

# Applying for an exploration or mining permit

A permit under the Crown Minerals Act 1991 is required for extraction of Crown-owned minerals, including Crown-owned aggregates. Applications can be made online at <https://www.nzpam.govt.nz/permits/online-permitting-system/>

## Tips before you start:

- 1) If you are a first-time applicant, or don't have a RealMe Government login, you need to create one [RealMe](#).
- 2) Engage an agent to assist you with completing the application. Advice on agents can be obtained from [team@straterra.co.nz](mailto:team@straterra.co.nz) or [office@aqa.org.nz](mailto:office@aqa.org.nz)
- 3) Ensure you have gathered all the information you will need prior to commencing your application.

The following is the process and accompanying appendices which will also assist you when completing the online form:

|  |  |
|--|--|
| <b>1. Enter contact details</b>  | <b>Appendix 1 (page 2)</b><br>1.1 Applicant's contact – whoever is completing the application form.<br><br>And/or Operator's contact – person responsible for day-to-day operations of the mine.   |
| <b>2. Proposed permit holder permit participants and interest</b>  | 2.1 Proposed permit participant details  |
| <b>3. Proposed permit details</b>  |  |
| <b>4. Supporting / relevant information (refer Appendix 2).</b><br><br><b>Applicant must state their technical qualifications and financial capability to carry out the proposed mining activity</b> | <b>Appendix 2 (page 7)</b><br>Examples:<br>a) Geology and permit area history<br>b) Alluvial gold resources block<br>c) Work programme<br>d) Duration (normally 10 years for alluvial gold permits but may be up to 40 years for other mines)<br>e) Proposed mining and project economics<br>f) Start-up costs<br>g) Point of valuation<br>h) Capability<br>i) Technical<br>j) Financial<br>k) Compliance<br><br>Guidance can be found at <a href="#">guidelines</a> . |
|  | <b>Appendix 3 (page 16)</b><br>Example of application for an exploration permit  |
| <b>5. Application fee</b>  |  |
| <b>6. Declaration</b>  |  |

## Appendix 1 – Example of completed application form

### 1. Contacts

#### 1.1 Application contact



# Application for a prospecting permit, mining permit or minerals exploration permit

This form is to be used to apply for a new permit or a subsequent permit under section 32 of the Crown Minerals Act 1991. This form is not to be used to apply for a petroleum exploration permit or any permit offered for allocation by public tender under section 24 of the Crown Minerals Act 1991.

- New Zealand Petroleum & Minerals recommends that applicants familiarise themselves with the Crown Minerals Act 1991 (the 'Act'), the relevant regulations, and the relevant Minerals Programme, and seek professional advice where appropriate before making an application for a permit. See <http://www.nzpam.govt.nz/cms/about-nzpam/rules-and-regulations> for more details.
- Please note that information provided with your application is treated confidentially but may be subject to release under the provisions of the Official Information Act 1982. If this is the case, we may consult with you before the material is considered for public release.
- The personal information you must include in this form is needed to process your application under the Act. You have the right under the Privacy Act 1993 and/or the Official Information Act 1982 to access information held about you by New Zealand Petroleum & Minerals and request that this information be corrected if necessary.
- If the space on any part of this form is insufficient to include all relevant details, place them at the beginning of the supporting Information document in the order they appear in this form, state 'see supporting information' in the appropriate space, and attach the document to the application.
- Note that a permit holder is the person who is the sole permit participant, or all of the permit participants, as the case may be. A permit participant means a person who holds a participating interest in a permit.

### SECTION 1: CONTACTS

#### 1.1 Application contact<sup>1</sup> details:

Please set out the details of the Application contact.

|                 |  |
|-----------------|--|
| Name:           | Jim Shue   |
| Organisation:   | N/A  |
| Postal address: | PO Box 4321<br>Northwest Southton<br>New Zealand |

##### <sup>1</sup> Application contact

The Application contact is the sole point of contact for an application. An application contact:

- receives all communications about the progress of an application, including any application fee invoice.
- can view all applications for which they are the Application contact (where they have an New Zealand Petroleum & Minerals online permitting system account)



MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT  
HĪKINA WHAKATUTUKI

New Zealand Government

## 1.2 Permit administrator

## 2. Proposed permit holder permit participants and interest

### 2.1 Proposed permit participant details

|                           |  |
|---------------------------|--|
| Email:                    | jim.shue@myemailaddress.com  |
| Preferred contact method: | <input type="checkbox"/> Post <input checked="" type="checkbox"/> Email (a preferred method must be indicated) |
| Primary phone:            | (02) 555 XXXX  |
| Secondary phone:          | (021) 555 XXXX   |

#### 1.2 Permit administrator<sup>3</sup> details:

Please set out the permit administrator details.

|                 |  |
|-----------------|--|
| Name:           | Janice Goodie                            |
| Organisation:   | Goodie Consulting Limited                |
| Postal address: | PO Box 1234<br>NorthSouth<br>New Zealand |

|                           |  |
|---------------------------|--|
| Email:                    | janice.goodie@email.com  |
| Preferred contact method: | <input type="checkbox"/> Post <input checked="" type="checkbox"/> Email (a preferred method must be indicated) |
| Primary phone:            | (01) 777 XXXX  |
| Secondary phone:          | (027) 777 XXXX   |

#### 2 Permit administrator

The Permit administrator is the ongoing primary contact on matters to do with the permit. A permit administrator:

- receives all communications regarding the permit not directed to the Fee administrator, Royalty administrator, ERL administrator, Geotechnical contact, or Audit contact. This includes all communication around upcoming obligations.
- can view all permits for which they are the Permit administrator (and where they have an New Zealand Petroleum & Minerals online permitting system account).
- by default assumes the Geotechnical contact role for a permit, when the permit is first granted, however this can be assigned at any time by email.
- by default assumes the Fee administrator role for a permit, when the permit is first granted, however this can be assigned at any time using this form.

## SECTION 2: PROPOSED PERMIT HOLDER PERMIT PARTICIPANTS AND INTERESTS

### 2.1 Proposed permit participant details:<sup>3</sup>

If there is more than one proposed permit participant please record the details of each additional one using Form APP 09 Additional permit participant information (see <http://www.nzpam.govt.nz/cms/permit-holders/permit-applications>).

|   |  |   |
|---|--|---|
| Name of proposed permit participant: <sup>4</sup> | Jim Shue   |   |
| Type of proposed permit participant:              | <input checked="" type="checkbox"/> Individual<br><input type="checkbox"/> NZ registered company<br>(please state NZ Company number)<br><input type="text"/> | <input type="checkbox"/> Crown<br><input type="checkbox"/> Overseas company <sup>5</sup><br><input type="checkbox"/> Trust <sup>6</sup><br><input type="checkbox"/> Industrial and provident society<br><input type="checkbox"/> Other (please state) |
|   | <input type="checkbox"/> Incorporated society<br><input type="checkbox"/> Partnership<br><input type="checkbox"/> Local authority                            |   |

<sup>3</sup> Under section 91 of the Act, the name and contact details of the permit participants of each permit must be on the public register. Contact details for the purposes of this section are considered to be the permit participant(s) address which may be an email address (currently address for service) and telephone number at which the permit participant may be contacted. Therefore, this information will be publicly available.

<sup>4</sup> Permits can only be granted to legal entities. Trusts must provide the full name of every trustee and partnerships the full name of all partners.

This information may be supplied in a separate list included in the supporting information to the application.

<sup>5</sup> Please note that overseas companies carrying on business in New Zealand are required to register with the New Zealand Companies Office under section 334 of the Companies Act 1993. For further information on registration and the obligations of overseas companies carrying on business in New Zealand please refer to [www.companies.govt.nz](http://www.companies.govt.nz)

### 3. Proposed permit details

|                                   |   |
|-----------------------------------|---|
| Postal address: <sup>6</sup>      | PO Box 4321<br>Northwest Southton<br>New Zealand  |
| Physical address: <sup>7</sup>    | 14 Sole Street<br>New Balanceville<br>Northwest Southton 6904   |
| Address for service: <sup>7</sup> | 14 Sole Street<br>New Balanceville<br>Northwest Southton 6904   |
| Primary phone:                    | (02) 555 XXXX   |
| Email address:                    | jim.shue@myemailaddress.com   |
| Preferred contact method:         | <input type="checkbox"/> Post <input checked="" type="checkbox"/> Email <i>(a preferred method must be indicated)</i> |

6 Physical and postal addresses need to be of the registered office, if applicable.

7 The address for service must be a physical address within New Zealand.

#### 2.2 Proposed permit interests:

Please list all proposed permit participants, their percentage interest in the proposed permit and indicate the proposed permit operator.<sup>8</sup>

| Permit participant(s): | Operator: <sup>9</sup><br>(Y/N) | Interest: |
|------------------------|---------------------------------|-----------|
| 1. Jim Shue            | Y                               | 100 %     |
| 2.                     |                                 | %         |
| 3.                     |                                 | %         |
| 4.                     |                                 | %         |
| 5.                     |                                 | %         |

8 The operator is the person who is responsible for the day-to-day management of activities under the permit.

## SECTION 3: PROPOSED PERMIT DETAILS

#### 3.1 Proposed permit details:

Please provide the following details:

|  |   |
|--|---|
| What type of permit are you seeking?                           | Petroleum <input type="checkbox"/> Prospecting <input type="checkbox"/> Mining<br>OR<br>Minerals <input type="checkbox"/> Prospecting <input type="checkbox"/> Exploration <input checked="" type="checkbox"/> Mining |
| What mineral(s) are you seeking this permit for? <sup>10</sup> | Gold and aggregate  |
| Proposed permit tier: <sup>10</sup>                            | <input type="checkbox"/> Tier 1 <input checked="" type="checkbox"/> Tier 2  |

9 For subsequent permits, the minerals must be one or more of the same minerals as the current permit.

10 All Petroleum permits are Tier 1. For minerals permits see <http://www.legislation.co.nz/act/public/1993/0070/latest/DLM5239546.html>

If this is a prospecting permit application, is a non-exclusive permit sought?

