

**SEL 22 / 1999**  
**NORTH EAST TASMANIA**

**ANNUAL REPORT**  
**PERIOD ENDING 8<sup>TH</sup> SEPTEMBER 2008**

**VAN DIEMAN MINES PTY LIMITED**

**5<sup>th</sup> September 2008**

**PREPARED BY:**  
Graeme McIntyre  
Exploration Manager

**TABLE OF CONTENTS**

	<b>PAGE NUMBER</b>
1.0 INTRODUCTION	2
2.0 PREVIOUS WORK BY VDM	5
2.1 BULK SAMPLING	5
2.2 VALUATION	7
2.3 TESTING	8
3.0 MARKETING	9
4.0 RECOMMENDATIONS	10
5.0 APPENDICES	11
5.1 Columbia Gen House report on Frome River gemstones	
5.2 Crystal Chemistry report on heat treatment of Weld River & Frome River sapphires	

**LIST OF FIGURES**

	<b>PAGE NUMBER</b>
FIGURE 1 LOCATION MAP ON 250K TOPOGRAPHY	3
FIGURE 2 LOCATION PLAN ON SRTM IMAGE	4
FIGURE 3 BULK SAMPLE LOCATION SITES	6

**LIST OF PLATES**

	<b>PAGE NUMBER</b>
PLATE 1 WYNIFORD RIVER BULK SAMPLE SITE	5
PLATE 2 VDM PILOT PLANT AT WYNIFORD RIVER	7
PLATE 3 FROME RIVER ROUGH GEMSTONES	8
PLATE 4 HEATED FROME RIVER ROUGH GEMSTONES	9

## 1.0 INTRODUCTION

Van Dieman Mines (VDM) acquired SEL22/1999 from Mineral Holdings Australia (MHA) in 2004, as part of a “package” of 13 exploration tenements, all located in North-east Tasmania. At the time of the acquisition the tenement encompassed a 1211 sq km area, having been reduced from 2693 sq km by MHA in 2002.

In September 2006, VDM further reduced the tenement to its current size, being 271 sq km across three prospective areas. See Figures 1 and 2. The three areas can be referred to as :

1. Northern Block - covering the “Hasties” region, west of VDM’s “Endurance” tenure
2. Central Block - incorporating Branxholm, Derby, Herrick and Weldborough townships
3. Southern Block - covering the Priory region near St Helens

To date, VDM has conducted bulk sampling at five sites within the tenement. The samples were processed by the company’s pilot plant with recovered gemstones sent to the U.S. for identification, valuation and testing. Results of some of these tests are presented in this report.

Marketing of the “Tasmin Blue” sapphire is being carried out by “V Columbia” - a 50/50 joint venture company between VDM and Columbia House (CGH) Inc.”. Sample stones have been displayed at various U.S. gem shows, and have attracted much interest.

Work programs proposed for the current year include further studies on gemstones recovered from previous bulk sampling, and further bulk sampling at these sites. Other suitable bulk sampling sites will be sought.

