

**Ministry of Energy and Mines**  
BC Geological Survey

**Assessment Report**  
**Title Page and Summary**

TYPE OF REPORT [type of survey(s)]: Geological

TOTAL COST: \$3012.22

AUTHOR(S): Helgi Sigurgeirson SIGNATURE(S): \_\_\_\_\_

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): \_\_\_\_\_ YEAR OF WORK: 2015

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): \_\_\_\_\_

PROPERTY NAME: Black Gold

CLAIM NAME(S) (on which the work was done): Black Gold #1-4 & 6-12 (312189, 312190, 312191, 312192, 313691, 313692, 313693, 313694, 313695, 313696, 313697)

COMMODITIES SOUGHT: Dimension Stone (biotite gabbro)

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082ESE240

MINING DIVISION: Greenwood NTS/BCGS: 082E/07

LATITUDE: 49 ° 18 ' 39.968 " 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, structure, alteration, mineralization, size and attitude):  
biotite gabbro, Eocene, Coryell Intrusive Suite, Syenite, dimension stone

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 22970, 29388

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
<b>Ground, mapping</b>	800 m2		\$3012.22
<b>Photo interpretation</b>			
<b>GEOPHYSICAL (line-kilometres)</b>			
<b>Ground</b>			
<b>Magnetic</b>			
<b>Electromagnetic</b>			
<b>Induced Polarization</b>			
<b>Radiometric</b>			
<b>Seismic</b>			
<b>Other</b>			
<b>Airborne</b>			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
<b>Soil</b>			
<b>Silt</b>			
<b>Rock</b>			
<b>Other</b>			
<b>DRILLING (total metres; number of holes, size)</b>			
<b>Core</b>			
<b>Non-core</b>			
<b>RELATED TECHNICAL</b>			
<b>Sampling/assaying</b>			
<b>Petrographic</b>			
<b>Mineralographic</b>			
<b>Metallurgic</b>			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY / PHYSICAL</b>			
<b>Line/grid (kilometres)</b>			
<b>Topographic/Photogrammetric (scale, area)</b>			
<b>Legal surveys (scale, area)</b>			
<b>Road, local access (kilometres)/trail</b>			
<b>Trench (metres)</b>			
<b>Underground dev. (metres)</b>			
<b>Other</b>			
<b>TOTAL COST:</b>			\$3012.22

Geological Assessment Report  
on the Black Gold Property

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

Map Sheet 082E/07

UTM 385220E, 5463240N (Zone 11)

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

Prepared for:  
Garibaldi Resources Corp.

Prepared by:  
Helgi Sigurgeirson, P.Geol.  
August 5, 2015

## Table of Contents

Introduction	
Location, Access and Physiography .....	1
Property Definition .....	2
Previous Work .....	2
Work Program Summary .....	2
Regional Geology .....	4
Property Geology .....	4
Geological Mapping .....	6
Conclusions and Recommendations .....	11
References .....	11
Statement of Qualifications .....	12
Cost Statement .....	13
Statement of Work .....	14

## List of Figures

1. Location Map .....	1
2. Claim Map .....	3
3. Property Geology Map .....	5
4. Quarry Map .....	7
6. Section A-B' .....	8
7. Section C-D' .....	9
8. Sub-horizontal joints photo .....	10
9. Joint Set 2 photo .....	10