Not applicable (not applicable for petroleum exploration permits)  
 Yes If this is a petroleum prospecting permit application, are you applying for speculative prospector status?<sup>11</sup>  
 Yes  No  
 No

If this is an exploration or mining permit application, is the application for a subsequent permit pursuant to section 32 of the Act?

Not applicable (not an exploration or mining permit application)  
 Yes current permit number: EP 22011  
 No (Application must be received before permit expires)

If this is a Minerals mining permit application, please tick all mining methods that are proposed to be used and state whether the application is for a hobby or recreational operation and whether it is for a special purpose mining activity:

Not applicable (not a minerals mining permit application)  
 Solution mining  Opencast  Other (please state) \_\_\_\_\_  
 Surface mining  Underground \_\_\_\_\_  
 Dredging  Reworking \_\_\_\_\_

Hobby or recreational operation<sup>12</sup>  Yes  No  
Special purpose mining activity<sup>13</sup>  Yes  No

If this is a Minerals permit application, is the application part of a newly available acreage (NAA) offer?<sup>14</sup>

Not applicable (not a minerals permit application) \_\_\_\_\_  
 Yes NAA number: \_\_\_\_\_  
 No

Proposed area:<sup>15</sup>

55.5 hectares or \_\_\_\_\_ square km

Location:

Region (please state) NorthSouth

Onshore  Offshore<sup>16</sup>  Both

Yes  No

Is the permit application area intended to exclude all granted permits or existing privileges for the same minerals group?

Terrace Block

10 Years 0 Months

Proposed operation name:

Proposed duration<sup>17</sup>

<sup>11</sup> As defined under section 90C of the Act.

<sup>12</sup> Hobby or recreational operations means small-scale suction dredging operations where the suction dredge has a combined engine rating no higher than 10 horse power, and beach sand mining operations that are limited to hand tools and riffle box.

<sup>13</sup> As defined under section 2 of the Act.

<sup>14</sup> Land with NAA status is subject to a time-bound competitive allocation process. For more information about the process, see clauses 6.7. and 6.8 of the Minerals Programme for Minerals (Excluding Petroleum) 2013.

<sup>15</sup> The area is to be stated in hectares for Minerals exploration and mining permits only. For all other permit types, including all Petroleum permits, please state the proposed area extension in square kilometres.

<sup>16</sup> Offshore is anything that is the seaward side of the mean high watermark.

<sup>17</sup> Prospecting permits are ordinarily granted initially for up to 2 years, exploration permits are ordinarily granted initially for up to 5 years and mining permits for up to 40 years. Mining permits for alluvial gold and hobby or recreational operations are ordinarily granted for up to 10 years.

## 4. Supporting / relevant information (refer to appendix 2)

## 5. Application fee

## 6. Declaration

### SECTION 4: SUPPORTING INFORMATION

#### 4.1 Documents required:

Please attach the following:

A signed APP 09 form for each additional proposed permit participant.

A signed APP 10 Application authority form for each proposed permit participant that is not you as an individual.

For Tier 1 minerals applications on land for minerals other than gold or silver only – a Land Minerals Status (LMS) report. Even if this is a subsequent permit application and an LMS report has previously been provided please attach a copy of the report.

A map of the permit area. The map must clearly identify the location of the proposed permit and must be prepared in accordance with the regulations. For subsequent permit applications, the area must fall only within the area of the current permit.

Other supporting information as outlined in the relevant Regulations, see the application guides at the following link: <http://www.nzpam.govt.nz/cms/permit-holders/permit-applications>

### SECTION 5: APPLICATION FEE

#### 5.1 Fee payment:<sup>18</sup>

Please indicate how the application fee is to be or has been paid:

I have paid by direct credit and have attached as evidence a copy of the successful internet banking transaction.

I have attached a cheque.

<sup>18</sup> Your application must be accompanied by the appropriate fee prescribed in the relevant fees regulations or evidence that the appropriate fee has been paid. Payments by direct credit are to be made to New Zealand Petroleum & Minerals' bank account held with Westpac Bank, NZ Government Branch - 318 Lambton Quay, Wellington New Zealand 6011, account number 03 0049 000131 02 and a proposed permit participant's name should be used as the reference for the payment. An applicant is also expected to pay for all bank fees incurred for telegraphic transfers made from overseas. One bank fee is charged when the fee leaves the country of origin's bank and another fee is charged when it is received by a bank in New Zealand. As such, payments by telegraphic transfer should ensure that overseas bank charges are set to 'Ours' in order to have the bank fees paid at both ends – SWIFT Code is WPACNZ2W.

### SECTION 6: DECLARATION

I declare that all information provided in this application is true and correct to the best of my knowledge and that I am authorised to sign this application<sup>19</sup>.

Signature:

Name:

Jim Shue

Position of signatory:

Proposed permit holder

Organisation:

N/A

Date:

24 July 2017

<sup>19</sup> Where the permit participant is a company, partnership, society, trust or other legal entity, the application must be signed in accordance with the relevant legislative requirements, constitution, or rules by a person or agent with the requisite authority. All applications must be signed in accordance with the relevant regulations.

This completed form is to be forwarded to nzpam@mbie.govt.nz or mailed to the NZP&M postal address below.

[www.nzpam.govt.nz](http://www.nzpam.govt.nz)  
[nzpam@mbie.govt.nz](mailto:nzpam@mbie.govt.nz)

PO Box 1473, Wellington 6140,  
New Zealand

FREEPHONE (WITHIN NEW ZEALAND): 0508 263 782  
INTERNATIONAL CALLS: +64 3 961 6179    FAX: +64 4 471 0187

NZP&M is a branch of the New Zealand Ministry of Business, Innovation and Employment. We manage New Zealand's Crown Mineral Estate. Our aim is to maximise the gains to New Zealand's economy from development of these resources, a key component to the government's Business Growth Agenda. To support this aim we endeavour to educate and inform New Zealanders, including consultation with Indigenous stakeholders and local government.

## Appendix 2

### Section 4. Examples of supporting / relevant information

#### Objectives

*It is worth outlining at a high level the objective(s) of the proposed operation. This will help address whether the application is consistent with the purpose of a mining permit (i.e. consistency with section 23 of the Act and clause 10.1(3) of the Minerals programme).*

#### Example information

Jim Shue is applying for a Tier 2 subsequent mining permit for gold and aggregate over a 55.5ha portion of Exploration Permit 22011, approximately 25km east of Northwest Southton. This application comes on the back of results from a programme of test-pitting and bulk-sampling in Midas Formation gravels along a degraded terrace in Upshot Creek. The primary focus of the mining operation will be the recovery of alluvial gold in the terrace block but a small volume of the processed gravels will be stockpiled and sold as aggregate to the local market.

*Ordinarily a mining permit application targeting alluvial gold has to be an unbroken area less than 200 hectares and cover an unbroken area (clauses 4.6, 10.3 and 10.4 of the Minerals Programme). If the land you're applying for is outside of these parameters then you will need to justify why this is appropriate. Your application should also justify why the full application area is required.*

#### a) Geology & Permit Area History

*Clause 10.2 of the Minerals Programme outlines a number of matters that are ordinarily considered when assessing a proposed work programme and/or whether a deposit or resource has been sufficiently delineated. These include consideration of an applicant's knowledge of the area (e.g. mineral occurrences, geology and previous work) as well as the actual resource and how it is proposed to be worked.*

*The proposed work programme needs to be appropriate to the geology of the area and compatible with previous prospecting, exploration or mining activities. The proposed activities need to be in accordance with good industry practice.*

*A map of the geology is a valuable addition, particularly with additional annotation showing historical activity and the location of proposed activity.*

#### Example information

A geological map of the area is shown in Figure 1. The target geology is the auriferous mid-Pleistocene glacio-fluvial gravels of the Midas Formation. These gravels occur in relict stream beds and fluvial terraces throughout the Paddle Valley, deposited by Upshot Creek. In the adjacent Silicon Valley the Midas gravels were mined intermittently from the early 1900s through to 1939 by Golden Goose Limited. Little information can be found about the total amount of gold recovered during this period, but we were able to find historic company records showing that 1,050 troy ounces were recovered during the final three years of the operation.

Paddle Valley is incised into Greenland Group meta-sediment basement. These Greenland Group rocks, and the adjacent schists to the north-west, are reported to host mineralised quartz veins. Locally, the Pliocene-aged Murky Mudstone unconformably overlies basement which is then overlain by the auriferous Midas Formation gravels. The gold in these gravels is thought to have been sourced from erosion of the mineralised quartz veins. Fluvio-glacial processes have transported and concentrated the gold into placer deposits along the active stream beds and river terraces. The contact between the Midas gravels and Murky Mudstone is considered to mark the 'bottom' of the alluvial gold-bearing deposits in the region.

