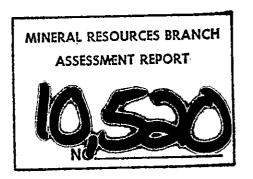
# STRYKER RESOURCES LIMITED GEOLOGICAL REPORT GOLD-SILVER-ANTIMONY and COPPER SHOWINGS MORRIS MINE PROPERTY, TATLAYOKO LAKE CLINTON MINING DIVISION BRITISH COLUMBIA NTS 92-N-8

Clive W. Ball, P.Eng.



Vancouver, B.C. December 3, 1981.

#### STRYKER RESOURCES LTD

## Morris Mine Property <u>Tatlayoko Lake</u> Clinton M.D. British Columbia

Expenditures by Stryker Resources Ltd. in 1981

#### I ROAD REHABILITATION

The work program completed in 1981 included road rehabilitation involving widening and extension of an old road with a D-7 cat over a total distance of 20,200 feet. Considerable bedrock was encountered necessitating drilling and blasting. A large number of culverts were installed for drainage purposes and the old Morris mine is now accessible by 4-wheel drive vehicle from the end of the logging road at the south end of Tatlayoko Lake. The above work was carried out from July 1981 to September 1981.

#### II DIAMOND DRILLING

Seven surface diamond drill holes were completed for a total footage of 1,596 feet.

Roger's Drilling Services Inc., completed diamond drilling for Stryker Resources Ltd., using a BQ Wire-line drill.

#### III Engineer's Report

The above physical work on the property was based on recommendations by C.W. Ball, P.Eng., in report dated August 21, 1980.

The latest report by the same author is dated December 3, 1981 and fully describes the results of the diamond drilling program and metallurgical testing conducted by Stryker Resources Ltd.. Copy of the latter report is enclosed herewith.

#### IV METALLURGICAL TESTING

One large bulk sample weighing 300 lbs was taken from No.1 vein underground and a large sample of ore was cut from No.3 vein on surface.

The samples were submitted to Bacon, Donaldson and Associates for metallurgical testing after detailed microscope studies of the ore were made by C.W. Ball, P. Eng. The results of the metallurgical testing are described in Bacon, Donaldson and Associate's report of November 16, 1981. The expenditures are to be applied for assessment work in relation to Tatlico III Mineral Claim.

#### **EXPENDITURES**

Summary of expenditures is shown in Table I. Complete invoices and receipts have been scrutinized by the writer. Stryker Resources Ltd., have established an excellent accounting system and the financial information regarding the payments are now available upon request.

Respectfully submitted,

Chie w. Ball P. Eng.

Clive W. Ball, P. Eng. Consulting Geologist

Vancouver, B.C. March 22, 1982.

#### ENCLOSURES

- (i) TABLE I Expenditures
- (ii) FIGURE 2 Part of Mineral Claim map NE 92-N-8W, Ministry of Mines and Petroleum Resources of British Columbia showing access road completed by Stryker Resources Ltd in 1981.
- (iii) FIGURE. 4 Detailed map showing location of diamond drill holes No. 1,2,3,5,6,7, and 8 drilled by Stryker Resources Ltd. on Tyce and Isaac T mineral claims.
- (iv) FIGURE 7 Map showing location of diamond drill hole No.4 on Copper Dyke Extension mineral claim.
- (v) Geological report by Clive W. Ball, P.Eng. dated December 3, 1981 including diamond drill logs and assays.

Metallurgical report by Bacon, Donaldson and Associates dated November 16, 1981 is incorporated in the above report as Appendix F.

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APPENDIX F	Report by Bacon, Donaldson and Associates Ltd., entitled "Gold-Silver Recovery from Morris Mine Samples" dated November 16, 1981.

#### MAPS

FIGURE 1	Location Map
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FIGURE 8	Sketch map of surface exposure of No. 3 vein.

#### I CONCLUSION AND RECOMMENDATIONS

The work program incorporating Phases I & II as recommended by the writer in August 1980 has been followed out and completed by Stryker Resources Limited.

Rehabilitation of the old road from Tatlayoko Lake has facilitated access to the property and a total of 1,695 feet of diamond drilling was completed with seven drill holes on the Morris Mine gold-silver-antimony veins and one drill hole on the Copper Zone. Steep terrain and talus cover caused great difficulties in selecting suitable drill stations.

The drill intersections of the No. 1 vein showed that the vein structure extends for at least 170 feet down dip from the No. 1 adit. The assays obtained in these intersections were considerably lower in gold and silver than the assays obtained in the No. 1 vein cut in the No. 1 adit. The core recovery of these intersections was 50 to 70 percent. Drill intersections showed that the vein is split by a basic dyke, however mapping in 1980 showed that the hanging-wall section of the No. 1 vein was not exposed in the No. 1 adit, except in one "caved" section.

The No. 3 vein was tested by four diamond drill holes with narrow intersections of quartz veins giving low assay returns for gold and silver. One surprising feature of the surface drilling is the presence of fairly widely distributed values for gold and silver in sandstone, silicified mudstone

and quartz diorite related to the No. 1 vein.

Preliminary metallurgical testing by Bacon Donaldson & Associates Ltd. indicates that a concentrate can be produced by flotation to yield a product containing 4.05 ounces of gold per ton and 72.91 ounces of silver per ton. Recovery was 78.1% on the gold and 92.5% on the silver. The concentrate contained 23.1% arsenic and 12.79% antimony.

It is important to note that in the rougher flotation concentrate recoveries amounted to 95.6% of the gold and 95.7% of the silver which weighed 27.95% of the mill feed tonnage.

Marketing research is required to ensure that such a concentrate would be acceptable to custom smelters such as Dowa Mining in Japan and Boliden in Sweden.

Proposed work program constituting Phase III involves total estimated expenditure of \$215,000, and it is recommended that the work program as scheduled in Appendix A be adopted and initiated in the 1982 field season.

#### II INTRODUCTION

The writer visited the property of Stryker Resources
Limited on September 6, 1981 and examined the diamond drill
core at the Morris Mine. A brief visit was made to the
copper zone in order to select a drill site.

From September 16 to 24, 1981, a detailed microscope study was made of eleven samples of ore from the Morris Mine as a prelude to the metallurgical testing carried out by Bacon, Donaldson & Associates Ltd.

The present report serves as a review of the work program carried out by Stryker Resources Limited in 1981.

#### III LOCATION AND ACCESS

The mineral occurrences are situated three miles southeast of the south end of Tatlayoko Lake, which is 180 kilometres southwest of Williams Lake. The showings and exploratory adits lie at an elevation of 1,850 metres above sea-level just above timber-line. Terrain is steep alpine.

Road access from Williams Lake is provided by good all weather road to Tatla Lake, a distance of 250 kilometres.

Thence a secondary gravel road follows the east side of Tatlayoko Lake for a distance of 50 kilometres and a logging road continues for a distance of 16 kilometres to a point 3 kilometres southeast of the south end of the Lake. A trail leading from the end of the forestry access road followed an old switchback road for 6 kilometres to the claim group. The road was rehabilitated in 1981 and extended by using a D-7 cat, and it is now possible to drive to the showings by the use of a 4-wheel drive vehicle.

Water supply for camp and diamond drilling is provided by a creek near the main adit on the Morris Mine showings. Likewise, no difficulty has been experienced in obtaining water suitable for diamond drilling on the copper zone.

#### IV PROPERTY AND OWNERSHIP

Stryker Resources Limited holds six (6) Crown Grant mineral claims under option from Rico Copper (1966) Limited. In addition, Stryker Resources Limited holds by location and recording a total of thirty-eight (38) mineral claims.

The title is clear as evidence research and title search by the writer in the office of the Mining Recorder, Department of Energy, Mines and Petroleum Resources, Vancouver, B.C. The mineral claims as listed below are registered in the Clinton Mining Division.

#### Crown Granted Mineral Claims:

Record No.	Name of Claim	Re	gister	ed Ov	mer	Record Date
L 699	Tatlico	Rico	Copper	(1966)	) Ltd.	July 2, 1907
L 700	Tyee	11	†1	**	II	11
L 701	Issac T.	17	į i	77	11	11
L 702	Spokane	11	11	T f	*1	11
L 703	Copper Dyke Extension	11	77	11	11	24
L 704	Copper Dyke	11	11	11	7.9	11

#### Mineral Claims Held By Location and Recording:

Record No.	Name of	Claim	Number of Units	Regis	tered Ov	vner	Record Date
836	Tatlico	I	9	Stryker	Resources	Ltd.	July 22, 1980
837	Tatlico	II	9	11	11	11	11
838	J.B. I		1	11	Ŧŧ	11	11
839	J.B. II		1	11	11	11	<b>11</b>
1168	Tatlico	III	18	tt	11	11	Nov. 19, 1981

#### V HISTORY

In 1907 gold bearing quartz veins were found outcropping on talus-covered slopes and the original claims were staked. From 1909 to 1912, underground work was carried out by Tatlayoko Gold Mines Limited and consisted of driving No. 1 adit a distance of 127 metres following the main vein and driving No. 2 adit a distance of 80 metres on a secondary vein.

From 1911 to 1935 considerable work was done in evaluating the underground workings and in prospecting other quartz veins on surface. Work also involved constructing a road, erecting housing and building an inclined aerial tram-way.

Dr. V. Dolmage in Geological Survey Summary Report for the year 1924 described the veins as consisting of quartz gangue with stibnite in the central portions and gold, arsenopyrite and pyrite occurring along the margins of the veins.

Minister of Mines report for the year 1935 describes the mineralization as a gold bearing quartz vein averaging 2.73 feet in width with stibnite, arsenopyrite and pyrite being the most visible sulphides in a gangue of quartz and crushed wallrock. Stibnite was said to be the most conspicuous sulphide with minor amounts of sphalerite, tetrahedrite, and arsenopyrite.

In 1934 Bridge Island Gold Mines Limited acquired the

ground and in 1937 worked to drift a further 340 feet on the No. 1 vein.

The copper showings 700 metres north-east of the quartz-stibnite veins were explored. Reference was made to two short test adits driven in 1910. It was reported that they did not intersect mineralization.

No further work was done on the property until 1966 when the claims were acquired by Rico Copper (1966) Ltd. During the summer of 1968, prospecting was carried out on the Copper Zone and R.W. Phendler mapped the showings. He recommended further work to test the continuity of mineralization in the andesite in which 230 metres of strike length was estimated to grade 1.35 percent copper over an average width of 10 metres.

Stryker Resources Limited optioned the property on 30th May, 1980 and carried out prospecting, mapping and sampling immediately prior to the writer's visit from July 10 to 12, 1980.

The recommendations for a work program of exploratory prospecting, trenching, and diamond drilling comprising Phases I & II as recommended by the writer in report dated August 21, 1980 was initiated and completed by Stryker Resources Limited in 1981.

#### VI REGIONAL GEOLOGY

The property lies within a broad band of sedimentary and volcanic rocks that extend from Tatlayoko to Taseko Lakes. They are termed the Tacla Group and consist of andesite and basalt beds with rhyolitic tuff and with lesser amounts of sandstones, conglomerates, mudstones and limestones. The strata have been compressed into a series of close folds, the less competent beds of which have been intensely sheared. On the basis of fossil evidence, the Tacla Group has been dated by the Geological Survey of Canada as Triassic in age.

The contact with the Coast Range Batholith passes the south end of Chilco Lake and crosses the Nostetuko Valley 10 kilometres south of Tatlayoko Lake. The Coast Range Batholith is commonly believed to be of Upper Jurassic age.

Stocks and sills invade the Tacla Group and along the contacts silification and pyritization are clearly visible in the invaded rocks. A typical stock invading the area consists of quartz-diorite with visible phenocrysts of plagioclase, quartz, biotite and hornblende.

To the north of Tatlayoko Lake, the Tacla Group is overlain by sedimentary rocks of Cretaceous age.

The bulk of the unconsolidated material in the region is of glacial origin.

#### VII LOCAL GEOLOGY

The rocks underlying the mineral claims consist of volcanic and sedimentary beds of the Tacla Group and comprise sheared and folded mudstone, argillite and sandstone strata with interbedded andesite and basalt. Feldspar porphyry andesites occur in beds 40 metres thick which strike North-South and dip steeply to the East.

Along the contact of the sediments and the basalts considerable alteration and silicification has occurred and copper mineralization occurs in the andesite.

The gold bearing quartz stibnite veins strike North 15 degrees west to North 20 degrees west and dip at angles of 37 degrees to 52 degrees Easterly. They occur in mudstone, argillite and sandstone beds that strike East-West and are highly sheared and folded. Swarms of quartz feldspar porphyry dykes together with basalt dykes cut the sediments which in turn have been displaced by East-West striking faults. The quartz veins are not offset by the latter faults and thus represent later fracture fillings. Many basalt dykes cut the sediments and are apparently younger than the quartz veins. For example, one persistent basalt dyke 1.5 metres thick follows No. 1 vein for a distance of 55 metres.

Quartz-diorite intrusives are found throughout the property. They most probably represent offshoots from the Coast Range batholith, the main contact of which lies about 6 kilometres south of the property. The quartz diorite is never far from the quartz stibnite veins and at one point forms the hanging-wall of a vein.

#### VIII DESCRIPTION OF SHOWINGS

#### 1. Gold-silver-antimony veins

The quartz-stibnite veins on the property probably represent late hydrothermal replacements and occur as vein fillings.

Cox-comb quartz is common and the veins have a banded structure.

- (a) Surface Outcrops. No. 1 vein was traversed by the writer for 160 metres on surface and over 125 metres underground. The vein outcrops at intervals through the talus covered slopes from 1,850 metres to 2,080 metres elevation. The vein is leached but some residual sulphides are evident in bands from 10 cm to 50 cm in thickness. Arsenopyrite and stibnite were observed although the pyrite is usually leached out.

  No. 1 vein was sampled on surface by the writer and over a width of 45 cm assayed 0.326 oz. gold per ton, 1.01 oz. silver per ton and 6.31% antimony.
- (b) No. 1 adit. Underground No. 1 vein was followed and sampled in 1980 over a strike distance of 187 metres. The sulphides occur as lenses and stringers paralleling the vein walls and thus a distinct banded structure is shown. Stibnite, arsenopyrite and pyrite are most conspicuous with minor chalcopyrite, brown sphalerite and rare bornite. The gangue is chiefly white quartz with cox-comb structure and altered crushed wall-rock.

Rarely white calcite is present.

No. 1 vein strikes 175 degrees and dips east at angles from 37 degrees to 52 degrees. Other mineralized veins examined on the property follow this general orientation. The No. 1 vein pinches and swells from 15 cm to 1.2 metres, averaging 40 cm in width. The hanging-wall is formed by mudstone whilst feldspathic sandstone and fine pebbly sandstone were observed on the footwall of the vein. The hanging-wall is strong and the vein breaks cleanly from it. The footwall is also strong. Eight samples taken by the writer in July 1980 gave an average assay value of 0.54 oz. gold per ton, 7.36 oz. silver per ton and 11.4% antimony over an average width of 40 cm and a strike length of 95 metres.

At 127 metres from the portal in No. 1 adit, the backs have caved, making access to the southern half of the adit somewhat hazardous. The vein was sampled in this sector by W.G. Clark and M. Moore and the assays over a strike length of 90 metres and an average vein width of 44 cm averaged 0.09 oz. gold per ton, 1.42 oz. silver per ton and 4.11% antimony. The face of the adit was reportedly in ore.

The exact nature of the gold is not known, although H.V. Warren reported in the "Miner" of 1936 that it occurs as fine particles along the grain boundaries of

the arsenopyrite.

- (c) No. 3 Vein or Hume Vein outcrops 160 metres east of the No. 1 vein and has been traced on surface for a strike length of 30 metres before it disappears under a talus slide. The vein has not been tested fully one pod from 15 cm to 60 cm showed stibnite, arsenopyrite, bornite and calcite in quartz vein matrix. Sample taken by the writer in July 1980 over a 30 cm width assayed 1.11 oz. gold per ton, 31.0 oz. silver per ton and 10.0% antimony. In the 1981 field season a showing in a shear bluff face was ground sluiced with water under high pressure and carefully mapped and sampled by John C. Ball (see Sketch Figure 8).
- (d) No. 2 Vein was not seen by the writer, but is reliably reported to be a quartz-stibnite vein averaging 20 cm in width and was followed underground in No. 2 adit for 57 metres. Mineralization was reportedly similar to No. 1 vein.