## 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.

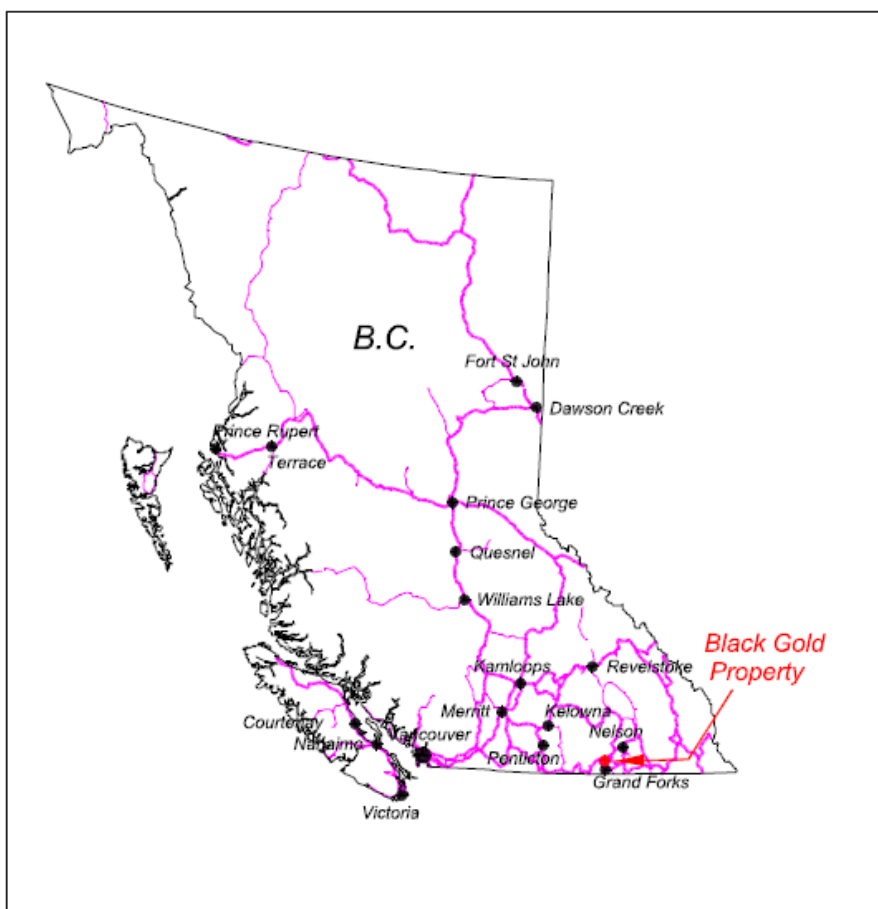


Figure 1: Location Map

## 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 (5563719) was filed for the work described in this report on July 24, 2015, and the claims are good to August 12, 2016.

Table 1: Black Gold Mineral Claims

Tenure #	Claim Name	Area (ha.)	Good to Date
312189	Black Gold #1	25	August 12, 2016
312190	Black Gold #2	25	August 12, 2016
312191	Black Gold #3	25	August 12, 2016
312192	Black Gold #4	25	August 12, 2016
313691	Black Gold #6	25	August 12, 2016
313692	Black Gold #7	25	August 12, 2016
313693	Black Gold #8	25	August 12, 2016
313694	Black Gold #9	25	August 12, 2016
313695	Black Gold #10	25	August 12, 2016
313696	Black Gold #11	25	August 12, 2016
313697	Black Gold #12	25	August 12, 2016

## 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 m<sup>3</sup> of #1 blocks.

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 2015 mapping program was to provide detailed structural information to direct further test quarrying.

16 hours of field work were done from June 26 To June 27, 2015. Work consisted of 1:250 scale geological mapping at the quarry site, which covered an area of 800 m<sup>2</sup>.

