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1972 Summer Programme

MUSKETEER SHOWING

To: G. Aaltonen
From: M. A. Mitchell

February 15, 1973

The Musketeer Showing is located near the center of the Athos C.G. L4066 claim. Access to the area is by way of the main valley road to the Musketeer flats and then to the east about 400 feet along the south bank of a small stream which is the second one north from the south end of the flats.

The showing, which consists of four or five north-westerly striking vein segments, occurs between the 1200 and 1500 foot elevations right at the "break" between the gently rolling topography of the Kitsault River - Musketeer flats erosional surface, and the steep wall of the valley which it traverses diagonally.

Vegetation is generally light, consisting of widely spaced, mature, hemlock and balsam fir trees with low huckleberry bushes, scrub trees, and shrubs interspersed between them.

The area was staked prior to 1916 and was explored by trenches and an adit between 1916 and 1922. The property is owned by Mr. Brown of Seattle, Washington, U.S.A. and has been optioned to Dolly Varden Mines since 1970.

GEOLOGY

The property is underlain by green and purple volcanic epiclastics from 200 to 400 feet stratigraphically below their contact with the upper argillite unit of the Hazleton group in the area. The epiclastics become increasingly propyllitized as the margins of mineralization are approached. This alteration consists of a generalized bleaching of the epiclastics and a colour change from purple to green, consisting of sand and tuff matrix being affected first, and larger material, cobbles, boulders, pebbles, being affected after. The addition of pyrite, quartz and carbonate material is quite common throughout the altered material and large areas of silicification may be seen in the drill core.

The deposit, as previously mentioned, is in the form of four or five vein segments that strike 315° and dip at 80° to 90° to the north east.

The vein is exposed in a series of trenches and outcrops over a length of 450 feet between the 1225 and 1480 foot elevations. These workings are not in a straight line and indicate that there has been movement along cross faults of up to 50 feet laterally with either a right or left handed movement. These offsetting structures have not been measured because of the paucity of outcrops due to the persistence of overburden. The vein structure is terminated at its north west end by a gougey crossfault of attitude Az 40°/ 50 NW, in the lowest trench. Although there is little evidence of tha direction

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of movement along this fault, it appears that it could be right-handed with the next vein segment being the Crow vein about 350 feet to the north east.

The vein segments where exposed on surface and in the adit are invariably cut by closely spaced (1 - 2 ft.) cross fractures at an attitude of Az 45°/70-90° NW. In the adit area these cross fractures as well as the vein are mineralized with sulphide bearing quartz and calcite.

The most south easterly of the vein segments is expressed on the surface by a grid-like pattern of quartz veins composed of two elements, namely the main vein direction and the cross fracture direction, both which become wider spaced and less distinct toward the south east, culminating in little more than a zone of alteration which is seemingly terminated by steep angled faults (fractures) trending about Az 30° at which point the zone dives under overburden.

The most economic looking mineralization in the area occurs in the trenches in the vicinity of the adit and in the adit itself. The mineralization is composed of galena, sphalerite and chalcopyrite in a quartz-calcite and (barite?) gangue. Pyrite is also present as an accessory mineral. Further to the northwest and southeast the vein is composed of quartz, calcite, the ubiquitous pyrite and a little specular hematite. The grades encountered in the adit area are generally around 5.0 oz. Ag/ton. Lead, zinc and copper were not assayed for but it may be assumed that 2 to 3% combined metal assays may be obtained.

Four AQWL holes totalling 1234 feet were drilled during June 1972. The holes were drilled from the old Dolly Varden right-of-way where the toe of the dump from the adit touches it and were drilled two @ -45°, and two @ -60° to intersect the structure at 200 and 300 feet below the outcrops in a zone 100 feet wide immediately bracketing the adit.

The two holes @ 45°,MS-1 and 2 respectively, encountered a well defined vein but without any base metal sulphides save pyrite and also a little galena and specular hematite. The intersection in MS-1, however, contained enough very fine plates of native silver to give a grade of 11.60 oz. Ag/9.5 ft. (core length) or 6.7 feet (horizontal width). MS-2 contained no recognizable silver minerals and only minor pyrite. The deeper holes, MS-3 and 4, intersected several heavily silicified but barren zones. The only sulphide mineral present was pyrite.