In the Annual Report Minister of Mines for the year 1934, assays are reported over 20 cm as running 0.7 oz. gold per ton and 13.0 oz. silver per ton.

(e) No. 4 Vein is a quartz vein with heavy mineralization by stibnite, arsenopyrite and bornite. One sample taken by the writer in July 1980 on surface over a vein width of 30 cm assayed 0.042 oz. gold per ton, 0.10 oz.

silver per ton and 10.06% antimony.

(f) Sampling and Assaying. The results of assaying on the quartz-stibnite veins are shown in Table 1 below.

Morris Gold-Silver-Antimony Showings

Assays of Samples Submitted by C.W. Ball, P.Eng.

To General Testing Laboratories, Vancouver, B.C.

Sample	<u> </u>		Width	1	<del></del>		<del></del>
Number			Sampled		Assay		Average
			(Centi- metres)	1	Silver oz./ton	Antimony %	
0952	No. 1 adit, Sta		Grab	0.088	2.81	19.84	
0953	i ·		60			į ,	
	No. 1 adit, Sta		1 1	0.062	2.91	37.13 )	No. 1 adit over
	No. 1 adit, Sta		10	0.996	30.66	0.67)	width sampled = 41 cm. averag-
0955	No. 1 adit, Sta		45	1.490	10.95	0.42)	ing 0.54 oz.
0956	No. 1 adit, Sta	. 12	35	0. <b>5</b> 90	13.31	0.57)	
0957	No. 1 adit, Sta	. 14	30	0.418	2.11	0.35)	silver/ton and 11.4% antimony.
0958	No. 1 adit, Sta	. 16	28	0.594	3.15	3.95)	11. 170 00.0-1107.19
0959	No. 1 adit, Sta	. 22	60	0.304	5.95	8.28)	
0960	No. 1 adit, Sta	. 23	60	0.470	7.81	14.25)	
0961	No. 1 Vein, Sur	face	45	0.326	1.01	8.31	
0962	No. 4 Vein, Sur	face	30	0.042	0.10	10.06	
0963	No. 3 Vein, Sur	face	30	1.112	31.01	10.01	
0976	No. 1 adit	33	45	0.112	3.82	11.36 )	No. I adit average
0977	No. 1 adit	29	60	0.216	0.47	0.04)	width = 44 cm. averaging 0.09 oz.
0979	No. l adit	41	30	0.082	1.28	8.68)	gold/ton, 1.42 oz.
0980	No. 1 adit	41B	30	0.118	1.53	9.55)	silver/ton and 4.11% antimony.
0981	No. 1 adit	41C	15	0.084	0.53	0.91)	4.11% dicinony.
0983	No. 1 adit	42	20	0.034	3.38	3.15)	
0984	No. 1 adit	45	23	0.048	0.25	0.38	
0985	No. l adit	45 <del>+</del> 8	60	0.030	0.69	2.13	
0986	No. 1 adit	46	45	0.082	1.24	2.68	
0988	No. 1 adit	49	40	0.052	0.75	3.11	
0990	No. l adit	47	30	0.088	1.70	3.27	

#### 2. The Copper Zone

A prominent zone of copper mineralization occurs along the hanging-wall side of a bed of andesite which averages about 35 metres in thickness. The andesite is interbedded with basalt, and the volcanic beds strike North 20 degrees west and dip at 70 degrees to the east.

The andesite is relatively competent and disseminations and fracture fillings of chalcopyrite, bornite and rare chalcocite occur along the hanging-wall side. Calcite and epidote were noted, and the host-rock is well-jointed with fairly closely spaced "blocky" joints.

Copper mineralization in the andesite was sampled over widths of 3 metres to 15 metres. The basalt beds are barren and above the mineralized zone lies a 30 metre thick bed of sheared purple basalt. A number of porphyry dykes were observed to intersect the andesite host-rock.

Samples were taken by the writer at five widely spaced stations along a 200 metre length of the andesite bed and the results are shown in Table II overleaf.

Copper Showing

Samples Taken by Clive W. Ball, P.Eng.

Assays by General Testing Laboratories, Vancouver, B.C.

Sample	Field	Width	Assay		
Number	Sample Number	Sampled (feet)	Copper %	Silver oz./ton	
0964	1	30.0	0.34	0.05	
0965	2	12.0	0.91	0.49	
0966	3	25.0	0.44	0.11	
0967	4	40.0	0.15	0.02	
0968	5	15.0	0.13	0.05	

Composite sample representing Sample Nos. 0964 to 0968 assayed 0.03 oz. gold per ton.

Comment: It should be noted that the assay results obtained by R.W. Phendler in his report for Rico Copper (1966) Ltd., dated 23 September, 1968, indicate a considerably higher grade of copper than shown in Table II. Phendler sampled the zone over a strike length of 1,500 feet and over an average width of 20 feet, average assay value is 1.04% copper. He stated in his report to Rico Copper (1966) Ltd., dated September 23, 1968, that the middle 700 feet of the zone averaged 1.63% copper across 27 feet width.

#### IX WORK COMPLETED IN 1981

#### 1. Road Rehabilitation

The old road leading from the end of the logging road at 3,000 feet elevation near the south end of Tatlayoko Lake to the property was established over 45 years ago. Stryker Resources Limited carried out a program of rehabilitation which involved blasting of rock, installation of culverts and widening of the old road with a D-7 cat over a total distance of 20,200 feet. At the upper end at an elevation of 6,050 feet the road was extended in order to provide a station for diamond drilling above the No. 1 adit. The above work was carried out from July 1981 to September 1981, and it is now negotiable by 4-wheel drive vehicle.

#### 2. Bulk Sampling and Metallurgical Testing

One large sample of ore weighing 300 pounds was taken from No. 1 vein underground in No. 1 adit, and a large sample of ore was cut from the No. 3 vein on surface after ground sluicing with water under high pressure. The above samples were carefully checked by the writer and appear to be relatively free from oxidation effects, and may be taken as representative of the two veins. The samples were taken by John C. Ball and composited upon delivery to Bacon, Donaldson & Associates Ltd. for metallurgical testing.

The results of the tests are shown in a report by Bacon, Donaldson & Associates Ltd. dated November 16, 1981, which

constitutes Appendix D. A brief summary and interpretation by the writer is given in Section XI of this report.

#### X DIAMOND DRILLING

Two drill stations were established on surface at elevations of 6,050 feet and 6,380 feet. Seven diamond drill holes, Nos. 1, 2, 3, 5, 6, 7 and 8 were completed in order to test No. 1 vein and No. 3 vein at depth. Total footage for the seven diamond drill holes is 1,596 feet.

One diamond drill hole, No. 4, was spotted in order to test the Copper Zone. Collar elevation was 5,910 feet above sea-level. The drill hole was abandoned at a depth of 76 feet on account of caving ground.

Details of diamond drilling are given below in this report, and reference may be made to the copies of diamond drill logs - Appendix E . All core obtained was BQ wire-line. The contractor was Roger's Drilling Services Incorporated.

Diamond drill holes Nos. 1 & 2 investigated the vein down dip for 170 feet and the drill intersections showed two veins split by a dyke. The hanging-wall structure also contained heavily fractured mudstone and sandstone carrying gold and silver values.

#### 1. Morris Mine Area

#### No. 1 Vein

D.D. holes Nos. 1, 2 & 3 were drilled in order to test for No. 1 vein which was followed by No. 1 adit.

The formations intersected by D.D. holes Nos. 1, 2 & 3 consisted of alternating beds of greywacke, sandstone, mudstone and brown argillite with quartzite and quartz pebble conglomerate. Siliceous quartz breccia was also met.

Pyrite is sparsely widespread throughout the above formations and occurs as disseminations and along fracture planes.

Zones of Mineralization:

D.D. Hole No. 1 cut No. 1 vein at 227 to 229 feet with assay value 0.154 oz. gold per ton and 0.71 oz. silver per ton. Core recovery was 70%. Green dyke rock was met from 229 to 232.5 feet and from 232.5 to 233 feet a quartz sulphide vein occurs with stibnite, arsenopyrite and pyrite. Core recovery was 50% in the latter quartz vein.

D.D. Hole No. 2 - mudstone with numerous fine veinlets of pyrite and disseminated arsenopyrite was encountered from 296 to 301 feet, and assayed 0.152 oz. gold per ton and 0.03 oz. silver per ton. From 301 to 306 feet also in mudstone the assay is 0.092 oz. gold per ton and 0.26 oz. silver per ton. From 309.5 to 311 feet a quartz veinlet ran 0.03 oz. gold per ton and 0.02 oz. silver per ton. This was followed by green dyke rock from 311 to 317.5 feet. From 317.5 to 324 feet a quartz vein occurs with massive stibnite and pyrite along fracture planes.

D.D. Hole No. 3 passed through alternating mudstone, argillite, sandstone and chert pebble conglomerate before intersecting quartz diorite at 426 feet. No quartz veins or mineralization was met in D.D. Hole No. 3. However, the

drill hole intersected quartz diorite and from 429 to 434 feet assayed 0.032 oz. gold per ton and 0.08 oz. silver per ton.

#### No. 3 Vein

D.D. Holes Nos. 5, 6, 7 and 8 were drilled from one set up at 6,380 feet elevation in order to test No. 3 vein, which outcrops to form a somewhat spectacular showing in a shear wall of a bluff on surface.

Feldspar - porphyry intrusive rock is prominent in D.D.

Holes 5, 6 and 7. In places the feldspar porphyry shows

argillic alteration and carries pyrite and limonite on

fractures as well as being partly bleached. Siliceous breccias

occur as well as minor amounts of sandstone.

D.D. Hole No. 8 cut dykes of granite in silicified sandstone and graywacke with quartz stringers, disseminated pyrite, and limonite. The hole ended in granite.

#### Zones of Mineralization:

<u>D.D. Hole No. 5</u> - from 89 to 90.2 feet a quartz vein with massive sulphide assayed 0.094 oz. gold per ton and 2.32 oz. silver per ton. Core recovery was 65%. From 96 to 97 feet a cellular brecciated quartz vein assayed 0.022 oz. gold per ton and 2.82 oz. silver per ton. Core recovery was 70%. From 119.5 to 120.5 feet a quartz vein with stibnite, arsenopyrite and pyrite assayed 0.118 oz. gold per ton and 13.55 oz. silver per ton. Core recovery was 75%.

- <u>D.D. Hole No. 6</u> zone of massive pyrite with sphalerite is enclosed in feldspar porphyry from 110.5 to 111 feet, and assayed 0.228 oz. gold per ton and 7.51 oz. silver per ton.
- D.D. Hole No. 7 massive sulphide in quartz veins from 117 to 118 feet assayed 0.036 oz. gold per ton and 0.10 oz. silver per ton. Core recovery is 70%. From 133 to 138 feet grey feldspar porphyry rock assayed 0.01 oz. gold per ton and 0.18 oz. silver per ton.
- D.D. Hole No. 8 sandstone carrying numerous quartz veins with disseminated pyrite and arsenopyrite from 109.5 to 112 feet assayed 0.114 oz. gold per ton and 0.50 oz. silver per ton. Core recovery is 60%. From 121.5 to 124 feet, siliceous sandstone assayed 0.068 oz. gold per ton and 1.81 oz. silver per ton, with core recovery 70%.

#### Comment on Diamond Drilling by C.W. Ball

Seven diamond drill holes were completed by Stryker Resources Limited on the No. 1 and No. 3 veins in the Morris Mine area. The steep terrain and presence of talus precluded a selection of ideal drill stations to make suitable intersections on the veins. The results should therefore be considered as a preliminary guide to the distribution of the mineralization. Moreover, core recovery ranges from 50% to 70% in the favourable quartz vein intersections. The veins observed in No. 1 adit and on surface exhibit a banded structure with cox-comb texture and the friable nature is compounded by internal brecciation in the veins. This

alone normally causes loss in core recovery.

The diamond drilling shows that the vein structure continues to a depth where the vein is split by a basic dyke. The hanging-wall section of the vein is not exposed in the No. 1 adit except in the "caved" section at a point 370 feet from the portal.

One interesting feature of the drilling results is the presence of low gold and silver values in altered silicified mudstone, sandstone and quartz diorite.

Drilling difficulties were encountered in the Copper Zone when D.D. Hole No. 4 had to be abandoned at a depth of 76 feet on account of caving ground.

Total footage completed by Stryker Resources Limited in 1981 was 1,695 feet at a total direct cost of \$98,961.74, which does not include cost of helicopter services transporting the diamond drill within the Morris Mine area.

#### XI METALLURGY

#### 1. Microscope Study of Polished Sections of Ore

As a prelude to metallurgical testing, the writer carried out a detailed microscope study of eleven samples of ore from the Morris Mine. The writer concluded that the gold appears to be free and the silver occurs principally in phalerz or tetrahedrite. The latter is confined principally as inclusions in sphalerite, but there is a limited amount of tetrahedrite enclosed in pyrite and arsenopyrite. Ore minerals identified include gold, tetrahedrite, stibnite, sphalerite, chalcopyrite, bornite, chalcocite, with associated pyrite and arsenopyrite. Quartz constitutes the principal gangue mineral with lesser amounts of calcite. It is concluded that the ore minerals occur to a large degree in bands and this feature combined with the relatively coarse nature of the ore minerals may be considered as an advantage in metallurgical testing and recoveries of the precious metals.

#### 2. Metallurgical Tests by Bacon, Donalson & Associates Ltd.

The tests were carried out on a composite of two samples, one comprising 110 pounds from No. 1 vein underground, and the other 90 pounds from No. 3 vein on surface, taken under the supervision of Mr. John C. Ball. The composite sample assayed 0.79 oz. gold per ton, 12.57 oz. silver per ton, 4.92% arsenic and 2.92% antimony.

Stryker Resources Limited engaged the services of

Mr. D.A. Livingstone, P.Eng., Metallurgical Consultant, to supervise the program, and the tests were conducted by Bacon, Donaldson & Associates Ltd. under the direction of M.J.A. Vreugde.

Test No. 4 - the concentrate in the final flotation test assayed 4.05 oz. gold per ton, and 72.91 oz. silver per ton. Gold recovery amounts to 78.1%, and the silver recovery is 92.5% after regrinding the rougher concentrate and two stages of cleaning by flotation. The weight of concentrate was reduced to 14.74% of the total mill tonnage but at a considerable sacrifice in the gold recovery to 78.1%. The above concentrate assayed 24.85% arsenic, 12.79% antimony and 1.97% zinc.

Test No. 2 - in the rougher flotation concentrate (without upgrading), recoveries amounted to 95.6% of the gold and 95.7% of the silver, which weighed 27.95% of the mill feed tonnage.

Cyanidation of the float concentrate was unsuccessful and resulted in almost negligible extraction of gold and high cyanide consumption. It was therefore deemed to be not adaptable to the ore.

#### XII PROPOSED WORK PROGRAM

In view of the difficulty of selecting suitable drill stations for surface diamond drilling, it is recommended that new underground access be made through the existing No. 1 adit, which is open. Cross-cutting is proposed for a distance of 200 feet in the hanging-wall section of No. 1 vein to establish a station for underground diamond drilling.

A minimum of 1,000 feet of underground diamond drilling is recommended in order to test No. 1 vein. In addition to providing a drill station, the cross-cut will provide the means of access to bulk sample the mudstone and sandstone which may be carrying low values in gold and silver as indicated in the most recent diamond drill program.

Surface diamond drilling is recommended on the Copper Zone with four D.D. holes each 450 feet in length.

The completion of Phases I & II by Stryker Resources Limited necessitates the implementation and expansion of Phase III at an estimated total cost of \$215,000.00, as scheduled in Appendix A.

Respectfully submitted,

Cluic W. Ball, P. Eng.

CWB:gc Vancouver, B.C. November 30, 1981 Clive W. Ball, P.Eng. Consulting Geologist.

