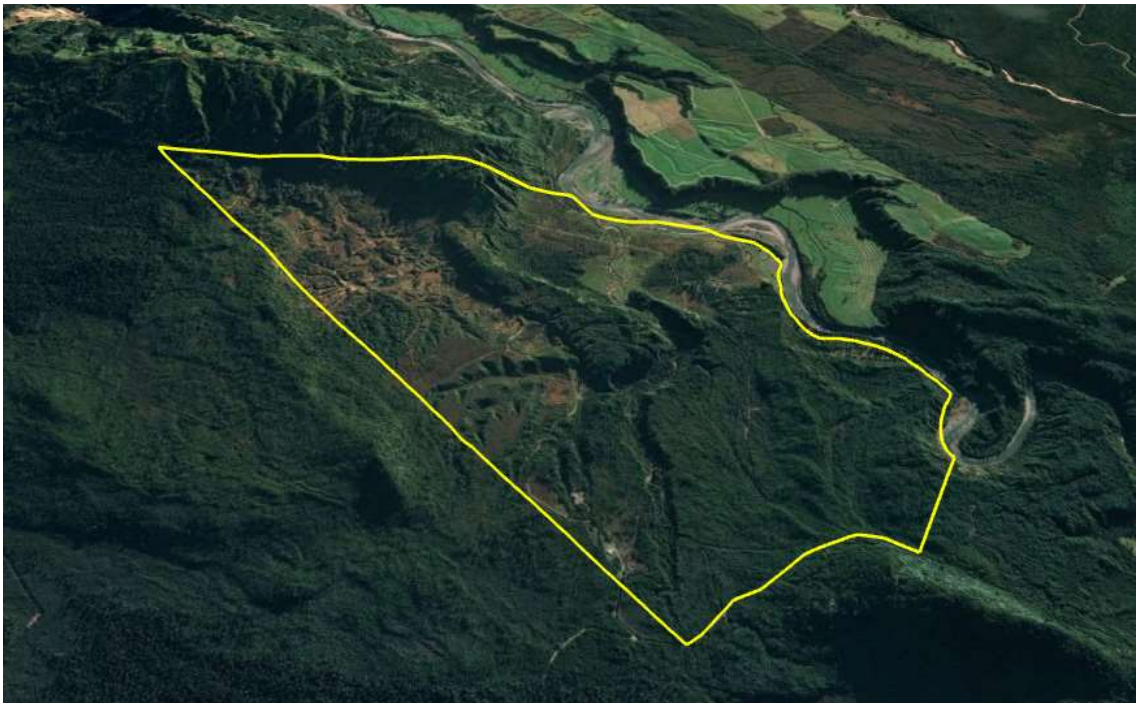
Exploration Permit Application

by

Leisure Land Limited

Caledonian Creek



Vivienne Bull
MSc (Hons), FAusIMM
July 2021

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Cover Photo: Google Earth image

Photograph of the Caledonian Creek Property.

1 Introduction

Leisure Land Limited (the Company, the Applicant), is seeking an exploration permit application (EPA) over an area known as Caledonian Creek in the upper Arahura Valley, in Westland, to explore for alluvial gold.

See **Error! Reference source not found.** for the exploration permit application map.

2 The Applicant

2.1 Technical Qualifications

The Company is owned by Roger Giles Barry who was alluvial mining at Inangahua from September 2015 until May 2019 on MP41936. The MP was surrendered as the gold had run out. Roger Barry managed this operation in his capacity as the owner of the Company and employed a wide range of staff and contractors.

It was a difficult project to run due to the logistical challenges created by having to cross the Buller River to bring in all supplies on a daily, weekly, and monthly basis. There was no road access to this location and staff had to be ferried across the Buller twice for each day of mining. The logistical challenges of getting large amounts of materials, buildings, tools, replacement parts, oils and fuels required a high level of logistical expertise to keep the operation running.

Extreme care had to be exercised along with constant monitoring of the rain over that area to ensure that the staff did not get caught in a flash flood. The site had only an extremely limited ability to receive cellular reception and this added greatly to the difficulty of the day to day operations. The site was covered in a wide range of beech trees which were cut down by the Company and then transported across the Buller River to be used in the local Timber Mill.

The Company purchased a large 10,000 litre mobile fuel tanker to transport fuel across the Buller River as no fuel company could transport fuel across water.

The Company serviced most of the equipment, due to the extreme difficult of access and built a full workshop along with all the essential plant to meet the daily demands of gold mining.

The Company had a wide range of testing equipment that allowed it to accurately determine the grade of the gold that was being extracted.

In conclusion, the Company has the technical resources to undertake the work programme outlined in this application.

2.2 Financial Resources

The Company was formed in 1982, 39 years ago, and has over that time been active over a wide range of business activities from quarries to gold mining. The Company is part of the Ocilla Group of companies which is managed by Roger Barry who is the sole trustee shareholder and director.

Through the Group's inter funding arrangements the Company is financially capable of meeting all work programme obligations and payment of annual fees although the Company alone has more than sufficient asset resources to meet all the above obligations.

The Company has no current or outstanding creditors or external loans or liabilities. The Company through the Ocilla Group has:

- a current ASB Securities Account showing a balance of over $xxxxxxxxxxxx
- Asset Schedule of equipment owned with a value of over $650,000.

The Company also owns the following equipment with the following approximate value:

Conveyor	$50,000.00
Assorted tools and engineering equipment	$50,000.00
Container 2	$8,000.00
CONTAINER 3	$10,000.00
Diesel Tank	$3,000.00
Furnace	$500.00
Gold Plant	$250,000.00
Gold Screen replacement motor	$25,000.00
Gold Wheel	$6,000.00
HITACHI 52 (52,000 kilos)	$150,000.00
HYUNDAI 780-7a (24,000 kilos)	$80,000.00
Scales	$500.00
Tool Shed container 1 and 4	$10,000.00
Vehicle	$10,000.00
Water Pump	$35,000.00
Total	$688,000.00

In conclusion, the Company has the financial resources to undertake the work programme outlined in this application.

