	K		MINES LIMITEDattack E USE ONLY) Prevece	to MAY 3 1 196	35
То	P.M. KAVANAGH.	826890 From	W.M. SIROLA	W.S.R.	
Subject	CHATAWAY EXPLORATI	ONS LTD.	Date May 28th	n, 1965.	
5407601				E.C.B. P.M.K. G.W.M. R. O.M. C.K.W. J.B.S. G.P.R.	

George Cross telephoned today to advise that a diamond drill hole, #S-1, on the Wiz No. 30 mineral claim of Chataway Explorations encountered the mineralization at a depth of 90 - 105 ft. A true width of 5.5 ft. has been reported by Chataway to assay 6.5% copper. No. S-1 was a 45° hole designed to cut mineralization 50 ft. below the floor of the trench.

D.D.H. S-2 will be drilled to cut the same mineralization 100 ft. below the bottom of the trench.

frene William M. Sirola.

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WMS/iw.

# KERR ADDISON MINES LIMITED

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То	W. M. Sirola From P. M. Kavanagh	E.F. R.D.S. B.C.B.
Subject	Chataway Property Examination, Highland Valley Date May 7th, 1965. B.C.	C.K.W. J.B.S.
		G.P.R. K.F.L.

With reference to your memorandum of May 5th I want to advise that I agree with your recommendation that we don't make any overtures to Chataway.

I might add that I suspect that Dave meant to say an S.P. survey in the third last line of his large paragraph on page one of his report rather than I.P. survey as is written in the line.

Paul M. Kavanagh Chief Geologist - Exploration.

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W.S.R.

K.C.G.

PMK:sw

MAY 7

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(FOR INTER-OFFICE USE ONLY)

To.\_\_\_\_\_P.M. KAVANAGH. To.\_\_\_\_\_\_From.\_\_\_\_\_W.M. SIROLA. Subject. CHATAWAY PROPERTY EXAMINATION, HIGHLAND VALLEY, B.C. Date. May 5th, 1965. This property was examined by D. McRae on April 23-24th, 1965. It is difficult to formulate positive conclusions from the data as they are presented. Perhaps the principal reason for this

> and could not be sampled or carefully examined. Consequently, the only sampling evidence presented in McRae's report is that provided by Chataway Explorations. The main mineralized zone is called Zone 4 on McRae's map, which is a copy of Chataway Explorations' map. Here, six bulldozer trenches have exposed evidence of a mineralized zone, but only trenches C-1 and C-2 have been sampled. These are either 160' apart, or 270' apart, depending upon the point from where the measurements

is that the trenches on the most important zone were water-filled

were made. Trench C-1, according to Chataway's sampling, contains 15 ft. of 5.52% Cu. Trench C-2, again according to Chataway's sampling, has 5 ft. of mineralization assaying 9.80% Cu. None of the other trenches seem to have been sampled, and we can only assume that the mineralization in these trenches was weak.

Zones 1, 2, 3, 5, 6 and 7 are sparsely mineralized with chalcopyrite and native copper. Minor bornite was seen in zones 5 and 6.

The mineralization occurs with quartz-sericite-filling in discontinuous, lensy shears in Guichon quartz diorite. Considerable chalcocite was seen in the grab samples from zone 4, and this would account for the high grades encountered in the sampling. I do not agree with the tonnage potential contained in Page 4 of McRae's report. The only evidence of possible continuity in zone 4 is indicated by two trenches, which are either 160 or 270 ft. apart, and any strike extensions must be speculative at this time.

In summary, I would say that if we owned the property we would continue to look for other zones, but I do not recommend any overtures to Chataway regarding the optioning of their property.

Mm. Sirola

William M. Sirola.

WMS/iw. Encls:

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To W.M. SIROLA. From D. MORAE.

Subject CHATAWAY EXPLORATIONS EXAMINATION. Date April 29th, 1965.