Paddle Valley has experienced little dedicated exploration activity. Prior to our current exploration work the last known activity in the area was an exploration programme conducted by Cash Cow Ltd in 1992 under EP 12345. Although the company's focus was on establishing hard rock gold prospectivity they also carried out some preliminary work on the alluvial gold resource potential of the Upshot Creek riverbed and terrace structures. Stream sediment was panned at 10 locations along the active Upshot Creek bed with mixed results ('colour' observed in 4/10 pans). Three test pits were also completed along a degraded terrace. This data is reported in Minerals Report (MR) 7777 and Table 1. The approximate sample locations are shown on Figure 2.

Although the location of the sites and gold grade were reported (91-139 mg Au/m<sup>3</sup>), few other details were given. In particular, no information was given about sample depths or thickness of overburden and wash. The company went into liquidation shortly thereafter and no further exploration work was carried out in the area until we obtained EP 22011.

Under EP 22011 we have re-tested this same degraded terrace and from our results have identified a mineable alluvial gold deposit in the Midas Formation gravels that comprise the terrace, and this is outlined in subsequent sections.

***All gold, silver, and uranium is owned by the Crown – these are sometimes referred to as the “statute minerals”. All other minerals, even those on Crown-owned land, have the potential to be privately-owned. Permits cannot be issued for privately-owned minerals. For this reason, if your application includes non-statute minerals (such as gravel, aggregate, sand etc.) you must provide evidence of the mineral ownership in the application area.***

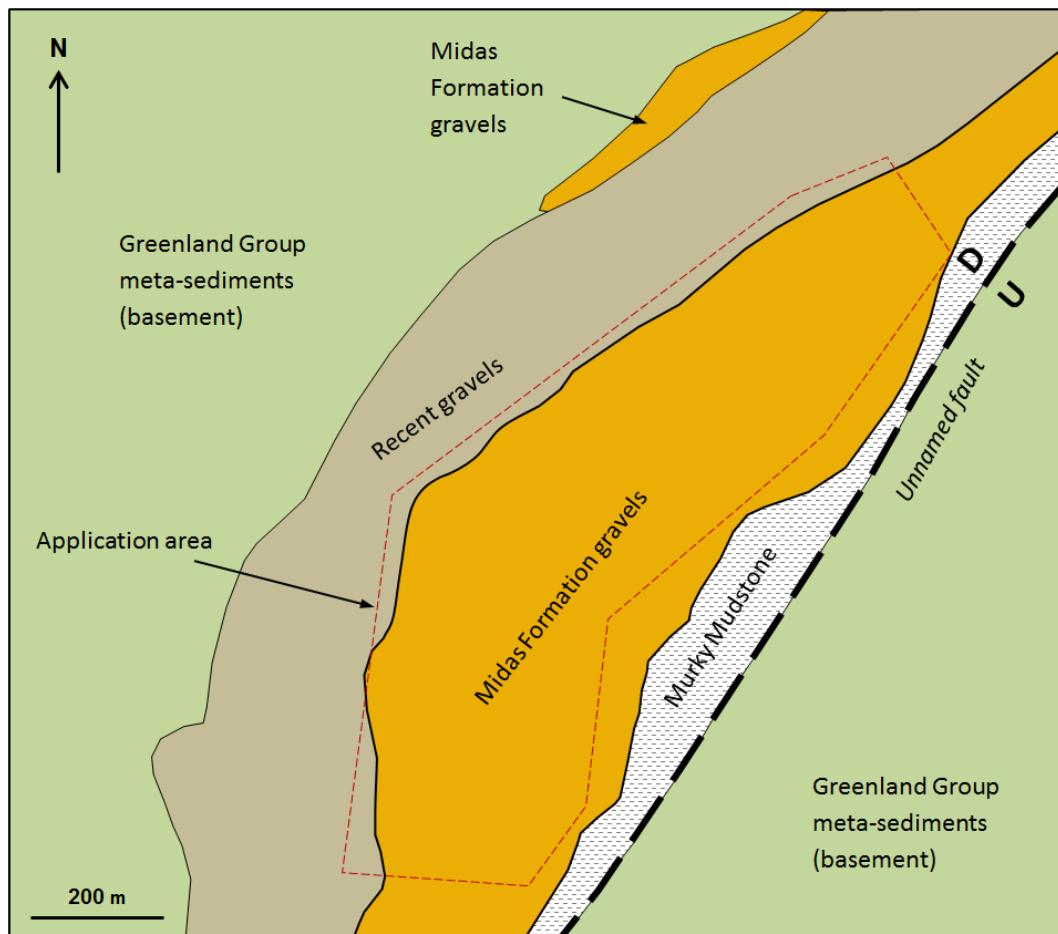
***NZP&M strongly recommends that applicants provide a Land and Mineral Status (LMS) report prepared by a LINZ-accredited supplier. A list of accredited suppliers can be found [here](#).***

***In some cases, particularly where mineral ownership is contentious, or multiple land parcels are involved, NZP&M may require a LMS report from a LINZ-accredited supplier be provided.***

#### ***Example information***

In addition, testing to-date has identified that the clean, well-sorted Midas Formation gravels in the application area hold value as a source of aggregate, and will be a secondary target of our mining activities. A large inactive, NE-striking thrust fault lies to the east of the application area.

A Land and Mineral Status (LMS) report was supplied to NZP&M in support of EP 22011. That report, prepared by a LINZ-accredited Crown Property Supplier confirmed that the gravel in the application area is owned by the Crown. A copy of that earlier LMS report is attached to this application.



**Figure 1: Geological map of the application area and surrounding Paddle Valley area**

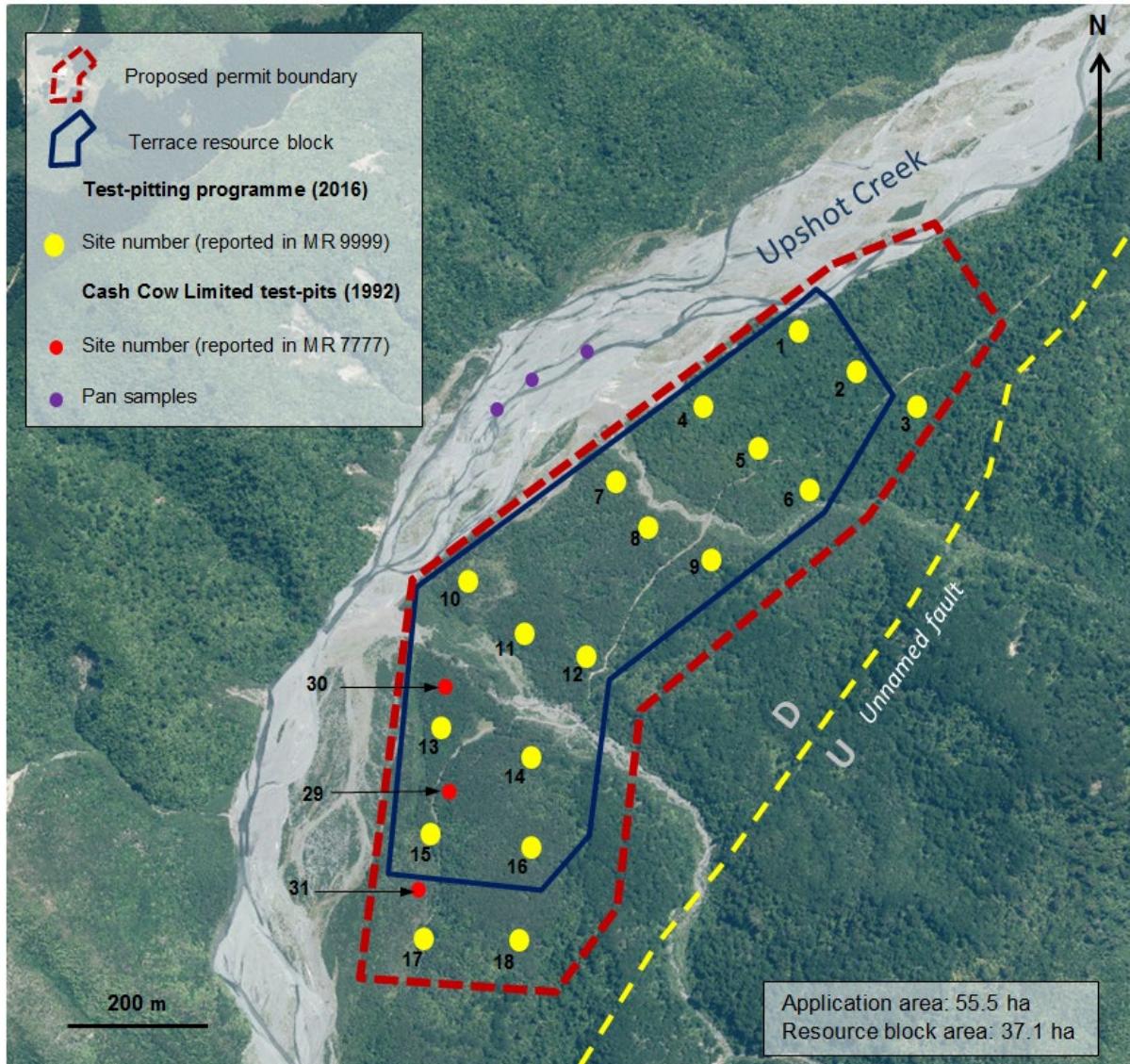


Figure 2: Aerial photo showing the proposed subsequent mining permit area and the delineated terrace resource block. Also shown are relevant recent and historical exploration sites.

