PHONE: OFFICE 667-2819
RES. 668-2832
AREA CODE 403

R. G. HILKER
LIMITED
CONSULTING GEOLOGIST . . . PROFESSIONAL ENGINEER
P.O. Box 566
WHITEHORSE, YUKON TERRITORY
"LAND OF THE MIDNIGHT SUN"

CHARTA MINES LTD. (N.P.L.)

GREEN EAGLE 1-16 CLAIM GROUP

KUSAWA LAKE -- YUKON TERRITORY

COPPER-MOLYBDENITE PROSPECT

CHARTA MINES LTD. (N.P.L.)

VANCOUVER, B.C.

R.G. HILKER, P.ENG.

CONSULTANT GEOLOGIST

WHITEHORSE, YUKON TERRITORY

JANUARY 21, 1971

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INTRODUCTION

A property examination and evaluation was conducted on the Green Eagle 1-8 claims on October 12th, 1969. Mr. Barry O'Neil, the owner of the Green Eagle claims, accompanied the author on the property examination. A Trans North Turbo Air Jetranger helicopter was used for access to the property, which is located on the west side of Kusawa Lake. The helicopter placed the author and Mr. O'Neil at approximately the 5,200 foot level on the east side of the mountain near Devilhole Creek. A portion of the claim group from the 5,200 foot level to the 3,500 foot level was traversed during the property examination. The east side of the mountain is fairly steep and traversing was difficult due to the loose scree in the rock cuts, that were followed down the side of the mountain to the lower levels. Most of the claim group is above timberline and good rock exposure was found.

During the October 12th, 1969 property examination, Mr. Barry O'Neil staked an additional eight (8) claims adjoining the Green Eagle 1-8 group. The new claims, the Green Eagle 9-16, were recorded in the Whitehorse Mining Recorder's Office on November 3rd, 1969.

In November of 1969, the Green Eagle 1-16 claim group was optioned to a group of Vancouver businessmen. The option agreement was not fulfilled and was permitted to expire on October 1st, 1970. The optionors did not do any exploration or physical work on the claim group and permitted the Green

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Eagle 1-8 claims to expire on September 17th, 1970. However, Mr. Barry O'Neil restaked the Green Eagle 1-8 claims on September 18th, 1970 and recorded the claims on October 7th, 1970.

On October 9th, 1970, Charta Mines Ltd. (N.P.L.) of Vancouver, B.C., purchased a 100 percent interest in the Green Eagle 1-16 claim group from Mr. Barry O'Neil of Whitehorse, Yukon Territory.

On November 3rd, 1970, Charta Mines Ltd. paid $200 in lieu of assessment work on the Green Eagle 9-16 claims and advanced the anniversary date of these claims to February 3rd, 1971.

On December 16th, 1970, the author and Dick Craft visited the claim group to blast trenches. The trenching was applied as assessment work on the Green Eagle 9-16 claims on December 30th, 1970. The property was snow-covered and no prospecting could be conducted on the claims. A few rock samples were collected from the area of the trenching. Access to the property was by a Trans North Turbo Air Jetranger helicopter. The trenching assessment work was applied for one year, and the anniversary date for the Green Eagle 9-16 claims will be February 3rd, 1972 when issued by the Whitehorse Mining Recorder.

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LOCATION AND ACCESS

The Green Eagle claim group is situated approximately halfway between Whitehorse, Y.T., and Dezadeash Lake (Sketch #1). The property is located on the west side of Kusawa Lake and to the southeast of Frederick Lake. The property and showings are located on the east side of a granite stock that is isolated from other granite, by Devilhole Creek to the east and by Frederick Lake River to the west. The granite stocks located in this area are contained within the Boundary Ranges of mountains. The Green Eagle claims are located at approximately 60° 15' latitude and 136° 22' longitude. The property is located to the south of the westerly jog in Kusawa Lake and to the south of the extension of the Shakwak Valley. The property is contained on Topographic Sheet 115-A Dezadeash Y.T., scale 1" = 4 miles.

Access to the north end of Kusawa Lake is by a good gravel road 10 miles long, located south of Mile 958 on the Alaska Highway. The property can be reached by boat from the north end of Kusawa Lake. The property is approximately 26 miles by water from the road on the north end of Kusawa Lake. The terrain, on the west side of Kusawa Lake from the north end south to the claim group, is suitable for road building and would be a possible road route to the property.

A second possibility for a road would be through the Frederick Lake area to the old Dalton Trail that is located on

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the east side of Dezadeash Lake. The Dalton Trail route could be followed to Mile 120 of the Haines Road. The Frederick Lake route would involve approximately 32 miles of road construction. The distance on the Haines Road is measured from Haines, Alaska to Haines Junction, Y.T., therefore by road route the property would be a distance of 152 miles to the tidewater port of Haines, Alaska. Presently, access to the area is by helicopter or fixed-wing aircraft from Whitehorse, or by boat from the north end of the lake.

The Green Eagle claims are located a total distance of 56 air miles south-westerly from Whitehorse. Access to the area for exploration purposes would best be accomplished by aircraft, due to the quickness of moving crews and equipment. A fixed-wing aircraft could be used for hauling supplies to Kusawa Lake, and helicopter support would be advantageous from the shore of Kusawa Lake up to the base of the mountain where the Green Eagle claims are located. Flying expenses can be expected to be a part of the cost of a thorough geological investigation of this property.

