	Broace sure
Ministry of Energy and Mines BC Geological Survey	Assessment Report Title Page and Summary
TYPE OF REPORT [type of survey(s)]: Geological	<b>TOTAL COST</b> : \$3358.28
AUTHOR(S): Helgi Sigurgeirson	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):	YEAR OF WORK: 2016
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE	E(S): 55611885
PROPERTY NAME: Black Gold	
212604 212605 212606 212607)	6-12 (312189, 312190, 312191, 312192, 313691, 313692, 313693,
COMMODITIES SOUGHT: Dimension Stone (biotite gabbro) MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082ESE24 MINING DIVISION: Greenwood	40 <b>NTS/BCGS</b> : <u>082E/07</u>
LATITUDE: <sup>0</sup> 18 <sup>'</sup> 39.968 <sup>"</sup> LONGITUDE:	118 ° 34 '44.95 " (at centre of work)
OWNER(S): 1) Garibaldi Resources Corp.	2)
MAILING ADDRESS: Suite 1150, 409 Granville Street, Vancouver, BC	
Canada V6C 1T2	
OPERATOR(S) [who paid for the work]: 1) Garibaldi Resources Corp.	2)
MAILING ADDRESS: Suite 1150, 409 Granville Street, Vancouver, BC	
Canada V6C 1T2	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, struct biotite gabbro, Eocene, Coryell Intrusive Suite, Syenite, dime	
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMEN	NT REPORT NUMBERS: 22970, 29388, 35553



BRITISH COLUMBIA The Best Place on Earth

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	10 hectares		\$3358.28
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
		-	
Radiometric			
Seismic			
Other		_     _	
Airborne		_     _	
GEOCHEMICAL (number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core		_     -	
Non-core		_     _	
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)		_	
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)		-    -	
Road, local access (kilometres)/	trail	_	
Trench (metres)		_	
Underground dev. (metres)			
Other			
		TOTAL COST:	\$3358.28
Geological Assessment F	Report on the Black Gold Property		<u> </u>

BC Geological Survey Assessment Report 36272

Geological Assessment Report on the Black Gold Property

Grand Forks, West Kootenay Region, British Columbia Greenwood Mining Division

Map Sheet 092H/03

UTM 385220E, 5463240N (Zone 11)

Claims 312189, 312190, 312191, 312192, 313691, 313692, 313693, 313694, 313695, 313696, 313697

> Prepared for: Garibaldi Resources Corp. Suite 1150, 409 Granville Street, Vancouver, B.C.

Prepared by: Helgi Sigurgeirson, P.Geo. August 30, 2016

# Table of Contents

Introduction	
Location, Access and Physiography	1
Property Definition	2
Previous Work	
Work Program Summary	2
Regional Geology	4
Property Geology	4
Geological Mapping	6
Conclusions and Recommendations	9
References	9
Statement of Qualifications	10
Cost Statement	11
Statement of Work	12

# List of Figures

Location Map	1
Claim Map	3
Property Geology Map	5
Geology Map (1:2000)	7
Porphyritic gabbro photos	8
Non-porphyritic gabbro photos	8
Syenite photo	8
Widely spaced jointing photo	8
	Claim Map         Property Geology Map         Geology Map (1:2000)         Porphyritic gabbro photos         Non-porphyritic gabbro photos         Syenite photo

## Introduction

Location, Access and Physiography

The Black Gold Prospect is about 33 km NNW of Grand Forks, British Columbia (Figure 1). The property is accessed by taking the North Fork Road north from Grand Forks until it meets the Brown Creek Road (UTM 393570E, 5444790N), just before crossing the Granby River. Continue north on the Brown Creek Road for about 4.5 km, then turn left on Rock Candy Road at 393750E, 5449375N. Rock Candy Road turns into the Pass Creek Forest Service Road after about 600 m. 5449400N). Take the Pass Creek FSR until about 23.7 km (UTM 386750E, 5463170N). Take the spur road to the left and follow it northwest for about a kilometer, then southwest for about 900 m until UTM 385250E, 5463350N. Turn south here. The quarry site is about 80 m to the south of this intersection.

The southwest of the property is dominated by a steep northeast trending ridge which descends off the north flank of Almond Mountain. To the north and east, the topography becomes moderately steep. The elevation ranges from 1575 m in the northeast to 2140 m to the southwest. The property is densely forested, though several small clear cuts cover about a quarter of the property. Snowfall is moderate, as the area is within a dry belt.