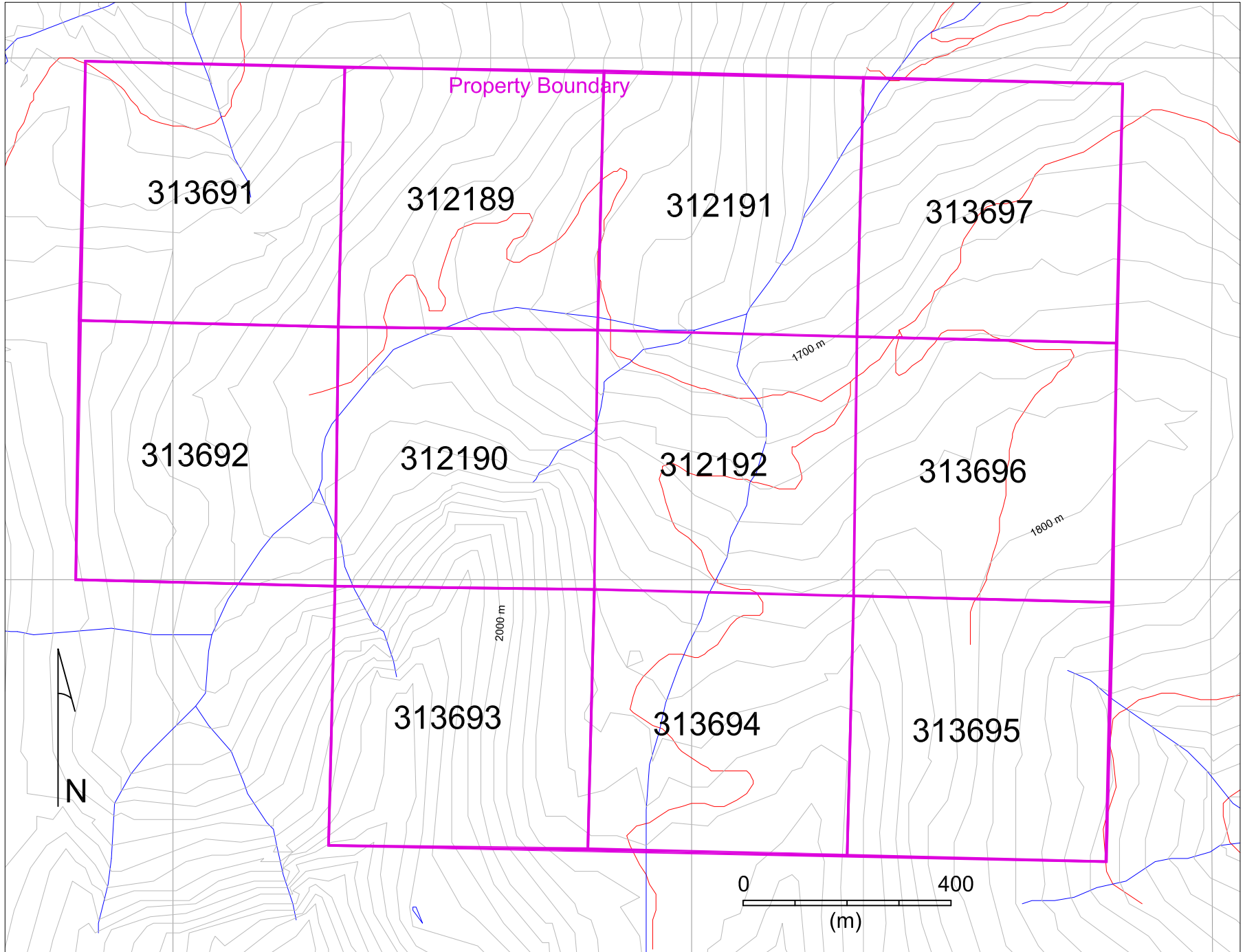


Figure 2 - Claim Map

Scale = 1:10 000

## **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, as mapped by Kim and Sookochoff (1993), shows a band of coarse grained, black, biotite gabbro about 200 m wide, and trending NNW for about 1000 m (Figure 3). This is the unit the test quarry occurs in. To either side of the black gabbro is a lighter biotite gabbro with significantly more plagioclase, giving it a speckled appearance. The rest of the property is underlain by light pinkish grey or white syenites.

