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REPORT ON POINT COUNTING AT MT. PELION 240 LEVEL & RISE, JULY 1978

by

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&

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78/SYD/13

AUGUST, 1978

Point Counting Up-Date
NOVEMBER 1978

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ADDENDUM

RESULTS OF POINT COUNTING BY CASEY IN AUGUST, 1978

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1. INTRODUCTION

The Mt. Pelion mine was visited for two weeks from the 21st to 31st July to conduct systematic sampling of the 240 level and rise. A point count method at one metre intervals along the adit and rise was used. In addition, the quartz veins in the adit and rise were mapped.

2. POINT COUNT SAMPLING

Mineralization in the Mt. Pelion Tunnel Lode consists of blades, plugs, splashes and blobs of wolframite in a milky white quartz vein. Thin needles of tourmaline are common in the country rock and margins of the veins, but are readily distinguished from wolframite. Because of the nature of the mineralization which occurs randomly within, but not outside, the quartz vein, point counting was considered a reasonable sampling method. A previous study by Casey (BRGM Report 77/Syd/13) agreed closely with assays of bulk samples taken for metallurgical testing.

2.1 240 Level Adit

Since the study by Casey (BRGM Report 77/Syd/13), the 240 level adit has been stripped to 2.1m x 2.1m and extended, exposing fresh surfaces in the backs of the adit. The entire adit from portal to working face was re-mapped and point counted. (Plate 1, sheets 1-3)

Commencing at a point 10.4m from the portal, one metre intervals were measured along the footwall of the adit and marked with paint. Point counting was then carried out at right angles to the strike of veins. Where more than one vein occurred, all veins were counted. Near the portal of the adit, the main vein was present in the footwall rather than the back, creating difficulties in taking reliable measurements.

Table 1 lists all the point counting data for each one metre sample point. Table 2 summarizes the results obtained.

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Tables 1 and 4 list the following data :-

* sample location numbers commencing 10.4m from the adit portal.

* the aggregate width (cm) of wolframite observed along the sample location marker line through the vein (S.G. was taken as 7.25 for wolframite - from Dana, 1966).

* the remaining width (cm) of barren quartz gangue along the same section of the vein (S.G. taken as 2.65 - from Dana, 1966).

* the % wolframite was calculated by comparing masses of the two constituent minerals present using the widths obtained, unit length and depth, and chosen S.G.s.

* The % WO_3 was calculated using the fact that wolframite contains about 76% WO_3. (Reid, 1919).

* the formula used for calculating % wolframite is :-

$$\% \text{ wolframite} = \frac{\text{S.G. w} \times \text{dw}}{(\text{S.G.q} \times \text{dq}) + (\text{S.G. w} \times \text{dw})}$$

2.2 Rise

The Rise is situatied at approximately 96 metres from the portal of the 240 level adit (to be confirmed by survey). Commencing at a point approximately level with the back of the adit, one metre intervals were measured up the northern wall of the rise and marked with paint. Point counting was then carried out at right angles to the veins. The aggregate of all veins occurring at each sample point was measured and point counted. A cross-section of the rise looking north shows the distribution of the veins (figure 1). Table 4 lists all the point counting data for each one metre sample point. For nine of the sample points a separate vein was present in the hanging wall where no measurements could be taken.

004 POINT COUNTING DATA 240 Level Adit 880005

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1990	38	-	-	-	-
1989	32	-	-	-	-
1988	34	0.8	33.2	6.19	4.70
1987	38	-	-	-	-
1986	30	-	-	-	-
1985	30	-	-	-	-
1984	30	-	-	-	-
1983	39	-	-	-	-
1982	32.5	-	-	-	-
1981	39	-	-	-	-
1980	34	-	-	-	-
1979	37	-	-	-	-
1978	34	0.3	33.7	2.38	1.81
1977	33	0.7	32.3	5.60	4.26
1976	32	1.1	30.9	8.88	6.75
1975	36	7.2	28.8	40.62	30.87
1974	33	-	-	-	-
1973	31	-	-	-	-
1972	37	-	-	-	-
1971	37	-	-	-	-
1970	41	-	-	-	-
1969	30	2.0	28.0	16.35	12.42
1968	30	4.0	26.0	29.62	22.51
1967	27	-	-	-	-
1966	33	-	-	-	-
1965	35	-	-	-	-
1964	34	3.0	31.0	20.93	15.91
1963	36	-	-	-	-
1962	37	-	-	-	-
1961	33	-	-	-	-
1960	33	-	-	-	-
1959	33	-	-	-	-
1958	34	1.2	32.8	9.10	6.92
1957	34	-	-	-	-
1956	37	-	-	-	-