### b) Alluvial gold resource block

*The delineation of the resource is considered under clauses 10.2 and 10.3 of the Minerals Programme.*

*You need to clearly explain what data has been used to prepare the resource estimate and be transparent about any assumptions that are built into it. NZP&M is also interested in the quality of the data underpinning the resource estimate. A map should be provided to show the area of land that the resource estimate applies to as well as showing the sample locations for data used in (or excluded from) the estimate.*

*Estimates of the mineral resource should show or include:*

- *A map showing the size and location of the gold deposit in relation to the application area.*
- *The location of historical or recent exploration and type of exploration and sampling (e.g. drill holes, test pits etc.) used to estimate the resource.*
- *The thickness and depth of the gold bearing material.*
- *The volume of gold-bearing material in cubic metres.*
- *The gold grade, provided in units of milligrams of gold per cubic metre (mg Au/m<sup>3</sup>).*
- *The quantity of gold in either kg or troy ounces.*

*Applying a simple weighting to your sample data will give a more realistic resource estimate e.g. by accounting for variations in sample volumes, depths, and grades. Applicants are encouraged to provide a spreadsheet to show the workings for their resource estimate – see the example provided.*

## Example information

A mineable alluvial gold resource block covering 37.1 ha has been delineated from the results of test-pitting and bulk sampling activities carried out under EP 22011. The results of this test pitting programme are fully documented in report MR 9999 submitted to NZP&M and are summarised here to support this application (Table 1).

| Site  | Depth (m) | Overburden (m) | Wash thickness (m) | Volume (m <sup>3</sup> ) | Grade (mg Au/m <sup>3</sup> ) | Bottom contact           | Comment   |
|---|-----------|----------------|--------------------|--------------------------|-------------------------------|--------------------------|---|
| 1   | 4.2       | 1.5            | 2.7                | 10                       | 93                            | Mudstone                 | Issues with pit collapse and infiltration           |
| 2   | 5.6       | 2.6            | 3.0                | 15                       | 112                           | Mudstone                 |   |
| 3   | 7.2       | 4.1            | 3.1                | 15                       | 42                            | Mudstone                 | Excluded from resource block                        |
| 4   | 4.5       | 1.7            | 2.8                | 15                       | 367                           | Mudstone                 |   |
| 5   | 4.7       | 1.9            | 2.8                | 200                      | 559                           | Mudstone                 | Bulk sample   |
| 6   | 5.8       | 2.8            | 3.0                | 15                       | 333                           | Mudstone                 |   |
| 7   | 4.1       | 1.2            | 2.9                | 15                       | 266                           | Mudstone                 |   |
| 8   | 4.3       | 1.3            | 3.0                | 200                      | 259                           | Mudstone                 | Bulk sample   |
| 9   | 5.5       | 2.4            | 3.1                | 15                       | 232                           | Mudstone                 |   |
| 10  | 3.6       | 0.9            | 2.7                | 15                       | 216                           | Mudstone                 |   |
| 11  | 4.2       | 1.3            | 2.9                | 200                      | 234                           | Mudstone                 | Bulk sample   |
| 12  | 5.0       | 1.7            | 3.3                | 15                       | 177                           | Mudstone                 |   |
| 13  | 4.1       | 1.3            | 2.8                | 15                       | 239                           | Mudstone                 |   |
| 14  | 4.9       | 1.5            | 3.4                | 15                       | 332                           | Mudstone                 |   |
| 15  | 3.9       | 1.2            | 2.7                | 200                      | 149                           | Mudstone                 | Bulk sample   |
| 16  | 5.0       | 1.9            | 3.1                | 15                       | 192                           | Mudstone                 |   |
| 17  | 4.7       | 1.8            | 2.9                | 15                       | 14                            | Mudstone                 | Excluded from resource block                        |
| 18  | 5.5       | 2.5            | 3.0                | 15                       | 23                            | Mudstone                 | Excluded from resource block                        |
| <b>Sample sites from Cash Cow Limited, 1992 (as reported in MR7777)</b> |           |                |                    |                          |                               |                          |   |
| 29  | 4         | Not stated     | Not stated         | 10                       | 109                           | Base of wash not reached | Excluded from resource estimate as base not sampled |
| 30  | 4         | Not stated     | Not stated         | 10                       | 132                           | Base of wash not reached | Excluded from resource estimate as base not sampled |
| 31  | 4         | Not stated     | Not stated         | 10                       | 91                            | Base of wash not reached | Excluded from resource estimate as base not sampled |

Table 1: Results of test pitting and bulk sampling programme

Gold-bearing gravels were tested at 18 locations (Figure 2) by excavating pits and processing gravel wash through a 1.2m land-based trommel screen. Residual sample was further processed on a Wiffley table and the recovered gold then weighed. Volumes processed were typically 15m<sup>3</sup> although 200m<sup>3</sup> bulk samples were taken at four sites. Sample volumes were calculated based on 1 heaped bucket load being equivalent to 1m<sup>3</sup> (using a 1,000mm width bucket on the 20T excavator).

Gold grades of 14 to 559 mg/m<sup>3</sup> were encountered with economic grades recovered in all but three holes. The depth of overburden (comprising soil and non-auriferous gravels) ranged from 1.1 to 3.1 m and wash thickness ranged from 2.1 to 3.7 m. All 18 pits encountered the Murky Mudstone confirming that the full thickness of the gravel wash was sampled at all sites. Overburden and wash thickness increased slightly towards the eastern boundary of the application area. For this reason, we have used the weighted averages of gold grade, wash thickness and overburden to estimate the total mineable alluvial gold resource and to inform the project economics. The weighting also takes into account the amount of material sampled (Figure 3).

The estimated mineable alluvial gold resource is as follows:

- Terrace resource block area = 37.1ha
- 1.8 m overburden (weighted average) consisting of soil and low-grade gravels
- 3.1 m thick gold-bearing gravel wash (weighted average)
- 1,140,000m<sup>3</sup> of gold-bearing gravel at a weighted global average grade of 279 mg Au/m<sup>3</sup>, for ~10,220 troy oz. of gold

Data from the following sites are not included in the resource block or resource estimation:

- Our sample sites 3, 17, and 18, which yielded uneconomic grades – these sites are outside of our delineated resource block; and
- Samples sites 29, 30, and 31 of Cash Cow Limited (MR 7777) – although gold grades were reported we don't consider the data reliable. No information was given about sample depths or thickness of overburden and wash. We suspect the full thickness of the gravel wasn't sampled.

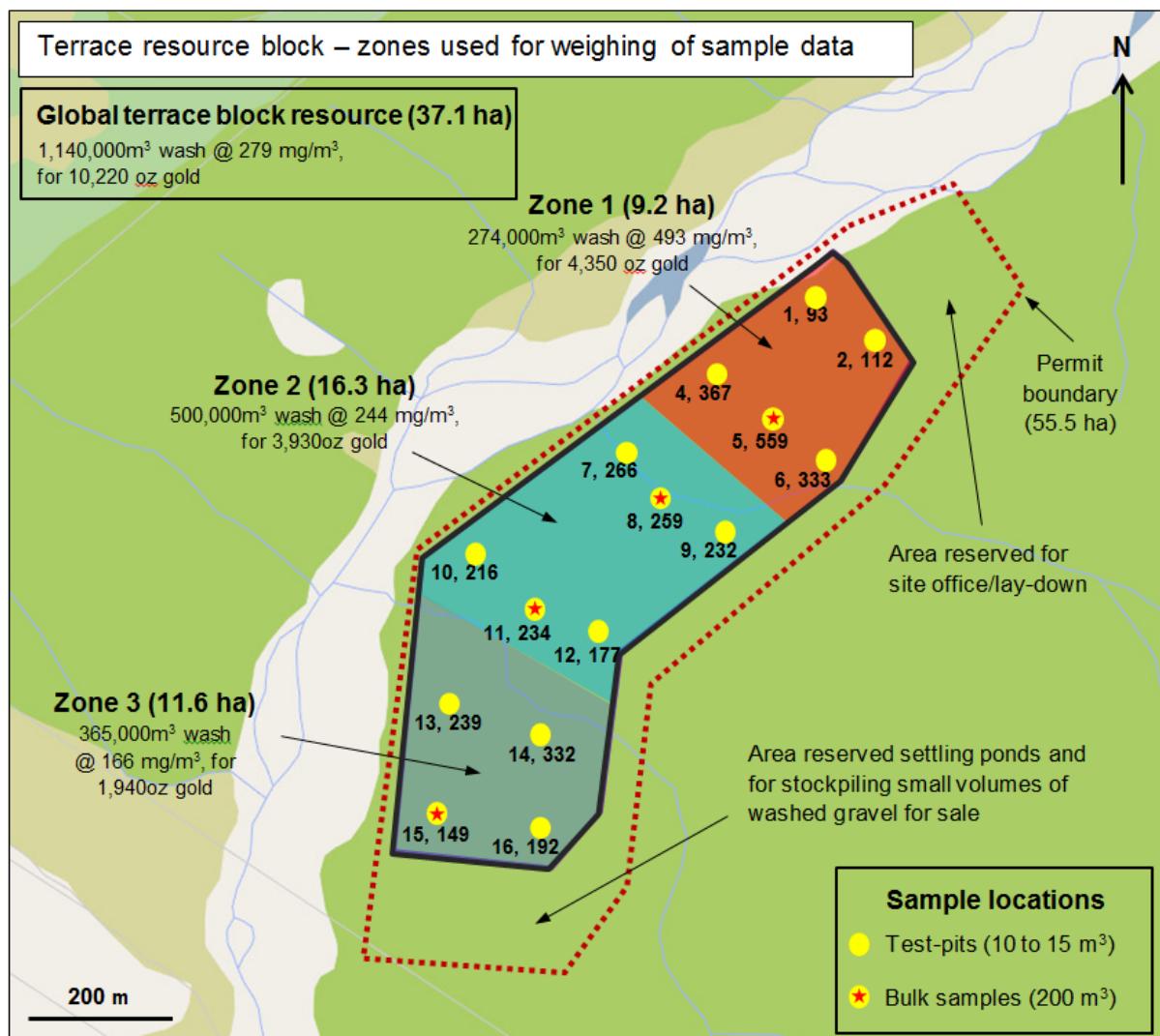


Figure 3: Map showing the location of test-pit and bulk sample sites used in the resource estimate. Numbers next to the site locations denote the site number followed by the gold grade reported in mg Au/m<sup>3</sup>. The resource block was spatially divided into three zones to allow data to be appropriately weighed (i.e. to take into account the relative importance of sample volumes, wash thickness, and gold grade).

