Before a joint hearing of the

Otago Regional Council
Waitaki District Council

RM 20.024

Under	the Resource Management Act 1991
In the matter of	applications by Oceana Gold (New Zealand) Limited for resource consents for the Deepdell North Stage III Project

Statement of evidence of David George McKenzie for Oceana Gold (New Zealand) Limited

4 August 2020

INTRODUCTION, QUALIFICATIONS & EXPERIENCE

1 My full name is David George McKenzie.

2 I am based in Christchurch with WSP (NZ) Limited ("WSP") where I hold the position of Technical Principal, Landscape Architecture; a role that involves the technical oversight of our national Landscape Architecture Team.

3 My qualifications include:

- Bachelor of Science (Geography) from the University of Otago in 1979, and
- Post-Graduate Diploma in Landscape Architecture from Lincoln College (now Lincoln University) in 1982.

4 I am a Registered Landscape Architect having practiced as a landscape architect for 38 years. For 36 of these years, I have been a corporate member of the New Zealand Institute of Landscape Architects Inc and I am a Fellow of the Institute. I have a broad range of landscape planning and design experience obtained from project work for territorial authorities, government corporations and private companies such as Otago Regional Council, Dunedin City Council, Central Otago District Council, Gore District Council, Timaru District Council, Christchurch City Council, Palmerston North City Council, Waka Kohati NZ Transport Agency, Pioneer Generation and Contact Energy.

5 I have been seconded for the last two years as the Landscape Lead on the North Canterbury Transport Infrastructure Recovery ("NCTIR") project. This NCTIR role is now winding down as the construction work that has seen the road and rail corridor along the Kaikōura coast reopened and improved comes to a close.

BACKGROUND INFORMATION

6 I have been involved in providing the landscape input to a range of Oceana Gold (New Zealand) Limited's ("OceanaGold") projects since 2002.

7 For the Deepdell North Stage III Project ("the Project" or "DDNIII"), I prepared the landscape and visual assessment that was completed in April 2016: "Oceana Gold (New Zealand) Ltd Macraes Gold Project – Deepdell North Stage III Project: Landscape and Visual Assessment" ("the LVA"). The LVA was included as Appendix M to the Assessment of Environmental Effects ("AEE") submitted as part of the resource consent applications for the Project.

8 Prior to this, I provided landscape advice on the expansion and reconfiguration of the Coronation North Project in 2019, having prepared in 2017 the Landscape Report in response to the 'landscape' conditions (Conditions 4.7 and 4.8) arising from Coronation North Mine's Waitaki District Council ("WDC") and Dunedin City Council ("DCC") Land Use Consent. This Landscape Report was fully referred to in OceanaGold's Coronation Mine Operations and Management Plan to ensure that when the Coronation Waste Rock Stack is being constructed, OceanaGold will achieve the final form to meet landscape compliance.

9 In 2016 I prepared an LVA and presented expert evidence relative to the resource consent application for the Coronation North Mine Project

10 This followed the preparation of a previous Landscape Report in response to the 'landscape' condition (Condition 4.7) arising from Coronation Mine's Land Use Consent. I had previously prepared the LVA, provided landscape advice regarding OceanaGold's response to a request for further information from WDC and DCC and the preparation and presentation of landscape evidence before the joint resource consent application hearing in October 2013.

11 Two years prior to that, I provided landscape input to the Macraes Phase III Project ("MPIII") in 2011 and prior to that the Frasers West, Frasers East, Deepdell, Golden Bar and Heritage and Art Park components of its Macraes Gold Project. I have also prepared the visual assessment to the Blackwater and Reefton Phase 2 components of what was OceanaGold's Reefton Operation.

12 I have also previously given evidence in support of the variation to the conditions of Landuse Consent 96/98 that control the location, height and associated design of the Frasers West Waste Rock Stack (FWWRS). Accordingly, I am familiar with the way that OceanaGold plan for, design, manage and rehabilitate waste rock stacks and related open cut gold mining activities.

13 In preparing this evidence I have read:

- the Project AEE, reports and statements of evidence of other witnesses for OceanaGold giving evidence relevant to my area of expertise;

- Various landscape and planning-related documents relevant to the preparation of the Project's LVA and these have been 'footnoted' in the LVA;

- The Peer Review Report on landscape matters prepared by Ben Espie, (Vivian and Espie), Consultant Landscape Planner, on behalf of Waitaki District Council; and

- The Section 42A Report prepared by Andrew Purves, Consultant Planner, on behalf of Waitaki District Council.