TABLE 1

POINT COUNTING DATA

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1955	35	-	-	-	-
1954	30	1.5	28.5	12.59	9.57
1953	30	2.5	27.5	19.92	15.14
1952	23	2.0	21.0	20.67	15.71
1951	33	2.5	30.5	18.32	13.92
1950	39.5	0.6	38.9	4.05	3.08
1949	37.5	0.5	37.0	3.57	2.71
1948	31	-	-	-	-
1947	38	-	-	-	-
1946	40	10.0	30.0	47.70	36.25
1945	36	-	-	-	-
1944	36	-	-	-	-
1943	36	-	-	-	-
1942	37	-	-	-	-
1941	36	-	-	-	-
1940	36	-	-	-	-
1939	35	-	-	-	-
1938	35	-	-	-	-
1937	35	-	-	-	-
1936	32	-	-	-	-
1935	36.5	0.8	35.7	5.78	4.39
1934	36	-	-	-	-
1933	36	-	-	-	-
1932	33.5	-	-	-	-
1931	38	0.6	37.4	4.21	3.20
1930	37	1.4	35.6	9.71	7.38
1929	40	-	-	-	-
1928	40	-	-	-	-
1927	38	1.2	36.8	8.19	6.23
1926	37	3.5	33.5	22.23	16.90
1925	40	-	-	-	-
1924	41	1.5	39.5	9.42	7.16
1923	34	-	-	-	-
1922	30	-	-	-	-
1921	29	1.0	28.0	8.90	6.76

POINT COUNTING DATA

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1920	34.5	-	-	-	-
1919	31	-	-	-	-
1918	32	2.0	30.0	15.43	11.72
1917	32.5	-	-	-	-
1916	33.5	-	-	-	-
1915	46	2.4	43.6	13.09	9.95
1914	38	2.0	36.0	13.19	10.03
1913	33.5	2.0	31.5	14.80	11.25
1912	33	0.5	32.5	4.04	3.07
1911	39	-	-	-	-
1910	30.5	1.4	29.1	11.63	8.84
1909	44.5	-	-	-	-
1908	46.0	-	-	-	-
1907 *					
1906 *					
1905 *					
1904	52.5	1.0	51.5	5.04	3.83
1903	42	-	-	-	-
1902	47.5	-	-	-	-
1901	44.5	-	-	-	-
1900	42	-	-	-	-
1899	34	-	-	-	-
1898	46	1.0	45.0	5.73	4.36
1897	44	0.5	43.5	3.05	2.32
1896	45	0.8	44.2	4.72	3.59
1895	45	10.0	35.0	43.87	33.34
1894	48	-	-	-	-
1893	63	-	-	-	-
1892	47	1.0	46.0	5.61	4.27
1891	47	2.3	44.7	12.34	9.38
1890	49	7.0	42.0	31.32	23.80
1889	44	0.5	43.5	3.05	2.32
1888	40	-	-	-	-
1887	43	-	-	-	-
1886	49	1.5	47.5	7.96	6.05

* Inclined Rise

007

POINT COUNTING DATA

880008

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1885	43	-	-	-	-
1884	27	-	-	-	-
1883	30	-	-	-	-
1882	31	-	-	-	-
1881	32	1.0	31.0	8.11	6.16
1880	38.5	-	-	-	-
1879	34	-	-	-	-
1878	30.5	4.0	26.5	29.23	22.21
1877	40.5	2.0	38.5	12.44	9.46
1876	39.5	-	-	-	-
1875	40	-	-	-	-
1874	30.5	-	-	-	-
1873	43	0.5	42.5	3.12	2.37
1872	42	3.0	39.0	17.39	13.21
1871	43	4.5	38.5	24.23	18.42
1870	46.5	-	-	-	-
1869	40	-	-	-	-
1868	41	5.5	35.5	29.77	22.63
1867	40	-	-	-	-
1866	38	-	-	-	-
1865	41.5	-	-	-	-
1864	32	-	-	-	-
1863	32.5	0.4	32.1	3.30	2.51
1862	36	-	-	-	-
1861	35	-	-	-	-
1860	38	-	-	-	-
1859	50	5.5	44.5	25.27	19.21
1858	44	0.2	43.8	1.23	0.94
1857	46	1.0	45.0	5.73	4.36
1856	48	-	-	-	-
1855	45	2.4	42.6	13.36	10.15
1854	42	-	-	-	-
1853	34	0.9	33.1	6.93	5.27
1852	42.5	-	-	-	-
1851	48	-	-	-	-

