Mem. 1 file (14)

801234

June 26, 1969

Mr. O. F. Carter, P. Eng.,
Cadesky Associates,
503 - 365 Bay Street,
Toronto, Ontario.

Dear Ozzie:

The enclosed 50-scale plan "Showings & D.D.H. Layouts, Mal-Chal Copper Prospect" is a fairly accurate compilation of the 1962 drill and trench exploration. It is based, however, on a number of separate drill-hole layout drawings and a set of drill logs which do not provide grid-based co-ordinates and bearings of the respective holes. The drill logs provide fairly complete assay data; however, they do not record core recoveries except in rather general terms. The impression I get is that the EX core recoveries varied considerably and drilling water was frequently lost - the latter mainly within the later series of longer holes.

The 50-scale detail has been applied to the enclosed 400-scale composite Dwg. 1-BX. The current re-plot shows that the position of the drill area agrees quite closely (but skewed) with that shown on your 1,000-scale print of Dwg. 1-M, and also indicates that the currently-unexposed westerly magnetite-chalcopyrite zone comprised the 1962 drilling target. My records indicate that the west zone was picked up on sparse outcrop evidence, and was delineated via a Sharpe A-3 ('Sputnik') magnetometer - not by dip-needle, as I had suggested during our field trip. Also, there is definitely nothing in my records that might suggest that any drilling had been done on the currently-exposed easterly (0-E/W base-line) zone. Sorry I couldn't be more informative about all this during our field tour, but I suppose I had forgotten some of the finer details since I first compiled them from the old records. I should also point out that the 1962 Arvela Magnetometer survey, plus S.P., and rubeanic-copper soil surveys were done in 1962 - but some months later than either the A-3 mag. survey or the diamond drill exploration.

Since our field trip I have reviewed all of my file data on the 1961 - 62 HN-WEN and Mal-Chal exploration. From this some points, which could be relevant to the currently suggested exploration in these areas, are summarized:

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HN-WEN:

(a) Copper mineralization occurs, in veining and dispersed form, in a shear zone cutting andesitic rocks closely east of their contact with a (westerly) panel of argillites, grey wackes, etc.; quartz-veined and silicified sections of the shear are preferentially mineralized.

(b) Magnetometer (Sharpe A-3) surveying comprised only one short cross-section over the lower portal-trench area; however, this is said to have provided measurable responses over the shear zone.

(c) The Huntec E.M. survey was made with a (coupled) Turam horizontal loop set operating at 876 c.p.s.; this low-frequency signal would not be particularly adaptable to exploration of this type of structure or mineralization. The Huntec geophysicist suggested that an I.P. survey would be more appropriate than the E.M. method earlier proposed by a visiting Noranda geologist - substantiated by the essentially negative E.M. results.
—Ronka E.M. 16 applicable.

(d) Trenching by Noranda showed general continuity of structure and mineralization over a 1,000 foot strike-length. This has since been extended northwesterly into the Echo claim block.

(e) Local high (?) copper values were attributed to occurrences of chalcocite; this association has been noted at other prospects within the general 'Aspen Grove' copper belt.

(f) Occurrences of disseminated (specular) hematite marginal to the shear zone were considered indicative of copper mineralization; Sharp and White have noted similar associations, and also one of sparsely disseminated magnetite-chalcopyrite in altered volcanics within south-easterly parts of the WEN block.

(g) No diamond drilling was done on the HN-WEN surface showings.

Mal-Chal:

Current re-examinations of all old and new exploration data indicate that some of the earlier results are quite relevant; consequently, all essential data have been compiled

on the accompanying 400-scale sheet - Dwg. 1-BX. In particular, the compilation of the 1962 Arvela mag. data supplements and extends John White's 1967-68 (winter) ME-1 mag. survey patterns.

The most significant feature of the compilation is the apparent spatial relationship of a zone of magnetic anomalies with the principal (4S, 10-20E) I.P. anomely. The former seem to comprise a fairly broad arc which rings, or centers on the latter. Also, the trend of the intrusive-volcanic contact - replotted with the assistance of the mag. data - is at least partly conformable with this arc. One interpretation of the foregoing might be that a general magnetite (+Cu?) zone lies in a peripheral position with respect to the pyritic (I.P.) 'alteration dome'. The actual reason for the pyritic alteration center has not yet been determined; eventually, some deep drilling will be required to ascertain whether or not it has any economic significance.