2.3 Contact Details

LEISURE LAND LIMITED (114197)

NZBN:	9429032098778;
Address for Service:	96B Shakespeare Road, Milford, Auckland 0620;
Physical Address:	96B Shakespeare Road, Milford, Auckland 0620;
Postal Address:	96B Shakespeare Road, Milford, Auckland 0620;
Phone:	021952249;
Email:	rbarry@xtra.co.nz

2.4 Overseas Jurisdiction

A statement of any permit held by the Applicant in an overseas jurisdiction that has been revoked in the past 10 years and the reasons for the revocation

The Company has not held any permit overseas and hence has not had any revoked.

3 The Application

3.1 First Schedule

EXPLORATION PERMIT APPLICATION

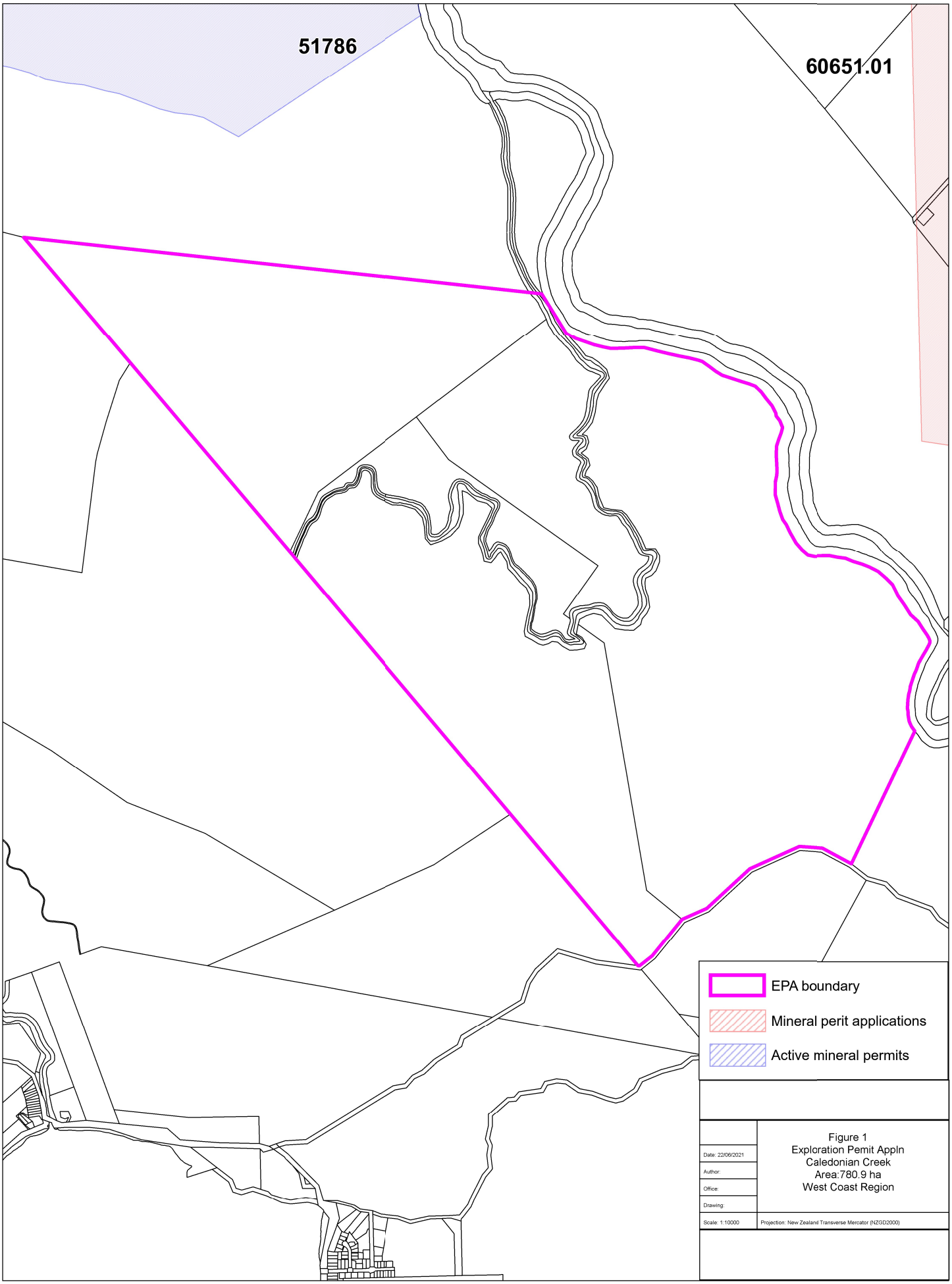
AREA:	**780.9** ha approximately
DISTRICT COUNCIL:	Westland District
REGIONAL COUNCIL:	West Coast Regional Council

LEGAL DESCRIPTION OF PERMIT AREA:

All that area shown on the attached map.

Note:

This application excludes existing permits or applications. At the time of lodging no applications were showing on the NZP&M website.


51786
60651.01
EPA boundary
Mineral perit applications
Active mineral permits
Figure 1
Exploration Permit Appln
Caledonian Creek
Area:780.9 ha
West Coast Region
Date: 22/06/2021
Author:
Office:
Drawing:
Scale: 1:10000
Projection: New Zealand Transverse Mercator (NZGD2000)

3.2 Location

This exploration permit application is located in the Arahura Valley, immediately inland from Hokitika, abutting and north of Milltown Road. It is located on the southwestern side of the Arahura River. See Figure 1 and Figure 2 for a location map, and Figure 3 for Google Earth satellite image of the EPA area.