14 I have read the Code of Conduct for Expert Witnesses contained in the Environment Court of New Zealand Practice Note 2014 and I agree to comply with it. I have complied with it in the preparation of this evidence.

SCOPE OF EVIDENCE

15 I have been asked by OceanaGold to prepare evidence to provide a general summary of the Project's LVA and address 'landscape' matters raised in Submissions and the Section 42A report.

16 The full background to these landscape matters is provided in the Project's LVA.

GENERAL SUMMARY OF THE LANDSCAPE AND VISUAL ASSESSMENT

17 OceanaGold proposes to develop the Deepdell North Stage III Project as an extension to the Macraes Operation, Macraes Flat, East Otago. The Project will involve the creation of a new open cut pit – Deepdell North Pit – and its associated waste rock stack ("WRS") – Deepdell East WRS; along with the backfilling of the defunct Deepdell South open cut pit and sections of haul road extension. The Project will also include a topsoil stockpile, a low-grade ore stockpile, silt pond(s), an area for pit infrastructure and access roading. The original Deepdell section of the current Coronation haul road will be the connection to the Macraes Operation processing plant.

18 The Project Area is located approximately 1.5 km north of the processing plant and is approximately 4 km to the north[1] of Macraes village on the northern side of Deepdell Creek and either side of the existing Horse Flat Road. At **Attachment 1** the Deepdell 'Project Elements for Consenting' plan provides an overview of the Project Area at a relatively broad scale (1:10,000 @ A3)

[1] As all plans generated for the Macraes Operation have Macraes Local Grid as their datum and are orientated to Macraes North, which is approximately 45° west of Magnetic North, this same orientation is used in the text.

showing the local topography and stream catchments on the base aerial photo overlaid with road lines and land tenure aspects, along with the mining-related components of the Project. The Waitaki District Council (WDC) planning zones for the Deepdell North Stage III Project Area are also shown on the plan at Attachment 1.

19 The purpose of the LVA is to identify the landscape and visual amenity values of the Project Area and identify the potential effects of the construction and operation of the Project on those values.

20 The landscape and visual assessment is based on the Deepdell North Stage III Project Description, along with the Deepdell North Stage III Base Plan, which shows the location and extent of the individual components of the Project. This base information, along with a full range of other relevant environmental information, is included in the Project's Assessment of Environmental Effects.

21 The landscape and visual assessment describes the landscape context in terms of the broad Macraes landscape, the Macraes Operation landscape and the more specific Deepdell North Stage III Project landscape; the latter includes the consented Coronation mine haul road, the Deepdell waste rock stack and the Deepdell South open cut pit. The existing waste rock stack and the open cut pit were constructed/excavated in 2001-2003. This assessment also considers the planning context relative to potential landscape and visual effects, defines the visible aspects of the DDNIII Project, assesses the landscape and visual effects of the Project and their likely cumulative effect and makes the following conclusion.

22 The methodology for the LVA is modelled on the NZ Transport Agency's Landscape and Visual Assessment Guidelines[2] and has been framed in response to RMA matters.

23 As the basis to the 'visual' part of the LVA, the potential effects of the Project were considered from a number of publicly accessible viewpoints in the Macraes Flat area; several of which have been used as 'viewpoints' for previous LVAs that I have prepared for OceanaGold.

24 As previously considered, there are also a number of salient viewpoints, such as gateways to local farms; being the Howard and the Roy properties. Other

[2] Refer to NZ Transport Agency Landscape Guidelines (Final Draft) September 2014 – Appendix 1 *NZTA Landscape and Visual Assessment Guidelines*; https://www.nzta.govt.nz/resources/nzta-landscape-guidelines/ These guidelines include a 7-point scale for ranking magnitude of effect in descending order of High to Nil.

such viewpoints are those that provide an overview of the broader Macraes Flat landscape such as Sailors Cutting or Hyde Hill where visitors to the area will gain their first view of Macraes Flat, along with where local residents might commonly meet such as the Macraes Old Cemetery car park. From these salient viewpoints, the Project may or may not be visible and this was confirmed from the ground.

