodolite, b-basalt, e-eclogite
 - Yukon Tanana Terrane
 - P_{zyqs} Micaceous quartzite or schist
 - F_{zyqs} Poorly foliated, dark green metabasite/amphibolite
 - P_{zyqs} Eclogite
- DEVONIAN-PERMIAN**
- Undifferentiated Eam Group and Anvil Range Group
 - Dpb Epidotized, massive basalt
 - DP_{rch} Red to maroon, green and beige phyllite chert
 - DP_{sch} Green, black and beige phyllite chert
 - DP_{ps} Carbonaceous shale/phyllite, silstone, chert
 - DP_{sl} Carbonaceous shale with bioclastic limestone
 - DP_{cg} Chert pebble conglomerate, sandstone
 - DP_{sa} Laminated to nodular siltstone
 - DP_{st} Green (fuffaceous?) slate and tuff
- ORDOVICIAN-DEVONIAN**
- Road River Group
 - OD_{bs} Carbonaceous, slightly calcareous, locally graptolitic shale
 - OD_l Massive limestone, locally crinoidal
 - Menzie Creek formation
 - O_{mc} Foliated, amygdaloidal basalt, tuff, breccia
- CAMBRIAN - ORDOVICIAN**
- Vangoria formation
 - GO_{sp} Calcareous, medium grey phyllite (greenschist facies)
 - GO_{cs} Striped cream and brown calc-silicate (amphibolite facies)
 - GO_{ps} Pale green, calcareous phyllite - contact metamorphosed adjacent to metabasites
 - GO_{vg} Carbonaceous, locally calcareous phyllite/schist
 - GO_{st} Marble
 - GO_{sk} Skarn
 - GO_{fb} Poorly foliated, dark green, metabasite/amphibolite
 - GO_{vf} Foliated medium green chloritic phyllite/schist
 - GO_{vp} Metamorphosed pyroxenite, interbedded phyllite, calc-silicate, metabasite
 - GO_{va} Transitional unit from Vangoria formation to Mt. Mye formation
- CAMBRIAN**
- Ore Zones (in Vangoria and Mt. Mye formations)
 - O_{ms} Massive sulphides
 - O_{qs} Quartzose disseminated sulphides
 - Alteration associated with mineralization (with mica envelopes)

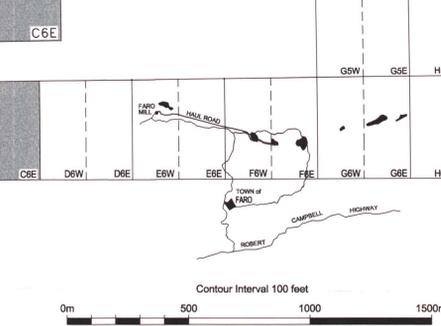
- HADRYNIAN-CAMBRIAN**
- Mt. Mye formation
 - HG_{mmp} Noncalcareous brownish grey phyllite
 - HG_{mmpu} Upper horizon
 - HG_{mmpd} Lower horizon
 - HG_{mmsu} Noncalcareous brownish grey schist
 - HG_{mmsd} Upper horizon
 - HG_{mmsl} Lower horizon
 - HG_{mmcs} Striped cream and brown calc-silicate
 - HG_{mmf} Skarn
 - HG_{mmgp} Noncalcareous, carbonaceous phyllite
 - HG_{mmgs} Noncalcareous, carbonaceous schist
 - HG_{mmf} Grey marble
 - HG_{mmf} Skarn
 - HG_{mmgp} Carbonaceous phyllite with dark marble lenses
 - HG_{mmgs} Carbonaceous schist with dark marble lenses
 - HG_{mmf} Poorly foliated, dark green metabasite/amphibolite
 - HG_{mmf} Well foliated, medium green chloritic phyllite/schist
 - HG_{mmf} Metamorphosed pyroxenite