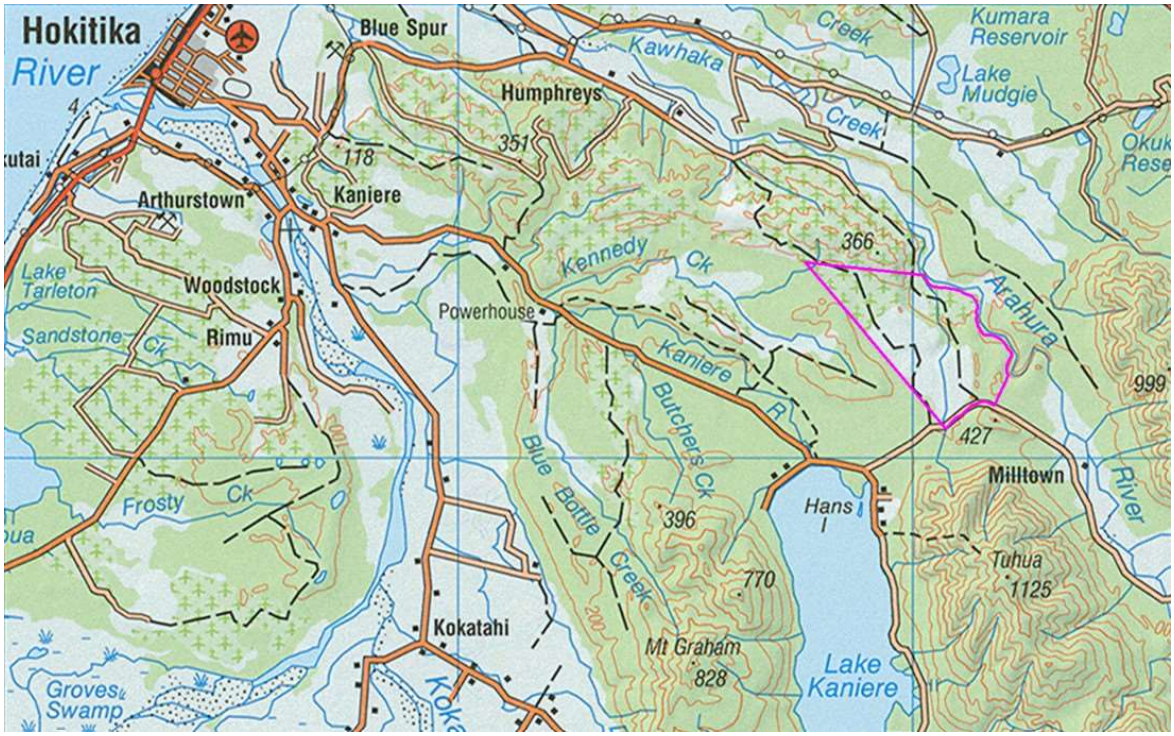


Figure 2: Location of the EPA area

(shown in pink)

3.3 The Operator

The Company will be the operator of the permit.

3.4 Minerals Sought

The Company is seeking **gold and silver** under this exploration permit application.

3.5 Tier Status

This will be a Tier 2 permit if granted.

3.6 Term

The Applicant seeks a 5 year duration for this exploration permit.