25 These representative and salient views were then considered from the point of view of a visitor to the Macraes Flat area travelling from the Sailors Cutting in the east along Macraes Road, then travelling north along Golden Point Road and down to the Golden Point Historic Reserve, followed by east along Horse Flat Road and north on Hyde-Macraes Road to its summit on the Taieri Ridge. The reasoning behind considering a particular view and the specific discussion regarding the visibility of the various aspects of the Project is provided in Section 7.3 of the LVA relative to the particular viewpoints.

26 Site photos, along with visual simulations from the selected representative and/or salient viewpoints are at **Attachment 2**. The viewpoint images have been formatted in the following order:

- "Before" – This image is the current panoramic view from the particular viewpoint and is the base photograph from which the subsequent visual-simulation has been generated.

- "Intermediate" – This is an 'artificial' visual simulation image where the base CAD image of the visible mine elements are shown in a distinctive colour. This has been done so that it is possible to readily see or 'read' the created image of the mine elements within the simulation and, therefore, clearly define the visible change at the site.

- "After" – The visual simulation includes the particular aspects of the Project that are expected to be seen from the particular viewpoint. The Project's components, such as the outer slopes of rock stacks, have been coloured and textured to show the components fully revegetated as they will be when the proposed mitigation measures have fully taken effect.

27 The various local features noted in the description of each view are labelled on the "Before" photograph of the particular view and the larger components of the Project are labelled on the relevant "After" visual simulations.

28 The fact that aspects of the Project will be visible and will change aspects of the character of the existing landscape does not necessarily mean that these effects will be inappropriate or unacceptable. The visibility, scale, nature and duration of the effect, the visual complexity and scale of the existing landscape, the visual sensitivity of the viewer and the size of the viewing audience; all influence the significance of the Project's potential effects. Visual sensitivity is a measure of how critically changes to a landscape will be regarded and depends upon a range of viewer and view characteristics.

29 The visual simulations show the degree of mitigation that was expected under the previous Coronation North 'landscape' consent conditions, i.e. shaping and grassing of rock stack slopes, and that it is expected will be replicated in conditions of consent for the Deepdell North Stage III Project.

30 In the landscape and visual assessment, it has been found that:

- The effect on visual amenity values that will arise from the Project are low, relative to those effects already consented for the existing mining activities with the Macraes Operation and are therefore accepted as contributing to the central landscape identity for the Macraes Land Unit in the Waitaki District Council's district-wide landscape study.

- With respect to the eleven salient and common public viewpoints considered, the Project or aspects of the Project will not be visible from three of these viewpoints – Views 0, 5 and 9, and the potential visual effect is '**Negligible'** or less from another two viewpoints – View 2 and 10. From a further three viewpoints, the potential visual effect will be '**Low**' or **'Low'** to '**Negligible**' – View 1, 6 and 7.

- With respect to the remaining three viewpoints, all are on or at the end of local, gravel, no-exit roads and have direct views to the proposed open cut pit and the proposed Deepdell East Waste Rock Stack. The effect on Views 3 and 4 is considered to be '**Moderate-Low'**, while the effect on View 8 is considered to be '**Moderate-High'**.

- Once the final shaping and revegetation of the proposed Deepdell East Waste Rock Stack has been completed, along with that of the redundant haul roads, the general shape, slopes and colour of the completed and revegetated 'hill' landform will be in sympathy with the natural slopes of the area. In time, relative to the most effected

viewpoint – View 8 - the visual effect of the WRS will reduce from '**Moderate-High'** to '**Moderate**'.

- In a much greater length of time, the Deepdell North Pit void will become a lake, though still confined within the pit. The shaping and 'naturalising' of the upper pit walls, where this coincides with the WRS and in response to slope stabilisation works, will also assist in moderating the overall visual effect of this aspect of the Project.

- Backfilling the defunct Deepdell South Pit will provide the opportunity to re-instate the natural slope close to and upstream of the Golden Point Historic reserve, while 'balancing' the creation of a new open cut pit with removal of an old pit.

- In terms of the overall cumulative landscape and visual effect of the Project, the effect will be '**Low**' to '**Negligible'** when seen from the broader Macraes Flat area. From closer to the Project Area, where more than one WRS will be visible, there will be a degree of cumulative effect that will be '**Moderate-High'** in the first instance but will become '**Moderate**' with time.

