Annual Report on Exploration

2024

EL 3/2015- Lefroy

HOLDER: **Nubian Resources Ltd.**

AUTHOR: **M. Walter** **REPORT DATE:** **20 May 2024**

Distribution:

1 Mineral Resources Tasmania 1

Nubian Resources Ltd.

Note: All figures, grids and contained data are presented according to the GDA/MGA94 grid system.

Executive Summary

During 2020, Nubian Resources Ltd, a Canadian publicly listed Company agreed to purchase EL 3/2015 from Stavely Tasmania Pty Ltd and the transfer took effect on the 16th December 2020.

The licence has potential for high grade shoots similar to the Volunteer deposit (74,000oz @ 85 g/t of historical gold production) beneath the known historical workings as well as near surface shoots along strike from the known gold bearing lodes.

Exploration work programmes have been developed for the tenement and include detailed soil sampling, re- processing of the historical aeromagnetic surveys and, if warranted, drilling of selected high priority targets.

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INTRODUCTION

EL 3/2015 “Lefroy” lies 10 kilometres east of the Tamar River. The 27 square kilometre licence covers the majority of the Lefroy Goldfield in Tasmania’s northeast goldfields, approximately 15km east of the +2.0 million-ounce Tasmania Reef at Beaconsfield. The licence is accessed by the bitumen Bridport Road with internal access via the Beechford Road, town streets and other bush tracks.

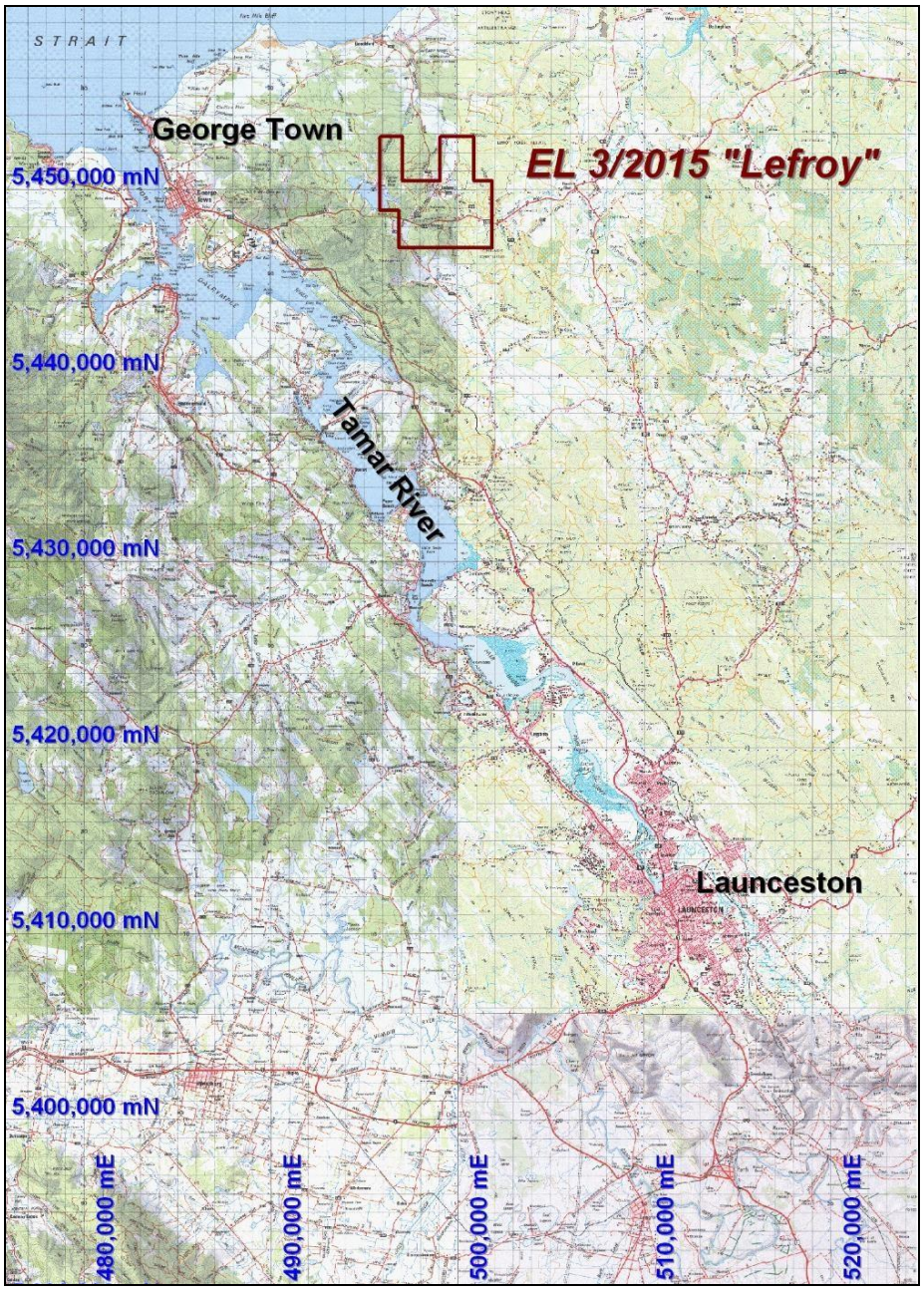

Figure 1. EL 3/2015 Location Plan.

License Details

Land status and usage

Apart from the township of Lefroy and a small portion of the north eastern part of the licence, which is farmland, the majority of the licence area is state forest and private bushland covered in dry open sclerophyll scrub.

Tenure

EL 3/2015 was originally granted to BCD Resources Pty Ltd in April of 2012. This tenement was transferred to Ron Gregory on 6 March 2013 and has been extended several times since. Stavely Tasmania Pty Ltd completed the purchased and transfer of the tenement on 3 February 2020. Nubian Resources Ltd agreed to purchase the tenement in July 2020. The transfer was completed on 16 December 2020. Nubian applied in May of 2022 and was successful in obtaining a two year extension to May 27th 2024.

Geology & Mineralization Overview

EL 3/2015 covers the northern portion of the Lefroy Goldfield in Tasmania's northeastern gold province. Lefroy is located approximately 15 km east of Beaconsfield Gold Mine, which has a production of ~2 million ounces of gold.