POINT COUNTING DATA

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1850	42	-	-	-	-
1849	46.5	-	-	-	-
1848	43	-	-	-	-
1847	43	-	-	-	-
1846	47	-	-	-	-
1845	43	-	-	-	-
1844	43	0.8	42.2	4.93	3.75
1843 +	38	0.1	37.9	0.72	0.55
1842	31	-	-	-	-
1841	44.5	8.8	35.7	40.28	30.61
1840	49	-	-	-	-
1839	45.7	0.2	45.5	1.19	0.90
1838	47	2.6	44.4	13.81	10.50
1837	46	1.5	44.5	8.45	6.42
1836	41	0.4	40.6	2.63	2.00
1835	45	0.4	44.6	2.40	1.82
1834	47.5	0.2	47.3	1.14	0.87
1833	63	-	-	-	-
1832	70	4.5	65.5	15.82	12.03
1831	90	-	-	-	-
1830	75	1.5	73.5	5.29	4.02
1829	57	3.0	54.0	13.19	10.03
1828	54.5	2.0	52.5	9.44	7.17
1827	48.5	-	-	-	-
1826	79	0.2	78.8	0.69	0.52
1825	48.5	5.3	43.2	25.13	19.10
1824	54	2.0	52.0	9.52	7.24
1823	74	2.7	71.3	9.39	7.14

+ Sample No. 1900 to 1843 in old adit.

TABLE 2

SUMMARY OF RESULTS - 240 LEVEL ADIT

Average Vein Width:	(aggregate of all veins at each sample point		39.96cm
Average Ore Grade:	5.41% wolframite	=	4.11%WO_3
	Wolframite contains		76.0% WO_3

Table 3 is a comparison of results for 30 metre intervals along the adit. This shows a general increase in grade and vein widge from portal to working face.

TABLE 3

COMPARISON OF RESULTS OVER 30 METRE INTERVALS. 240 LEVEL ADIT

Sample Interval	Average Vein Width	Average Grade
1 to 30	33.75cm	3.24% WO_3
31 to 60	34.73cm	3.60% WO_3
61 to 90 +	38.02cm	3.69% WO_3
91 to 120	41.02cm	5.59% WO_3
121 to 150	41.57cm	3.52% WO_3
151 to 168	57.48cm	4.86% WO_3

+ 27 sample points as 3 under rise.

TABLE 4

010 POINT COUNTING DATA RISE

880011

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1	41	-	-	-	-
2*	24	-	-	-	-
3	42	0.5	41.5	3.20	2.45
4	36	-	-	-	-
5	39	-	-	-	-
6	37	-	-	-	-
7	37	0.8	36.2	5.70	4.33
8	45.5	-	-	-	-
9	42	-	-	-	-
10	46.5	-	-	-	-
11*	43	-	-	-	-
12*	34	1.0	33.0	7.66	5.82
13*	31	-	-	-	-
14*	33	-	-	-	-
15*	27	0.5	26.5	4.91	3.74
16*	27	-	-	-	-
17*	21.5	1.3	20.2	15.00	11.38
18*	38	7.0	31.0	38.19	29.02

* Separate vein in wall not measured.