The closely spaced croas fracturing systems (1 - 2 ft.) which seem to be a secondary and important control of mineralization in the exposures of vein seen around the adit area are not seen in any of the vein intersections or silicified sections in the core. This cross fracturing should have a core intersection angle of approximately 10° in MS-1 and similar low anglas in the other three holes. Therefore, crossfracturing is a control for higher grade mineralization . The zone found in and around the adit either does not exist at depth or is confined to a length along the vein of less than 100 feet and the four holes bracketed it.

This lack of secondary control is also verified by the absence of well developed brecciation within the vein and the absence of jasper and jasperoid minerals both of which are found in the other deposits in the valley and are deemed necessary in the formation of the ore deposits.

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The ore intersection in hole MS-1 did not appear to be substantially different in mineralogy or structure from the barren intersection in MS-3 except for the little native silver that was seen and it is thought that perhaps this ore intersection is near the fringe of the cross fractured zone.

The correlation between the shallow holes, MS-1 & 3, and the deeper holes, MS-2 & 4, is not good inasmuch as the former have a well defined vein in them but the latter have only a broad silicified zone in them indicating that the vein may not be present in a well defined zone at depth.

In summary, based on the information now at hand, the Musketeer showing could contain a small body of economic mineralization. This body would appear to be localized by a system of steeply dipping, closely spaced cross-fractures crossing the main vein structure at right angles. The body, then, would be limited horizontally to 100 feet or less which would be the length, along the vein, of the closely spaced cross fracture zone and limited vertically to perhaps 250 feet where the main structure appears to be a silicified structure rather than a well defined vein.

The grade of this body, based on old sampling, would appear to be between 5 and 10 oz./ton Ag; Cu, Pb + Zn from 2 - 3% combined.

Further work on this showing should consist of:

1) Re-sampling of all of the old workings and new exposures of vein.

2) Mapping of the area immediately surrounding the showings including an area to the east which shows anomalously high silver values.

3) A small programme of EX drilling concentrated around the adit area to delimit the suspected ore shoot and also along the vein length to get some idea of vein continuity.

Respectfully submitted,

M. A. Mitchell

REPORT
on
GEOLOGY AND GEOCHEMISTRY
of
MUSKET CREEK AREA
DOLLY VARDEN MINES LTD.
SUMMER 1971

INTRODUCTION

As a part of the 1971 Field program carried out by the company the area around Musket Creek was mapped geologically and a three metal geochemical survey was run on those parts of the area accessible to personnel.

The claims included in the area covered are as follows:

Claim	C.G. Lot No.
Athos	L. 4066
Porthos	L. 4067
Armes	L. 4068
D'Artagnan No. 1	L. 4069
Bonanza Fr.	L. 4070
D'Artagnan	L. 4071
Wolverine	L. 3797
Hill Billy	Lease 40 - Lot 4263

The following personnel were used during the program:

M.A. Mitchell	Chief Geologist
T. Crow	Assistant Geologist
D. Cromie	Field Assistant
P. Fisher	Field Assistant

GEOLOGY

1. Regional Geology

(A) Structure - Musket Creek crosscuts the east limb of the upper Kitsault Valley syncline. It flows swiftly and for much of its distance is confined to a narrow but moderately deep canyon through argillite and massive pyroclastic material, before it flows into the Kitsault River about 4000 feet north of the Torbrit Camp.

The mapping of the area was confined mainly to the pyroclastics horizon which regionally strikes 290° and dips at 40° to 80° south west.

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Locally discordant attitudes are found but it is assumed that they are minor folds found near faults. Occasional lenses of volcanic sandstone and siltstone were found to have widely varying attitudes which presumably are a function of their lense-like nature, faulting, folding and disconformability of deposition in hollows in the main pyroclastic series.

The volcanics lie upon a series of well bedded black argillites of the Hazelton Group (lower Jurassic) and in turn are overlain by more black argillites of the Bowser group (upper Jurassic) therefore are thought to belong to the Hazelton group, upper part and are Middle Jurassic in age.

(B) Lithology - The lithologic makeup of the volcanics is as follows: The whole of the volcanics are composed of pyroclastic material. No flows have been recognized.