On April 23rd and 24th, 1965, I examined Chataway Explorations Company's property 7 miles north of Craigmont in the Merritt area. Access is by jeep road from the Craigmont mill to the property at 5.000 ft. elevation. Chataway has been working on claims in this region since 1957. In 1963, Utah Construction and Mining reached an informal agreement with Chataway Explorations, and, after doing a magnetometer survey, the agreement was terminated on May 14th, 1964. Chataway Explorations has since done E.M., magnetometer, I.P. and geochemical surveys. The E.M. was unsuccessful in delineating any targets. The magnetometer appeared to indicate weak lows, in the order of -100 gammas, on the surveys over the regions of mineralization, but was not considered diagnostic. No further magnetometer work is anticipated on the property. The I.P. survey delineated three anomalous zones between Roscoe Lake and Dot Lake. On the basis of this work, diamond drilling was initiated. Values as high as 1.84% copper were reported. An average of 0.60% copper and 0.43 ozs. silver over unstated widths were reported as representative. However, in personal communication with Wright and Hodson. neither felt that I.P. was particularly applicable to the region. They were not overly enthusiastic about either the I.P. zones or the discovered mineralization in the eastern block of claims, and work has, at least for the moment, ceased on these zones. Rubeanic tests were done on samples taken on a 100 ft. square grid. The region cross-hatched on the sketch indicates the region where results were considered to be "5"; i.e., a black dot on the strip, regardless of the size of the dot. They attempted to trench this area, but overburden (clay and gravel), but no swamp, was too deep to permit them to reach bedrock. It seems odd that with the amount of mineralization present there was not more of an anomaly. This anomaly could be indicative of a southward extension of zone 4. S.P. has not been done on the property, and they are not contemplating doing any. I feel that this is a region where S.P. could be a decided help in extending and correlating mineralized zones, as there is no graphite, or carbonaceous rock, anywhere in the vicinity. It might be desirable for Kerr Addison to do an I.P. survey on the property, if an opportunity presents itself during the summer. The present financial situation of Chataway Exploration is :

"Shares	Authoria	sed		3,000,000
Shares	Issued			1,840,000
Current	Assets	(March	8th,65)	\$ 130,000

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The country rock is quartz diorite, which has locally undergone orthoclase alteration of feldspars, chlorite alteration of mafics, and, on a more restricted basis, intense sericitization of feldspars. The alteration presumably envelopes the mineralization, but enough rock has not been uncovered to prove the point. Sericitization is most intense in central and northern mineralized zones.

- 2 -

The dyke which passes south of Gypsum Lake, trending N.70W./ 30-45 S.W., is, according to Hodson, sparsely mineralized with bornite. The dyke is composed of granodiorite porphyry which contains, in places, native copper finely spread along cleavage directions in the mafics.

#### SOUTHERN ZONES.

Minerals present to the south of the rubeanic anomaly are chalcopyrite and native copper. The chalcopyrite is associated with quartz seams, chiefly in gouge zones. The quartz seams are commonly broken up and the fragments have been rounded, indicating a certain amount of post-mineralization." The native copper is found in the diorite as minute flakes, chiefly on cleavage planes of mafic minerals, but also disseminated amongst the feldspars. Where native copper is observed in the diorite, orthoclase alteration has been quite strong and very pink. Rock in which native copper is the only mineralization gives very low assays, in the order of 0.08% copper.

### Zone 1 :

The zone appears to be 700 ft. long and 20-100 ft. wide, although not enough trenching has been done to prove continuity. Where zone 1 has been exposed, it appears to be only native copper in quartz diorite associated with limonite stain on jointing planes, and an occasional hint of low grade gossan. Visual estimates of the amount of native copper present in the diorite puts it at less than 0.05%.

### Zone 2 :

Zone 2 seems to be 400 ft. long by 1 - 4 ft. wide, and is a vertical gouge zone. The mineralization occurs as rounded "nuggets" of massive chalcopyrite with some quartz adhering to the chalcopyrite.

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- 3 -

These "nuggets" constitute a small portion of the total gouge zone. It would be difficult to estimate a grade, but, considering its narrow width, it is not important in any event. There is a considerable amount of malachite floured in the upper portions of the gouge zone.

