Eko Property

May 22/74

006138

Stratigraphic sequence	Igneous sequence	Metamorphic sequence
	Dyke in R. Ck. falls	
		Pyrrhotite, chalcopyrite
		Magnetite
	(Alaskite?)	Garnet, etc., skarn
	Leucodiorite	
	Mafic diorite	
	Intrusive andesite	
Limestone		
Dark andesite		
Chert & ls.(?)		

Bedding in ls. is at one point convincingly shown by 4 layers of abraded-sized volc. frags. within a thickness of 3". In other places it is shown by a regular, ll array of surfaces marked by recessive weath'g, finer grain size, & darker colour. The regular, ll array is the significant feature. There is minor grey-streaking of the grey white m-c/g ls., presumably along healed fracts., that is not bedding. This bedding shows that the wide ls. band NE of the S Pit A & B zones overlies the andesite exposed SW of the ls. The outline mapped by Roscoe would thus suggest a synclinal structure for this band, with underlying units repeated to the NE.

The dark andesite underlying the ls. on the SW is intruded by dykes, dykes, sheets, & reticulate fract.-fillings of leuco-diorite, but only 1 dyke of leucodiorite was seen in the ls, tho it cts. numerous dykes & sills of andesite & their foundins. (Intrusive & layered andesite cannot be distinguished lithologically.) Thus it may be that the ls. ct. is close to the limit of diorite penetration, & that less disturbed rock will occur to the NE. Around S. Pit B zone the amt. of diorite seems to increase to the S, & on the tour with Roscoe there seemed to be all diorite N of Keefuw Ck up to the Falls shwg. Thus the only hope of working out stratigraphy appears to lie to the NE.

The andesite prob. is not important, but what underlies it may well be. Around S Pit B zone this what is massively intruded by 2 stages of diorite & otherwise much alt. to sskarn, but there are remnants of chert or silicified ls. It seems that this chert was the preferred horizon for skarnization & mgn.

May 23'74

The little bit of mapping created for the average orientation showed andesite NE of the ls, but also a zone of mafic diorite. There is a little leucodiorite in the andesite, but not enough to much disturb it. However the andesite is soft & rubbly per the mafic diorite. Beyond the andes there is no o/c where the chert could be expected to be. There is a 100' error in road map, but does not preclude could chert.

Aug 6 '75

Reko N Pit zone

To clarify the terminology: Levasseur has designated the original quarry in the ridge cut as N Pit A zone; B zone comprises the rings on the middle & E rjs in the saddle betw the open cut & granite M.L.; & C zone is uphill to the SE of A, apparently not yet investigated by anybody.

The middle rj was mapped on July 9 '75, then traversed once again on Aug 6, after the fire. It is clearly underlain by bedrock at shallow depth. The bedrock consists predom. of andesite & meta-andesite, which is intruded by red. small bodies of bl. porph, meta-diq & leuco-dio, & which is locally alt. to skarn. 3 small occurrences of M taxe now seen & all assoc'd with skarn; 2 are on the S end & the 3rd along the E side. Lab. are uncommon.

On July 10 a line was run in 307', down on the W flank of the E rj, to the saddle betw it & middle rj. A check on Aug 6 showed that the 3 o/cs mapped are now two & consid. larger, due to fire exposure. They are prob bona-fide o/cs & consist largely of meta-andesite, intruded by diorites. No skarn or mag was noted, but the o/cs need clearing off by a good rain. Strong local attraction was noted betw stas. 2 & 3+07, but the cause was not apparent, even after the fire.

The rest of E rj is something else. Abt the lower 3/4 of the S slope is soil & fine orb, then odd ledges & ∠r blocs of ign. rock appear. The upper 30' of the S & SW slopes are strewn with ∠r. pieces of mixed mag & skarn, largely ending at the rim, where at 1 pt. there is a few □' of mag & skarn. However there is a few □' of ign rock at behind, & these exps are small & unconnected. At the SW ∠ of the rim an exp. of bl. under a ~~little~~ stump root shows mkd furrowing & pt. enlargement by sol'n, but is not attached to other exps. & appears to rest on orb. of larger exp. of ign rock a bit N along the W rim may be genuine o/c. Farther N there is little rock along the W rim & it is merely a topo ∠. Inside the rim the rj top is flat or shy depressed, showing little rock of any kind. The SE rim is mkd by intermittent exp. of ign rock, & by one exp. of mag & skarn, which has strewn ∠r rubble downslope, at or the surf. NNW of the E ∠ of the rim there is abt 500 □' of bl with at least 10' vert. range, ign showing mkd sol'n features. This should be large enough to be o/c, but it cannot reasonably be connect'd up with other bl. exps. The high pt. of the rim on the N is an orb, but 30' to the NW is 50' of leuco-dio that may be o/c.

