GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT ON THE IQ CLAIM

IQ PROPERTY

IQ Claim

NTS 82F/16W

Latitude 49° 52' 00'' Longitude 116° 25' 00''

Owner – Super Group Holdings Ltd. 1805 13th Avenue South, Cranbrook, B.C. V1C 5Y1

Operator – Same as above

Consultant – Anderson Minsearch Consultants Ltd. 3205 6th. St. South Cranbrook, B.C. V1C 6K1

Author - Douglas Anderson, Geologist

Submitted - April, 2001

CHALOGICAL SURVEY BRANCH



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IQ PROPERTY ASSESSMENT REPORT GEOLOGICAL MAPPING AND ROCK GEOCHEM SAMPLING

1.00 Introduction

The IQ claims (20 units) cover an ultramafic stock with features and sampling results which indicate the body could be host to significant platinum-group elements. Located in the Fort Steele M.D. in a tributary drainage to Dewar Creek which itself feeds into the St. Mary River, the claims are difficult to access. In the year 2000, a few days of work were done on this ultramafic body to determine its size, internal characteristics, and to test for PGEs by rock sampling. The IQ intrusive body appears to be a unique intrusive in the region and requires more study and testing to determine any economic possibilities.

2.00 Location, Access and History

The IQ property is situated in quite rugged terrain between 1700 and 2400 metres elevation above a west-flowing tributary to Dewar Creek, a major contributor to the St.Mary river to the south. The claims are centered 36 air-km northwest of Kimberley, B.C. with the closest road access the main Dewar creek logging road. Travel is by this road some 60 kilometres from Highway 95A. There are no roads on the claims but logging is on-going downslope to the WNW. One can walk into the stock via an established trail (2 hours) or fly in by helicopter. It borders the St.Mary Alpine Park across the height of land to the east.

The property cons	ists of:		
Claim Name	Units	Record#	Anniv.Date
IQ	20u	377191	May 4,2001
The current owner of the	IQ is Super Gr	oup Holdings Ltd. o	f Cranbrook, B.C.

The stock has not attracted much attention in the past. GSC mapping is 1960's vintage by J.E. Reesor when he focussed on the White Creek batholith which forms the north boundary to the stock. Industry pursuit of the stock is poorly known or doesn't exist. Based on mapping and one analysis, Reesor concluded the stock is an ultramafic body due to low silica, high magnesium, and .05% each of nickel, manganese, and titanium, and .06% chromium. The B.C. government RGS work sampled two creeks in the area, one of which does drain the projected downslope extension to the stock. This stream silt documents very anomalous chromium with elevated nickel. A heavy mineral sample collected by industry from the same creek contained 50 and 100ppb Pt with relatively high Ni, Fe, Bi, W, and Cr. The federal government airborne magnetic survey of 1969/70 also covers the area.



3.00 Summary of Work Done

The 2000 exploration work done on this ultramafic body included prospecting achieve rock samples and mapping by two geologists for one day. The purpose of the work was to establish boundaries to the ultramafic, examine its character and collect a suite of rock samples for analytical and petrographic work.

4.00 Regional Geology (Figure 2 – from Reesor)

The 1"=1 mile map produced by the GSC (GSC Memoir 292, 1958) is the only regional mapping available. The IQ property occupies a point of curvature on the border of the Cretaceous White Creek batholith which has intruded the Mesoproterozoic sedimentary package including up stratigraphy: the basal siliciclastic turbidites of the Aldridge Formation; overlain by shallow-water clastics of the Creston Formation; succeeded by the carbonate and fine clastics of the Kitchener Formation. These sediments have been intruded by a series of Moyie gabbro sills and dykes of probable different ages. The north-striking package youngs to the west with generally steep bedding. The section is repeated by narrow, open folds and faults trending north-south. The White Creek batholith is a complex, zoned intrusive with a variety of different phases.

5.00 Property Geology (Figure 3)

The geological setting to the ultramafic stock on the IQ property is poorly established. It has not been mapped in any detail. The stock appears elongate in a north-south direction, >1.5 km by a maximum 500 metres. On the north, it appears to be terminating but is also cut by the batholith. To the south and downslope it disappears under overburden cover but is thinning. On the flanks of the stock, Creston rocks are foliated, steep-dipping units cut by the stock. A review of the regional geology indicates the stock occupies the northern extension of a syncline hosting Kitchener Formation rocks in it's core.

Overall the stock is a darker weathering unit with an orangey-grey, massive core and a dark grey peripheral zone (at least on the east flank). The contact has been observed on the northeast side where dark green pyroxenite is locally succeeded outwards by: a megacrystic, pegmatite phase of coarse pyroxene in an altered matrix of serpentine; intermixing of pyroxenite with granodiorite; and altered mafic layers within sediments. Internal to the stock, orange weathering dolomite sediment blocks become skarny locally. The pyroxenite forming the east side (to 150 m thick) of the intrusive body is a dark, massive pyroxene dominated rock. It can contain some disseminated sulfide locally, including pyrite, pyrrhotite and chalcopyrite. Magnetite is disseminated thoughout. At one location a pale green zone of olivine-rich rock was observed up to 20m wide. The bulk of the stock forming the core and west side is dominantly an orangey-grey weathering, massive, fine crystalline, pale greenish-grey rock (on a fresh surface). The rock is an altered intrusive with disseminated and patchy magnetite and included dolomite.