- OTHER FEATURES**
- Geological contact defined, approximate, inferred
 - Fault defined, approximate, inferred (ball on downthrown side)
 - Lineament
 - Thrust fault defined, approximate, inferred (teeth on overthrust panel)
 - Inferred stratigraphic boundary between Eam Group and Anvil Range Group
 - Outcrop, subcrop, float
 - Bedding (S₁) compositional layering (strike,dip) upright, overturned, vertical
 - Foliation/Cleavage (strike,dip) phase 1, phase 2, phase 3, unknown
 - Fold axis (azimuth/plunge) phase indicated by # of arrowheads
 - Lineation (azimuth/plunge) phase indicated by # of arrowheads
 - S elongation/stretching
 - m mineral
 - P prismatic phenocrysts
 - B boudin axis
 - X intersection of planes
 - C crenulations
 - Fold axial surface trace phase and plunge direction indicated by # of arrowheads upright, overturned
 - Shear - shear zone (azimuth/dip)
 - Fracture/joint inclined, vertical
 - Glacial striae
 - Vein
 - Mineral isograd (marks on high grade side)
 - S calc-silicate
 - B biotite
 - S sillimanite/fibrolite
 - St staurolite
 - A andalusite
 - G garnet
 - Diamond drill hole
 - location approximate
 - location defined in field (overburden depth, total length in metres)
 - Rotary drill hole
 - location approximate
 - location defined in field (overburden depth, total length in metres)
 - 2410 Geological station
 - Section line
 - Trench

- PHYSICAL FEATURES**
- Road
 - Cut line
 - Building
 - Trail
 - Stream
 - Survey control point

Source of Geological Information

- Jennings et al. (1975) - 1:1200



| VERSION | DATE | REVISION | BY | CHK | APPD |
|---------|----------|----------------------------|-----|-----|------|
| 1.1 | 98.05.29 | Updated as per field notes | HDS | LCP | GJ |
| 1.0 | 97.11.09 | Updated as per field notes | HDS | LCP | GJ |

DRAFT 038 833

Geology Anvil Range MINING CORPORATION

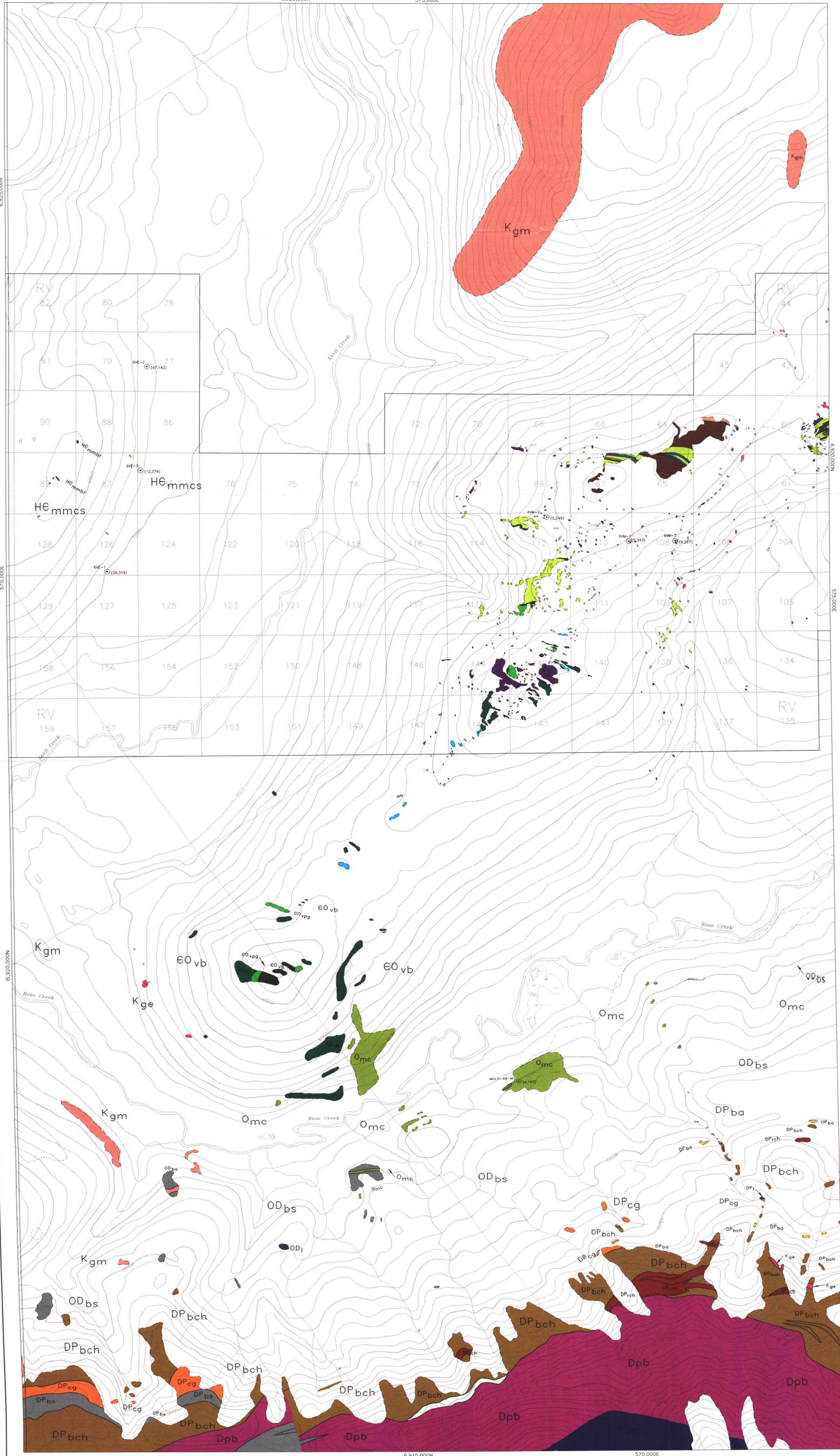
ACCESS MINING CONSULTANTS LTD.