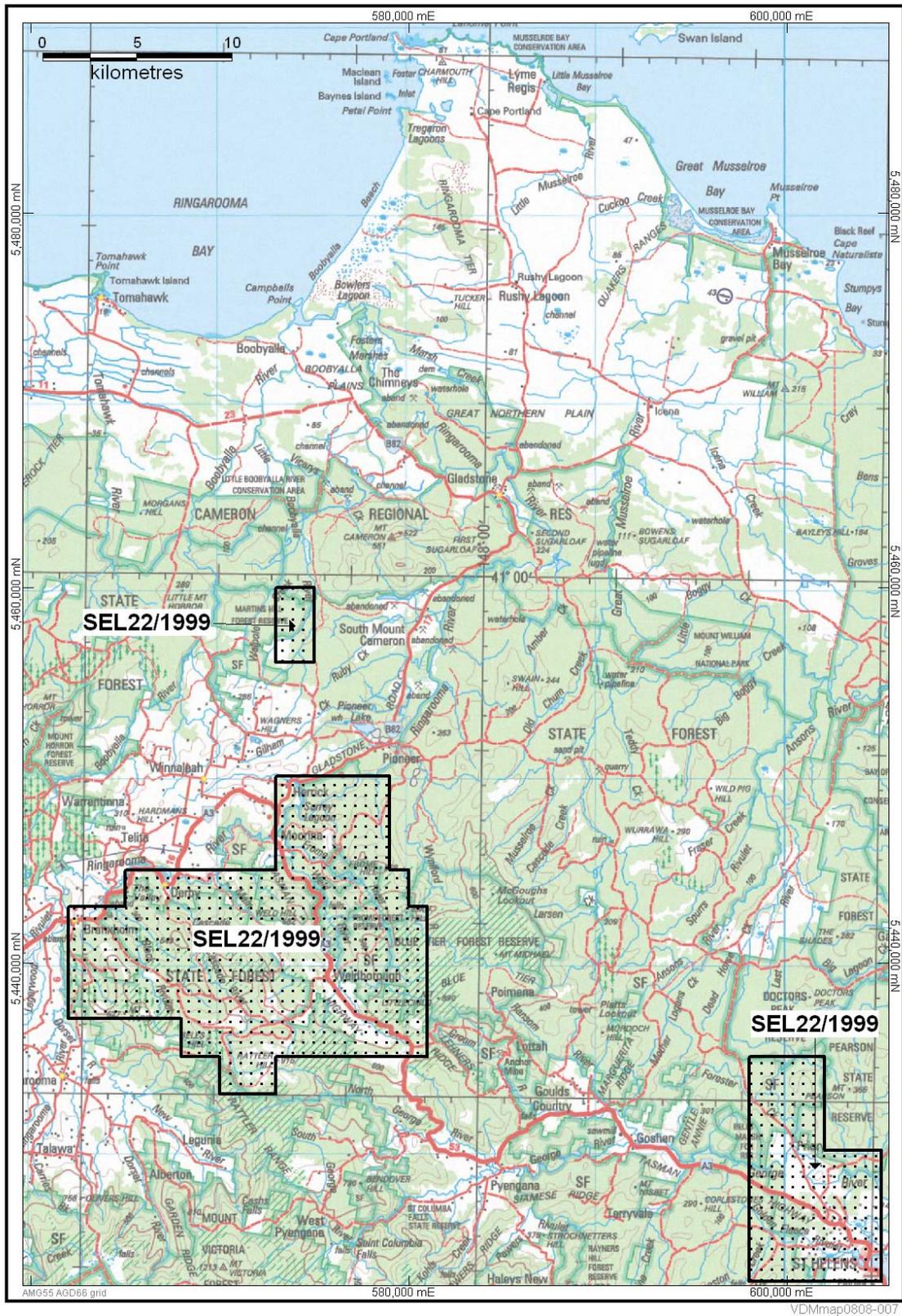


FIGURE 1 LOCATION MAP ON 250K TOPOGRAPHY

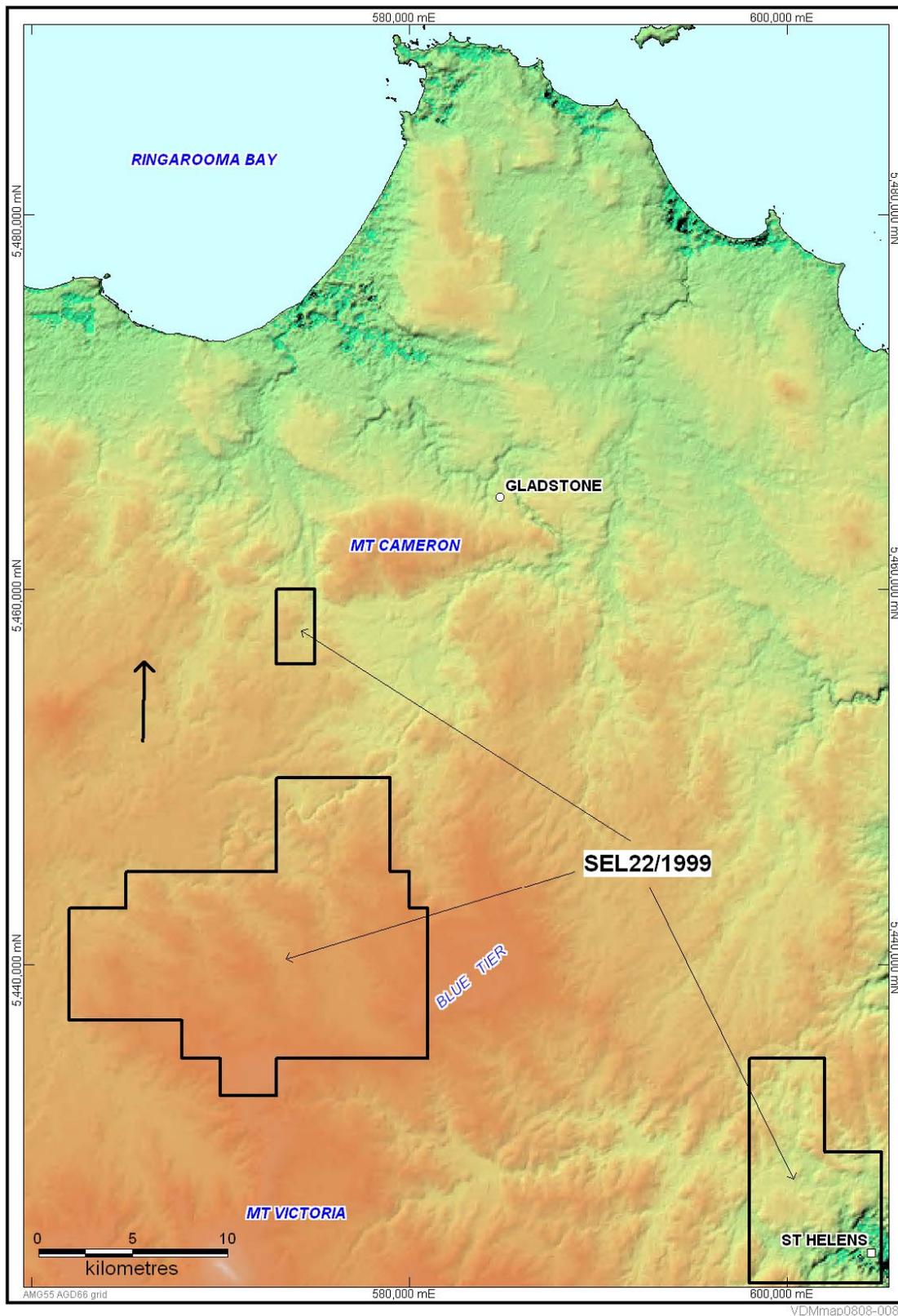


FIGURE 2 LOCATION MAP ON SRTM (ELEVATION) IMAGE

## 2.0 PREVIOUS WORK BY VDM

### 2.1 BULK SAMPLING

In 2005 VDM conducted bulk sampling at Wyniford River (3 sites), Frome River and Weld River. In 2006, further sampling was conducted at Main Creek and Great Northern Plains. See Figure 3 which shows the bulk sample sites. See also Plate 1 which shows one of the Wyniford River bulk sample sites.



**PLATE 1**

**WYNIFORD RIVER BULK SAMPLE SITE**

All samples were processed by VDM's pilot plant, which can be seen in operation at Wyniford River in Plate 2.