### c) Work Programme

*Clauses 10.2 and 10.3 of the Minerals Programme outline the specific matters that are ordinarily considered in assessing a proposed work programme for a mining permit and suitability of the application area.*

*Applicants should provide details of the size, nature, extent, and siting of the proposed mining operation and the intended mining method. Assessment of the proposed work will include consideration of:*

- *The proposed start date for production.*
- *The expected production rate and proposed production schedule.*
- *The progression and direction of the mining operation along the delineated resource.*
- *How often the operation will be worked.*
- *The expected resource recovery.*
- *How long it is expected to take to extract the resource. Estimated expenditure on a weekly and/or yearly basis.*

**The work programme must comprise activities to economically exploit the identified resource/deposit and those activities must be carried out in accordance with good industry practice. Therefore you should describe the proposed activities in sufficient detail to demonstrate consistency with good industry practice.**

**During the evaluation a 'minimum' work programme will be agreed upon with NZP&M. This is usually based on key milestones (such as the commencement of mining) and ongoing commitments (such as maintaining a minimum mining rate). Your application should state what you consider to be realistic minimum work programme obligations. Proposed production rates in particular should be kept realistic – remember that NZP&M will monitor compliance against the agreed minimum work programme.**

For further guidance refer to the document "[Guidance on design of work programmes for minerals prospecting, exploration and mining permits](#)".

#### **Example information**

Our proposed work programme for the permit is as follows:

- Within 12 months of obtaining the permit:
  - Obtain resource consents from Regional and District councils – we already have consents for water take and discharge to water in place (RC2017-55-03 and RC2017-55-04) but need to upgrade our land disturbance consent and obtain consent to clear vegetation from the site. We already have a land access agreement in place with the private landowner.
  - Establish site infrastructure (settling ponds, site office, ~300m of access tracks).
  - Clear vegetation.
  - Carry out further test-pitting to increase sample density, and confirm grades (resource estimate updated as appropriate), and to confirm resource does not continue under areas planned for site infrastructure.
  - Strip overburden, stockpile soil and low-grade gravel for rehab.
  - Commence mining of gold-bearing gravels.
- Once production has started:
  - At full production we will anticipate an annual production of 50,000m<sup>3</sup> of gold-bearing gravel through a 1.2m land-based trommel. Based on our test-pitting and bulk-sampling results this should yield approximately ~450 ounces of gold per year.
  - We consider we can commit to a minimum production of 30,000m<sup>3</sup> gold-bearing gravels per year. This would allow for mechanical failures, maintenance, adverse weather etc.
  - Approximately 5,000 to 10,000m<sup>3</sup> of the processed gravels will be stockpiled annually for sale to the domestic market – the remainder will be used to rehab the site.
  - Ongoing test-pitting and appraisal.
  - Rehabilitation as the mine progresses.

It is considered that completing the above work programme will allow for the development and extraction of the alluvial gold resource, and in a manner consistent with good industry practice.

#### **d) Duration**

**Clause 10.6 of the Minerals programme states that a Tier 2 mining permit for alluvial gold is typically only granted for up to 10 years. Later down the track a permit holder may apply to extend the duration of their mining permit.**

#### **Example information**

We are applying for the 10 years available for an initial Tier 2 mining permit.

If we commence mining within 12 months and achieve an annual production of around 50,000m<sup>3</sup> of gold-bearing gravels per year we estimate it will take about 24 years to deplete the alluvial gold resource. As such we will likely apply in future to extend the duration of the mining permit.

#### **e) Proposed mining and project economics**

**Clause 10.2(1)(e) and (f) of the Minerals Programme require consideration of the proposed mining activities from feasibility and financial viability standpoint. You need to demonstrate that you have considered and factored in realistic costs and income for the operation. This needs to include consideration of the capital needed upfront to get**

*the operation underway before it starts producing an income, as well as ongoing expenditure. A relatively detailed breakdown of the project economics should be provided. See the spreadsheet example provided.*

A two-person mining operation is proposed, which will be led by Jim Shue (as the Permit Operator), employing Trevor Smith as a subcontractor. Soil and low-grade gravel will be stripped to expose the gold-bearing wash at the base of the Midas Formation. Soil and low-grade gravel will be stockpiled for rehabilitation. Mining will begin from the southwest corner of the resource block and will zig-zag back and forth to the lateral extents of the resource block as the mine footprint advances progressively upstream, roughly parallel to Upshot Creek. Rehabilitation will occur as the mine advances. The mine footprint is subject to change pending conditions of the resource consents.

As the depth to the bottom of wash varies from only 3.6 to 5.6 metres, the mine pit will use a single bench to the working floor of the mine.

Annual production estimates are based on an average working day of 8 hours throughout the year. Taking into account seasonal variability, our annual production assumes the gold screen is operating on average for 8 hours a day, 5 days a week for 42 weeks a year.

Two excavators (20T and 30T) will be used to extract gold-bearing wash which will be fed through a land-based 1.2m trommel to recover gold. With this equipment we are able to process approximately 240 m<sup>3</sup> of wash during an 8-hour day.

Therefore, running at full production, we expect an annual throughput of just over 50,000m<sup>3</sup> of gold-bearing gravel. At a weighted average global gold grade of 279 mg/m<sup>3</sup> of wash, this is expected to yield 452 troy oz. of gold per year. At a conservative local gold price of \$1,600 per troy oz., this equates to a gross gold income of **\$723,000** per year.

It is noted that a smaller volume of the washed gravels (on the order of 5,000 to 10,000m<sup>3</sup> per year) will be stockpiled for sale to the local market with the remainder used in site rehabilitation. This will be a source of additional income although this will be subject to local demand and may be irregular. Gravel sales have not been factored into the project economics.

A Land and Mineral Status (LMS) report was supplied to NZP&M in support of EP 22011. That report, prepared by a LINZ-accredited Crown Property Supplier confirmed that the gravel in the application area is owned by the Crown. A copy of that earlier LMS report is attached to this application.

The overall costs of running the operation include:

- \$101,000 wages for two people @ \$30 per hour fulltime for 42 weeks a year
- \$84,000 per year for lease of a 30 tonne excavator
- \$72,000 per year in diesel/fuel to operate two excavators, pumps, gold screen
- \$23,000 per year contingency for maintenance and repairs
- \$87,000 per year for administrative costs (includes permit fees, resource consents, insurance and royalties to the Crown and landowner as a percentage of gold revenue).

This equates to a total annual cost of **\$367,000**. With this cost structure and level of production the operation has a break-even local gold price of just over \$710 per troy oz. Alternatively, with the same costs and a local gold price of \$1,600 then an annual production of around 200 troy oz. is required to remain profitable.

Therefore, the total annual profit margin of the operation at full production is expected to be approximately **\$356,000**.

For full details of the project economics and assumptions, refer to the spreadsheet included.

#### **f) Start-up costs**

It's estimated that the operation will take \$60,000 to get set-up and underway. This includes the cost for resource consents, stripping vegetation, establishing settling ponds, ~300m of access tracks and a container site office.

#### **g) Point of valuation**

The proposed point of valuation for calculating royalties is the permit boundary.

## **h) Capability**

*The capability of an applicant to comply with and give effect to the proposed permit and work programme is an important consideration in the legislation (e.g. section 29A(2) of the Act). Clause 5.3 of the Minerals Programme also provides that where there is significant concern with an applicant's capability – from either a technical, financial, or poor compliance history standpoint – the application can be declined without further consideration.*

*As such the application needs to demonstrate, in sufficient detail, the applicant's capability of meeting the proposed work programme and general permit conditions. This will need to be established with respect to the applicant's technical capability, financial capability, and (where relevant) their compliance history on previous permits.*

### **i) Technical**

*The technical capability of the proposed 'operator' to undertake the day-to-day management of the work programme must be demonstrated. This includes the appropriate level of technical experience for the person(s) responsible and also the availability and suitability of relevant equipment.*

*If an applicant proposes to contract work out to a third party in order to bring in technical expertise, then the applicant should also be able to demonstrate relevant experience in the management of projects and contractors.*

For further guidance refer to the [Technical Capability](#) guideline.

#### **Example information**

The two-person mining operation will be led by Jim Shue (as the Permit Operator), employing Trevor Smith as a subcontractor. Jim has 10 years' experience exploring and mining for alluvial gold in New Zealand – this includes exploration work on EP 21045 and EP 22011 and alluvial mining using a land-based screen on MP 97124 and MP 97633 (the Old Nick's mine).

