## BC Geological Survey Assessment Report

 31182
## Assessment Report

for the

## Tillicum Property

## 2009 VLF / Road Survey

Slocan Mining Division<br>B.C.G.S. 082 F092 and 082K002<br>Latitude $49^{\circ} 59^{\prime} 299^{\prime \prime} \mathrm{N}$, Longitude $117^{\circ} 43^{\prime} 31^{\prime \prime} \mathrm{W}$

for
AMT Industries Canada Inc.
Rt. 1, Box 1092,
Fairfield, ID 83327

Submitted by:
Rick Walker
Dynamic Exploration Ltd.
2601-42 Ad Ave South
Cranbrook, BC
V1C 7H3

## SUMMARY

A combined VLF / road survey was undertaken in late October, 2009 to continue evaluation of the Tillicum property, together with the results reported from previous programs, by AMT Industries Canada Inc. (hereafter referred to as "AMT"). The property has been the locus of a considerable amount of exploratory work since its initial acquisition in 1960 by local prospectors Arnie and Elaine Gustafson.

The Tillicum property consists of 11 MTO Mineral Tenures, comprising 3,552 ha ( 8,777 acres), located east of the village of Burton and east of Lower Arrow Lake in southeast British Columbia. The property can be accessed using Highway 6 to Burton, then east along the Caribou Creek Forest Service Road to Londonderry Creek. The property covers the height of land between Caribou and Snow Creeks, northwest of Valhalla Provincial Park, including Tillicum Mountain, Golden Hope Peak, Grey Wolf Mountain, Hailstorm Peak and Hailstorm Ridge.

The property is underlain by metasediments of the Triassic Milford Group on the south and east portion of the property. The Milford Group is host to the silver mineralization documented on the property. The Milford Group is overlain by the Lower Jurassic Rossland Grouyp, comprised metamorphosed maasive basaltic - andesitic flows with interbedded and overlying mafic tuffs and shales correlated to the Elise Formation.

The predominantly volcanic to volcaniclastic lithologies were subsequently intruded by intrusive quartz monzonite, granodiorite and quartz diorites lithologies of the Cretaceous Goat Canyon and Halifax Creek stocks.

Subsequent deformation has divided the property into a number of fault bounded blocks. Most faults are interpreted to have minor displacement, however, several are interpreted to have more significant offsets.

Gold and/or silver mineralization occurs in shear and fracture related, calc-silicate, quartz skarns developed in metasedimentary and metavolcanic rocks of both the Milford and Rossland Groups adjacent to or in close proximity to quartz monzodiorite porphyry sills. These skarns are divisible into gold-rich and silver rich types.

A total of 248 VLF / road survey stations were recorded with stations approximately every 20 metres along the existing road network in a north facing bowl immediately southeast of the Upper Camp. VLF data was collected using the signal from the Seattle station. Station location data was recorded with a hand-held GPS using the NAD 83 datum, using either a Garmin GPS 72 or a Magellan Mobile Mapper receiver (dependent upon satellite reception for the Magellan). Accuracy for a given station location varied between 5.6 and 31.8 m on the Garmin or a PDOP (Predicted Degree of Precision) 1.7 to 9.1 on the Magellan (as calculated by the receiver used).

## Table of Contents

Page
Summary ..... i
Table of Contents ..... ii
List of Figures ..... iii
List of Appendices ..... iii
Introduction ..... 1
Location and Access ..... 7
Physiography and Climate ..... 8
Claim Status ..... 9
Work History ..... 9
General Geology ..... 13
Property Geology ..... 13
Mineralization ..... 15
Heino - Money Zone ..... 15
East Ridge Zone ..... 16
Grizzly Zone ..... 16
Lower Jennie, Command and Road Ridge Zones ..... 17
Silver Queen Zone ..... 17
Arnie Flats Zone ..... 17
2009 Field Program ..... 19
Results ..... 19
Infrastructure and Resources ..... 19
Road Survey ..... 20
VLF Survey ..... 21
Discussion ..... 26
Drill Core ..... 26
VLF Survey ..... 26
Road Survey ..... 27
Conclusions ..... 29
Recommendations ..... 30
References ..... 32

## List of Figures

Page
Figure 1 - Regional Location Map ..... 2
Figure 2 - Property Location Map ..... 3
Figure 3 - Tenure Location Map ..... 4
Figure 4a - Geological Map (1:60,000 scale) ..... 5
Figure 4b - Geology and Zone Location Map ..... 6
Figure 5 - Station Location Map ..... 19
Figure 6-Station Location Map- north bowl area ..... 21
Figure 7 - View along road to mineralized zone - Upper Camp Appendix C
Figure 8 - Building at Upper Camp ..... Appendix C
Figure 9 - Cross stacked core - Upper Camp ..... Appendix C
Figure 10 - Core racks by building - Upper Camp Appendix C
Figure 11 - Core racks along road - south of Upper Camp building ..... Appendix C
Figure 12 - Vandalized core boxes - Upper Camp Appendix C
Figure 13 - Core rack in good condition - Upper Camp Appendix C
Figure 14-Core rack in moderate condition, collapsing - Upper Camp ..... Appendix C
Figure 15 - Core rack in moderate condition, collapsing - Upper Camp ..... Appendix C
Figure 16 - Core rack in moderate condition, collapsing - Upper Camp ..... Appendix C
Figure 17 - Old scoop tram at Lower Camp ..... Appendix C
Figure 18 - View of Administration / Cook building, view to west ..... Appendix C
Figure 19 - Bunk / Shower building - Lower Camp ..... Appendix C
Figure 20 - Bunk / Shower and Administration building, view to northeast ..... Appendix C
Figure 21 - Warehouse building - view to west Appendix C

## List of Appendices

Appendix A - Statement of Qualifications
Appendix B - VLF / Road Survey Results
Appendix C - Photographs
Appendix D-Statement of Expenditures
Appendix E - Program - Related Documents

## INTRODUCTION

A combined VLF / road survey was undertaken in late October, 2009 to continue evaluation of the Tillicum property, together with the results reported from previous programs, by AMT Industries Canada Inc. (hereafter referred to as "AMT"). The property has been the locus of a considerable amount of exploratory work since its initial acquisition in 1960 by local prospectors Arnie and Elaine Gustafson.

The Tillicum property consists of 11 MTO Mineral Tenures, comprising 3,552 ha ( 8,777 acres), located east of the village of Burton and east of Lower Arrow Lake in southeast British Columbia.(Fig. 1 to 3). The property can be accessed using Highway 6 to Burton, then east along the Caribou Creek Forest Service Road to Londonderry Creek. The property covers the height of land between Caribou and Snow Creeks, northwest of Valhalla Provincial Park, including Tillicum Mountain, Golden Hope Peak, Grey Wolf Mountain, Hailstorm Peak and Hailstorm Ridge.

The property is underlain by metasediments of the Triassic Milford Group on the south and east portion of the property (Fig. 4b). The Milford Group is host to the silver mineralization documented on the property. The Milford Group is overlain by the Lower Jurassic Rossland Grouyp, comprised metamorphosed maasive basaltic - andesitic flows with interbedded and overlying mafic tuffs and shales correlated to the Elise Formation.

The predominantly volcanic to volcaniclastic lithologies were subsequently intruded by intrusive quartz monzonite, granodiorite and quartz diorites lithologies of the Cretaceous Goat Canyon and Halifax Creek stocks (Fig. 4).

Subsequent deformation has divided the property into a number of fault bounded blocks. Most faults are interpreted to have minor displacement, however, several are interpreted to have more significant offsets.

Gold and/or silver mineralization occurs in shear and fracture related, calc-silicate, quartz skarns developed in metasedimentary and metavolcanic rocks of both the Milford and Rossland Groups adjacent to or in close proximity to quartz monzodiorite porphyry sills. These skarns are divisible into gold-rich and silver rich types.

A total of 248 VLF / road survey stations were recorded with stations approximately every 20 metres along the existing road network in a north facing bowl immediately southeast of the Upper Camp. VLF data was collected using the signal from the Seattle station. Station location data was recorded with a hand-held GPS using the NAD 83 datum, using either a Garmin GPS 72 or a Magellan Mobile Mapper receiver (dependent upon satellite reception for the Magellan). Accuracy for a given station location varied between 5.6 and 31.8 m on the Garmin or a PDOP (Predicted Degree of Precision) 1.7 to 9.1 on the Magellan (as calculated by the receiver used).


## Figure 2 - Property Location Map



|  |
| :---: |
| Legend Indian Reserves National Parks Parks <br> Mineral Tenure (current) Mineral Claim Mineral Lease <br> Mineral Reserves (current) Placer Claim Designation Placer Lease Designation No Staking Reserve Conditional Reserve Release Required Reserve Surface Restriction Recreation Area Others Survey Parcels BCGS Grid <br> Contours (1:250K) Contour - Index <br> Contour - Intermediate <br> Areaof Exclusion <br> Areaof Indefinite Contours <br> Annotation (1:250K) <br> Transportation - Points (1:250K) <br> H Airfield <br> H Anchorage-Seaplane <br> F Ferry Route <br> (6) Heliport <br> + Seaplane Base <br> It Air Field <br> i) Airport <br> + Air Feature - Condition Unknown <br> i) Airport.Abandoned |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.




## LOCATION AND ACCESS

The property is located approximately 12 km east of the village of Burton, east of Lower Arrow Lake in southeastern British Columbia (Fig. 1 to 3). The Tillicum occurrence (Minfile 082FNW234; Fig. 4 ) is located in the approximate centre of the current Tillicum property, which is currently in good standing. The Silver Queen occurrence (Minfile 082FNW220) is located in the southern portion of the property.

The property is located on NTS mapsheets $082 \mathrm{~F} / 13$ and 082K/4 (B.C.G.S. mapsheet F092 and 082 K 002 ), and is centred approximately at:

UTM: 449291 E, 5537473 N, or
Latitude $49^{\circ} 59^{\prime} 29^{\prime \prime} \mathrm{N}$, Longitude $117^{\circ} 43^{\prime} 31^{\prime \prime} \mathrm{W}$

The claims can be easily accessed by following Highway 6 to the community of Burton on the east side of Lower Arrow Lake. From Nakusp, take the third exit to the east on McCormack Road Odometer-0.0). Turn left on to the Caribou Creek Road at 0.7 km (Radio Frequency - 152.030 Hz ). At 7.9 km , keep right at the fork in the road. Km 8.0 - Junction with Blue Mountain Creek. Stay right and cross the bridge. Stay left on the main road at each of the following junctions - 11.1 km , $12.5 \mathrm{~km}, 16.3 \mathrm{~km}$ and 17.4 km . Cross the bridge at 18.0 km , then stay right at the junction at 18.5 km . At 20.1 km take the right fork down and cross the creek, swinging back tot he east toward the Lower Camp. At 20.3 km take the right fork for the Lower Camp or the left fork to continue to the Upper Camp. At 19.8 km are the buildings comprising the Lower Camp. The Upper Camp is another 6.9 km along the left fork.

There are a number of logging roads in various states of repair that facilitate access to and through the property. The main road is accessible using 2WD whereas many of the other roads are best negotiated using 4WD.

The Caribou Creek road to the Lower Camp is, generally in good repair, although narrow in many spots in the event there is active logging in the area. The bridge at 18.0 km needs to have the railings repaired and there were several spots between approximately 17.0 and 20 km where the road is narrow due to the effects of mass wasting (both slump and debris onto the road and slumping at the edge of the road).

The road to the Upper Camp needs to have some work done with a cat before it can be accessed by vehicles larger than a quad. The lower 5 km of road (between the Lower and Upper Camps) will need to be bladed to remove alders encroaching along the side of the road. At higher elevations, there are a number of stretches of road that will need to be cleared of road fall debris and a very narrow stretch for about 1 km north of $448775 \mathrm{E}, 5537469 \mathrm{~N}$ is very narrow and would need to be widened to facilitate access for anything larger than a pickup.

The road network over the mineralized area of interest would also need to be re-bladed to remove rock fall debris as there is continual movement of material downslope, particularly during periods
of moderate to heavy precipitation and/or melting on areas with higher relief. As it stands, much of the road network would be accessible by quad once the snow has melted off the roads.

The Tillicum property covers the height of land between Caribou and Snow Creeks, northwest of Valhalla Provincial Park, including Tillicum Mountain, Golden Hope Peak, Grey Wolf Mountain, Hailstorm Peak and Hailstorm Ridge.

## PHYSIOGRAPHY AND CLIMATE

The property is located east of Lower Arrow Lake (Fig. 2) and is characterized by moderate to high precipitation, resulting moderate to heavy rain during the summer months and heavy snowfall during the winter, particularly at higher elevations. "Total annual precipitation in the main valley is 810 mm with about 280 mm of that in the form of rain between May and September" (Dykes 2003).

Topography on the property ranges from 920 m (3,020 feet) along Caribou Creek to $2283 \mathrm{~m}(7,490$ feet) at Golden Hope Peak. The extent to which the property is free of snow and, therefore, available for work programs is highly variable given the high level of relief on the property, with lower elevations free of snow much early and later in the year than the higher elevations. In general, the property is available for work between June and September in most years. As the main mineralized area of interest is located at higher elevations within an north-facing bowl, work may be delayed by the presence of snow into late June.
"The main camp is located at an elevation of $2,000 \mathrm{~m}$. The topography is generally steep and in places, precipitous. Bedrock outcrop is generally restricted to ridge crests and covers approximately $10 \%$ of the surface area. Slopes are mostly covered with overburden consisting of talus slopes, snow -avalanche debris tracks and unconsolidated glacial debris. Coniferous forests covers the entire area with the exception of the highest peaks and ridges" (Dykes 2003).

