

OCEANAGOLD (NEW ZEALAND) LIMITED

MACRAES PHASE FOUR (MP4)

**Erosion and Sediment Control, Road
Embankment Stability and Tailings
Storage Facilities**

Evidence of **Eric Torvelainen** Regarding
Technical Assessment of Erosion and
Sediment Control, Road Embankment
Stability and Tailings Storage Facilities
Effects and Proposed Conditions

INTRODUCTION

1. My name is Eric Torvelainen
2. My role in relation to Macraes Phase 4 (“**MP4**”) has been to provide expert advice in relation to Erosion and Sediment Control, Road Embankment Stability and Tailings Storage Facilities. I oversaw the following reports which is provided within *Part B – Technical Reports* of the application:

Macraes Road Realignment Stage 2 Technical Report (**Macraes Road Report**)

Erosion and Sediment Control Report (**ESC Report**)

Frasers Tailings Storage Facility Stage 3 Technical Report (“**FTSF Stage 3 Report**”)

MTI and SP11A Technical Report (“**MTI & SP11A Report**”)

3. This evidence has been prepared to accompany the **reports listed in (2)** and the application by Oceana Gold (New Zealand) Limited (“**OGNZL**”) for approvals required for MP4 under the Fast-track Approvals Act 2024 (“**FTAA**”).
4. Section 4.1(h) of the FTAA Panel Conveners’ Practice and Procedure note (July 2025) says all technical experts authoring reports should include a statement regarding compliance with the Code of Conduct for Expert Witnesses. This evidence has been prepared to fulfil this requirement, and if a hearing is not held, this evidence confirms that, relative to my area of expertise the Report provides an appropriate description of the relevant environment, the proposed activities comprising the effects of the MP4 on that environment, and the way those effects are proposed to be managed.
5. My findings are set out in full in the following reports included within *Part B – Technical Reports* of the application:

Macraes Road Realignment Stage 2 Technical Report

Erosion and Sediment Control Report

Frasers Tailings Storage Facility Stage 3 Technical Report

MTI and SP11A Technical Report
6. While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing the Report. Other than when I state I am relying on the advice of another person, the Report is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

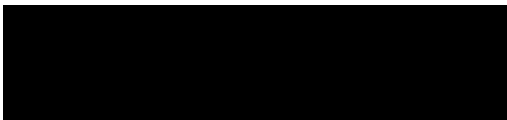
QUALIFICATIONS AND EXPERIENCE

7. I hold a Bachelor of Engineering (Civil) with Honours from the University of Canterbury. I am a Member of Engineer New Zealand, New Zealand Geotechnical Society, New Zealand Society of Earthquake Engineering, and New Zealand Society on Large Dams. I am the New Zealand representative on the Tailings Dams & Waste Lagoons Technical Committee for the International Commission for Large Dams.
8. I am currently employed as Director of Engineering Geology Ltd (EGL) and have held that position since 2022.
9. I have been engaged in the fields of civil, geotechnical and earthquake engineering in a professional capacity for the past 17 years. I have 9 years' direct experience designing waste rock stacks (WRS), erosion and sediment controls, and tailings storage facilities (TSF). I am involved in the design, construction and review of the majority of active TSFs at gold mining operations in New Zealand. My previous work experience includes:
 - a) Design Engineer and Technical Reviewer for Waihi Gold Mine, Waikato (2018 to present) - responsible for geotechnical investigation, feasibility studies, consenting, design, specifications, supervision during construction, monitoring and surveillance and annual safety audits of TSFs, Waste Rock Stacks (WRS), and Collection Ponds.
 - b) Design Engineer and Technical Reviewer for Macraes Gold Mine, Otago (2022 to present) - responsible for geotechnical investigation, feasibility studies, consenting, design, specifications, supervision during construction, monitoring and surveillance and annual safety audits of TSFs, WRS, and Silt Ponds.
 - c) Design Engineer and Technical Reviewer for Reefton Restoration Project (2022 to 2025) - responsible for geotechnical investigation, consenting, design, specifications, supervision during construction, monitoring and surveillance and annual safety audits for the closure of the TSFs and WRS.
 - d) Design Engineer and Technical Reviewer for the Bendigo Ophir Gold Project (2023 to present) – responsible for geotechnical investigation, feasibility studies, consenting, including expert conferencing, evidence at hearings, and design of TSF, WRS, Diversion Channels, and Silt Ponds.
10. In providing this evidence, I have considered the following matters as relevant to that topic:
 - (a) The project description provided by OGNZL as set out in Section 6 of the Substantive Application prepared by Mitchell Daysh Limited;

- (b) The description of the existing environment as set out in Section 4 of the Substantive Application, the effects of MP4 on that environment and their significance, and the proposals to manage those effects as all set out in the assessment of effects in Section 9 of the Substantive Application;
- (c) The technical assessments of Southern Skies, GHD, PSM and Agilitus.

CONFIRMATION OF CONTENTS OF REPORT AND PROPOSED CONDITIONS

- 11. I confirm that in my opinion the Report contains an accurate and appropriate description of the environment, the actual and potential effects of MP4, and the recommended actions to manage those effects within my area of expertise.
- 12. I confirm that in my opinion the contents of the Report may be relied on in making a decision on the approvals sought for MP4, and confirm that provided effects within my area of expertise are managed as proposed in the application those effects will not be unacceptable and will be managed to a standard that I consider meets good practice.
- 13. I confirm that I have reviewed the conditions that OGNZL proposes for the various approvals being sought as they relate to my area of expertise. I confirm that in my opinion those proposed conditions are appropriate.



Eric Torvelainen

2 September 2026