Jim holds a B-Grade Mine Manager's certificate and is currently studying towards his A-grade certificate. He owns outright an eight year old 20T digger and a truck and low loader for transporting it. He also owns a 1.2m trommel screen, sluice boxes, water pumps, a 150mm dredge and an assortment of smaller equipment that will be used in the mining operation. He has 'wheels, tracks and rollers' endorsements on his licence.

A 30T excavator will be leased for use in the operation.

Trevor Smith has 7 years' experience in alluvial gold exploration and mining in Canada (2 years) and New Zealand. He is currently working towards his B-Grade certificate and has wheels, tracks and rollers licence endorsements.

### **j) Financial**

*You will need to demonstrate that you have sufficient funding available to undertake the obligations in the work programme. While a bank statement can show a level of available funds it does not necessarily indicate commitment to spend the funds on the proposed work programme. Further evidence of commitment of those funds e.g. agreements with equipment suppliers or previous evidence of financial commitment can strengthen the case for granting the permit application. It is important to provide independent evidence of financial capability.*

*Applicants with an existing permit portfolio should also factor in committed spending on other their other permits.*

Refer to the [Financial Capability](#) guideline for more information, including the different types of supporting evidence that are (or are not) acceptable.

#### **Example information**

Mr Shue is financially capable of meeting all work programme obligations and payment of annual fees. As evidence of this the following attachments are provided:

- A current ZNA Bank statement (dated 01 July 2017) showing a balance of \$32,287;
- Evidence of passive income from another business interest with tax statements showing income for the preceding two years;
- A schedule of equipment owned by the applicant, and that is available for use on the permit;
- A breakdown of committed expenditure on the applicant's other active permits - \$20,000 is committed over the next 5 years;

- A letter from the Mr Shue's accountant, Cash Ledger, providing a reference in support of Mr Shue's financial capability to establish the mine and undertake the proposed mining activities, in addition to existing exploration work programme commitments; and
- A letter of credit from the ZNA Bank (dated 01 July 2018) confirming a line of credit to the amount of \$80,000 to be used to fund the start-up costs of the mine operation.

Once the operation is established the revenue from the mine will be used to absorb operating costs.

#### **k) Compliance**

*Any previous history with NZP&M and minerals permits will be taken into consideration, particularly any compliance issues. These may be in regard to compliance with timely completion of work programme obligations, reporting obligations and any fees. If there are some historical compliance issues with previous permits then 'front-footing' issues with explanation and/or assurance of future compliance is recommended.*

#### ***Example information***

Jim Shue's compliance history on his various permits has been pretty good overall.

An issue with completion of the first stage of the work programme for EP 666 has been addressed previously with NZP&M following the difficulties encountered after the great flood of 2009. It's acknowledged that we should have applied for a change of conditions to avoid becoming non-compliant. We've chalked that one up to inexperience and don't expect a repeat of those issues. The second stage work programme obligations were completed and led to the delineation of a resource and successful grant of a subsequent mining permit over part of this area.

Jim Shue holds a 50% interest in EP 21045 along with Harry Foot. NZP&M will be aware that, although the first stage drilling programme for that EP was completed ahead of time, the associated technical report was submitted well after the due date (eventually submitted as MR 8888). This was an oversight on our part as we had planned to compile and submit the report ourselves but lost track of the timeframes and as a result missed the reporting deadline.

Going forward we will be engaging the services of Janice Goodie (Goodie Consulting Limited) who will be helping ensure we meet our reporting obligations. Janice has over 30 years' experience as a consultant to the mineral exploration and mining industry and will assist with the preparation and submission of all our technical reports.

We are up-to-date and compliant with all work programme, reporting and financial obligations on the parent permit (EP 22011).

## Appendix 3 - Example of application for an exploration permit



The purpose of this document is to provide applicants with an example of the types of information that may be used to support an application for a Tier 2 exploration permit targeting alluvial gold. Permit applicants should also refer to the online guidance on preparing and acceptance of Tier 2 alluvial gold permit applications.

An application for an exploration permit must satisfy the requirements, and be consistent with, the purpose of the Crown Minerals Act 1991 (the **Act**), the Crown Minerals (Minerals other than Petroleum) Regulations 2017 (**Regulations**) and the Minerals Programme for Minerals (Excluding Petroleum) 2013, to be granted (**Minerals Programme**). In order for an application to first be accepted for processing it must contain the information specified in regulation 17 of the **Regulations**.

Once an application is deemed complete and is accepted for evaluation, the assessment by NZP&M will focus on the considerations, criteria, and limitations that are outlined in the **Act**, **Regulations** and Minerals Programme, especially Chapter 9 which relates to exploration permits.

To satisfy those requirements the application has to provide sufficiently detailed information for the application to allow for a complete evaluation. Taking some time to expand on and provide context for your application and to make it as complete as possible will go a long way in our evaluation of your permit application in a timely manner.

NZP&M has developed a series of Minerals Guidelines that provide useful information to help guide our applicants through the legislation and the application process. Guidelines have been developed for a variety of aspects, including one specifically covering the preparation and acceptance of Tier 2 alluvial gold permit applications. Have a look at the guidelines while preparing your application: <https://www.nzpam.govt.nz/permits/minerals/guidelines/>.

The following is an example of an application for an Exploration Permit for alluvial gold and aggregate. Discussion of what is required is given in italics.

### Application for an exploration permit for alluvial gold and aggregate Exploration permit

#### Objectives

*It is worth outlining at a high level the objective(s) of the proposed operation. This will help address whether the application is consistent with the purpose of an exploration permit (i.e. consistency with section 23 of the Act and clause 9.1(3) of the Minerals programme).*

#### Example information

Jim Shue is applying for an alluvial gold and aggregate exploration permit application over 396 hectares of land in the Paddle Valley, 25km east of Northwest Southton. The primary objective is to determine whether there is a viable alluvial gold deposit in the mid-Pleistocene-Quaternary gravels in the Paddle Valley, and the feasibility of mining any deposit identified. A secondary objective is to test the suitability of gravel in the area as an aggregate source for the Southton region.

*Ordinarily an exploration permit application has to be for an unbroken area greater than 150 hectares (clauses 4.6 and 9.4 of the Minerals Programme). If the land you're applying for is outside of these parameters then you will need to justify why this is appropriate. Your application should also justify why the full application area is required.*

## Geology & Permit Area History

*Clause 9.3 of the Minerals Programme outlines a number of matters that are ordinarily considered when assessing whether a proposed work programme is appropriate. These include consideration of an applicant's knowledge of the area (e.g. geology and previous work) as well as the actual work they plan to carry out.*

*The work proposed needs to be appropriate to the geology of the area and compliment previous prospecting, exploration or mining activities. The proposed activities need to be in accordance with good industry practice, provide new knowledge, build on previous work and suitably cover the proposed area under the application.*

*A demonstrated knowledge of relevant geological features, the prospecting/exploration history, the implications of available data and any resource information can be persuasive.*

*A map of the geology is a valuable addition, particularly with additional annotation showing historical activity and the location of proposed activity.*

### **Example information**

The target geology is mid-Pleistocene to Quaternary glacio-fluvial Midas Formation gravels occurring in relict stream beds and fluvial terraces either side of Upshot Creek. The gravels have been transported and deposited by, Upshot Creek, which drains through Paddle Valley. Paddle Valley is incised into Greenland Group meta-sediment with the potential of significant gold being sourced from mineralised quartz veins within the Greenland Group as well as from adjacent schist rocks to the north-west. The location of the 396 hectare application area is given in Figure 1.

The Midas Formation gravels largely overlie the Murky Mudstone, which in turn, unconformably overlies basement rocks.

Historically alluvial gold has been mined to some degree in the adjacent Silicon Valley, which occurs within the same potential source rocks as Upshot Creek and Paddle Valley. This occurred intermittently from the early 1900's through to 1939 with little known about the amount of gold recovered but there was clearly sufficient recovery to maintain interest through those 30 plus years.

Paddle Valley has experienced little dedicated exploration activity, with the last known activity being an exploration programme conducted by Cash Cow Pty Ltd in 1992 under exploration permit 12345. This prospecting activity was targeted more toward hard rock prospectivity with 25 rock chip samples taken from exposed quartz veins close to and within the application area. As well as this however, some 10 panned samples were taken from the Upshot Creek bed and three test pit samples were taken along a terrace structure. These are reported in Minerals Report (MR) 7777. The locations, as best known, are shown on Figure 1.

Results from the rock chip samples gave a maximum grade of 1.3g/t gold with five others recording grades between 0.5 and 0.8 g/t gold. No grades are given for the panned samples but some 'colour' is reported for four of the 10 samples taken. The three test pit samples taken from the terrace gravels yielded gold grades of 91 to 132 mg/m<sup>3</sup>. There is a question over how robust the test pits samples were and whether they tested right through to the base of the gravel.

No work has been conducted on the possible volume of gravel present in the terrace structures or other relict creek features, which is a major target of the proposed work programme.

*All gold, silver, and uranium is owned by the Crown – these are sometimes referred to as the "statute minerals". All other minerals, even those on Crown-owned land, have the potential to be privately-owned. Permits cannot be issued for privately-owned minerals. For this reason, if your application includes non-statute minerals (such as gravel, aggregate, sand etc.) you must provide evidence of the mineral ownership in the application area.*

*NZP&M strongly recommends that applicants provide a Land and Mineral Status (LMS) report prepared by a LINZ-accredited supplier. A list of accredited suppliers can be found [here](#).*

*In some cases, particularly where mineral ownership is contentious, or multiple land parcels are involved, NZP&M may require a LMS report from a LINZ-accredited supplier be provided.*

## Example information

The gravel intersected by the three historical test pits was a clean well sorted gravel bed that may also hold value as a source of aggregate. A Land and Mineral Status report is supplied in support of this application. That report, prepared by a LINZ-accredited Crown Property Supplier, confirmed that the aggregate in the application area is entirely Crown-owned. A copy of that LMS report is attached to this application.