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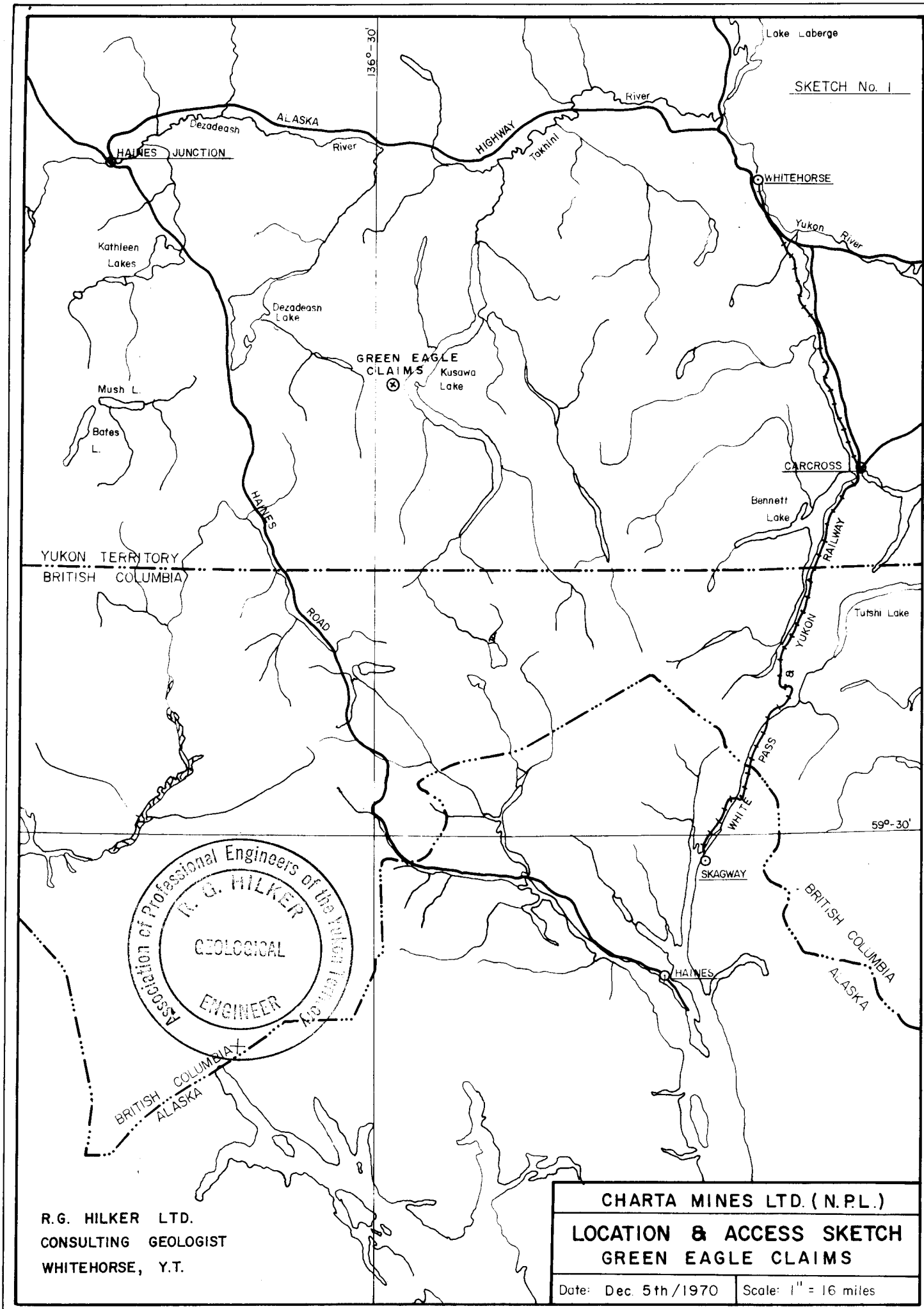

R.G. HILKER LTD.
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

CHARTA MINES LTD. (N.P.L.)

LOCATION & ACCESS SKETCH
GREEN EAGLE CLAIMS

Date: Dec. 5th/1970 | Scale: 1" = 16 miles

CLAIMS

The following claim data was searched on January 21st, 1971 at the Whitehorse Mining Recorder's Office.

Claim Name & No.	Grant No.	Anniversary Date
Green Eagle 1	Y59265	October 7, 1971
Green Eagle 2	Y59266	October 7, 1971
Green Eagle 3	Y59267	October 7, 1971
Green Eagle 4	Y59268	October 7, 1971
Green Eagle 5	Y59269	October 7, 1971
Green Eagle 6	Y59270	October 7, 1971
Green Eagle 7	Y59271	October 7, 1971
Green Eagle 8	Y59272	October 7, 1971
Green Eagle 9	Y39604	February 3, 1971
Green Eagle 10	Y39605	February 3, 1971
Green Eagle 11	Y39606	February 3, 1971
Green Eagle 12	Y39607	February 3, 1971
Green Eagle 13	Y39608	February 3, 1971
Green Eagle 14	Y39609	February 3, 1971
Green Eagle 15	Y39610	February 3, 1971
Green Eagle 16	Y39611	February 3, 1971

The claims are located on Sheet 115-A-8 of the Whitehorse Mining District of the Yukon Territory. Charta Mines Ltd. (N.P.L.) are the recorded owners of the Green Eagle 1-16 claim group and hold 100 percent interest in the claims.