#### NORTHERN ZONES.

Mineralogy changes to the north of the rubeanic anomaly. Bornite appears with the chalcopyrite in the primary zone, and chalcocite and cuprite accompany the malachite and native copper in the secondary zone. The native copper is wiry and definitely secondary, while to the south the native copper is flaky and could be primary.

Zone 3 :

Zone 3 is a 6" wide zone of clay, heavily impregnated with malachite which occurs in the floor of a trench, but bedrock is not exposed. It could well be a small surface expression of an extension of zone 4.

### Zone 4 :

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Zone 4 is, at present, potentially the most interesting. Unfortunately, the trenches were filled with water, precluding a thorough examination of the mineralization in place. The following is a result of the examination of the trench dumps; personal communication with A.G. (Bud) Hodson, Chataway Geologist, and a perusal of reports published in the George Cross News Letter :

Primary sulphides present are chalcopyrite and bornite. Secondary copper minerals include large amounts of chalcocite and malachite, with minor amounts of cuprite and wiry native copper. Assays reported in the George Cross News Letter, March 20th, 1965, \*75 for Trench C-1, are as follows :

T	renc	<u>h C-1</u>			M	ldth	<u>% Cu.</u>
5	ft.	above	trench	floor		- 5 ft. - 10	8.28%
					10	- 15	6.16

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То		From		
Subject			Date	
	contd./	- 4 -		
	Trench C-1	Width	<u>% Cu</u>	
	2 ft. above trench floor	0 - 5 ft. 5 - 10 10 - 15	6.87% 1.82 5.26	

Trench C-2 :

21

fo ft. south of C-1	0-5 ft.	9.80%
(	5 - 10	0.06
Sericitic matter. (	10 - 15	0.63
(	15 20	0.11

The high assays are fairly certain to be due to the presence of considerable amounts of sooty chalcocite and earthy malachite, although the samples 2 ft. above floor in C-l are claimed to be due to massive chalcopyrite and to bornite. Average width of 15 ft. would seem to be indicated by the assays, and a length of some 800 ft.  $\leq$ If zone 3 is in fact a part of zone 4, then a length of 1,300 ft. is indicated, with the structure open at both ends. In Trench C-l, samples assaying 8.28% and 6.16% copper are taken from solid veins of quartz-sulphide, while the 2.12% copper sample is from the gouge zone between them. Where the section protruded above the water level in the trench, the widths for the vein would seem to be more like  $l\frac{1}{2}$  ft., not 5 ft. However, it is possible that mineralization does extend into the wall rock to a sufficient degree to justify the published assay.

Zone 5 :

This zone consists of a 2 ft. quartz vein having some malachite and chalcocite staining the surfaces of the quartz. Nothing more substantial was noted in this area.

Zone 6 :

This zone is 6 - 12" wide and consists of gouge containing occasional, partially-rounded "nuggets" of chalcopyrite and bornite with quartz. This section is of a low grade and too narrow to evoke much interest.

Zone 7 :

The gouge at this point is 6" wide, striking N.W. and

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To......From.

- 5 -

Subject......Date......

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dipping 80° S.W. There are a few "nuggets" of bornite in the gouge, and a fair amount of malachite floured in the gouge. Jointing planes in the quartz diorite wall rock are stained by malachite over a total width of 150 ft.

Zone 8 :

Zone 8 consists entirely of weak malachite stain of joints in the quartz diorite.

### CONCLUSION AND SUMMARY :

Zone 4 is the only zone of interest. Assuming dimensions of 15' x 1,200', and 1 sq. yard = 2 tons, there would be 4,000 tons Amper vertical foot; but with this type of structure it would be hazardous to assume a great vertical extension. However, drilling is certainly indicated. An S.P. survey should be done to help direct drilling and trenching. It might be desirable for Kerr Addison Mines to do this S.P. survey.

Wid S. m. hae

David G. McRae.

DGM/iw.

ZONE 4 APPENDUM:

The structure in trench C-l is steeply dipping westwards and is approximately 15' wide. In trench C-2 it is reported to be flatly anticlinal and is only 5' wide.

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