## CLAIM STATUS

The property consist of 11 Mineral Tenure Online (MTO) Mineral Tenures (see Figure 3 ). Pertinent tenure information has been confirmed using the Ministry of Energy and Mines Mineral Tenure Online web-site and is summarized below:

| Tenure <br> Number | Claim Name | Work Recorded <br> To* | Status | Area (ha) |
| :---: | :---: | :---: | :---: | ---: |
| 555065 | TILLICUM 1 | 2010/OCT/31 | In Good Standing | 166.2137 |
| 555066 | TILLICUM 2 | $2010 /$ OCT/31 | In Good Standing | 498.7690 |
| 555068 | TILLICUM 3 | $2010 /$ OCT/31 | In Good Standing | 498.4743 |
| 555069 | TILLICUM 4 | $2010 /$ OCT/31 | In Good Standing | 457.1521 |
| 555071 | TILLICUM 5 | $2010 /$ OCT/31 | In Good Standing | 498.3402 |
| 555074 | TILLICUM 6 | $2010 /$ OCT/31 | In Good Standing | 415.4236 |
| 555078 | TILLICUM 7 | 2010/OCT/31 | In Good Standing | 269.9478 |
| 555079 | TILLICUM 8 | $2010 /$ OCT/31 | In Good Standing | 20.7741 |
| 555087 | TILLICUM 9 | $2010 /$ OCT/31 | In Good Standing | 207.6573 |
| 555089 | TILLICUM 10 | $2010 /$ OCT/31 | In Good Standing | 20.7741 |
| 555728 | TILLICUM 11 | $2010 /$ OCT/31 | In Good Standing | 498.3691 |
|  |  |  | Total | $\mathbf{3 5 5 1 . 8 9 5 3}$ |

* Subject to acceptance of the 2009 Assessment Credits


## WORK HISTORY

The following has been taken from Dykes (2003):
"The following section has been summarized from various sources including assessment files, internal company reports and BC Government Minfile information. The town of Burton was founded in 1895 as a result of gold mining activity in the area. There are reports of numerous placer operations within the Caribou Creek drainage system during the early 1990's.

During the period 1896 to 1930 several small-scale, hard rock mine workings were active and are found throughout the area. Prospecting was carried out in the Tillicum Mountain area up to 1960, but the source of the placer gold was never identified. In 1980 local prospectors Arnie and Elaine Gustafson discovered gold in what is now known as the Heino-Money Zone, on the north slope of Tillicum Mountain.

Esperanza Explorations Ltd. optioned the property in the fall and 1981 and initiated an exploration program that sparked a district wide staking rush. The Tillicum property covers in excess of 15,00 acres containing 10 known deposits and prospects of goldsilver mineralization.

Early exploration was initially focused on the discovery zone, which later became the Heino-Money Mine. Work consisted of geophysical and geochemical surveys, mapping, trenching, surface drilling, underground drifting and raising, underground drilling and bulk sampling. Exploration work outside of the discovery zone led to the finding of several other significant mineralized zones. These include "East Ridge" and "Grizzly " zones. (Figure 3).

In 1993 Bethlehem Resources Corporation and Goldnev Resources Inc. optioned the property and obtained a permit for an underground mining operation. Mining commenced in mid-August of that year and was completed in late October. A total of $29,009 \mathrm{~m}(95,150$ feet $)$ of surface and $3,865 \mathrm{~m}$ (12,677feet) of underground drilling for a total of 376 holes have been completed. In addition, underground development consisting of : $1,374 \mathrm{~m}(4,507$ feet $)$ in the Heino-Money zone and $410 \mathrm{~m}(1,345$ feet) in the East Ridge zone was completed.

| Mineral Zone | Years | Drilling (surface) |  | Drilling (Underground) |  | Underground Development |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Holes | Meters | Holes | Meters |  |
| Heino_Money | $1981-87$ | 100 | 7060 | 9 | 177 | $955 \mathrm{~m}-4$ levels |
|  | 1988 |  |  | 92 | 3079 | 442 m |
|  | 1993 |  |  | 8 | 284 | 121 m |
| East Ridge | $1981-84$ | 26 | 1586 |  |  | $60 \mathrm{~m}-2118 \mathrm{xc}$ |
|  | 1988 | 75 | 13149 | 14 | 610 | $350 \mathrm{~m}-2062 \mathrm{Dr}$ |
|  | 1989 | 10 | 1446 |  |  |  |
| Silver Queen | 1984 | 12 | $? ? ? ?$ |  |  |  |
| Grizzly | 1984 | 4 | 615 |  |  |  |
| Arnie Flats | 1984 | 5 | 292 |  |  |  |

Considering the size of the property and the money spent the amount of drilling is relatively small and concentrated in a single area.

Small scale production occurred in 1981, 1985,1991 and 1993 from the Heino-Money zone.

| Year | Mined <br> Tonnes | Milled <br> Tonnes | Au grams <br> Recovered | Au ounces <br> recovered | Ag grams <br> recovered | Ag ounces <br> recovered |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1993 | 5,503 | 5,503 | 102,455 | 3,294 | 164,071 | 5,275 |
| 1991 |  |  | 9,207 | 296 |  |  |
| 1985 | 227 | 168 | 48,351 | 1,554 | 51,570 | 1658 |
| 1981 | 58 | 58 | 4,539 | 146 | 3,267 | 105 |
| Total | 5,788 | 5,729 | 164,552 | 5,290 | 218,908 | 7,038 |

It is important to note that mining was discontinued, as the recovered grades did not match the expected grades from the reserve calculations. The 1993 mining was supposed to mine 17,490 tons ( 15,874 tonnes) grading $1.002 \mathrm{oz} \mathrm{Au} /$ ton ( 34.28 gms/tonne), however only 6,064 tons ( 5,503 tonnes) grading $0.543 \mathrm{oz} \mathrm{Au} / \mathrm{ton}(18.61$ $\mathrm{gms} /$ tonne) were produced. The probable reasons for these discrepancies are discussed later in this report".

In fall 2002, Mustang Minerals Corp sold the company to 1330275 ONTARIO LIMITED which commissioned a comprehensive report emphasizing the sub-surface drill information.

The following has been taken from (Dykes 2003) report:

## Data Used in Analysis

All data in the possession of Mustang Minerals has been examined. The data consists of summary reports, surface and underground plans, assay data, sections and drill logs. Additional data is supposed to be in the possession of Mr. George Addie, a geologist who recently worked on the property, however, at this time this has not been examined.

A fairly complete record of all exploration and mining carried out on the property is present with the exception of exploration data for the Silver Queen zone. This data was lost in a landslide at the home of the property vendors. The data however is not indexed and stored in a haphazard manner.

Detailed plans and sections were found for the Heino-Money and East Ridge Zones along with drill log and assay data for the underground workings and the drill holes and surface samples. Gemcom database was also found from the previous compilation work, however, this database had only partial underground workings and several assay problems. Sections and the model created by the Gemcom system were based on connecting up assay values only with no regard
for the geology. This is a common practice but quite often leads to erroneous assumptions and conclusions, especially in high grade gold deposits. The Gemcom database had 339 drill holes, 19 trenches with 17,042 drill hole assays, 294 trench assay and 11,706 lithology records. Sections and solid models developed were basically discarded, once an examination of the gold grade distribution was completed.

## Construction of the Property Database

Rather than use Gemcom to store the project data, maps and sections etc., it was decided to store the data in a more flexible and readily available system. Microsoft Excel (spreadsheet) was selected to storeall the assay and drill hole information, AutoCAD used for all maps, section, plans and 3D images, finally CorelDraw was used for all presentation maps. Data was processed using Geologic Systems proprietary software, which does geological controlled statistical analyses, direct AutoCad drawing files and 3D models. Rendering of the 3D models is done using either AutoCAD or 3D studio. All these are well supported and easily obtained commercial software programs.

Having analyzed all available data, compilation of the data began with data entry and confirmation of the drill hole database including assays, lithologies, drill hole surveys and collars. Underground workings, mining and geology missing from the Gemcom database were electronically scanned. All data and maps were checked to ensure reliability. The resulting database consists of several Excel files and AutoCAD drawings and 3D models. Appendix A has a complete list of all files included with this assessment report.

Interpretation and Results of Data Compilation.

The results of the analysis and compilation appear to shed light on the problems encountered during exploration and development of the property. In addition the tremendous potential of this property is readily apparent. Once the very high grade narrow vein of the Heino-Money zone was identified, exploration and development of the property was concentrated on following and finding more of this type of mineralization, other styles of lower grade were noted but explored only for very high grade (> $1 \mathrm{oz} \mathrm{Au} /$ ton) mineralization. Very little work was done in trying to understand the large scale picture, the overall regional metal zoning, geological and structural patterns were never fully understood. As a result only a fraction of the property has been explored.

## GENERAL GEOLOGY

The Tillicum Mountain Gold Property covers a portion of a roof pendant situated at the northwest end of a 250 kilometer long arcuate belt of Rossland Group volcanics. This belt is host to several gold mines and prospects with recorded production in excess of 4 million ounces of gold.

The property is underlain by a sequence of Pennsylvanian to Triassic Milford Group volcanosedimentary siltstone, arkosic sandstone and wacke overlain by Lower Jurassic Rossland Group basaltic-andesite flows and tuffaceous siltstones.

Three episodes of intrusion are recognized within the area. The first consists of swarms of dioritic sills of uncertain age, the second is the large-scale Cretaceous monzonitic stocks and the third are swarms of Lamprophyre dykes that cut all rocks. Gold and silver mineralization occurs in shear related calc-silicate quartz skarns, developed in metavolcanic and metasedimentary rocks of both the Milford and Rossland Groups, adjacent to or in close proximity to these stocks and sills.

The metamorphic grade throughout the region is generally sillimanite facies, however the grade is lower around Tillicum Mountain with biotite, muscovite, chlorite and amphibole the main metamorphic minerals.

## PROPERTY GEOLOGY

Pennsylvanian to Triassic Milford Group forms the base of the stratigraphic succession on the property. It consists of siltstones, quartzites and limey sediments that have been regionally metamorphosed to hornfels, schists and gneisses (figure 3). The Milford Succession underlies much of the south and eastern portion of the claims and is host for the stratabound silver mineralization at the Silver Queen zone.

The Milford group units are overlain by metamorphosed and volcanoclastic rocks that are correlated to the Elise Formation of the Lower Jurassic Rossland Group. In the Tillicum Mountain area, the Elise Formation is comprised of massive basaltic-andesite flows, which are both overlain by and locally interbedded with mafic tuff and shale. The Elise Formation can be further divided into massive flows, breccia and tuffs of the Lower Elise Formation, which are overlain by pyroclastic, epiclastic and minor flows of the Upper Elise Formation. Metavolcanics of the Lower Elise Formation consisting of pillow flows, agglomerates and breccias are found on the west and north slopes of Tillicum Mountain with an estimated
thickness varying to 200 meter feet. It appears that the largest exposure of basaltic andesite is overlain by a sequence of tuffaceous sediments interbedded with up to 20 meter thick flows of basaltic andesite. The Upper Elise Formation consists of intercalated tuffaceous volcanic cycles along with clastic sedimentation that includes recognizable units of epiclastics, tuffaceous siltstone, lapilli tuff, ash flow tuffs and shaly siltstone. This formation, which is exposed throughout the property, is best exposed on the north slope of Tillicum Mountain where the apparent thickness has been measured in excess of 250 meters.

Porphyritic dykes and sills, up to 200 meters thick intrude the Milford-Rossland Group succession. These intrusives pre-date the Cretaceous stocks and occur in northeast trending belts that host all known gold and silver skarn mineralized zones. Composition of these porphyry rocks varies from quartz monzodiorite at Tillicum Mountain to quartz monzonite at Hailstorm Ridge. The intrusive bodies have cores with medium grained packed porphyritic texture grading to fine grained and granular margins. Intense alteration and recrystallization of the sedimentary units adjacent to larger porphyry bodies has produced a dioritized unit unique to the district (Devlin and Robert's 1989).

The Cretaceous-age Goat Canyon and Halifax Creek stocks are intrusive into all the above mentioned units and postdate regional greenschist metamorphism. The stocks are compositionally similar and consist of fine to medium grained, hypidiomorphic granular quartz monzonite, granodiorite and quartz diorite with contaminated border phases of monzonite and diorite.

The youngest rocks on the property are narrow (less than 4 meter), north trending, steeply dipping lamprophyre dykes. Although present throughout the property, these dykes are concentrated in two swarms that cross through the East Ridge and Heino-Money gold zones. They are probably Tertiary in age.

Faulting on the property is dominated by moderate to steep angle, normal and reverse structures. Most faults have minor offsets, however several faults with large displacements segment the property into fault bounded blocks. Within the fault bounded blocks little evidence of folding exists. The metamorphic fabric of the rock closely parallels the bedding planes with minor or parasitic folding only very rarely observed. Further details on the property geology and the skarns are available in several publications, including those by Ray, McClintock and Roberts (1985) and Ettinger and Ray (1989).

## MINERALIZATION

Gold and/or silver mineralization occurs in shear and fracture related, calc-silicate, quartz skarns developed in metasedimentary and metavolcanic rocks of both the Milford and Rossland Groups adjacent to or in close proximity to quartz monzodiorite porphyry sills. These skarns are divisible into gold-rich and silver rich types. In fact Addie (1997) noted a semi-circular regional geochemical pattern centered on Tillicum Mountain, consisting of an outer anomalous molybdenum zone grading inward to higher silver values followed by gold. The skarn mineralization appears to follow this pattern.

Skarn assemblages consist of quartz, plagioclase, sericite, tremolite-actinolite, clinozoisite, garnet, biotite and microcline. High grade "bonanza type" gold ore shoots are hosted within quartz-actinolite-chlorite assemblage. Skarns contain quartz-calc-silicate segregations, injections and veins that vary from less than 10 cm to 4 meters thick. Skarn zones vary in thickness from 1 to 60 meters. Skarns also contain variable amounts of pyrrhotite, pyrite, sphalerite, galena, as well as traces of chalcopyrite and tetrahedrite. The sulphides occur as fine disseminations orientated within the plane of the metamorphic fabric or as coarse grained aggregates within the segregations. Native gold occurs within the skarn assemblages as 25micron disseminations to over several millimeter diameter flakes within and along the margins of the quartz calc-silicate segregations. Petrographic studies (Northcote, 1983) of polished thin sections indicate that the gold occurs as plates and anhedral grains which are generally free, but are intimately associated with pyrrhotite, arsenopyrite, sphalerite and pyrite-marcasite.

