

# CURRAGHINALT GOLD PROJECT, COUNTY TYRONE, NORTHERN IRELAND

████████████████████ for the Gold Mine  
Badger Monitoring Report 2017  
**CONFIDENTIAL**

Prepared for: Client Dalradian Gold Limited

# DALRADIAN GOLD

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## 1.0 INTRODUCTION

### 1.1 Background

Dalradian Gold Limited (DGL) is proposing to develop and operate an underground gold mine as part of the Curraghinalt Project in County Tyrone. To inform the planning application various baseline ecological surveys were carried out including various habitat and species surveys during 2015/16.

SLR Consulting Ireland (SLR) was appointed DGL to undertake a programme of ecological monitoring of important ecological features identified as being present, or where baseline conditions could significantly alter during the planning application process, [REDACTED] to ensure baseline conditions as established by previous surveys carried out during 2015/16 remain valid.

### 1.2 Location and Setting

The Curraghinalt gold deposit is located in County Tyrone, approximately 127km west of Belfast, 15km northeast of the town of Omagh and 7km east of the village of Gortin, and between the settlements of Rouskey and Greencastle, County Tyrone (Figure 1).

The application site has five component project areas that include:

- i. **Proposed Infrastructure Site (Area A).** The site where the process plant and dry stack facility (DSF) will be located and includes the proposed access road of from the Crockanboy Road.
- ii. **Proposed Mineral Extraction Area (Area B).** The area where the mineral deposit is known to occur and the maximum extent of the underground mine workings.
- iii. **The Existing Surface Infrastructure Site (Area C).** The existing surface infrastructure that was developed for the underground exploration programme that will be retained for use as an early works base and for underground development and future training.
- iv. **Passing Bays on Camcosy Road (Area D).** The existing passing bays developed for the Curraghinalt Underground Exploration Programme and proposed turning point for heavy goods vehicles during the construction phase of the development.
- v. **Proposed Mineral Exploration Area (Area E).** The target area for future exploration of the Curraghinalt deposit by means of underground drifts (essentially exploration tunnels). All tunnels will be more than 100m below the surface.

The application site is situated on the southern edge of the Sperrin Mountains. The local landscape is dominated by the river valleys of the Owenkillew and Owenreagh that are separated by the broad ridge of Crocknamoghil that rises to a height of 335m above sea level. The valley slopes are deeply undulated and dissected by numerous tributary burns, typically with stoney substrates and lined with trees.

The river floodplains and the lower slopes of the valleys comprise a patchwork of small fields predominantly under improved and semi-improved grassland and which are typically bounded by hedgerows. Scattered throughout the lower slopes are a number of small copses and semi-natural broadleaved woodlands, the most notable being Drumlea and Mullan Woods, that are predominantly found on areas of glacial deposits forming mounds or terraces typically with rocky outcrops, poor substrates and/or drainage. Small blocks of coniferous plantation woodland are also present.

On the upper slopes, the fields gradually become less intensively managed pastures with remnant stone walls, earthbanks and gorse dominated hedgerows forming the field boundaries. Fields with poor drainage and low grazing are typically dominated by rushes. At about 200m, the upper slopes open out into open moorland that extends over the tops of the mountain ridges where blanket bog is the dominated habitat-type.

The villages of Gortin, Greencastle and Rouskey are the largest population centres in the local area, but numerous small farmsteads are distributed throughout the localised area along the roads that run along the river valleys of the Owenkillew and Owenreagh.

### 1.3 Purpose of the Report

The primary aim of the ecological monitoring is to ensure baseline conditions as established by previous specialist surveys carried out during 2015/16 [REDACTED], which will be directly affected by the development of any gold mine, remain valid and which will provide up to date information until such time planning permission is granted and where applications for wildlife licences may be necessary to allow the gold mine development.

British Standard *BS 42020:2013 Biodiveristy – Code of Practice for Planning and Development* states that:

*“the shelf life of any given survey depends on the type of survey undertaken and whether environmental conditions within the study area were ‘normal’ or unusual at the time undertaken (e.g. extreme weather), or are likely to have changed or remained the same. The greater the recent change, the greater need for up-to-date information.”*

However, Northern Ireland Environment Agency (NIEA) in their species specific survey requirements guidance, do stipulate that surveys for a number of species must be carried out within one year of submission of any planning application indicating an acceptable ‘shelf-life’ of one year.

Given the likely timeframe for any planning decision to be made DGL have decided to implement a monitoring programme for protected species including:

- where these have been identified as present and baseline conditions may change during the planning application process, or
- where all reasonable likelihood of absence was determined but where there are legal implications if baseline conditions were to change during the planning application process, or
- where to ensure valid data is available on the status of any particular species where baseline conditions may have changed during the planning application process which may affect any wildlife licence application to ensure the gold mine development can proceed in compliance with current wildlife legislation.

The monitoring programme for 2017 [REDACTED] specifically included the following species:

- badger (*Meles meles*);
- bats (all species);
- otter (*Lutra lutra*); and
- marsh fritillary butterfly (*Eurodyras aurinia*).