To the N the descending rj is crossed diagonally by small draws & rjs, as if the mtn had moved in waves. On 1 of these rjs is a 3rd exp. of bl, showing ∠ & less mkd sol'n. This ∠ does not line up with any known bl, & ign rock are on three down the rj.

It is concluded that most of the E rj has been produced by mass movement, gone glacial, more likely landslide. The sol'n pattern in the bl. has evidently developed since they reached their present posn. The mag & skarn have had recent ∠ dispersal. This dispersal seems wider than normally occurs for o/c, but is perhaps consistent with those encased in loose mtl. The source is req'd. The hole in the

hillside across the S ct. of the NE ls. is immed. apparent, but it seems too low to have produced any but the lower NE sub-aj. A source nearer the crest of the E sounding aj of Renfrew valley should be sought.

Fairy Creek — Aug. 7'75

On July 12 a recce. was made on foot up Fairy Lake R/L to the corner where it turns sharply into the valley of Fairy Ck. The rock in this lower sec'n are generally thin-bedded & recognizable as Leech River, intruded by dykes or small masses of meta-dio. They mostly dip NE, but occ. dips are recog. with half wavelength of 5 to 10', & occ. R/Fs are suggested by abrupt chgs of dip.

On chg 7 the sec'n across the valley fr ck. to ck. was walked out, hampered by rain & low enveloping cloud. Mostly these rd cuts present slick surfaces, so rock identf'n is slow & tedious. It would appear that there is some chert & lam arg. or phyllite on the S side, intruded or enveloped by meta-dio. NE of the W fork there are some equivocal meta-seds, follo'd by the zone of volc. aspect (but lacking amygs.), the whole obscured by dioritization & intrus of meta-dio. The dio itself devs. a foliation, which is irreg. folded adjac to the E fork.

Fr. the 1st ck. 3 large rusty patches are visible & seem to line up sub-// to the rd betw the forks. The reality is more complex: There are occ rusty (gouge?) zones, prob. of diff. orientation, plus some intervals betw R/Fs where a generally rusty soil has concealed down. Thus the hope of July 12 that the San Juan fault had been f. does not seem to be realized.

Aug 29/75

Kestrel Claims - Hemming ore slope showings

The 2 principal showings were visited under adverse weather conditions. My guide, Mike Pichens, rept'd there are several small ore showings on this slope, & of a few one on the way out. The foll'g route was taken to the principal showings: From Granite M.C. take the trail up to the open-cut on the high-grade Renfrew slope showing, then climb the shallow draw, carrying my float, to the crest of the ridge. Climb along the crest of the ridge, which is packed by many mink holes, to a gently flat area which is marked by E & N summits & a higher W summit or ridge. Fr the N summit follow pink & red flagging SE. downhill to the 1st of the 2 principal showings. Fr or the bottom of this showing, contour W upward for an estd 400', then S steeply downhill to pick up pink flagging leading to the top of the 2nd showing.

The 1st showing appears to be a band of mostly massive mag lstone, partly bo walls. Skarn appears to be minor. However the mag exposure is fragmentary, & overall grade & continuity cannot be demonstrated. The band as thus poorly delineated appears to be steep or vertical, to diverge slightly to the SE. for a small distance of the W fork of Hem. Crk, & to cross it at the upper end. It has an apparent width of fr 10' to 50' & an apparent height of 130', with a somewhat greater length, as the slope E is somewhat < 45°. At the lower end it appears to finger out among dk & lt andesite dykes. The upper end is cov'd, but some mag float up the ck bed. It is evident in the bk in place on the E side, striking approx. along the contour & dipping gently into the hillside.

The 2nd showing occupies a long wedge-shaped ridge between 2 creek gullies. It appears to consist largely of granitite, which contains pockets & narrow bands of mag. as seen, the grade prob does not exceed 30% Fe. However, lack of time precluded a thorough examination. The upper part has an est'd width of 150', with an elev diff. of 80'. The ridge was not foll'd down to the pt. of the wedge, but Pichens rept'd claiming a slope dist. of 400'. The slope E is estd. to be 45°. The E by wallrock was not det'd, tho the E gully can be readily crossed in its upper part, but fr exps along the route in it is assumed to be largely bo. The W by gully has only vert walls where mag is present, but an extension of the contour route fr showing 1 passes above it, only to pass into impassable bluffs apt 150' beyond. These bluffs & the W wall of the gully are buff-coloured & mag. a granitic rock. This gives will a 2nd-hand rept fr Pichens; Appar there is some mgn in a framed gully entering fr the W

June 21, 1976

Mr. Martin J. Trim,
Box 580,
Cochrane, Alta.

Dear Sir:

In reply to your letter of the 10th, I could meet you on August 11th, either at the Gold River Chalet, where I would stay overnight, or on the property. Meanwhile, I will spend a couple of days on the property this coming week to learn what I can of the geology.