31 As noted separately from the LVA in my response dated 27 February 2020 to WDC's s92 request regarding natural character, the Project locality is a pastoral landscape with few structures and obvious rock outcrops and incised gullies that has a natural character, albeit modified by farming and gold mining.

32 Two-thirds of the WRS including the backfilled Deepdell South Pit are within the Rural Scenic Zone, while all of the proposed open cut pit and the western slopes of the WRS are within the Macraes Mining Zone. Visually there is no demarcation between the two zones within the project area. That is, the boundary between the two zones does not follow a distinct change in landform, landcover or landuse. The majority of the project area, regardless of its underlying zone, is an open, grazed paddock that has been cultivated in the past. It is only around the immediate northern and eastern margin of the Deepdell South Pit that there is some residual tussock grassland with woody native shrubs such as matagouri and the contour is steeper and falls away towards the main Deepdell gully.

33 The part of the project area within the Rural Scenic Zone contains little of the landscape features that define the character of the zone.

34 Overall, mitigation measures will be built into the Project from the outset. These include:

- careful design of the form of the WRS to integrate it with the existing landform character of the area;
- progressive rehabilitation of the WRS;
- shaping the upper pit walls of the open cut pit in response to slope stabilisation works to a naturalised form that enables the establishment of vegetation cover and an accessible margin to the eventual pit lake, where possible;
- restoration of the areas disturbed around the margins of the Project;
- removal and restoration of the haul roads used during closure phase of the Project; and
- backfilling of the Deepdell South pit. This necessary part of the current project contributes to the mitigation of visual effects of the pit (gap formed in the ridgeline) left by earlier Deepdell South stages.

35 These proven measures have been effective in mitigating the potential visual effects of the existing waste rock stacks, being the most visible, elevated mining elements that have so far been constructed as part of the OceanaGold Macraes Operation.

36 This new mining activity – Deepdell North Stage III Project - is an extension of previously consented activity and is not unexpected and will be seen in this landscape context as a continuation of the existing mining operation.

RESPONSE TO PEER REVIEW REPORT

37 At paragraph 30 of the Espie review a comment is made that in an assessment of visual effects there should be a conclusion made as to whether the visual effects are adverse, and if so - to what degree. This is included in Table 2, page 5 of my LVA. Mr Espie concludes that from viewpoints 3, 4 and 8 the adverse visual effects arising from the proposal will be 'perhaps' greater than 'moderate-low' at 'moderate' (viewpoint 3), 'moderate-high' versus 'moderate-low' (viewpoint 4) and 'high' versus 'moderate-high' (viewpoint 8). These comments are reasonable but only when considering the temporary pre-mitigated visual effects during construction works. Mr Espie considers this

time frame to be “a period of two years plus one year of rehabilitation work”3. This would be a reasonable assumption regarding the time frames involved. I consider that it is likely that any visual effects associated with mining activity (and any changes to the landscape in a general sense) such as what is proposed here will be higher while construction works are underway and the vegetation cover over the finished works has not yet established. In this regard I concur with Mr Espie’s findings regarding temporary visual effects and that these effects will extend for 2-3 years.

38 On page 10 of the Espie review under the discussion on viewpoint 7 a recommendation is made to retain a shelterbelt to provide certainty that the adverse visual effects from viewpoint 7 will be ‘low’. This shelterbelt is not on OceanaGold property and is part of the neighbouring Howard farm. As such these trees cannot be relied upon to remain and contribute to mitigation of the proposal. Notwithstanding this, it is considered highly unlikely that these trees will be removed as they provide essential shelter and protection when holding stock near the woolshed. Removing the trees would also expose views from this part of the Howard farm to the proposal - likely not a priority for these landowners.

39 Cumulative effects are discussed by Mr Espie at paragraphs 27 and 37. Mr Espie concludes that there will be cumulative effects generated by the proposal, but these will not be “particularly adverse” as the area where the proposal is located is characterised by other mining activity. I concur with this summation of the proposal’s cumulative effects. Mr Espie makes a related comment that potentially adverse cumulative effects may occur if future mining activity extended into areas not already characterised by mining activity. As Mr Espie acknowledges, the proposal does not extend into an area not already characterised by mining activity and so this point, while fair and reasonable is a moot one with regards to the current proposal.