6.00 Petrography

As a start towards attempting to understand this intrusive and any mineral potential it may have for platinum-group elements, three representative samples were selected for thin-section analysis. Sent to Vancouver Petrographics Ltd. were samples IQM-04, DAIQ-1, and DAIQ-4 from the pyroxenite rim and the altered core. Below is a summary of the descriptions and conclusions from the report.





IQM-04 - From the fresh-looking pyroxenite on the east side.

A clinopyroxenite (augite/titanaugite) to about 90% originally, about 50% of the augite 1s now altered to amphibole (tremolite-actinolite). There is also a small amount of serpentine, carbonate in narrow veins, chlorite, magnetite (3-4%), ilmenite, and traces of hematite.

DAIQ-1 - From the east side of the stock but altered looking.

Classed as an altered pyroxenite or possibly pyroxene-rich gabbro. The clinopyroxene is altered to hornblende and biotite. There is 10% epidote and minor amounts of apatite, albite, chlorite. Sphene, ilmenite, magnetite, hematite and pyrite are minor reflected light constituents.

DAIQ-4 – This sample was from the main core of the stock, represented by an orangey-buff weathering altered ultramafic. This rock contains little pyroxene anymore, now amphibole 35%. Serpentine makes up 35%. Different is olivine to 30% in coarse crystals. Magnetite makes 3-4% with traces of chlorite and carbonate.

"No PGEs were noted in this altered ultramafic rock which retains much of its original pyroxene and magmatic texture." The petrography demonstrates a compositional variation somewhat documented in the fieldwork. The core and bulk of the stock may have been a peridotite which peripherally (at least on the east flank) changes to a clinopyroxenite thus suggesting some zoning within the stock.

7.00 Rock Geochemistry

Two trips were made to the IQ, both were sampling campaigns to gather representative rocks from the stock for analytical work. The upper (highest elevation) exposures define the stock contacts and some of the relationships with the country rocks. The lower elevations into Irish creek to the south do not provide sufficient exposures to delineate the body. Thirty-nine grab samples were analyzed for Pt, Pd, Rh, and Cr. Twenty-three of these samples were also run for Au. (See Figure 4 for approximate sample locations.) Of the samples collected, six have combined Pt+Pd of > 100ppb while six more have analyzed in the 50 to 100ppb range. These samples came mainly from the pyroxenite phase with the highest at 200ppb Pt and 380ppb Pd coming from a small quartz vein with magnetite and green mica located near the boundary between the two phases. The majority of the analyses are likely within a content range for ultramafic rocks. Sixteen samples were tested for chromium, with negligible Cr to several containing about 0.40% Cr. Only one sample contained any gold at 48ppb.

8.00 Summary and Conclusions

The IQ property covers an ultramafic stock of modest dimensions which cuts the Mesoproterozoic sediments of the Purcell Supergroup. It is bordered on the east by the Cretaceous White Creek batholith which appears to cut the ultramafic body. The stock straddles the extension of synclinally folded Kitchener Formation from the south.

This ultramafic stock may be a unique occurrence in the Purcell basin. Most smaller ultramafic occurrences, particularly those with olivine associated occur in orogenic belts where deep seated rocks have been exposed structurally such as for Alaskan or Alpine-type intrusions. It may be the



stock is an early differentiate of the batholith or even more likely a differentiate from the root magma for the Moyie intrusions (gabbros and diorites) so common within the sedimentary package as sills and dykes.

The IQ ultramafic stock is not completely defined on surface. The airborne magnetics suggest the stock could be larger. It is poorly understood internally and the distribution of phases and any possible layering have not determined. There are very weakly disseminated sulfides. It remains a potential target for PGEs but does not fit established models or compare favorably with some of the better known deposits in the world. So despite experience to date in B.C., there may be possibilities within the IQ for PGE concentrations other than those typified by known ultramafic/mafic complexes.

9.00 Itemized Cost Statement

CONTRACTORS

TOTAL =	<u>\$ 6,175.75</u>
Vancouver Petrographics, Vancouver, B.C. 3 polished thin sections	488.25
14 rock samples @ $$28$ /sample 420.00 16 rock samples @ $$28$ /sample 448.00	868.00
ASSAY CHARGES Acme Analytical Laboratories, Vancouver, B.C. Au.Pt.Pd&Rh analysis by ultra ICP	
TRANSPORTATION Big Horn Helicopters, Cranbrook, B.C. Helicopter supported field work – 1 day to fly in & out a 4-man crew	1,453.50
Truck $- 4X4 - 2$ days @ \$88/day	176.00
T. Kennedy & M. Kennedy, Prospectors – 4.0 days @ \$220/day S. Kennedy, Prospectors – 1.0 days @ \$165/day	880.00
D.L. Pighin, P.Geo. – 1.0 days @ \$330/day	330.00
P.Klewchuk, P.Geo 1.0 days @ \$330/day Field work	330.00
D.Anderson, P.Eng 4.5 days @ \$330/day Field work & report writing	\$ 1,485.00
Super Group Holdings Ltd., Cranbrook, B.C.	