There are a number of significant mineralized zones identified to date on the property. These include the following gold rich zones: Heino-Money zone, East Ridge Zone, Grizzly, Lower Jennie, and Road Ridge; and the following silver rich zones: Silver Queen and Arnie Flats. The zones are located in figure 3.

## Heino-Money Zone

This Gold rich mineralized zone has had extensive work including underground mining. The mining reserve is outlined in four south raking shoots that occur in a near vertical shear structure, which averages about 2 meters wide and has a strike length of approximately 200 meters and vertical extent of 100 meters. Three distinct types of mineralization have been identified (Tindall 1993).

High sulphide polymetallic mineralization occurs in the 2112 zone in a high angle crosscutting breccia. Alteration, consisting of strong silicification and calc-silicate replacement of wall rocks and breccia fragments, are confined to the Breccia zone. Sulphides in order of abundance, are pyrrhotite, sphalerite, galena and pyrite with minor chalcopyrite and arsenopyrite. They occur as blebs, lenses, stringers and massive accumulations. Sulphide
content within the zone is highly variable but averaged in excess of $10 \%$. Gold grades are significantly higher in areas of quartz stringer veining or high sulphide content.

Low sulphide polymetallic mineralization exemplified by the 2130 zone that crosscuts metavolcanic and metasedimentary rocks at a high angle confined by steeply dipping shears. Alteration consists of strong to moderate hornfels and calc-silicate replacement. Quartz stringers, lenses and small veins were common. Sulphides content is less than $5 \%$ consisting of pyrrhotite, pyrite, sphalerite and galena with minor chalcopyrite and arsenopyrite. Gold values are extremely variable over short distances and were generally less than $0.5 \mathrm{oz} /$ ton.

The final type consists of low sulphide, pyrite dominated mineralization that occurs on the 2148, 2160 and 2171 levels. Alteration ranges from moderate to strong hornfels and calcsilicate replacement to weak chloritization. In all levels, veining and alteration are confined to steeply dipping shear zones.

Total sulphide content is generally less than $3 \%$ with pyrite predominant and only minor amounts of other base metal sulphides. Gold values tend to be highly erratic but overall the grade is low. Ettlinger and Ray (1989) report that whole-rock and trace element analyses of samples from one of the Heino-Money drill holes indicates that there were at least two episodes of mineralization, the first being gold-rich and silver-poor and a slightly younger episode of silver and lead-rich, gold -poor mineralization.

## East Ridge Zone

Mineralization in the East Ridge zone occurs in multiple skarn horizons within a calc-silicate altered succession of tuffaceous sediments and volcanics approximately 125 meters thick overlying a diorite porphyry intrusion. Mineralization has been traced for at least 1100 meters along strike and 360 meters down dip. It is currently open in all directions. The exact nature and structural relationships of the mineralization to the host rocks is poorly understood. The zones range in thickness up to 51 meters ... and dip 55 degrees to the west. High grade gold values are associated with quartz-pyrite-pyrrhotite mineralization with trace amounts of sphalerite and galena. High grade zones appear restricted to zones of narrow calc-silicate altered areas surrounded by lower grade over larger intervals. The overall indicated grade of the zone is considerably less than the Heino-Money Zone.

## Grizzly Zone

This area of mineralization is approximately 900 meters southeast of the Heino-Money zone. Addie (1997) reports that the mineralization is similar to that found in the Heino-Money zone. Gold and silver mineralization occurs in shear-related calc-silicate-quartz skarns that contain elongate zones of massive pyrrhotite with minor sphalerite, galena, chalcopyrite and traces of visible gold. The skarns are hosted within zones of moderate to intense calc-silicate alteration
and silicification in the host rocks. The zone is poorly understood with only a limited amount of work.

## Lower Jennie, Command and Road Ridge zones

Thought to be similar to the East Ridge zone only minor amounts of surface sampling and geological mapping have been completed.

## Silver Queen Zone

This prospect, active in the 1930's, is silver -rich and gold-poor. It consists of skarn alteration and mineralization associated with feldspar porphyry sills intruded into impure calcareous metasedimentary rocks. Skarn minerals include quartz, tremolite-actinolite, clinozoisite, garnet, biotite and carbonate.

Sulphides include pyrite, pyrrhotite, tetrahedrite, sphalerite and galena.

## Arnie Flats Zone

The zone located 2 kilometers to the southwest of the Heino-Money zone, is silver rich and in a similar setting to the East ridge zone. Mineralization is hosted in a sequence of interbedded tuffaceous volcanics and meta-basaltic-andesite of the Elise Formation overlain by a dioritic sill. Silver mineralization with low gold values occur in two sub-parallel calc-silicate-quartz skarn horizons within the host rock sequence. The two skarn horizons strike north east and dip 45 degrees to the southwest. The upper A horizon ranges from 1 to 3 meters thick and contains $5 \%$, medium grained disseminated pyrite. The lower B horizon is similar in thickness with $3 \%$ disseminated and stringer pyrrhotite with minor pyrite. Both horizons have been traced for 120 meters along strike.


Figure 4 - Geological Map for the Tillicum Property. Simple geological map in which the Cretaceous Whatshan Batholith (KWh) intruded the Triassic Slocan Group (TrSlc). MINFILE occurrences documented on the property include the Tillicum (082FNW234) and the Silver Queen (082FNW220). Approximate scale - 1: 60,000. Map produced using The MapPlace.

## 2009 FIELD PROGRAM

The 2009 program completed represents a relatively small survey to continue initial evaluation of the Tillicum property by AMT Industries Canada Inc. Between October 18 and 21, inclusive, the available infrastructure and resources, together with an evaluation of road access and condition was an important part of this program, preparatory to a proposed diamond drill program next year. In addition, a limited VLF survey (using the signal from the Seattle station) comprising a total of 248 readings, was completed, together with a coincident road survey so as to assess the response of the host lithologies and accompanying mineralization to geophysical methods. A GPS coordinate was determined, with highly variable accuracy, for each VLF survey station, comprising an initial survey of the existing road network.

One survey line (stations 1 to 15) was taken along the road between the Lower and Upper Camps and is underlain by rocks correlated to the Goat Canyon - Halifax Creek stocks of the Cretaceous Whatshan Batholith. The remainder survey was underlain by meta-sediments of the Triassic Slocan Group (Fig. $4,4 b, 5$ and 6).

VLF and road survey data are plotted on Figure 5 and 6, with quantitative results included in Appendix B.

## RESULTS

## Infrastructure and Resources

There is some infrastructure remaining and available at both the Lower and Upper Camps, although those at the Upper Camp (Fig. 8-16) are limited and suffering from the combined effects of weather and vandalism. The buildings in the Lower Camp (Fig. 18-21) are intact but have been broken into, with the theft of some items. As a result, there is virtually nothing in the way of equipment that remains usable on-site. There is a supply vehicle on a pick-up chassis, as well as an older scoop tram (Fig. 17), within and outside, respectively, the large storage warehouse (Fig. 21). The operational condition of these vehicles is unknown but, at the very least, will require servicing to return to operation.

The buildings in the Lower Camp have all been broken into, with anything of value removed and /or stolen. One of the large cook stoves remains and the shells of the buildings remain intact (Figs. 18 21).

A single A-frame building is present at the Upper Camp (Fig. 9) and is available for use. There are many hoses stored at the Upper Camp, however, it is unlikely that many could be used as they have been exposed to the sun and weather for many years.

There is a large amount of core stored at the Upper Camp, both cross stacked (Fig. 9) and in racks (Fig. 10-16). The racks are in variable condition, from relatively intact (Fig. 13) to those in the process of collapsing (Figs. 14-16). In addition, the drill core itself has suffered some vandalism (mineralization high graded, box pulled out and not replaced, boxes and core spilled to the ground). Finally, many of the plastic tags used to identify the core boxes have deteriorated to the point they have fallen off, leaving much of the core unlabelled. As the conditions at the time of the visit were quite wet, it is unknown if any of the original markings (probably in felt pen) remain legible on the boxes. Furthermore, there may remain identification within the boxes themselves, such as Drill Hole / Box Number, footage markers and/or sample tags, with which the core could be recovered.

## Road Survey

Limited data, both graphical and digital, have been acquired from previous programs, particularly from the program of Dykes (2003). In addition, AMT is in the possession of a considerable amount of archival analog material (maps, sections and analytical data) comprising a significant portion of the records from previous programs. Various generations of partial compilations exist or varying quality and accuracy.

The limited road network survey, using hand-held (non-differential) GPS receivers, was undertaken in an attempt to evaluate the quality of the data on which to base future decisions, particularly in association with a proposed diamond drill program in 2010.

Station location data was recorded with a hand-held GPS using the NAD 83 datum, using either a Garmin GPS 72 or a Magellan Mobile Mapper receiver (dependent upon satellite reception for the Magellan). Due to the steep, north facing topography of the majority of the road network surveyed and the disposition of the satellite constellation available, the accuracy of any given station location was highly variable, ranging between 5.6 and 31.8 m on the Garmin GPS 72 or a PDOP (Predicted Degree of Precision) 1.7 to 9.1 on the Magellan (as calculated by the receiver used).

The Magellan Mobile Mapper was the preferred receiver as it had been anticipated that the road survey data could be collected as a vector file for input and use in ArcMap. However, due to highly variable satellite signal reception and quality, the Garmin GPS 72 was used predominantly to collect data on a station by station basis.

The data collected were overlain and compared to the "Geology" compilation maps of Dykes (2003) and is plotted as Figure 5. As Dykes (2003) Geology map records only the local grid and has no UTM reference fiducials, it was "rubber sheeted" as an underlay for the quantitative data collected. For station locations having an accuracy of $\leq 8.0 \mathrm{~m}$, or a PDOP of $\leq 5.0$, these data have been used to position the Geology map of Dykes (2003). Stations having an accuracy between 8.0 and 16.0 , or a PDOP between approximately 5.0 and 10.0, were re-positioned using a combination of adjacent survey points and the underlying Geology Map. The remainder of road survey station locations were repositioned largely on the basis of the Geology Map.

The station location data plotted in Figure 5 have not been "smoothed" in any way.

## VLF Survey

The 2009 program occurred late in the season and followed a heavy snowfall in the second week of October. The program was, therefore, delayed until the third week in October. The intent was to take advantage of slightly warmer weather during the week subsequent to the snowfall so as allow snow to melt. As a result, the VLF survey was carried out with between 10 and 15 cm ( 4 to 6 inches) of snow on the ground.

The intent of the survey was to gather a set of preliminary data, over as wide an area and within as short a period of time as was possible before the next snowfall precluded the opportunity for work. To this end, the road network was selected for the survey.

VLF survey data, comprised of Quadrature, In-Phase and Residual data, were collected at approximately 20 m intervals over the road network in the north facing bowl within which much of the work from previous programs, both surface and underground, has been undertaken. Fraser Filter values were then calculated from the resulting data and plotted (Fig. 5 and 6).






## DISCUSSION

## Drill Core

The drill core represents a considerable investment of both time and money. Furthermore, and more importantly, it represents an irreplaceable (as it is unlikely that the complete set of holes would be redrilled) source of information.

As ideas, theories and models pertaining to the source and style of mineralization change over time, the drill core represents the hard data by which such evolving thinking and modeling can be evaluated and, potentially, tested. In addition, as the project evolves and matures toward a possible mining operation, the drill core resource provides a means of undertaking due diligence (re-logging and/or re-sampling) and/or further testing (additional sampling).

At the current time, the status of core storage is critical, with many boxes missing identification tags and many racks in the process of collapsing. It is uncertain how many of the racks currently standing will survive the winter.

Consideration should be given to rehabilitating existing racks and/or building new racks at the Lower Camp and transporting the core to a lower elevation where a lower snow load is anticipated.

## VLF Survey

A VLF survey may be of great value for future work on the property given that the interpreted host for gold and/or mineralization is along "... shear and fracture related, calc-silicate, quartz skarns developed in metasedimentary and metavolcanic rocks of both the Milford and Rossland Groups adjacent to or in close proximity to quartz monzodiorite porphyry sills" (Dykes 2003)

The VLF survey, limited though it was, documented significant variation in response in Quadrature and Fraser Filter values (Fig. 5 and 6). Quadrature values varied between +6 and -46 while Fraser Filter values varied between +34 and -48 . The resulting Fraser Filter data were contoured and is shown in Figure 6.

The contoured data graphical document a number of closures suggesting proximity to conductors. As there is a relatively large distance between lines (as opposed to between stations), the data is more qualitative than quantitative. Furthermore, there is not a lot of constraint on the orientation of any
possible conductors portrayed. With these qualifiers in mind, however, there are several features of interest in the data, as follows:

1. There is not much activity with regard to Quadrature along the line farthest to the northwest (Stations 1 to 15), overlying the Cretaceous lithologies of the Goat Canyon and Halifax Creek stocks (Fig. 5),
2. Areas underlain by meta-sediments of the Triassic Slocan Group show a wide range of values, both in Quadrature and Fraser Filter values (Fig. 5 and 6),
3. Measured values on lines spaced relatively closely together (i.e. stations 63 to 88) have both similar magnitude and sign, suggesting the possible conductors they define may be valid signatures of the underlying host lithologies and/or mineralization, and
4. The main portal ( $448048 \mathrm{E}, 5537326 \mathrm{~N}$ ) and the lower adit ( $448319 \mathrm{E}, 5537340 \mathrm{~N}$ ) are both spatially associated with relative lows, while the upper adit ( $448231 \mathrm{E}, 5537202 \mathrm{~N}$ ) is associated with a relative high. Furthermore, there may be a coarse trend evident from each of these locations with similar highs and lows on adjacent lines, possible indicating conductors trends of potential interest.

A VLF survey should be considered for the north facing bowl within which the Heino-Money Zone, Money Pit, BB Zone, Jenny Au Zone, 1250 Au Zone, East Ridge Au Zone, Command Au Zone, 950 JJ Zone and the Ridge Road Au Zone are located. The proposed VLF survey should be undertaken on a regularly spaced grid in the north facing bowl and would be relatively inexpensive to complete. The resulting information would allow evaluation of the geophysical response for known zones of mineralization. Based on the results of the survey, the response for an alternate geophysical method having a deeper response could be evaluated. For instance, the Titan 24 (combined IP / magnetotelluric) method of Quantec Geosciences might be worthy of consideration. The IP method provides a signal response to as much as 250 m below surface while the magnetotelluric method provides detection to as much as 850 m (as stated for their Kemess case study).