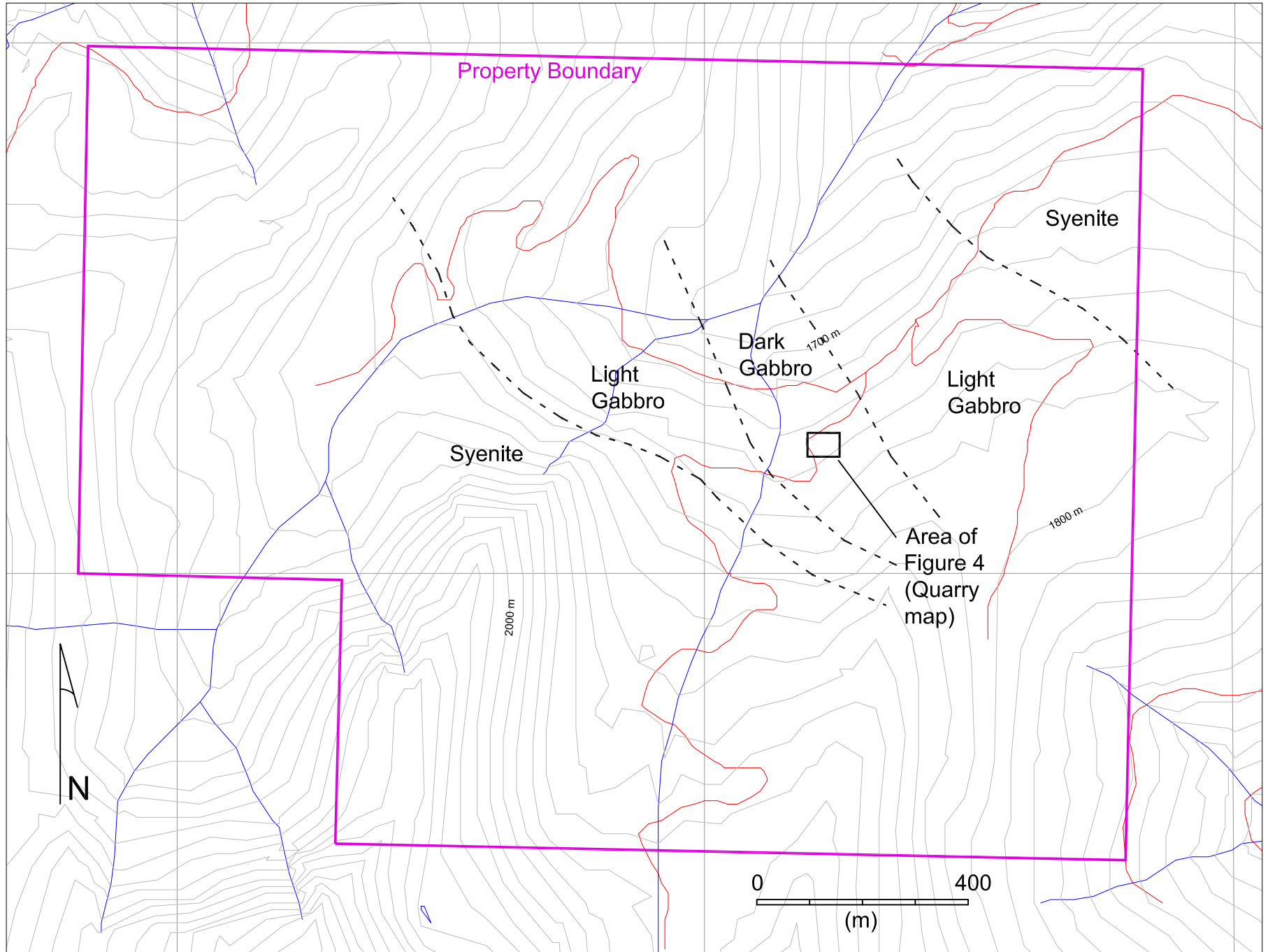


Figure 3 - Property Geology Map (Geology after H. Kim (1993))

Scale = 1:10 000

## Geological Mapping

The area stripped during test quarrying was mapped at a 1:250 scale (Figure 4). Sections were produced based on the mapping and a compass and chain survey of the section lines (Figure 5 & 6). The purpose of the mapping was to determine the spacing and orientation of the jointing, which would in turn provide an understanding of the structure that would allow the planning of further test quarrying.