Lefroy has gold hosted in thick sequences of bedded fine-to medium-grained quartz rich turbidties with shale tops. The area hosts multiple shallow, wide, and high-grade drill intersections. The quartz reefs generally strike east-west and within these lodes, there are higher-grade west plunging shoots of mineralization

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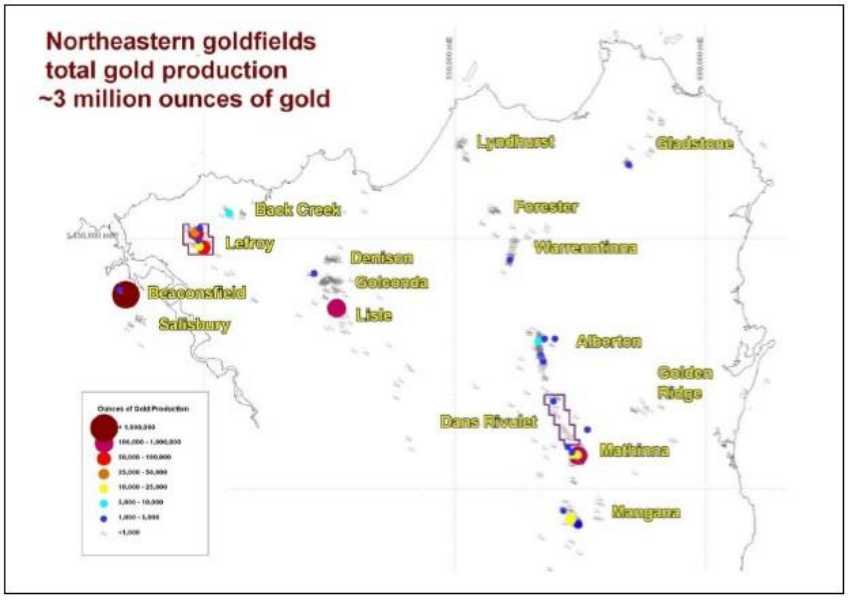


Figure 2. Location Lefroy Goldfield in Tasmania's North-eastern Gold Province (Stavely 2020)

Table 1. North-eastern Goldfields Production – Ounces of Gold (Stavely, 2020)

Goldfield	Production - ounces of gold
Beaconsfield (inc Salisbury)	2,000,000
Lisle (inc. Denison & Golconda)	320,000
Mathinna	280,000
Lefroy	174,000
Alberton	22,000
Mangana	16,000
Back Creek	10,000
Gladstone	6,500
Dans Rivulet	3,000
Warrentinna (inc. Mt Horror)	3,000
Lyndhurst	800
Golden Ridge	300

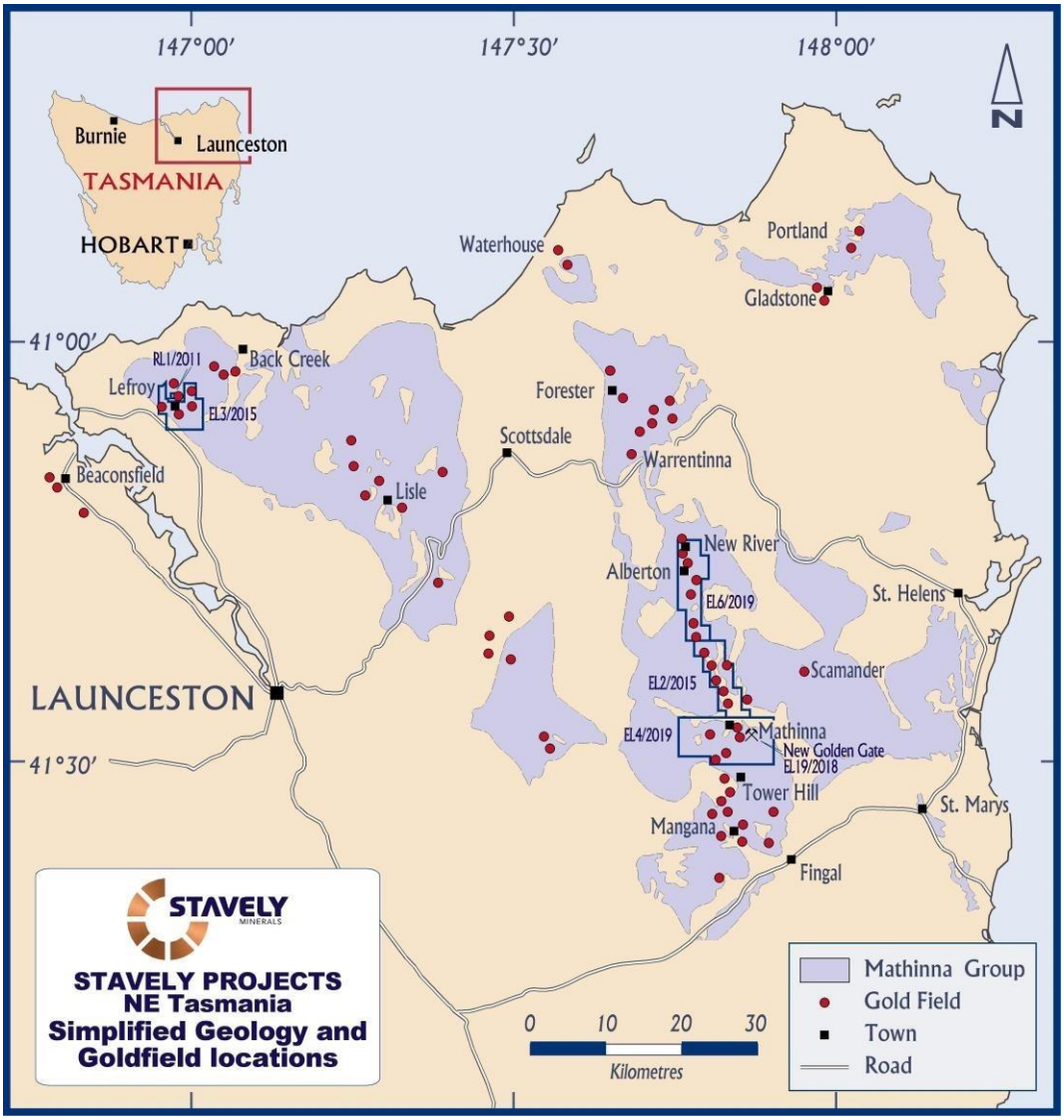
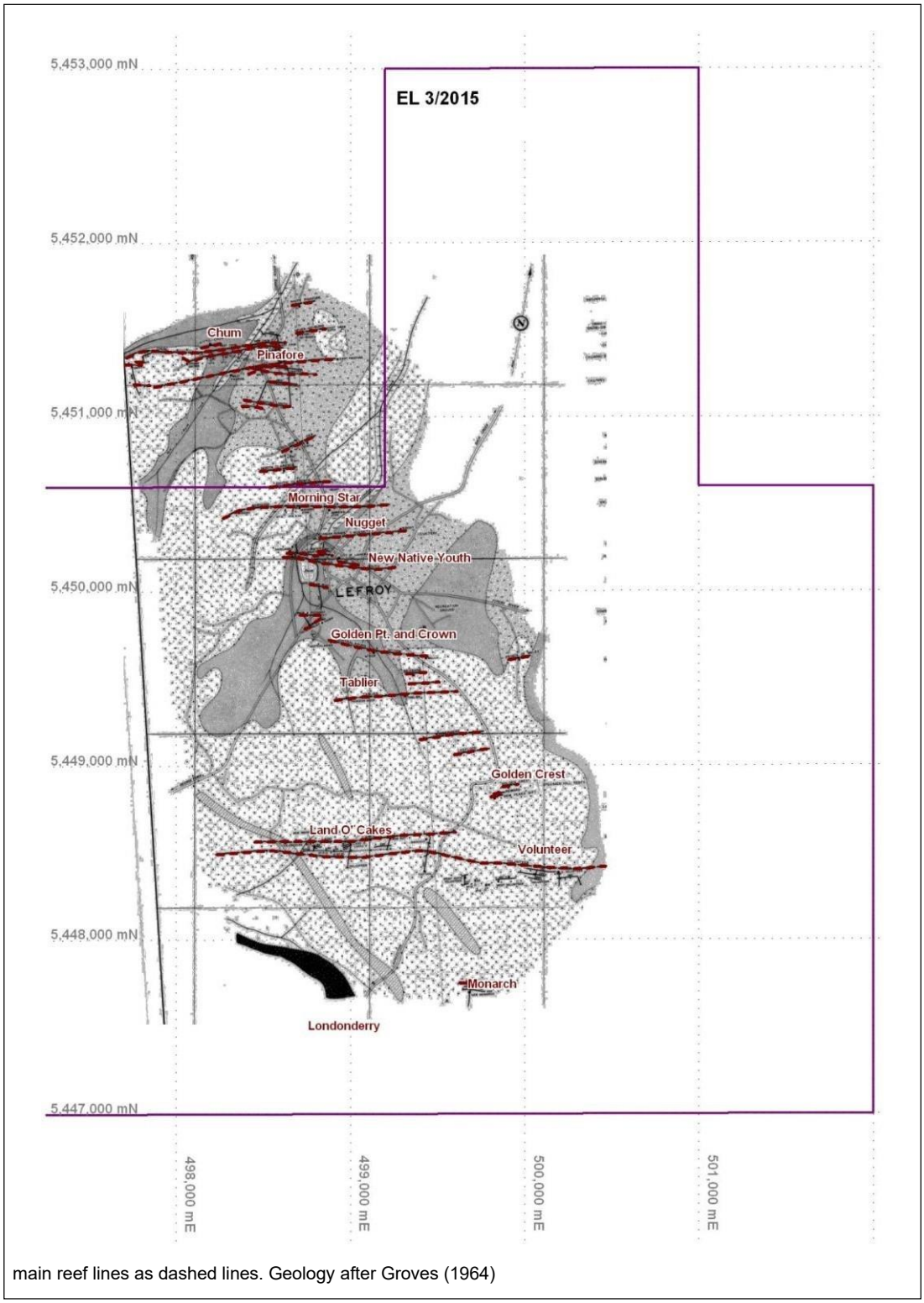