The Green Eagle 9-16 claims have had assessment work applied on the group for a one-year period. When the Certificates of Work are issued from the Whitehorse Mining Recorder's Office, the Green Eagle 9-16 anniversary date will be February 3rd, 1972.

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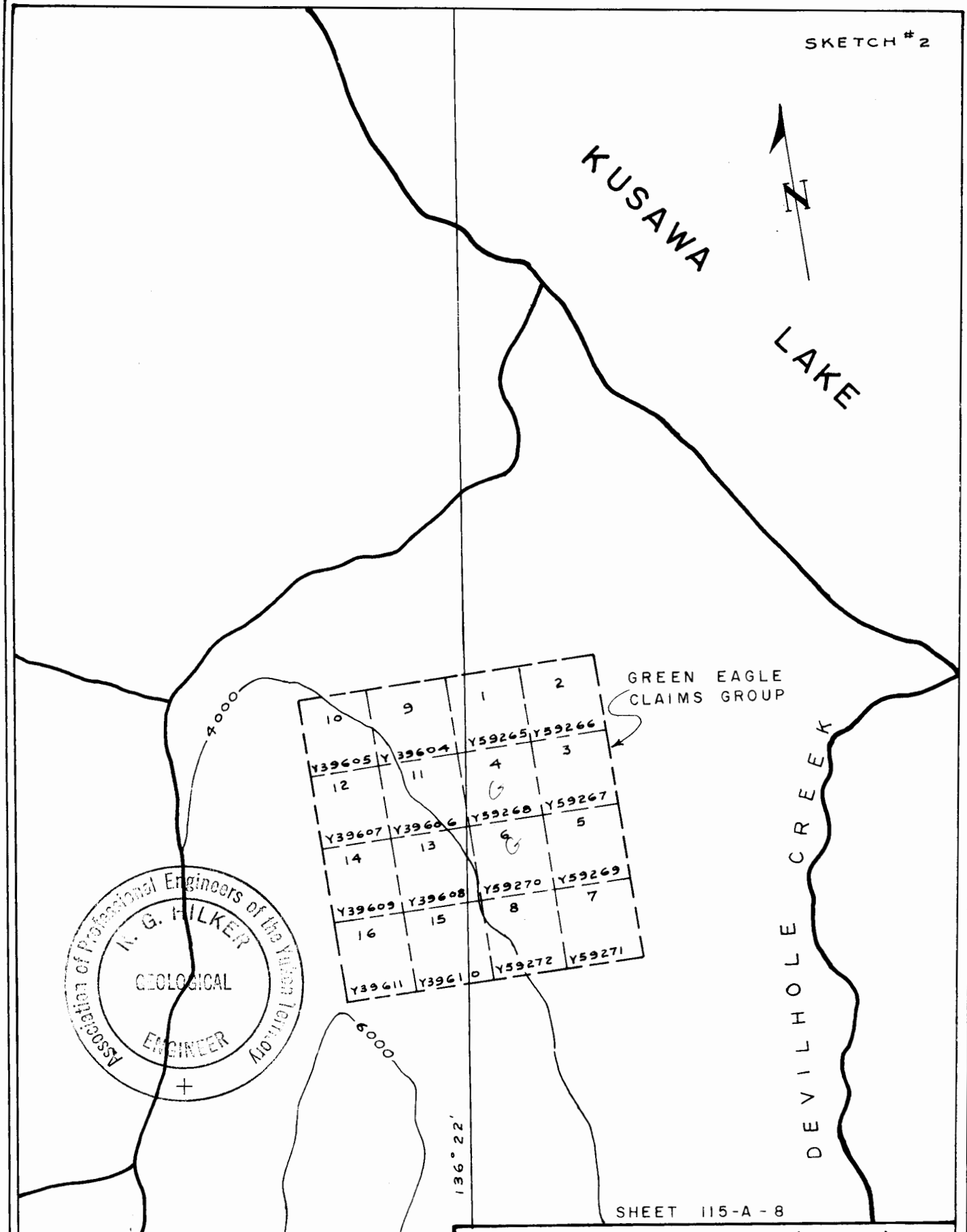
SKETCH # 2



SHEET 115-A-8

CHARTA MINES LTD. (N.P.L.) CLAIMS LOCATION SKETCH	
DR. BY - W.S.M.	APP'D BY-
DATE - NOV. - 4 - 69	SCALE - 1" = ½ MILE

GENERAL GEOLOGY

Cretaceous Coastal Intrusive granites and Precambrian Yukon Group rocks occur along the south-eastern end of the Ruby Range and to the Boundary Ranges in the area of Kusawa Lake and the Green Eagle claim group. These rock types are located in the north-south trending Ruby Range and the Boundary Ranges. The Shakwak Fault is located northwest of Dezadeash Lake and on the eastern side of the Kluane Range. The Shakwak Fault appears to trend southerly on the west side of Dezadeash Lake and roughly follows the location of the Haines Road south into British Columbia. The Shakwak Valley trends across the northern part of Dezadeash Lake and intersects the west jog in Kusawa Lake. Several stocks and laccoliths of Coastal Intrusive granites occur in this area and intrude the Yukon Group of rocks. There are approximately 75% granites and 25% metamorphic rock types in the previously-described areas (Sketch #3).