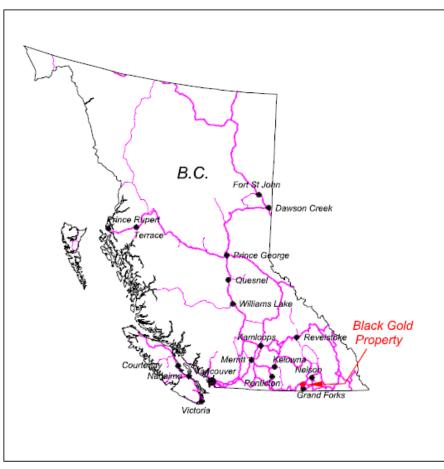


Figure 1: Location Map

## Property Definition

The Black Gold Property is a group of 11 contiguous 2 post legacy claims that were staked in 1992 (Figure 2). They cover 275 hectares and are 100% owned by San Pedro Stone Inc., which is a 100% owned subsidiary of Garibaldi Resources Corp (Table 1).

A Statement of Work (55611885) was filed for the work described in this report on July 26, 2016, and the claims are good to August 25, 2017.

Tenure #	Claim Name	Area (ha.)	Good to Date
312189	Black Gold #1	25	August 25, 2017
312190	Black Gold #2	25	August 25, 2017
312191	Black Gold #3	25	August 25, 2017
312192	Black Gold #4	25	August 25, 2017
313691	Black Gold #6	25	August 25, 2017
313692	Black Gold #7	25	August 25, 2017
313693	Black Gold #8	25	August 25, 2017
313694	Black Gold #9	25	August 25, 2017
313695	Black Gold #10	25	August 25, 2017
313696	Black Gold #11	25	August 25, 2017
313697	Black Gold #12	25	August 25, 2017

## Table 1: Black Gold Mineral Claims

## Previous Work

A geological assessment and report was done by H. Kim and L. Sookochoff in 1993. A economic evaluation was done by L. Sookochoff in 1995.

Initial test quarrying was done in 1995. More quarrying was done in 1999. A review of data, mapping and evaluation of the quarry site was done in 2007/8 by Purdy (2008). According to Purdy, the quarrying produced 165 m3 of #1 blocks. Detailed structural mapping of the quarry site was done by H. Sigurgeirson in 2015.

The Black Gold Minfile (082ESE240) is erroneously shown to the north of the property (MapPlace 2015), likely on the site of the lapsed Black Gold #5 claim.

## Work Program Summary

The purpose of the 2016 mapping program was to determine the extent and orientation of the zones of widely spaced jointing within the gabbro that may be suitable for quarrying blocks for dimension stone. 16 hours of field work were done from July 16 To July 17, 2015. Work consisted of 1:2000 scale geological mapping in the area of the quarry site, which covered an area of 10 hectares.