#### APPENDIX A

#### Estimate of Costs

### Bulk Sampling Program, Proposed Underground Work and Diamond Drilling

Phas	se III
1.	Driving cross-cut in No. 1 adit 200 feet at \$200 per foot \$40,000.00
2.	Mobilization of crews and equipment including supervision 5,000.00
3.	Rehabilitating access road from Tatlayoko Lake to Morris Camp 5,000.00
4.	Administration, engineering, assaying and metallurgical testing 5,000.00
5.	Underground diamond drilling 1,000 feet at \$20 per foot 20,000.00
6.	Surface diamond drilling on Copper Zone 1,800 feet at \$60 per foot
7.	Helicopter services
	Contingencies

Total

\$215,000.00

#### APPENDIX B

#### References

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## STRYKER RESOURCES LIMITED

MICROSCOPE STUDY

GOLD - SILVER - ANTIMONY ORE

MORRIS MINE

TATLAYOKO LAKE, B.C.

Vancouver, B.C. September 24, 1981 Clive W. Ball, P. Eng. Consulting Geologist.

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11	Introduction	1
III	General Description of Mineralization	1
IV	Summary of Main Features of the Ore Minerals and Associated Sulphides	2
٧	Description of Ore Samples	3

## Appendix:

Photomicrographs of ore minerals observed under the microscope.

### I Summary and Conclusions

On the basis of preliminary microscope studies the writer concludes that the gold appears to be free and the tetrahedrite is, in all probability, the silver-bearing variety "Phalerz". The tetrahedrite is confined principally to the inclusions observed in the sphalerite, although there is a very limited amount of tetrahedrite in the first generations of pyrite and arsenopyrite.

The stibnite occurs as anhedral masses and veinlets. Chalcopyrite, bornite and chalcocite are present to a very small degree.

The ore minerals occur to a large degree in bands and this feature combined with the relatively coarse nature of the ore minerals may be considered as an advantage in metallurgical testing and recoveries of the precious metals.

### II Introduction

The following report is based on a detailed study of gold, silver and antimony minerals and associated sulphides in eleven polished sections of ore samples from the Morris Mine, prepared by John C. Ball in the geological laboratory at the University of British Columbia.

The writer had the privilege of using the Zeiss Photo Microscope in the office of Placer Development Limited. The observations were made under incident or reflected light at magnification up to 200 power.

## III General Description of Mineralization

The host rock and matrix consist mainly of milky white quartz which often shows cox-comb structure and fine brecciation. Minor calcite

is present in the form of veins.

The ore minerals consist primarily of gold, tetrahedrite, stibnite and sphalerite with rare bornite, chalcopyrite, chalcocite and tennantite. Varying amounts of pyrite and arsenopyrite are present.

The ore minerals tend to occur in bands, suggesting a rhythmic deposition pattern, and for the most part the ore minerals are relatively coarse-grained.

## IV Summary of Main Features of the Ore Minerals and Associated Sulphides

 $\underline{\text{Gold}}$  has been discerned in three of the polished sections, Nos. 1, 7 and 11, where it ranges from  $7\mu$  to  $25\mu$ . The gold observed is regarded as free, since it was observed in quartz isolated from the sulphides.

Tetrahedrite occurs as inclusions in the form of anhedral blebs up to 25µ in sphalerite and to a far lesser extent in the first generation of arsenopyrite. Rare veinlets of tetrahedrite were also noted in sphalerite. The pyrite appears to be devoid of tetrahedrite, except in the case of Sample No. 9, in which veinlets of tetrahedrite were found cutting across the first generation of pyrite.

Stibnite occurs as anhedral masses shreds interstitial to the first and second generations of pyrite. Anastamosing veinlets of stibnite are quite common and thread-like or filiform veinlets were observed. The stibnite is quite late and was formed later than the first and second generations of pyrite and arsenopyrite.

Sphalerite is fairly plentiful as massive anhedra up to 10 mm. It is traversed by fine cracks and contains minor inclusions of arsenopyrite and veinlets of quartz. Exsolution blebs of chalcopyrite are universally present and blebs of tetrahedrite from  $10\mu$  to  $25\mu$  have been detected.

The sphalerite is later than the first and second generations of arsenopyrite.

Chalcopyrite is rare and is found as anhedral grains from 250 $\mu$  up to 1.4 mm. In addition, the ex-solution blebs of chalcopyrite enclosed in sphalerite are quite conspicuous and range up to 10 $\mu$  in size.

Bornite was observed in only one sample (No. 3), where it occurs as crystals up to  $200\mu$ .

<u>Chalcocite</u> is exceedingly rare and found as an inclusion in first generation arsenopyrite.

<u>Pyrite</u> occurs as three generations and shows considerable variation in size and form as indicated in the text of the report.

Arsenopyrite often shows a great tendency to be euhedral and is found as three generations. Cataclastic texture is exhibited in the third generation.

## V Description of Ore Samples

## Sample No. 1

#### Macros:

Mineralization in quartz gangue.

#### Micros:

<u>Sphalerite</u> anhedra 0.5 mm to 3 mm. Also numerous fine exsolution blebs from  $1\mu$  to  $7\mu$ . The sphalerite is interstitial to the pyrite.

Pyrite generally anhedral, but occasionally subhedral. Rare veins of chalcopyrite up to 200µ thick traverse the pyrite.

Three generations of pyrite are present. The first generation ranges up to 4 mm with average size 2 mm.

The second generation averages  $150\mu$  and is occasionally euhedral. The third generation is from  $2\mu$  to  $10\mu$  and is anhedral, filiform.

Chalcopyrite anhedral forms up to 1.4 mm.

 $\underline{\text{Gold}}$  - very rare crystals - dagger-shaped up to  $10\mu$ . Two crystals only identified.

<u>Calcite</u> interstitial. Fairly abundant. Arsenopyrite very rare, euhedra, average 70µ.

### Sample No. 2

#### Macros:

The host rock is milky white quartz with suggestion of cox-comb structure.

#### Micros:

<u>Stibnite</u> - greyish white - anastamosing veinlets up to 2 mm, but generally <1 mm thick.

Arsenopyrite very rare fine crystals euhedral up to  $20\mu$  enclosed within quartz and as veinlets  $250\mu$  thick.

<u>Pyrite</u> rare subhedral crystals up to  $300\mu$ . Pyrite also occurs as finely disseminated grains  $<5\mu$  throughout the quartz gangue.

### Sample No. 3

#### Macros:

Heavy sulphide mineralization in quartz gangue.

#### Micros:

Stibnite prominent as anastamosing veinlets up to 2 mm thick, but usually fine filiform or thread-like veinlets. Colour: greyish white.

Pyrite mostly subhedral crystals up to  $200\mu$  With average size  $70\mu$ . Rarely euhedral.

Bornite pinkish-brown anhedral crystals up to 400µ.

Chalcopyrite very rare anhedral grains, average 250µ.

Arsenopyrite - rare euhedral, from 70µ to 150µ.

### Sample No. 4

#### Macros:

Quartz gangue, milky white with veinlets and disseminated crystals of arsenopyrite, pyrite and sphalerite.

### Micros:

Arsenopyrite - tin-white crystals, mostly euhedral, rarely subhedral. Average size  $150\mu$ . (Range  $10\mu$  to  $1500\mu$ .)

<u>Stibnite</u> - greyish white, anastamosing veinlets up to 1 mm thick. The stibnite appears to be later than the arsenopyrite and pyrite.

<u>Sphalerite</u> - one massive form 2 mm by 10 mm. The sphalerite is traversed by very fine cracks and contains minor inclusions of arsenopyrite and veinlets of quartz.

<u>Pyrite</u> - as veinlets up to 1 mm paralleling the arsenopyrite veins. Also grains averaging  $300\mu$  mostly euhedral and sometimes subhedral.

#### Sample No. 5

#### Macros:

Heavy sulphide mineralization with pyrite and arsenopyrite visible in milky white quartz ganque with calcite.

#### Micros:

<u>Arsenopyrite</u> - tin-white, largely euhedral, lozenge-shaped, partly subhedral. Probably three generations as follows:

First generation up to  $1000\mu$  - average  $300\mu$  (mostly euhedral). The acicular forms are often cracked.

Second generation partly euhedral - average size  $100\mu$ . Third generation average  $10\mu$  (range  $3\mu$  to  $20\mu$ ). Partly euhedral and as acicular crystals. Twinning is quite common in all of the above three generations. Cataclastic texture.

<u>Stibnite</u> - anhedral interstitial forms and anastamosing veinlets up to 1 mm thick. Inclusions: rare arsenopyrite needles, and euhedra up to 150u. The stibnite transgresses and intrudes first generation of arsenopyrite.

<u>Pyrite</u> - very rare subhedral crystals average 30µ. Tarnished.

<u>Calcite</u> - is abundant in the form of veins up to  $700\mu$  thick.

<u>Sphalerite</u> - anhedral masses. Ex-solution blebs of chalcopyrite and blebs of <u>tetrahedrite</u> up to  $25\mu$  (range  $10\mu$  to  $25\mu$ ) and extremely rare inclusions and veinlets of arsenopyrite up to  $30\mu$ .

<u>Tetrahedrite</u> - rare as inclusions (blebs) up to  $25\mu$  in sphalerite, and to a lesser extent in first generation arsenopyrite.

### Sample No. 6

#### Macros:

Heavy sulphide mineralization consisting of stibnite, arsenopyrite and minor pyrite - gangue is milky white quartz.

#### Micros:

Arsenopyrite - three generations present as follows: The first generation is mostly euhedral ranging up to 1 mm in length, and the acicular crystals are often cracked and disjointed. Average grain size -  $300\mu$ . The second generation averages  $150\mu$ , partly euhedral. The third generation ranges from  $2\mu$  to  $20\mu$  with average size  $10\mu$ . The form varies from anhedral to euhedral with some

Stibnite - anastamosing veinlets up to 1 mm thick and interstitial forms. Veinlets of stibnite occur in first generation of arsenopyrite.

 $\underline{\text{Tetrahedrite}}$  - rare blebs up to  $50\mu$  enclosed in first generation of arsenopyrite.

Pyrite - rare euhedral (cubic) average 50µ.

acicular crystals prominent.

## Sample No. 7

#### Macros:

Predominant stibnite studded through with quartz gangue.

### Micros:

 $\frac{Stibnite}{\text{Under crossed-nicols appears as a fine allotriomorphic granular}} \\$ 

<u>Gold</u> - two crystals enclosed in anhedral quartz. The larger crystal subhedral (cubic) is  $25\mu$ , and the smaller anhedral form is  $10\mu$ . The quartz host is  $350\mu$  by  $150\mu$ .

Arsenopyrite - extremely rare, euhedral enclosed in quartz. The arsenopyrite crystals are 5µ in diameter.

 $\underline{\text{Pyrite}}$  - very rare subhedral (cubes) averaging  $50\mu$  enclosed in quartz.

### Sample No. 8

### Macros:

Heavy sulphide with pyrite, arsenopyrite and minor chalcopyrite in milky white quartz.

#### Micros:

<u>Arsenopyrite</u> - tin-white. Three generations present as follows:

First generation varies from  $400\mu$  to  $1000\mu$  (average estimated at  $500\mu$ ). Highly cracked and ruptured with broader cracks up to  $10\mu$  filled by matrix quartz. The first generation is subhedral corroded and embayed by the matrix.

Second generation averages  $200\mu$ , subhedral. One highly cracked anhedral crystal of second generation arsenopyrite is veined by sphalerite up to  $30\mu$  and encloses one slug of gold  $10\mu$  which is attached to the margin of the sphalerite.

Third generation of arsenopyrite ranges from  $2\mu$  to  $20\mu$ , mostly anhedral.

Chalcopyrite - extremely rare anhedra, 50µ.

 $\underline{\text{Chalcocite}}$  - blue anhedra up to  $20\mu$  enclosed in first generation arsenopyrite.

Stibnite - rare as veinlets in first generation arsenopyrite.

<u>Sphalerite</u> - as anhedra up to  $1000\mu$  with numerous ex-solution blebs of chalcopyrite up to  $10\mu$ . Also veinlets of tennantite (?) up to  $10\mu$ . The sphalerite is later than the arsenopyrite.

<u>Pyrite</u> - tarnished crystals. Large subhedral crystals up to  $600\mu$ . Appears to be later than the arsenopyrite.

<u>Tetrahedrite</u> - rare anhedral blebs 5u closely associated with chalcopyrite as inclusions in sphalerite.

### Sample No. 9

#### Macros:

Pyrite and fine arsenopyrite in milky white quartz gangue which has a brecciated appearance. The pyrite is fairly coarse, ranging up to 2 mm.

#### Micros:

<u>Pyrite</u> - occurs as two generations and there is probably a third generation present.

The first generation is sub-hedral with corroded outlines. Strongly cracked - often rimmed and embayed by sphalerite. The first generation of pyrite ranges from  $350\mu$  to  $1000\mu$ .

Inclusions of sphalerite (as blebs) up to 250µ are fairly common, and arsenopyrite, anhedra occur and average about 150µ.

Veinlets of quartz up to 10µ are common.

The second generation of pyrite averages 75µ. It is largely anhedral with a tendency to be subhedral.

Arsenopyrite - tin-white. The first generation ranges from  $250\mu$  to  $1000\mu$  and occurs as subhedral corroded crystals. Highly cracked with veinlets of quartz.

The second generation averages about  $100\mu$  and is anhedral. It tends to occur in vein form. Embayments and veinlets of sphalerite are formed.

The third generation is about  $25\mu$  and is found as clusters exhibiting cataclastic texture.

Sphalerite - plentiful as anhedra ranging from 25µ to 1000µ. Ex-solution blebs of chalcopyrite very prominent and average about 3µ. Rare veinlets and blebs of tetrahedrite about 3µ observed.

The sphalerite is later than the first and second generations of arsenopyrite.

Rare inclusions of euhedral arsenopyrite  $150\mu$  across are found in the sphalerite.

<u>Stibnite</u> - as anhedral shreds and interstitial. Formed after the first and second generation of pyrite.

The stibnite ranges up to  $350\mu$ . It forms rims around the first generation pyrite and also cuts across the first generation pyrite as veinlets up to  $25\mu$  thick.

Tetrahedrite - is fairly prominent as blebs averaging 3µ in sphalerite. Veinlets of tetrahedrite are also found in the sphalerite. Veinlets of tetrahedrite are rarely found cutting across the first generation of pyrite and such veinlets are up to 15µ thick.

### Sample No. 10

#### Macros:

Mineralization consists of arsenopyrite of three generations, including the fine cataclastic textured third generation, and lesser brown sphalerite.

The gangue consists of milky white quartz.

#### Micros:

Arsenopyrite - occurs as three generations as follows:

The first generation consists of subhedral crystals up to 3 mm diameter. Numerous broad cracks. The crystals have rounded outlines.

The second generation averages  $150\mu$  in size and is subhedral to euhedral.

The third generation is mostly anhedral and ranges from  $5\mu$  to  $100\mu$  in size. Cataclastic texture.

Stibnite - grey anhedral forms up to 1 mm. Also interstitial. Rare inclusions chalcopyrite up to  $15\mu$ .

Sphalerite - anhedral forms up to 2 mm. Prominent ex-solution blebs of chalcopyrite up to  $10\mu$ .

Cracks up to 10µ traversed by matrix quartz.

<u>Tourmaline</u> - crystals partly euhedral, occur in close association with second generation arsenopyrite. The crystals of tourmaline range up to  $150\mu$  in length.

## Sample No. 11

#### Macros:

Quartz vein creamy white with three generations of arsenopyrite. The latter mineral tends to form rims around angular quartz fragments.

#### Micros:

The gangue consists of quartz with a considerable amount of interstitial calcite.

Arsenopyrite - occurs as three generations. The first generation averages about  $500\mu$  and ranges from  $300\mu$ 

to  $1000\mu$ . Form is subhedral, rounded with broad cracks throughgoing traversed by matrix quartz.

The second generation is subhedral and averages about 150µ.

The third generation is mostly anhedral and shows cataclastic texture. Fine filiform or thread-like veinlets also traverse the quartz matrix.