I very much doubt that your claims are included in the Park now

July 23 '76

N ct. of ls. of zones 9-11

It cannot be firmly demonstrated that this ct. is stratigraphic, but the evidence points that way: for one, at the foot down the rj the rock is prob. andesite, some of it looking little-metamorphosed. While fairly large andesite intrusions can occur in the Quatsino, this one appears too large. Also, the ct. appears too regular, if certain adjustments are made, to be an intrusive ct. This ct. is: regarded as the ct. betw. Quatsino & underlying Karmutsen.

The plots on the topo map would indic. that the ct. dips steeply NE, or else overturned, but this is prob. illusory. Ground observ. suggs. that the bdy. ct. cuts back much more sharply than the contour would indic., & that the ct. may well be vert.

A gap exists betw. the ct. & the rj, & should be filled if time permits.

July 24 '76

Bulge of S belt of ls. across G 3510

The Reako mapping of roads & rocks is inaccurate: the road curves are in the wrong places, & the overall scale is < 1" = 200'. There is no o/c to support much of the ls. bulge to the E. When this is said, a prob. remains: there are 2 ls. rjs. trending at a large ∠ to the ls. belt.

Mapping shows that this ls. bulge has been sep'd fr the rest of the S belt by a mela-dio stock. Its intrusive nature is proved by xcpn of andesite(all the dykes of a later generation of andesite complicate the picture). The actual ct. of mela-dio & ls. at G 3510 is cov'd in a draw, & could be faulted, but no ls. was f. SE of the draw, & the overall cutoff of the ls. is intrusive. Below 3510, the ls. is intruded by dark andes. & leuco-dio at its N limit of exposure, & above it appears to be encroached on by leuco-dio, which then encroaches on the mela-dio of the ls. as far as G 3500.

July 25

NW end of S belt ls.

No o/c below the foot of G 6200, & N-ward was f. to be more extensive than previously mapped, but it is enclosed in mela-dio to the W, SE, & S; & is prob. a large xenolith, structurally detached from other bodies of ls. Renfrew Ck has cut a near-canyon where it crosses what appears to be the main strand of the S belt, & only the N part of the mass could be

examined; it was also impractical to cross to the E side. On the W side no actual ct. is exp, but ls in the red & lower wall is close to meta-dio exps to the N & W, & appears to dive under it. Between the road & the canyon rim, leuco-dio is common, & forms cliffs under the closest approach of the road.

The S strand of the S belt is repr. by a solitary 40' of ls in the E bank of Renfrew Ck. It is in near-contact to the S with meso-dio & andes, while to the N there are sporadic o/cs of meta-dio. No o/cs of ls occur in the slope to the E or SE, & this body of ls is prob a large xenolith, unattached to the S belt.

Most of the NE ct. of the S belt of ls appears to be intrusive. The SW ct. appears to be stratigraphic at GML, but to the NW it too seems engulfed. It has not been sufficiently studied to the SE, but on G 3000 it appears to be in near-ct. with both andes. & leuco-dio. The ct. may or may not be stratigraphic here.

The large size of the ls belts would indic that they are roof pendants rather than inclusions. It is less certain now that they are synclinal infolds, although they may be generally so. The SW ct. of the N belt appears to be stratigraphic for Renfrew Ck to the crest of the E ridge, & the NE ct. appears to be stratigraphic W of the saddle pit fault on the Hemmingsen slope. It does not outcrop the ls. lacks positive bedding structs., but these are commonly present on this Hem. slope, ranging fr. vert. pr. the ct. to near-horiz at some 10 tward the ridge crest. This would seem to indic a synclinal axis passing thru the ridge crest. Contrary evidence to the synclinal hypothesis is provided by the ls. xenoliths down in the valley betw. the belts: these would have had to founder, whereas experience in the Kdy Mts area would indic that they will tend to rise on magma.

Another fact emerging in 1976 is that of the meta-dio as an active magma in its own right, rather than as a thin border zone broken up by later surges of magma. It has punched stocks thru both belts.

July 28

Saddle Pit fault, N belt ls. & q. monz.

The N ct. of the ls has been traced & projected into the fault fr both sides, & the left-hand offset is just abt 1,000'. When the S dip of the ct. is taken into acct. the horiz. offset would be slightly less. SW of Renfrew Ck ls is in fault ct. with ls, & the fault could not be identified. On the Hemmingsen slope it disappears under extensive o/b.