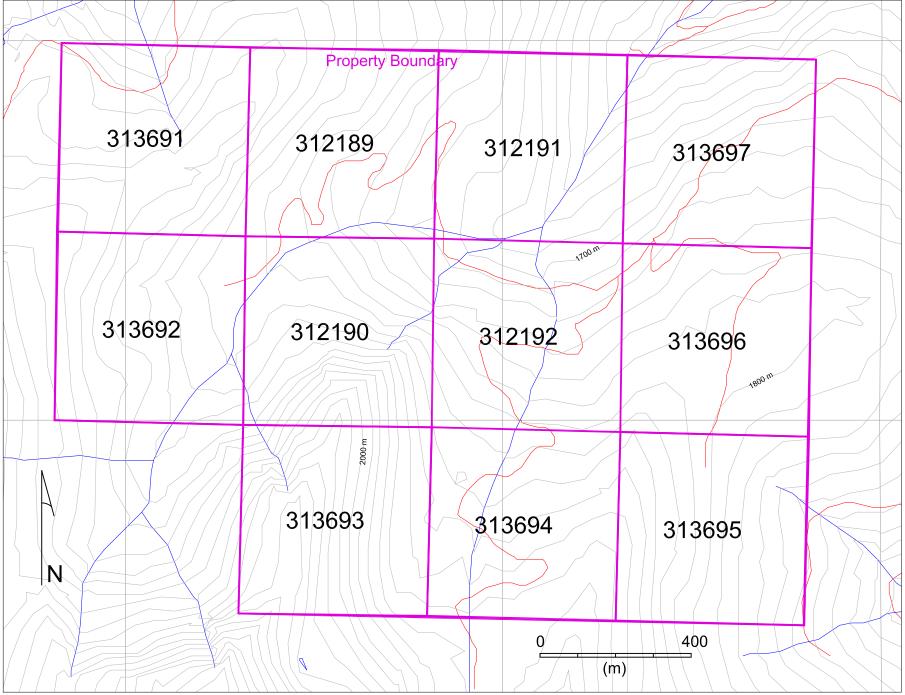


Figure 2 - Claim Map

### **Regional Geology**

The area is underlain by the Middle Eocene Coryell Intrusive Suite (Carr and Parkinson, 1989). Pink to buff weathering syenites dominate the suite, though monzonites, granites and ultramafic to mafic intrusives also occur. The Coryell Intrusives have been cut by Eocene extensional faulting and are unfoliated in the Granby Valley area.

#### **Property Geology**

The property geology features a central zone of medium grained, porphyritic, black, biotite-pyroxene gabbro that has been mapped in an area about 200 m by 250 m (Figure 3). This unit is unconstrained to the north, east and southwest and is the unit the quarry extracted blocks from. To the west, northeast and south of the porphyritic, black gabbro is a non-porphyritic, dark grey gabbro. To the south and northeast of the non-porphyritic gabbro is a light grey syenite. Kim & Sookochoff (1993) report syenites to the west as well.

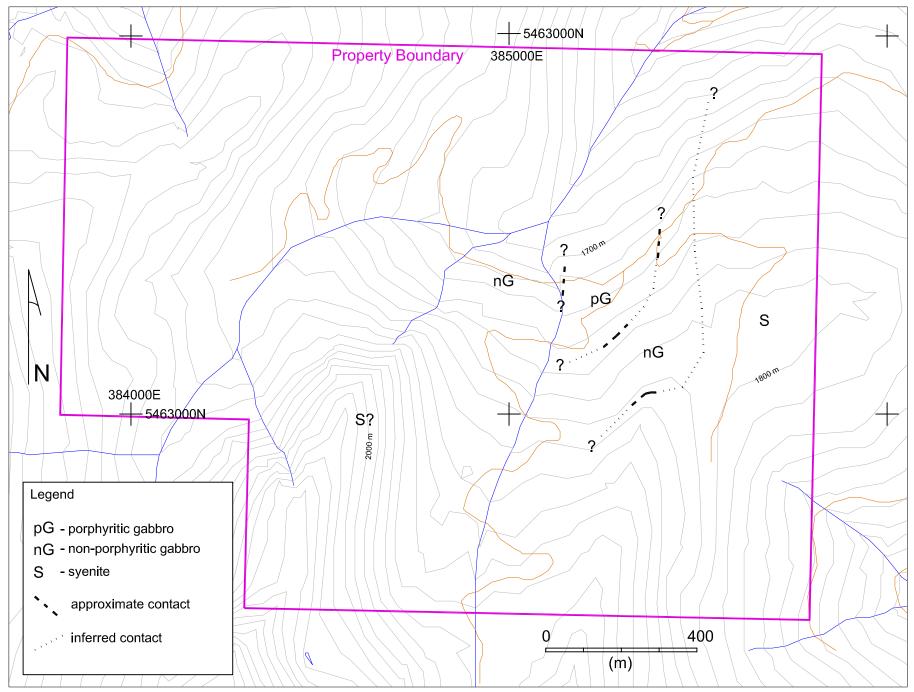
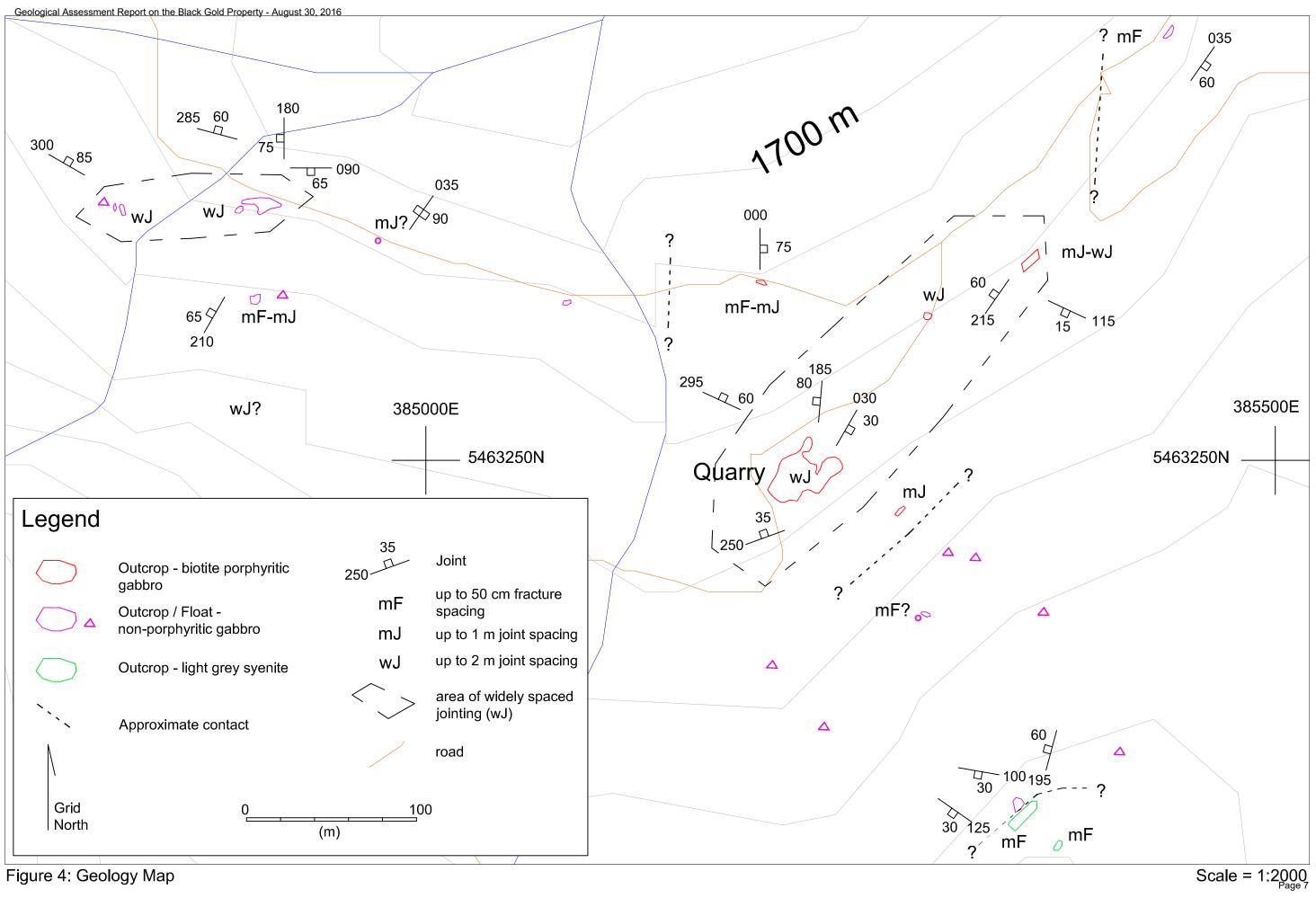