<u>Calcite</u> - is fairly plentiful - interstitial and encloses idiomorphic quartz as terminated prisms.

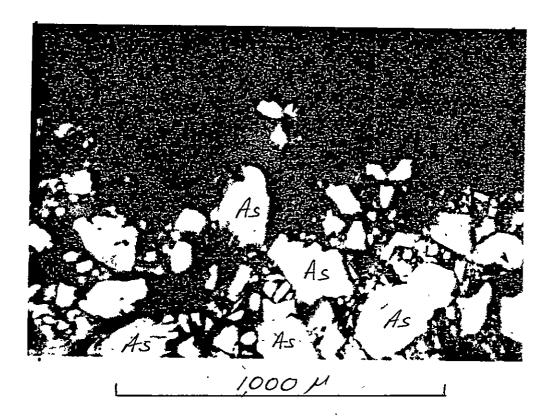
 $\underline{\text{Gold}}$  - very rare dagger-shaped slugs about  $7\mu$  in quartz near the interface or contact with calcite.

Respectfully submitted,

Clien Bell, Ply

Clive W. Ball, P. Eng. Consulting Geologist.

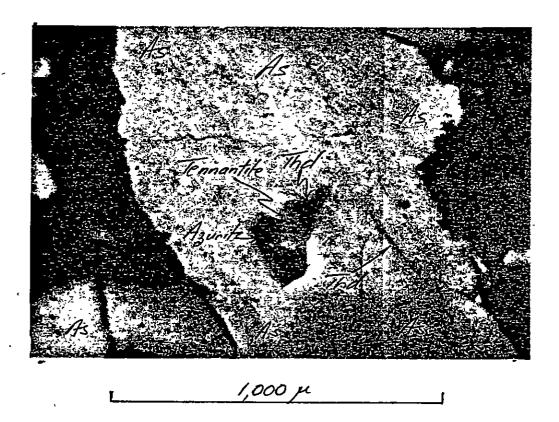
Vancouver, B.C. September 24, 1981



## Sample No. 9

Sphalerite and arsenopyrite crystals in quartz gangue.

Note: Cataclastic texture exhibited by third generation arsenopyrite.



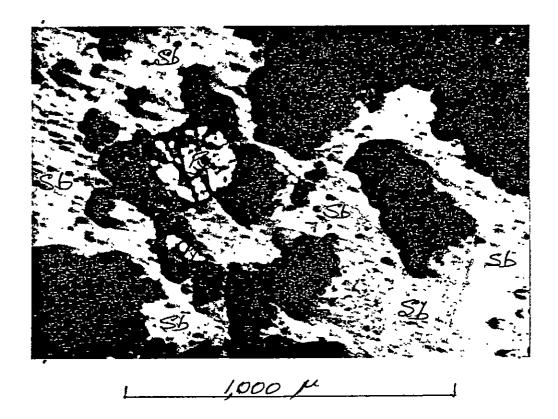
 $\begin{tabular}{lll} \underline{Sample\ No.\ 5}\\ & Arsenopyrite\ with\ inclusions\ of\ tetrahedrite\ and\ tennantite. \end{tabular}$ 



1,000 pt

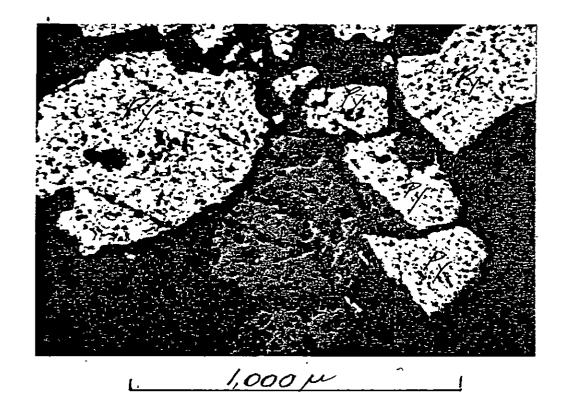
## Sample No. 4

Euhedral crystals of arsenopyrite and rare tetrahedrite as inclusions in sphalerite. Note quartz veinlets.



Sample No. 2

Stibnite vein with associated pyrite in quartz.



Sample No. 1

Sphalerite, brown with ex-solution blebs of chalcopyrite. Also second generation pyrite, anhedral set in matrix of quartz gangue (dark grey to black in photo).

## <u>APPENDIX</u>

## Abbreviations:

## Legend for Photomicrographs

Thd	Tetrahedrite
SL	Sphalerite
Sb	Stibnite
Ру	Pyrite
As	Arsenopyrite
Otz	Quartz

Note: Large dark grey and black areas on photomicrographs represent gangue - predominantly quartz.

### APPENDIX D

### Writer's Certificate

- I, Clive W. Ball, of 3191 West 36th Avenue, Vancouver, B.C., hereby certify as follows:
- 1. I am a consulting geologist residing at the above address.
- 2. I am an honours graduate of the University of Queensland, Brisbane, Australia, holding a M.Sc. degree in Geology and Mineralogy.
- 3. As a geologist I have practised my profession since 1935 in mining geology and exploration. For 30 years, I was employed as a geologist on the staff of Placer Development Limited, retiring as Chief Geologist in February, 1978.
- 4. I am registered as a member of the Association of Professional Engineers (Geological) of the Province of British Columbia.
- 5. My knowledge of the property is based on a study of published reports and one unpublished report by R.W. Phendler dated 23 September 1968, as listed in Appendix B.
- 6. Physical inventory and knowledge of surface showings and underground workings is based on a visit to the property of Stryker Resources Limited between July 10th and 12th, 1980 and on September 6th, 1981.
- 7. I hold no interest whatsoever in the Company or in the property of Stryker Resources Limited, as encompassed in my report.
- 8. I hereby consent to the use of this report in a Statement of Material Facts of the Company.

Respectfully submitted,

Cline w. Ball, P. Eng.

Vancouver, B.C.

November 30, 1981

Clive W. Ball, P.Eng.

Consulting Geologist.

STRYKER RESOURCES

MORRIS MINE PROPERTY:

Nº. 1 VEIN - DDH Nº. 1 - COLLARED : 23-08-81.

COMPLETED: 27-08-81.

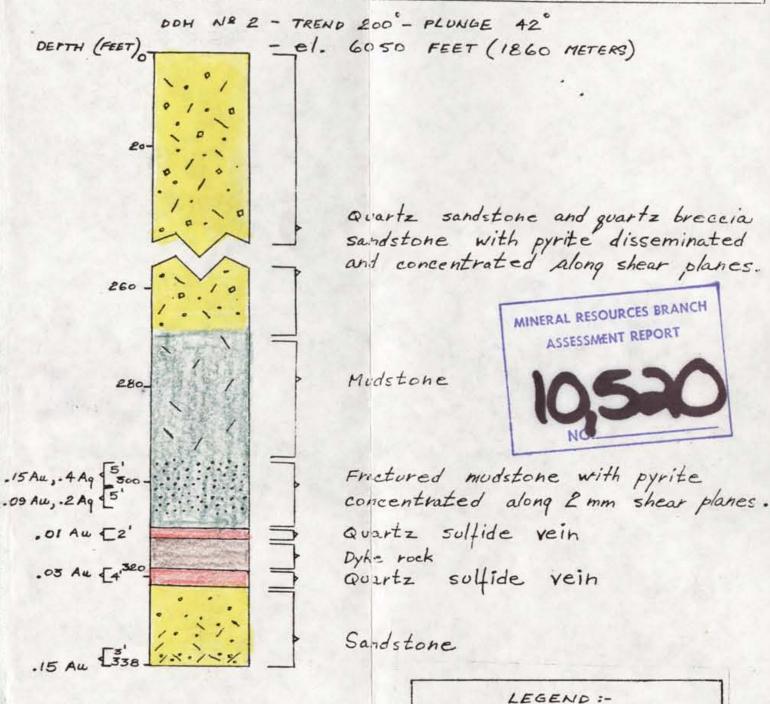
DDH Nº1 - TREND 195° - PLUNGE 45° -\_el. 6050 FEET . (1860 METERS) Quartz sandstone and quartz breecia sandstone with pyrite disseminated and concentrated along shear planes. Quartz sandstone. Mudstone. 200 Fractured mudstone with pyrite concentrated along 2 mm shear planes. Quartz sulfide vein.

Oyke rock sulfide vein. .15 Au, .7 Ag [2' .03 Au -C6" Mudstone.

STRYKER RESOURCES

MORRIS MINE PROPERTY:
Nº 1 VEIN - DDH Nº. 2 - COLLARED : 27-08-81.

COMPLETED : 51 -08-81.



Drawn by = I.c. Ball Date = 20-10-8 Quartz Breccia
Quartz Breccia
Quartz Sandstone
Mudstone
Pyrite mineralization
Quartz sulfide vein

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						9	•		<del></del>	<del> </del>		<del></del>	<del> </del>
1	5.4	21	, -	1/5	na de	to - 6/20/2	(+ 1			<del>                                     </del>		·	<del> </del>
24	126	2	/. 3	/	groun	id - iron st	- fractured		<del></del>	<del> </del>			+
			]		Fract	tures	, ,			<del>   </del>	<del></del>		┪──
				Ĺ	] ]]′		,					<del> </del>	<del> </del>
21	24	3	2	10	Muds	tone - fract	tured		<del>'</del>				+
26	~7				iron :	tained.						<del>-</del> -	<del> </del>
	1												┼
										<del>                                     </del>		-	<del> </del>
	`						,						<del> </del>
29	3/	2	/	50	Quar	tz mudstone	conglomenate			1 1			>
											<del> </del>		1
							•	<del>  </del>	<del></del>	╅╌╾╌┼╴			<del> </del>
виклоран	B PRINTING	1	<u> </u>	<u> </u>	<u> </u>		<del></del>	L	<del></del>	<u> </u>			<u></u>

	Jug 23, Aug 27,			uering nglo fr	/93° m Horiz,-45°	Lat.	Collar El. 6050 Bottom El.		Logged by Remarks	C.Ball	Date /7	1927,19
riller		<del>,</del>			243 ft.	Location	Levei					
Frem	otage To	Interval	RECO Fr.	VERY %	Graphic Log	DESCRIPTIO	N	Sample No.	From - To	Interval	ASSAY	
31	35	4	3	75	Arkos feldst rock fracti	ic sandsta bars, make u - Eron s	pne-fink b 10% of tains on					
35	35.5	0.5	,3	60	Alter	ed sandsta	pe - argillic e with copper pyrite 2 mm					
35.5	38.5	3.0	2.5	80	rock	ta sandsto. m. dissem and concer facture pla	inated through	A				
8.5	40.0	1.5	1.3	80	Atterdin sel	ed white quarty vein vages and	enartzite with lets with pyrinand as disseminan	ions				
10,0	48	8.0	6.5	75	Quar. Pyrite matrix	tz Sandsto disseminar and the g	one bebbly ted in martz pebbles					

Started A	ug 23	190	/		/93°	Lat.		. /				HOLE !	
					Heriz. 745	<del></del>	Collar El. 6050	1	Legged by	.C.Bo	4//	Date Au	g 27, 8
Driller	1-17-11	7.70		ngth			Bottem El.		lemarks	·			
	eetage	<u>T.                                     </u>	T		Graphic	Location	Level	<del></del>		<del>1</del>		<u> </u>	
Frem	Te	Interval	Ft.	%	Log	DESCRIPTIO	N 	Sample No.	From - To	Interval		ASSAY	
48	52	4	3,5	80	Quant with and be	3 pebble o quartz pebble seccia fiagmo	onglomerate sup to 1 cm						
52	58	6	<b>5</b> .5	60		eminated by ured ground 3 febble bles up to disseminate	d - conglomerate 1 cm.						
58	61				Quari with a	3 pebble quartz veinte	conglomerate ists up to 3 m. ted in matrix	<i>m</i> .					
61	68	7	4	<i>5</i> \$	recover Quar Sands	to conglomed	d-poor core						
68	77	Э	6	65	Sandsto fractur quarts	one conglored and alter	probably shale nerate - red with rite disseminated centrated along friable.	[ ]					

COMPANY	STR	YKE	<u>R_</u>	RES	OURCES LT	PROPERTY M	orris mine		Sec	tion No.	HOL	E No. / .
Started /4	ng 23,	198		earing	/93°	Lat.	Collar El. 6050			Ball	Date /	Jug 27, 8
Driller	1-17-1	<del>, , , , , ,</del>		nath	243	Location	Bottom El.	<u>-</u>	Remarks			· · · · · · · · · · · · · · · · · · ·
	otage	Ī	DECO	VERV		Location	Level	<u></u>	<del></del>	<del>                                     </del>		<del></del>
From	To	Interval	Ft.	%	Log	DESCRIPTIO	DN	Sample No.	From - To	Interval	ASSAY	
17	79	2	1.5	75	Gray	wacke ex	inglomerate					
79	81	2	1.1	55	Broker	n groung dstone	/_					
81	84	3	2.0	10	Sana	stone-fine minerali	grained dense					
84	85	1.0	ڼې	50	Broker mater	- Sulphia	le vein					
85	93	8"	6	15	Broken Sands and ca	fractured	d ground- quarts veinlets = Pebbles pyrite					
BURROUGH	PRINTING				- di	sseminated	pyrite					

	<b>7.</b>				193"	Lat.	Collar El. 6050			C.Ball	/ Date /	Aug 27,
Compiered/ Driller	Aug 27,		ı.		243 ff-		Bottom El.		temarks		<del></del>	
	etage To	Interval	RECO	YERY	Graphic Log	Location DESCRIPTION	Level	Sample No.	From - To	Interval	ASSAY	<del></del>
93	95	2	1.5	75	Sani Byrite dissemi dissemi	Istone cong along fractionated - Ars inated is to indstone is to	lomerate with tures and exopyrite also					
95	96.5	1.5	1.2	75		stone - quai quartz be isseminated						
96.5	97.5	1.0	Oct	40	Poor - Bro	core recov ken ground	iar y					
97.5	107.5	10.0	8	75	Quart - bebb Siliceo No	g-pebble co les up to 0.3 us matrix. minemlization	nglomerate cm. in Visible -					
107.5	119	11.5	10	80	Quar -No	tz sandsto.	ne ation.					

	ig 23, 1 Aug 27				193° m Heriz, 45°	Lat. Dep.	Collar El. 6050			C. Ball	Date Au	827/
riller	my ~ 1,	1401			243 ft-	Location	Bottom El.	R	emarks			
	otage	Interval	BECO	VERY	Graphic	<u> </u>	Lever	Sample	<del></del>	1	ASSAY	<del></del>
From	То	interval	Ft.	%	Log	DESCRIPTION		No.	From - To	Interval		
/19	129	10	8	75	Fragm	tz braccia and consistents up to 5 disseminated and actures						
29	139	10	8	75	Quari pebble	tonglomerate instead and along	d quartz					
34	157	18	14	75	Ryrit	sandstone - property along fractions	quartz rich					
57	167	10	8	75	Quart fine - y Pyrite	sheecia, Sil named_altered along fracture disserinated	-planes					
47 ·	173	6				Istone, fine-g			,			