On the N ridge abt 650' E of the saddle gpl. pit the ls is in direct ct. with, andesite tuff lying 280° 65 S. While this ct. is in part intruded by felsite, andesite, & both leuco- & meso-dio, & both the tuff & ls. are caught up as xenos in leuco-dio, the gen'l N line of the ls. passes thru this ct. with tuff, & overall disruption by intrusion appears slight. There does however appear to be at least one transverse fault with a few tens of ft of left-hand offset. So, generally the N ct. is stratigraphic & S-dipping here, & presumably right-side-up. W of the fault & near the sliver of ls along GML, andesite shows a faint, crude banding, & could be tuffaceous, hence helping to confirm the correl. across the fault.

The high cliffs overlooking gore II had looked like monz. for some distance, & it was expected that this rock would cross the N ridge and the main summit at the SW end. The

ct. with ls was however f. to cross obliquely s of the easterly mine summit. The rock is buff to almost white, m/g to paryh. f/g, & ctns abundant to sparse gg. There seem to be genly 2 feldspars, & the rock is prob. gg. mong. The weath'd surf is genly chalk-white & is commonly thinly coated with black lichen. A few dykes of the rock cut the ls nr. the ct., but overall the ct. is clean and sharp as compared with the messy cts. of the diorites. It was not traced down the Hemmingford slope, but the strike would project it close to gone N. On the Renfrew slope it angles down twd the first forks of GML & disappears under extensive ovb. The most Wly o/c at the forks is of andesite, presumably intrusive into the ls, intruded in turn by a light-coloured dyke which resembles leuco-dio more than q.m. There is no o/c along either road fork, but extensive q.m. float along the upper one.

Ss. cut by meat'd dyke was traversed up onto the E nose of the low hill betw. the forks of Renfrew Ch. There & up over the hill the ls is gradually dyked out by diorites, which dive under ovb twd the saddle.

Tonnage & Grade Estimate

REAKO Granite Creek Property - zone 2

62,860 tons averaging 37.52% Fe

43,140 tons averaging 27.00% Fe

49,835 tons averaging 22.52% Fe

Drill indicated.

Zone 1 = S Pit A	10,269 tons	– 49.36% Fe	Cu mostly < .2%	9,300 tonnes
2 = S Pit B	62,860 "	– 37.52% "	" " < .2%	57,000 "
3 = S Pit C	16,193 "	– 51.14% "	.26 – .41% Cu	14,680 "
	89,322 "			
4 = Martins	26,806 "	– 38.17% "	Cu < .1%	24,100
				105,080

Cutoff grades: 30% Fe
0.2% Cu

Zone 5 (NW) 29122.00 tons – 32.309% Fe * 0.709% Cu
11,535.00 tons 40.319% Fe
also 177.00 tons at 34.577% Fe

1.08	0.00
1.68	25.
1.44	15.06
1.52	28.21
1.08	14.56
6.70	83.33
.41	41.20
.72	20.83
7.83	145.36
7	7

Av. Cu = 1.12%

Av. Fe = 20.77%

Area of 4-3 sec'n = $\frac{30\times90}{2} - \frac{6\times12}{2}$ = $15\times90 - 3\times12$

= 1350 − 36 = 1314

Vol. of 4-3 block = 1314 × (17.5 + 12.5) = 1314 × 30

At 20.77% Fe T.F. is 9.8

$\frac{1314\times30}{9.8}$ = 3950 short tons

5' × 1.28 = 6.40	5' × 44.74 = 224
7' × 0.72 = 5.04	7' × 37.77 = 264
12' 11.44	12' 488

Av Cu = 0.955%

Av Fe = 40.9%

Area of DDH 10 sec'n = $\frac{18\times6}{2} + \frac{24\times8}{2}$ = 54 + 96 = 150 sq'

Vols of tails = 54(12.5 + 5) + 96(12.5 + 8)

= 54 × 17.5 + 96 × 20.5 = 945 + 1970

At 40.9% Fe T.F. is 8.35

$\frac{2915}{8.35}$ = 350 short tons

5' × .37 = 1.85	5' × 31.14 = 156
5' × .88 = 4.40	5' × 32.80 = 164
3' × .36 = 1.08	3' × 0 = 0 0.0
5' × .28 = 1.40	5' × 40.77 = 220
5' × .11 = .55	5' × 33.86 = 169
5' × .12 = .60	5' × 48.24 = 241
3' × .32 = .96	3' × 41.98 = 126.
31' 10.84	31' 1076

Av. Cu = 0.35%

Av. Fe = 34.8%

Surf. area = 15' × 10' = 150 sq'

Thickness = 13' Vol. = 13 × 150 cu ft.

At 34.8% Fe T.F. is 8.78

$\frac{13\times150}{8.78}$ = 222 short tons

1 short ton = .90719 tonnes

Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

29 July 1980

The Manager
North West Trust
1113 Blanshard St.
Victoria, B.C.
V8W 2H7

Dear Sir:

Please deposit the attached cheque in accordance with the details given below.