SCALE: 1:10,000 Plate 1 DATE: 98/05/29

NTS: 105 K/S DRAWN: [Signature] DRAWING: VERSION: DRAFT

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|----------------------|-----------------|-------|
| File: C6E.DWG | xref: topobase | xref: |
| xref: ANVIL_GEOLOGY | xref: rv_claims | xref: |
| xref: survey_station | xref: | xref: |

DWR



ROCK UNITS

CRETACEOUS
INTRUSIVE ROCKS
Anvil Dyke Suite
Kgf Smoky Quartz - feldspar porphyry
Kge Homeblende - biotite granite

Anvil Plutonic Suite
Kgmm Mt. Mye phase: biotite-muscovite granite
Kgo Orchard phase: biotite-homeblende granite
Kgm Marjorie phase: biotite-homeblende granite with quartz phenocrysts
Kgp Pegmatite to aplite dykes

PALEOZOIC
Vangorda Creek Fault Zone-mafic-ultramafic complex
Pz g-gabbro, di-diabase, sp-serpentine, h-harzburgitic, r-rodolite, b-basalt, e-eclogite

Yukon Tanana Terrane
Fzylqs Micaceous quartzite or schist
Fzylqs Poorly foliated, dark green metabasite/amphibolite
Fzylqs Eclogite

DEVONIAN-PERMIAN
Undifferentiated Eam Group and Anvil Range Group
Dpb Epidotized, massive basalt
DPrch Red to maroon, green and beige phyllite chert
DPbch Green, black and beige phyllite chert
DPbs Carbonaceous shale/phyllite, siltstone, chert
DPf Carbonaceous shale with bioclastic limestone
DPcg Chert pebble conglomerate, sandstone
DPba Laminated to nodular barite
DPt Green (tuffaceous?) slate and tuff

ORDOVICIAN-DEVONIAN
Road River Group
ODbs Carbonaceous, slightly calcareous, locally graptolitic shale
ODt Massive limestone, locally crinoidal

Menzie Creek formation
Omc Foliated, amygdaloidal basalt, tuff, breccia

CAMBRIAN - ORDOVICIAN
Vangorda formation
EOvp Calcareous, medium grey phyllite (greenschist facies)
EOvcs Striped cream and brown calc-silicate (amphibolite facies)
EOvpg Pale green, calcareous phyllite - contact metamorphosed adjacent to metabasites
EOvg Carbonaceous, locally calcareous phyllite/schist
EOvl Marble
// Skarn
EOvb Poorly foliated, dark green, metabasite/amphibolite
EOvbf Foliated medium green chloritic phyllite/schist
EOvbp Metamorphosed pyroxenite, interbedded phyllite, calc-silicate, metabasite
EOva Transitional unit from Vangorda formation to Mt. Mye formation

CAMBRIAN
Ore Zones (in Vangorda and Mt. Mye formations)
Cms Massive sulphides
Cqs Quartzose disseminated sulphides
Alteration associated with mineralization (with mica envelopes)

