Report on Acid Rock Drainage Characteristics of "Magnetite Ridge Iron Deposit", Olivine Mountain, Tulameen, B.C. RECEIVED AUG 1 7 2007 Gold Commissioner's Office VANCOUVER, B.C.

Similkameen Division

Map Sheets 092H056; 092H048 Lat: 49 33N; Long: 120W

Owners: Bruce Perry; Terry Wells

Operators: Bruce Perry, Terry Wells

Author: Bruce Perry, Ph. D., P. Geo. (ret.), FGAC (ret.) Kamloops, B.C.

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

Submitted: August 17, 2007



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Appended

Eco-Tech laboratories Assay Certificate re acid base accounting analyses

Introduction

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An initial acid rock drainage study was conducted by analyzing samples of the Magnetite Ridge Iron Deposit, its host rock, and samples of the lithologies adjacent to the deposit host rock lithology. The samples were analyzed by industry standard acid-base accounting chemical analyses conducted by Eco-Tech Laboratories, Kamloops, B.C.

The results show that magnetite mineralized deposit host rock, a hornblende clinopyroxenite occurring within the Alaskan-type Tulameen Ultra-mafic Intrusion (TUC), is essentially net non-acid generating. This was an expected result in that sulphide minerals, from which acid is generated during its decomposition due to exposure to the elements, are typically rare within this type of intrusion, and in fact scarcity of sulphide mineralization is a defining characteristic of Alaskan-type ultramafic- intrusions.

The only two other rock types within the area of interest are an olivine clinopyroxenite, situated to the east of the deposit, and which differs in its mineralogical composition from that of the deposit host rock only very slightly and is not in contact with the deposit host rock, and a local formation of the Nicola Volcanic Group, situated adjacent to the west of the deposit host rock, but which is not in contact with the deposit. Samples for ARD testing were collected from the core of the magnetite deposit as exposed on surface, from the host rock peripheral to the deposit, and from the Nicola Volcanic formation situated to the west of the deposit host rock, and which is not in contact with the deposit. Olivine clinopyroxenite was not sampled, since it does not contain any of the magnetite deposit, is nearly identical in composition to the deposit host rock, and would have comparable ARD characteristics.

Acid generation in the exploration and mining venue typically results from the weathering of sulphide bearing rock, however no significant acid generation is anticipated during the exploration or potential development, if any, of this deposit since the deposit is confined to the non-acid generating hornblende clinopyroxenite lithology. Magnetite mineralization in the deposit area itself has no acid generating potential at all, since the sparse amount of sulphides present, if any, are offset very effectively by abundant carbonate components of the rock which neutralize any very small amounts of acid that could be generated. The acid neutralization potential of the deposit host rock exceeds its acid generating potential by a factor of approximately 28 to 1.

Location, access, topography and forest cover

The BJP 1, 2, and 3 mineral claims are located about 26 kms northwest of Princeton, BC and are accessed by paved and seasonal roads south of the Tulameen River (Figures 1 and 2, Bright Star Ventures (BSV) Technical Report, Bill Yeomans, P. Geo., and Ron Wells, P.Geo., 2003). The deposit is located mostly in mineral claim BJP 2 which is situated on the southwest flank of Olivine Mountain at an elevation of approximately 1700m, forming a nearly bald ridge that trends generally south southeast. A portion of the deposit occurs north of the BJP 2 claim line on neighboring claims not belonging to the owners of the BJP 2 claim. The forest cover over and near the deposit area is very sparse because of the high elevation and since there is very little soil overlying the deposit. Within the deposit and nearby surrounding area there is little, if any,





commercial timber, the forest cover being comprised mostly of sporadic scrub pine and scrub fir.

At the time the deposit was first outlined by an aero-magnetics survey (BSV; 2002), it was not accessible by any BC Forest Service Road (FSR). The only land access then was via a many km long jeep trail spurring off Champion Creek FSR. The jeep trail is useable only a few months of the year, and only during extended periods of dry weather. However, during the subsequent years the BC government constructed more than 24 km of the Tulameen-Olivine FSR, bringing good, reliable road access to within 700m of the deposit, which is located at approximately UTM 5481000N, 652500E (NAD 83).