Figure 3. Regional Geology Plan (Stavely 2020)



main reef lines as dashed lines. Geology after Groves (1964)

Figure 4. Lefroy Project – Local Geology Plan

Exploration Rationale

The EL 3/2015 license area was selected based on perspectivity for gold. Historically, the Lefroy Goldfield produced gold from west plunging high grade shoots on east-west trending lodes. Major producers include:

- Pinafore 60,400 ounces at 33g/t gold
- Chum 46,300 ounces at 32g/t gold
- Volunteer 74,000 ounces at 85g/t gold
- New Native Youth- 26,400 ounces at 11g/t gold
- Morning Star 5,700 ounces at 46g/t gold (reef grade) or 15 g/t gold recovered grade
- Land of Cakes 12,000 ounces at 14g/t gold
- Deep Lead alluvial 32,000 ounces of gold

There are 30 east-west trending gold lodes within the 1 km^2 goldfield. Very few of these lodes have been mined to more than 30 m in depth due to drop in grades. This decrease in gold grade is likely dur to mineralization becoming refractory at depth and therefore gold could not be liberated by simple metallurgical processes. At Beaconsfield, a ~2 million ounce reef which operated at a depth of 1.2 km had a significant portion of gold being refractory at depth. This means a number of modern processes can be used to process the ore which were not available when Lefroy Goldfield operated.

Soil sampling has taken place at the Lefroy Goldfield at a 100m x 50m density with limited infill sampling. The density of soil sampling is too broad to determine deposit styles.

Review of Previous Work

There have been three distinct groups of work done at EL 3/2015, the first is the historical mining/prospecting and the second is the “modern” exploration (post 1930’s) and the third being activities completed during the terms of the current exploration license. Recent exploration has been targeting at or near historical workings with very limited regional exploration.

A summary of previous activities is summarised below.

Early Mining and Prospecting (pre 1930’s)

The Lefroy Goldfield contains many shafts and underground workings located on approximately 30 east-west striking gold reefs aligned in a 5km long north-northwest trending en-echelon array through the town of Lefroy.

Gold mining is documented to have begun in the area around 1864 (Gould, 1864), though mining is likely to have commenced much earlier based on a report of gold being discovered at Lefroy in 1853 (McClenaghan, 1994).

The goldfield was the centre of discontinuous gold mining between 1869 and 1911, with two major mining booms, 1880 – 1885 and 1895 – 1898, over which time more than 180,000ozs of gold production was recorded.

Records indicate that the average mined grade of the field was in excess of 30 g/t gold with most of the mining being restricted to a depth of approximately 30m; however, some mining occurred to depths of 380m. Early reports suggest that as mining in the old goldfield progressed to depth, the ore became sulphidic and without the benefit of appropriate metallurgical technology many mines were closed as mill recoveries decreased. This factor combined with water infiltration and increasing mining costs forced the eventual closure of the field.

Modern Exploration (1930’s – 2015)

From the 1930’s to 2015 there was little exploration at Lefroy Goldfield. Most of the exploration focused on drilled around known historical workings.

Limited soil sampling has been undertaken therefore, some infill sampling would be beneficial in identifying drill targets.

Modern exploration activities are summarized below:

Mineral Resources Tasmania

The government of Tasmania drilled 10 diamond drill holes in EL 3/2015 from 1935-1938. These holes were targeted beneath old workings.

Alluvial Exploration (1982-1993)

Alluvial exploration was focused on exploring to “deep lead” alluvial deposits between the 1980’s and 90’s. Several soil sampling programs were completed and around 500 pits were dug along drainages.

Lefroy Gold Mines Pty Ltd (1993-2002)

Lefroy Gold Mines Pty Ltd (a wholly owned subsidiary of Kalgoorlie Gold Mines Pty Ltd) worked to re-develop the Beaconsfield Gold Mine during 1995 – 2002. Initial exploration work centred on delineating low-grade hardrock and alluvial targets to use as feed for Beaconsfield Mine. A combination of geophysics, geochemistry and mine dump sampling was completed. Trenching, RAB and RC drilling followed geophysical and geochemical sampling programs. Work targeted magnetic lows, old workings and geochemical anomalies mostly for lowgrade mineralization. Results were lack-luster with the best hole returning 1.5 g/t Au over 5 m.

Allstate Explorations NL (1997-2001)

Allstate Explorations NL drilled four deep diamond holes at the Lefroy Goldfield from 1997 to 2001. The holes failed to intersect un-mined sections below historical high-grade lodes due to excessive deviation and poor core recovery.