HADRYNIAN-CAMBRIAN
Mt. Mye formation
HEmmp Noncalcareous brownish grey phyllite
HEmmpu Upper horizon
HEmmpL Lower horizon
HEmms Noncalcareous brownish grey schist
HEmmsu Upper horizon
HEmmsL Lower horizon
HEmmscs Striped cream and brown calc-silicate
// Skarn
HEmmpg Noncalcareous, carbonaceous phyllite
HEmmpgs Noncalcareous, carbonaceous schist
HEmml Grey marble
// Skarn
HEmmpgl Carbonaceous phyllite with dark marble lenses
HEmmpglg Carbonaceous schist with dark marble lenses
HEmmb Poorly foliated, dark green metabasite/amphibolite
HEmmbf Well foliated, medium green chloritic phyllite/schist
HEmmbp Metamorphosed pyroxenite

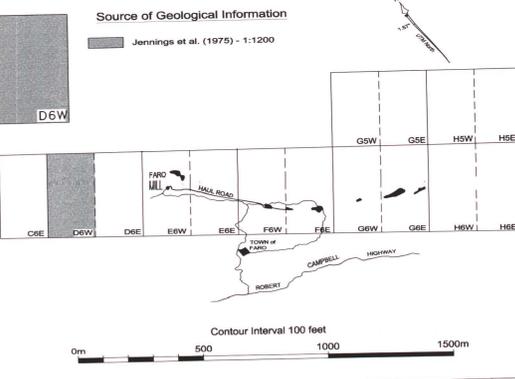
OTHER FEATURES

- Geological contact defined, approximate, inferred
- Fault defined, approximate, inferred (ball on downthrown side)
- Lineament
- Thrust fault defined, approximate, inferred (teeth on overthrust panel)
- Inferred stratigraphic boundary between Eam Group and Anvil Range Group
- Outcrop, subcrop, float
- Bedding (S₁) compositional layering (strike,dip) upright, overturned, vertical
- Foliation/Cleavage (strike,dip) phase 1, phase 2, phase 3, unknown
- Fold axis (azimuth/plunge) phase indicated by # of arrowheads
- Lamination (azimuth/plunge) phase indicated by # of arrowheads
- Mineral elongation/stretching
- M mineral
- P prismatic phenocrysts
- B basaltic axis
- X intersection of planes
- C crenulations
- Fold axial surface trace phase and plunge direction indicated by # of arrowheads upright, overturned
- Shear - shear zone (azimuth/dip)
- Fracture/Joint inclined, vertical
- Glacial striae
- Vein
- Mineral isograd (marks on high grade side)
- Diamond drill hole location approximate location defined in field (overburden depth, total length in metres)
- Rotary drill hole location approximate location defined in field (overburden depth, total length in metres)
- Geological station
- Section line
- Trench

PHYSICAL FEATURES

- Trail
- Road
- Cut line
- Building
- Survey control point

Source of Geological Information
Jennings et al. (1975) - 1:1200



| VERSION | DATE | REVISION | HDS | GJ |
|---------|----------|----------------------------|------|-----|
| 1.1 | 98.05.29 | Updated as per field notes | HDS | GJ |
| 1.0 | 97.11.09 | Updated as per field notes | HDS | LCP |
| | | | BY | CHK |
| | | | APPD | |

DRAFT SHEET D6W GEOLOGY

Anvil Range MINING CORPORATION

ACCESS MINING CONSULTANTS LTD.

SCALE: 1:10,000 Plate 2 DATE: 98/05/29

NTS: 105 K/S DRAWN: 9/2/98 DRAWING: VERSION: DRAFT

File: D6W.DWG xref: topobase xref:
xref: ANVIL_GEOLOGY xref: rv_claims xref:
xref: survey_station xref: xref:

D6W(2)



ROCK UNITS

CRETACEOUS

INTRUSIVE ROCKS

- Anvil Dyke Suite
 - Kgf Smoky Quartz - feldspar porphyry
 - Kge Hornblende - biotite granite
- Anvil Plutonic Suite
 - Kgm ML Mye phase: biotite-muscovite granite
 - Kgo Orchard phase: biotite-hornblende granite
 - Kgp Margine phase: biotite-hornblende granite with quartz phenocrysts

PENNSYLVANIAN - PERMIAN

Anvil Range Group

- PPorb Epidotized, massive basalt
- PPorch Red, green and beige chert
- PPorbch Green, black and beige chert

DEVONIAN - MISSISSIPPIAN

Earn Group

- DMes Carbonaceous shale, siltstone, chert
- DMel Carbonaceous shale with bioclastic limestone
- DMecg Chert pebble conglomerate, sandstone
- DMeB Laminated to nodular barite