Local Geology

The deposit is located within the Tulameen Ultramafic Complex (TUC), which is an Alaskan-type ultra-mafic complex. These intrusions are comprised of ultramafic and mafic lithologies that are crudely concentric, the most mafic units occurring in the centre, the lithologies grading outwardly to less mafic lithologies. The TUC is comprised of a steeply dipping dunite core successively surrounded outwardly sometimes by olivine clinopyroxenite, hornblende clinopyroxenite, and gabbros (Figure 3, BSV Technical Report, Bill Yeomans, P. Geo., and Ron Wells, P.Geo., 2003). The BJP 2 mineral claim, which hosts the deposit, contains olivine clinopyroxenite, hornblende clinopyroxenite, and gabbros (Figure 4, BSV Technical Report, Bill Yeomans, P. Geo., and Ron Wells, P.Geo., 2003). The western portion of the BJP 2 claim contains also Nicola Volcanics which occur adjacent to the 1.3km wide zone of hornblende clinopyroxenite that comprises the western margin of the intrusion in this vicinity and contains the magnetite deposit, wholly.

Deposit Description

Airborne mag-EM data (BSV, 2002) indicated a north northwesterly (NNW) trending 1200m x 500m magnetite deposit extending to approximately 750m depth, and potentially containing several hundred million tonnes (Figure 4, BSV Technical Report, Bill Yeomans, P. Geo., and Ron Wells, P.Geo., 2003; and Figure 5, BSV, DP EM-Magnetite map). Since the deposit has not been drilled yet, there is no subsurface geological information, nor any substantiation of this speculation other than limited surface sampling of outcropping rock. BSV's in-house potential tonnage estimate of several hundred million tonnes is based on interpretation of geophysical information, only.

The deposit is monolithic, occurring entirely within the central portion of a north northwesterly trending zone of steeply dipping hornblende clinopyroxenite, and is 'dog-bone' shaped at surface, with approximately 2/3 of it contained within mineral claim BJP2, the remainder being contained within the "Chapman" claims located to the NNW.

Magnetite mineralization, as observed on surface, occurs within this deposit both as lenses of







massive magnetite and as disseminated magnetite grains within the core of the deposit. Outward from the core of the deposit magnetite occurs as disseminated mineralization.

Initial surface sampling previously conducted by BSV suggests that the core of the deposit is exposed at surface over an area approximately 80m x 100m, wherein surface samples' magnetite content ranged between 30%-64% magnetite. For the purposes of preliminary metallurgical and process testing a bulk sample permit and bond are in place for 1,000 tonne bulk sample (Permit MX-4-405) to be collect from the core of the deposit as exposed at surface.

Initial (limited) physical and chemical tests conducted on samples of the deposit magnetite mineralization support the potential use of this mineralization as iron smelter feed and coal cleaning medium (Eco-Tech Laboratories, 2005; and Craigmont Mines, 2005). More extensive testing will be needed to determine with certainty that the material has no deleterious features in regard to its potential use as iron ore and/or coal cleaning medium.

ARD Lithological Samples

Because of access and logistic difficulties caused by steep terrain occurring near the deposit, 2 days were required to collect appropriate samples of the various lithologies of interest, i.e hornblende clinopyroxenite from within the deposit area and peripheral to it, and Nicola Volcanics as occurring downslope and to the west of the deposit. Approximately 10 - 15 kg of each rock type was collected from various locations as indicted in Figure 5⁴by breaking off outcropping rock with a sledge hammer, pry bar and rock chisel. For each lithology, samples were collected from several outcrops and were combined in order to produce a composite sample of each lithology that would be representative of a large area for the purposes of acid-base accounting chemical analyses during this initial, limited investigation of the ARD characteristics of rock types occurring within the deposit area and adjacent to it.