## Road Survey

The road survey is of some concern in that there are significant discrepancies locally in a feature that should be relatively consistent from program to program. Once the roads are built, there should be little change in there surface trace over time. The most significant discrepancy is evident along the line extending from the Upper Camp to the lower adit and passing the Main portal (Stations 158 to 197 on Fig. 5). The underlying "Geology" map (Dykes 2003) shows two opposing hairpin corners, separated by approximately 45 m , which are, in fact, a single continuous road providing the main access tot he
road network. Other examples exits of roads indicated on the map which are not present on the ground and roads on the ground not indicated on the map.

Another example of a significant error can be seen in the discrepancy between the road to the " 1250 Au Zone" at the extreme north edge of the map. There is a discrepancy of up to 25 m evident between the two roads.

In and of itself, this is not a major concern as the road network can be re-surveyed. The discrepancy becomes very significant, however, IF the Geology map compilation is based upon an erroneous map of the road network. The Geology Map includes a geological interpretation based on the location of outcrops and observations tied to the road network and so the road network is integral to the interpretation. Therefore, the validity of the geological interpretation is critically dependent upon the accuracy of the road network.

At the current time, the author is uncertain if the geology was compiled independently of the road network and, therefore, potentially correct. If, on the other hand, the Geology map was compiled with reference to an incorrect representation of the road network, then the geological interpretation is also incorrect.

Furthermore, the topographic contours of the Geology map are displaced approximately 500 m north on the Geology map. A close examination of the road network with regard to topographic contours reveals some glaring errors (road traces at highly oblique angles to perpendicular to topographic contours (i.e. straight uphill or downhill in an area characterized by high relief.

A separate drill map was also prepared for the Dykes (2003) report, together with sections and plans. If the drill holes traces and subsequent sections and plans were prepared on the basis of their actual coordinates, then the correlations and projections inherent in the sections and plans are likely defensible. However, if the locations were digitized from one or more of the maps from which the "Geology" map was compiled, then the drill hole trace map, drill plans and sections may also be significantly erroneous.

The road survey has been extremely valuable component to the 2009 program in that a number of potentially significant discrepancies in the previous Geology map have been identified on the basis of the road survey data collected. Much of the data has a relatively high degree of accuracy and has been used to constrain the location of the Geology Map.

Further work will need to be undertaken to determine the source(s) of information on which compilation of the Geology Map was based. A similar determination will also need to be made to ascertain the validity of the drill hole map and, subsequently, the associated drill plans and sections.

## CONCLUSIONS

The 2009 program represents a further limited, preliminary evaluation of the Tilllicum property by AMT Industries (Canada) Inc. The 2009 program consisted of a combined VLF / road survey along the existing road network in the north facing bowl immediately east-southeast of the Upper Camp. In addition, a brief examination of the infrastructure and resources available on the property was made at the same time.

A VLF survey was believed to be potentially useful with regard to clarifying the nature and location of mineralization on the property given the statement that the interpreted host for gold and/or mineralization is along "... shear and fracture related, calc-silicate, quartz skarns developed in metasedimentary and metavolcanic rocks of both the Milford and Rossland Groups adjacent to or in close proximity to quartz monzodiorite porphyry sills" (Dykes 2003). VLF surveys are generally very responsive to faults and shear zones.

Despite the preliminary nature of the VLF survey, it served to document a number of possible conductors, many of which agree from line to line. Given the disparity of (generally) large distance between lines relative to the distance between stations, the apparent trends defined (Fig. 6) must be regarded with considerable caution. However, given the large range of values for both Quadrature and, subsequently, Fraser Filter values, further VLF surveying on a regularly spaced grid may prove fruitful.

The road survey component of the program documented some major inconsistencies between the previous road network, as plotted on Dykes (2003) Geology map, and the road network documented in the 2009 program. The discrepancy has a number of implications of great significance to future work on the property, particularly with regard to the surface geology, surface drill hole locations and subsurface correlations and projections on plan and section. Further work will need to be undertaken to tie the road network to the underlying topography, geological information from previous programs. Drill hole locations will need to be re-evaluated and confirmation of location made on a hole by hole basis. Finally, once surface topography, geology and drill hole locations have been confirmed and accurately located, sub-surface correlations and projections will need re-evaluated.

The 2009 program, although undertaken late in the field season and of short duration, is considered to have been successful in providing useful, quality information for further evaluation of the Tillicum property.

## RECOMMENDATIONS

1. Make an effort to locate the Gemcon database referred to in Dykes (2003) report. The database is described as consisting of "... 330 drill holes, 19 trenches with 17,042 drill hole assays, 294 trench assay and 11,706 lithology records" (Dykes 2003). Presumably, these data have been captured in the 2003 database compiled in the AutoCad environment, however, the database should be secured for evaluation and, if nothing else, redundancy;
2. Undertake compilation of surface / sub-surface analytical and lithological data available for the Tillicum property, including verification of the data compiled in 2003. Available surface geochemical results and geology needs to be compiled for the purposes of attempting correlations between sub-surface mineralization and areas of anomalous geochemistry at surface. This work might, potentially, have significant implications for identifying additional tonnage potential;
3. Sub-surface correlations made in 2003 on the basis of the compilation of data at that time need to be evaluated and revised, if necessary, so as to be consistent with the interpretations of AMT Industries (Canada) Inc in future evaluation and exploration programs on the property;
4. The road network needs to be accurately surveyed and georeferenced. Depending on the available satellite constellation at any given time, either a hand-held (using only high accuracy location determinations or a differential (back calculate coordinates against a known base station) could be used to collect the necessary data.
5. Where possible, old drill collars should be located and coordinates accurately determined. Even a small population of accurately determined collar locations would be of significant value in order to: 1) accurately position graphical drill collar maps in an GIS database, 2) confirm locations for drill holes in the existing database, and/or 3) assist in positioning or confirming the position of other maps and data in the GIS database (i.e. Geology, surface geochemistry, underground workings, etc).
6. Undertake a VLF survey on a regularly spaced grid in the north facing bowl within which the Heino-Money Zone, Money Pit, BB Zone, Jenny Au Zone, 1250 Au Zone, East Ridge Au Zone, Command Au Zone, 950 JJ Zone and the Ridge Road Au Zone are located. Based on the success of the VLF survey, an alternate geophysical method having deeper penetration could be considered.
7. Alternatively, a deeper penetrating geophysical method could be evaluating, particularly once sub-surface plans and sections have been thoroughly evaluated and/or a new set prepared. The
nature and character of the sub-surface mineralization could be evaluated in the context of its probable response to a geophysical signal, the nature of its expected response and the resolution and reliability that could be expected.
8. There is a significant amount of material that needs to be compiled or, at the very least, reviewed prior to a proposed 2010 drill program. Planning for a program needs to recognize the volume of material to be reviewed in preparation for a proposed program.
9. The status of the drill core needs to be evaluated in 2010 with regard to its preservation. Additional core is likely to be lost this year due to the effects of the winter snow load on core racks already failing. The core that can be recovered needs to be re-located to new, or re-built / strengthened, core racks as soon as is practical. Ideally, the core should be re-located to a lower elevation (i.e. Lower Camp) where snow load will not be as great a factor in the preservation / storage of core.
10. Review and consider implementing outstanding "Recommendations" from Dykes (2003) report.

## REFERENCES

Dykes, S.M. 200. Assessment Work Report - Tillicum Mountain Gold Property, Slocan Mining Division, Assessment Report 27,144, dated April 15, 2003.

## Appendix A

## Statement of Qualifications

## STATEMENT OF QUALIFICATIONS

I, Richard T. Walker, of $260142^{\text {nd }}$ Ave South, Cranbrook, BC, hereby certify that:

1) I am a graduate of the University of Calgary of Calgary, Alberta, having obtained a Bachelors of Science in 1986.
2) I obtained a Masters of Geology at the University of Calgary of Calgary, Alberta in 1989.
3) I am a member of good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
4) I am a consulting geologist, residing at $260142^{\text {nd }}$ Ave South, Cranbrook, British Columbia.
5) I am the author of this report which is based on field work undertaken in late September, 2008.

Dated at Cranbrook, British Columbia this $6^{\text {th }}$ day of January, 2009.


Richard T. Walker, P.Geo.

## Appendix B

VLF / Road Survey Results

| Accuracy (m) Oct. 18, 2009 |  | Easting |  | Corrected <br> Easting | Northing |  | CorrectedNorthing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 6 | 172 | 66 | 449066 | 449066 | 355 | 5537355 | 5537355 End of Ramp Portal |
| 12.1 | 173 | 48 | 449048 | 449048 | 326 | 5537326 | 5537326 |
|  | 175 | 52 | 449052 | 449052 | 334 | 5537334 | 553733413 paces from Portal |
|  | 194 | 319 | 449319 | 449319 | 340 | 5537340 | 5537340 Mouth of Adit |
|  | 210 | 231 | 449231 | 449231 | 202 | 5537202 | 5537204 Mouth of Adit |



|  | 30 | 132 | 449132 | 449132 | 313 | 5537313 | 5537313 | -20 | 15 | 50 Gain set to 10.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 31 | 144 | 449144 | 449144 | 301 | 5537301 | 5537301 | -23 | 15 | 47 |
|  | 32 | 158 | 449158 | 449158 | 290 | 5537290 | 5537290 | -20 | 11 | 49 |
|  | 33 | 174 | 449174 | 449174 | 292 | 5537292 | 5537292 | -25 | 12 | 44 |
|  | 34 | 188 | 449188 | 449188 | 298 | 5537298 | 5537298 | -25 | 12 | 44 |
|  | 35 | 200 | 449200 | 449202 | 309 | 5537309 | 5537302 | -29 | 12 | 44 |
|  | 36 | 214 | 449214 | 449214 | 308 | 5537308 | 5537308 | -29 | 15 | 42 |
|  | 37 | 226 | 449226 | 449228 | 319 | 5537319 | 5537316 | -26 | 18 | 42 |
|  | 38 | 242 | 449242 | 449242 | 326 | 5537326 | 5537326 | -32 | 16 | 40 |
|  | 39 | 252 | 449252 | 449252 | 335 | 5537335 | 5537335 | -33 | 12 | 36 |
|  | 40 | 264 | 449264 | 449261 | 351 | 5537351 | 5537345 | -34 | 12 | 39 |
|  | 41 | 270 | 449270 | 449269 | 366 | 5537366 | 5537355 | -34 | 11 | 35 |
|  | 42 | 214 | 449214 | 449214 | 312 | 5537312 | 5537312 | -30 | 17 | 36 |
|  | 43 | 225 | 449225 | 449225 | 326 | 5537326 | 5537326 | -24 | 14 | 43 |
|  | 44 | 231 | 449231 | 449231 | 335 | 5537335 | 5537335 | -25 | 16 | 34 |
|  | 45 | 244 | 449244 | 449244 | 348 | 5537348 | 5537348 | -31 | 13 | 30 |
|  | 46 | 255 | 449255 | 449255 | 359 | 5537359 | 5537359 | -35 | 12 | 30 Gain set to 17.8 |
|  |  |  |  |  |  |  |  | -36 | 19 | 60 |
|  | 47 | 268 | 449268 | 449269 | 374 | 5537374 | 5537370 | -36 | 15 | 33 |
|  | 48 | 282 | 449282 | 449282 | 381 | 5537381 | 5537381 | -33 | 14 | 72 |
|  | 49 | 291 | 449291 | 449291 | 392 | 5537392 | 5537392 | -32 | 19 | 82 Gain set to 11.6 |
|  |  |  |  |  |  |  |  | -31 | 16 | 50 |
|  | 50 | 308 | 449308 | 449308 | 406 | 5537406 | 5537406 | -18 | 22 | 69 |
|  | 51 | 284 | 449284 | 449284 | 380 | 5537380 | 5537380 | -30 | 16 | 40 |
|  | 52 | 268 | 449268 | 449268 | 372 | 5537372 | 5537372 | -31 | 12 | 36 |
|  | 53 | 253 | 449253 | 449253 | 364 | 5537364 | 5537364 | -33 | 16 | 38 |
|  | 54 | 234 | 449234 | 449234 | 360 | 5537360 | 5537360 | -32 | 20 | 41 |
|  | 55 | 216 | 449216 | 449216 | 361 | 5537361 | 5537358 | -22 | 21 | 46 |
|  | 56 | 201 | 449201 | 449201 | 357 | 5537357 | 5537357 | -25 | 16 | 48 |
| 7.2 | 57 | 181 | 449181 | 449181 | 355 | 5537355 | 5537355 | -28 | 14 | 42 |
| 24.9 | 58 | 167 | 449167 | 449167 | 337 | 5537337 | 5537358 | -24 | 12 | 41 |
| 22.4 | 59 | 151 | 449151 | 449151 | 357 | 5537357 | 5537363 | -26 | 18 | 45 |
| 26.6 | 60 | 134 | 449134 | 449134 | 363 | 5537363 | 5537373 | -28 | 9 | 34 |
| 30.2 | 61 | 124 | 449124 | 449122 | 383 | 5537383 | 5537376 | -34 | 11 | 35 |