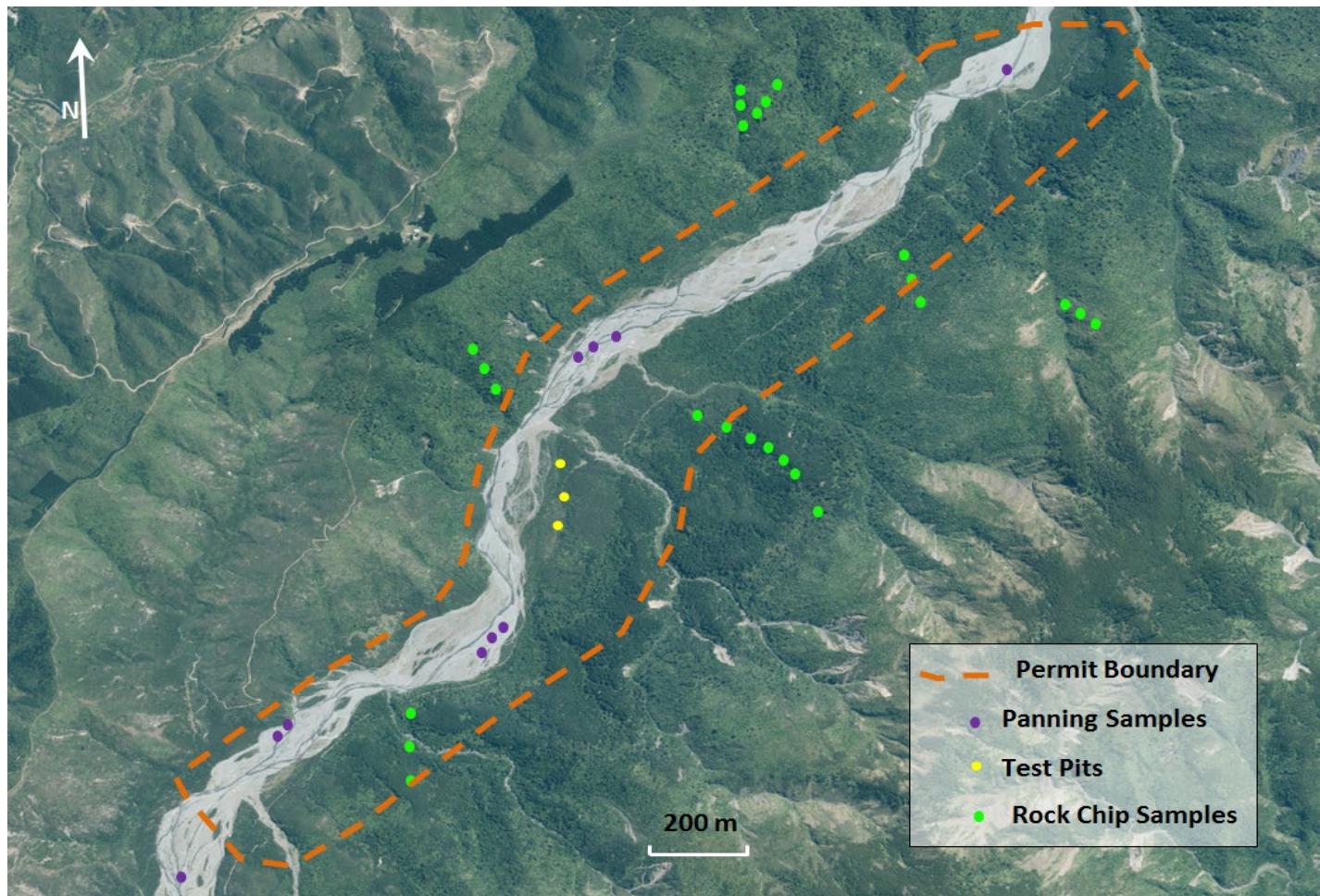


Figure 1. Location of permit application area with historical prospecting sites shown.

## Work Programme

*Clauses 9.2 and 9.3 of the Minerals Programme outline the matters relating to the assessment of work programmes for an exploration permit. In discussion with NZP&M a 'minimum' work programme will be agreed but a higher level of exploration activity will be encouraged and should be detailed within the application.*

*In particular, NZP&M will ordinarily consider the following matters when assessing a proposed work programme:*

- *Geology of the area and any previous exploration or mining work carried out in the area.*
- *The technical approach as to how exploration will occur.*
- *Whether exploration is in accordance with good industry practice.*
- *Timing and quantity of the work and analysing the results. If there is any intention to bulk sample or drill, this should be clearly stated.*
- *An estimated expenditure for each stage of the work programme.*

*The work programme should comprise activities that, upon completion, will allow the permit holder to make a commercially justifiable decision on developing the gold resource.*

*For further guidance refer to the document "[Guidance on design of work programmes for minerals prospecting, exploration and mining permits](#)".*

## Duration

*Clause 9.5 of the Minerals Programme outlines the restrictions and ordinary limitations for the duration of an exploration permit, and clause 9.2 outlines how the work programme will typically be staged.*

*Typically an exploration permit will be granted for up to five years with the work programme being broken down into two distinct stages of a three year period and a two year period. The first stage will have committed work and expenditure while the following stage programme may be contingent on the results of the first stage. An exploration permit can be considered up to a maximum of 10 years; an extension to this time would only be granted for appraisal of a discovery. Any extensions of time for the permit would generally require some part of that permit area to be relinquished.*

### **Example information**

The application is for a three year period with the first two years representing Stage 1 and the third year being Stage 2. The exploration programme for Stage 1 will comprise:

1. A literature search for any additional information on results for gold exploration and/or mining of the Upshot Creek and Paddle Valley and surrounds. This is expected to take no more than 6 months;
2. At least 30 test pits on established terraces to establish gold mineralisation, grade, gravel/sediment profile and depth of any gold bearing gravels;
3. In the case of the digger being unable to reach the base of the gravel (5 m reach) a drill rig will be used in that position to establish gravel depth;
4. Panning of the creek bed and grab (digger bucket) samples from the creek will also be taken at regular (30 m to 40 m) intervals (30 to 40 samples).

Following the completion of Stage 1 the results will be reviewed and a decision made as to whether further exploration is warranted. If no encouraging results have been obtained by this point then part or all of the permit will be surrendered.

Stage 2 would involve consideration of Stage 1 results and a conceptual model presented in a report of any expected resource in terms of grade, volume and tonnes. Physical work could involve twinning some of the test pits to validate results and help understand the short range variability of the geology and grade and/or additional infill test pits to improve the resource 'model'. The planned location of the test pits are given in Figure 2. The initial test-pitting will focus on an area where historical pitting has taken place (by Cash Cow Limited in 1992) as this area is known to contain alluvial gold although insufficient work was carried out to confirm whether there is a mineable resource. After this, further test-pitting will be carried out in the equivalent gravel units in other areas that are deemed likely to contain alluvial gold.

### **Working to 'good industry practice'**

*Exploration activities must be conducted in a manner compatible with good industry practice and the general view of what 'good industry practice' involves. This is considered specifically in relation to clause 9.3(1)(d) of the Minerals Programme but the exercise of good industry practice is a fundamental principle that underpins the Crown Minerals legislation. NZP&M will be interested in the quality of the work and data obtained as much as the quantity.*

For more information refer to the [Good Industry Practice](#) guideline.

### **Example information**

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:

1. All sample and test pits will be 'picked up' using a GPS to ensure accurate spatial locations;
2. All test pits, where conditions suit, will be 'mapped' where stratigraphic features will be observed and recorded with depth e.g. size fraction (silt/mud, sand, gravel, boulders) and degree of sorting. Where collapse or water

inflow might be a problem the digger bucket sample will be laid out in a way that will allow as much information to be gained as possible;

3. Test pits, or drill holes will be to the base of terrace material to the maximum depth possible to ensure the full profile is mapped and sampled;
4. Test pit samples will be taken at 1 m to 2 m intervals with the volume of sample recorded or discrete to thinner horizons where practicable. These samples will be put through the trommel screen with residual sample sent over a Wiffley table with recovered gold measured by weight. This will also be done for digger bucket samples recovered from the stream.
5. Any volume or grade calculations will use either length or volume weighting as appropriate to provide robust statistical analysis.

The collection of data will allow stratigraphically robust models of terraces with a greater certainty of gold hosting positions. These can be tested and validated during the third year if necessary. Data from the creek sampling will indicate whether dredging operations in the creek itself could be worthwhile.

After carrying out this work programme Mr Shue should be in a position to confirm whether or not there is an alluvial gold deposit in the area and the feasibility of mining that deposit.