The Coastal Intrusions in this area consist mainly of acidic granite, porphyritic granite, granodiorite and diorites. The Yukon Group of rocks located in the Kusawa Lake area are mainly schists, gneiss, slate, quartzite, limestone and greenstone.

Coastal Intrusive granite rock types in the Ruby Range are similar to the igneous rocks in the Dawson and Nisling Ranges. Porphyry copper-molybdenum type of occurrences have been dis-

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covered on Talbot Creek in the Ruby Range, and on Casino and Hayes Creeks in the Dawson Range.

REFERENCE TO PUBLISHED GEOLOGY & GEOPHYSICS

The main geological reference in the Kusawa Lake area is contained in Memoir 268 of the Geological Survey of Canada - Dezadeash Map Area, Yukon Territory - by E.D. Kindle, 1953.

The airborne magnetics sheet that covers the claim group area is contained on Map 3341-G, Sandpipe Creek, Yukon Territory, scale 1" = 1 mile, and is Geophysics Paper 3341. This paper contains the airborne magnetics survey of June, 1964 to February, 1966.

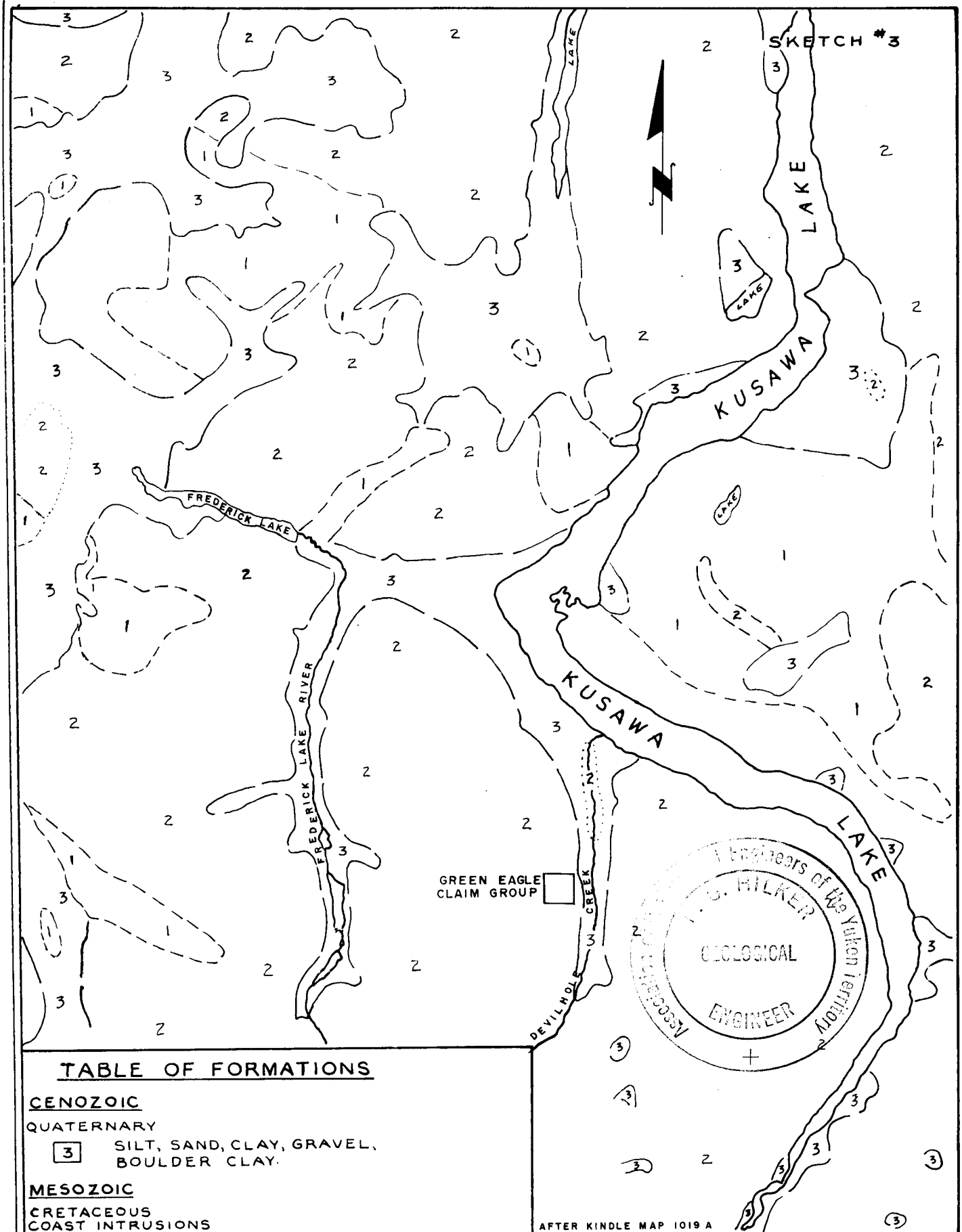

TABLE OF FORMATIONS

CENOZOIC

QUATERNARY

[3] SILT, SAND, CLAY, GRAVEL, BOULDER CLAY.

MESOZOIC

CRETACEOUS
COAST INTRUSIONS

[2] ACIDIC GRANITE, PORPHRITIC GRANITE, GRANODIORITE, DIORITE.

PRECAMBRIAN

YUKON GROUP

[1] SCHISTS, GNEISS, SLATE, QUARTZITE, LIMESTONE AND GREENSTONE. (AFTER E.D. KINDLE - MEMOIR 268)

AFTER KINDLE MAP 1019 A

CHARTA MINES LTD. (N.P.L.)