Figure 3 - Property Geology Map

# **Geological Mapping**

An area of 10 ha. in the area of the quarry was mapped at a 1:2000 scale for lithology and joint/fracture density (Figure 4). The purpose of the 2016 mapping program was to determine the extent and orientation of the zones of widely spaced jointing within the gabbro that may be suitable for quarrying.

Three mappable units were encountered. The area of the quarry is underlain by a dark grey to black, medium grained, biotite-pyroxene gabbro that is dominated by biotite phenocrysts up to 1 cm across (Figure 5). Peripheral to the porphyritic gabbro is a non-porphyritic (to weakly porphyritic) medium grey to black, medium grained, biotite-pyroxene gabbro (Figure 6). The non-porphyritic gabbro generally has more plagioclase (up to 50%), which gives it a distinctive speckled appearance. A light grev syenite (Figure 7) was observed to the south and east of the non-porphyritic gabbro. The orientations of the lithological contacts shown on Figure 4 are essentially guesses at this point. Widely spaced jointing occurs in two areas (Figure 4). A group of outcrops in the central part of the porphyritic gabbro, including the quarry exposure, featured widely spaced jointing. Another area of widely spaced jointing, within the non-porphyritic gabbro unit, occurs at the western edge of the area mapped (Figure 8). A number of large, unfractured boulders were observed upslope and to the south of this area, which may indicate another area of widely spaced jointing on the ridge to the south (marked as wP? on Figure 4). Note that the areas of widely spaced jointing are not well constrained. Five diamond drill holes were drilled in the area of the black biotite porphyritic gabbro. The 3 holes drilled within the area mapped as having widely spaced jointing are less fractured than the other holes and feature intact sections of core 2+ m in length.