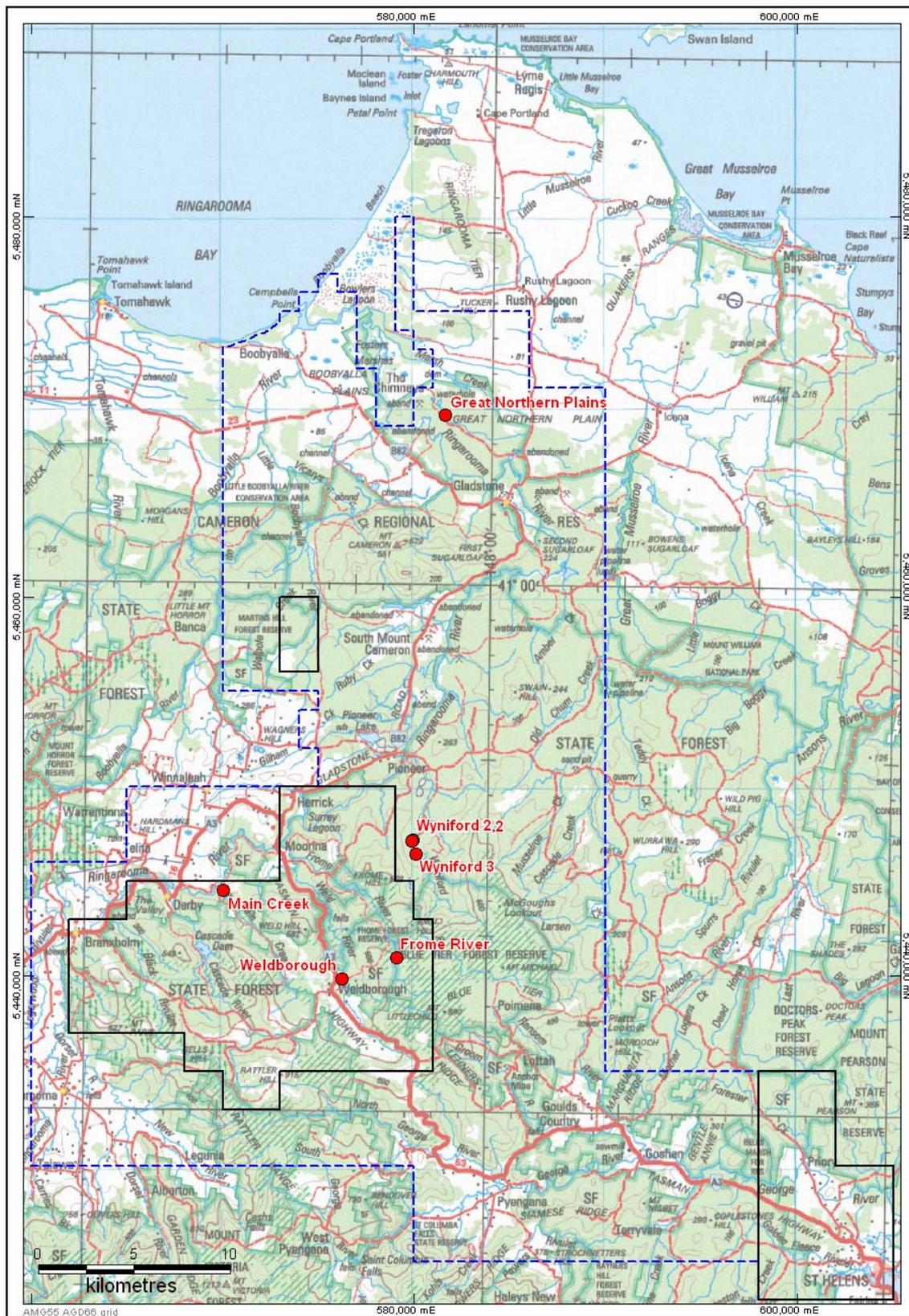


FIGURE 3 BULK SAMPLE LOCATION MAP



PLATE 2

VDM PILOT PLANT AT WYNIFORD RIVER

## 2.2 VALUATION

Many parcels of gemstones recovered by the pilot plant have been sent to CGH for identification and valuation. Recovered gemstones include corundum, zircon, topaz, and black spinel. A report by CGH on a shipment of gemstones recovered from Frome River appears in Appendix 1.

Another CGH (June 2008) report on material processed from tailings adjacent to the Dorset Tin Shed at Great Northern Plains states :

“sapphire material is small ... (a) parcel of 123 pieces for 17 grams will cut to 2-3mm in size. These stones weigh from 0.06ct to 0.13ct after cutting. This means this group is about as small as we want to go in usable size.”

It should be remembered that all material sampled and processed to date is effectively tailings from previous mining operations ; “virgin” material is yet to be processed.

## 2.3 TESTING

As discussed in previous reports, the benefits of heat treatment of gemstones are many. Firstly, the removal of impurities through heating generally causes the stone to exhibit a more consistent and transparent colour, which is aesthetically pleasing to a potential buyer. Secondly, a heated stone is generally easier to cut. Often however heat treatment causes a stone to darken. This is especially true of basaltic sapphire which often has a high rutile content, and heating can render the material too dark for gem use.

A report by John Emmett of Crystal Chemistry (May 2007) on heat treatment tests on sapphires recovered from Weld River and Frome River appears in Appendix 2. One of the findings was that "... the fact that the material can be heated successfully without becoming very dark bodes well for developing a successful heat treatment process ...". This finding is deemed very positive to the economic success of VDM's gemstone venture.

Rough gemstones recovered from Frome River sampling operation can be seen in Plate 3.



PLATE 3

FROME RIVER ROUGH GEMSTONES

Blue sapphires recovered from Weld river, and heat treated by US-based Crystal Chemistry can be seen in Plate 4.