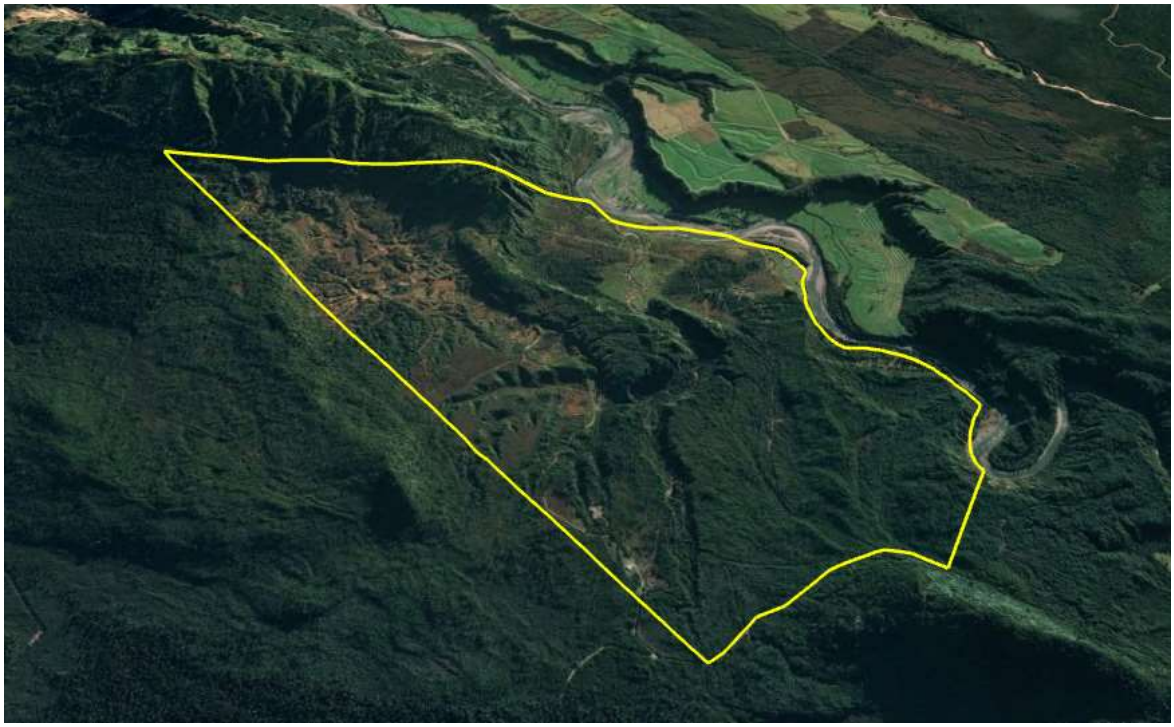


Figure 3: EPA Area on Google Earth

3.7 Topography

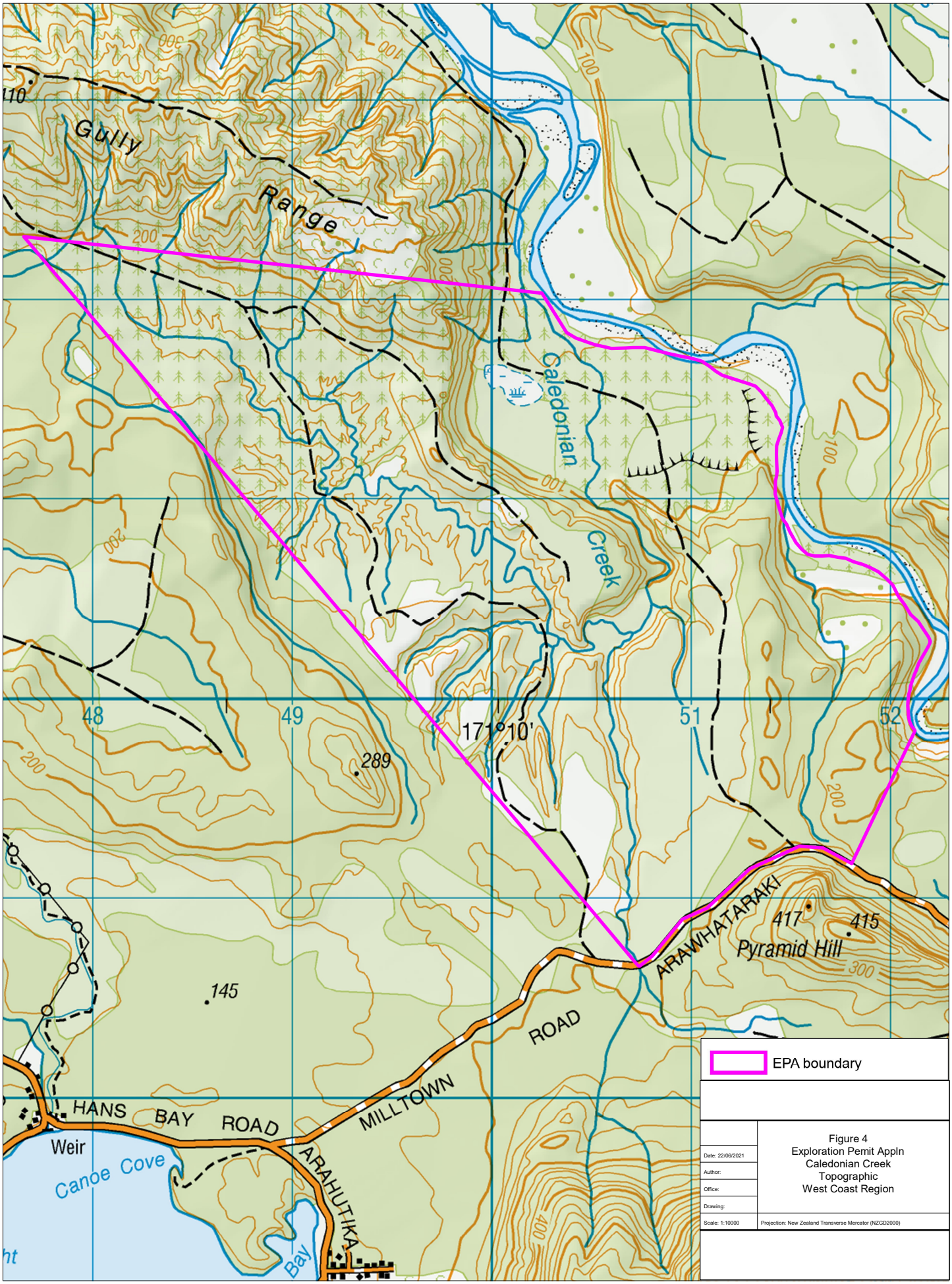
The application area comprises land on the southwestern side of the Arahura Valley, generally less than 100 m asl. In the middle there are steep sided ravines cutting into terraces which rise to about 180 m asl and extend to the western side of the EPA area. Some of the area on the western side is a recently milled pine forest.

See Figure 4 for the EPA area on a 1:50,000 topography map.

3.8 Land Ownership

The land within the EPA area is privately owned land except for a hydro parcel administered by Land Information New Zealand which abuts a paper road owned by the Council. There is no land administered by the Department of Conservation (DOC) within the EPA area. There is DOC land abutting the western boundary of the EPA area.

See Figure 5 for the cadastral map.


Gully
Range
Caledonian
Creek
48
49
51
52
171°10'
289
145
417
415
Pyramid Hill
ARAWHATARAKI
ROAD
MILLTOWN
HANS BAY ROAD
ARAHUTIKA
Weir
Canoe Cove
Bay
EPA boundary
Figure 4
Exploration Permit Appln
Caledonian Creek
Topographic
West Coast Region
Date: 22/06/2021
Author:
Office:
Drawing:
Scale: 1:10000
Projection: New Zealand Transverse Mercator (NZGD2000)