Although other protected species have been identified in the Proposed Infrastructure Site, it is considered that at this stage the baseline conditions are not likely to change over the short-term where inclusion in any monitoring programme for 2017 was deemed necessary. This includes:

- birds (all species);
- common lizard (*Zootoca vivipara*); and

- smooth newt (*Lissotriton vulgaris*).

However, the exclusion of a species in 2017 does not mean that it cannot be included in any future monitoring programme either from ecological advice to DGL, or where it is requested by Natural Environment Division, that includes NIEA, of the Department Agriculture Environment and Rural Affairs (DAERA).

This report provides an update of the badger survey only with all other ecological monitoring in 2017 being reported separately.

## 2.0 METHODOLOGY

Baseline ecological data were collated through field survey in accordance with current standard methodologies and published good practice guidelines.

### 2.1 Study Area

The area of study for the badger survey comprised all the [REDACTED] and up to 30m radius around this area.

### 2.2 Field Survey / Monitoring

The method of survey comprised a walkover survey of [REDACTED] on 19th September 2017 to:

- inspect all setts previously recorded and to record any change in their status, i.e. classification and measurement of activity;
- identify the presence of any new setts that may have been established since the previous survey; and
- to record any other evidence of badger activity including, paw prints; hairs; latrines and foraging signs.

### 2.3 Personnel

The monitoring programme was managed by [REDACTED] whom is an Associate Ecologist with SLR and a member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) with 17 years' experience in carrying out surveys and monitoring for the important ecological features identified a [REDACTED]

Steve was assisted by [REDACTED] MCIEEM who is also an Associate Ecologist with SLR and with 17 years' experience in carrying out specialist surveys for a wide range of individual and groups of species.

## 3.0 RESULTS

### 3.1 Previous Baseline Survey Results

[REDACTED] was found to support a total of five setts, including two main and three outlier setts, [REDACTED].

Three of the five setts were assessed as being active, including one main sett (Sett No.1) and two outlier setts (Sett No.3 and 4). Sett No.2 (old main) and Sett No.5 (outlier) were found to be inactive during the baseline surveys carried out in 2015/16.

Although Sett No.1 only comprises one sett entrance it is considered that this is a main set due to the constant and very high levels of activity at this location.

### 3.2 Monitoring Results for 2017

With the exception of the five setts previously recorded, the walkover survey in September 2017 found no new badger setts [REDACTED].

There was no significant change in the status or activity levels recorded [REDACTED]. However, the activity levels of Sett No.3 were assessed as having increased from low to moderate. Table 3 provides a summary of the setts and their locations shown in Figure 1.

**Table 1: Description and Current Activity Levels of Identified Badger Setts**

Sett No	Grid Ref	No. of Entrances	Class	Current Activity Levels	Notes
1	[REDACTED]	1	Main	Very High	A single hole sett [REDACTED] that remains to show signs of constant activity including fresh bedding material and footprints at the entrance of the sett. No change since the baseline surveys in 2015/16.
2	[REDACTED]	3	Main	Inactive	All sett entrances show no signs of recent use and no change since the baseline surveys in 2015/16.
3	[REDACTED]	1	Outlier	Moderate	A single entrance sett with fresh bedding [REDACTED]. Hairs attached to barb-wired fence. Activity level increased from low since the baseline surveys in 2015/16.
4	[REDACTED]	1	Outlier	Moderate	A single entrance sett with a well-worn path leading from the sett entrance [REDACTED]. No change since the baseline surveys in 2015/16.
5	[REDACTED]	1	Outlier	Inactive	A single enlarged rabbit burrow [REDACTED] with no signs of use by badger and no change since the baseline surveys in 2015/16.

Away from the active setts no evidence of high levels of badger activity [REDACTED].

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## 4.0 CONCLUSIONS

The result of the monitoring programme for 2017 would indicate that the baseline conditions as recorded through surveys carried out in 2015/16 have not significantly altered. Badgers are still present and active [REDACTED]  
[REDACTED]

This is somewhat expected given that there has been no development to date, there has been no significant changes in the habitats present [REDACTED] and the timeframe since the baseline surveys were carried out.

At this current time, there are no additional ecological constraints to the proposed gold mine development over and above those previously identified in the ecological baseline surveys and assessments carried out to inform the gold mine planning application.









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## FIGURES

00241.00012.01\_Badger Survey Results 2017



**LEGEND**

-  APPLICATION BOUNDARY
-  PROPOSED INFRASTRUCTURE SITE (AREA A)
-  PROPOSED MINERAL EXTRACTION AREA (AREA B)
-  PROPOSED MINERAL EXPLORATION AREA (AREA E)
-  MAIN SETT (ACTIVE)
-  MAIN SETT (INACTIVE)
-  OUTLIER SETT (ACTIVE)
-  OUTLIER SETT (INACTIVE)

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BADGER SURVEY 2017

**BADGER SURVEY RESULTS**

**FIGURE 1**

Scale 1:7,500 @ A3 Date APRIL 2018

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