



# NAVIGATOR RESOURCES LIMITED

## ASX ANNOUNCEMENT & MEDIA RELEASE

17 September 2008

### LEONORA PRE-FEASIBILITY STUDY UPDATE

#### Highlights

- ◆ **Metallurgical results for Cardinia demonstrate high leach recoveries.**
- ◆ **Cardinia now the focus for a low capex/opex start-up of the Leonora Project.**

Work on Navigator Resources Limited's (ASX: NAV) Leonora gold project during the past quarter has been focused on the Cardinia area because of the high potential for delineation of resources with a high conversion from resources to reserves, a low strip ratio and good metallurgical recoveries. Results of the first metallurgical testwork on mineralisation from the Bruno-Lewis deposit which is part of the Cardinia resource in the southern portion of the Leonora gold project are now available and show:

- ◆ Cyanide leach recoveries up to 97% were obtained after 48 hours from a composite minus 600 micron sample with a head grade 4.4 g/t (90% after 24 hours). Cyanide consumption of 1.01 kg/t and lime consumption of 0.51 kg/t were both within acceptable limits; and
- ◆ The gold mineralisation consists of soft oxide clay material with good leach characteristics, and good recoveries from both fine and coarse material prior to grinding. The results indicate a high likelihood that a Cardinia operation will be able to start without the need for a conventional crushing and milling circuit due to the softness of the Cardinia oxide mineralisation. This would minimise capex and potential equipment delivery difficulties associated with the project start-up.

Navigator's Managing Director, Mr Tom Sanders, indicated that recent developments at Cardinia were extremely positive. He noted that the advantages of a Cardinia start up were that the likely ores are soft and near-surface (15-35m deep), are low strip ratio (less than three to one), and no blasting will be required. In addition, a number of high-grade gold zones have been identified and reported recently.

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“Resource and mining studies are still in progress but my expectation is that we will get at least 2-3 million tonnes of this type of ore from Cardinia based on existing resource estimates. If we can remove the initial need for a high capex ball mill and crushing circuit that may be added when we start delivering ore from other sources, then this will enhance the Leonora project economics significantly by reducing operating costs (mainly power) and removing a mill-constrained throughput bottleneck”.

As a result, Navigator has commenced discussions with a number of process plant design and supply engineers to evaluate low capex and opex solutions to process the Cardinia deposits. The outcome of this evaluation will form an integral part of the current prefeasibility study whilst further testing is completed to confirm the metallurgical consistency throughout the 2km Cardinia gold system.

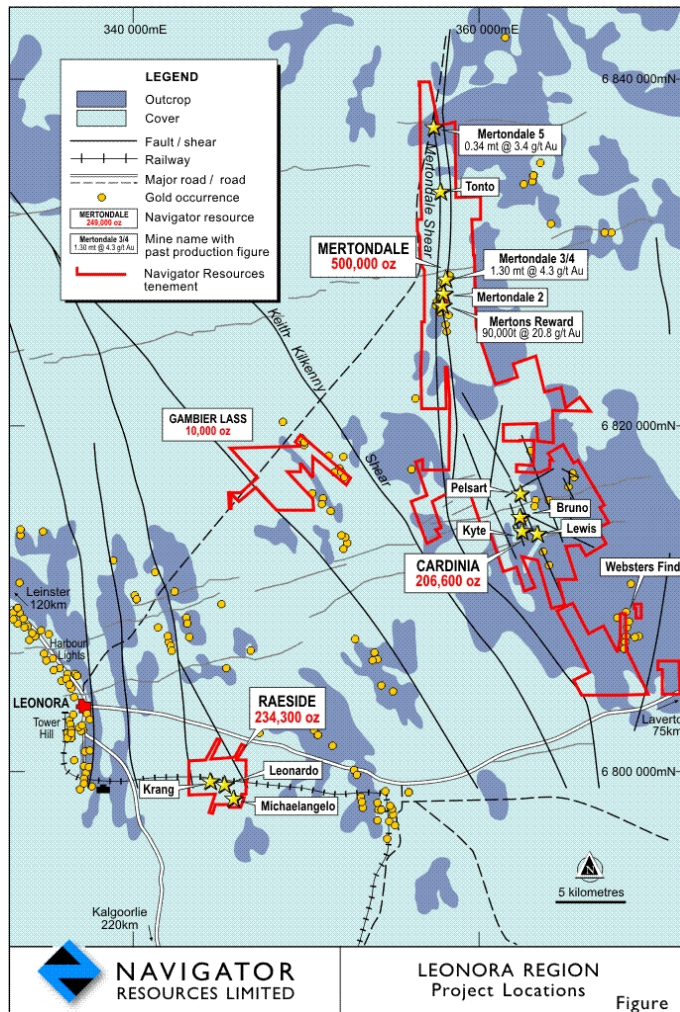
Metallurgical testwork is also in progress on other mineralisation types associated with the Mertondale South-Merton’s Reward, Tonto and Raeside gold deposits.

### **Background Information on the Leonora Prefeasibility Study (PFS)**

Navigator is currently conducting a prefeasibility study into the development of its 950,000 ounce Leonora gold project (Figure 1). The Leonora project is located 30km from the established mining town of Leonora, 240km north of Kalgoorlie. Favourable infrastructure includes a network of high quality roads, an airstrip with regular services to and from Perth and ease of connection to power, including gas.

Gold deposits in the project area are associated with a series of shear zones extending over a 35 kilometre strike length from Mertondale 5 in the north to Cardinia in the south (Figure 1). PFS completion is anticipated in mid-October 2008 with a production target of late 2009.

Other baseline feasibility inputs, including geotechnical, environmental and groundwater assessments are currently underway and will maximise the Company’s ability to advance the project rapidly once the optimal development strategy is determined by the PFS.



## Further Information

Please direct any queries, or requests for further information, to:

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The information in this report that relates to Exploration Results or Mineral Resources is based on data compiled by Mr Tom Sanders who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Sanders is a full time employee of Navigator Resources Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Sanders consents to the inclusion in this report of the matters based on information in the form and context in which it appears. Mr Sanders is a shareholder of Navigator Resources Limited.