Four main joint sets were mapped.

### Joint Set 1

A shallow to moderately SE dipping bed joint which occurs in spaced groups, so that sub-horizontal bands of stone with no horizontal jointing, commonly 4+ m in width, are broken by relatively closely spaced (usually about 1 m spacing) groups of joints. The two bands of jointing observed in the quarry exposure appear to be diverging to the south. This is best seen in the section oriented from north to south (Figure 6). This joint set is painted yellow in the photo below (Figure 7).

### Joint Set 2

A north striking and steeply dipping set of joints that are usually spaced 1 to 3 meters apart. This set forms the face above the lower bench (Figure 5). This joint set is quite regular, but doesn't continue through Joint Set 1. Figure 8 shows that blocks were cut out during test quarrying by line drilling between joints of this set.

### Joint Set 3

A somewhat irregular, W to NW striking, steeply dipping joint set that is often widely spaced (5+ m). Joint Sets 1 & 3 can be observed offsetting each other. This joint set is best seen in Figure 6.

### Joint Set 4

A S to SW striking, moderately dipping joint set, with fairly variable strike that defines the sloping face between the middle and upper benches. This joint set is best seen in Figure 5, but is also visible in Figure 6 as a near horizontal line.

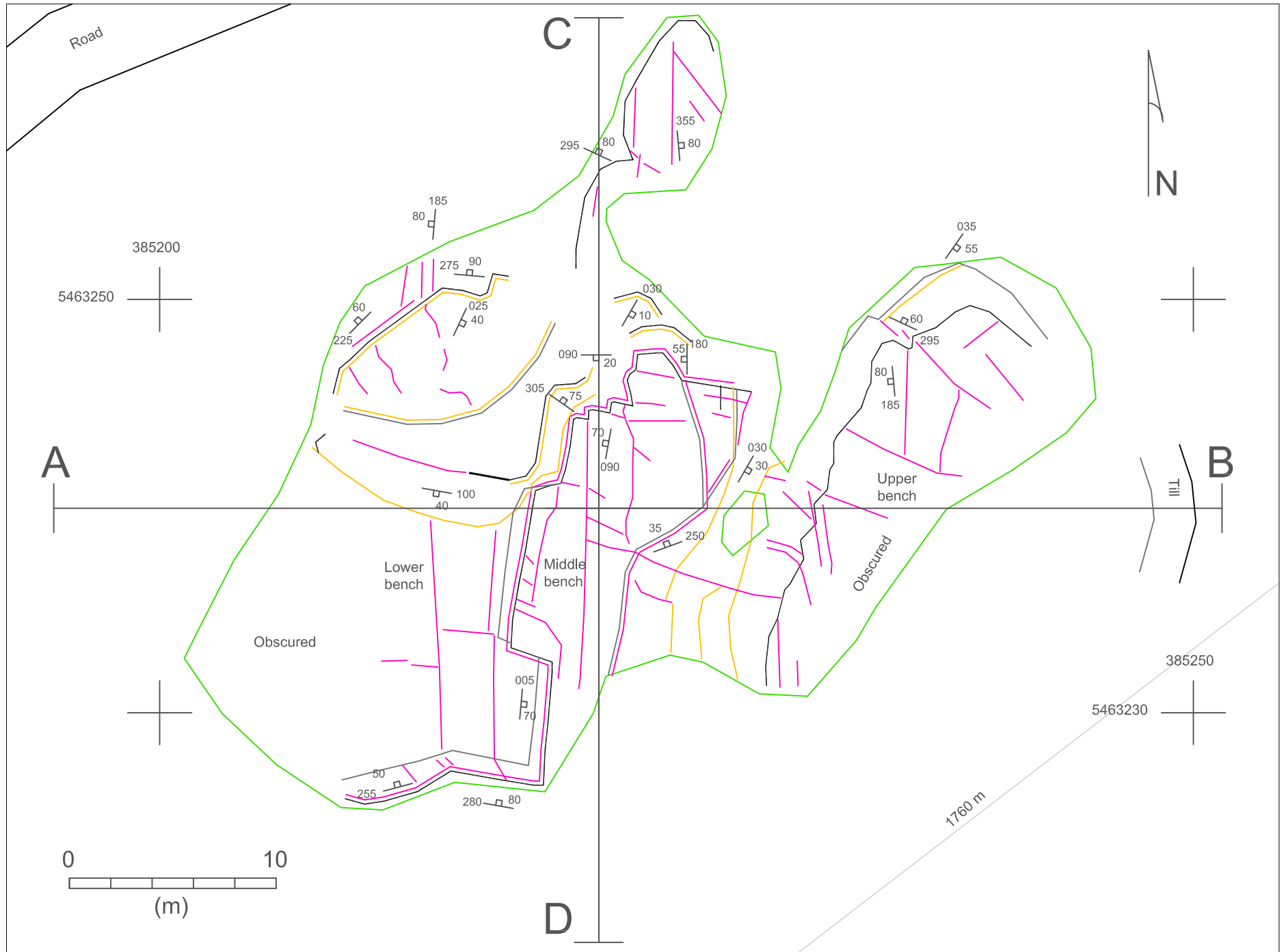


Figure 4: Quarry Map (Legend on page 9)