Started	Jug 23,	1981	104	uring.	193°	Lat.	Collar El. 6050	, /	Logged by $\mathcal{J}$	CB	2//	Date /	lug 2	
Completed	Jug 27,	1981	A	ngle fr	m Heriz, 45	Dep.	Bottom El.		Remarks				-6-	-74.0
Driller					743 ft.	Location	Level		· · · · · · · · · · · · · · · · · · ·	<del></del>		· · · · · · · · · · · · · · · · · · ·		
	atage	Interval	RECO	VERY	Graphic	DESCRI	TION	Sample		<u> </u>	T	ASSAY		<u> </u>
Frem	T•	interval	Ft.	%	Log	- Justin	·	No.	from . To	Jec F	Gold	Silver		1
	ا				, .		_		<del></del>		-	3//		
173	180	17			Feldspa	thic sands	tone - fine-graine		<del></del>	<del>                                     </del>	<del> </del>			<del> </del>
	ļ				with	rare byni	te disseminated		<del> </del>	<del> </del>	<del> </del>			ļ
					and	along A	lanes.	ļ	<u> </u>	ļ	<del> </del>			<u> </u>
		<del>                                     </del>			<del></del>	6 /					ļ			
					Muds	tone fine	. grained, brow	, <u> </u>					ĺ	
180	208	28				2 -14	- <del> </del>	L						
		"	ŀ	1	Quart	3 - calcite	stringers up							<del></del>
					100	meh.			·	<del> </del>	<del></del>			<del> </del> -
,					n			<del>                                     </del>						<b></b>
200	210	2		i	muas	tone his	h quantz-pyrite	-		<del></del> -				<del></del>
-00	200	~			vente	to up to	1 inch and	169	208-210		0.05			} <u>-</u> -
	İ			ŀ	Clissem	inated of	th quantz-byrite inch and inch and	366	208-210	2	0.040	•01		<u>L</u> _
					<del></del>									
210	213.5	3.5			Sands	tone for	ne-grained			•				
				İ	1 - Cre	amy. They	ne-grained colour-							
	,		ł				_,	<u> </u>				+		
				ľ	<i>(</i> ]]			<del> </del>	<del></del>			<del></del>		
					3 11	, ,	4 1 1	<del> </del>						
3.5	223	9.5		ľ	Windst	one - fr	actual , broken				<u> </u>			
ı					-Incon	spetent.	"muddy"	36/ -	213.5-218.	5.0	·003	0,02		
		1		-	=u/phi	de Veinle.	<i>f</i>		218.5-223					<del></del>
			- 1		11 Poor 0	ore Recovo	40	1		7.0	· ~ ~	V, U/	<del> </del> -	

Started A	19 23,	1981		learing	/93"	Let.	Collar El. 6050	, 7	Logged by J	- P	011	Data #	200	 
Completed	Aug 27	1981	4	ingle fr	ım Harix45	Dep.	Bottom El.		Romarks		4//	0414/7	<u>~ ~ ~</u>	4
Driller					243 ft.	Location	Level			<del></del>	<del></del>	<del></del>	<del></del>	
	otage	Interval	REC	VERY	Graphic	DESCRIPTION		Sample		T		YASSA		
From	То	interval	Ft.	<b>%</b>	Log	DESCRIPTION		No.	from - To	Interval	9019	Silver		
	1 .				Broke	n green mua	Istone		7	,	7,00	23/12		
223	227	1 4			1 <b>1 1</b>	veinlets up to	•	3/.2	722 727	1/0	0 00.0	001		
					Phrite	along fracti	ires	حطم	223-227	4.0	2.004	0.01		
					Rock	has a bigeciate wir	d a ppearance	<del> </del>	<u> </u>		<del> </del>			
				1	L J			ļ			<del> </del>			
227	229	2		70		3- sulphide Ve		<u> </u>			<b></b>			
	/			<b>1</b>	Milky	white quartz	with Stibnite				<u></u>		_	
	ļ				Pyrite	and arseno	pyrile	364	227-229	<b>ヱ</b> ′	.008	.07		
<del></del>	<u> </u>			-	- 100	k is brecciate	d (Quartz)	271	227-229	2	.154			
220	227	اہرد			11									
47	232.5	۵,۵			Green	dyke rock veinlets qual	fractured .	3/5	229-2305	-/-	·m	.01		
					byrite	lib to 4. "	13/11/4	272						—
	[			]		16		-/	229_2325	2.5	1002	<del></del> -		
						+ - 11111				·		<del></del>		
32.5	233.0	0.5		50	Quan	13 - Sulphide	vein			•				<del></del>
		j		] .	Tine	pyrite, stib	niie and	273	232.5-233	0.5	0.03			
						•								
			_	<b></b>	Poc	or core neco.	ery.							
22	243			j	Muds	tone, black	- some							*******
2.2	243	10	1		11	quartz veins								
			1		-		-		<del></del>	<del></del>	<del></del> -	<del></del>		
		1		]	ہ اا	ND OF HOLE						ſ	- 1	

terval gold STAGE  of Hon Differ  1. 50.0020,04
150,0020,04
.500160.05
- 0010 0,03
.0 0.118 13.55

rted S	eft.1/2,199			1850	Let.	Collar El. 6380	, -,	Logged by <u></u>	N.Bo	2//	Date S	jept. 2
_	apt 17, 190	1	ngle from	Horiz, 74	Dep.	Bettom El.		Remarks				
	bers Drilling	· · · · · · · · · · · · · · · · · · ·	ength	150 H.	Location N.º3 Veir	Level		<del> </del>	<del></del>	<del></del>		
From	To feet	Ft.	VERY (	irephic Log	DESCRIPTION		Sample No.	From - To  (feet)	interval	Hold	F27/2/	—
0	88.5			Felds beary cut b	for porphyl limonite ala y 2 cm. qui	ng fractures tota veins	5			2/		
8.5	89.0		85		bar porphy pyrite di	<u></u>	1	88.5-89.0	0,5	0,020	0.07	
9	90.2		65	White	- quartz with	massive sulphia	de 569	89-90.2	1.2	0.094	2.32	
	96		75	Feldsfor	r porphyry-	bleached	323	90.2-96	5.8	0.004	0,19	
6	97		10	Cellula	tz vein, white ar	- breceiated	324	96-97	.1.0	0,027	2.82	
7	100		10	Quart	Breccia - 1 Minor ty	inm. fractures	325	97-100	3.0	0,002	0.05	
0	101				ured friable	_	-					

COMPANY STRYKER RESOURCES LTD PROPERTY Morris mine tarted Schof. 17, 1981 Bearing 192° Lat. Collar El 6380									Section No.			HOLE No.				
	<del>, , , , , , , , , , , , , , , , , , , </del>						·		Collar El 6380 /	<i>A</i> .	Lagged by 7	.C.B	all_	Date S	cpt.	<u>37</u> /
							Dep.	92 Vi.	Bottom El.  Level	F	temarks B	Q, n	line-	line		<u> </u>
	Rogers Drilling. Length. 122 A. Location N.03  Footage Interval Ft. 96 Log DESCRIP  CO 110,5  Massive pyrife of Felds for porphy					CRIPTION	LEVEL	Sample No.	From - To	Interval	fold	SSAY		<del></del>		
05.0	110,5				E	leach.	ed fell	Ispair g	borphyry				1/70	15 / J. F. 18		
10.5	111.0	,				Massive	- pyrite	& min or	sphalerite	575	1105-111.0	05	0226	100		
11.0.	120										,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.228	1.51		
20`	/22		,	80	Su	ı/þhid	in b	recciate	d quartz-rich	330	120-122	2.0	0.012	0.05		
, , , , , , , , , , , , , , , , , , ,	:					,	End	of He	ole.							
											·					
						· · · · · · · · · · · · · · · · · · ·	- -	· · · · · · · · · · · · · · · · · · ·								
	ļ															

ed Se	pt 1-11	1981	Bea	ring	/92°	Lat.		Collar El. 6380/	#.	Logged by $\sqrt{.}$	C.B	2//	DateSep	SF. 25,	19
eleted 3	Self18	1981	Ans	ile from	Horiz80	Dep.		Bottom El.		Remarks <u>B</u>	Wie	<u>~ //</u>	ne!		
Rog	ers Di		/ Len	gth · /	/22/4-	Location N.	vein	Level	1				VA22A	<del></del> -	
rom rom	Poorage Interval RECOVERY Graphic DESCRIPT					RIPTION		Sample No.	From - To	laterval	95th	d Sher			
2	4				Casin	R - N	o cor	C				071011	VION		
<i>.</i>	'														
	/		1			/ /	/	1						<u> </u>	
9	40				Porbh	yry wit	L lime	nite stains							
					and	= qua	13 Ver	'n	ļ		-	<u> </u>			_
				1		,									
· en	-7				Porph	4-4 9	rey wi	ith							_
O	/5				feldsfi	er pheno	ciyet	3. Letono							
					basas	onite 57. Nel to	core	axis							
					11 /	· ·			<u> </u>						
5	83			85	3" 8	seartz	Vein	Borphyry 83-83'3".	573	83 -833	3"	0.024	0.09		
3	104.5				Bleach	ed fela	spar	borphyry							_
				90		hid pe		•		104.5-105	00	1 000	000		
4.5	105.0	1		70	11	,		/	0/4	107.3 703	0.3	7,002	0.03	$\overline{}$	
				[						<u> </u>	1.	<del> </del>			_

arted			Bea	ring	192	Lat.	Collar El. 6380	, _	Logged by	1 W	Pall	Data Sel	- 25-101
mpleted		·			Horiz. 75	Dep.	Bottom El.		Romarks 8.	Win	e-lin	o	
	ers Do			gth ,	150'	Location Nº3 Ven	Level				· · · · · · · · · · · · · · · · · · ·		
From	otage To	Interval	Ft.	% %	iraphic Log	DESCRIPTION		Sample No.	From - To	Interval	gold	SIME	Reed
111	1/2		,	65	Siliate	1 3 me _			(feet)	Fee. F	3/10	Blon	<del></del>
					fine	- dissemina	ted pyrite.	332	111-112	1.0	0.012	0.10	65
											<u> </u>		
112 117	117				Felder	Bar porphy	17	336	114-117	3.0	0.008	0.25	
				ļ			7		117-118				10
117	118		5	10	Massiv	e sulphida	in Veins					-	
	125				Altere	ed Sandete	ne			<u>[</u>			<del></del>
					2" a	rseno pyrita	- in grantz	338	124-1276	3.6	0.004	0.09	
	47/			30	[]				125-126				809
<u> </u>	126			5 <i>O</i>	with	hautered sill quartz ve	iclas rock	ļ. <u>.</u>			-		
				ļ. 1				339	133-138	5.0	0.010	0.18	
126 150	150				Grey	feldpar j	porphury	3,10	143-146	20	n m	0.1	
:								340	145-140	3.0	0.00-	0.26	
						End of	Ho/e	-			-		
		.				,							

red S	pt 18	1981	Ber	ring /	/92° .	Lat.	Collar El. 6 380	1	ogged by 🦯	W.Bo	//	Date Se	61.2	<u>4</u> ,
npleted 50/01/19,1981 Angle from Horiz. 75					m Horiz, 75	Dep.	Bottom El.	R	emarks 3	Q W	re-1	-line		
	cs Dri	lling				Location Nº3 V	Level			<del></del>	<del></del> .		<del></del> T	
	tage	Interval	RECOV	/ERY	Graphic	DESCRIPTIO	н	Sample No.	From . To	interval	Jold 1	5/////		
rom	To	-	Pr.	70	Log	2 1/2 6	264		<u>jest</u>	1 200	ay / 730	7/700		_
9	5					19 - NO CE								
5	30				Folds	Las back	hyry-dark		····	<del> </del>	<del> </del>	+	-+	
>	39				grey	medium gra	ined ,							_
	<u> </u>				//	Limonit	hyry-dash ined fractures	<b>&gt;</b>		1				
39	39.3				Sulf	shide Vein	:							
′	′ ′								<del></del>	<b></b>				
, .	m				Feldsp	ar porphyry	1 - heavy limonite			<u> </u>	<u> </u>			
3	75				on ka	uture plan	es.			1	ļ			_
_					1116	rutine plan Quantz vein Quantz vein	at 61.5		····					
					2"	Quartz Voin	at-66.5		<del></del>	<u> </u>				
						)								
15-	88		•	60	Felde	bar borbh	yoy - Silicified					Ţ		
•	0 •			00	and	highly Fra	etwed.	33/	87-88	1.0	0.05	0,22		
				j	en	88 = massiv	a suchhid		-					_
						in quarts								
8	101	<del>                                     </del>			Bleach	ed motted	rock-probaby r porphyry				1			_
,	101				altere	d felds ba	o for phymy							
						7 = 1.2 = 1/2 = 1	• / / /				1			
	,,,	1 1			Record	ted , Stherife	1 70-0-	<del> </del>		+	+	<del> </del>		

	ht. 19,		Bearing	/92°	Lat.	Collar El. 638	eoft.	Logged by $\mathcal{L}_{_{\!A}}$	w.B.	414	Date Set	4.25/8
	Sefft. 2 vers Dri	',,	Angle from	150 H.	Dep. Location N.03 U	Bottom El.		Remarks B	02 ×	Vire	-line	
	To	Interval	T	Graphic Log	DESCRIP		Sample No.	From - To	Interval	gold	ASSAY	Core
45	106		60	Grayw	acke fin	e-grained w	ifL			0/	0/1247	%
106	108		60	Altered	l sandste	ne with hearing. broken Sands	32 Z	1045-108	3.5	0.002	0.06	
108	109.5			Stighty	fractured	, broken Sands	tone 319	108-109.5	1.5	0,014	0.16	
109.5	114					merous quartz minated pyris yrite		109.5-112	2.5	0.114	0.50	60%
114	121.5		70	Felds	attic San	ndstone	3/7	112-114	2-0	0.08	0.22	75.
121.5	124		75	Sand.	done very	y siliceous with quartz Vein	th 320	121.5-127	12.5	0.068	1.81	75
124	132			Sand	stone, Ver	n siliceous						
<del>*</del>				Sulph	ides 5	quartz with com. Hick at 1	/32					
/32	150					12 pyrite						
					End of	Hole.						

ریک	4.19,1	1981	Be	aring	/92°	Lat.	Collar El. 6	380	Logged by	.W.B	a//	Date S	efst. 2.
eted	261.2K	198	/ Ar	gle from	Horiz. 67.5	Dep.	Bottom El.		Remarks 3	QW	ine 1	ine	,,
806	EPS DE	74 LIN	ر ا	ngth .	150 ft.	Location N.3	Nein Level			·	<del></del>		<del></del>
	To	interval	RECO'	VERY (	Srephic Log	DESCR		Samp No.	FF066 - 14	laterval	gold	SIVER	
	5					- NO	core				3/1/2	24/100	
5	/2				Sand	/	ziliceous gre	<i>y</i>					
<b>/</b> 2_	34						e ghained						
	64.5				Sana	stone wi	th heavy lime re planes	nite					
¥. S	75.0				Grani	ite - bro	kon core wi	:44,					
.0	76.0			10	Grani with and	ite - highi heavy limonite	y kaolinized sulphides () on fracture	(byrifg)					
	90				Sandst	one, silicific	ed with dykes of	Granike					
	95-			65			- heavy limo.	} <b>-</b> -	1 90-95	5-1	0.028	0.10	

COMPANY	STRY	KER	RE.	SOU	RCES LTD	PROPERTY	Norris mine		Sec	tion No.		HOL	E No. 2	+ <del>-</del>
Completed,	19 29 Aug 31,	81	A	ngle fn	200°. om Horiz, 442°	Lat. Dap.	Collar El. 6,050 Bottom El.		Logged by $\sqrt{.}$	C. B.	11	Date S	Sept.	2, 8
	ger's d	7	r lu	ingth	338′	Location	Level							
From	To	Interval	Ft.	% %	Graphic Log	DESCR	IPTION	Sample No.	From - Te	interval		ASSAY		
66		12			Poor Sands,	core rece tone . L	overy - brokens Limonite staining.							
78	82	4			Muds		glomerate and					_		
82	93	11		-	Quari	13 veinle	medium grained its 1 to 2 mm							
93	97	4	<b></b>		Sands	tone - b	roken and Quartz veinlets Sulphide							
97	114				Sann	stone _ trated as	mineralization long fracture stibuite							

ted /	Aug 29	198	/ B	earing ngio fro	200 m Heriz. 42	Lat.	Collar El. 6050 Bettom El.		agged by $\sqrt{2}$		<del></del>		ept.	<u>-</u>
ler Poo	2	. ///	Ø 1		338 fr.	Location	Level		BR	wire	-line			
	tage	1	RECO	VERY	Graphic Log	DESCRIPTION	· · · · · · · · · · · · · · · · · · ·	Sample	From - To	Interval		ASSAY		
Frem	To	fect	Ft.	*	Log			No.		<del>                                     </del>			<del></del> -	
P	/3	/3	5	-	Casi	ing-broke	n mudstone							
'3	48	35				dstone - fr. ctured with to veinlet.	ine-grained h / m.m.							
48	51	3			with	detone, fine arsenopyrit veinlets	-grained te concentrated							
57	60	9			and s	stone, fine- sandstone-q fine disser- nobyrite	iantz - procesa							
60	66	6		*	San Eulf diss	dstone brownide veinte eminated panabyrite.	ets. Minor syrite and							