Sapphire Trading Ltd (2002)

Sapphire Trading Ltd was hired by the government of Tasmania to acquire and interpret airborne geophysical surveys. This data identified several highly prospective targets along known and new structures. The survey identified an important aeromagnetic and radiometric anomaly representing a significant extension of one of the largest reefs in the goldfield. The geophysical data also suggest that structures continue at depth.

Lefroy Resources Ltd. (2004-2007)

Lefroy Resources Ltd conducted detailed desktop mapping, high-resolution airborne geophysics, field work, and drilling from 2004 – 2007. Lefroy targeted a number of old gold mines with drilling including Pinafore, Chum and Nugget.

Beaconsfield Gold NL (2008-2011)

Beaconsfield Gold NL (BGNL) acquired the Lefroy Project from 2008 - 2011. BGNL carried out further soil sampling and drilled fences of RC holes across a number of these anomalies.

There has been little systematic exploration of the Lefroy Goldfield. The bulk of the exploration has been focused on drilling in the immediate surrounds of the known historical workings.

The limited soil sampling undertaken, while a good start, needs to be followed up with infill sampling to better define the drill targets.

Exploration Completed on EL 3/2015

Work in the first few years of the licence consisted of the compilation of 2D and 3D geographical, geological, geophysical and geochemical data into MAPINFO/DISCOVER and SURPAC formats respectively.

Plans of old workings were obtained digitally from Mineral Resources Tasmania's database. Level plans and sections for the New Native Youth, Volunteer, Land of Cakes and Morning Star Mines were imported and registered into MAPINFO with digitised drive and shaft outlines exported as .dxf's back to SURPAC to create a 3D model of old workings and stoping.

Historical drill data was imported into an ACCESS database and displayed in 3D in SURPAC with the underground workings. This allowed 3D pierce points to be created and this additional data was incorporated into the historical long sections (See Figures 5 to 9).

Historical soil geochemical data was also compiled from the three historical soil sampling surveys (see Figures 10 to 12).

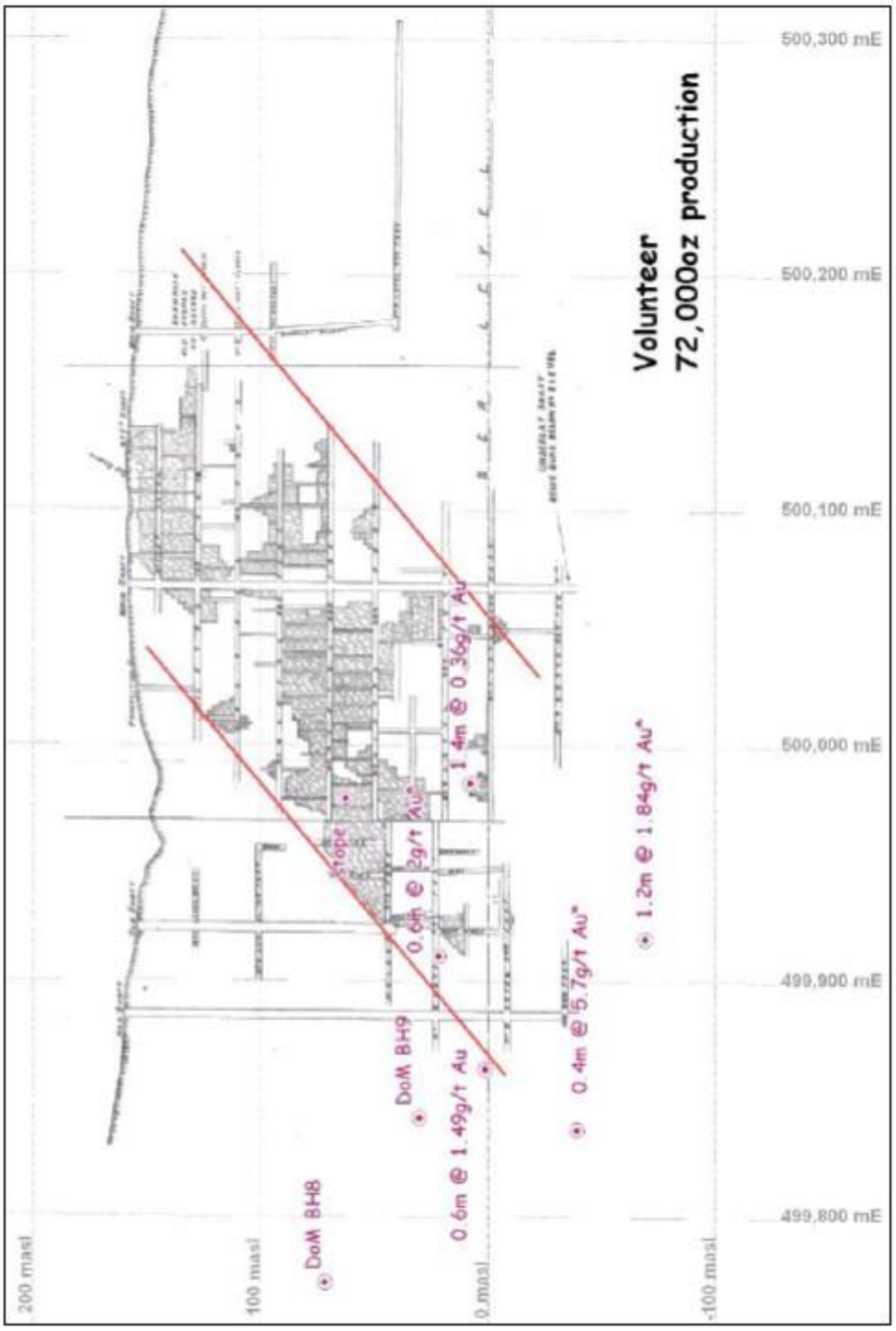


Figure 5. Volunteer Mine Long Section - Looking North.

Maroon dots are drill hole intersections with the reef. Gold grades are downhole lengths.