Yours very truly,

for A. Sutherland Brown, Ph.D., P.Eng.
Chief Geologist, Geological Division
Mineral Resources Branch

ASB:nhc

NAME: G.E.P. Eastwood

CHEQUE NO. 8513560

DATE: 24 July 1980

AMOUNT: $272.85

ACCOUNT NO: 3739

c.c. to: P. Eastwood

Wt. of 1 ft^3 = $\frac{x}{100}$ % mag × $\frac{1 \text{ ton}}{6.08 ft^3}$ + $\frac{(1-x)}{100}$ % dio × $\frac{1 \text{ ton}}{11.3 ft^3}$

100 % mag = 72.4 % Fe

50 % " = ½ × 72.4 % Fe = $\frac{100}{50}$ × 72.4

72.4 % Fe = 100 % mag

50 % Fe = $\frac{50 \times 100}{72.4}$

100 % mag ~ 72.4 % Fe

1 % " ~ $\frac{72.4}{100}$ % Fe

x % mag = $\frac{100}{72.4}$ × % Fe

1 % Fe = $\frac{100 \times 1}{72.4}$ % mag

% mag = $\frac{72.4}{100}$ × % Fe

= $\frac{100}{72.4}$ × % Fe

Wt. of 1 ft^3 = $\frac{\frac{100}{72.4} \times \%\text{Fe}}{100} \times \frac{1 \text{ ton}}{6.08} + \left(1 - \frac{100}{72.4} \times \%\text{Fe}\right) \times \frac{1 \text{ ton}}{11.3}$

= $\frac{\%\text{Fe}}{72.4 \times 6.08} + \frac{1}{11.3} - \frac{100}{72.4} \times \frac{\%\text{Fe}}{11.3}$

Wt. of 1 ft^3 = $\frac{.724 \times \%\text{Fe}}{100} \times \frac{1}{6.08} + \frac{1}{11.3} - \frac{.724 \times \%\text{Fe}}{100 \times 11.3}$

= .00119 × % Fe − .00064 × % Fe + $\frac{1}{11,30}$ = .00055 × % Fe + $\frac{1}{11,30}$ $\frac{\text{ton}}{\text{cu ft.}}$ = $\frac{11.30 \times .00055 \times \%\text{Fe} + 1}{11,30}$

$\frac{ft^3}{\text{ton}}$ = $\frac{11.3}{1 + 11.3 \times .00055 \times \%\text{Fe}}$ = $\frac{11.3}{1 + .0062 \times \%\text{Fe}}$ $\frac{11.3}{1 + .62 \times \%\text{Fe}}$

For 50 % Fe T.F. = $\frac{11.3}{1 + .031}$ = 11.0

" 72.4 % Fe T.F. = $\frac{11.3}{1 + .045}$ = 10.8

TF = $\frac{1130}{.62 \times \%\text{Fe} + 1}$

For 72.4 % Fe T.F. = $\frac{1130}{45 + 1}$ = 24.8

92C090

PROPERTY FILE

1 ft^3 = $\frac{\%\text{ mag}}{100}$ ft^3 + $\frac{(100 - \%\text{ mag})}{100}$ ft^3 =

1 ft^3 weighs $\frac{\%\text{ mag}}{100}$ ft^3 × $\frac{1 \text{ ton}}{6.08 ft^3}$ + $\frac{(100 - \%\text{ mag})}{100}$ ft^3 × $\frac{1 \text{ ton}}{11.3 ft^3}$ = $\frac{1}{100}\left[\frac{\%\text{ mag}}{6.08} - \frac{\%\text{ mag}}{11.3} + \frac{100}{11.3}\right]$

.1645
.0805
.0760

.1643
.0885
.0758 or .076

= $\frac{.076 \times \%\text{ mag} + 8.85}{100}$ ton

$\frac{ft^3}{\text{ton}}$ = $\frac{100}{.076 \times \%\text{ mag} + 8.85}$ = $\frac{100}{.076 \times 1.38 \times \%\text{Fe} + 8.85}$

= $\frac{100}{.105 \times \%\text{ Fe} + 8.85}$

For 72.4 % Fe TF is $\frac{100}{7.6 + 9.9}$ = $\frac{100}{17.5}$ = 6.28

Association of Professional Engineers of British Columbia
Victoria Branch

NEWSLETTER May, 1981

Dinner Meeting - Joint APEBC/AIBC

You are cordially invited to attend a joint dinner meeting of the the Association of Professional Engineers and Engineering Institute of Canada.

GUEST SPEAKER:

Mr. Phil Seabrook, P. Eng., President of the Association of Professional Engineers of B.C. will present Life Membership to four members and certificates of registration to seven new members. He will be assisted by Mr. Dan Lambert, P. Eng., Managing Director & Registrar.

He will also talk to the group on "Engineering Manpower Situation".