|  | 62 | 107 | 449107 | 449107 | 388 | 5537388 | 5537388 | -44 | 7 | 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.8 | 63 | 98 | 449098 | 449096 | 407 | 5537407 | 5537396 | -46 | 5 | 31 |
| 28.6 | 64 | 81 | 449081 | 449081 | 404 | 5537404 | 5537404 | -40 | 5 | 31 |
| 22.9 | 65 | 71 | 449071 | 449065 | 449 | 5537449 | 5537415 | -36 | 4 | 28 |
| 19.2 | 66 | 59 | 449059 | 449048 | 452 | 5537452 | 5537423 | -31 | 9 | 37 |
|  |  |  |  |  |  |  |  | -34 | 12 | 38 |
| 21.9 | 67 | 37 | 449037 | 449037 | 444 | 5537444 | 5537434 | -32 | 13 | 35 |
| 17.6 | 68 | 27 | 449027 | 449027 | 453 | 5537453 | 5537448 | -32 | 13 | 36 |
| 18 | 69 | 17 | 449017 | 449017 | 458 | 5537458 | 5537462 | -24 | 14 | 44 |
| 28.7 | 70 | 3 | 449003 | 449008 | 480 | 5537480 | 5537476 | -21 | 16 | 39 |
| 17.3 | 71 | 988 | 448988 | 449003 | 477 | 5537477 | 5537489 | -20 | 17 | 50 |
| 16.4 | 72 | 983 | 448983 | 448998 | 494 | 5537494 | 5537499 | -24 | 16 | 44 |
| 17.7 | 73 | 996 | 448996 | 449011 | 479 | 5537479 | 5537488 | -20 | 19 | 36 |
| 15.2 | 74 | 12 | 449012 | 449022 | 475 | 5537475 | 5537483 | -24 | 11 | 38 |
| 13.9 | 75 | 31 | 449031 | 449033 | 474 | 5537474 | 5537477 | -26 | 10 | 31 |
| 13.5 | 76 | 51 | 449051 | 449041 | 466 | 5537466 | 5537468 | -32 | 7 | 38 |
| 13.9 | 77 | 62 | 449062 | 449050 | 454 | 5537454 | 5537459 | -38 | 10 | 35 |
| 16.3 | 78 | 92 | 449092 | 449084 | 430 | 5537430 | 5537426 | -36 | 12 | 31 |
| 23.3 | 79 | 74 | 449074 | 449073 | 425 | 5537425 | 5537433 | -38 | 9 | 52 |
| 15.9 | 80 | 61 | 449061 | 449062 | 418 | 5537418 | 5537438 | -32 | 11 | 34 |
| 11 | 81 | 49 | 449049 | 449049 | 443 | 5537443 | 5537447 | -32 | 10 | 35 |
| 6.4 | 82 | 32 | 449032 | 449033 | 453 | 5537453 | 5537458 | -28 | 10 | 35 |
| 7.1 | 83 | 20 | 449020 | 449020 | 465 | 5537465 | 5537465 | -26 | 15 | 42 |
| 17.9 | 84 | 4 | 449004 | 449014 | 470 | 5537470 | 5537477 | -26 | 15 | 45 |
| 9.9 | 85 | 35 | 449035 | 449035 | 430 | 5537430 | 5537430 | -24 | 15 | 42 |
| 10.8 | 86 | 24 | 449024 | 449023 | 440 | 5537440 | 5537431 | -30 | 10 | 44 |
| 9.4 | 87 | 9 | 449009 | 449009 | 436 | 5537436 | 5537436 | -24 | 21 | 39 |
| 5.6 | 88 | 994 | 448994 | 448994 | 447 | 5537447 | 5537447 | -26 | 27 | 44 |
| Oct. 20, 2009 |  |  |  |  |  |  |  |  |  |  |
| 12.1 | 89 | 162 | 449162 | 449172 | 349 | 5537349 | 5537359 | -19 | 7 | 50 Gain at 11 |
| 11.6 | 90 | 176 | 449176 | 449183 | 362 | 5537362 | 5537370 | -21 | 15 | 35 |
| 12.1 | 91 | 195 | 449195 | 449195 | 382 | 5537382 | 5537382 | -20 | 9 | 49 |
| 12.9 | 92 | 207 | 449207 | 449207 | 396 | 5537396 | 5537396 | -30 | 8 | 45 |



| 10.4 | 127 | 310 | 449310 | 449310 | 622 | 5537622 | 5537622 | -7 | 9 | 22 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 128 | 298 | 449298 | 449298 | 607 | 5537607 | 5537607 | -10 | 9 | 25 |
| 8.6 | 129 | 279 | 449279 | 449279 | 601 | 5537601 | 5537601 | -6 | 9 | 26 |
| 9.2 | 130 | 260 | 449260 | 449260 | 607 | 5537607 | 5537607 | 1 | 12 | 40 |
| 8.8 | 131 | 244 | 449244 | 449244 | 615 | 5537615 | 5537615 | -1 | 12 | 58 |
| 7.4 | 132 | 228 | 449228 | 449228 | 626 | 5537626 | 5537626 | -7 | 7 | 37 |
| 7.1 | 133 | 224 | 449224 | 449224 | 641 | 5537641 | 5537641 | -14 | 6 | 29 |
| 7.2 | 134 | 210 | 449210 | 449210 | 652 | 5537652 | 5537652 | -14 | 6 | 30 |
| 7.3 | 135 | 196 | 449196 | 449196 | 659 | 5537659 | 5537659 | -20 | 6 | 20 Gain to 15.1 |
|  | 136 | 196 | 449196 | 449196 | 659 | 5537659 | 5537659 | -22 | 6 | 50 |
| 12.3 | 137 | 184 | 449184 | 449184 | 656 | 5537656 | 5537656 | -20 | 6 | 60 |
| 12.7 | 138 | 174 | 449174 | 449174 | 645 | 5537645 | 5537645 | -16 | 9 | 42 |
| 11.5 | 139 | 169 | 449169 | 449169 | 636 | 5537636 | 5537636 | -17 | 7 | 50 Gain to 5 |
| 11.7 | 140 | 155 | 449155 | 449155 | 622 | 5537622 | 5537622 | -20 | 7 | 27 |
| 11.8 | 141 | 141 | 449141 | 449141 | 612 | 5537612 | 5537612 | -16 | 7 | 15 |
| 12 | 142 | 123 | 449123 | 449123 | 614 | 5537614 | 5537614 | -13 | 3 | 25 Creek |
| 18.6 | 143 | 248 | 449248 | 449251 | 479 | 5537479 | 5537476 | -18 | 3 | 50 Gain to 12 |
| 18.1 | 144 | 264 | 449264 | 449264 | 469 | 5537469 | 5537469 | -13 | 13 | 34 |
| 17 | 145 | 277 | 449277 | 449277 | 463 | 5537463 | 5537463 | -12 | 13 | 55 |
| 13 | 146 | 291 | 449291 | 449291 | 458 | 5537458 | 5537458 | -20 | 13 | 50 |
| 20.6 | 147 | 302 | 449302 | 449302 | 471 | 5537471 | 5537471 | -12 |  |  |
| 24.9 | 148 | 315 | 449315 | 449310 | 473 | 5537473 | 5537483 | -6 | 16 | 57 |
| 27.3 | 149 | 323 | 449323 | 449323 | 499 | 5537499 | 5537499 | -6 | 13 | 48 |
| 24.8 | 150 | 316 | 449316 | 449310 | 477 | 5537477 | 5537483 | -6 | 12 | 67 |
| 24.6 | 151 | 305 | 449305 | 449302 | 465 | 5537465 | 5537471 | -10 |  |  |
| 23.9 | 152 | 296 | 449296 | 449291 | 451 | 5537451 | 5537458 | -27 |  |  |
| 25.5 | 153 | 287 | 449287 | 449281 | 443 | 5537443 | 5537447 | -27 |  |  |
| 25.4 | 154 | 267 | 449267 | 449267 | 435 | 5537435 | 5537444 | -27 | 13 | 50 Gain to 0.8 |
| 25.5 | 155 | 252 | 449252 | 449252 | 430 | 5537430 | 5537438 | 14 | 4 | 70 |
| 10 | 156 | 234 | 449234 | 449234 | 436 | 5537436 | 5537436 | -24 | 4 | 18 |
| 9.8 | 157 | 216 | 449216 | 449216 | 439 | 5537439 | 5537439 | -30 | 5 | 12 |


|  | 158 | 902 | 448902 | 448902 | 515 | 5537515 | 5537515 | -3 | 4 | 50 Gain to 10.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 159 | 915 | 448915 | 448915 | 505 | 5537505 | 5537505 | -4 | 5 | 33 |
| PDOP 2.3 | 160 | 920 | 448920 | 448920 | 491 | 5537491 | 5537491 | -6 | 5 | 33 |
| 2.3 | 161 | 928 | 448928 | 448928 | 474 | 5537474 | 5537474 | -6 | 5 | 33 |
| 2.3 | 162 | 935 | 448935 | 448935 | 457 | 5537457 | 5537457 | -10 | 5 | 33 |
| 2.7 | 163 | 943 | 448943 | 448943 | 446 | 5537446 | 5537446 | -8 | 5 | 35 |
| 2.3 | 164 | 952 | 448952 | 448952 | 428 | 5537428 | 5537428 | -14 | 5 | 32 |
| 10.7 | 165 | 966 | 448966 | 448966 | 416 | 5537416 | 5537416 | -11 | 7 | 43 Gain to 14.5 |
| 10.4 | 166 | 980 | 448980 | 448980 | 404 | 5537404 | 5537404 | -16 | 15 | 40 |
| 9.5 | 167 | 994 | 448994 | 448994 | 392 | 5537392 | 5537392 | -18 | 10 | 42 |
| 9.5 | 168 | 9 | 449009 | 449009 | 383 | 5537383 | 5537383 | -18 | 8 | 30 |
| 9.4 | 169 | 26 | 449026 | 449024 | 380 | 5537380 | 5537375 | -24 | 7 | 82 |
| 9.4 | 170 | 42 | 449042 | 449040 | 368 | 5537368 | 5537365 | -21 | 5 | 36 |
| 9 | 171 | 56 | 449056 | 449053 | 362 | 5537362 | 5537358 | -13 | 7 | 40 |
| 6 | 172 | 66 | 449066 | 449066 | 355 | 5537355 | 5537355 |  |  | End of Ramp Portal |
| 12.1 | 173 | 48 | 449048 | 449048 | 326 | 5537326 | 5537326 |  |  |  |
| 5.6 | 174 | 78 | 449078 | 449078 | 348 | 5537348 | 5537348 | -18 | 7 | 40 |
|  | 175 | 52 | 449052 | 449052 | 334 | 5537334 | 5537334 |  |  | 13 paces from Portal |
| 5.8 | 176 | 81 | 449081 | 449081 | 336 | 5537336 | 5537336 | -14 | 5 | 43 |
| 5.8 | 177 | 99 | 449099 | 449099 | 330 | 5537330 | 5537330 | -16 | 6 | 57 |
| 5.8 | 178 | 114 | 449114 | 449114 | 325 | 5537325 | 5537325 | -12 | 8 | 43 |
| 7.4 | 179 | 129 | 449129 | 449129 | 314 | 5537314 | 5537314 | -10 | 10 | 60 |
| 16.7 | 180 | 141 | 449141 | 449141 | 309 | 5537309 | 5537309 | -18 | 8 | 43 |
| 5.9 | 181 | 158 | 449158 | 449158 | 292 | 5537292 | 5537292 | -20 | 8 | 39 Junction down |
| 5.9 | 182 | 171 | 449171 | 449171 | 283 | 5537283 | 5537283 | -24 | 12 | 98 |
| 6.2 | 183 | 187 | 449187 | 449187 | 282 | 5537282 | 5537282 | -24 | 8 | 47 |
| 2.7 | 184 | 189 | 449189 | 449189 | 283 | 5537283 | 5537283 |  |  |  |
| 2.7 | 185 | 205 | 449205 | 449205 | 284 | 5537284 | 5537284 | -24 | 6 | 35 |
| 2.8 | 186 | 219 | 449219 | 449219 | 287 | 5537287 | 5537287 | -22 | 8 | 32 |
| 2.8 | 187 | 236 | 449236 | 449236 | 294 | 5537294 | 5537294 | -24 | 9 | 29 |
| 2.6 | 188 | 251 | 449251 | 449251 | 299 | 5537299 | 5537299 | -28 | 9 | 26 |
| 2.6 | 189 | 269 | 449269 | 449269 | 304 | 5537304 | 5537304 | -30 | 7 | 24 |
| 2.7 | 190 | 284 | 449284 | 449284 | 313 | 5537313 | 5537313 | -30 | 6 | 26 |
| 2.8 | 191 | 298 | 449298 | 449298 | 327 | 5537327 | 5537327 | -28 | 5 | 32 |


| 2.9 | 192 | 309 | 449309 | 449309 | 338 | 5537338 | 5537338 | -30 | 6 | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.9 | 193 | 322 | 449322 | 449322 | 351 | 5537351 | 5537351 | -10 | 5 | 68 |
|  | 194 | 319 | 449319 | 449319 | 340 | 5537340 | 5537340 |  |  | Mouth of Adit |
| 3 | 195 | 334 | 449334 | 449334 | 361 | 5537361 | 5537361 | 4 | 4 | 64 |
| 3.1 | 196 | 347 | 449347 | 449347 | 372 | 5537372 | 5537372 | 3 | 4 | 50 |
|  | 197 | 360 | 449360 | 449360 | 383 | 5537383 | 5537383 | 4 | 4 | 46 |
| 3.6 | 198 | 333 | 449333 | 449322 | 353 | 5537353 | 5537342 | 5 | 4 | 43 |
| 3.7 | 199 | 322 | 449322 | 449321 | 347 | 5537347 | 5537331 | 2 | 4 | 56 |
| 8.9 | 200 | 314 | 449314 | 449317 | 321 | 5537321 | 5537319 | -4 | 4 | 61 |
| 3.7 | 201 | 311 | 449311 | 449311 | 303 | 5537303 | 5537303 | -22 | 5 | 47 |
| 3.7 | 202 | 300 | 449300 | 449300 | 285 | 5537285 | 5537285 | -22 | 4 | 46 |
| 3.7 | 203 | 289 | 449289 | 449289 | 271 | 5537271 | 5537271 | -23 | 3 | 27 |
| 3.7 | 204 | 271 | 449271 | 449277 | 261 | 5537261 | 5537255 | -25 | 2 | 31 |
| 3.6 | 205 | 264 | 449264 | 449264 | 244 | 5537244 | 5537244 | -19 | 4 | 36 |
| 3.6 | 206 | 253 | 449253 | 449253 | 235 | 5537235 | 5537235 | -18 | 6 | 30 |
| 3.5 | 207 | 243 | 449243 | 449243 | 215 | 5537215 | 5537222 | -19 | 7 | 28 |
| 3.4 | 208 | 227 | 449227 | 449227 | 211 | 5537211 | 5537211 | -16 | 6 | 32 |
| 3.4 | 209 | 221 | 449221 | 449221 | 198 | 5537198 | 5537198 | -11 | 5 | 36 |
|  | 210 | 231 | 449231 | 449231 | 202 | 5537202 | 5537204 |  |  | Mouth of Adit |
|  | 211 | 242 | 449242 | 449242 | 202 | 5537202 | 5537202 | -12 | 7 | 45 |
|  | 212 | 258 | 449258 | 449258 | 208 | 5537208 | 5537208 | -11 | 6 | 45 |
| 3 | 213 | 274 | 449274 | 449274 | 209 | 5537209 | 5537209 | -8 | 5 | 49 |
| 2.8 | 214 | 263 | 449263 | 449263 | 191 | 5537191 | 5537191 | -4 | 5 | 45 |
| 3.8 | 215 | 253 | 449253 | 449253 | 174 | 5537174 | 5537174 | -6 | 2 | 38 |
| 1.9 | 216 | 246 | 449246 | 449246 | 163 | 5537163 | 5537163 | 6 | 2 | 40 |
| 3.6 | 217 | 230 | 449230 | 449230 | 164 | 5537164 | 5537164 | 4 | 2 | 44 Walked back down to adit |
| 2.2 | 218 | 207 | 449207 | 449207 | 196 | 5537196 | 5537196 | -10 | 7 | 39 |
| 2.1 | 219 | 197 | 449197 | 449197 | 182 | 5537182 | 5537182 | -12 | 7 | 44 |
| 2.1 | 220 | 185 | 449185 | 449185 | 178 | 5537178 | 5537178 | -16 | 12 | 39 |
| 2.1 | 221 | 162 | 449162 | 449167 | 154 | 5537154 | 5537171 | -13 | 10 | 33 |
| 11.5 | 222 | 149 | 449149 | 449149 | 176 | 5537176 | 5537176 | -15 | 6 | 25 |
| 10.9 | 223 | 135 | 449135 | 449135 | 182 | 5537182 | 5537182 | -13 | 4 | 24 |
| 10 | 224 | 110 | 449110 | 449122 | 171 | 5537171 | 5537190 | -16 | 3 | 24 |
| 9.4 | 225 | 103 | 449103 | 449113 | 216 | 5537216 | 5537198 | -8 | 4 | 24 |