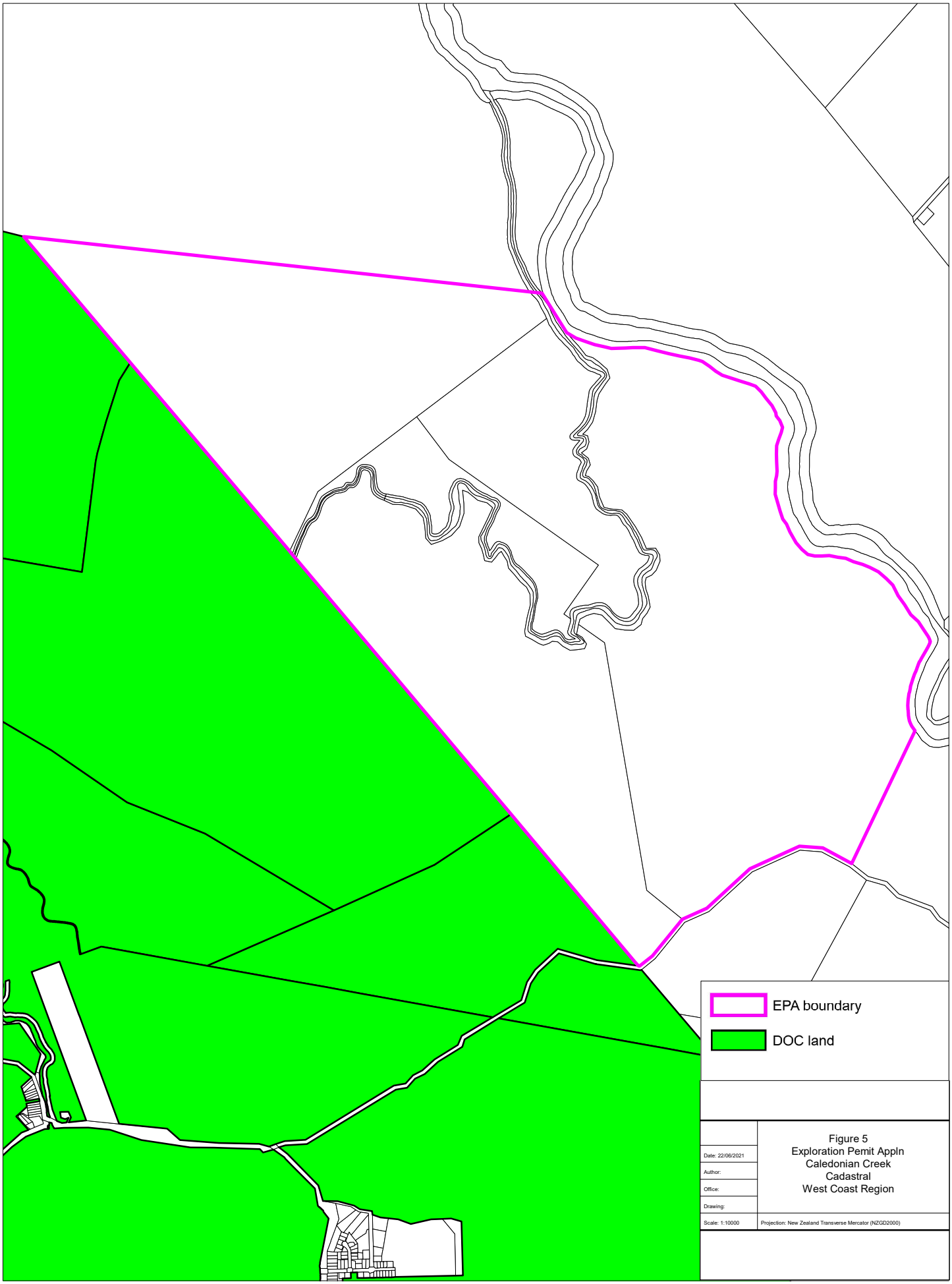


Figure 5
Exploration Permit Appln
Caledonian Creek
Cadastral
West Coast Region

Date: 22/06/2021	
Author:	
Office:	
Drawing:	
Scale: 1:10000	Projection: New Zealand Transverse Mercator (NZGD2000)

4 Geology

A summary of the geology, to which the permit application relates, including whether the land contains any defined exploration targets or is contiguous with any defined exploration targets.

See Figure 6 for the geology of the EPA area, after QMAP 12.

4.1 Regional Geology

New Zealand straddles the boundary between the Australian and Pacific crustal plates, the boundary being marked by the Alpine Fault. The northwest of the South Island of New Zealand comprises the West Coast Basin and Range Province, an area of predominantly early Palaeozoic rocks in broad northerly trending belts, which terminate in the southeast against the Alpine Fault.

The dominant tectonic feature in the West Coast region is the Alpine fault, which marks the boundary between the Australian Plate to the west and the Pacific Plate to the east (Suggate and Waight, 1999). The Alpine fault separates the high peaks of the Southern Alps from the West Coast lowlands and foothills. The fault has been active as a right-lateral transcurrent feature since the Miocene, resulting in significant uplift of the Southern Alps and exposure of basement rocks comprised largely of garnet and biotite schists of the Mesozoic Haast Schist Group (Rose, 2011). Other contractile structures west of the Alpine Fault have aided in uplifting basement rocks of the early Paleozoic Greenland Group in addition to Cretaceous granitoid rocks that comprise the Hohonu Batholith (Suggate and Waight, 1999).

Structures west of the Alpine fault have undergone contractile deformation since the Miocene, resulting in regional tectonic uplift and folding (Suggate and Waight, 1999).

The West Coast region consists of an elongate, narrow and generally flat coastal plain flanked by moderately hilly topography and north to northwest trending mountain ranges with intervening lowlands. The entire region is dissected by large, west-flowing rivers found in terraced river valleys (Rose, 2011). The region is bounded on the east by the main divide of the Southern Alps and on the west by the eastern shore of the Tasman Sea (Rose, 2011). The West Coast region was heavily glaciated, with glaciers sourced from the main divide of the Southern Alps, the Paparoa Range, the Victoria Range, and the Hohonu Range.

Tectonically induced rapid uplift in the late Cenozoic has resulted in the erosion of large volumes of gold-bearing source rocks; the quartz vein and disseminated gold deposits in the Greenland Group (Orogenic shear zone Au - Paleozoic deposits) and similar deposits in the Haast Schist east of the Alpine Fault (Orogenic Au - Mesozoic deposits and Orogenic Alpine Au - Cenozoic

deposits). The gold has been concentrated into West Coast placer deposits through several glacial and interglacial cycles in the Pleistocene. Typically, the youngest deposits are the richest, because they have passed through several cycles of concentration. In addition to the gold found in the present and ancient river systems, gold has also been concentrated into beach placer deposits.

Alluvial placers on the West Coast are found in late Pleistocene fluvioglacial and Recent alluvial gravel, and to a much lesser extent in Pliocene gravels, overlying the Miocene-Pliocene marine siltstone and mudstone, representing basement for the auriferous sediments (Jury & Hancock 1989; Suggate 1996). Between Hokitika and Greymouth, numerous glacial advances reached nearly to the coastlines represented by raised marine deposits (Suggate, 1965). The gold was transported and concentrated into outwash deposits close to the terminal moraine fronts of successive glaciers. A succession of moraines and associated outwash surfaces are present and cyclic erosion and redeposition of previously deposited till and outwash gravels increased the concentration of gold. An especially favourable situation was where a sequence of ice advances terminated in the same area, with the ice or meltwater outflow from a younger advance breaking through the terminal moraine and proximal outwash of a previous advance, as at Kaniere and Rimu in the lower Hokitika valley (Suggate 1996). The largest Pleistocene placers were worked at Reefton, Dunganville, Marsden, Greenstone, Kumara, Goldsborough, Callaghans, Humphreys Gully, Kaniere, Rimu and Ross. The most extensive riverbed placers are found along the Grey River and its tributaries, and in the lower valleys of the Taramakau, Arahura, and Hokitika rivers.