ORDOVICIAN

Road River Group

- Ors Carbonaceous, slightly calcareous, locally gneptolitic shale

Menzies Creek formation

- Omc Foliated, amygdaloidal basalt, tuff, breccia

CAMBRIAN - ORDOVICIAN

Vangoria formation

- EOvp Calcareous, medium grey phyllite (greenschist facies)
- EOvcs Striped cream and brown calc-silicate (amphibolite facies)
- EOvpg Pale green, calcareous phyllite - contact metamorphosed adjacent to metabasites
- EOvg Carbonaceous, locally calcareous phyllite/schist
- EOvi Marble
- EOvb Skarn
- EOvbf Poorly foliated, dark green, metabasite/amphibolite
- EOvbp Foliated medium green chloritic phyllite/schist
- EOvo Metamorphosed pyroxenite, interbedded phyllite, calc-silicate, metabasite

CAMBRIAN

Ore Zones (in Vangoria and Mt. Mye formations)

- Ems Massive sulphides
- Eqs Quartzose disseminated sulphides

Alteration associated with mineralization (with mica envelopes)

HADRYNIAN-CAMBRIAN

Mt. Mye formation

- HEmmp Noncalcareous brownish grey phyllite
- HEmmpu Upper horizon
- HEmpl Lower horizon
- HEms Noncalcareous brownish grey schist
- HEmsu Upper horizon
- HEmsl Lower horizon
- HEmsc Striped cream and brown calc-silicate
- HEmmgp Noncalcareous, carbonaceous phyllite
- HEmmgs Noncalcareous, carbonaceous schist
- HEmmi Grey marble
- HEmmglp Skarn
- HEmmbs Carbonaceous phyllite with dark marble lenses
- HEmmbt Poorly foliated, dark green metabasite/amphibolite
- HEmmbp Well foliated, medium green chloritic phyllite/schist
- HEmmbp Metamorphosed pyroxenite

OTHER FEATURES

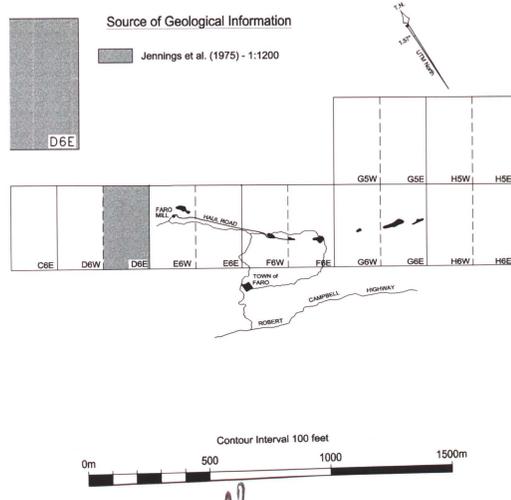
- Geological contact defined, approximate, inferred
- Fault defined, approximate, inferred (ball on downthrown side)
- Lineament
- Thrust fault defined, approximate, inferred (teeth on overthrust panel)
- Limit of mapping
- Outcrop, subcrop, float
- Bedding (S₁) compositional layering (strike,dip) upright, overturned, vertical
- Foliation/Cleavage (strike,dip) phase 1, phase 2, phase 3, unknown
- Fold axis (azimuth/plunge) phase indicated by # of arrowheads
- Lineation (azimuth/plunge) phase indicated by # of arrowheads
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- M mineral
- P prismatic phenocrysts
- B boudin axis
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- Rotary drill hole location approximate location defined in field (overburden depth, total length in metres)
- Geological station
- Section line
- Trench

PHYSICAL FEATURES

- Road
- Trail
- Cut line
- Stream
- Building
- Survey control point

Source of Geological Information

- Jennings et al. (1975) - 1:1200



| | | | | |
|---------|----------|----------------------------|-----|----------|
| 1.1 | 98.05.29 | Updated as per field notes | HDS | GJ |
| 1.0 | 97.11.09 | Updated as per field notes | HDS | LCP GJ |
| VERSION | DATE | REVISION | BY | CHK APPD |