The pyroclastic series of the upper Kitsault valley is an unsorted, well hardened, possibly indurated, pile of tuffs and breccia mainly purple, reddish-brown or green in colour. This is not to say that the colours are even but that combinations of all three exist and colour changes seem to be very rapid across short distances. Fragments up to 1 foot in diameter may be any of these three colours and some areas may have fragments of all of these colours side by side in a matrix of one or more of the colours. Presumably areas which have a preponderance of purple or reddish-brown material are sites in which there was sub-aerial deposition as opposed to sub-aqueous depositional areas of green volcanics. However, it has been noted by the author that the purple or reddish-brown pyroclastics are very susceptible to colour changes due to propylitic alteration. This alteration changes the rock to an irregular but distinctly green colour due to the addition of pyrite, silica and carbonate and probably due to a thermo-chemical change in the oxidization state of included iron.

The composition of the pyroclastics seems to be uniformly that of a diorite where unaltered. The pyroclastics are notably deficient in K-spar throughout and are crystalline tuffs or breccias with recognizable laths of plagioclase in fragments and matrix. The mafic minerals seem to be mainly a greenish hornblende and occasionally re-crystallized augite close to mineralization. The upper and lower portions of the pyroclastic pile have areas of water-lain tuffs, greywackes and greenish sands in them, indicating a change in topographical environment from negative through positive back to negative topography and these volcanic sediments are mainly gray-green in colour. The volcanic sediments, where recognizable within the main pile of the pyroclastics, are lenses of bright purple sandstones and siltstones indicating local reworking of the pyroclastics and deposition into hollows or stream channels. These sediments are generally well bedded and in some cases cross-bedded but this seems to be a local phenomenon.

The pyroclastic series of the area is intruded by a small stock and a dike swarm. The stock is located just south of the confluence

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of Wolverine Creek and the Kitsault River and the dike swarm has an east-west orientation, paralleling and lying just south of the middle portion of Musket Creek.

The intrusive, with surface dimensions of about 600 x 900 feet, has the approximate composition of an andesite grading locally to a dacite. The intrusive is propylitized throughout with a fairly even distribution of pyrite and locally, high concentrations of quartz, in veins, and calcite distributed throughout smaller areas. Occasionally porphyritic phases may be found with plagioclase laths in a light green pyritic matrix. The intrusive generally is aphanitic, light green, with well developed sharp, blocky cleavage, and almost sub-conchoidal fractures. The contacts of this material with surrounding material are sharp but jagged with many apophyses. The age of the intrusive has been placed as post-Wolf mine mineralization and Bowser group as there seems to be a direct relationship between the intrusive and dikes cutting the veins and argillite at the Wolf Mine.

The dike swarm just south of Musket Creek is in general ultra-basic lamprophyre, black, with hornblende and occasionally olivine phenocrysts. Locally, however, diabasic textures may be noted. The dike swarm readily weathers to a brown crumbly sand and only in Musket Creek and in some areas exhibiting columnar jointing are good exposures to be found. The dike swarm intrudes the Bowser group argillite and is probably of age equivalent to the above intrusive.

The structure of the area is largely obscured by the thin but persistent overburden, but in a gross sense certain structural details are determinable.

(C) Faulting - Major lineaments striking N 30° E. are quite obvious on the aerial photos and seem to be the main structural features passing through the area. These lineaments are well reflected in portions of the courses of Wolverine, Musket and Porthos Creeks. For example, the lineation along which the upper portion of Musket Creek (in pyroclastics) passes appears to be the extension of the Evindsen Creek fault set. This fault set has an apparent right hand horizontal displacement of approximately 500 feet. This displacement is indicated by the offsets in the Copper belt silicified zone and Bowser group argillite near Evindsen Creek. The lower argillite-pyroclastic contact, however, does not exhibit this displacement along projection of the fault zone and it is the author's feeling that another fault set at 290° with an apparent major, left hand, horizontal displacement has shifted the contact to the west where the Wolf Veins appear. A similar fault set to the above, passing to the north-east of the Torbrit mine projects to the west edge of the area, and although the area is well drift covered, might run along the contact between the pyroclastic series and the Bowser group argillite.

One other major lineament is apparent on the aerial photos. This zone runs east west and may be a cognate (probably tension fracture zone) of the Evindsen Creek fault set. The middle portion of Musket Creek and the previously mentioned dike swarm are parallel and very close to this lineament.

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The newly discovered Mitchell Vein is also sub-parallel to this direction. No data has been obtained to work out the relationships of these faults to one another, but it is felt that most of the systems are post-mineralization.