Scale = 1:250

270°

090°

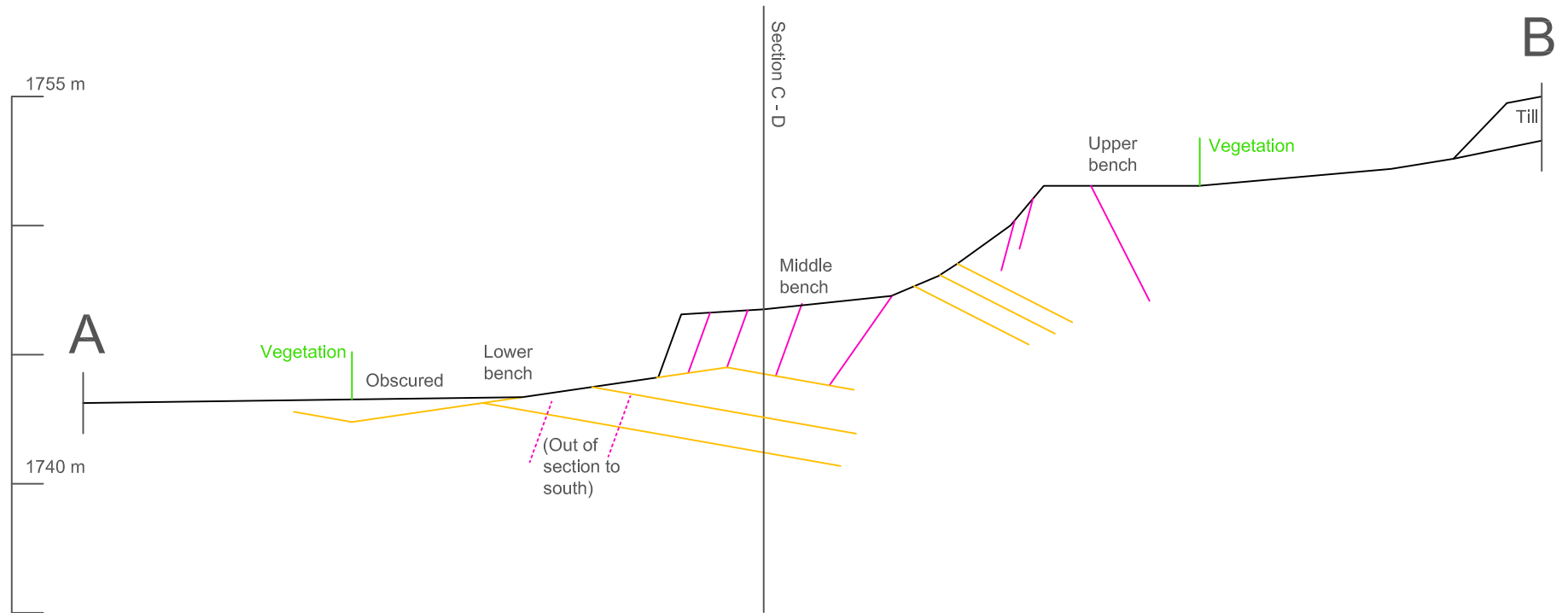


Figure 5: Section A - B

Scale = 1:250



# Legend (for Figure 4)

- 
Joint
- 
Crest of slope
- 
Base of slope
- 
Edge of vegetation
- 
Shallow to moderately dipping joint (bed joint)
- 
Moderate to steeply dipping joint
- 
Joint projected onto section or inferred