GENERAL GEOLOGY
KUSAWA LAKE DISTRICT

Date: Dec. 5th/1970 | Scale: 1" = 16 miles

TABLE OF FORMATIONS

CENOZOIC

Quaternary

3	- Silt, sand, clay, gravel, boulder clay.

MESOZOIC

Cretaceous
Coast Intrusions

2	- Acidic granites, porphyritic granite, granodiorite, diorite.

PRECAMBRIAN

Yukon Group

1	- Schists, gneiss, slate, quartzite, limestone and greenstone.

(After E.D. Kindle - Memoir 268)

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LOCAL GEOLOGY

The Green Eagle claim group is located in the granites of the Cretaceous Coastal Intrusions on the east face of the mountain that overlooks Devilhole Creek. The base of the mountain is curvalinear and trends in a southwest-southeast direction. The claims are located approximately between the 3,000 foot level and the 5,000 foot level. A gossan zone, that is reddish-brown in color, extends for approximately 3,000 feet in a northwesterly direction on the Green Eagle 4 and 6 claims. The gossan zone is approximately 3,000 feet long and 1,000 feet wide. The gossan contains at least two mineralized zones that are heavily stained and carry in part pyrite. The upper zone is approximately 500 feet thick and the lower zone is about 200 feet thick. The upper zone is located between the 4,500 - 5,000 foot level, strikes due north and dips 64° to the west. On the hanging wall side of the upper gossan zone, a swarm of dikes or sills intrude the granite and vary in thickness from five to ten feet. The dikes or sills could possibly be responsible for the mineralization that is deposited below them in the granites. Above the dike swarm is a zone of decomposition or alteration of the granite. The alteration product is a greenish-yellow color and may be a breakdown of the feldspar in the granite. The granite is highly fractured and jointed. The jointing is

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rectangular-shaped, approximately 24 inches by 12 inches, and the jointing strikes 350° and dips 64° west. It was noted that this jointing is very similar to the strike and dip of the highly stained upper gossan zone. The drainage system on the east side of the mountain is perpendicular to the northwestern trend of the mountain and therefore strikes in an easterly direction and suggests cross-faulting, fracturing and shearing. The east side of the mountain contains abundant rock exposure and, excepting steepness and scree cover, geological mapping would be possible in conjunction with geochemical sampling.

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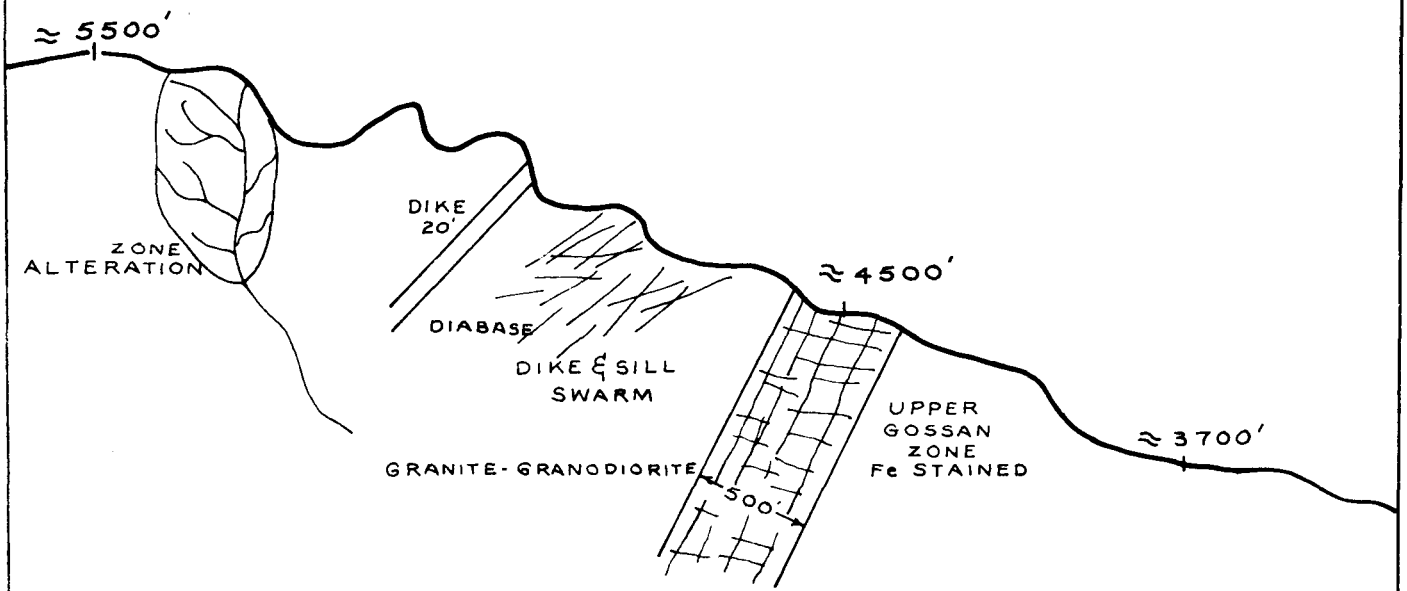
SKETCH #4



SECTION LOOKING NORTH

Association of Professional Engineers of the Yukon Territory
R. G. HILKER
GEOLOGICAL ENGINEER