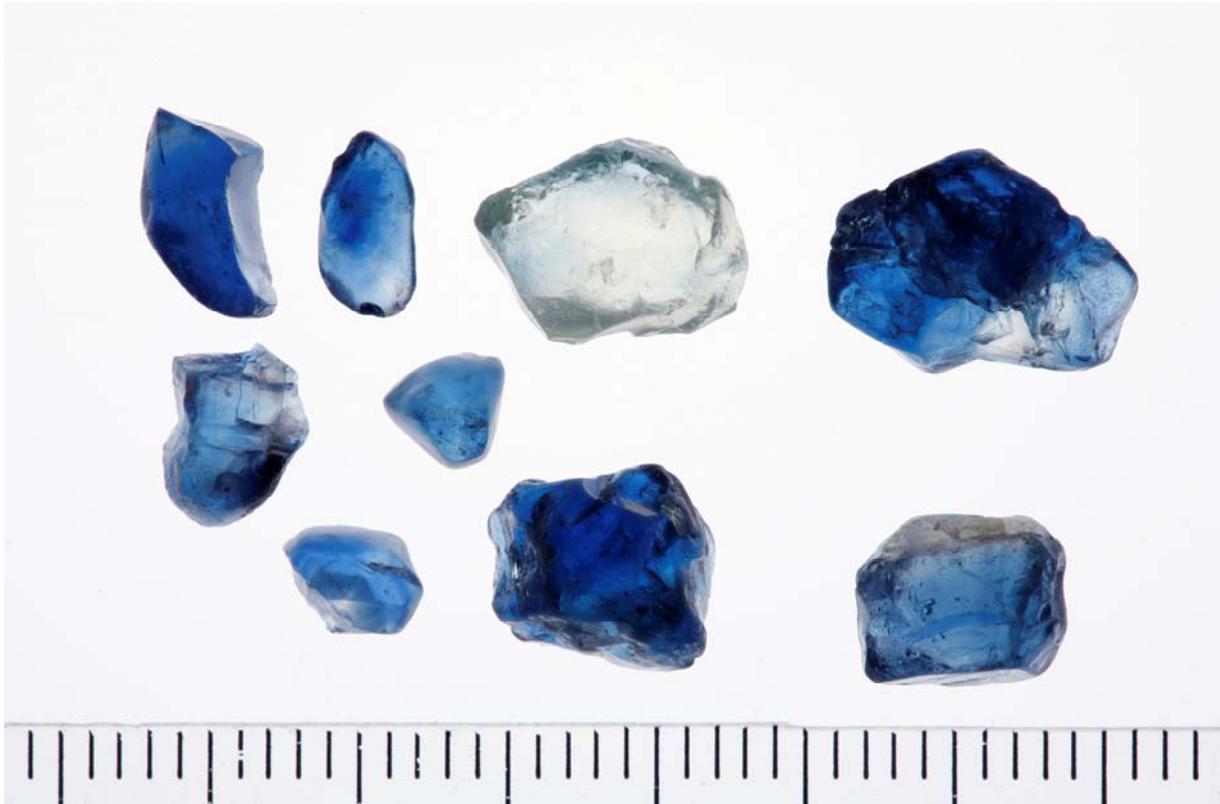


PLATE 4

WELD RIVER BLUE SAPPHIRE AFTER HEAT TREATMENT

### 3.0 MARKETING

VDM and CGH have formed a 50/50 joint venture company called “V Columbia” to market all gemstones recovered from VDM’s Tasmanian operations. Sample rough and finished gemstones, including blue sapphires and black spinel, have been displayed at two major USA gem shows in 2007 and 2008. VDM management have been in attendance to discuss the products with potential gemstone buyers and jewelry manufacturers. The stones have attracted much interest.

The product name “Tasmin Blue” is being used in marketing the blue sapphires.

#### 4.0 RECOMMENDATIONS

Work performed to date has greatly added to the company's knowledge base in relation to the origin and characteristics of gemstones within the tenement. Clearly more work needs to be done to ascertain the existence of a significant resource and therefore the viability of a mining operation. It is recommended in the coming year that:

- Further samples from the earlier bulk sampling program be sent to our partners in the U.S.A. - CGH and Crystal Chemistry - for assessment, heat treatment, cutting and valuation;
- New applications be made for additional test sites;
- Marketing of "Tasmin Blue" sapphires to be continued.

**5.0 APPENDICES**

5.1 Columbia Gem House report on Frome River gemstones

5.2 Crystal Chemistry report on heat treatment of Weld River & Frome River sapphires.