(D) Folding - It is difficult to recognize folding due to the massive nature of the pyroclastics but minor folds in the volcanic sediments near Wolverine Creek have been noted. Minor folding of volcanic breccia has also been noted near the lower bend in Musket Creek. These are attributed to drag folding and warping of the series near fault dislocations. The alternating concentric bands of green and purple pyroclastics around the stock and Mitchell Vein should not be construed as folding of the pyroclastics but rather as zones of alteration in proximity to the above or other, as yet, undiscovered intrusives or mineralization.

2. Mineralization

(A) North Musketeer Vein - The vein is situated in the north-central portion of the Athos claim C.G. L.4066 some 800 feet south of the east-west leg of Musket Creek. The showing was not mapped in detail during the season but is well documented by Black, 1951, and R. Calich, 1953.

(B) South Musketeer Vein - This vein is situated on the north east corner of the Bonanza Fraction C.G. L.4070 and on the south east corner of the Armes claim C.G. L.4068.

This vein was mapped and sampled during the 1970 summer season but a search was made this year for a possible vein extension to the north east, the results of which are as follows:

A search in the green, altered pyroclastics to the north east of the last open cut on the vein disclosed two or three small areas containing narrow stringers of quartz and jasper. No sulphides were seen in this material. The alteration of the green pyroclastics was extremely strong (e.g. silicification) for over 500 feet where they ceased against a north-south gully (fault trace?) across which were found unaltered purple pyroclastics. It would appear as if the vein as well as being faulted near the north east open cut also tends to finger out as the band of altered pyroclastics around it narrows considerably to the north east. A study of the vein from 100 to 400 feet northeast of the Kitsault River discloses a similar situation, that is, a weak vein and narrow zone of alteration, therefore the area north-east of the north east gully should be searched for a zone of alteration, probably fault offset, in which the continuation of the vein may be found.

(C) Mitchell Vein - The Mitchell Vein is located in the extreme north-east corner of the D'Artagnan claim C.G. L.4071, some 600 feet due north of the central portion of Musket Creek at about the 1400 foot elevation.

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The vein was discovered when the author, during the 1971 season, came across some boulders of vein material on the south slope of a rounded, overburden covered hill. A grab sample of selected material assayed: lead 21.0%, zinc 2.00%, silver 2.10 oz/ton. A line of float boulders was traced approximately 200 feet along the side of the hill in an easterly direction to an outcrop. The outcrop consists of a narrow zone of mixed quartz-jasper vein material and light green silicified pyroclastic with attitude 100°/80°S. The sulphide minerals were found to be pyrite galena and sphalerite. Samples were cut across the outcrop from north to south and assay returns were as follows:

Sample #	Width	Description	% Pb	% Zn	Oz/ton Ag.
41851	4.0 ft.	Wall Rock	0.03	0.19	0.09
41852	2.5 ft.	Vein	0.07	0.25	1.84
41853	1.2 ft.	Silic. Mat'l	0.10	0.13	5.25
41854	2.5 ft.	Vein	0.22	0.24	0.79
41855	2.3 ft.	Wall Rock	0.07	0.08	0.14

A check sample from freshly blasted material duplicating #41854 was cut and assayed:

41857	2.5 ft.	Vein	0.62	0.33	1.02

Samples were also taken from blasted material at locations 100 and 125 ft. west of the above outcrop. The material appeared to be large boulders of vein material and it is thought that these boulders are almost in place. Assays are as follows:

Sample #	Width	Description	% Pb	% Zn	Oz/ton Ag.
41859	3.0 ft.	Vein 100' W. of outcrop	0.18	0.05	0.51
41860	2.0 ft.	Vein125' W. of outcrop	1.52	0.11	0.05

The original discovery area was trenched and two large boulders were exposed. These boulders are lying in a bed of rusty stained clay and silicified fragments of rock. It is thought that these boulders are very close to being in situ but that faulting has shattered the host rock to a high degree.