R.G. HILKER LTD.
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

CHARTA MINES LTD. (N.P.L.)	
GEOLOGICAL SKETCH UPPER GOSSAN ZONE	
DR. BY - R.G.H.	APP'D BY - W.S.M.
SCALE - NONE	DATE - NOV.-5-69

LITHOLOGY

The following plutonic rock types were observed on the Green Eagle claims and identification was megascopic:

ACIDIC GRANITE - The granite appears to be silicate (SiO_2) rich with abundant alkalic feldspar ratio to calci-alkalic feldspar 5:3. Orthoclase feldspar, 10-15% smoky quartz, some plagioclase feldspar, biotite, some alteration of feldspar to clay minerals (kaolin, light creamy-white color), jointed, fractured, and in parts sheared, in zones stained an iron reddish-brown color on the weathered surface, medium-grained, good porosity and permeability, in parts mineralized with finely disseminated chalcopyrite, pyrite molybdenite and rarely galena. The galena occurs along fractures.

GRANITE PORPHYRY - Orthoclase feldspar phenocrysts (5-7 mm.) embedded in a fine medium-grained groundmass of feldspar, quartz and hornblende group mineral. This rock type was not observed to occur in abundance and was found in place in the hanging wall side of the upper gossan zone.

GRANODIORITE - Light creamy-grey color, approximately 30% orthoclase feldspar to 45% plagioclase feldspar, 20% quartz, some biotite, fracture, jointed and sheared, alteration minerals (kaolin group mineral).

DIORITE - Gradational rock mass in the granite stock. The diorite is minor rock type and appeared to have greater than 50% plagioclase feldspar. Calci-alkalic feldspar to alkalic feldspar is about 5:3. Medium grey color, plagioclase feldspar, orthoclase feldspar, minor quartz, not an abundant rock type.

DIABASE - Diabase Porphyry - Contained in dike or sill "swarm" on hanging wall side of upper gossan zone. Dense, black color, hard, mainly pyroxene, in parts laths of plagioclase feldspar, conchoidal when broken, varies in thickness from 5 - 10 feet and maximum of 20 feet.

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ECONOMIC GEOLOGY

The Green Eagle Claims 5, 6, 7 and 8 cover a gossan zone approximately 3,000 feet long that strikes in a north-south direction and is about 1,000 feet wide. The gossan occurs on the east face of a mountain overlooking Kusawa Lake. The gossan zone has two zones of mineralization present, which are described as:

1. Upper Zone - 4,000 to 5,000 foot level.
2. Lower Zone - 3,500 to 4,000 foot level.

The "Upper Zone" is about 500 feet thick, strikes north-south and dips 64° west (see Geology Sketch #4). The surface of the upper zone is weathered to a bright reddish-brown color and is very distinct. Rock types present within the zone consist of granite, granite porphyry, granodiorite and minor diorite. The upper zone is jointed, strikes 350° and dips 64° west, and is fractured and sheared within the granite host rock. Galena, pyrite and quartz-calcite fracture filling was noted to be deposited near a wide shear-fracture zone (note Assay Results). The acidic granites and granite porphyry, in the upper gossan zone, contained in parts finely disseminated pyrite and minor chalcopyrite. One sample of granite contained a visible plate of molybdenite that was about 2 mm. in diameter. A heavy oxidized iron reddish-brown color stain has accumulated on the surface of the host granite rock. The only other source of the weathered

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staining, than from iron sulphides, could be caused from the iron in biotite. Considerable granite rock exposure is present in the upper zone and contains some scree cover on the fracture zones.

The "Lower Zone" is located below the upper gossan zone on the east flank of the mountain. The lower zone is not as evident as the upper zone, but strikes about north-south and the attitude is unknown. Granite host rock is iron stained similar to the upper zone. Geochemical samples collected on the lower zone suggests sulphide mineralization is present within the granite.

The following assays were made by the Whitehorse Assay Office on the grab samples taken during the traverse from the 5,000 foot level to the 3,000 foot level, during the property examination.

Description	Sample No.	Au/Ag	Cu.	MoS_2	Pb
1. Quartz-calcite fracture filling in the granite host-rock upper zone.	3873	.005/2.40	.01		2.5
2. Upper zone - north face granodiorite - Fe stained.	3874	-	.01	Tr.	
3. Granodiorite - altered with kaolin - disseminated pyrite upper zone - random grab sample.	3875	-	.01	Tr.	

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Description	Sample No.	Au/Ag	Cu.	MoS_2	Pb
4. Granodiorite - same as above with galena - upper zone.	3876	-	.01	Tr.	.25
5. Granite Porphyry upper zone.	Not Assayed				
6. Granodiorite - altered from upper zone, Fe stained.	3877	-	.01	Tr.	
	3895	-	.01	.040	

The copper and molybdenite assays are not particularly high and may be due to leaching at surface. The samples for assaying were highly iron stained and altered and were taken from surface on the upper zone. Pyrite was finely disseminated and occurred in hairline fractures, in the samples assayed. The occasional surface sample did contain malachite staining and minor chalcopyrite.

GEOCHEMICAL PROSPECTING

The Green Eagle Claims 4, 6, 7 and 8 have been prospected by gathering 20 soil samples (Sketch #5) and determining the parts per million (PPM) of copper, molybdenite and lead. The soil samples were gathered by Mr. Barry O'Neil, red flagging marked the location the samples were taken from, and the sample number was written on the flagging. The soil sample locations were noted on the claim group by the author of this report during the property examination. Chemex Labs Limited of Vancouver

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made the Cu-Pb-MoS_2 determinations on the suggestion of the author to Mr. O'Neil. The soil sampling was conducted in a competent manner and was mainly in the "B" horizon of soil.

