Operator: Crossland Strategic Metals Ltd

Charley Creek
EL 27283

Arunta Region

Annual and Final Report for EL 27283 for the period 17 November 2009 to 17 November 2017

Tenement Holders: Crossland Nickel Pty Ltd

P Melville
November 2017
Summary

EL 27283 was granted to Crossland Nickel Pty Ltd on 17 November 2009 for a period of 6 years. At grant, the licence consisted of 500 sub-blocks. The subject licence was part of Group Reporting status GR 086/09, granted in 2012. This was followed by EPA status in 2013.

In September 2015, a penalty partial cancellation notice for the group was issued due to under expenditure for two successive years. Cancellation of twenty one (21) sub-blocks from the licence was undertaken by Crossland. In January 2016, the company voluntarily relinquished a further 326 sub-blocks bringing the total remaining to 153 (475.38 km²).

The licence was voluntarily surrendered on the 17th November 2017.

Exploration activities that were carried out on the remaining area consisted of stream sediment sampling and a short traverse of shallow Aircore drilling. Proportional costs for the project-wide Environmental and Feasibility studies have been allocated to the licence. No on-ground exploration activities have been carried out since early 2014.
Bibliographic Data

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1 Introduction

The licence is centred 160 km west northwest of Alice Springs, and is located on the Derwent and Narwietooma pastoral leases. Several aboriginal communities are present in the region – Papunya and Bunghara to the west and Rabunja to the east. The Tanami Highway is located approximately 40 km to the northeast. Access within the licence area is via station tracks and cleared fence lines.

EL 27283 was part of Group Reporting GR086/09, which consisted in recent times of nine licences. It was also one of seventeen (17) licences that comprise Crossland’s Charley Creek Project. Since grant, the entire licence area has seen an expenditure of approximately $1.5 million. The tenement was surrendered on the 17th November 2017.

This report summarises exploration activities carried out on the remaining area of 153 sub-blocks. No on-ground activities have been carried out since the most recent annual reporting in early 2017.

2 Tenure Details

EL 27284 was granted to Crossland Nickel Pty Ltd on 17 November 2009 for a period of 6 years. At grant, the licence consisted of 500 blocks covering an area of 1560.67 km². A penalty partial cancellation took place in September 2015 and a voluntary relinquishment in January 2016. At the date of surrender the licence consisted of 153 sub-blocks, an area of 475.38 km².
3 Geology

The geology of the Charley Creek project area has been covered in detail in various reports to the department. The reader is directed to those reports for that information.

The licence is covered by recent deposits of sand and alluvium. These overlie Tertiary sediments, which are estimated to have a maximum thickness of 300 metres.

4 Previous Exploration

Regionally there were exploration activities undertaken by Conzinc Rio Tinto Australia Exploration (CRAE) and Alcoa for sedimentary uranium targets between 1973 and 1981 and nickel, copper and PGE in the mid to late 1990's. Several other companies also explored the area for sedimentary uranium potential. Esso Australia Limited explored the Teapot Granite in 1977 for uranium following positive results from an airborne radiometric survey.

Literature search shows that both CRA and Alcoa had exploration licences, which covered part of EL27283. Exploration activities included auger drilling, sampling, downhole gamma logging and water bore analyses (CRA) and rotary mud drilling, sampling and surface and down hole geophysics.
Conclusions drawn from both investigations were that the region lacked the features and mechanisms conducive to the formation of sedimentary uranium deposits.

5 Crossland Activities

Fifty three (53) stream sediment samples were collected from defined drainages and channels. The samples were collected between late 2010 and mid 2011 as part of a regional REE sampling programme that covered several of the company’s licences. See Figure 3 for sample locations. Appendix 1 contains sample assay data.

In late 2013 – early 2014, an west to east Aircore drill traverse covered a wide section of old channels on the west side of Derwent Creek. These holes were part of a more regional drilling program being conducted at that time.

The traverse was approximately 4.5 km long, following a cleared fenceline. Nine holes were drilled for a total metreage of 451.6 m. One hole was a re-drill. Composite samples were taken at four metre intervals but at the time due to financial constraints these samples were not analysed.

In mid 2016, the samples were included in a batch sent to Brisbane as part of a reassessment of scoping and metallurgical studies of REE-bearing alluvial material. The samples were also assayed as...
part of the study. The results of this work was summarised in the 2016-2017 Group Annual Report. Sample analytical data can be found in Appendix 2. See Figure 4 below for location of the drill traverse.

![Figure 4. EL27283 Aircore traverse location](image)

### 6 Conclusions

The licence was originally acquired because of its potential for hosting sedimentary uranium deposits within buried Tertiary channels. Following the discovery of alluvial REE mineralisation and tracing its distribution to the main outwash channels originating from the west McDonnell foothills, the importance of the licence increased due to the presence of the northern extensions of some of these channels.

The area is also considered as a potential source of groundwater reserves that would be required for any future mining operation.
7 References


Buskas, M., 2014: Charley Creek GR086/09 Combined Annual Report ELs 24281, 25230, 27283, 27358, 27359, 28154, 28155, 28224 & 28226 for the period 7/02/2013 TO 6/02/2014


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