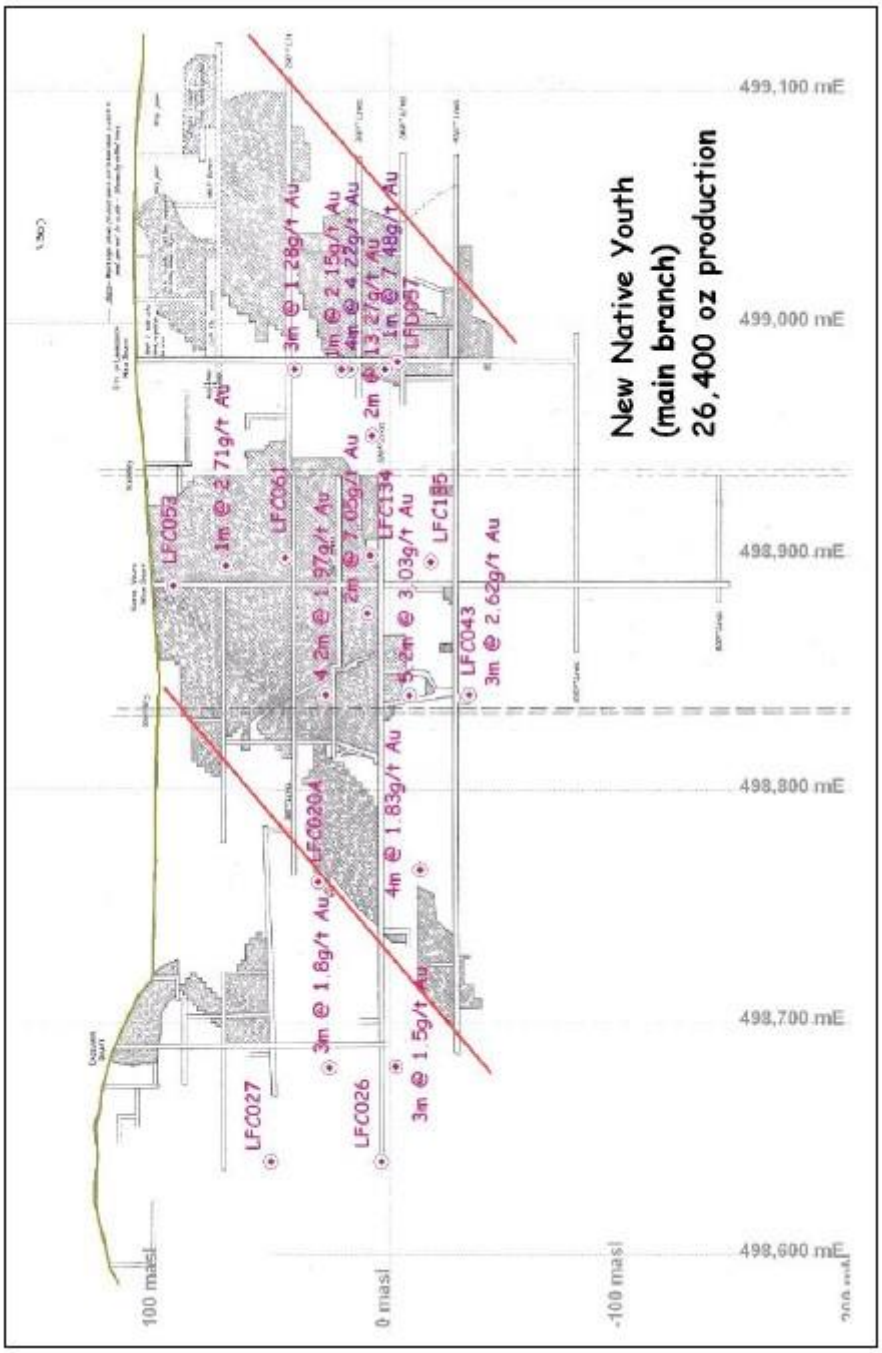


Figure 6. New Native Youth Mine Long Section Showing Main Branch Stoping - Looking North.

Maroon dots are drill hole intersections with the main branch reef, purple dots with a separate minor branch reef. Gold grades are downhole lengths.

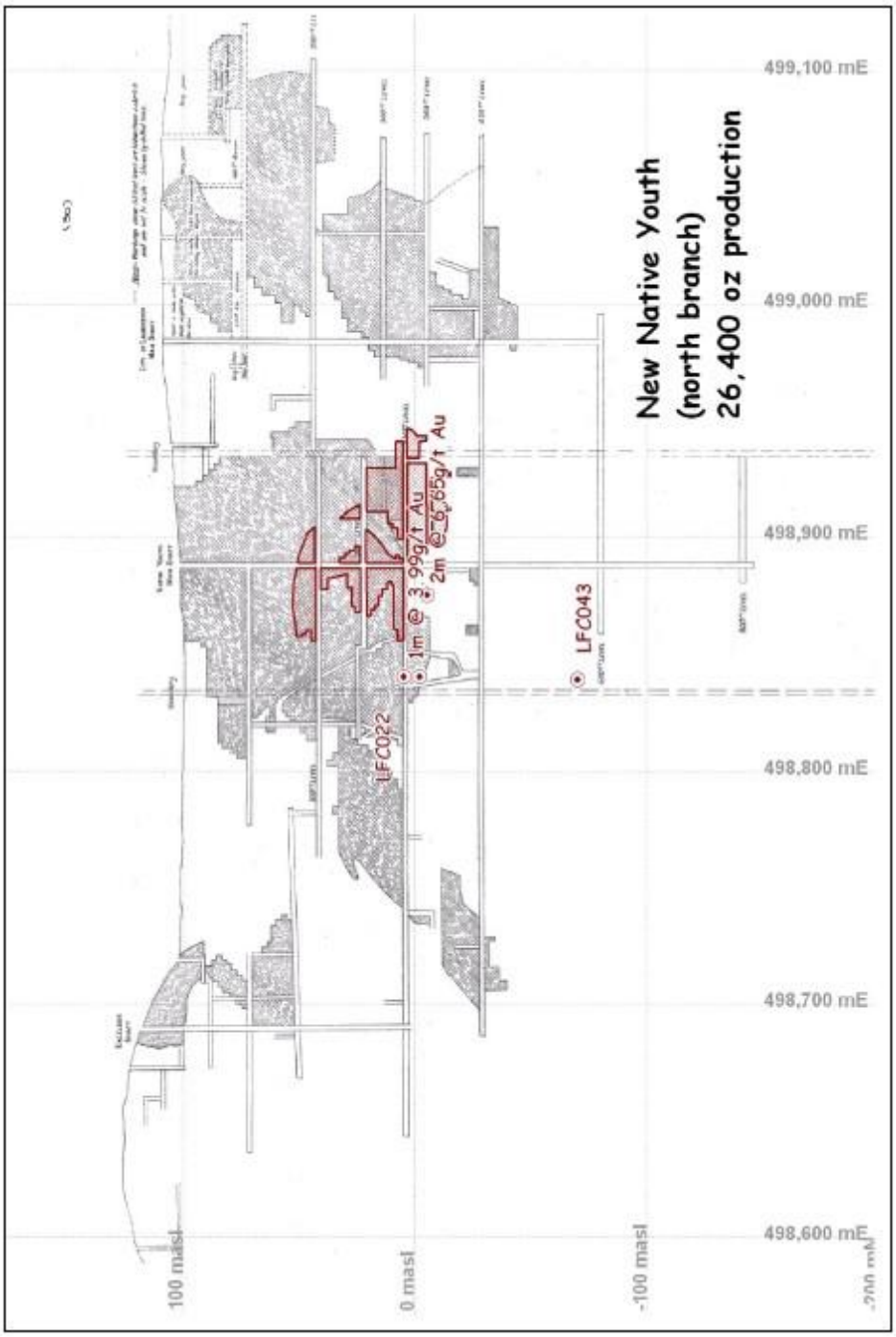


Figure 7. New Native Youth Mine Long Section Showing North Branch Stoping - Looking North.

Maroon dots are drill hole intersections with the north branch reef. Gold grades are downhole lengths.