DATE: Thursday, May 28, 1981

PLACE: Princess Mary Restaurant

TIME: Cocktails 6:30 p.m.
Dinner 7:30 p.m.

PRICE: $9.00 per person

RESERVATIONS: Phone 385-4468 leaving your name, and the number in your party, preferably prior to May 25, to keep our caterer in a good mood.

ANNOUNCEMENTS

1. Future Victoria Branch dinner meetings are scheduled for September 24, October 29 and November 26. Please note these dates on your calendar.

2. Congratulations to Mr. Brendon Holden, P. Eng. for his recent appointment to the National Research Council's Association Committee for Research on Shoreline Erosion and Sedimentation.

Zone 9

$$\frac{50' \times 25' \times 15' \times .907}{6.62 \text{ T.F.}} \text{ tonnes} = \frac{125 \times 15 \times 9.07}{6.62} = 2560$$

Zone 10

$$\frac{25' \text{ wide} \times 200' \text{ slope length} \times 50' \text{ est. depth} \times .907 \text{ tonnes}}{7.00 \text{ T.F.}} = \frac{5000 \times 5 \times 9.07}{7} = 32400$$

Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

1 August 1980

The Manager
North West Trust
1113 Blanshard St.
Victoria, B.C.
V8W 2H7

Dear Sir:

Please deposit the attached cheque in accordance with the details given below.