880012

011

OAKLEIGH CREEK

Cross Section of 1906N Rise looking north

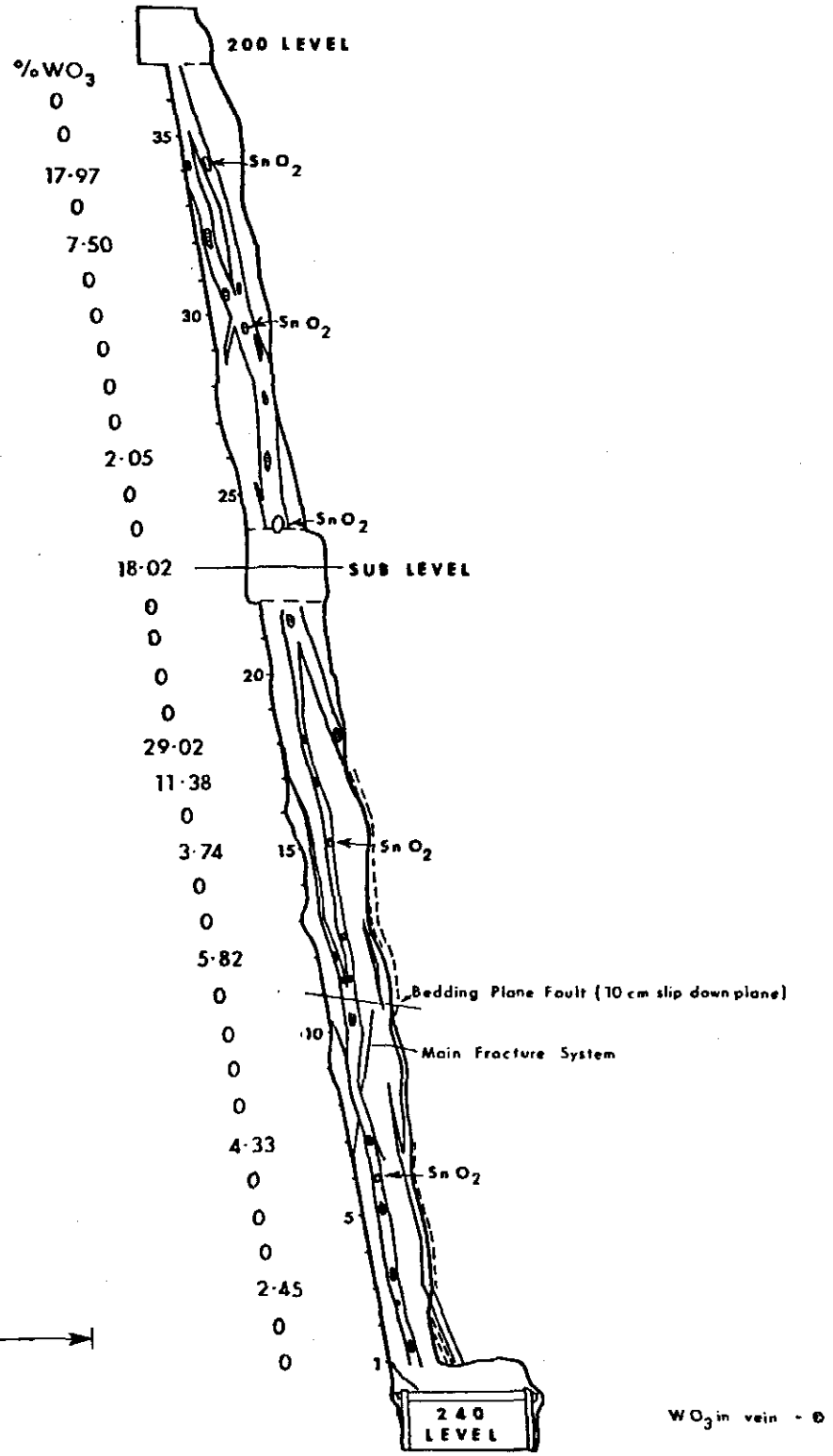

Figure 1

Table 5 summarizes the results obtained.

TABLE 5

SUMMARY OF RESULTS - RISE

Average Vein Width:	(separate vein in hanging wall not included)	35.81cm.
Average Ore Grade:	3.90% wolframite	2.96% WO_3

3. COMPARISON OF RESULTS WITH PREVIOUS SURVEYS

In 1971, a point count survey was carried out for Scamander Mining Corporation between 67 and 109m from the portal of the 240 level adit. The average grade of the vein obtained in that survey was 4.39% WO_3. Grade of the vein from the B.R.G.M. survey in 1977 was 3.88% while the recent survey gave a result of 4.61% WO_3 in the vein. Given the different sampling points in the three surveys, the reasonable agreement between results gives some confidence in the method.

Table 6 (on the following page) compares results obtained from B.R.G.M. surveys in 1977 and 1978 with assays of samples taken for metallurgical testing in 1977 for B.R.G.M. for the old section of the adit from the portal to 154m.

TABLE 6

COMPARISON OF RESULTS FOR OLD SECTION OF ADIT 240 LEVEL

Survey	Average Grade	Average Width	% Difference from Bulk Samples
Bulk Sample Assay	3.17%WO_3	-	-
Casey, 1977	2.96%WO_3	35.33cm	7% low
Ayling, 1978	3.76%WO_3	37.77cm	19% high

In the recent survey, all veins, regardless of how small, were measured and point counted. This, together with the fact that fresh surfaces were exposed prior to this latest survey, can explain some of the differences in the results. Also different sampling points were used in the two surveys. Despite these differences, a reasonable agreement between results is shown.

ADDENDUM

RESULTS OF POINT COUNTING BY CASEY IN AUGUST, 1978

Results of a point counting programme carried out by Casey in August 1978 are shown in Appendix 1.

Sample points 1 to 168 were re-measured by Casey in August 1978 (Appendix 1) and are compared with the measurements obtained by Ayling in July 1978. Table 1 is a summary of results from each survey for the entire section.