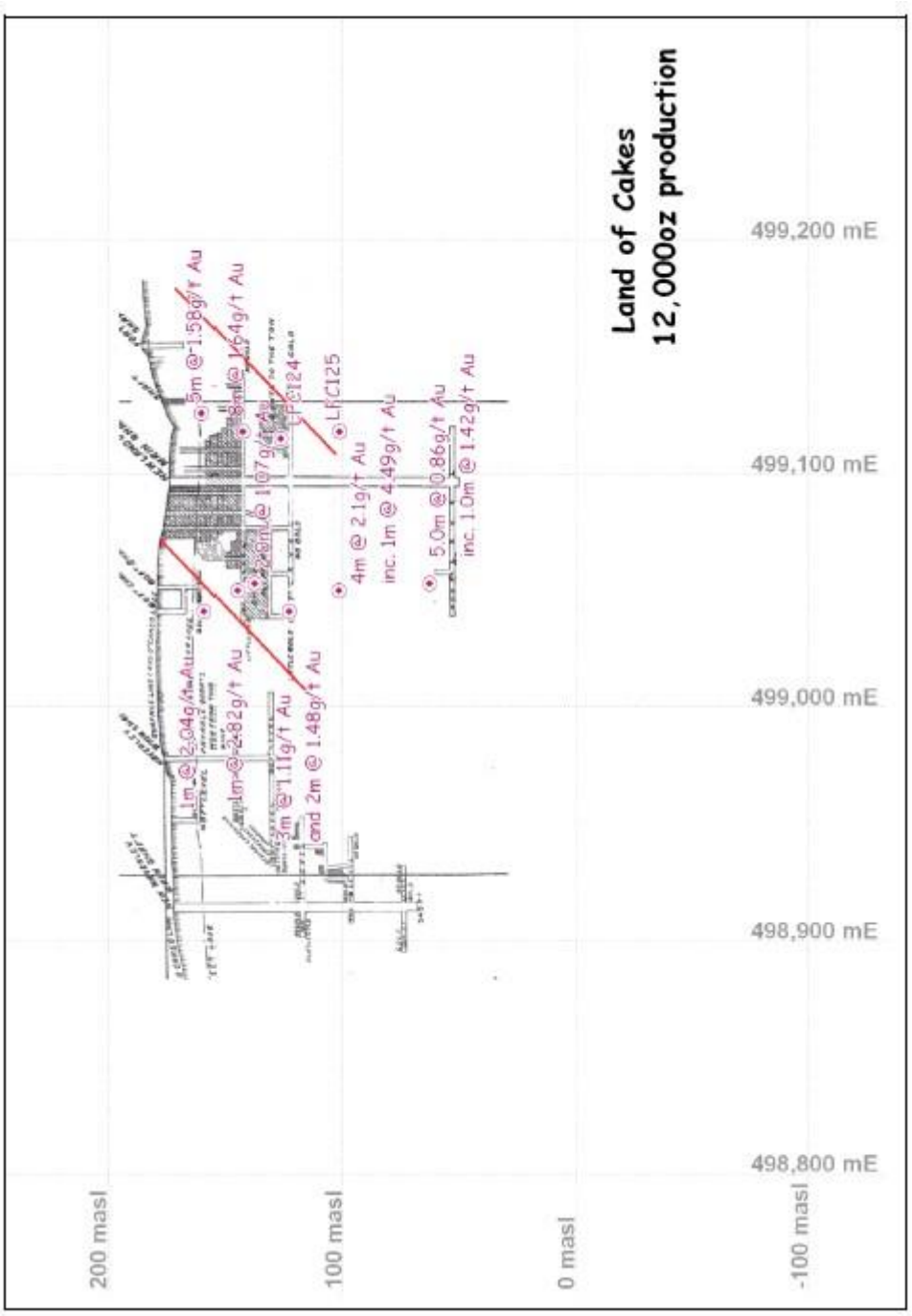


Figure 8. Land of Cakes Mine Long Section - Looking North.

Maroon dots are drill hole intersections with the reef. Gold grades are downhole lengths.

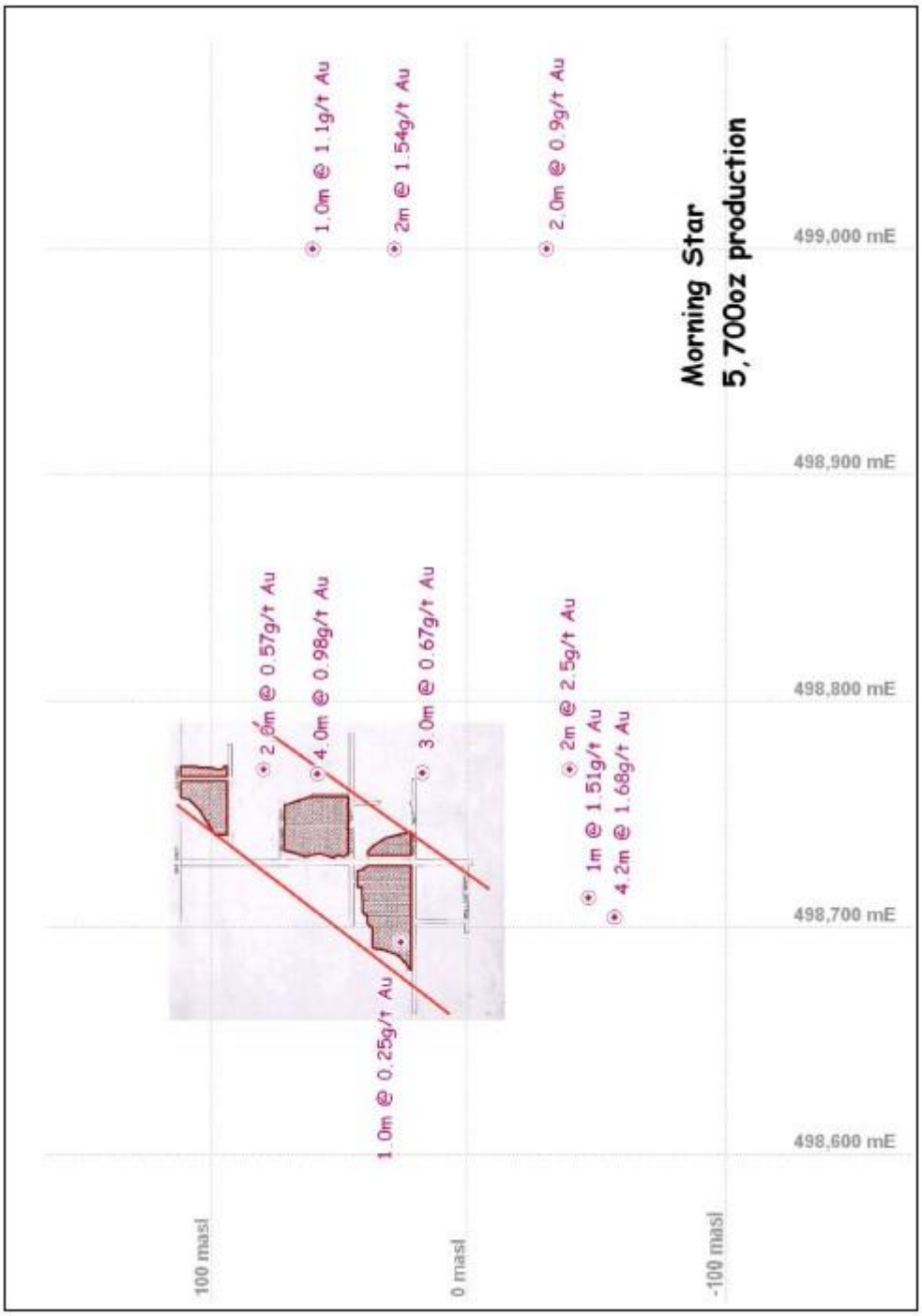


Figure 9. Morning Star Mine Long Section - Looking North.