| 8.7 | 226 | 89 | 449089 | 449103 | 214 | 5537214 | 5537204 | -8 | 2 | 23 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 8.1 | 227 | 78 | 449078 | 449092 | 221 | 5537221 | 5537214 | -8 | 3 | 10 |
| 7.6 | 228 | 95 | 449095 | 449107 | 215 | 5537215 | 5537209 | -14 | 2 | 21 |
| 7.2 | 229 | 108 | 449108 | 449120 | 202 | 5537202 | 5537207 | -16 | 2 | 21 |
| 1.8 | 230 | 124 | 449124 | 449135 | 193 | 5537193 | 5537206 | -13 | 2 | 21 |
| 6.5 | 231 | 140 | 449140 | 449150 | 200 | 5537200 | 5537209 | -16 | 3 | 21 |
| 6 | 232 | 157 | 449157 | 449165 | 210 | 5537210 | 5537215 | -19 | 4 | 23 |
| 5.6 | 233 | 172 | 449172 | 449175 | 217 | 5537217 | 5537221 | -14 | 5 | 26 |
| 5.4 | 234 | 186 | 449186 | 449188 | 225 | 5537225 | 5537227 | -16 | 5 | 28 |
| 5.2 | 235 | 200 | 449200 | 449200 | 243 | 5537243 | 5537234 | -16 | 5 | 28 |
| 4.8 | 236 | 213 | 449213 | 449213 | 247 | 5537247 | 5537253 | -17 | 4 | 28 |
| 2.6 | 237 | 222 | 449222 | 449222 | 266 | 5537266 | 5537266 | -19 | 4 | 24 |
| 2.6 | 238 | 232 | 449232 | 449232 | 283 | 5537283 | 5537283 | -22 | 5 | 18 |
| 2.6 | 239 | 218 | 449218 | 449218 | 273 | 5537273 | 5537273 | -20 | 4 | 18 |
| 2.6 | 240 | 200 | 449200 | 449200 | 269 | 5537269 | 5537269 | -18 | 3 | 2 |
| 2.6 | 241 | 182 | 449182 | 449182 | 269 | 5537269 | 5537269 | -20 | 2 | 2 |
| 12.2 | 242 | 165 | 449165 | 449165 | 277 | 5537277 | 5537277 | -16 | 2 | 2 |
| 11.7 | 243 | 157 | 449157 | 449157 | 290 | 5537290 | 5537290 | -18 | 2 | 21 |



| 31 | 449144 | 5537301 | -23 | 15 | 47 | -43 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32 | 449158 | 5537290 | -20 | 11 | 49 |  |  |  |  |  |  |  |
| 33 | 449174 | 5537292 | -25 | 12 | 44 | -45 |  |  |  |  |  |  |
| 34 | 449188 | 5537298 | -25 | 12 | 44 | -50 |  |  |  | 9 | 449181 | 5537295 |
| 35 | 449202 | 5537302 | -29 | 12 | 44 | -54 |  |  |  | 8 | 449195 | 5537300 |
| 36 | 449214 | 5537308 | -29 | 15 | 42 | -58 | 1 | 449208 | 5537305 |  |  |  |
| 37 | 449228 | 5537316 | -26 | 18 | 42 | -55 | 0 | 449221 | 5537312 |  |  |  |
| 38 | 449242 | 5537326 | -32 | 16 | 40 | -58 | 10 | 449235 | 5537321 |  |  |  |
| 39 | 449252 | 5537335 | -33 | 12 | 36 | -65 | 9 | 449247 | 5537331 |  |  |  |
| 40 | 449261 | 5537345 | -34 | 12 | 39 | -67 | 3 | 449256.5 | 5537340 |  |  |  |
| 41 | 449269 | 5537355 | -34 | 11 | 35 | -68 |  |  |  |  |  |  |
| 32 | 449158 | 5537290 | -20 | 11 | 49 |  |  |  |  |  |  |  |
| 33 | 449174 | 5537292 | -25 | 12 | 44 | -45 |  |  |  |  |  |  |
| 34 | 449188 | 5537298 | -25 | 12 | 44 | -50 | 9 | 449181 | 5537295 |  |  |  |
| 35 | 449202 | 5537302 | -29 | 12 | 44 | -54 | 9 | 449195 | 5537300 |  |  |  |
| 42 | 449214 | 5537312 | -30 | 17 | 36 | -59 | 0 | 449208 | 5537307 |  |  |  |
| 43 | 449225 | 5537326 | -24 | 14 | 43 | -54 | -10 | 449219.5 | 5537319 |  |  |  |
| 44 | 449231 | 5537335 | -25 | 16 | 34 | -49 | 2 | 449228 | 5537331 |  |  |  |
| 45 | 449244 | 5537348 | -31 | 13 | 30 | -56 | 17 | 449237.5 | 5537342 |  |  |  |
| 46 | 449255 | 5537359 | -35 | 12 | 30 | -66 | 15 | 449249.5 | 5537354 |  |  |  |
| 47 | 449269 | 5537370 | -36 | 15 | 33 | -71 | 3 | 449262 | 5537365 |  |  |  |
| 48 | 449282 | 5537381 | -33 | 14 | 72 | -69 |  |  |  | -6 | 449275.5 | 5537376 |
| 49 | 449291 | 5537392 | -32 | 19 | 82 | -65 | -19 | 449286.5 | 5537387 |  |  |  |
| 50 | 449308 | 5537406 | -18 | 22 | 69 | -50 |  |  |  |  |  |  |
| 72 | 448998 | 5537499 | -24 | 16 | 44 |  |  |  |  |  |  |  |
| 71 | 449003 | 5537489 | -20 | 17 | 50 | -44 |  |  |  |  |  |  |
| 70 | 449008 | 5537476 | -21 | 16 | 39 | -41 | 1 | 449005.5 | 5537483 |  |  |  |
| 69 | 449017 | 5537462 | -24 | 14 | 44 | -45 | 15 | 449012.5 | 5537469 |  |  |  |
| 68 | 449027 | 5537448 | -32 | 13 | 36 | -56 | 19 | 449022 | 5537455 |  |  |  |


| 67 | 449037 | 5537434 | -32 | 13 | 35 | -64 | 10 | 449032 | 5537441 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66 | 449048 | 5537423 | -34 | 12 | 38 | -66 | 6 | 449042.5 | 5537429 |  |  |  |
| 65 | 449065 | 5537415 | -36 | 4 | 28 | -70 | 10 | 449056.5 | 5537419 |  |  |  |
| 64 | 449081 | 5537404 | -40 | 5 | 31 | -76 | 16 | 449073 | 5537410 |  |  |  |
| 63 | 449096 | 5537396 | -46 | 5 | 31 | -86 | 14 | 449088.5 | 5537400 |  |  |  |
| 62 | 449107 | 5537388 | -44 | 7 | 31 | -90 | -8 | 449101.5 | 5537392 |  |  |  |
| 61 | 449122 | 5537376 | -34 | 11 | 35 | -78 | -28 | 449114.5 | 5537382 |  |  |  |
| 60 | 449134 | 5537373 | -28 | 9 | 34 | -62 | -24 | 449128 | 5537375 |  |  |  |
| 59 | 449151 | 5537363 | -26 | 18 | 45 | -54 |  |  |  | -12 | 449142.5 | 5537368 |
| 58 | 449167 | 5537358 | -24 | 12 | 41 | -50 |  |  |  | -2 | 449159 | 5537361 |
| 57 | 449181 | 5537355 | -28 | 14 | 42 | -52 | 3 | 449174 | 5537357 |  |  |  |
| 56 | 449201 | 5537357 | -25 | 16 | 48 | -53 | -5 | 449191 | 5537356 |  |  |  |
| 55 | 449216 | 5537358 | -22 | 21 | 46 | -47 | 1 | 449208.5 | 5537358 |  |  |  |
| 54 | 449234 | 5537360 | -32 | 20 | 41 | -54 | 18 | 449225 | 5537359 |  |  |  |
| 53 | 449253 | 5537364 | -33 | 16 | 38 | -65 | 10 | 449243.5 | 5537362 |  |  |  |
| 52 | 449268 | 5537372 | -31 | 12 | 36 | -64 | -4 | 449260.5 | 5537368 |  |  |  |
| 51 | 449284 | 5537380 | -30 | 16 | 40 | -61 | -16 | 449276 | 5537376 |  |  |  |
| 50 | 449308 | 5537406 | -18 | 22 | 69 | -48 |  |  |  |  |  |  |
| 73 | 449011 | 5537488 | -20 | 19 | 36 |  |  |  |  |  |  |  |
| 74 | 449022 | 5537483 | -24 | 11 | 38 | -44 |  |  |  |  |  |  |
| 75 | 449033 | 5537477 | -26 | 10 | 31 | -50 | 14 | 449027.5 | 5537480 |  |  |  |
| 76 | 449041 | 5537468 | -32 | 7 | 38 | -58 | 20 | 449037 | 5537473 |  |  |  |
| 77 | 449050 | 5537459 | -38 | 10 | 35 | -70 |  |  |  |  |  |  |
| 72 | 448998 | 5537499 | -24 | 16 | 44 |  |  |  |  |  |  |  |
| 71 | 449003 | 5537489 | -20 | 17 | 50 | -44 |  |  |  |  |  |  |
| 84 | 449014 | 5537477 | -26 | 15 | 45 | -46 | 8 | 449008.5 | 5537483 |  |  |  |
| 83 | 449020 | 5537465 | -26 | 15 | 42 | -52 | 8 | 449017 | 5537471 |  |  |  |
| 82 | 449033 | 5537458 | -28 | 10 | 35 | -54 | 8 | 449026.5 | 5537462 |  |  |  |
| 81 | 449049 | 5537447 | -32 | 10 | 35 | -60 | 10 | 449041 | 5537453 |  |  |  |
| 80 | 449062 | 5537438 | -32 | 11 | 34 | -64 | 10 | 449055.5 | 5537443 |  |  |  |
| 79 | 449073 | 5537433 | -38 | 9 | 52 | -70 | 10 | 449067.5 | 5537436 |  |  |  |


| 78 | 449084 | 5537426 | -36 | 12 | 31 | -74 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 88 | 448994 | 5537447 | -26 | 27 | 44 |  |  |  |  |  |  |  |
| 87 | 449009 | 5537436 | -24 | 21 | 39 | -50 |  |  |  |  |  |  |
| 86 | 449023 | 5537431 | -30 | 10 | 44 | -54 | 4 | 449016 | 5537434 |  |  |  |
| 85 | 449035 | 5537430 | -24 | 15 | 42 | -54 | 1 | 449029 | 5537431 |  |  |  |
| 66 | 449048 | 5537423 | -31 | 9 | 37 | -55 |  |  |  | 13 | 449041.5 | 5537427 |
| 65 | 449065 | 5537415 | -36 | 4 | 28 | -67 |  |  |  | 21 | 449056.5 | 5537419 |
| 64 | 449081 | 5537404 | -40 | 5 | 31 | -76 |  |  |  |  |  |  |
| 61 | 449122 | 5537376 | -34 | 11 | 35 |  |  |  |  |  |  |  |
| 60 | 449134 | 5537373 | -28 | 9 | 34 | -62 |  |  |  |  |  |  |
| 59 | 449151 | 5537363 | -26 | 18 | 45 | -54 | -17 | 449142.5 | 5537368 |  |  |  |
| 89 | 449172 | 5537359 | -19 | 7 | 50 | -45 | -14 | 449161.5 | 5537361 |  |  |  |
| 90 | 449183 | 5537370 | -21 | 15 | 35 | -40 | -4 | 449177.5 | 5537365 |  |  |  |
| 91 | 449195 | 5537382 | -20 | 9 | 49 | -41 | 10 | 449189 | 5537376 |  |  |  |
| 92 | 449207 | 5537396 | -30 | 8 | 45 | -50 | 11 | 449201 | 5537389 |  |  |  |
| 93 | 449214 | 5537407 | -22 | 10 | 56 | -52 |  |  |  |  |  |  |
| 98 | 449139 | 5537410 | -19 | 7 | 29 |  |  |  |  |  |  |  |
| 97 | 449149 | 5537399 | -6 | 7 | 50 | -25 |  |  |  |  |  |  |
| 96 | 449167 | 5537390 | -14 | 13 | 40 | -20 | 12 | 449158 | 5537395 |  |  |  |
| 95 | 449184 | 5537392 | -23 | 8 | 75 | -37 | 27 | 449175.5 | 5537391 |  |  |  |
| 94 | 449199 | 5537395 | -24 | 7 | 36 | -47 | 9 | 449191.5 | 5537394 |  |  |  |
| 93 | 449214 | 5537407 | -22 | 10 | 56 | -46 |  |  |  |  |  |  |
| 98 | 449139 | 5537410 | -19 | 7 | 29 |  |  |  |  |  |  |  |
| 97 | 449149 | 5537399 | -6 | 7 | 50 | -25 |  |  |  |  |  |  |
| 96 | 449167 | 5537390 | -14 | 13 | 40 | -20 |  |  |  | 13 | 449158 | 5537395 |
| 99 | 449180 | 5537401 | -24 | 6 | 30 | -38 | 31 | 449173.5 | 5537396 |  |  |  |


