

**BEFORE AN INDEPENDENT HEARINGS PANEL
OF THE WAIKATO DISTRICT COUNCIL**

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of the proposed Waikato
District Plan (Stage 1) Hearing
19

**SUMMARY OF EVIDENCE OF GARY ROGER GRAY
ON BEHALF OF THE RALPH ESTATES**

MINERAL RESOURCE VALUATION

9 September 2020

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1. INTRODUCTION

1.1 My full name is Gary Roger Gray. I am a Mining Engineer and director of Mine Design Systems Ltd.

1.2 I prepared a statement of evidence dated 13 August 2020 that estimated the quantity of coal assets owned by the Ralph Estates (**Ralph Coal**) that will be rendered inaccessible (sterilised) by the proposed rezoning by Ambury Properties Limited (**APL**) of land at Ohinewai, and estimated the market value of this coal as of 31 July 2020. I refer to my qualifications and experience in my original statement and do not repeat those matters here.

2. SUMMARY OF EVIDENCE

2.1 In 2015 Solid Energy New Zealand Ltd (**SENZ**) undertook a comprehensive assessment of coal resources at Ohinewai.

(a) The most recent open pit design from the SENZ 2015 study (the “**SENZ 2015 Open Pit**”) has been used to estimate the amount of Ralph Coal at Ohinewai that can be mined by open pit methods (**Open Pit Coal**).

(b) SENZ underground mining experience indicates that underground mining of coal deposits is technically feasible if the coal is a minimum of 6 metres thick and has a minimum of 40 metres of Te Kuiti Group rock above it for roof stability.

2.2 The amount (in tonnes) of Open Pit Coal and underground Ralph Coal within and immediately adjacent to the SENZ 2015 Open Pit design was calculated from the resource model and is summarised in Table 1 below.

Table 1 – Ralph Estates Coal Affected by Land Rezoning

Ralph Coal Resources (tonnes)	
Within and Adjacent to SENZ 2015 Open Pit	
Open Pit (>0.5m)	14,380,309
Underground (>6m)	314,746
Total	14,695,055

- 2.3** In summary the total amount of coal sterilised as a result of the proposed land rezoning is sterilised open pit coal (7,434,128 tonnes) plus sterilised underground coal (62,949 tonnes).
- 2.4** Therefore my estimate of the total amount of Ralph Coal that will be sterilised as a result of the proposed land rezoning is 7,497,077 tonnes.
- 2.5** I was asked to estimate the market value of this coal as of 31 July 2020. I undertook the valuation in accordance with the VALMIN code.
- 2.6** The VALMIN Code is the accepted and recognised code in Australasia and globally for estimating the Market Value of Mineral Assets.
- 2.7** The VALMIN Code defines the Market Value of a Mineral Asset as “the estimated amount of money (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm’s length transaction after appropriate marketing wherein the parties each acted knowledgeably, prudently and without compulsion”.
- 2.8** The implication of this is that a buyer for the Ralph Coal does not need to be identified at the date of valuation for the Ralph Coal to have a Market Value.
- 2.9** The estimated Market Value of sterilised Ralph Coal ranges from \$4,087,810 to \$7,000,000 as summarised in Table 22 below.

Table 2 -Summary of Estimated Market Values

Valuation Approach	Estimated Market Value	
	Lower	Upper
Cost Based	\$4,200,000	\$ 7,000,000
Market Based	\$6,147,603	
Income Based (Royalty)	\$4,087,810	\$ 6,425,177

3. COMMENTS ON APL’S REBUTTAL EVIDENCE

- 3.1** In paragraph 3.7 of his rebuttal evidence, Mr Cameron Lines infers that paragraph 26 of my evidence regarding the inclusion of a 100 metre offset from Tahuna Road to “provide a buffer against any effects of ground instability” was because “the technical risks around performance of proposed pit slopes, even at such gentle slope angles, are still significant”.

- 3.2** In paragraphs 3.8 and 3.9 of his rebuttal evidence Mr Lines suggests that the 100 metre offset was arbitrary.
- 3.3** The offset distance is not arbitrary and was proposed by Mr Dean Fergusson based on his experience obtained while working for Solid Energy at Huntly, and in particular the Ohinewai project for which a significant amount of geotechnical work has been undertaken.
- 3.4** In paragraph 3.9 of his rebuttal evidence Mr Lines estimates that the amount of coal that is sterilized by the 100 metre offset is 1.25 million tonnes, and in paragraph 4.4 that this “has a significant effect on the calculated volumes of sterilized coal”.
- 3.5** I have estimated the amount of coal that is sterilised by the 100m offset. It amounts to 1.1 million tonnes. If an offset from Tahuna Road is not required the amount of sterilised Ralph Coal remains large at 6,397,077 tonnes.

Gary Roger Gray
9 September 2020