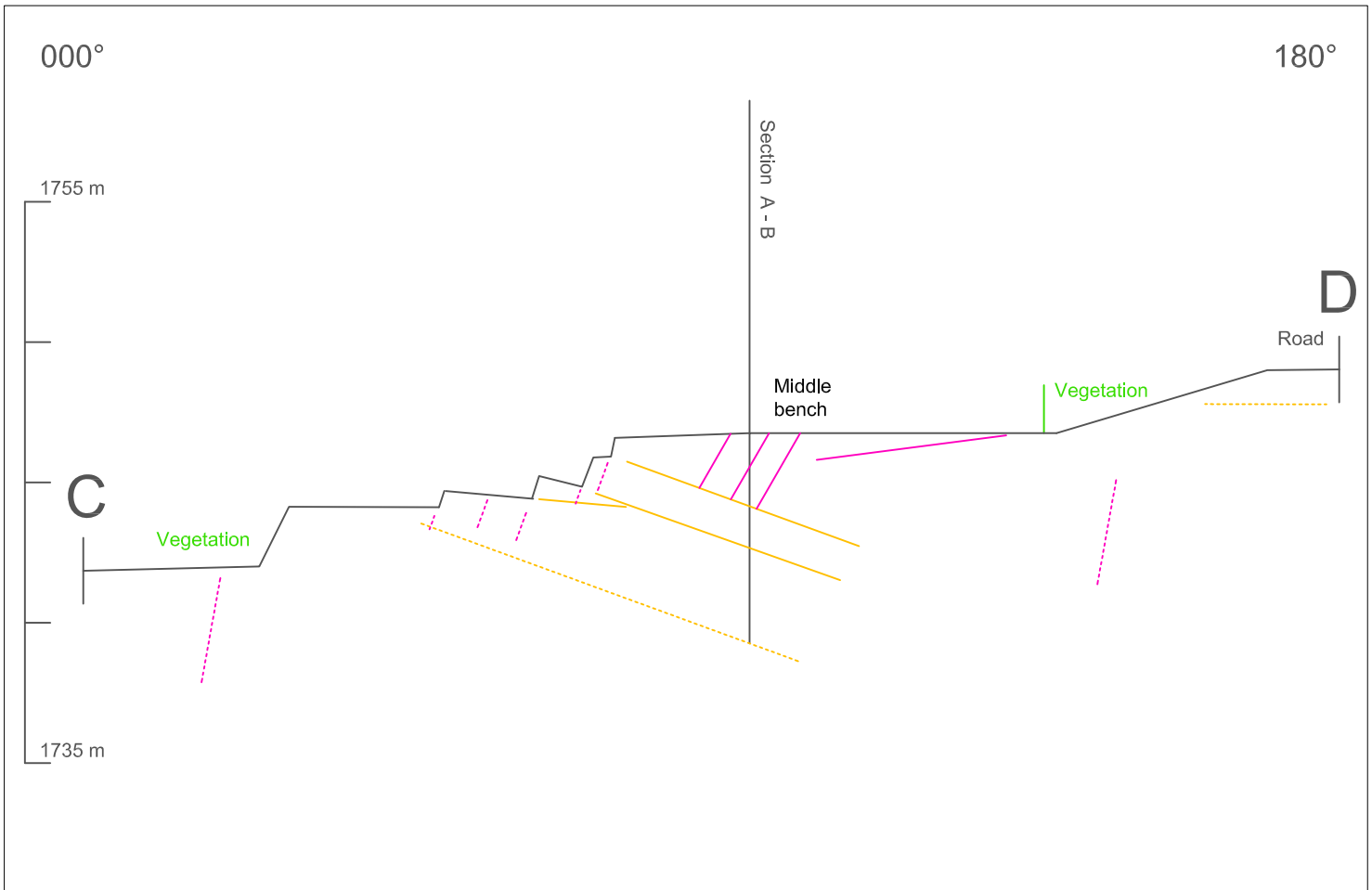


Figure 6: Section C - D  
 Geological Assessment Report on the Black Gold Property - August 5, 2015



Figure 7: Sub-horizontal joints painted yellow.



Figure 8: Line drilling between joint set 2.

## Conclusions and Recommendations

It appears that benching will largely be controlled by joint set 1, which divides the mass of rock into sub-horizontal domains of relatively solid rock. Within each domain, joint set 2 will be the main control on the size and orientation of the cuts. However, the area stripped, and the related indicated resource, is too small to confidently predict whether this structural regime holds for general area.

Overall, there appears to be a general increase in the frequency of veins, dikes and fractures to the north in the area mapped. This is the direction in which the topography drops off and becomes less regular, which also suggests increased fracturing. The holes drilled to the north returned core with more fracturing than the hole drilled to the south. These factors indicate that the area to the south and southeast of the quarry site may be underlain by unfractured rock.

More stripping, supported by diamond drilling if possible, should be done to the immediate south and southeast of the quarry site to expand the indicated resource. In addition, all outcrops in the area should be mapped for lithology and fracturing to see if areas of lower fracture density can be discerned.