40 Consent conditions are discussed by Mr Espie throughout his review as being critical to enable the success of the project. His opinion is that the proposed conditions of consent are adequate, but there will need to be adequate ongoing monitoring by the Waitaki District Council to ensure that the proposal is effectively rehabilitated and that the mitigation techniques (such as grassing) are effective. It is also of my opinion that ongoing, robust monitoring of the project by both the applicant and council will be required to ensure that

[3] Vivian and Espie peer review; 10 June 2020; page 10 (discussion regarding viewpoint 4).

the final landscape outcomes anticipated will be achieved successfully and in a timely manner.

41 Appropriate landscape conditions on previous consents, compliance with those consents by the applicant, and monitoring of consents by the consent authorities have been successful in ensuring the appropriate management of the landscape components of previous large-scale mining activities at the Macraes Gold Project, and my expectation is that the Deepdell North Project can be satisfactorily managed using these same approaches.

RESPONSE TO SUBMISSIONS

42 The submissions relating to natural character are from the Department of Conservation ("DOC") and Otago Regional Council ("ORC"). These submissions canvas the broad spectrum of amenity, flora and fauna and biodiversity effects. I will focus on the visual amenity aspect of natural character.

43 Relative to the DOC submission, as noted in my summary of the LVA, the greatest visual effect of the Project relates to the east end of Horse Flat Road, which I have described via my commentary on View 8.

44 Overall, the visual effect of the Project from this viewpoint will be **'Moderate-High'**. This is due to the proximity of both the WRS and the pit, their respective height and depth and large-scale relative to the road 'corridor' running past the pit and towards the WRS. The ranking of this effect is lessened to a degree in respect to the broader Macraes Flat area as this east end of Horse Flat Road is quite isolated and infrequently visited by the travelling public.

45 It is noted that the proposed open cut pit and its associated western flank of the waste rock stack will be an extension of that activity which is already provided for within the WDC Macraes Mining Zone. The rest of the proposed Deepdell East WRS, including the Deepdell South Backfill portion, however, 'sits' within the WDC Rural Scenic Zone.

46 Relative to the ORC submission, it is noted in the LVA under the heading 'Section 6(a): Natural Character of Water Bodies and their Margins' that the upper extent of a minor tributary to Deepdell Creek drains west through the Project Area parallel to the south side of Horse Flat Road. The southern extent of the Project drains directly to Deepdell Creek immediately upstream of the Golden Point Historic Reserve. The minor tributary has its surroundings modified by farming practices and past mining activities and the flow in the upper extent is intermittent.

47 The proposed open cut pit will truncate the upper extent of this minor tributary to Deepdell Creek. At its upstream extent, this tributary is an ephemeral linear depression or swale across the farm paddock and will drain into the pit in due course.

48 In terms of visual amenity and natural character, these directly affected water courses have no notable value and for the most part appear as low swales within grazed and previously cultivated paddocks.

RESPONSE TO SECTION 42A REPORT (S42A)

49 At paragraph 94 Mr Purves makes a comment that there is no discussion in the LVA on how the effects on biodiversity arising from the proposal affect landscape and natural character values. Biodiversity (the relationship of plants and animals and their habitats) is outside the expertise of a landscape architect. Matters of biodiversity would fall within the realm of the terrestrial ecologist in this case. Landscape character effects (as opposed to visual effects) were covered in the response to the request for further information. Landscape character effects consider physical changes to the setting and how a proposal 'fits' with its setting (or not). This typically includes an assessment on landform, landuse, land cover patterns and processes and cultural patterns, processes and community expectations for a place. Landscape effects (generally speaking) do not specifically include effects on biodiversity although such effects may be summarised from other experts' reporting to convey a 'bigger picture'. In the case of the proposal this was not deemed necessary as the proposed changes overlay areas already modified through mining activity or include pastoral farming practices, both of which would presumably hold very low biodiversity values.