Samples were cut and assay results are as follows:

Sample #	Width	Description	% Pb	% Zn	Oz/ton Ag.
41869	3.5 ft.	Vein	1.96	0.29	0.70
41670	2.5 ft.	Vein	4.00	0.75	1.72

Although the Mitchell Vein is not well exposed on surface, it is obvious after taking spatial and topographical consideration into account that the source of the mineralized float boulders in the area is a linear

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shaped body rather than a point source. The float has been traced in a zone some 30 to 50 feet wide along the side of a hill for 400 feet in an easterly direction from the discovery point and 350 feet down a hill in a westerly direction from the discovery point. Presumably the mineralization does not stand out topographically as a weather-resistant spine as other veins in the area do because it is only about five feet wide. Also confirming the shape and extent of this showing are the Pb-Zn-Ag geochemistry results which will be more fully described later in the report. The zone of altered green pyroclastics around the Mitchell Vein area extends from the Kitsault River as far east as the upper reaches of Musket Creek and a zone of heavy, but as yet unprospected, silicification may be said to project from the east end of the Mitchell Vein float to the Dart showing, a distance of 800 feet.

(D) Other Showings

(1) Crow Vein - A small mineral showing was found at 125-4E (geochem-grid). This showing is located on the north side of the small creek that flows by the North Musketeer portal but is about 400 feet north-east of the portal. The showing consists of a narrow vein of quartz and jasper with a moderate hematite and pyrite content. The vein appears to strike just slightly east of north with a vertical dip. A sample cut across the vein assayed as follows:

Sample #	Width	Description	% Cu	% Pb	% Zn	Oz/ton Ag.
41856	3.5 ft.	Vein	0.19	0.07	0.11	0.46

A silicified zone, with small networks of quartz veining, was followed to a point some 200 feet north of the creek where it appeared to die. One piece of galena bearing float was found at the north end of the silicification but nothing was found in place and no samples were taken.

(2) Wolverine Showing - An area of heavy silicification was found on both sides of Wolverine Creek at 10 N., 11 E. (geochem grid). It appears to consist of heavy pyritization in an area of dense quartz veining. No economic minerals were seen and as the showing is not on the Company's ground, no samples were taken.

(3) West Geochem Anomaly - The area around 0 N. - 9 W. (geochem grid) was prospected due to high geochem readings found there. A minor amount of galena bearing quartz float was found but, again, not in situ. It was, however, noted that the area is highly silicified and also heavily overburden covered; therefore, a vein structure could have easily been overlooked.

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GEOCHEMISTRY

1. Description of Survey

Immediately after the discovery of the Mitchell Vein a three metal geochemical survey was done on the Musket Creek area. The metals, lead, zinc as well as silver, were chosen because of their incidence in the silver bearing veins in the valley. The purposes of the survey were to:

(i) geochemically prospect the Mitchell Vein area
(ii) search for vein extensions on the North Musketeer vein
(iii) check for a south extension of the Wolf veins
(iv) search for other anomalous zones in the Musket Creek area.

The original grid was set out by brunton and chain in a north-south, east-west orientation using a slope chart for conversion of slope distances to the horizontal. Original grid dimensions were 200 ft. x 200 ft. closing to 100 ft. x 100 ft. and 100 ft. x 25 ft. where anomalous readings indicated a closer spacing, where vein was encountered or where topography permitted.

A total of three hundred and forty-six soil samples were taken from the "B" soil horizon which, throughout the area, consisted of a sandy loam with minor humus. A dull axe was used to chop through up to 1 ft. of humus, moss and roots to reach this horizon and the samples were then scooped out by hand. Assaying was done by Chemex Laboratories Ltd., 212 Brooksbank Avenue, North Vancouver, B. C. It is considered that rock bype was the same overall.

2. Statistical Analysis of Results

(A) Methods - A sample population of 151 samples was obtained by choosing samples on the 200 ft. x 200 ft. grid area regardless of any closer grid spacing. This, it was felt, would give a representative sample without the weighting by areas of closer spaced, higher valued samples.

The mean and standard deviation of each metal population was found and bar intervals from one half to one quarter of a standard deviation were used in plotting bar histograms.

A cumulative-log-probability curve of each metal population was plotted. Upper inflection points were determined and used as the background value or the lower limit of the population of anomalous values.

(B) Discussion of Log-Probability Curves - Of the three curves plotted, the curve for the element lead, in soils, had the most clearly defined inflection points. This is probably due to the fact that lead is less soluble than silver or zinc and therefore has less of a dispersion of high values in the areas surrounding mineralization. Analysis of the lead curve gave the following information:

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(i) Background population - below 120 ppm.
(ii) Mixed sub population from 120 to 160 ppm.
(iii) Anomalous population above 160 ppm.