## 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; in 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.

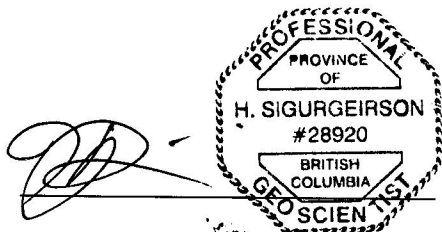
MapPlace (2015) BC Map UTM Zone 11 showing part of Map Sheet 082E/07. BC Geological Survey <[http://webmap.em.gov.bc.ca/mapplace/minpot/BC\\_UTM.cfm?zone=11](http://webmap.em.gov.bc.ca/mapplace/minpot/BC_UTM.cfm?zone=11)> (accessed June 18, 2015).

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

## 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.
4. I have developed and operated 3 dimension stone quarries on the BC coast.
5. 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.
6. I conducted the work program described herein and wrote this report.



H. Sigurgeirson, P. Geo

August 5, 2015

\_\_\_\_\_  
Date



## Cost Statement

<b>Consultant</b>	<b>Days</b>	<b>Rate/day</b>	<b>Time</b>	<b>Total</b>
H. Sigurgeirson, P.Geo.	Fieldwork: June 26 – 27	\$400.00	2	\$800.00
	Travel (1/2 rate): June 25 & 28	\$200.00	2	\$400.00
	Report Preparation	\$800.00		\$800.00
<b>Subtotal</b>				<b>\$2,000.00</b>
<b>Rentals</b>				
2007 F-150 4x4	April 26 to 29, 2015	\$90.00	4	<b>\$360.00</b>
<b>GST on above</b>				<b>\$118.00</b>
<b>Expenses</b>				
Accommodations				\$133.39
Fuel				\$275.44
Food				\$97.70
Marking Paint				\$27.69
<b>Subtotal</b>				<b>\$534.22</b>
<b>Total =</b>		<b>\$3,012.22</b>		