10.00 Author's Qualifications

I, Douglas Anderson, Consulting Geological Engineer, have my office at 3205 6th. St. South in Cranbrook, B.C., V1C 6K1.

I graduated from the University of British Columbia in 1969 with a Bachelor of Applied Science in Geological Engineering.

I have practiced my profession since 1969, predominantly with one large mining company, in a number of capacities all over Western Canada.

I am a Registered Professional Engineer and member of the Association of Professional Engineers and Geoscientists of B.C., and I am authorized to use their seal which has been affixed to this report.

I am also a Fellow of the Geological Association of Canada.

Dated this 10th day April, 2001

Douglas Anderson, P.Eng., B.A.Sc., FGAC Consulting Geological Engineer



Appendix A

SAN	APLR#	Au** ppb	Pt** ppb	Pd** ppb	Rh** ppb	Brick Description
$ \begin{array}{rcrr} IOM-01 & -124 \\ IGM-02 & -124 \\ '' & -03 & -124 \\ '' & -04 & -124 \\ IGM-05 & -124 \end{array} $	4 15 16 17 ★ 18	482 37 4	67 6 130 23	84 11 11 84 8	<1 6 4 <1 <1	Course gebbro-like. Ultractic with myselike Black bend " "
$ \begin{array}{c} I& QM-06 & -124 \\ 4 & -07 & -125 \\ '' & -08 & -125 \\ '' & -09 & -125 \\ '' & -i0 & -125 \\ '' & -i0 & -125 \end{array} $	9 50 51 52 53	<1 <1 2 <1	16 45 26 16 108	7 14 15 4	<1 <1 <1 <1	Limmitic ultrametic Utrametic Binck ultrametic, diss. (7, 87, 90
	55 1255 56 57	~1 ~1 ~1 ~1 ~1 ~2	7 52 51 25 <1	7 13 14 8 5	6 <1 <1 <1 <1	". " Cig. altrametic ". "
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	58 59 ₩ 50 51 52 ₩		2 47 33 99	33 9 9 5	<1 <1 <1 <1 <1	Fig. "Itmutic for petrography.
$\begin{array}{c} D4IR -5 & -126\\ DAIR -6 & -126\\ K -IQ -2 & 126\\ K -IQ -2 & 126\\ STA$	53 54 55 56 NDARD FA-10R	7 4 20 <1 523	16 4 200 <1 492	14 5 380 9 529	<1 <1 <1 21	

GROUP 38 - FIRE GEOCHEM AU, PT, PD, RH- 30 GM SAMPLE FUSION, DORE DISBOLVED IN AQUA - REGIA, ICP ANALYSIS. UPPER LIMITS = 10 PPM, - SAMPLE TYPE: ROCK RISG 60C Samples Designing (RE' are Refume and (RRE' are Reject Refume.

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1.

		SAMPLE#		Au**	Pt** ppb	Pd** ppb	Rh** ppb	Cr* %	Brief Description
	IQ-01 -02 -03 -04 -05	-1477 -1478 -1479 -1480 -1481		<1 <1 3 4 2	66 16 14 53 9	9 3 3 24 <1	5 1 <1 <1 <1	.27 .04 .16 .04 .16	Brownish-grey, attered. Brown with serpentine + pyrchotite Black, chromite a magnetite Durk grey Horwan, limmite Electe
	IQ -06 -07 -08 -09 -10	-1482 1483 1484 1485 1486		9 1 27 2	37 <1 8 17 7	11 <1 15 16	V1 V1 V1 5	.37 .44 .06 .08	Grey, mignofik. Dark grey Black, chronik? Ructy, chronik? Creen-grey, pprite
	No # Grab " Grab " Grab	1487 1488 RE 1488 1489 1490		2 4 2 <1 2	2 <1 8 6 <1	<1 <1 4 4 <1	<1 <1 3 <1 2	.26 .10 .09 .27 .39	Green, mottled
	" Grat	1491 1492 STANDARI	FA-10R/UM-4	3 <1 462	12 478	7 3 465	<1 2 3	.41 .13 1.77	
GROUF CR*E - SAM DATE RECEIVED:	38 - FIRE GEOCHEM Y MA2O2 FUSION, ANA PLE TYPE: ROCK R150 AUG 2 2000 DATE	AU, PT, PD, RH- LYSIS BY ASSAY I 60C <u>Samples</u> S REPORT MAI	30 GH SAMPLE FUSION, CP. <u>beginning 'RE' are I</u> LED: ANS 18/0	DORE DISSOL Reruns and / D SIG	VED IN A <u>RRE' are</u> NBD BY	QUA - REG	Recuns.	ANALYSIS. D. TOYE,	C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS
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