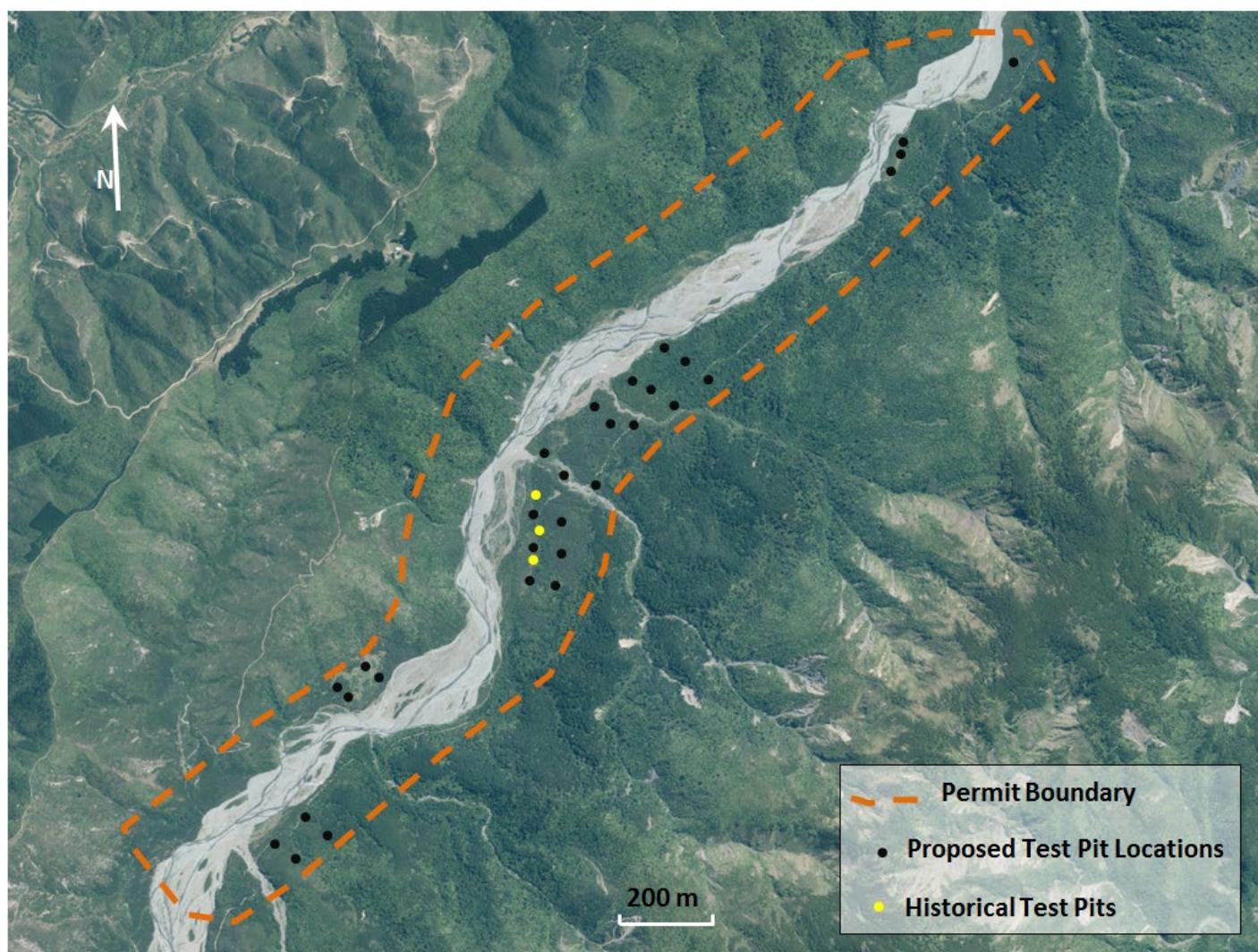


Figure 2. Location of proposed test pits.

#### Costing

*The expected cost of each of the exploration activities needs to be presented with sub-totals by stage and a bottom line cost. These costs need to be 'realistic' with a breakdown of the costs and source of cost information in the application well received. The estimated expenditure for each stage of the work programme is considered under clause 9.3(1)(g) of the Minerals Programme.*

### Example information

A breakdown of estimated costs is given in Table 1. This covers the estimated costs for accessing the ground, digging 30 test pits in Stage 1 as well as 30 stream samples. Costs presented for Stage 2 are contingent on the results from Stage 1. A contingency of 20% has been included to cover any over-runs or drilling to establish gravel depths.

| Stage              | Activity    | Unit       | Unit Cost | Total Cost      | Basis                                  |
|--------------------|-------------|------------|-----------|-----------------|--|
| 1                  | Land access | 1          | \$5,000   | \$5,000         | Land owner discussion                  |
|                    | Labour      | 640 hours  | \$25      | \$16,000        | 2 workers for 40 days @ 8 hours/day    |
|                    | Equipment   | 35 days    | \$300     | \$10,500        | Fuel & sundries                        |
| <b>1 Total</b>     |             |            |           | <b>\$31,500</b> |  |
| 2                  | Land access | 1          | \$2,000   | \$2,000         |  |
|                    | Labour      | 80 hours   | \$25      | \$2,000         | 2 workers for 5 days @ 8 hours/day     |
|                    | Equipment   | 5 days     | \$300     | \$1,500         | Fuel & sundries; 5 follow-up test pits |
| <b>2 Total</b>     |             |            |           | <b>\$5,500</b>  |  |
| <b>Grand total</b> |             |            |           | <b>\$37,000</b> |  |
| <b>Contingency</b> |             | <b>20%</b> |           | <b>7400</b>     | Over run; drilling                     |

Table 1. Budgeted Costs.

### Capability

*The capability of an applicant to comply with and give effect to the proposed permit and work programme is an important consideration in the legislation (e.g. section 29A(2) of the Act). Clause 5.3 of the Minerals Programme also provides that where there is significant concern with an applicant's capability – from either a technical, financial, or poor compliance history standpoint – the application can be declined without further consideration.*

*The application needs to demonstrate, in sufficient detail, the applicant's capability of meeting the proposed work programme and general permit conditions. This will need to be established with respect to the applicant's technical capability, financial capability, and (where relevant) their compliance history on previous permits.*

### Technical

*The technical capability of the proposed 'operator' to undertake the day-to-day management of the work programme must be demonstrated. This includes the appropriate level of technical experience for the person(s) responsible and also the availability and suitability of relevant equipment.*

*If an applicant proposes to contract work out to a third party in order to bring in technical expertise, then the applicant should also be able to demonstrate relevant project management experience. Details of contractors, consultants or sub-contractors who may be working on the permit instead of the applicant must also be supplied.*

For further guidance refer to the [Technical Capability](#) guideline.

### Example information

The applicant, Jim Shue, holds a B-Grade Mine Managers certificate and has previous experience in exploration and mining of alluvial deposits having worked in partnership with Bruce McGavin on exploration permit EP 666 and mining permits MP 4321 and MP 2468 (50% interest). As part of these activities the applicant has experience in stream and soil sampling, operating diggers up to 20 tonnes, alluvial pit work as well as suction dredging, trommel screen and water pump operations. The applicant is also familiar with sampling using a drill rig.

The applicant owns outright an eight year old 20 tonne digger in good working condition with a truck and low loader for transporting it. He is licensed for all machinery and equipment including a 'wheels, tracks and roller' endorsement on his license. The applicant also owns a 1.2m trommel screen, sluice boxes, water pumps, a six inch dredge and assortment of smaller equipment for sampling the stream bed as well as digging test pits in the terraces.

In the case of gravel depths in the terraces exceeding the reach of the digger the applicant would engage a drill rig from Drills R Us Ltd to sample and define the full thickness of the gravel units.

## Financial

**You will need to demonstrate that you have sufficient funding available to undertake the obligations in the work programme. While a bank statement can show a level of available funds it does not necessarily indicate commitment to spend the funds on the proposed work programme. Further evidence of commitment of those funds e.g. agreements with equipment suppliers or previous evidence of financial commitment can strengthen the case for granting the permit application. It is important to provide independent evidence of financial capability.**

**Applicants with an existing permit portfolio should also factor in committed spending on other their other permits.**

Refer to the [Financial Capability](#) guideline for more information, including the different types of supporting evidence that are (or are not) acceptable.

### **Example information**

Mr Shue is financially capable of meeting all work programme obligations and payment of annual fees. As evidence of this the following attachments are provided:

- A current bank statement from ZNA Bank (dated 4 July 2014) showing a balance of \$23,485
- Evidence of passive income from another business interest with tax statements showing income for the preceding two years
- A schedule of equipment owned by the applicant, and that is available for use on the permit
- A breakdown of committed expenditure on the applicant's other active permits - \$45,000 is committed over the next 5 years on Exploration Permit 21045
- A statement from the applicant's accountant, Cash Ledger, providing a reference in support of the applicant's financial capability
- A letter of credit from the ZNA Bank confirming a line of credit to the amount of \$40,000

The applicant does casual contract earthworks through the year to supplement income. This activity would be built around the proposed exploration work. In general, the applicant also has a solid history of meeting the work programme obligations and permit costs of previous mineral permits.

## Compliance

**Any previous history with NZP&M and minerals permits will be taken into consideration, particularly any compliance issues. These may be in regard to compliance with timely completion of work programme obligations, reporting obligations and any fees. If there are some historical compliance issues with previous permits then 'front-footing' issues with explanation and/or assurance of future compliance is important.**

### **Example information**

As discussed, the applicant has previously been involved with a number of mineral permits. The compliance history on these has been pretty good overall. The applicant acknowledges the late submission of reports on MP 4321 but has gained experience since that time and would expect no repeat of those issues.

An issue with completion of the first stage of the work programme for EP 666 has been addressed previously with NZP&M with difficulties encountered after the great flood of 2009. While the applicant acknowledges he should have put in an application for a change of conditions he is now more aware of his obligations as a permit holder. The second stage work programme obligations were completed and an alluvial resource defined. The applicant does point out this project is now the successful Old Nicks mine currently operated by Louis Cypher.