Maroon dots are drill hole intersections with the reef. Gold grades are downhole lengths.

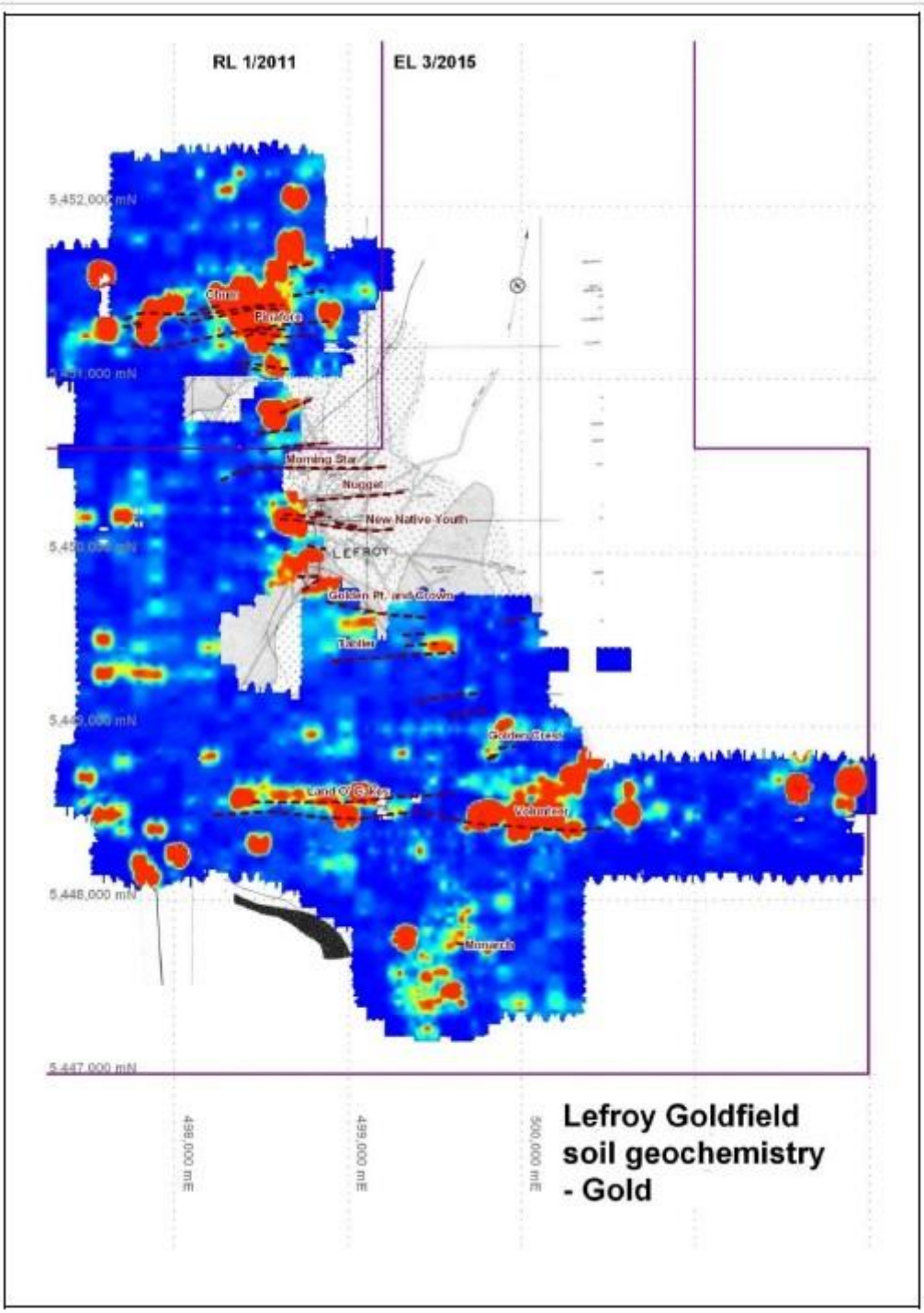


Figure 10. Lefroy Goldfield Soil Geochemistry – Gold.

(Red = high-grade, blue = low-grade)