| 100 | 449192 | 5537409 | -27 | 4 | 16 | -51 | 19 | 449186 | 5537405 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101 | 449207 | 5537417 | -30 | 4 | 19 | -57 |  |  |  |  |  |  |
| 108 | 449104 | 5537452 | -22 | 4 | 19 |  |  |  |  |  |  |  |
| 107 | 449114 | 5537443 | -30 | 5 | 48 | -52 |  |  |  |  |  |  |
| 106 | 449131 | 5537439 | -20 | 5 | 50 | -50 | -27 | 449122.5 | 5537441 |  |  |  |
| 105 | 449147 | 5537430 | -5 | 4 | 27 | -25 |  |  |  | -41 | 449139 | 5537435 |
| 104 | 449158 | 5537420 | -4 | 6 | 50 | -9 |  |  |  | -5 | 449152.5 | 5537425 |
| 103 | 449176 | 5537415 | -16 | 4 | 22 | -20 | 31 | 449167 | 5537418 |  |  |  |
| 102 | 449191 | 5537417 | -24 | 4 | 18 | -40 | 34 | 449183.5 | 5537416 |  |  |  |
| 101 | 449207 | 5537417 | -30 | 4 | 19 | -54 |  |  |  |  |  |  |
| 108 | 449104 | 5537452 | -22 | 4 | 19 |  |  |  |  |  |  |  |
| 107 | 449114 | 5537443 | -30 | 5 | 48 | -52 |  |  |  |  |  |  |
| 106 | 449131 | 5537439 | -20 | 5 | 50 | -50 | -27 | 449122.5 | 5537441 |  |  |  |
| 105 | 449147 | 5537430 | -5 | 4 | 27 | -25 | -45 | 449139 | 5537435 |  |  |  |
| 109 | 449159 | 5537421 |  |  |  | -5 | -5 | 449153 | 5537426 |  |  |  |
| 110 | 449170 | 5537425 | -20 | 7 | 42 | -20 | 34 | 449164.5 | 5537423 |  |  |  |
| 111 | 449188 | 5537436 | -19 | 4 | 14 | -39 |  |  |  | 25 | 449179 | 5537431 |
| 112 | 449206 | 5537444 | -26 | 3 | 14 | -45 |  |  |  | 17 | 449197 | 5537440 |
| 157 | 449216 | 5537439 | -30 | 5 | 12 | -56 | 9 | 449211 | 5537442 |  |  |  |
| 156 | 449234 | 5537436 | -24 | 4 | 18 | -54 | -46 | 449225 | 5537438 |  |  |  |
| 155 | 449252 | 5537438 | 14 | 4 | 70 | -10 | -41 | 449243 | 5537437 |  |  |  |
| 154 | 449267 | 5537444 | -27 | 13 | 50 | -13 | 44 | 449259.5 | 5537441 |  |  |  |
| 153 | 449281 | 5537447 | -27 | 13 100+ |  | -54 | 41 | 449274 | 5537446 |  |  |  |
| 152 | 449291 | 5537458 | -27 | 13 100+ |  | -54 | -17 | 449286 | 5537453 |  |  |  |
| 151 | 449302 | 5537471 | -10 | 14 100+ |  | -37 |  |  |  | -38 | 449296.5 | 5537465 |
| 150 | 449310 | 5537483 | -6 | 12 | 67 | -16 |  |  |  | -25 | 449306 | 5537477 |
| 149 | 449323 | 5537499 | -6 | 13 | 48 | -12 |  |  |  |  |  |  |
| 112 | 449206 | 5537444 | -26 | 3 | 14 |  |  |  |  |  |  |  |
| 113 | 449222 | 5537453 | -27 | 4 | 19 | -53 |  |  |  |  |  |  |


| 114 | 449232 | 5537461 | -28 | 4 | 52 | -55 |  |  |  | 2 | 449227 | 5537457 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 115 | 449241 | 5537470 | -27 | 5 | 19 | -55 |  |  | -10 | 449236.5 | 5537466 |  |
| 143 | 449251 | 5537476 | -18 | 3 | 50 | -45 | -24 | 449246 | 5537473 |  |  |  |
| 144 | 449264 | 5537469 | -13 | 13 | 34 | -31 | -20 | 449257.5 | 5537473 |  |  |  |
| 145 | 449277 | 5537463 | -12 | 13 | 55 | -25 | 1 | 449270.5 | 5537466 |  |  |  |
| 146 | 449291 | 5537458 | -20 | 13 | 50 | -32 | 7 | 449284 | 5537461 |  |  |  |
| 147 | 449302 | 5537471 | -12 | 15 | $100+$ |  | -32 | -14 | 449296.5 | 5537465 |  |  |
| 148 | 449310 | 5537483 | -6 | 16 | 57 | -18 | -20 | 449306 | 5537477 |  |  |  |
| 149 | 449323 | 5537499 | -6 | 13 | 48 | -12 |  |  |  |  |  |  |


| 110 | 449170 | 5537425 | -20 | 7 | 42 |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 111 | 449188 | 5537436 | -19 | 4 | 14 | -39 | 14 | 449179 | 5537431 |
| 112 | 449206 | 5537444 | -26 | 3 | 14 | -45 | 10 | 449197 | 5537440 |
| 113 | 449222 | 5537450 | -27 | 4 | 19 | -53 | 2 | 449214 | 5537447 |
| 114 | 449232 | 5537457 | -28 | 4 | 52 | -55 | -8 | 449227 | 5537454 |
| 115 | 449241 | 5537468 | -27 | 5 | 19 | -55 | -25 | 449236.5 | 5537463 |
| 116 | 449257 | 5537482 | -20 | 6 | 26 | -47 | -33 | 449249 | 5537475 |
| 117 | 449269 | 5537495 | -10 | 9 | 17 | -30 | -15 | 449263 | 5537489 |
| 118 | 449281 | 5537503 | -4 | 8 | 16 | -14 | 2 | 449275 | 5537499 |
| 119 | 449290 | 5537515 | -11 | 16 | 50 | -15 | -4 | 449285.5 | 5537509 |
| 120 | 449296 | 5537536 | -5 | 10 | 32 | -16 | 4 | 449293 | 5537526 |
| 121 | 449300 | 5537546 | -6 | 11 | 42 | -11 | 14 | 449298 | 5537541 |
| 122 | 449303 | 5537562 | -14 | 11 | 50 | -20 | 5 | 449301.5 | 5537554 |
| 123 | 449308 | 5537585 | -11 | 8 | 21 | -25 | 4 | 449305.5 | 5537574 |
| 124 | 449312 | 5537603 | -14 | 8 | 25 | -25 | 6 | 449310 | 5537594 |
| 125 | 449309 | 5537622 | -15 | 7 | 30 | -29 | -29 | 449310.5 | 5537613 |
| 126 | 449314 | 5537640 | -16 | 7 | 30 | -31 |  |  |  |


| 142 | 449123 | 5537614 | -13 | 3 | 25 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 141 | 449141 | 5537612 | -16 | 7 | 15 | -29 |  |  |  |
| 140 | 449155 | 5537622 | -20 | 7 | 27 | -36 | 8 | 449148 | 5537617 |
| 139 | 449169 | 5537636 | -17 | 7 | 50 | -37 | -3 | 449162 | 5537629 |


| 138 | 449174 | 5537645 | -16 | 9 | 42 | -33 | -1 | 449171.5 | 5537641 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 137 | 449184 | 5537656 | -20 | 6 | 60 | -36 | 9 | 449179 | 5537651 |
| 136 | 449196 | 5537659 | -22 | 6 | 50 | -42 | 6 | 449190 | 5537658 |
| 135 | 449196 | 5537659 | -20 | 6 | 20 | -42 | -8 | 449196 | 5537659 |
| 134 | 449210 | 5537652 | -14 | 6 | 30 | -34 | -14 | 449203 | 5537656 |
| 133 | 449224 | 5537641 | -14 | 6 | 29 | -28 | -13 | 449217 | 5537647 |
| 132 | 449228 | 5537626 | -7 | 7 | 37 | -21 | -20 | 449226 | 5537634 |
| 131 | 449244 | 5537615 | -1 | 12 | 58 | -8 | -21 | 449236 | 5537621 |
| 130 | 449260 | 5537607 | 1 | 12 | 40 | 0 | -3 | 449252 | 5537611 |
| 129 | 449279 | 5537601 | -6 | 9 | 26 | -5 | 16 | 449269.5 | 5537604 |
| 128 | 449298 | 5537607 | -10 | 9 | 25 | -16 | 12 | 449288.5 | 5537604 |
| 127 | 449310 | 5537622 | -7 | 9 | 22 | -17 | 7 | 449304 | 5537615 |
| 126 | 449314 | 5537640 | -16 | 7 | 30 | -23 |  |  |  |


| 158 | 448902 | 5537515 | -3 | 4 | 50 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 159 | 448915 | 5537505 | -4 | 5 | 33 | -7 |  |  |  |
| 160 | 448920 | 5537491 | -6 | 5 | 33 | -10 | 5 | 448917.5 | 5537498 |
| 161 | 448928 | 5537474 | -6 | 5 | 33 | -12 | 6 | 448924 | 5537483 |
| 162 | 448935 | 5537457 | -10 | 5 | 33 | -16 | 6 | 448931.5 | 5537466 |
| 163 | 448943 | 5537446 | -8 | 5 | 35 | -18 | 6 | 448939 | 5537452 |
| 164 | 448952 | 5537428 | -14 | 5 | 32 | -22 | 7 | 448947.5 | 5537437 |
| 165 | 448966 | 5537416 | -11 | 7 | 43 | -25 | 5 | 448959 | 5537422 |
| 166 | 448980 | 5537404 | -16 | 15 | 40 | -27 | 9 | 448973 | 5537410 |
| 167 | 448994 | 5537392 | -18 | 10 | 42 | -34 | 9 | 448987 | 5537398 |
| 168 | 449009 | 5537383 | -18 | 8 | 30 | -36 | 8 | 449001.5 | 5537388 |
| 169 | 449024 | 5537375 | -24 | 7 | 82 | -42 | 9 | 449016.5 | 5537379 |
| 170 | 449040 | 5537365 | -21 | 5 | 36 | -45 | -8 | 449032 | 5537370 |
| 171 | 449053 | 5537358 | -13 | 7 | 40 | -34 | -14 | 449046.5 | 5537362 |
| 174 | 449078 | 5537348 | -18 | 7 | 40 | -31 | -2 | 449065.5 | 5537353 |
| 176 | 449081 | 5537336 | -14 | 5 | 43 | -32 | -1 | 449079.5 | 5537342 |
| 177 | 449099 | 5537330 | -16 | 6 | 57 | -30 | -4 | 449090 | 5537333 |
| 178 | 449114 | 5537325 | -12 | 8 | 43 | -28 | -8 | 449106.5 | 5537328 |
| 179 | 449129 | 5537314 | -10 | 10 | 60 | -22 | 0 | 449121.5 | 5537320 |
| 180 | 449141 | 5537309 | -18 | 8 | 43 | -28 | 16 | 449135 | 5537312 |