Geological Assessment Report on the Black Gold Property - August 30, 2016



Figure 5: Dark grey to black, porphyritic, medium grained biotite-pyroxene gabbro.

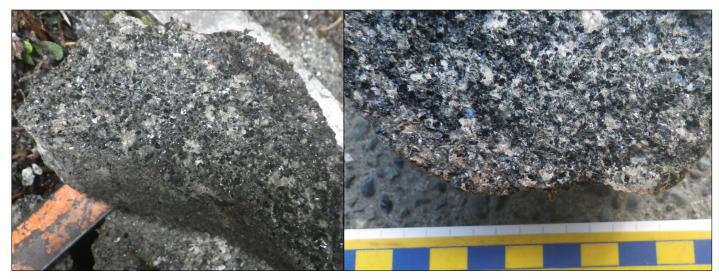


Figure 6: Medium grey to black, medium grained biotite-pyroxene gabbro.



Figure 8: Widely spaced jointing in non-porphyritic gabbro (west zone).



Figure 7: Light grey syenite.

#### **Conclusions and Recommendations**

While the orientations of the contacts are poorly constrained, the lithological units and zones of widely spaced fracturing appear to trend to the northeast. This does not agree with previous mapping (Kim & Sookochoff, 1993) where lithological units trended to the northwest. As there is no outcrop information to accompany the earlier mapping, it is difficult to assess the discrepancies. More mapping is required to determine the orientation and extent of the lithological units and structural zones. There appear to be coherent zones featuring widely spaced jointing suitable for quarrying at several locations in the general area of mapping. The biotite porphyritic gabbro featured widely spaced jointing at most of the outcrops examined. More stripping and or diamond drilling would be required to assess the bulk of the zone which is obscured by overburden.

#### References

Carr, S.D. And Parkinson, D.L. (1989) Eocene Stratigraphy, age of the Coryell Batholith, and extensional faults in the Granby Valley, southern British Columbia; <u>in</u> Current Research, Part E, Geological Survey of Canada, Paper 89-1E, p. 79-87, 1989.

Kim, H and Sookochoff, L. (1993) Summary Report. Results of the Initial Diamond Drilling - Biotite Gabbro (Black Stone) – on the Black Gold Claims. Assessment Report 22970.

MapPlace (2015) BC Map UTM Zone 11 showing part of Map Sheet 082E/07. BC Geological Survey <a href="http://webmap.em.gov.bc.ca/mapplace/minpot/BC\_UTM.cfm?zone=11">http://webmap.em.gov.bc.ca/mapplace/minpot/BC\_UTM.cfm?zone=11</a>> (accessed June 18, 2015).

Purdy, J. (2008) Geological Assessment / Quarry Plan Review – Black Gold Granite Quarry Development. Assessment Report 29388.

Sigurgeirson, H. (2015) Geological Assessment Report on the Black Gold Property. Assessment Report 35553.

#### **Statement of Qualifications**

I, Helgi Sigurgeirson, certify the following:

- 1. I graduated in 1995 from the University of British Columbia with a B.Sc. in the Geological Sciences.
- 2. I have worked in mining and mineral exploration continuously since graduation.
- 3. I have worked on VMS, porphyry, epithermal and mesothermal Au vein, anorthosite hosted Ti, and nephrite exploration programs in Canada, Mexico and China. I have developed and operated 3 dimension stone quarries on the BC coast.
- 4. I am a professional geoscientist in the Association of Professional Engineers and Geoscientists of British Columbia, and have been a member in good standing (member #28920) since 2004.
- 5. I carried out the work program described herein and wrote this report.

GURGEIRSON #28920 BRITISH F

H. Sigurgeirson, P.Geo

August 30, 2016

Date

# **Cost Statement**

Consultant H. Sigurgeirson, P.Geo. Subtotal	<b>Days</b> Fieldwork: July 16 – 17, 2016 Travel (1/2 rate): July 15 & 18 Report Preparation	Rate/day \$500.00 \$250.00 \$850.00	Time 2 2	<b>Total</b> \$1,000.00 \$500.00 \$850.00 <b>\$2,350.00</b>
<b>Rentals</b> 2007 F-150 4x4	April 26 to 29, 2015	\$100.00	4	\$400.00
Expenses Accommodations Fuel Food Ferries Subtotal				\$178.00 \$213.48 \$94.75 \$122.05 <b>\$608.28</b>
Total =	\$3,358.28			