The Green Eagle claims can be expected to be in an acidic (pH of about 5) environment, due to the granite. Copper does not travel far in an acidic soil, therefore any of the copper determinations greater than 100 are anomalous.

The molybdenum PPM could be caused by leaching from the granite host rock rather than by the migration of molybdenum ions into the soil. The molybdenum PPM is not particularly high, but would be significant if only caused by leaching. Visible molybdenite was observed in one rock sample, therefore additional molybdenite can be expected within the upper and lower gossan zones.

The lead determinations in PPM are not extremely high excepting the 1480 PPM in Sample #6804. This was the area that galena was found in the fracture filling in a granite host rock. The lead suggests a possible halo or a mineralized zonation of sulphide mineralization on the gossan zone. Lead does not migrate far in an acidic environment and is possibly anomalous above 120 PPM.

Willow and grass vegetation covers the lower flank of the mountain on the claim group. Usually this type of vegetation grows in an acidic soil. A willow vegetation geochemical survey could be useful to determine molybdenite mineralization on the portion of the claim group that is overburden covered.

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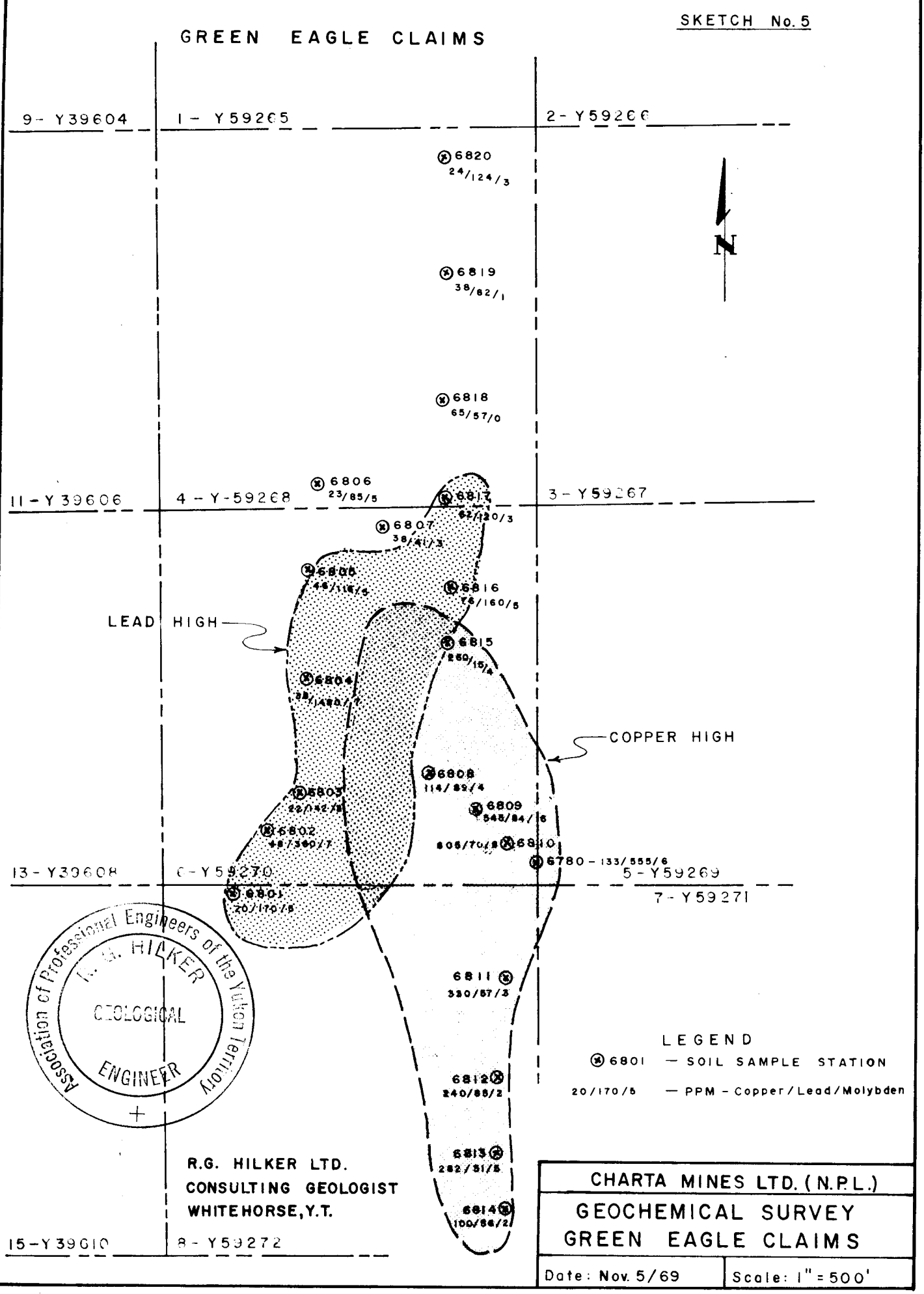
SKETCH No. 5

GREEN EAGLE CLAIMS



R.G. HILKER LTD.
CONSULTING GEOLOGIST
WHITEHORSE, Y.T.