The silver log-probability curve showed a marked upper inflection point. Difficulty was experienced in finding the lower inflection point for this curve because only one definite point at 0.5 ppm was available. Assaying was done only to the nearest 0.5 ppm and 45% of sample population fell below 0.5 ppm. However, when an average value of 0.25 ppm was used an indefinite but useful point was found to complete the curve. Populations were found to be as follows:

(i) Background population - below 0.5 ppm
(ii) Mixed sub population from 0.5 to 1.0 ppm
(iii) Anomalous population above 1.0 ppm.

The inflection points on the zinc log probability curve were the least clear of the three curves. Four inflection points were found at 80, 100, 260, and 300 ppm. These were interpreted as defining three populations, namely:

(i) Background population - below 80 ppm
(ii) Mixed sub population - from 80 to 100 ppm
(iii) Anomalous population (dispersion) from 100 to 260 ppm
(iv) Mixed sub population - from 260 to 300 ppm
(v) Anomalous population - above 300 ppm.

The population from 100 to 260 ppm would seem to be a function of the higher solubility hence greater dispersion of zinc as compared to lead or silver and shows a marked tendency to appear down slope, along drainage channels from known mineralization. It should be noted, also, that the quantitative values in this anomalous population are intermediate to the background and the true anomalous populations and indicate the dispersion and dilution of zinc ion in the soil away from the mineralized areas.

(C) Plotting of Anomalous Zones - Three separate maps of the silver, lead and zinc anomalous zones were plotted on 100 scale. It was found that the 160 ppm lead contour produced a number of clearly anomalous zones with good continuity throughout. The areas anomalous in lead were contoured at 160, 300 and 600 ppm.

However, when the silver and zinc maps were contoured at their respective background levels of 1.0 and 100 ppm it was found that anomalies tended to be erratic and discontinuous, indicative of high level background and/or dispersion populations. This was to be expected in the case of the zinc population and the map was finally contoured at the upper background level of 300 ppm. A 400 ppm contour was added to better define the anomalous area.

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The erratic and discontinuous nature of the silver contour at the 1.0 ppm level was surprising in view of the smooth log-probability curve and supposed insolubility of the metal. An explanation for this could be that the silver could be locked as a mineral to sphalerite and somehow is transported and dispersed with it. Another explanation might be that there is a fairly high concentration of silver in the silicified zones around mineralization. A silver/zinc relationship graph did not disclose any clear relationship between the two.

When the silver map was contoured on the 3.0 ppm level, clear, continuous anomalous areas, coinciding with the lead and zinc anomalous areas, were found. A 5.0 ppm contour was added to further define the anomaly.

3. Results

The known mineralization in the area, The North Musketeer and Mitchell showings, had well defined silver, lead and zinc anomalies around them. In addition, four other areas showed good anomalies that are unexplainable by the location of mineralization. These areas are:

(i) An area trending north west - south east whose north end is at (L-0 N, 8 + 00 W). This area is 700 feet long by 300 to 400 feet wide and has high values of 1340 ppm Pb, 680 ppm Zn, and 10.5 ppm Ag. Although this area lies down slope and to the west of the Mitchell Vein, there does not seem to be any direct connection between the two. In fact, there is a low area separating the two. As has been previously mentioned, prospecting of the area produced no mineralization in place but only a little galena-bearing float and some silicified pyroclastics on the occasional outcrop.

(ii) An area open at both ends, 200 ft. due east of the North Musketeer anomaly. This area approximately 500 feet long by 300 feet wide trends east-west and is defined by six or eight points on a 200 ft. x 200 ft. grid. High values in the anomaly are as follows; 200 ppm Pb, 720 ppm Zn and 9.0 ppm Ag. Although these values are not high compared with highs of 1285 ppm Pb, 1720 ppm Zn, and 39.0 ppm Ag in the North Musketeer Vein area, the anomaly could be caused by dispersion of metal ion from a source up slope and any further sampling in the area should be aimed at proving or disproving this theory.

(iii) The anomalous area near the Dart silicification. It may be argued that the anomaly is defined by only two points, one of them very high in lead, but it should be noted that this area is on the projected strike of the Mitchell Vein and that the area in between the two is incompletely sampled due to rugged topography. Midway between the two, the sample at (L-1 S, 7 + 00 E) gave 280 ppm Pb, 480 ppm Zn and 4.0 ppm Ag. Further sampling along L-2 S East from the Mitchell Vein might develop an anomalous area.