Yours very truly,

A. Sutherland Brown, Ph.D., P.Eng.
Chief Geologist, Geological Division
Mineral Resources Branch

ASB:nhc

NAME: G.E.P. Eastwood

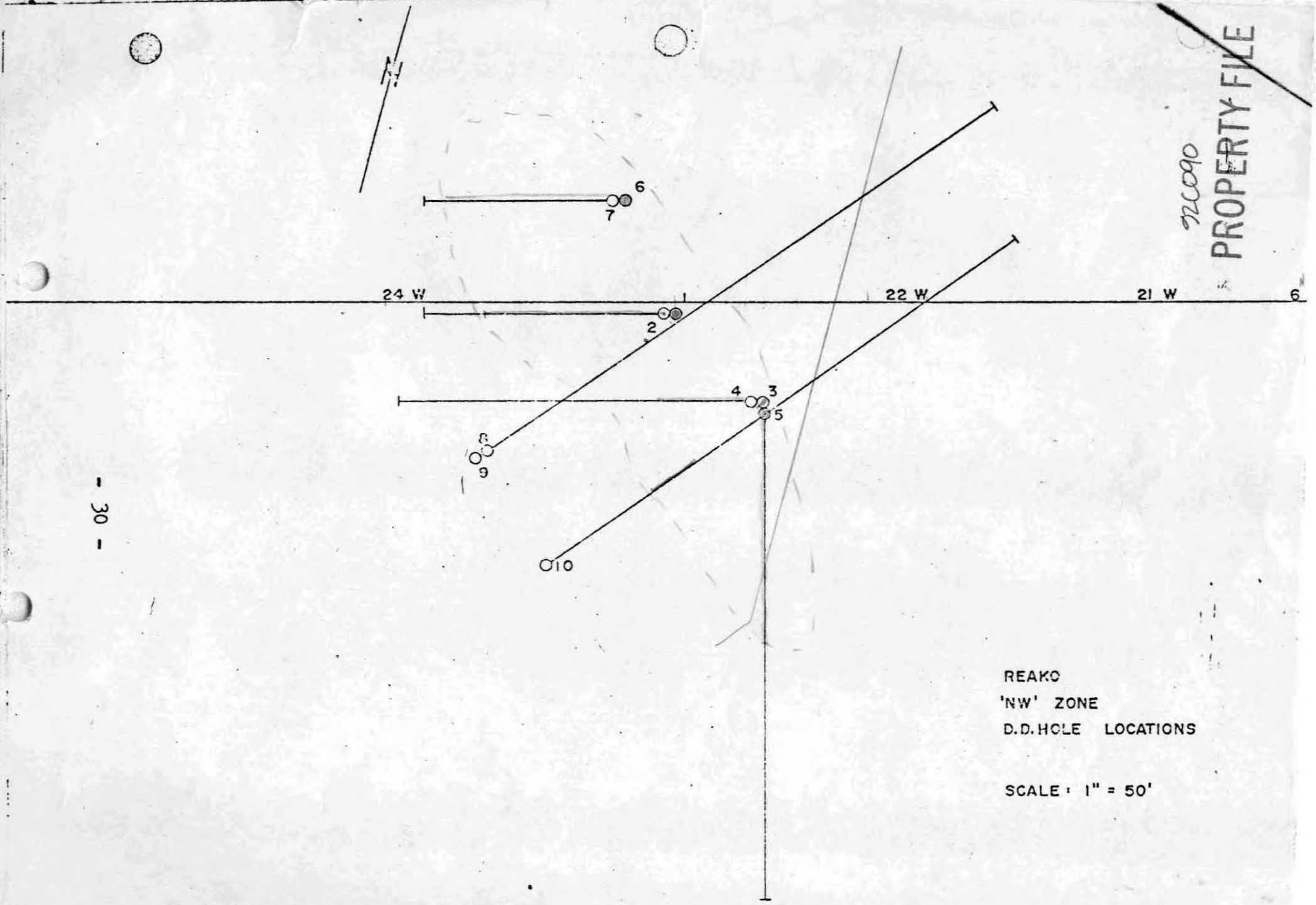
CHEQUE NO. 8530428

DATE: 29 July 1980

AMOUNT: $75.00

ACCOUNT NO: 3739

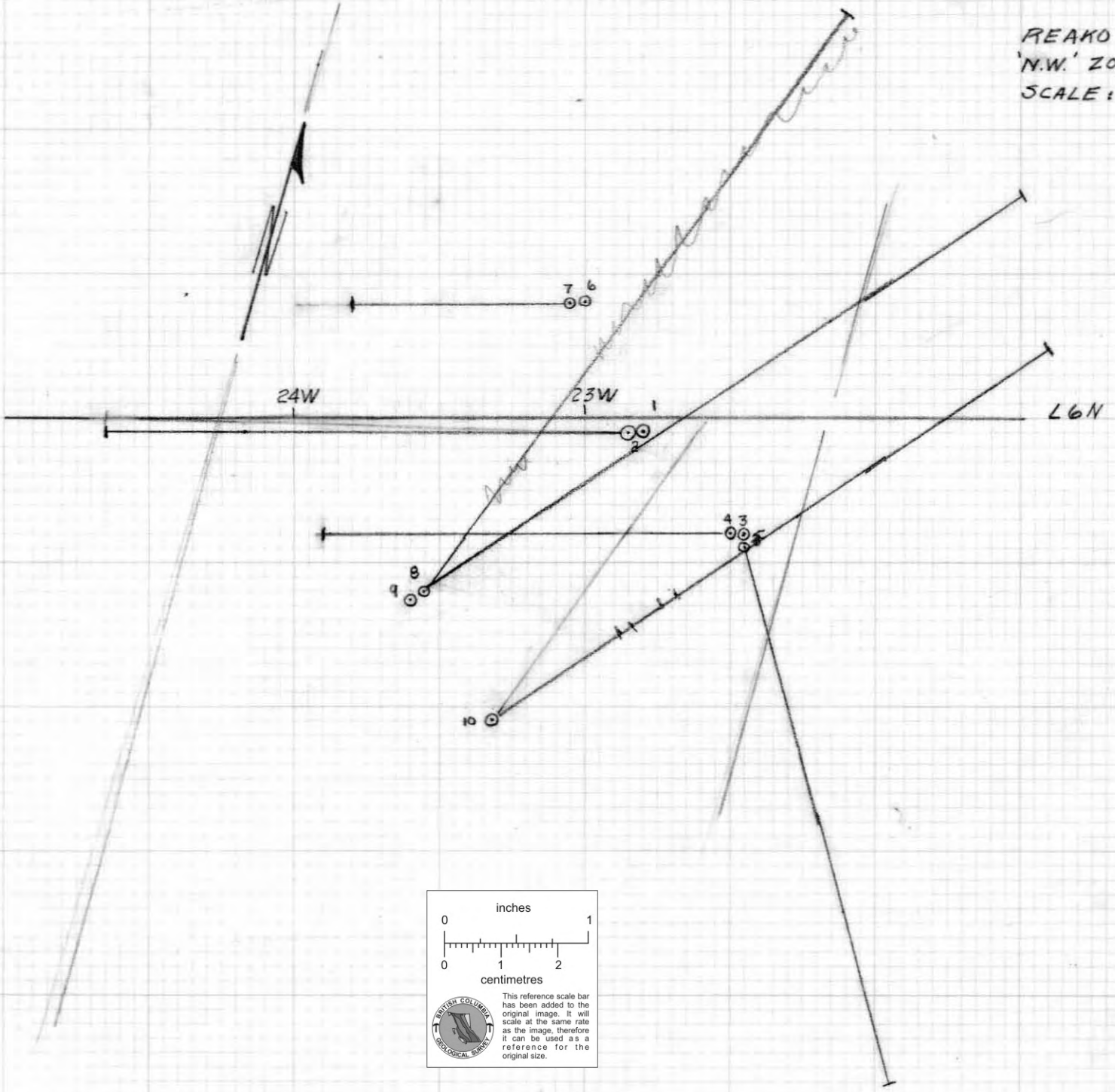
c.c. to: P. Eastwood



REAKO
'NW' ZONE
D.D. HOLE LOCATIONS

SCALE : 1" = 50'

OCT. '73 R.L.R. FIG.