COMPANY	r STR	YKER	<u>.</u>	ESO	NURCES L	TO PROPERTY /	lorris mine		Sec	tion No.	HOL	No. 2
Started A	ug 29,	1981	Be	ering	200°	Lat.	Coller El. 6050	2	Logged by V	C. Ball	/ Date S	Sept. 2,
Completed	Aug 31,	1981	A.	ngia from	m Horiz. 4/2	Dep.	Bottom El.		Remarks			<del>- /</del>
Driller Rog	ers Di	rillin	9 4	ngth .	338'	Location	Level				.,	
	ctage	Interval	RECO		Graphic	DESCRIPTION	AL1	Sampl		T	ASSAY	1
Frem	To	Rect	) Ft.	*	Los	DESCRIPTIO	JN	No.	From - Te	Interval	.	
114	131	17			1 1	stone & San mineraliza	detane conglower	w F				
/3/	146	15	•		1 1	3 - Dissem	inated very					
146	164	18			< /	stone with em. thick.	quartz veinlets Pyrite finely	3				
164	171	7			Quar to 3 d 3 m.m.	tz breecie m Pyrite :	- clasts up stringers up to arts breccia intrusion.					
171	220	49			Mudsi	tone - pyr	ture planes.	• I.				
B.(14									1.			
X S U D N N U B	B PRINTING					SHEET	OF SHEETS		<u> </u>	·····		<del></del>

arted /	Jug 29	7.81	Ba		200°	Let.	Collar El. 60	50'	Logged by $\sqrt{.}$	C.B.	a//_	Date /	ug 29
	Aug 3/				Herix, 42°	Dep.	Bottom El.		Remarks				
	gers Dr			<del></del>	338 FF.	Location	Level	1	<del></del>		<del></del>	YA22A	r
	To	Interval	Ft.	*	Graphic Log	DESCRIPTIO	N .	Sample No.		Interval Leaf	gold on Hon	or too	
					Sand	stone - No	visible					,	
20	228	8	;		Su/b	hide mineral	lization						
								<u> </u>			<u> </u>		
	ļ									-	-		
_					Muds	tone . P.	rite restricted	/ <del> </del>					
28	250	322			to for	acture pla	nes, & mm to	ick			<u>                                     </u>		
						,	•	ļ					
		-						-					
<b>1</b>					Sana	etone with	quartz	<b> </b>	-				
230	270	20			Disse	embles graninated ar	seno byrite		<del> </del>	1	<u> </u>		
					and	pyrite	-			<u>†                                     </u>			
		<u> </u>				<u>**</u>		<del>-  </del>					
270	296	26			Muds	tone graine	7 <u>-</u>	367	286-291	5'	×.003	.01	
•					P	ne graine	d.	368	291-296	\$ '	.032	.01	
				<u> </u>									
					111	at with	many bynit	326	296-298.	2.5	.052	0.39	
al	301	5			Way.	ts along fr	many pyrite	- 1	1298.5-30	1		1 1	
		. — .		1	Vainici	s along Tr	ucyores.		296-301				

<del></del>			<del></del>	<del></del> -		D PROPERTY N				tion No.		<u> </u>	E No. 2
rted /	rug 27	1981	Box	ring	200.0	Lat.	Collar El. 605	0'	Logged by J	C.B.	4//	Dato/	ug 3
	lug. 31	1981			n Horiz. 42°	Dep.	Bottom El.		Remarks				
ler					3381	Location	Level		BO	?. n	ire-	line	•
	tage	Interval	ECOY		Graphic	DESCRIPTIO	N	Sample	Fanna Ta	1_1		ASSAY	
From	To	feet	Ft.	%	Log	,		No.	From-To	Leet	2019	SILVE	7
			- [	ļ	1 - , , ,	11.	1.4					•	
22	335	/3			relaspo	athic sand	dstone with	374	330-332	2	<.003	mul	
		[		1	Concen	tertal ala	a leasture Ha	375	332-335	3	C.003	001	
					( men	rates ulos	g fractire pla.	310	224 2311	10	002	Tonce	
					1 1			2		1	1 .		-
20	338				San	dstone w	ith pyrite	224	335-338	<u> </u>	0.150	0.15	
<i>,</i>	228	3		1				1			,		-
			1		along	fracture	planes.	-	<u> </u>		<u></u>		-
				$\rightarrow$					· .				
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				}				<u> </u>		···- <del></del>			
					11							7	

4 3/,/ pr/s Dri, go To	lling Interval fect	Leng	jth	n Horiz, -42 Graphic Log	Location DESCRIPTION	Level	Sample			<del></del>	- /in	<u>e</u>
ge Te	interval	T I		_	DESCRIPTION		Sameta			<del></del>		
		Ft.	%	Log	5-56Kii (1611			From - Te	Interval	100/0	5 // 10	<b>-</b>
306	5		3				No.	from - To	feet	of ter	2) Her	_
200	- 1	- }		Mude	tone - gree	n	328	301-306	5	.092	.26	
				Fine	grained			301-306		1		
309.5	3.5			Mudst	one with popyrite as	byrite and long fracture	306	306-310	4	-008	Trace	
				Plane	s -t. su/bhide	Vein with	307	3/0-3/2	2.	.008	Trace	
311.0	1.5			black .	massive sur	Shide along and arsenopym	370	309.5-11	1-5	-030	.02	
						dyke rock	37/	310.5-318	.7.5	-003	-02	
317.5	6,5			11	•	ŕ	308	3/2-317.5	5.5	.002	Trace	
<u></u>				Quan	tz - Sulphide	Vein		1	1	-004	-/2	
322				Pyrite	and massi	ve stibnite	1 -		7			
				along	quartz Vein	<b>S</b> .				-03	Trace	
	311.0	311.0 1.5 317.5 6,5	317.5 6,5	317.5 6,5	317.5 6.5  arsen  plane  Quar  black  fracti  Vicib  Green  Pyrife  along  Arsen	arseno byrite at planes  Quartz-sulphide Black massive sur fractures. Pyrite Visible  Green aphanitic  Green aphanitic  Porphyritic  Quartz-sulphide Pyrite and massive along quartz Vein	Quartz-sulphide Vein with  Black massive sulphide along fractures. Pyrite and arsenopyri Visible  Green aphanitic dyke rock  - Porphyritic  Quartz-sulphide Vein	arseno pyrite along fracture 306  blanes  Quartz-sulphide vein with 307  black massive sulphide along 370  fractures. Pyrite and arsenopyrite  Visible  Green aphanitic dyke rock  - Porphyritic  Quantz-sulphide vein  Pyrite and massive stibnite  372  Along quartz veins.  309	arseno pyrite along fracture 306 306-310  planes  Quartz-sulphide vein with 307 310-312  Black massive sulphide along 370 3095-11  fractures. Pyrite and arsenopyrin visible  Green aphanitic dyke rock 371 3105-318  Green aphanitic dyke rock 308 312-3175  Quartz-sulphide vein 372 318-320  Pyrite and massive stibnite 373 320-322  along quartz veins. 309 318-322	arseno pyrite along fracture 306 306-310 4  planes  Quartz-sulphide vein with 307 310-312 2  Black massive sulphide along 370 3095-11 1-5  fractures. Pyrite and arsenopyrite  Visible  Green aphanitic dyke rock 371 3105-318.75  - Porphyritic 308 312-3175 5.5  Quartz-sulphide vein 372 318-320 2  Pyrite and massive stibnite 373 320-322 2  along quartz veins. 309 318-312 4	arseno pyrite along fracture 306 306-310 4 -008  blanes  Quartz-sulphide vein with 307 310-312 2 .008  black massive sulphide along 370 3095-11 1.5 .030  fractures. Pyrite and arsenopyrite  Visible  Green aphanitic dyke rock 371 3105-318 .7.5 .003  - Porphyritic 308 312-3175 5.5 .002  Quantz-sulphide vain  Pyrite and massive stibnite 373 320-322 2 .003  along quartz veins. 309 318-322 4 .03	arseno pyrite along fracture 306 306-310 4 .008 Trace planes  Quartz-sulphide vein with 307 310-312 2 .008 Trace  Black massive sulphide along 370 3095-11 1.5 .030 .02  fractures. Pyrite and arsenopyrita visible  Green aphanitic dyke rock 371 310.5-318 .7.5 .003 .02  Green aphanitic dyke rock 308 312-3175 5.5 .002 Trace  Quantz-sulphide vain  Pyrite and massive stibnite 372 318-320 2 .004 .12  Ryrite and massive stibnite 373 320 -322 2 .003 .20  along quartz veins. 309 318-312 4 .03 Trace

Started	<u></u> .	·	Be	aring	168	Lat.	Collar El. 605	o'	Logged by	WE	2/1	Date S	est 1	10
Completed			Ан	gle fro	m Horiz, 43	Dep.	Bottom El.		Remarks &	Q W	ice -1	line	<del>-/</del>	+70
	er's Dri	ling			443	Location	Level		No ore					<u>۔۔۔۔</u>
From	To	Interval	RECO\ Ft.	/ERY %	Graphie Log	DESCRIPTION	1	Sample No.		Interval		ASSAY		
140	180				Pebb.	le beds in battic some	fine-grained Stone							
180	197				Chert	- pebble co.	ng lonerate							
	215				Cher	+ pebble	Conglomerate							
215	227				Arg	illite, sof	<b>7.</b>							
227	232				Felds	pathic sai	ndstone						-	
232	332				Mud.	ctone, bro	w m							<del></del>
332	347				Felols	bathic san	dstone							
347	35≥				Mua	stone								
		Ì	1											

ented Se	pt. 1,1	98/	Be	aring_	168	Let.	Coller El. 6050	2/ 1	agged by <u>C</u>	W. Bal	// Date Se	ft. 6,19
empleted S	Seft 5	1981	A	igle fre	om Heriz. 43°	Dep.	Bottom El.	- K	No Dre	- No	ire - line Quartz V	leins
	res Dri	interval	RECO	VERY	443 Graphic	DESCRIPTION		Sample	From - To		ASSAY	
From	To	IRIETYEL	Ft.	*	Log			He.	<u> </u>	-		
0	17				Cas	ing - No	core					
17	67			 	Argi	llite, soft	light brown					
					1 1 1	dstone, fin						
81					Argi	://ite , bro	W M	-				
13	97				Arg	illite brow	rev					
47	//3				Chert - pe	bles up to	2 cm. \$					
 //3	140				Arg	illite, bro	wn.					

OF

erted <u>(</u> mpleted	Sefet.1.	1.198 2.198	2/1	learing Ingle fo	270° om Horix, 75° 76 fect	Let, Dep. Location	Coller El. 5910  Bottom El.  Lovel		Logged by J. Remerks £ Abandone	BO WI	ne - 2	1/min	•
For Frem	Te	Interval	REC	%	Graphic Log	DESCRI		Sample No.	From - To	1 1		ASSAY	
P	5	5			Casin	8 - NO	Core						
5	22	17	sef	70	Andes. Colour fract	ite - silid red. Mino ture plan	eous - dark r pyrik along						
2,2	47	25		55	Volcar - aph Minor	nie rock . anitic t pyrite d	- dark -low. along fractures						
47	52	5	<del></del>	70	Ande	site - fr	esh (unaltered)						
2	58	6		45	Andes -oxidi limon i	ite - fraction with the along	ctured & broken. bervasive fracture planes						

terted			Į.	aring	1680	Let.	Coller El. 6050		Logged by			
mpleted			A	gle fr	m Horiz. 43	Dep.	Bottom El.		Romarka <i>BQ</i>			
	r's Dril	ling		ngth	443	Location	Level	1	No ore	- NO	quartz Ve	No. C
From	tage To	Interval	RECO	VERY	Graphic Log	DESCRIPTION	ON	Semple No.	From - To	Interval	ASSAY	
					<del></del>		1. <del>4</del>					
352	358				Felds	partic san	dsione					
						pattic san		<del> </del>		<del>                                     </del>		
2-~	21-				11.1	tone , brow	-					
558	369				Muds	sune, prow	<i>~</i> )					
					1							
_												
260	2-7/-				Felde	bathic sa	indstone.					
207	375				1	o.	and stone,					
	}					<i>inc</i> 9,						
	<u> </u>											
370	1406				Mud.	ctone		ļ		<u> -  </u>		
0/3	406							ļ <u>-</u>				<b>  </b>
406	426				Sand	stone, felds	pathic - unds of mudstone	<u> </u>	ļ			ļ
					fine gro	rined with bo	inds of mudstone	-				<del> </del>
426	443				Qua	rtz diorin	ž.	ļ	<del> </del>			
-						~				<del> </del>		
				1	1   1	End of	11 1		<u> </u>	<b>↓</b>		

COMPAN	STRY	KER	R	E500	IRCES L	D PROPERTY More	is Mine		540	tion No.	Ноі	E No.	5
	6+16				185°	Lat.	Coller El. 6380		ogged by C	w.Ba	// Date_	sept.	25/9
	Sept. 17	,-,-			om Horiz, 74	Location NO3 Vein	Bottom El.	R	emarks B	Q Win	re-line	·	
	otage		DECC	VERY			Level	Sample	<u> </u>	T	ASSAY	,	<del>T</del>
Frem	То	INTERVAL	Ft.	%	Log	DESCRIPTION		No.	from - To	Interval		1	1
.0	5				Casin	8 - 40 0	ore		· · · · · · · · · · · · · · · · · · ·	,			
5	12				f 1 1	tz rich San ained Immonife Stains							
12	60		· · · · · · · · · · · · · · · · · · ·		Crowded Limon	timonite siains I feldspar pe the on fractur	orphyr es			,			
					Fault 1 Over 1	te on fractur with gouge + 10 10.25 at 60-	hite quartz 60.25					-	
60	73.5					pyrite vein							
73.5	76	-	<del></del>		Felds	har borphy	rry						
76	80				Feldspo	er porphys heavy argi			-				
- 単一の大学のでは、	# PRINTING				Prowing	heavy argi	Ilic alteration			· · · · · · · · · · · · · · · · · · ·			

ed Sc	pt11,	81		eering	270° om Horiz. 75°	Let.	Coller El. 5910		Logged by $\mathcal{J}$					5/
pleted !	Septe	2198	<b>²</b> ∕  ▲	ngle fr	om Heriz. 75	Dep.	Bettom El.		Remarks Bo	Q Wil	x L	ine 1		,
		<del></del>				Location	Lavel	<u>, y</u>	bandonea From To	one	2604	nt of	Cavin	99
Foot	To	Interval	RECC Ft.	VERY %	Graphic Log	DESCRIPTIO	М	Sample No.	From - To	Interval		ASSAY		
		7		<del> </del>	<del> </del>	<del></del>		+						
-0	/ >			J	Ana	esite fresh	cacture planes	-						
18	63	5	4.5	85	P	ita almos C	neture blanes	-			- "-	<del>,</del>		
]					1 //	tile along for	acture pour							
							<u> </u>							
					100	L. A.	ed andocito							
				2-	Brok	en traduce	ed andesite seture planes through caving							
63	76	/3	9	30	1   Pyri	te along fro	eture planes			<del>                                     </del>				<u> </u>
					Heav	y limonite sta	House Through			1			<del></del>	
		-		+	thero	CK HEAVY	CAVING	<del>                                     </del>					├	
į					[		<b>→</b> . <del>-</del>		<u> </u>	<del>                                     </del>				
						End of H	lolo	<u> </u>						
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#### STRYKER RESOURCES LTD