4.2 Local Geology

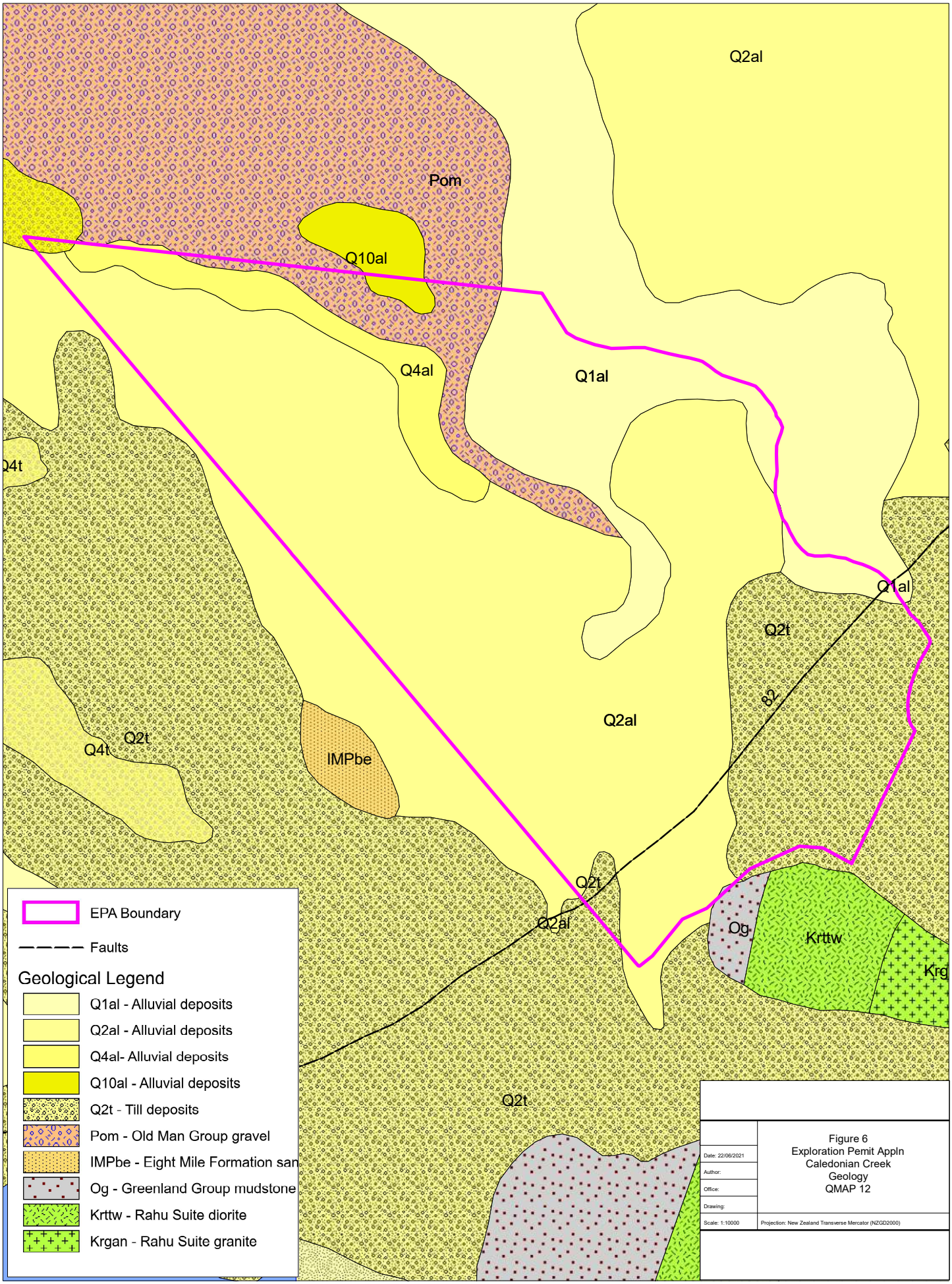
The geology within the EPA area is well known from QMAP 12, Greymouth, and is shown in Figure 6.

The EPA is predominantly covered in Quaternary sediments, including till deposits from successive glaciations, (Q2t), and alluvial gravel deposits of well preserved flood plains and aggradation surfaces from glacial and interglacial periods (Q1al, Q2al, Q4al). The Old Man Group outcrops within the permit area as a NW-SE striking ridgeline.

The Main structural features of the area are the axial trace of the Grey Valley syncline, to the east of the EPA area. This axial trace is parallel to the Hohonu Fault which runs through the EPA area in a NE-SW direction.

4.3 Defined Exploration Targets

The exploration target is the alluvial gold within the quaternary alluvial gravels in the EPA area.


Q2al
Pom
Q10al
Q4al
Q1al
Q4t
Q1al
Q2t
Q2al
Q4t
Q2t
IMPbe
Q2t
Q2al
Og
Krttw
Krg
Q2t
EPA Boundary
Faults
Geological Legend
Q1al - Alluvial deposits
Q2al - Alluvial deposits
Q4al- Alluvial deposits
Q10al - Alluvial deposits
Q2t - Till deposits
Pom - Old Man Group gravel
IMPbe - Eight Mile Formation san
Og - Greenland Group mudstone
Krttw - Rahu Suite diorite
Krgan - Rahu Suite granite
Figure 6
Exploration Permit Appln
Caledonian Creek
Geology
QMAP 12
Date: 22/06/2021
Author:
Office:
Drawing:
Scale: 1:10000
Projection: New Zealand Transverse Mercator (NZGD2000)

5 Past Prospecting, Exploration or Mining Activities

A summary of past prospecting, exploration or mining activities that may be relevant to the land covered by the permit application

5.1 Past Historical Mining

The area was likely mined in the late 1800's and early 1900's. There is no known mining in the area in the past 20 years.

5.2 Previous Prospecting

The following prospecting permits have been held over the area in past 20 years

- 39278 CanAlaska Ventures Ltd from 14.04.2004 for a term of 4 years over part of the EPA area;
- 52704 Strategic Materials Pty Ltd from 16.12.2010 for 4 years but surrendered on 27.06.2014 over part of the EPA area;

These were both for hard rock gold and covered a much larger area.