| 181 | 449158 | 5537292 | -20 | 8 | 39 | -38 | 16 | 449149.5 | 5537301 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182 | 449171 | 5537283 | -24 | 12 | 98 | -44 | 10 | 449164.5 | 5537288 |  |  |  |
| 183 | 449187 | 5537282 | -24 | 8 | 47 | -48 | -20 | 449179 | 5537283 |  |  |  |
| 184 | 449189 | 5537283 |  |  |  | -24 | -24 | 449188 | 5537283 |  |  |  |
| 185 | 449205 | 5537284 | -24 | 6 | 35 | -24 | 22 | 449197 | 5537284 |  |  |  |
| 186 | 449219 | 5537287 | -22 | 8 | 32 | -46 | 22 | 449212 | 5537286 |  |  |  |
| 187 | 449236 | 5537294 | -24 | 9 | 29 | -46 | 6 | 449227.5 | 5537291 |  |  |  |
| 188 | 449251 | 5537299 | -28 | 9 | 26 | -52 | 12 | 449243.5 | 5537297 |  |  |  |
| 189 | 449269 | 5537304 | -30 | 7 | 24 | -58 | 8 | 449260 | 5537302 |  |  |  |
| 190 | 449284 | 5537313 | -30 | 6 | 26 | -60 | 0 | 449276.5 | 5537309 |  |  |  |
| 191 | 449298 | 5537327 | -28 | 5 | 32 | -58 | -2 | 449291 | 5537320 |  |  |  |
| 192 | 449309 | 5537338 | -30 | 6 | 40 | -58 | -18 | 449303.5 | 5537333 |  |  |  |
| 193 | 449322 | 5537351 | -10 | 5 | 68 | -40 |  |  |  | -52 | 449315.5 | 5537345 |
| 195 | 449334 | 5537361 | 4 | 4 | 64 | -6 |  |  |  | -47 | 449328 | 5537356 |
| 196 | 449347 | 5537372 | 3 | 4 | 50 | 7 | -13 | 449340.5 | 5537367 |  |  |  |
| 197 | 449360 | 5537383 | 4 | 4 | 46 | 7 |  |  |  |  |  |  |
| 227 | 449092 | 5537214 | -8 | 3 | 10 |  |  |  |  |  |  |  |
| 226 | 449103 | 5537204 | -8 | 2 | 23 | -16 |  |  |  |  |  |  |
| 225 | 449113 | 5537198 | -8 | 4 | 24 | -16 | 8 | 449108 | 5537201 |  |  |  |
| 224 | 449122 | 5537190 | -16 | 3 | 24 | -24 | 13 | 449117.5 | 5537194 |  |  |  |
| 223 | 449135 | 5537182 | -13 | 4 | 24 | -29 | 4 | 449128.5 | 5537186 |  |  |  |
| 222 | 449149 | 5537176 | -15 | 6 | 25 | -28 | -1 | 449142 | 5537179 |  |  |  |
| 221 | 449167 | 5537171 | -13 | 10 | 33 | -28 | 1 | 449158 | 5537174 |  |  |  |
| 220 | 449185 | 5537178 | -16 | 12 | 39 | -29 | 0 | 449176 | 5537175 |  |  |  |
| 219 | 449197 | 5537182 | -12 | 7 | 44 | -28 | -7 | 449191 | 5537180 |  |  |  |
| 218 | 449207 | 5537196 | -10 | 7 | 39 | -22 | -7 | 449202 | 5537189 |  |  |  |
| 209 | 449221 | 5537198 | -11 | 5 | 36 | -21 |  |  |  | 5 | 449214 | 5537197 |
| 208 | 449227 | 5537211 | -16 | 6 | 32 | -27 | 14 | 449224 | 5537205 |  |  |  |
| 207 | 449243 | 5537222 | -19 | 7 | 28 | -35 | 10 | 449235 | 5537217 |  |  |  |
| 206 | 449253 | 5537235 | -18 | 6 | 30 | -37 | 2 | 449248 | 5537229 |  |  |  |
| 205 | 449264 | 5537244 | -19 | 4 | 36 | -37 | 7 | 449258.5 | 5537240 |  |  |  |
| 204 | 449277 | 5537255 | -25 | 2 | 31 | -44 | 11 | 449270.5 | 5537250 |  |  |  |
| 203 | 449289 | 5537271 | -23 | 3 | 27 | -48 | 1 | 449283 | 5537263 |  |  |  |


| 202 | 449300 | 5537285 | -22 | 4 | 46 | -45 | -4 | 449294.5 | 5537278 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 201 | 449311 | 5537303 | -22 | 5 | 47 | -44 | -19 | 449305.5 | 5537294 |
| 200 | 449317 | 5537319 | -4 | 4 | 61 | -26 | -42 | 449314 | 5537311 |
| 199 | 449321 | 5537331 | 2 | 4 | 56 | -2 | -33 | 449319 | 5537325 |
| 198 | 449322 | 5537342 | 5 | 4 | 43 | 7 | 3 | 449321.5 | 5537337 |
| 193 | 449322 | 5537351 | -10 | 5 | 68 | -5 | 13 | 449322 | 5537347 |
| 195 | 449334 | 5537361 | 4 | 4 | 64 | -6 | -12 | 449328 | 5537356 |
| 196 | 449347 | 5537372 | 3 | 4 | 50 | 7 | -13 | 449340.5 | 5537367 |
| 197 | 449360 | 5537383 | 4 | 4 | 46 | 7 |  |  |  |


| 221 | 449167 | 5537171 | -13 | 10 | 33 |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 220 | 449185 | 5537178 | -16 | 12 | 39 | -29 |  |  |  |
| 219 | 449197 | 5537182 | -12 | 7 | 44 | -28 | -7 | 449191 | 5537180 |
| 218 | 449207 | 5537196 | -10 | 7 | 39 | -22 | -7 | 449202 | 5537189 |
| 209 | 449221 | 5537198 | -11 | 5 | 36 | -21 | 1 | 449214 | 5537197 |
| 211 | 449242 | 5537202 | -12 | 7 | 45 | -23 | 2 | 449231.5 | 5537200 |
| 212 | 449258 | 5537208 | -11 | 6 | 45 | -23 | -4 | 449250 | 5537205 |
| 213 | 449274 | 5537209 | -8 | 5 | 49 | -19 |  |  |  |


| 213 | 449274 | 5537209 | -8 | 5 | 49 |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 214 | 449263 | 5537191 | -4 | 5 | 45 | -12 |  |  |  |
| 215 | 449253 | 5537174 | -6 | 2 | 38 | -10 | -12 | 449258 | 5537183 |
| 216 | 449246 | 5537163 | 6 | 2 | 40 | 0 | -20 | 449249.5 | 5537169 |
| 217 | 449230 | 5537164 | 4 | 2 | 44 | 10 |  |  |  |


| 238 | 449232 | 5537283 | -22 | 5 | 18 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| 237 | 449222 | 5537266 | -19 | 4 | 24 | -41 |  |  |  |
| 236 | 449213 | 5537253 | -17 | 4 | 28 | -36 | -8 | 449217.5 | 5537260 |
| 235 | 449200 | 5537234 | -16 | 5 | 28 | -33 | -4 | 449206.5 | 5537244 |
| 234 | 449188 | 5537227 | -16 | 5 | 28 | -32 | -3 | 449194 | 5537231 |
| 233 | 449175 | 5537221 | -14 | 5 | 26 | -30 | 1 | 449181.5 | 5537224 |
| 232 | 449165 | 5537215 | -19 | 4 | 23 | -33 | 5 | 449170 | 5537218 |


| 231 | 449150 | 5537209 | -16 | 3 | 21 | -35 | -4 | 449157.5 | 5537212 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 230 | 449135 | 5537206 | -13 | 2 | 21 | -29 | -6 | 449142.5 | 5537208 |  |  |  |
| 229 | 449120 | 5537207 | -16 | 2 | 21 | -29 | 1 | 449127.5 | 5537207 |  |  |  |
| 228 | 449107 | 5537209 | -14 | 2 | 21 | -30 | -7 | 449113.5 | 5537208 |  |  |  |
| 227 | 449092 | 5537214 | -8 | 3 | 10 | -22 |  |  |  |  |  |  |
| 177 | 449099 | 5537330 | -16 | 6 | 57 |  |  |  |  |  |  |  |
| 178 | 449114 | 5537325 | -12 | 8 | 43 | -28 |  |  |  |  |  |  |
| 179 | 449129 | 5537314 | -10 | 10 | 60 | -22 |  |  |  | 0 | 449121.5 | 5537320 |
| 180 | 449141 | 5537309 | -18 | 8 | 43 | -28 |  |  |  | 14 | 449135 | 5537312 |
| 243 | 449157 | 5537290 | -18 | 2 | 21 | -36 |  |  |  | 6 | 449149 | 5537300 |
| 242 | 449165 | 5537277 | -16 | 2 | 2 | -34 | 0 | 449161 | 5537284 |  |  |  |
| 241 | 449182 | 5537269 | -20 | 2 | 2 | -36 | 4 | 449173.5 | 5537273 |  |  |  |
| 240 | 449200 | 5537269 | -18 | 3 | 2 | -38 | 2 | 449191 | 5537269 |  |  |  |
| 239 | 449218 | 5537273 | -20 | 4 | 18 | -38 |  |  |  |  |  |  |

## Appendix C

Photographs

Page 1 - Figure 7 - View east-southeast along road by Upper Camp, from immediately south of Upper Camp building. The steep topography of the north facing bowl is evident along the skyline.

- Figure 8 - A-frame style building (to accommodate snow load) at Upper Camp. Core rack to left (south) and cross stacked core to right (north) of building.

Page 2 - Figure 9 - Cross stacked core at Upper Camp, south of building. Very few of the plastic box labels (blue) remain with which to identify the core. As the boxes were wet when examined, it is possible that the original markings in black felt pen might remain and still be legible. Failing that, footage markers and sample tags might be used to identify and, therefore, recover the core.

- Figure 10 - Core racks by building at Upper Camp. The lateral steel rods are beginning to fail, likely due to the winter snow load, and, as a result, the racks are in the process of collapsing.

Page 3 - Figure 11 - View east-southeast toward north-facing bowl from Upper Camp. Series of core racks along east side of road in varying state of repair. Note: all racks beginning to tilt to left (east).

- Figure 12 - Evidence of vandalization of core. Unknown person(s) have pulled boxes from the racks, presumably to scavenge mineralized core, and have not pushed the boxes back into the racks.

Page 4 - Figure 13 - Core rack in good condition, little evidence of vandalization. Metal tags still affixed to boxes allowing identification of drill hole.

- Figure 14 - Metal core rack along road south of building at Upper Camp. Lateral metal rods beginning to fail and rack beginning to collapse, likely due to winter snow load. Note: some boxes pulled out (vandalized).

Page 5 - Figure 15 - Wooden core rack along road south of building at Upper Camp. Plastic tags on box ends missing. Original markings may remain with which to identify hole / box. Failing that, footage markers and/or sample tags within boxes may permit identification, if present.

- Figure 16 - Metal core rack along road at Upper Camp beginning to collapse due to winter snow load. Minor evidence of vandalization.

Page 6-Figure 17-Old scoop tram on west side of Warehouse building at Lower Camp. Operational condition unknown.

- Figure 18 - Administration / Cook building at Lower Camp. View to west. In relatively good condition.

Page 7 - Figure 19 - Bunk / Shower building to west of Administration building, view to northwest.

Figure 20 - View of disposition of Bunk / Shower and Administration / Cook buildings, view to northeast.

Page 8 - Figure 21 - Warehouse building at Lower Camp, view to west.








## Appendix D

## Statement of Expenditures

## STATEMENT OF EXPENDITURES

The following expenses were incurred between September $4^{\text {th }}$ and October $27^{\text {th }}, 2009$.

## PERSONNEL

Geologist: additional filings 2008 report: 1.5 days x $\$ 650$ / day \$ 975.00
: 2009 Program - 9 days at $\$ 650$ / day \$ 5,850.00

## ACCOMMODATIONS

4 Days: ......................................................................................................... \$ 339.00

## MEALS

Meals / Groceries $\qquad$ \$ 215.94

## EQUIPMENT

| 4WD Vehicle - 6 days at \$75 / day: ....................................................... | \$ | 450.00 |
| :---: | :---: | :---: |
| - mileage - 1,269km at \$0.80 / km: .................................... | \$ | 1,015.20 |
| Quad: 4 days at \$175 / day: ................................................................. | \$ | 700.00 |

Fuel: ..... \$ 251.77
Digital Camera: 2 days at $\$ 20$ / day ..... \$ 40.00
Field Supplies: 4 man-days at $\$ 20$ /day: ..... 80.00
Laptop: 7 days at $\$ 20$ / day ..... 140.00
Map (28" x 40"): 1 at \$38.89 ..... 38.89
Miscellaneous: ..... 13.10
Satellite Phone: 4 days at $\$ 15$ / day: ..... 60.00
Truck VHF Radio: 4 days at $\$ 20$ / day ..... 80.00
VLF Survey instrument: 4 days at $\$ 35$ / day ..... 140.00

## TECHNICAL REPORT

R.T. Walker, P.Geo.: 3 days at $\$ 650$ / day ..... \$ 1,950.00

## Appendix E

Program-Related Documents
B.C. HOME

Mineral Titles


Exit this e-service

## Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date Change

| Recorder: AMT INDUSTRIES CANADA | INC. (202920) |
| :--- | :--- |
| Recorded: $2009 / 0 C T / 27$ |  |
| Effective: | 2009/0CT/27 |

Effective: 2009/OCT/27
D/E Date: 2009/OCT/27

Confirmation

If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. Please attach a copy of this confirmation page to your report. Contact Mineral Titles Branch for more information.

## Event Number:

Work Type: Technical Items:

4385829
Technical Work
Geophysical, PAC Withdrawal (up to $30 \%$ of technical work performed)
Work Start Date: 2009/SEP/04
Work Stop Date: 2009/OCT/27
Total Value of Work: $\$ 12308.00$
Mine Permit No:

Summary of the work value:

| Tenure Number | Claim Name/Property | Issue Date | $\begin{aligned} & \text { Good } \\ & \text { To } \\ & \text { Date } \end{aligned}$ | New Good To Date | \# of <br> Days <br> For- <br> ward | $\begin{gathered} \text { Area } \\ \text { in } \\ \text { Ha } \end{gathered}$ | Applied Work Value | $\begin{gathered} \text { Sub- } \\ \text { mission } \\ \text { Fee } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 555065 | TILLICUM 1 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 166.21 | \$ 664.85 | \$66.49 |
| 555066 | TILLICUM 2 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 498.77 | \$ 1995.08 | \$ 199.51 |
| 555068 | TILLICUM 3 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 498.47 | \$ 1993.90 | \$ 199.39 |
| 555069 | TILLICUM 4 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 457.15 | \$ 1828.61 | \$ 182.86 |
| 555071 | TILLICUM 5 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 498.34 | \$ 1993.36 | \$ 199.34 |
| 555074 | TILLICUM 6 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 415.42 | \$ 1661.69 | \$ 166.17 |
| 555078 | TILLICUM 7 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 269.95 | \$ 1079.79 | \$ 107.98 |
| 555079 | TILLICUM 8 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 20.77 | \$83.10 | \$ 8.31 |
| 555087 | TILLICUM 9 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 207.66 | \$ 830.63 | \$83.06 |
| 555089 | TILLICUM 10 | 2007/mar/26 | 2009/oct/31 | 2010/oct/31 | 365 | 20.77 | \$83.10 | \$8.31 |
| 555728 | TILLICUM 11 | 2007/apr/04 | 2009/oct/31 | 2010/oct/31 | 365 | 498.37 | 1993.48 | \$ 199.35 |

Financial Summary:
Total applied work value:\$14207.59

| PAC name: | AMT |
| :--- | :--- |
| Debited PAC amount: | $\$ 1899.59$ |
| Credited PAC amount: | $\$ 0.0$ |
| Total Submission Fees: | $\$ 1420.76$ |
| Total Paid: | $\$ 1420.76$ |

Please print this page for your records.