TABLE 1

Survey	Vein Av. Width cm.	Vein Av. Grade % WO_3
Ayling July78	39.96	4.11
Casey Aug 78	39.45	3.75

An excellent agreement is found between the average widths of the vein, while Casey obtained a grade of 8.8% lower than Ayling.

A comparison of results by 30m intervals is shown in Table 2 for each survey. The average grade and vein width is shown for each 30m interval.

TABLE 2

Sample Interval	Av. Vein Width (cm)		Av. Vein Grade (%WO_3)		Bulk Sample Av. Grade
	Ayling	Casey	Ayling	Casey	
1 to 30	33.75	33.50	3.24	3.29	1.93
31 to 60	34.73	35.33	3.60	2.62	5.29
61 to 90	38.02	39.89	3.69	2.97	3.20
91 to 120	41.02	42.60	5.59	3.80	1.65
121 to 150	41.57	41.37	3.52	4.61	3.44
151 to 168	47.48	47.50	4.86	5.42	

The bulk sample results are included in Table 2 for comparison. The discrepancy in vein width for the interval 151 to 168 is believed to arise from the presence of a chloritic vein which has indefinite boundaries and so is subject to individual interpretation.

Both sets of data give 91% agreement with each other. A closer agreement than this would be very unlikely due to the personal bias on measurements. While individual readings can vary greatly, an average of a large number (say at least 30) tend to give close agreement (see Table 2).

Both point counting surveys gave a higher grade than the bulk sampling (3.17% WO_3), and until more bulk sampling is carried out, this figure should be used as a conservative grade of the vein.

It is concluded that the Point Counting method can give errors of up to 15% due to personal bias; however there is no way of knowing what an accurate figure might be without doing a very large bulk sample to compare the point counting.

Point Counting must be regarded as a method to give an indication of grade only because the point counting is done in a single dimension.

In the extension of the adit from 168m to 203m, the average grade is 2.05% and the average vein width is 41.8 cm. Although this grade is lower than for the preceding length of the vein, it should be noted that at the end of the adit the vein split and was strongly mineralized. Hence the grade is likely to improve as the adit is extended further.

Appendix 1 also details the results of point counting on the 280 level. Average grade of the vein on this level is 5.09% and average width 53.5 cm.

DATA ON COMPLETION OF GRAUE & KIDD DEVELOPMENT CONTRACT

240 LEVEL STATISTICS

Interval	Av. Vein Width		Av. Vein Grade		Bulk Sample
	Ayling	Casey	Ayling	Casey	
1990-1961	33.75	33.50	3.24	3.29	1.93
1960-1931	34.73	35.33	3.60	2.62	5.29
1930-1901	38.02	39.89	3.69	2.97	3.20
1900-1871	41.02	42.60	5.59	3.80	1.65
1870-1841	41.57	41.37	3.52	4.61	3.44
1840-1811		47.51		4.25	
1810-1781		38.17		3.32	
1780-1751		38.97		5.84	
1750-1741		35.40		1.15	
Av. for Total		39.50 cm.		3.78%	

280 LEVEL STATISTICS

Interval	Av. Vein Width	Av. Vein Grade
1-30	53.39	5.34
31-60	48.67	2.34
61-89	53.89	2.80
Av. for Total	51.96 cm.	3.54%

017 POINT COUNTING DATA 240 LEVEL 880018

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1990	40				
1989	32				
1988	34	0.8	33.2	6.19	4.70
1987	38				
1986	30				
1985	40				
1984	28				
1983	39				
1982	32.5				
1981	39				
1980	34				
1979	26				
1978	30	0.3	29.7	2.71	2.05
1977	28	0.7	27.3	6.56	4.98
1976	33	3.0	30.0	21.48	16.33
1975	34	8.0	26.0	45.71	34.74
1974	33				
1973	34				
1972	37				
1971	38				
1970	41				
1969	26	4.0	22.0	33.22	25.25
1968	30	2.0	28.0	16.35	12.42
1967	27				
1966	29				
1965	35				
1964	30	1.0	29.0	8.62	6.55
1963	33				
1962	38				
1961	37				
1960	33				
1959	34				
1958	33	0.8	32.2	6.36	4.83
1957	30				
1956	38				