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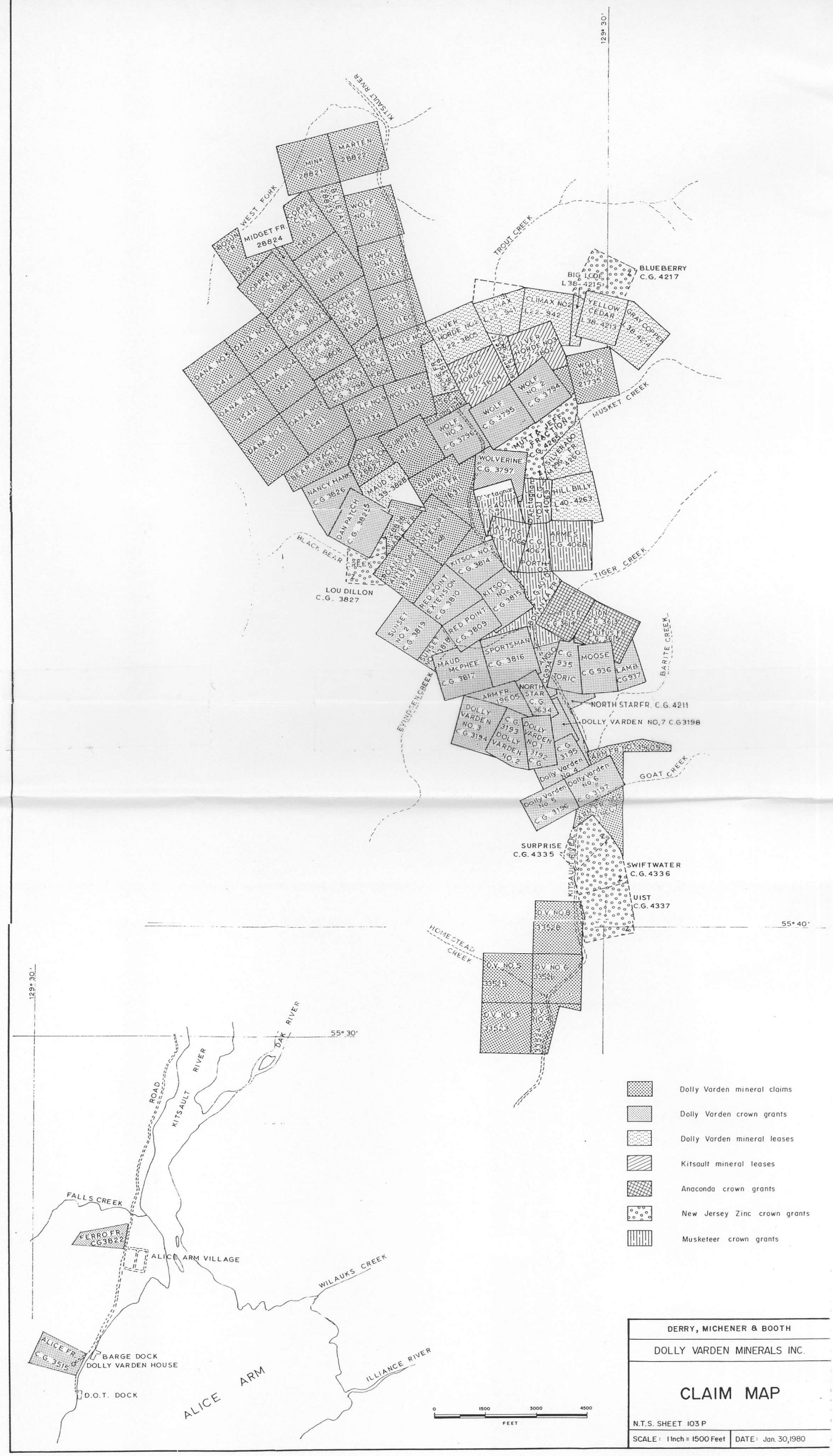

DERRY, MICHENER & BOOTH

DOLLY VARDEN MINERALS INC.

CLAIM MAP

N.T.S. SHEET 103 P

SCALE: 1 Inch = 1500 Feet | DATE: Jan. 30, 1980