Molybdenite Zone

On surface, distribution of molybdenite is confined
ne western to east-central portion of the "central zone"
lies within the "sulphide field", except for a slight
lap into the "oxide field" in the eastern portion of the
;ral zone" (zone of molybdenite mineralization is up to
feet long on surface). At depth, molybdenite occurs to
)ottom of all DDH's beyond the limits of the "central zone"
'sulphide field". However, distribution of zones contain-
ignificant grades of molybdenite mineralizaion (ie: .04%
or more) largely are related spatially to that part of
central zone" occurring within the "sulphide field".
region defines the "molybdenite zone" and includes most
e western to central portions of the "central zone".
fore, the "molybdenite zone" has a length of up to 4000
in a northeasterly direction, and a width commonly
ng between 800 to 1000 feet on surface. It widens at
to an indicated maximum width of up to 1800 feet and
vertical range of up to 1050 feet.

Modes of occurrence of molybdenite are listed in
XII, in decreasing order of importance.

1) Coatings along planar (locally serrate) fractures (associated with quartz, hydromica, pyrite, calcite and fluorite in decreasing order of abundance; associated chlorite is also relatively abundant along fractures within the "quartz-potash feldspar sub-zone"); see Plates 14, 15 and 18 to 22;

2) Seams and disseminated in banded discontinuous quartz veins (Type-3; Table XI);see Plate 23;

3) Disseminated in continuous to discontinuous massive quartz veins (Type-2; Table XI);

4) Coating angular to rounded rock fragments in shear and breccia zones; see Plate 18;

5) Disseminated in wallrocks.

TABLE XII: Modes of Occurrence of Molybdenite

Molybdenite is always fine-grained and occurs as single plates and massive scales in all modes of occurrence. All modes of occurrence often occur together or show close spatial associations without crosscutting relationships. Within mineralized zones containing .04% MoS_2 or more, approximately 80% of the molybdenite occurs along fractures (determined from counting of mineralized fractures and seams of molybdenite in quartz veins, and estimation of the effect of disseminated molybdenite in quartz veins and wallrocks).

Significant molybdenite mineralization occurs in fairly evenly distributed zones. These zones commonly range from 10 to 60 feet wide and contain .04 to .14% MoS_2 (10 foot assay intervals). One 10 foot zone assayed .27% MoS_2. Also one high grade zone, intersected for 50 feet in DDH 1, contains an average of .47% MoS_2 and is bordered by zones 100 and 70 feet wide, respectively containing .04 and .05% MoS_2 (Plate 20).

However, the reported grade in the high grade zone is misleading since relatively continuous veins up to 3/8" wide were heavily mineralized with molybdenite and closely paralleled the drill core axis. Also present, however, are similar heavily mineralized transverse veins and numerous associated mineralized fractures. Veins are dark-colored and consist of quartz with abundant seams and disseminations of molybdenite with lesser amounts of associated hydromica, chlorite, fluorite, calcite and apatite. Veins consist of the same minerals that coat fractures.

Mineralized zones mentioned above, are not characterized by more intense fracturing but by more abundant molybdenite along fractures.

Most of the best molybdenite mineralized zones show a close spatial relationship with pre-mineral porphyry intrusive contacts.

Both the width and grade of significant MoS_2 mineralization in zones tend to decrease with depth within the "molybdenite zone."

Mineralized or unmineralized fractures and quartz veins at depth probably are oriented mainly in conjugate pairs as are fractures and quartz veins on surface within the eastern portion of the "central quartz vein stockwork zone". Orientations of heavily mineralized fractures or veins that were transverse and roughly parallel to the core axis in the high grade zone in DDH 1 probably conform to conjugate trends (Figure 12B)

of fractures and quartz veins for the eastern portion of the "central quartz vein stockwork zone".

Average percent MoS_2 in host rocks (ie. granodiorite, quartz monzonite and pre-mineral porphyry) within the "molybdenite zone" in DDH's, from east to west, is given below in Table XIII. Similarly, average percent MoS_2 in all PSH's is given in Table XIV, from both within and outside the "molybdenite zone".

DDH	Avg. %MoS_2 in Host Rocks Only	Length of Host Rocks (feet)	Length of DDH to Base of "Molybdenite Zone" (feet)
2	.02	342	550 (base of "sulphide field")
3	.03	331	530 "
1	.08	482	750 (base of "quartz-potash feldspar sub-zone")
4	.04	713	1028 "

Note: Average core recovery is 97%;
Diameter of core is 1-5/8"

TABLE XIII - Average Percent MoS_2 in Host Rocks in DDH's 1-4 within the "Molybdenite Zone"

	Average % MoS_2 in Host Rocks Only	Length of Host Rock (feet)	Total Length of Hole (feet)
		Within the "Sulphide Field" "Molybdenite Zone"	
1	.06	43	60
2	.04	63	63
3	.06	65	65
6	.01	37	37
7	.07	54	72
8	.03	73	106
12	.02	96	123
13	.05	56	56
		Outside the "Molybdenite Zone"	
4	.02	103	103
5	.01	40	50
		Within the "Oxide Field"	
9	.02	104	156
10	.02	37	37
11	.005	48	48

Note: Average core recovery is 77%; Diameter of core is 7/8"

TABLE XIV: Average Percent MoS_2 in Host Rocks in PSH's 1-13.

Minor molybdenite locally occurs along fractures in association with hematite, magnetite and pyrite in DDH's 2 and 3 and on surface, to the east, within the "oxide field" adjacent to the "molybdenite zone". Also, a few fractures and irregular patches and veinlets of associated hematite, magnetite, pyrite, and molybdenite occur in DDH 2 within the "sulphide field". However, in most instances where minor magnetite occurs within the "sulphide field" (hematite rarely occurs within the "sulphide field"), fractures either contain magnetite, with or without pyrite, or pyrite and/or molybdenite and do not