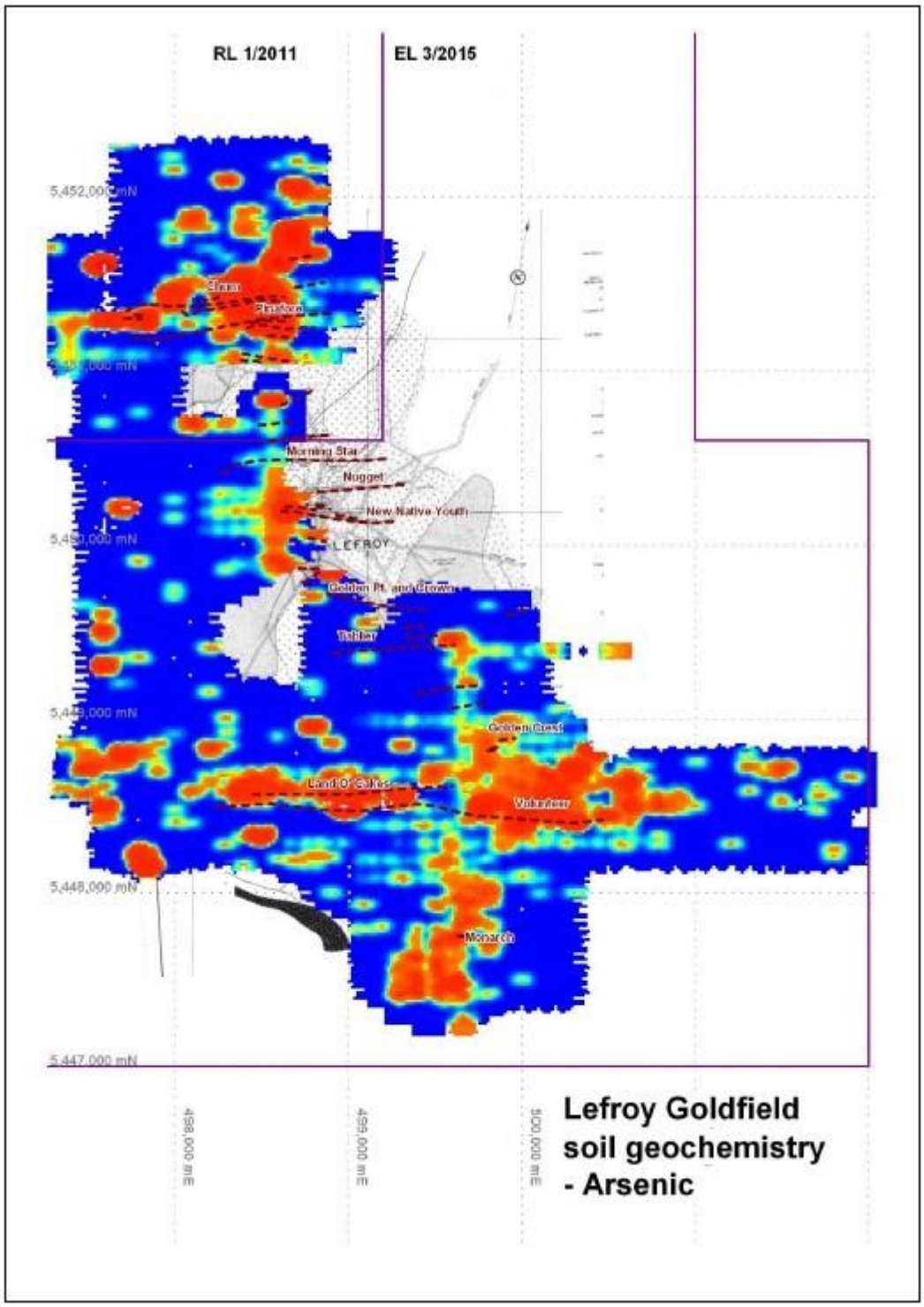


Figure 11. Lefroy Goldfield Soil Geochemistry – Arsenic.

(Red = high-grade, blue = low-grade)

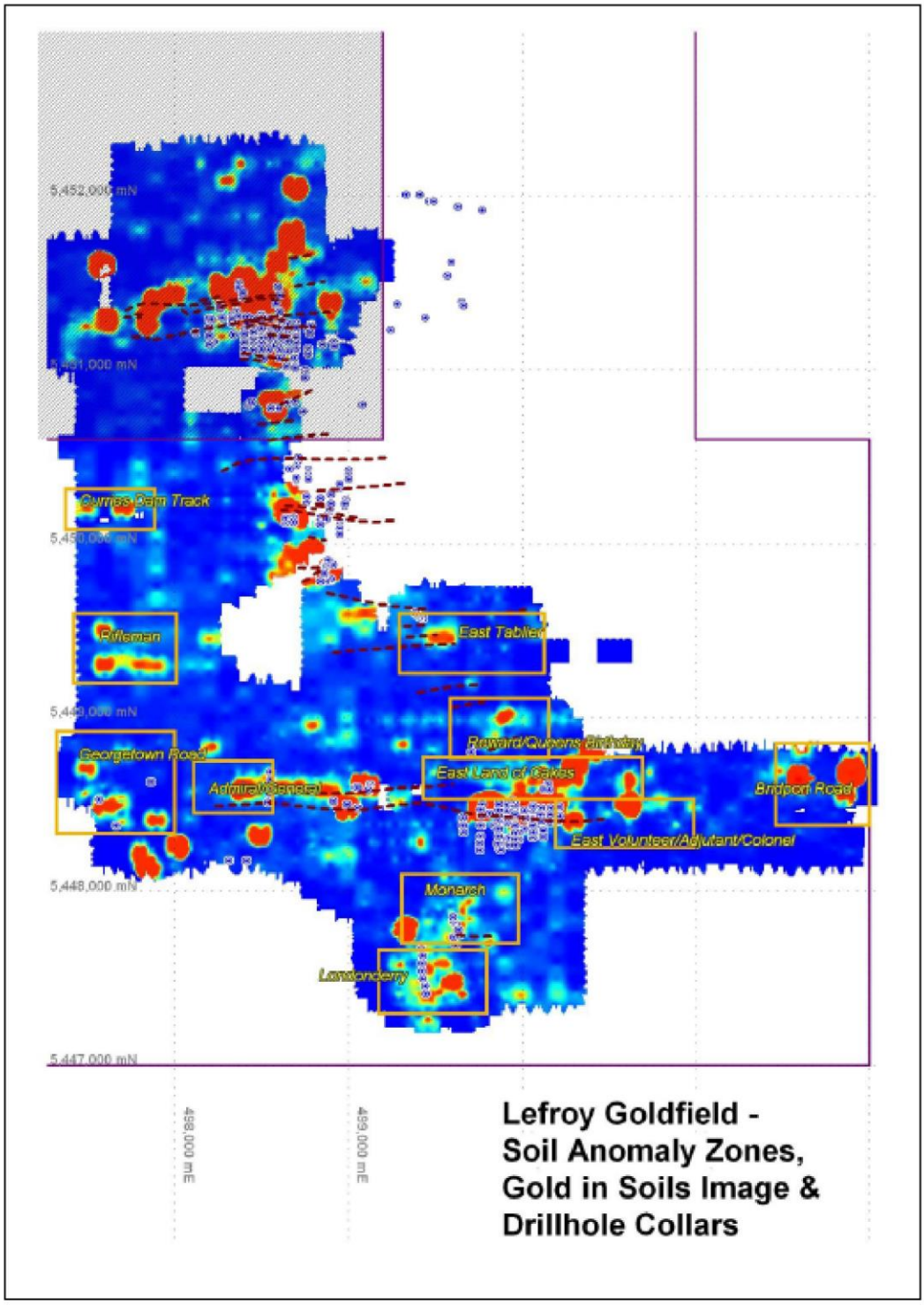


Figure 12. Lefroy Goldfield Soil Geochemistry – Gold with Drilling showing Prospects Zones.

(Red = high-grade, blue = low-grade)

Exploration Activities

EL 3/2015 was transferred to Nubian Resources Ltd on 16 December 2020. No exploration has taken been undertaken by Nubian Resources Ltd due to COVID-19 pandemic travel restrictions and due to poor precious markets and the lack of investment funds available.

Exploration programs have been developed for the tenement and include soil sampling and drilling of high priority targets.

Discussion of Results

There are no new exploration results to discuss.

Conclusion

There remains a lot of potential for the Lefroy Goldfield. The implementation of systematic exploration work is essential to identify mineralization outside known historical deposits. Plans to conduct detailed soil sampling, geophysical data processing and drilling have been developed.

Environmental Management

No environmental studies have been undertaken.

Expenditure

During the year, no on ground exploration activities were completed (other than limited field validation of previous exploration). As a result, expenditure for the tenement was low.

A significant work programme has been developed for the next year (May 2024 through to May 2025) including detailed soil sampling, re- processing of the historical aeromagnetic surveys and limited drilling of selected high priority targets, which is expected to exceed $100,000.