Of more immediate importance is the fact that none of the delineated magnetic anomalies - particularly the larger (1962 Arvela) pair lying at the northerly end of the arc - has been adequately tested by drilling or trenching. Also, it is particularly noted that the 1968 I.P. survey, restricted to lines 8N and 24N in the general area of the northerly mag. anomalies, completely avoided them - with the possible exception of a minor resistivity peak at 24N, 10E. It would appear that this general area, at least that part of it between 8N - 28N(+) and 0E - 30E, warrants a unified, detailed check mag. survey and an extension of the I.P. survey.

EXTEND SOUTH MAG SURVEY FURTHER NORTH

The compilation also shows that only the north end of the 0N, 6W (magnetite-copper zone) has been drilled; however, John should search out and check actual drill hole locations with respect to his grid control before this is stated too positively.

The more obvious omissions in the total physical exploration accomplished to date comprise:

(a) Absence of any drilling on the easterly (0N, 0E) trench exposures or their possible N-S extensions.

(b) Lack of trenching and/or conclusive drilling of the mag. and geochem-indicated southeasterly extensions of the 0N, 6W mineralization and anomalies.

(c) Lack of at least a reconnaissance magnetometer survey of the general Mal-Chal - HN-WEN prospect area and in which several local occurrences of copper mineralization have been noted, or indicated by geochemical reconnaissances.

Respectfully submitted,

W. M. Sharp, P. Eng.

WMS/LA

(13)

June 26, 1969

Mr. O. F. Carter, P. Eng.,
Cadesky Associates,
503 - 365 Bay Street,
Toronto, Ontario.

Dear Mr. Carter:

The following outlines currently suggested exploratory work of three main prospect areas within Consolidated Skeena's Tommy L. - Boot L., B. C. properties. Each area is considered as a seperate and distinct exploration unit in which progrems may be modified independently:

I - TOE GROUP: (Dwg. T1-X)

A - TRENCHING MAIN I.P. - GEOCHEM. ANOMALY - VICINITY LINE 32W:

Preliminary Data:
N-S cross-section - 1,200'
Gross wages, J. White @ $35 per day; assistant @ $23 per day.
Estimate 42 test pits @ 50' min. intervals, with progress @ 2 per day in 5'-6' mixed glacial till.

Estimated Costs:

Labour, 6 days @ $58	$348	
Truck, 100 miles @ $0.20	20	
Camp, 6 days @ $5	30	
Tools, miscelleneous supplies	15	$ 413

B - RECONNAISSANCE SOIL & SILT SAMPLING (Cu):

Preliminary Data:
6 line miles to be flagged;
total soil and silt samples - 325

Estimated Costs:

Labour, flagging line		
4 days @ $58	$232	
Labour, sampling		
10 days @ $35	350	
Geochemical analyses		
325 @ $1.30	425	
Truck, 12 days @ $2	24	
Camp, 12 days @ $5	60	1,091
Total A & B		$1,504
Contingencies @ 10% approximately		146
Total, A & B, direct field expense		$1,650

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II - MAL-CHAL-ECHO ZONE:(Dwg W-1)

Preliminary Data:
Additional flagged line required - 11.5 miles
Base line length - 1.5 miles
Total E-W grid-lines (50' sta's.)- 24.0 miles

Magnetometer Survey Costs:

1.	Labour, flagging additional line 6 days @ $58	$ 348
	Labour, flagging base line 1 day @ $35	35
2.	Labour, magnetometer survey, 12 days @ $35	420
3.	Magnetometer rental, Sharpe MF-1, allow 2 weeks @ $75	150
4.	Truck operation, 20 days @ $3 average	60
5.	Provision for detailing & contingencies	187
	Total, direct costs	$1,200

III - HN-WEN ZONE:

A - Magnetometer Survey:

1.	Labour to flagging 4½ mi. line 5 days @ $58	$ 290	
2.	Labour to flagging 1½" base line 1 day @ $35	35	
3.	Magnetometer survey, 10 miles for 6 days @ $35	210	
4.	Magnetometer rental, allow 2 weeks incl. del. and return	150	
5.	Truck operation, 12 days @ $3 average	36	
6.	Camp, 12 days @ $5	60	
7.	Provision for detail & contingencies	119	$ 900

B - Geochemical (Soil-Cu) Survey:
Coverage to be restricted to main shear zone and possible magnetically-anomalous areas.

Estimated total direct cost	600
Total, direct cost A & B	$1,500

SUMMARY:

I, A & B	$1,650	
II, A & B	1,500	
General contingency	850	(to line-cutting
	$4,000	

Respectfully submitted,

W. M. Sharp

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WMS/LA