#### II DIAMOND DRILLING (BQ Wire-Line)

•	Date	Invoice Number	Item	Account.	Amount
			<del></del>		<u> </u>
	Sept 22/81		Skidder for moving drill	Alf's Skidder	900.00
	Sept 4/81	81015	Diamond Drilling Aug 17-31 1981	Roger's Drilling	38,749.20
	Sept 28/81	81016	Diamond Drilling Sept 1-24	Roger's Drilling	30,212.54
	Sept 22	10693	Diamond Drill Core Boxes	E.G. Whalley	237.44
	Aug 20	10584	Diamond Drill Core Boxes	E.G. Whalley	445.20
	Aug 19	9237	Core Splinter	J.M. Smit & Sons	249.10
	Sept 4	48007	Sample Bags	Deakin Equipment Ltd.	72.29
	Aug 3	5360	Sample Bags	Elden Explosive Ltd	7.95
	Sept 9	V01258	Assaying	General Testing Labs	289.15
	Sept 10	V01263	Assaying	General Testing Labs	493.00
	Sept 11	V01274	Assaying	General Testing Labs	29,25
	Sept 30	V01387	Assaying	General Testing Labs	67.00
)	Oct 29	VO1540	Assaying	General Testing Labs	66.00
)	Oct 13	V01447	Assaying	General Testing Labs	416.25
	Sept 25		Steno Service	Filtness & Cameron	55.50
	Sept 24		Contract Labour	Craig Nichols	3,189.00
			Contract Labour	Ball Resources Services Limited	8,325.00
	Sept 5/81	716	Drill Move	White Saddle Air Services	3,222.00
	Sept 12	199	Fixed Wing	Air Alps Ltd. Squamish	240.00
	Sept 13	214	Fixed Wing	Air Alps Ltd. Squamish	160.00
	Oct 22	198	Helicopter	Pacific Helicopters Ltd	7,122.60
	Oct 24	197	Helicopter fuel	Pacific Helicopters Ltd	1,291.95
	Oct 30	59005	Vehicle Rental	Clarkdale Enterprises Ltd	424.00
	Oct 18		Repairs & Parts	Freelance Auto Service	468.06
	Sept 5	154241	Parts 4-wheel drive	Duecks on Broadway	407.76
	Sept 4	154002	Parts 4-wheel drive	Deucks on Broadway	283.24
	Sept/Oct 81		Vehicle Expense, repairs and fuel		835.78
	Sept/Oct		Food and camp supplies		866.39
)	Aug/Sept/Oct	81	Radio & Communications	B.C. Tel	824.59
				TOTAL	\$99,950.24

### STRYKER RESOURCES LTD

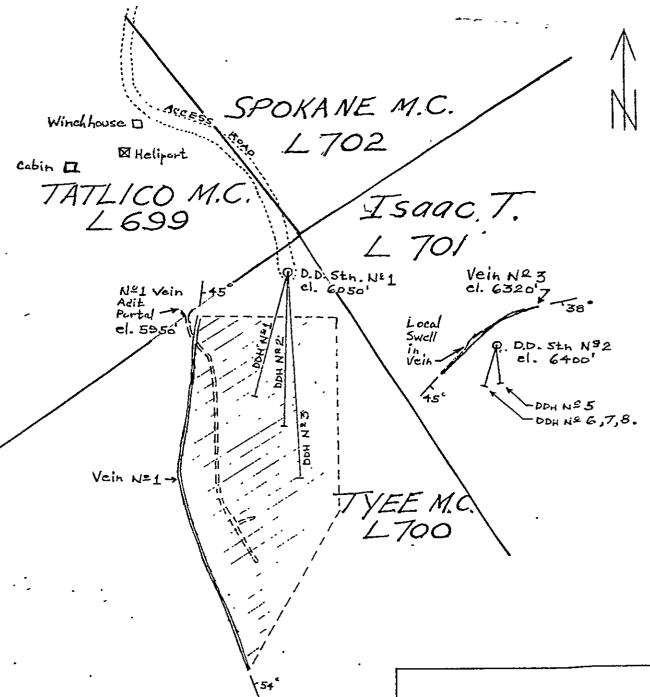
### Morris Mine Property

### Assessment Work

### I ROAD REHABILITATION

<u>Date</u>	Invoice Number	Item	<u>Account</u>	Amount \$
May 17/81	6990	Culverts	Highlands Pump & Pipe	2,158.15
July, 20/81	R8252	Plugger drill	Project Machinery Limited	349.80
July, 20	3562	Powder	Magnum Explosives Limited	375.30
July, 21	3564	Powder	Magnum Explosives Limited	134.35
Aug, 24		D-7 Cat	A. Bracewell	11,100.00
Sept/July,Aug		D-7 Tractor Rental		140.00
11 II II		Fuel		172.00
July, Aug, Sep	ot.	Material & Supp	plies	2,383.00
Oct 25, 81		Workmen's Compa	ensation	360.61
Aug/Sept 81		Contract Labour	c	2,490.00
Aug/Sept 81		Truck Rental (I	Road)	360.00
			TOTAL	20,123.21

rigure 4.



DOH Nº	Bearing	Plunge
/	193 °	45
2	172°	42.5
3	/68°	43°
5	185°	74°
6	192°	દર્૦
7	/92°	75°
8	192°	67.5°
i		

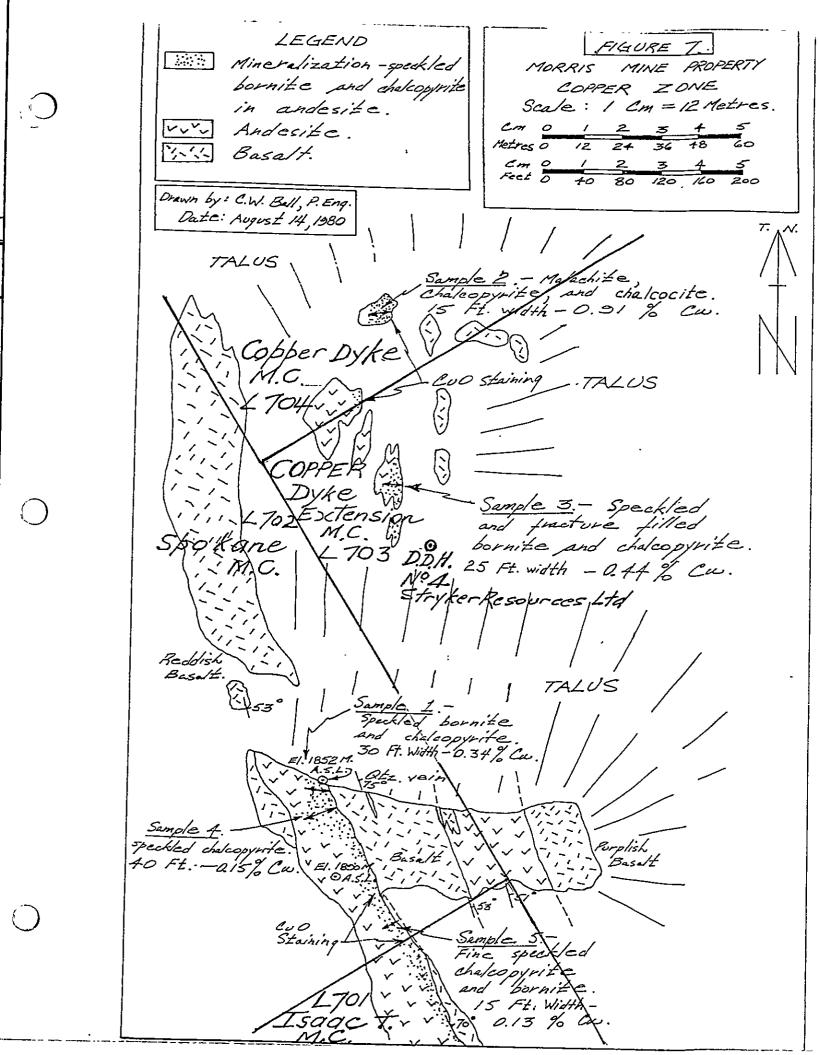
STRYKER RESOURCES

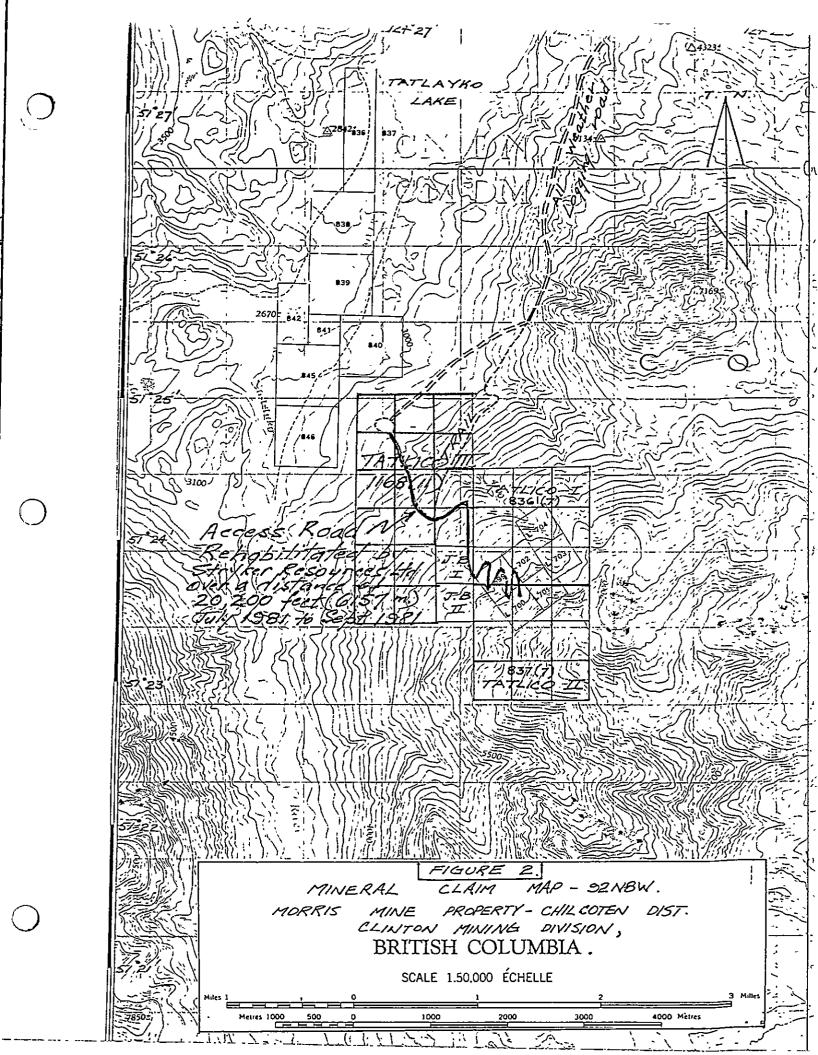
MORRIS PROPERTY -

DIAMOND DRILL HOLE LOCATIONS

PLAN VIEW

Scale: 1 Cm = 30 Meters





GOLD - SILVER
RECOVERY FROM
MORRIS MINE SAMPLES

CARRIED OUT FOR:

Stryker Resources Ltd. 3578 West 47th Ave. Vancouver, E. C. V6N 3P1

File No. 3434 1981 November 16 M. J. A. Vreugdę, P. Eng.

#### INTRODUCTION

Preliminary concentration tests have been carried out on a sample from the Morris Mine of Stryker Resources Ltd.

Testwork was carried out under the supervision of Mr. D.

Livingstone, P. Eng. Production of a bulk concentrate by flotation as well as cyanidation of a flotation concentrate has been investigated.

#### SUMMARY

Rougher flotation recoveries for gold and silver greater than 95% have been achieved.

Cleaning of flotation concentrates has resulted in some loss of gold which may be recoverable through increased reagent addition.

The marketability of the flotation concentrate should be investigated as it contains high concentrations of arsenic.

Cyanidation is not effective at extracting gold from the flotation concentrate.

#### DISCUSSION

Bulk flotation of the values in the ore results in rougher recoveries greater than 95% for both gold and silver. The rougher concentrate weight represents approximately 27% of the feed weight. The rougher concentrate can be cleaned to reduce the concentrate weight but to date this cleaning has resulted in a loss of gold

TEST	CONC.	ASSAY O	Z/TON	% DISTRIBUTION		
NO.	WEIGHT %	Au	Ag	Au	Ag	
3	13.67	3.88	81.10	71.0	90.4	
4.	14.74	4.05	72.91	78.1	92.5	

Test No. 4 shows an increase in gold recovery over test No. 3. The difference between these two tests is an increase in collector addition to the first cleaner. It appears that even greater collector additions to the regrind may be warranted. The consequence of increasing gold recovery appears to be that a greater weight % of concentrate will be produced. At this point it does not appear warranted to undertake further flotation testing until the marketability of the flotation concentrate is considered.

The feed sample was assayed to contain 4.92% As and 2.96% Sb. The cleaned concentrate from test No. 4 was assayed to contain 1.97% Zn, 23.13% As and 12.79% Sb.

The arsenic is present as arsenopyrite and it is believed that this could make the concentrate extremely difficult to market. Cyanidation of the bulk rougher concentrate was attempted (Test No. 2). The concentrate consumed lime continuously through the test with a total addition of 43.5 LBS/TON Ca(OH)<sub>2</sub>. The high lime consumption resulted in a loss of protective alkalinity at the outset of the test and consequently led to high cyanide consumption. Final cyanide consumption could not be determined since dissolved species interferred with the cyanide determination. The results indicate that essentially no gold or silver extraction was achieved during the 72 hour test period. Cyanidation does not appear to be a feasible process for extraction of gold from the concentrate. Although direct cyanidation of the ore has not been attempted it seems unlikely that acceptable extractions would be achieved.

A microscopic examination was carried out on the cleaner flotation tailings from Test No. 3. It was observed that fine, liberated arsenopyrite was the predominant sulphide occurrence in this product. No gold occurrences were observed.

Test grind and physical properties.

#### 13 minute grind

FRACTION	WEI	GHT %
	IND.	CUM. % PASSING
+ 65	1.6	
- 65 +100	11.7	98.4
-100 +150	17.8	86.7
-150 +200	18.5	68.9
-200 +325	13.5	50.4
-325	36.9	36.9

Natural pH = 7.6 Soda ash required for pH = 8 = 0.44 LB/TON S.G. of feed = 2.86

#### PROCEDURE

STAGE	TIME (minutes)	ADDITÍONS				
Grinding	20	2 kilograms feed 65% solids				
Condition	2	0.5 LB/TON CuSO <sub>4</sub> 0.1 LB/TON Amyl Xanthat 0.02 LB/TON Af 208				
Bulk Float	11	0.06 LB/TON Dow 250 pH = 7.2				
Scavenger Float	6	0.05 LB/TON Dow 250				

#### CYANIDATION REPORT

FILE NUMBER

3434

TEST NUMBER

2

DATE 1981 October 20

NATURE OF FEED Flotation Concentrate

NOTES:

Flotation concentrate reground 30 min.