018 POINT COUNTING DATA

880019

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1955	37				
1954	30	1.0	29	8.62	6.55
1953	30	1.5	28.5	12.59	9.56
1952	28	0.2	27.8	1.93	1.47
1951	33	1.0	32.0	7.88	5.99
1950	38	1.6	36.4	10.73	8.16
1949	34				
1948	36				
1947	36				
1946	39	8.6	30.4	43.63	33.15
1945	38				
1944	36				
1943	36				
1942	38				
1941	37				
1940	36				
1939	39				
1938	41				
1937	36				
1936	41				
1935	36	0.5	35.5	3.71	2.82
1934	37				
1933	35				
1932	37				
1931	38	1.1	36.9	7.53	5.73
1930	38	0.8	37.2	5.57	4.22
1929	39				
1928	40				
1927	40	1.1	38.9	5.33	4.05
1926	37	1.8	35.2	12.27	9.33
1925	40				
1924	47	2.3	44.7	12.34	9.38
1923	36				
1922	41				
1921	39	1.0	38.0	6.71	5.10

POINT COUNTING DATA

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1920	37				
1919	30				
1918	35	1.7	33.3	12.26	9.31
1917	33				
1916	34				
1915	45	2.3	42.7	12.84	9.76
1914	32	2.0	30.0	15.43	11.72
1913	34	1.3	32.7	9.80	7.45
1912	38	0.5	37.5	3.51	2:67
1911	42				
1910	41	1.5	39.5	9.41	7.15
1909	43				
1908	44				
1907	*				
1906	*				
1905	*				
1904	56	0.5	55.5	2.41	1.83
1903	41				
1902	47				
1901	48				
1900	50				
1899	37				
1898	45	1.1	43.9	6.42	4.88
1897	44				
1896	44	0.6	43.4	3.64	2:77
1895	50	9.0	41.0	37.52	28.52
1894	47				
1893	48				
1892	48	0.8	47.2	4.43	3.37
1891	47	2.3	44.7	12.34	9.38
1890	49	3.2	45.8	16.05	12.20
1889	45				
1888	44				
1887	45				
1886	50	0.3	49.7	1.57	1.19

020 POINT COUNTING DATA

880021

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1885	52				
1884	39				
1883	30				
1882	31				
1881	32	1.1	30.9	8.88	6.74
1880	46				
1879	34				
1878	31	2.8	28.2	21.36	16.23
1877	39	1.6	37.4	10.48	7.96
1876	42	0.5	41.5	3.19	2.42
1875	42				
1874	43				
1873	44				
1872	41	1.2	39.8	7.62	5.79
1871	41	2.7	38.3	14.93	11.35
1870	43	0.3	42.7	1.89	1.43
1869	42				
1868	41	5.8	35.2	31.07	23.61
1867	39				
1866	41				
1865	42				
1864	39				
1863	35	0.8	34.2	6.01	4.57
1862	43	1.2	41.8	7.28	5.53
1861	42				
1860	42	1.2	40.8	7.48	5.66
1859	43	6.8	36.2	33.9	25.80
1858	42	1.5	40.5	9.20	6.99
1857	43	1.0	42.0	6.12	4.65
1856	45				
1855	49	2.5	46.5	12.82	9.74
1854	41				
1853	36				
1852	41				
1851	39				

POINT COUNTING DATA

021

880022

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1850	37				
1849	37				
1848	39				
1847	48				
1846	48				
1845	44				
1844	39	3.5	35.5	21.24	16.14
1843	40				
1842	39				
1841	42	8.8	33.2	42.03	31.95
1840	47				
1839	46				
1838	44	4.5	39.5	23.76	18.06
1837	38	0.8	37.2	5.57	4.22
1836	39.3				
1835	39				
1834	36				
1833	58				
1832	58	4.1	53.9	17.23	13.09
1831	69	2.6	66.4	9.68	7.35
1830	45	1.5	43.5	8.62	6.55
1829	44				
1828	44	1.0	43	5.98	4.55
1827	46				
1826	43	4.2	38.8	22.85	17.36
1825	40	3.5	36.5	20.78	15.80
1824	40				
1823	59	2.2	56.8	9.58	7.28
1822	43	2.0	41	11.78	8.95
1821	48	1.5	46.5	8.11	6.16
1820	34				
1819	47				
1818	46				
1817	52				
1816	72	1.0	71	3.71	2.82

POINT COUNTING DATA

022

880023

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %
1815	62	1.0	61	4.29	3.26
1814	52	2.3	49.7	11.24	8.54
1813	43				
1812	51				
1811	40				
1810	49	0.3	48.7	1.66	1.26
1809	44.5				
1808	33	2.8	30.2	20.23	15.38
1807	47	0.5	46.5	2.86	2:17
1806	46	0.3	45.7	1.76	1.34
1805	46				
1804	34				
1803	31				
1802	36				
1801	35				
1800	35				
1799	33				
1798	32				
1797	36				
1796	36				
1795	35				
1794	38	2.1	35.9	13.80	10.49
1793	34				
1792	38				
1791	39.5				
1790	39	1.2	37.8	7.99	6.07
1789	37				
1788	39				