Wt. of $1\ ft^3$ $= 177 \times (1 - \frac{\%\ mag}{100}) + 329 \times \frac{\%\ mag}{100}$

$= 177 + 152 \times \frac{\%\ mag}{100}$ $\quad \frac{177}{152}$

$= 177 + 152 \times \left(\frac{\%\ Fe}{100} \times \frac{100}{72}\right) = 177 + \frac{152}{72} \times \%\ Fe$ lb.

$= \frac{177 + \frac{152}{72} \times \%\ Fe}{2000}$ ton $= \frac{\text{ton}}{ft^3}$

$\frac{ft^3}{\text{ton}} = \frac{2000}{177 + 2.11 \times \%\ Fe}$

Let x = vol. of mag $= \frac{\text{lb. mag}}{329\ \frac{lb}{ft^3}}$

y = vol. of dio

$1\ ft^3 = x + y$

$x = \%$ mag $/100$

$y = \%$ dio $/100$

$1 = x + y$

$1\% = 20\ \frac{lb.}{ton}$

$1\ \frac{lb.}{lb.} = 100\%$

Wt. of mag in 1 ton

$= \%\ mag \times 20 = \frac{\%\ Fe}{72} \times 20$ lb. $\times \frac{100}{72}$

this occupies

$\frac{100 \times \%\ Fe}{72} \times 20 \times \frac{1}{329\ \frac{lb}{ft^3}} = \frac{20(\%\ Fe)}{72 \times 329}$ cu ft

$T.F. = \frac{20(\%\ Fe)}{72 \times 329} + \frac{2000}{177} - \frac{(\%\ Fe \times \frac{20}{72})}{177}\ \frac{ft^3}{\text{ton}}$

correct this!

Wt. of dio in 1 ton

$= 2000 - (\%\ Fe \times \frac{20}{72})$ lb.

this occupies

$\frac{2000 - (\%\ Fe \times \frac{20}{72})\ lb.}{177\ \frac{lb}{ft^3}}$ ft3

no. of cu.ft of ore needed to weigh 1 ton

$\frac{2000(\%\ Fe)}{72 \times 329} + \frac{2000}{177} - \frac{2000(\%\ Fe)}{72 \times 177}$

G. E. P. Eastwood
630

NOTICE - M.E.G. MEETING

Date: Thursday, October 6th, 1977

Time: 12 noon (luncheon meeting)

Place: Georgia Hotel, Vancouver

Speaker: Dr. Allan Sinclair, UBC

Topic: "Analysis of Exploration Data - Casino Porphyry Copper Deposits, Yukon

This notice was telephoned to me just before noon today (October 4th) and is very late but would you please let me know as soon as possible if you plan to attend.

Thank you,

Irene Ruppert

Notes: Cutoff Grades 3.0% Fe 6.94
0.2% Cu.

- mainly magnetite 70% Fe.

$$\text{British Tonnage Factor} = \frac{2000(\%Fe)}{72 \times 329} + \frac{2000}{177} - \frac{2000(\%Fe)}{72 \times 177}$$

(grade)

(329 / 236.88 = density of magnetite (lb/ft^3))

[Fe] and [Cu] at depths, taken from ASSAY reports

T.F ⇒ tonnage factor

S.P.A. ⇒

D.D.H. ⇒ diamond drill hole?

T.F ⇒ cubic feet of ore needed to weigh 1 ton.

STO 0
8.44×10^{-2}
×
~~STO 1~~
~~F5~~ 11.3
+
STO 1
RCL 0
1.57×10^{-1}
×
CHS
RCL 1
+
f REG

329/2000 = 2000/1300

Reko Zone 5 calculations

Lower lens is cut by 1 DDH in each of 3 sec'ns. Assume it exts. 25' updip & 25' down dip fr. DDH. Calc. av. grades for DDH & assume for this rectangle. For DDH 8 assume width of intercept up & down dip. Influence of 7-6 sec'n is 25' on either side. Influence of 2-1 sec'n is 25' on one side. For Δ" side average in DDH8 value.

Lower lens NW block	1.21% Cu	44.4% Fe	6,750 s.t. =	6,120	tonnes
" " middle "	0.82% "		3,400 " =	3,080	"
" " SE "	0.925% "		1,850 " =	1,677	"
Middle " block 1	0.34% "	43.5 % Fe	5,420 " =	4,915	"
" " " 2	0.655% "		4,920 " =	4,460	"
" " " 3	1.12% "		3,950 " =	3,680	"
" " " 4	0.955% "	40.9 % Fe	350 " =	318	"
Upper lens	0.35% "	34.8 % Fe	222 " =	202	"
				24,452	

Zone 9	65 % Fe est.	2,560	"
" 10	60% Fe "	32 400	"
		59,412	