

Operator: Crossland Strategic Metals Ltd

Charley Creek

EL 27284 Partial Relinquishment Report for the period 17 November 2009 to 16 November 2013

Tenement Holder: Crossland Nickel Pty Ltd

Keywords

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Operator	Crossland Strategic Metals Ltd	
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Appendix 2. Stream sample assay data (EL27284_2014_R_03_StreamAssay.txt)

Appendix 3. TEMPEST EM Data (EL27284_2014_R_03_TEMPESTEM.txt)

Summary

EL 27284 is centred 155 kilometres (kms) north-northwest of Alice Springs and was granted on 17 November 2009 for a period of six years. On 5 February 2014 the EL was reduced from 313 sub-blocks to 249 sub-blocks. This report details work completed within the reduced area.

Preliminary work consisted of data compilation, interpretation and assessment of available historical mineral exploration, geological and geophysical data. An airborne EM survey was completed in 2009. Only a small portion of this survey was within the relinquished ground.

Field work during the term of the now relinquished ground consisted of geological mapping, field reconnaissance and collection of 13 stream sediment samples. Stream samples were then processed and sent for assay.

1 Introduction

Crossland first commenced on-ground exploration activities in the Alice Springs region in 2006, initially assessing the nickel potential of the Mount Hay complex, just south of the Tanami Highway on Amburla Station, west northwest of Alice Springs. This location was one of several chosen for exploration by utilising confidential concepts of target identification developed by Paradigm Geoscience. Since that time Crossland has considerably expanded its property holding in this region with an emphasis placed firstly on uranium exploration followed more recently by the discovery of widespread rare earth occurrences.

EL 27284 was selected for exploration because extensions of palaeochannels from the Teapot Granite may be present. The EL also proves to be of considerable interest for potential sources of alluvial heavy minerals outwashed from the MacDonnell Ranges. EL 27284 is one of 20 ELs that comprise Crosslands Charley Creek Project.

2 Location, Description and Access

EL 27284 is centred about 155 kilometres (kms) north-northwest of Alice Springs, its most northeast corner about 35 km due west of the Stuart Highway. The majority of its southern boundary borders EL 27283. The Tanami Road passes through the eastern part of the licence with localised access provided by station tracks and fence lines. Papunya aboriginal community is located about 6 kms south of the southwest corner of the licence and another community Rubunja is situated about 2 km east of the eastern boundary. The EL lies within NT Portion 241 Derwent Station; Portion 703 Aileron Station; Portion 727 Narwietooma Station and Portion 4443 Amburla Station. The tenement is dominated by flat desert scrub with occasional sand ridges and is located on the western edge of the Burt Plain. The regional location is illustrated in Figure 1.

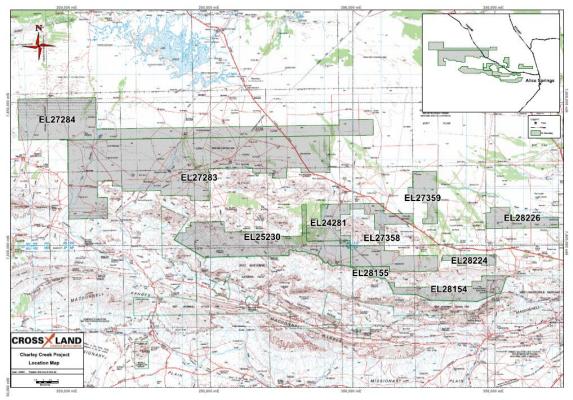


Figure 1 Charley Creek Project Location

3 Tenure

EL 27284 was granted on 17 November 2009 for a period of six years covering an area of 313 sub-blocks for 983.7 $\,\mathrm{km}^2$. On 16 November 2013 the EL was reduced from 313 sub-blocks to 249 sub-blocks covering an area of 781.4 $\,\mathrm{km}^2$. Retained and relinquished ground is illustrated in Figure 2.

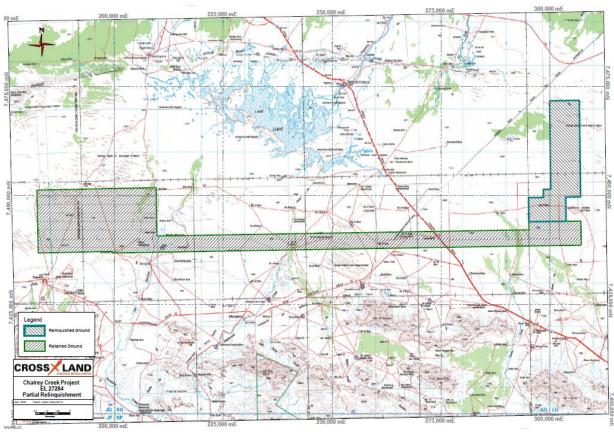


Figure 2 EL Boundary

4 Previous Exploration

Recorded exploration activities date back to the 1970s with much of the activity taking place within the metamorphic terrane of the Reynolds Range, located to the north of EL 27284. Exploration had concentrated mainly on gold and uranium with a lesser emphasis on base metals and diamonds. Previous exploration within the relinquished ground is limited.