TABLE

023

POINT COUNTING DATA 240 LEVEL 880024

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1787	35					
1786	37					
1785	41	2.5	38.5	15.08	11.46	470
1784	37	2.5	36.5	3.61	2.74	101
1783	29	5.0	34.0	28.69	21.80	850
1782	39					
1781	44	6.0	38	30.17	22.93	1009
1780	41	1.5	39.5	9.41	7.15	293
1779	34					
1778	45	3.0	42.0	16.35	12.43	559
1777	49	0.5	48.5	2.74	2.08	102
1776	36					
1775	41	3.2	38	17.76	13.50	553
1774	41	1.0	40	6.40	4.86	199
1773	32	1.0	31	2.10	6.16	197
1772	34					
1771	42					
1770	45	1.0	44	6.98	5.30	239
1769	45	0.5	44.5	2.98	2.26	102
1768	45					
1767	62					
1766	35					
1765	30					
1764	38					
1763	35					
1762	30					
1761	50					
1760	30					
1759	32					
1758	32	3.0	39	22.05	16.76	536
1757	38	0.5	37.5	3.52	2.68	102
1756	30	8.0	22.0	49.87	37.90	1137
1755	35	0.5	34.5	3.81	2.89	101
1754	42	1.0	41.0	6.20	4.71	198
1753	40					

TABLE

024

POINT COUNTING DATA

240 LEVEL

880025

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1752	35	5.5	29.5	33.78	25.67	898
1751	45	11.0	34.0	46.95	35.68	1606
1750	45	0.5	44.5	2.98	2.26	102
1749	35	0.5	34.5	3.82	2.90	102
1748	35					
1747	40					
1746	30	0.5	29.5	4.43	3.37	101
1745	33					
1744	39	0.5	38.5	3.44	2.61	102
1743	33					
1742	34					
1741	30					
1740	31.5					
1739	32	1.0	31.0	8.11	6.16	197
1738	37					
1737	34					
1736	31					
1735	33	0.5	32.5	4.04	3.07	101
1734	31.5					
1733	32					
1732	37					
1731	35	0.8	34.2	6.02	4.58	160
1730	35					
1729	36					
1728	39					
1727	37	3.5	33.5	22.17	16.8	623
1726	35					
1725	37	0.5	36.5	3.61	2.74	101
1724	33	7.5	25.5	44.58	33.88	1118
1723	33	7.5	25.5	44.58	33.88	1118
1722	36	0.2	35.8	1.51	1.14	42
1721	36					
1720	28					
1719	33	1.0	32.0	7.88	5.99	198
1718	31	1.0	30.0	8.36	6.35	197

TABLE

025 POINT COUNTING DATA

880026

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1717	28					
1716	30					
1715	24					
1714	18	1.5	16.5	19.92	15.14	272
1713	16					
1712	20					
1711	29					
1710	33					
1709	43					
1708	29					
1707	47					
1706	44					
1705	47					
1704	23	1.0	22	11.06	8.41	193
1703	21					
1702	26					
1701	21					
1700	25	0.5	24.5	5.32	4.04	101
1699	21					
1698	26					
1697	26					
1696	24	1.0	23.0	10.63	8.08	194
1695	20	1.5	18.5	18.16	13.79	275
1694	20					
1693	19					
1692	20.5					
1691	16.5					
1690	19.5	0.5	19.0	6.71	5.10	99
1689	14.5					

280 LEVEL

POINT COUNTING DATA

880027

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1910	not accessible					
1909	not accessible					
1908	56	1.3 Sn	54.7			
1907	53					
1906	45	1.0	44	5.85	4.45	200
1905	42	0.3	41.7	1.93	1.47	62
1904	50	1.7	48.3	8.78	6.67	334
1903	53	1.0	52	5.00	3.80	201
1902	48					
1901	47					
1900	60	3.0	57	12.59	9.57	574
1899	55					
1898	42	5.0	37	26.99	20.51	861
1897	47					
1896	47	1.0	46	5.61	4.27	201
1895	55	2.5	52.5	11.53	8.76	482
1894	54					
1893	56					
1892	58					
1891	56					
1890	39	1.0	38	6.71	5.10	199
1889	54	4.0	50	17.96	13.65	737
1888	58	15.0	43	48.83	37.11	2152
1887	56	0.2 Sn				
1886	62	6.2	55.8	23.31	17.72	1099
1885	56	0.2 Sn				
1884	57	0.5	56.5	2.36	1.80	103
1883	59					
1882	58					
1881	72	7.5	64.5	23.06	17.53	1262
1880	61	1.0	60	4.36	3.31	202
1879	58	0.5 Sn				