5.3 Exploration History

- 40590 Jennifer Anne Tainui from 12.03.2003 for 3 years over part of the area:
- 52370 Clive Hawkins from 28.04.2010 for a term of 3 years over the entire permit area but the permit was revoked.

5.4 Open File Reports

NZP&M holds many following open file reports on the wider area however only two were found relating to this specific area from EP40590. An extensive literature review is part of the work programme proposed.

MR4046

- 2005;
- Gold and Green Resources Ltd;
- EP40590;
- Interim Report on Exploration Permit 40590 Arahura Valley;
- Potential mining prospects in the Upper Arahura River area have been explored for mining with drill hole analyses and test pits. Gold was found to be present in the

degraded terraces of the Larrikins Formation in sufficient quantities to support a small excavator and screen operation;

- Permit covered a larger area and part of the EPA area.

MR4152

- 2006;
- Gold and Green Resources Ltd;
- EP40590;
- Final report;
- Test pitting was carried out in late 2004 when 10 test pits were excavated. Auriferous units are primarily restricted to degraded Larrikins Formation and recent gravels found in the Arahura and its tributaries;
- There are indications that a mineable resource is present on the north bank of the Arahura River sufficient to sustain a mining operation for one year;
- In addition there is a smaller resource inferred to be present on the south bank that could be mined over a few months with the likelihood that a further area in Caledonia Creek could also be worked;
- Due to a lack of landowner support, the permit will not be pursued further;
- Permit covered a larger area and part of the EPA area.

6 Work Programme

A statement of the proposed minimum work programme that:

a) states its objectives;

b) identifies the technical rationale, milestones, and deliverable of the programme;

c) identifies any on-going work commitment options;

d) for each stage of the programme (being not more than 36 months' duration) states the minimum expenditure for the stage;

e) states the minimum expenditure for the proposed duration of the permit;

f) indicates any review or decision points in the programme that may lead to:

- **i) exploration continuing; or**
- **ii) the permit holder applying for an extension of duration of the permit to appraise a discovery; or**
- **iii) the surrender of the permit;**

g) if the programme depends on results from review or decision points, an outline of the likely course of exploration; and

h) states whether the proposed exploration is in accordance with good industry practice.

Each of these is addressed below.

6.1 Proposed Minimum Work Programme

The Company proposes the following **minimum** work programme:

The permit holder shall, to the satisfaction of the chief executive, carry out the following work programme:

Within 36 months of the commencement date of the permit, the permit holder shall (to the satisfaction of the chief executive):

- *Complete a literature review;*
- *Complete a programme of drilling or test pitting for a minimum of 5 drill holes or test pits;*
- *Report to NZP&M.*

Within 60 months of the commencement date of the permit, the permit holder shall (to the satisfaction of the chief executive):

- *Complete a further programme of drilling or test pitting for a minimum of 10 drill holes or test pits;*

- *Compile all information into a GIS database with all new sampling or drilling data;*
- *Undertake at least one bulk sample;*
- *Calculate a preliminary resource estimate;*
- *Report to NZP&M.*

We stress this is a minimum work programme and if results are encouraging further testing will be undertaken.

6.2 Objective of the Work Programme

The objective of this exploration permit application is to make a discovery of an economic alluvial gold deposit that leads to the definition of an in-ground mineable resource and to investigate the feasibility of mining in the application area.

6.3 Technical Rationale, Milestones & Deliverables of Programme

Technical Rationale

The technical rationale of the proposed exploration programme is to investigate the area for an economic alluvial gold deposit. The aim is to prove up a mineable resource that can be mined with minimum environmental, social and economic disturbance to the area, with a significant benefit to both the local and national economy.

Milestones

The milestones in the work programme will be the following:

- Undertake detailed assessment of historical data, if any;
- Obtaining any necessary RMA consent from District Council and Regional Council;
- Completion of the 36 month, and 60 month work programmes;
- Commencement of drilling and / or test pitting;

Deliverables

The deliverables in the work programme will be the following:

- A GIS database of any historical information, if any;
- Drilling and sampling results;
- Identification of a potential mineable resource;
- Reporting to NZP&M, including a GIS database of sampling.

6.4 Ongoing Work Commitment Options

The Company will assess the work and results on an annual basis with a comprehensive review at least 90 days before the 36 month work programme obligation. Six months before the 60 months work programme obligation the Company will evaluate the results of exploration and reach a decision point on whether to continue with the project as an extension of duration, an appraisal extension or mining permit or relinquish the project.

6.5 Estimated Expenditure for Each Stage of the Work Programme

The estimated minimum expenditure for each stage of the work programme is as follows:

Table 1: Estimated Minimum Expenditure

Stage	Activity	Unit	Unit Cost	Total Cost	Basis
Stage I, Year 1 -3	Literature review	10 hrs	$100	$1,000	1 person 1 day
	Field equipment	1	$10,000	$10,000	Owned by contractor
	Drilling / Test pits / by contractor	5	$250 per m to 35 m depth	$43,750	10 days
	Mineral processing	5	$50 per m to 35 m depth	$8,750	10 days
	Report writing	1	$1000	$3,000	3 day
Total Stage 1				$66,500	
Stage 2, Years 4 & 5	Drilling / Test Pitting	10	$250 per m to 35 m depth	$87,500	20 days
	Mineral processing	10	$50 per m to 35 m depth	$17,500	10 days
	Bulk sampling	5	$5,000	$25,000	10 days
	Update GIS database	1	$1000	$1,000	1 day
	Preliminary Resource Estimate	1	$1000	$3,000	3 days
	Report writing	1	$1000	$3,000	3 days
Total Stage II				$137,000	

Stage	Activity	Unit	Unit Cost	Total Cost	Basis
Total				$203,500	
Contingency	20%			$40,700	
Total				$244,200	
Rounded				$250,000	

6.6 Minimum Expenditure for Proposed Duration of the Permit

The total estimated minimum exploration expenditure for the proposed duration of the 5 year permit is $250,000. The proposed expenditure detailed above is a minimum expenditure and if results are encouraging the expenditure may significantly exceed this.