#### STARTING CONDITIONS

450 dry gms. of feed

1.05 litres of water

30 % solids

46.67 lb. NaCN/ton solids

10 g. NaCN/1. solution

4.8 lb. Ca(OH)<sub>2</sub>/ton solids

1.03 g.  $Ca(OH)_2/1$ . solution

10.6 pH target

total hours	sample volume cc	AgNO <sub>3</sub> titration cc	NaCN calc. g/l	NaCN added g.	H <sub>2</sub> SO <sub>4</sub> titration cc	Ca(OH) <sub>2</sub> calc. g/l	Ca(OH) 2 added g.
0			10.0	10.5		1.03	1.08
4			7.2	-		~0.05	1.00
16	1		7.0			<b>~</b> 0.10	1.00
181	ađđ 1 ⅓	LB/TON LEAD A	CETATE		•		1.00
			10.0	3.12	•	0.	2.0
24		• • •	10.34	}		0.48	1.5
41			10.39	}		_ [	2.0
65	ļ		-	- [		0.79	1.2
.72			-	- 1			
•			• -		,		
		·	• · · · · · · · · · · · · · · · · · · ·				

#### RESULTS

PRODUCT	WEIGHT		A	SSAY OZ/T	ON	UN	ITS	* DIST	RIBUTION
	*		Au	λg	<b>%</b> S	Λu	Ag	Λu	Λu
Ro. Conc.	27.95		2.635	43.685	14.34	73.65	1220.99	95.6	95.7
Ro. Tail	72.05		0.047	0.753	0.68	3.39	54.25	4.4	4.3
HEAD (CALC.)	100	,	0.77	12.75		77.04	1275.24	100	100
HEAD (ASSAY)			0.79	12.565	4.50				

#### SIZE ANALYSIS

	Flotation Feed												
FRAC'	TION	WEI	WEIGHT %										
		IND.	CUM.	% PASSING									
	+ 65	0.2	<u>_</u>	·									
- 65	+100	0.9		99.8									
-100	+150	6.0		98.9									
-150	+200	21.9		92.9									
-200	+325	22.4		71.0									
-325		48.6		48.6									

total hours	sample	****	I.D. of	solid	assay		on assay		covery
nours	weight g	volume cc	sample	Au	z/ton		g/ <u>l</u>	solids	solution
				Au	Ag	Au	Ag	, <b>8</b>	8
0				2.635	43.685			-	-
16 <del>}</del>				2.435	39.800		. !		
24				2.382	39.809				ļ
48				2.416	41.117				
72				2.425	40.840		   		
			•						
								F	
						į	1		
				[					ļ <u>.</u>
									<u> </u>

COMMENTS:

#### PROCEDURE

STAGE	TIME (minutes)	ADDITIONS
Grinding	20	2 kilograms feed 65% solids
Condition	2	0.5 LB/TON CuSO <sub>4</sub> 0.1 LB/TON Amyl Xanthate 0.02 LB/TON AF 208 pH = 7.6 before reagents = 7.25 after reagents
Bulk flotation	11	Dowfroth 250
Scavenger float	6	0.05 LB/TON Amyl Xanthate
Regrind	. 20	combined concentrate
1st cleaner	11	0.02 LB/TON Amyl Xanthate
2nd cleaner	9	· <b>_</b> •

### RESULTS

PRODUCT	WEIGHT	ASSAY OZ/TON			UNITS		% DISTRIBUTION	
	¥ 	Au	Ag	%S.	Au	Ag	Au	Ŋд
Concentrate	13.67	3.88	81.10		53.04	1108.64	71.0	90.4
2nd Cleaner Tail	2.32	1.85	8.98		4.29	20.83	5.8	1.7
st Cleaner Tail	10.98	1.26	3.02		13.83	33.21	18.5	2.7
Ro. Conc.	26.97	. 2.64	43.11		71.16	1162.68	95.3	94.8
Ro. Tail	73.03	0.048	0.877		3.51	64.05	4.7	5.2
HEAD (CALC.)	100	0.75	12.27		74.67	1226.73	• 1	,

#### SIZE ANALYSIS

Flotation Feed				
FRACTION	WEI	GHT %		
	IND.	CUM. % PASSING		
		<del></del>		
+ 65	0.1			
- 65 +100	1.3	99.9		
-100 +150	6.6	98.6		
-150 +200	21.9	92.0		
-200 +325	21.9	70.1		
-325	48.2	48.2		

Concentra	te
FRACTION	WEIGHT %
+200	0.4
-200 ·	99.6
<del></del>	

### PROCEDURE

	STAGE	TIME (minutes)	ADDITIONS
	Grinding	20	2 kilográms feed 65% solids
	Condition	2	0.5 LB/TON CuSO <sub>4</sub> 0.1 LB/TON Amyl Xanthate 0.02 LB/TON AF 208
	Bulk Flotation	11	Dowfroth 250
٠	Scavenger	6	0.05 LB/TON Amyl
	Regrind	20	combined concentrate 0.02 LB/TON Amyl Xanthate 0.005 LB/TON AF 208
	lst Cleaner	11	<del></del>
	2nd Cleaner	9	

TEST NO. 3434 - 4
RESULTS

PRODUCT	WEIGHT		ASSAY OZ/TON		UNITS		% DISTRIBUTION	
	8		Au	Ag	Au	Ag	Au	Ag
Concentrate	14.74		4.05	72.91	59.70	1074.69	78.1	92.5
2nd Cleaner Tail	1.94		1.85	6.31	3.59	12.24	4.7	1.1
lst Cleaner Tail	8.06	•	1.31'	2.465	10.56	19.87	13.8	1.7
Rougher Conc.	24.74		2.985	. 44.74	73.85	1106.80	96.6	95.3
Rougher Tail	75.26	•	0.035	0.730	2.63	54.94	3.4	4.7
HEAD (CALC.)	100	,	0.76	11.62	76.48	1161.74		

#### SIZE ANALYSIS

#### FLOTATION FEED

FRACTION	WEIGHT %	
•	IND.	CUM. % PASSING
+65		
- 65 +100	1.0	
-100 +150	7.7	99.3
-150 +200	22.2	91.3
-200 +325	20.1	68.1
÷325	49.0	49.0

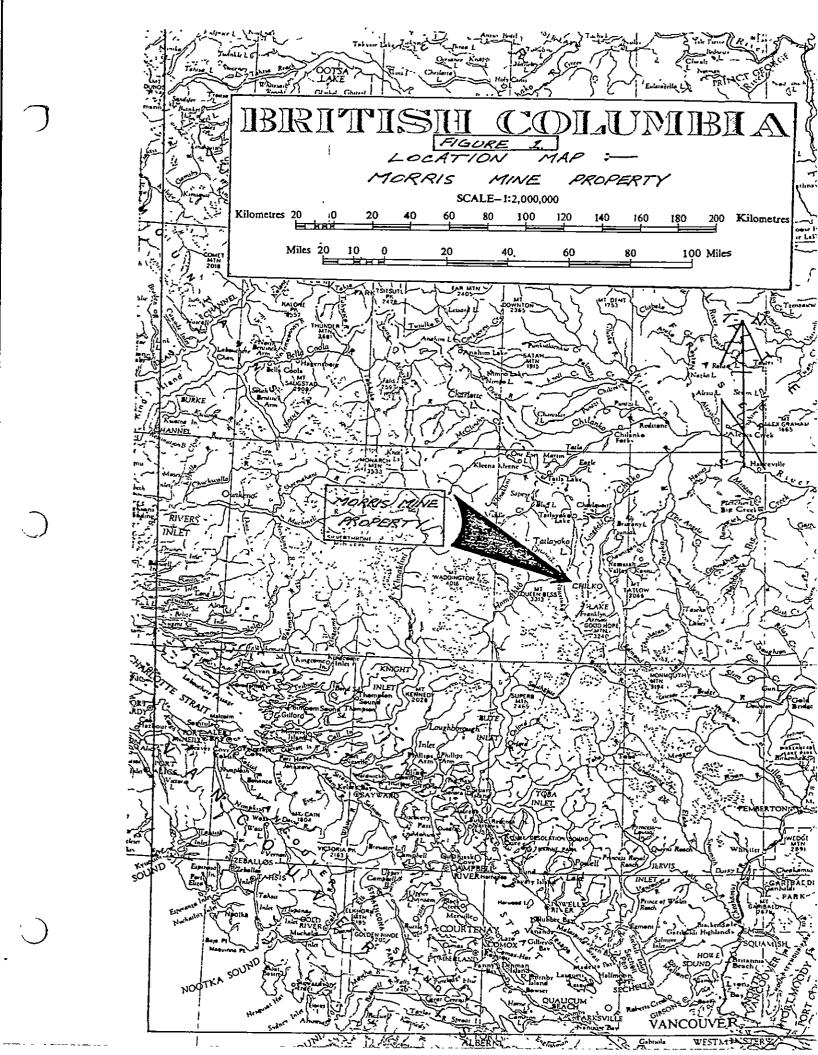
#### STRYKER RESOURCES LTD

### To Apply to Tatlico III Claim

### III METALLURGICAL TESTING

<u>Date</u>	<u>Item</u>	Account.	Amount \$
Dec 10/81 Dec 8/81 Nov 20/81 Nov 30/81 Dec 1/81 Dec 2/81 Dec 11/81 Dec 2/81	Geological Report Metallurgical Tests Metallurgical Report Steno Services Steno Services Steno Services Assaying Assaying	Clive W. Ball. P.Eng Bacon, Donaldson & Assoc. D.A. Livingstone Filtness & Cameron Filtness & Cameron Filtness & Cameron General Testing Labs General Testing Labs	1,100.00 3,622.00 570.00 11.35 68.00 8.50 47.00 25.60
		TOTAL	\$5,452.45

Vancouver, B.C. March 22, 1982 Clive W. Ball, P.Eng. Consulting Geologist



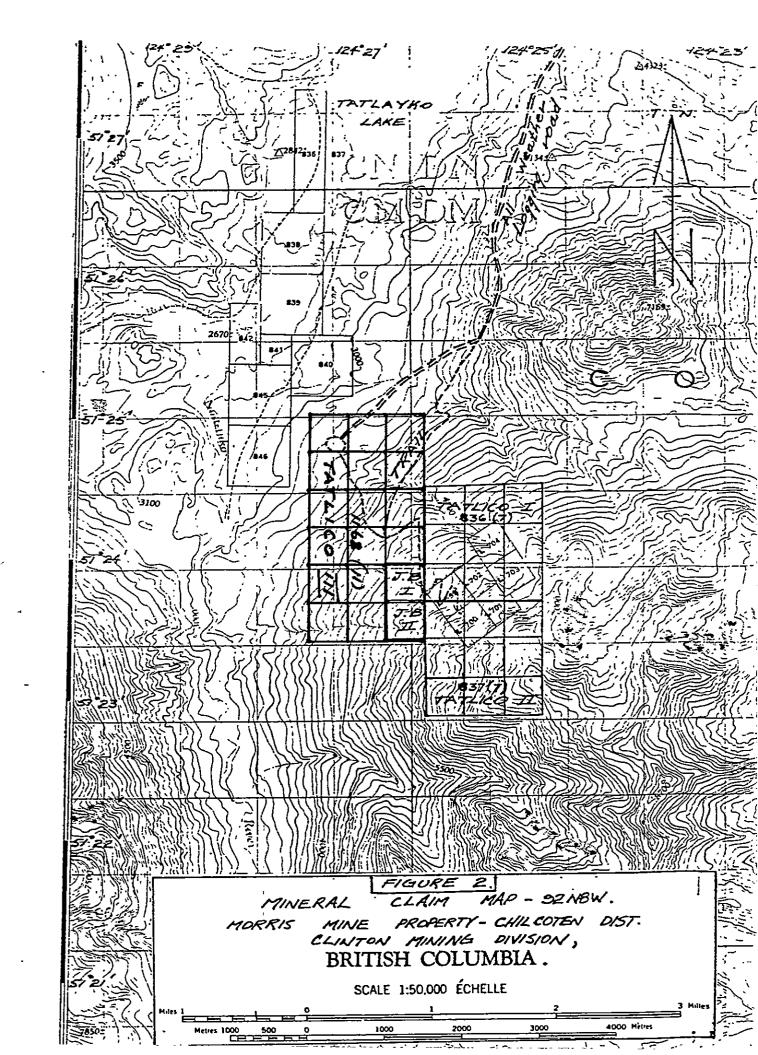


Figure 3.

Heliport B Nº2 Vein 1º1 Vein MORRIS MINE PROPERTY SURFACE GEOLOGY

LEGEND

Cold-silver - stibnite vein

Basic dyke

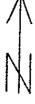
+++ Quartz Diorite

Mudstone and Sandstone 

PLAN VIEW

Scale: 1 Cm = 30 Metres

Drawn by: C.W. Ball, P. Eng. Date: Aug. 13, 1980.



Winchhouse D

Cabin 🛘

M Heliport

- Access

Nº1 vein | 45 | 0. D. D. Sth. Nº1 | el. 6050 | Nº1 | el. 5950 | Nº1 | Nº2 | Nº3 | Nº4 | Nº4 | Nº5 | Nº5 | Nº5 | Nº5 | Nº5 | Nº5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°5 | N°

•	Vein Nº 3 cl. 6320'7
	Local Swell in Q. D.D. Stn N=2 Vein   el. 6400'
	45.
	DDH Nº 5 DDH Nº 6,7,8.

DDH Nº	Bearing	Plunge
,	193°	45
2	172°	42.5°
3	168°	43°
5	185°	74°
6	192°	80 ໍ
7	1.92°	75
8	192°	67.5°
	<u></u>	

STRYKER RESOURCES

MORRIS PROPERTY.

DIAMOND DRILL HOLE LOCATIONS

PLAN VIEW

Scale: 1 Cm = 30 Meters

O 1 2 3 4 5
O 30 00 90 120 150

METERS

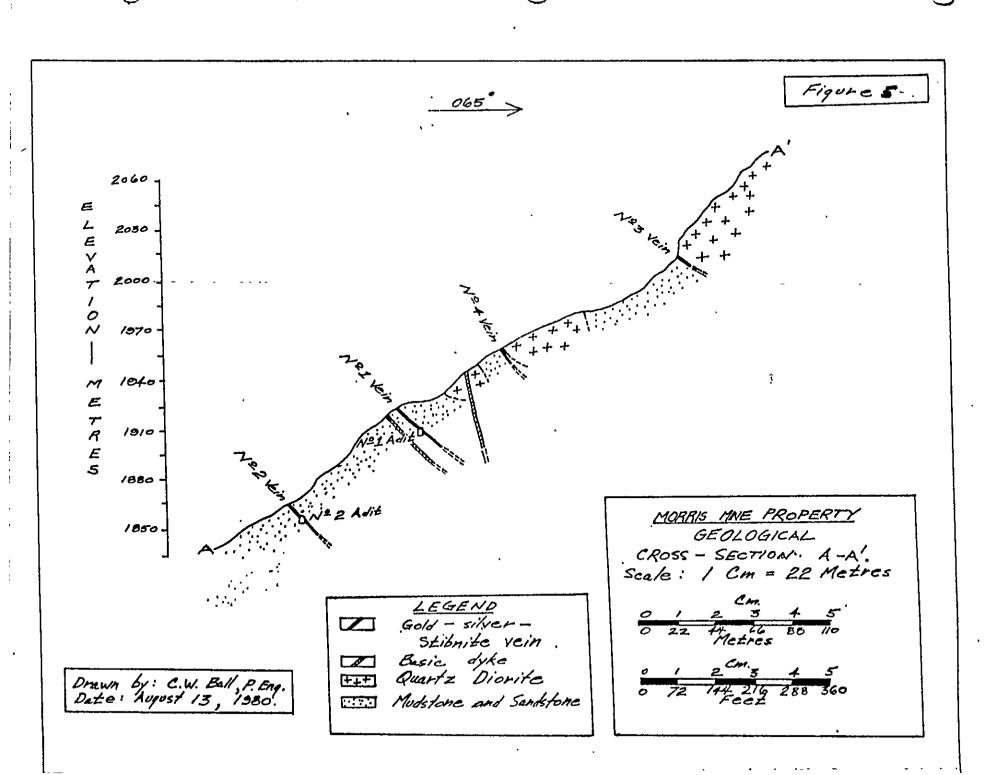


Figure 6. MORRIS MINE PROPERTY Nº I Adit - Plan Scale: 1 Cm = 1.5 Meters. 0 / 2 3 4 5 6 Partel El. 1880 Meters A.S.L. Fact LEGEND Gold - silver - antimony vein. Andesite dyke. F+++ Quartz - Diorite. Mudstones, sandstones and Anyillites. Station Sample oz. per Ton oz. per Ton Nº2 Width Gold Silver Silver Antimony .67% 2116 30.66 10 Cm 45 Cm 1.49 10.95 À// A/2 35 Cm 0.59 13.31 2.11 . 35 % 30 Cm a418 \*\*\* 3.95% A16.5 28 Cm 0.59 3.15 5.95 8.28% 60 Cm 0.30+ 14.25% 60 Cm 0.407 7.81 A 25 2.01 37.13% and 0.062 25 2.81 19.84% 0.088 \$ 26 Grab 0.47 .04 % 60 Cm a216 3.82 11.36% MINERA All boundaries and will A+1 75 Cm 4035 1.11 6.38 % 3.15 % A+2 20 Cm 203+ 3.38 .38 % 0.048 .25 2.13 % . 69 0.030 60 Cm 2.68% 1.24 0.082 45 Cm 3.11% 0.088 1.70 30 Cm 3.27% 449 40 Cm 0.052 .75 Drawn by : C.W. Ball , P. Eng. Date : August 14, 1980