CHARTA MINES LTD. (N.P.L.)

GEOCHEMICAL SURVEY
GREEN EAGLE CLAIMS

Date: Nov. 5/69 | Scale: 1" = 500'

CONCLUSIONS

The Green Eagle claims contain a surface gossan with chalcopyrite, pyrite and minor molybdenite mineralization and warrants a geological surface exploration program. The surface gossan zone suggests that mineralization could extend for approximately 3,000 feet in a north-south direction and be divided into two zones, an upper mineralized zone and a lower mineralized zone.

The granitic rock contained in the Kusawa Lake area and on the Green Eagle claims are possible host rocks for a disseminated copper-molybdenite type of deposit. The granites and granodiorites in this area are altered, fractured, sheared and jointed. This type of change in the host granitic rock would make it possible for the necessary voids for mineral solutions to enter the rock. The porosity and permeability of the granite is also sufficient for mineral solutions or gasses to permeate through the rock. By detailed surface work consisting of geological mapping and geochemical soil sampling, it would be possible to check the gossan zone and surrounding granite rock for any economic deposit that contained chalcopyrite and molybdenite. Alteration of the granite would be noted during mapping, as an indication of a porphyry copper-molybdenite type of deposit.

The property is located on an east-west extension of the Shakwak Valley Fault that intersects the western jog of

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Kusawa Lake. The Green Eagle claim group is located just to the south of this major fault zone. Near the northern part of the Shakwak Fault considerable mineralized zones are located on the west side of the fault.

The granite-granodiorite rock types that occur in the Kusawa Lake area should be regionally surveyed geochemically, and visual evidence of surface gossans looked for from an aircraft. It may be possible that there are other mineralized zones within the Coastal Intrusives in this area. It is noted, on the regional geology map of the Dezadeash Lake area from Memoir No. 268, that considerable faulting has occurred in the Kusawa Lake area in the granites.

The Green Eagle claim group and the Kusawa Lake area in general, is recommended for further work. The granite rock types and the mineralizations found within the gossan zone on the claim group are sufficiently interesting to warrant an exploration program.

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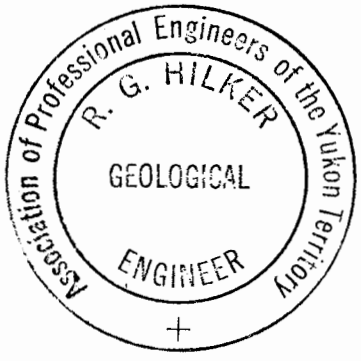
RECOMMENDATIONS

The following expenditures are warranted on the Green Eagle 1-16 claim group, located in the Ruby Range - Yukon Territory, to evaluate the copper-molybdenum potential of the prospect:

Linegrid & Survey Control Lines	$ 2,000
Geological Mapping on claim group	2,000
Magnetics Survey	1,500
Geochemical Sampling	2,000
Geochemical Determinations - 1000 samples @ $1.60	1,600
Transportation - Fixed Wing Aircraft, Helicopter and Truck	2,500
Camp Rental	500
Camp Supplies	1,000
Radio	300
Drafting Data	500
Report on Property	1,000
Contingencies	1,100
TOTAL PROGRAM	$16,000

The initial camp is to be established by two linecutters on the Green Eagle claim group. Upon completion of the linegrid and survey control picket lines, the linecutters would move out of the camp when the four-man exploration crew is mobilized to the property.



R.G. Hilker, P.Eng.
Consulting Geologist
January 21, 1971

A P P E N D I X

DATE January 22,1971.

FILE NO. 5841-7

ASSAY CERTIFICATE

WHITEHORSE ASSAY OFFICE

P.O. BOX 346. WHITEHORSE. YUKON

RECEIVED FROM R.G. Hilker Limited (Request For Copies)

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	Copper	Lead	Molybdenum MoS_2	Manganese Mn
3873	.005	2.40	.01	2.5	-	-
3874	-	-	.01	-	TR	-
3875	-	-	.01	-	TR	-
3876	-	-	.01	.25	TR	-
3877	-	-	.01	-	TR	.16
3878	-	-	.01	-	TR	.19
3895	-	-	.01	-	.040	-

ASSAYER K. Hayland per GAS.

1416 CROWN STREET
NORTH VANCOUVER, B.C.
CANADA
TELEPHONE: 988-6955

CHEMEX LABS LTD.

• CHEMISTS • GEOCHEMISTS • ANALYSTS • ASSAYERS

CERTIFICATE OF ANALYSIS

NO. 6073
INVOICE NO. 1899
DATE RECEIVED August 29/69
DATE ANALYSED Sept. 3/69

Mr. Barry O'Neill
Box 629
Whitehorse, Yukon

TN: Mr. Barry O'Neill

SAMPLE NO.:	PPM Copper	PPM molybdenum	PPM Lead
6801	20	5	170
6802	48	7	360
6803	22	3	142
6804	38	7	1480
6805	46	5	116
6806	23	5	85
6807	38	3	41
6808	114	4	89
6809	545	6	84
6810	605	8	70
6811	330	3	57
6812	240	2	85
6813	282	5	51
6814	100	2	56
6815	260	4	15
6816	76	5	160
6817	62	3	120
6818	65	0	57
6819	38	1	82
6820	24	3	124
6785	153	6	555
6774	72	4	48

24 145 - Rock Geo. Chem