6.7 Review Points

Indicates review or decision points in the programme that may lead to exploration continuing, or the permit holder applying for an extension of duration of the permit or the surrender of the permit

Exploration results will be assessed annually as to the economic potential of the permit area, and will be the basis for a decision to continue or surrender the permit. At least 90 days before the end of Year 3 and at least 6 months before the end of Year 5 the Company will again evaluate results and decide whether to continue with the project.

6.8 Course of Exploration

If the programme depends on results from review or decision points outline of likely course of exploration

Each year the Company will evaluate results and decide whether to continue with the project or surrender the permit, particularly before Year 3 and before Year 5. If no encouraging results are found the permit is likely to be surrendered.

6.9 Good Exploration Industry Practice

A statement as to whether the proposed exploration operations are in accordance with good industry practice

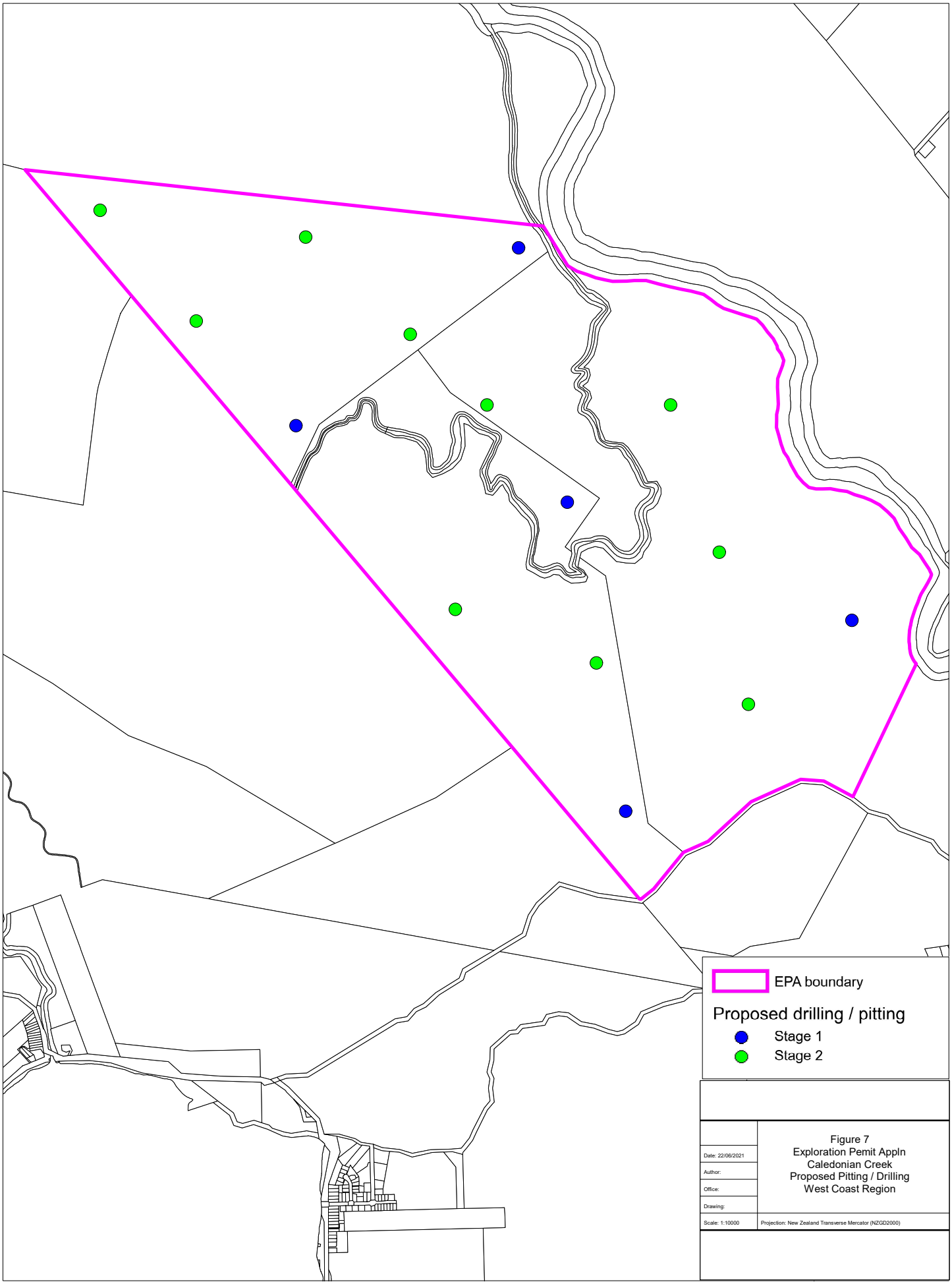
The Company's proposed exploration operation will be in accordance with good industry practice, using modern exploration equipment and acting in a manner that is technically competent and at a level of diligence reasonably and ordinarily exercised by experienced operators engaged in a similar activity and under similar circumstances.

A series of steps will be taken throughout the work programme to maintain the integrity of the work and results in line with good practice as an example all pit / drill sites will be located using a GPS to ensure accurate spatial locations.

7 Coverage of the Permit Area

The aim is to explore the full extent of the EPA area. This will be done through a drilling and / or test pitting programme of a minimum of 15 localities in a grid pattern, with an approximate 500 m spacing. Test localities will be subject to accessibility on the site.

See Figure 7 for proposed drilling / pitting in the EPA area.


EPA boundary
Proposed drilling / pitting
Stage 1
Stage 2
Figure 7
Exploration Pemit Appln
Caledonian Creek
Proposed Pitting / Drilling
West Coast Region
Date: 22/06/2021
Author:
Office:
Drawing:
Scale: 1:10000
Projection: New Zealand Transverse Mercator (NZGD2000)

8 Conclusion

The Company believes granting of this EPA would be a wise allocation of the Crown's resources for the following reasons:

- The Company has the technical experience needed to work the area;
- The Company has the financial resources to carry out the exploration programme proposed;
- There has been no recent work on the area.
- The last reported work was 2006.