027

POINT COUNTING DATA

280 LEVEL

880028

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1878	53					
1877	48					
1876	50	0.5	49.5	2.69	2.04	100
1875	50	0.5	49.5	2.69	2.04	100
1874	47	0.5	46.5	2.86	2.17	102
1873	45	0.8	44.2	4.77	3.59	162
1872	45	1.0	44.0	5.85	4.45	200
1871	46					
1870	50					
1869	46	2.0	44.0	11.06	8.41	387
1868	50	2.0	48.0	10.23	7.77	388
1867	56	1.0	55.0	4.74	3.60	202
1866	45	0.5	44.5	2.98	2.26	102
1865	43	0.3	42.7	1.87	1.42	61
1864	50					
1863	53					
1862	44					
1861	42					
1860	45					
1859	40	0.5	39.5	3.34	2.54	102
1858	45	2.0	43.0	11.29	8.58	386
1857	45					
1856	45					
1855	48	4.0	44.0	19.92	15.14	727
1854	45					
1853	50					
1852	60	0.5	59.5	2.24	1.70	102
1851	65					
1850	56					
1849	50					
1848	51	2.5	48.5	12.36	9.39	479
1847	50	1.5	48.5	7.80	5.93	296
1846	61	3.0	43.0	16.02	12.18	743
1845	40	0.5	39.5	3.35	2.55	102
1844	45	3.0	42.0	16.34	12.41	559

028

POINT COUNTING DATA 280 LEVEL 880029

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x %WO_3
1843	50	0.5	49.5	2.68	2.03	102
1842	45					
1841	60					
1840	56	1.0	55	4.74	3.60	202
1839	55	1.0	54	4.82	3.67	207
1838	51	2.5	48.5	12.36	9.39	479
1837	57					
1836	54					
1835	40	0.5	39.5	3.35	2.55	102
1834	53					
1833	61					
1832	65					
1831	60					
1830	59					
1829	59					
1828	48					
1827	55					
1826	58	0.5	57.5	2.33	1.76	102
1825	53					
1824	64	3.5	60.5	13.59	10.33	661
1823	50	1.5	48.5	7.80	6.93	346
1822	57					
1821	60					
1820	59					
1819	57					
1818	56	1.0	55.0	4.74	3.60	202
1817	42	2.0	40.0	12.03	9.15	384
1816	57					
1815	50					
1814	53	0.5	52.5	2.54	1.93	102
1813	51					
1812	52					
1811	56	2.5	53.5	11.34	8.62	483
1810	49	0.5	48.5	2.75	2.09	102
1809	49					

TABLE

POINT COUNTING DATA

880030

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1808	56					
1807	49	0.5	48.5	2.75	2.09	102
1806	46	0.5	45.5	2.92	2.22	102
1805	46	1.0	45.0	5.73	4.36	200
1804	43					
1803	49	3.0	46.0	15.14	11.51	564
1802	48					
1801	52					
1800	46					
1799	47					
1798	51					
1797	48					
1796	52	0.3	51.7	1.57	1.19	62
1795	49	5.0	44.0	23.72	18.02	883
1794	49	2.0	47.0	10.43	7.93	388
1793	51	5.0	46.0	22.92	17.42	888
1792	47	0.5	46.5	2.86	2.18	102
1791	54	7.5	46.5	30.62	23.27	1256
1790	51					
1789	50	2.5	47.5	12.59	9.57	478
1788	53					
1787	57	4.0	53.0	17.11	13.00	741
1786	61					
1785	45	6.0	39.0	29.62	22.51	1013
1784	48	0.5	47.5	2.80	2.12	102
1783	48					
1782	46	2.5	43.5	13.59	10.33	475
1781	44					
1780	43					
1779	45					
1778	41					
1777	42					
1776	34					
1775	36					
1774	41	0.5	40.5	3.26	2.47	102

030

TABLE

880031

POINT COUNTING DATA

Sample No.	Vein Width (cm)	Wolframite width (cm)	Quartz width (cm)	Wolframite %	WO_3 %	Vein Width x $\%WO_3$
1773	40					
1772	42					
1771	35	0.2	34.8	0.57	0.43	15
1770	24					
1769	28					
1768	30					
1767	26					
1766	23					
1765	29					
1764	32					
1763	33	2.5	30.5	18.31	13.92	459
1762	36					
1761	32					
1760	26	1.5	24.5	14.37	10.92	283
1759	24					
1758	24	1.5	22.5	15.42	11.72	281
1757	31	2.5	28.5	19.35	14.71	455
1756	26					