50 Mr Purves comments that the visual effect of the waste rock stack slopes when viewed from the Golden Point Historic Reserve were not addressed in my LVA or the Espie review. To clarify, the potential visual effect relative to the reserve is described at section 7.3.5 View 4 – Golden Point Historic Reserve, page 31 of my LVA. It is also included in my Appendix 1 'Deepdell North III – Project Elements for Consenting Plan' (page 13 – location of photo viewpoints and Page 17 – view 4 Golden Point Historic Reserve). Page 17 includes three images – a 'before view', 'intermediate (artificial) view' and 'after view' (mitigation complete) based on a photographic viewpoint located within the Golden Point Historic Reserve approximately 1.2 km from the central high point of the proposed Deepdell East waste rock stack. As noted in my LVA, the visual effects of the proposal are concluded on balance to be 'moderate-low'. This balanced finding takes into account the partial

reinstatement of the mined ridgeline. On page 10 of his report, Mr Espie concludes that the visual effects of the proposal viewed from the reserve will be 'moderate-high' until two-three years when the visual effects will *"....reduce to 'moderate-low' or perhaps even less"*.

COMMENT ON PROPOSED CONDITIONS

51 There are comprehensive rehabilitation conditions proposed in WDC Section 42A Report at Annexure A, including:

- Condition 3 - Project Overview and Annual Work and Rehabilitation Plan, which requires annual reporting to Councils;
- Condition 4 – Rehabilitation, which sets out rehabilitation objectives, requirements for naturalising earthworks and minimising visibility and using a Landscape Architect for planning and design of structures; waste rock stack (WRS) design principles, and revegetation requirements; and
- Condition 5 – Site Decommissioning and Closure requiring a Site Decommissioning Plan which will also address rehabilitation.

52 The Deepdell North Stage III landuse conditions, draw directly from the past sets of equivalent 'Macraes' conditions, including the MPIII conditions and sets of 'landscape' conditions where they have been found to be practical and effective in meeting the required landscape outcomes. In this instance, the draft conditions for this Project replicate those that are in place for the consented Coronation North Mine project, but with additions.

53 The 'landscape' additions include Conditions 4.5 (b) and 4.5 (c). Condition 4.5 (b) requires the provision of a detailed description of the southern end of the proposed WRS where it will be viewed from the Golden Point Historic Reserve. This will draw directly from Condition 4.4 which includes a set of design principles, but formalises the expectation that the Project Landscape Architect will have input to the WRS design which may be peer reviewed by a Council appointed suitably qualified and experienced landscape architect (Condition 4.5(c)).

54 There is also to be a separate Condition 20 – Nature Conservation and Landscape Values; the detail of which is to be formulated as part of ongoing mitigation discussions between OceanaGold, Councils, Department of Conservation and iwi. My understanding is that the outcome of these

discussions and therefore Condition 20 will be integrated with the expectations of the draft 'landscape' conditions 3, 4 and 5.

55 There is an expectation that areas of ecological value will be protected under condition 20 and this offset mitigation preserves, maintains, and potentially enhances those areas. In so doing, there will also be landscape and visual amenity benefits.

56 A 'for instance' of this is that as a result of current and ongoing 'Condition 15' discussions with the various interested parties, the footprint of the proposed Coronation North WRS was redesigned to avoid a number of ecological and heritage features. While these changes are very recent and not evident in the WRS images included in the Viewpoint 6 photo-simulation, the changes have brought a noticeable re-shaping to the eastern flank of the Coronation North WRS that has also benefited landscape and visual effects.

CONCLUSIONS

57 In my conclusion to the Project's LVA I noted that the Deepdell North Stage III Project will create a number of adverse landscape and visual effects; the latter will range from 'low' through to 'moderate-high' (with only one assessed viewpoint having a 'moderate-high' visual effect) relative to specific viewpoints. Overall, landscape and visual effects combined will be 'low to moderate' following the cessation of activities and the successful establishment of the grass cover anticipated to be after two/three years.

58 The focus of the higher level of visual effect is the change to landform, landcover and landuse that the Project will bring about when seen from an isolated section of Horse Flat Road, east of Golden Point Road in particular. The landscape mitigation measures that are proposed via the draft conditions will serve to moderate the landform change, though that change will still be large, and specifically so for the Deepdell North Stage III WRS. Landcover will be reinstated which will return the land to its current productive landuse. The integration of the nature conservation and heritage conditions with the 'landscape' conditions will take this proposed mitigation beyond responding to visual effects to a broader mitigation of the proposal including landscape effects.

59 The backfilling of the Deepdell South pit will have a net positive landscape and visual effect. This will be achieved by replacing a rock-lined void with fill material that will be able to be contoured and grassed with pasture grass species approximating a natural landform overlain with familiar landuse

patterns and activities (pastoral stock grazing) currently seen in other areas surrounding the Macraes mine.