DRAFT SHEET D6E GEOLOGY

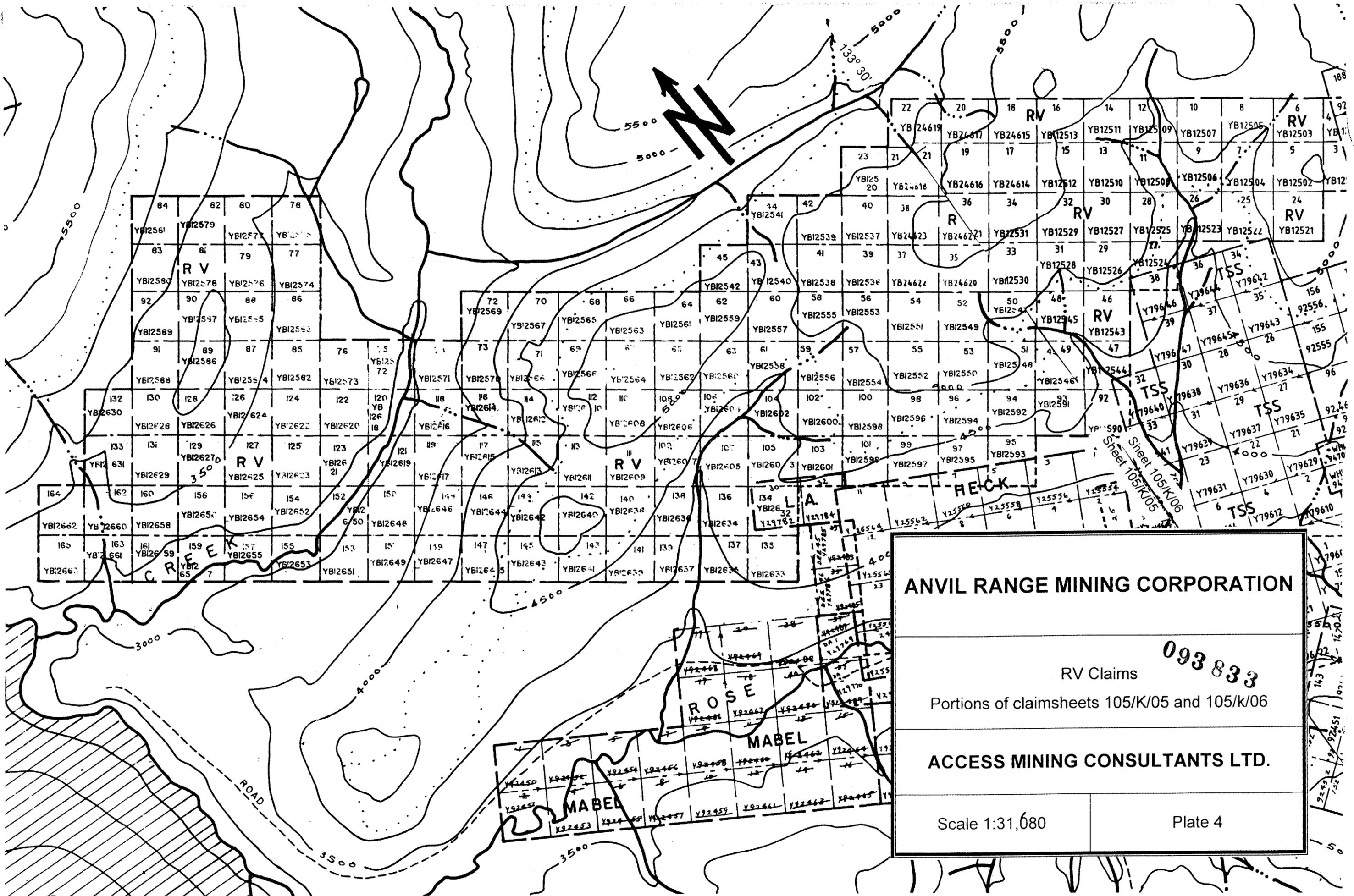
Anvil Range MINING CORPORATION

ACCESS MINING CONSULTANTS LTD.

SCALE: 1:10,000 Plate 3 DATE: 98/05/29

NTS: 105 K5 - K6 DRAWN: [Signature] DRAWING: VERSION: DRAFT

File: D6E.DWG xref: topobose xref: []
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 xref: survey_station xref: [] xref: []



ANVIL RANGE MINING CORPORATION

RV Claims **093 833**
 Portions of claimsheets 105/K/05 and 105/k/06

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Scale 1:31,080 Plate 4