Hornblende clinopyroxenite

This is the deposit host rock. Within the area of interest this lithology comprises the periphery of the TUC and is in contact to the west with Nicola Volcanics, and to the east with olivine clinopyroxenite. It is generally medium to coarse grained, being comprised of diopsidic augite, hornblende, and disseminated magnetite, except in the core of the deposit where very high concentrations of disseminated magnetite and occurrences of massive (100% magnetite) combine to yield concentrations of magnetite ranging between 30 - 64% in surface composite grab samples. Accessory minerals include biotite, rutile, and sparse apatite. Sulphides are rare within the magnetite deposit.

Olivine clinopyroxenite

Within the TUC, in general, the occurrence of *Olivine clinopyroxenite* is as surrounding dunite, the central lithology in the regime of lithological zonation. Rarely however, and only at the

contact between the two, the reverse is sometimes the case with dunite encapsulating olivine clinopyroxenite, but no dunite lithology has been observed within the BJP 2 claim, including the deposit area and vicinity.

None of the subject magnetite deposit occurs within this lithology. Because of its distance from the core of the deposit, it is unlikely that any future potential exploration or development of the core of the deposit would disturb much, if any, of this rock type. It was collected for comparison purposes, essentially, and appears to be nearly mineralogically identical to the host rock (hornblende clinopyroxenite), except that olivine largely takes the priority position of hornblende as an accessory mineral. Most often it is medium to coarse grained, blotchy green and black, and sometimes serpentenized. Serpentinization is the result of alteration of olivine, which is not a sulphide mineral and which does not produce acid during its alteration to serpentine.

Nicola Volcanics

As with the above-mentioned olivine clinopyroxenite, none of the subject magnetite deposit occurs within this lithology. Because of its distance from the core of the deposit, it is unlikely that any future exploration or potential development, if any, of the core of the deposit would disturb any of this rock type. It was collected and analyzed for comparison purposes, essentially, and generally consists in this area of massive, or sometimes schistose, andesite or andesite porphyry.

Acid-base accounting analyses and results

The composite samples of each lithology were subjected to industry-standard chemical acid-base accounting analyses as conducted by Eco-Tech Laboratories, Kamloops. The assay certificate is appended.

Sample BJPARD#1 (hornblende clinopyroxenite peripheral to the magnetite deposit) has an acid production (AP) value of 1.59, and has an acid neutralization potential (NP) of 410, yielding a net neutralization potential of 1.59. Thus, this lithology has a neutralizing factor ratio (NP/AP) 257 times that of its acid generation capability. Therefore, any acid generated would be very effectively neutralized by other chemico-mineral components of this rock type.

Sample BJPARD#2 (magnetite deposit hornblende clinopyroxenite) has an acid production value of 0.40, and has an acid neutralization potential of 12, yielding a net neutralization potential of 0.41. Thus, this lithology has a neutralizing facto ratio (NP/AP) 28 times that of its acid generation capability. Therefore, any acid generated would be effectively neutralized by other chemico-mineral components of this rock type.

Sample BJPARD#1 (Nicola Volcanics) has an acid production value of 0.28, and has an acid neutralization potential of 12, yielding a net neutralization potential of 0.28. Thus, this lithology has a neutralizing factor ratio (NP/AP) 42 times that of its acid generation capability. Therefore,

any acid generated would be very effectively neutralized by other chemico-mineral components of this rock type.

Conclusions

The results of the acid-base accounting chemical analyses of samples of the deposit, its host rock and adjacent lithologies show that there is essentially nil acid generating potential in regard to the deposit material, its host rock and the adjacent lithologies.

Bruce J. Perry, Ph. D.

Kamloops, BC

August 17, 2007

Authors Qualifications:

I am a retired geologist (Ph. D.), a former P. Geo. and FGAC, and am very familiar with the type of work that is the subject of this report, having previously conducted this type of work and report writing.

I have made two visits to the property to collect samples and physical data in support of this report.

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Bruce J. Perry, Ph. D. 2301 Skeena Dr. Kamloops, BC 250 374-0337

August 17, 2007

Statement of Costs

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	\$1800
field assistant (T. Wells) : 2 days @ 200/day	400
travel: 640km @0.42/km	400
	220
laboratory analyses	150
Total	\$2,570

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