5 Geology and Structure

EL 27284 is located in the southeast corner of Napperby (sheet SF-5309 NTGS 1:250,000 Geological Map Series) and northeast corner of Hermannsburg (sheet SF-5313. NTGS 1:250,000 Geological Map Series). The vast majority of the relinquished area is dominated by Quaternary and to a lesser degree Tertiary sediments. Quaternary sediments are characterized by shallow alluvial fans of coarse gravels, sandy ephemeral creek deposits, sand and clay with a surficial covering of aeolian silts and sand with minor calcrete and carbonate deposits present. Tertiary sediments have previously been described as sands, clays, siltstone, and

conglomerates with some lignitic horizons. Regional geology is illustrated in Figure 4 with lithology legend presented as Figure 3.



Figure 3 1:250,000 Geology Lithology Legend

6 Exploration Activities

Following literature research, data compilation, and interpretation carried out in 2010; Crossland's 2011 field exploration program consisted of geological mapping, field reconnaissance and collection of 13 stream sediment samples within the relinquished area. Stream samples were collected on a regional scale to test for rare earths elements. Sample locations are illustrated in Figure 5.

Field work was completed by a Crossland contract geologist and field assistant between 13 May 2011 and 21 May 2011. At each sample site approximately 20 kilograms of stream

sediment was collected. Before being sent to Australian Laboratory Services (ALS) in Alice Springs for analysis, samples were taken to Crossland's processing facility near Alice Springs.

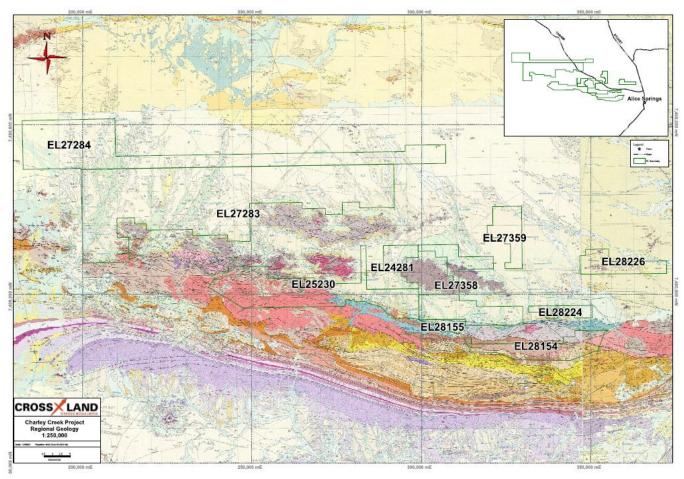
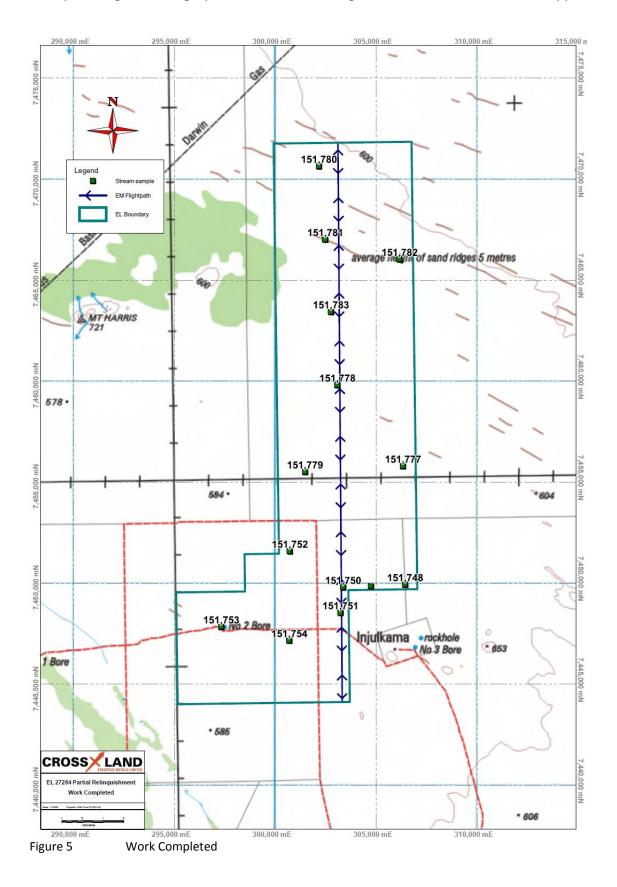


Figure 4 Regional Geology of the Charley Creek Project

At Crosslands processing facility, each sample was dried, weighed and sieved (<2 mm screen size). Once sieved, each sample was run across #9A Wilfley Table (Motive Traction Pty Ltd). The coarsest material was discarded; fine material (Heavy Mineral Concentrate) was retained and passed through a CARPO Magnetic Separator Model: M1278 SY22 manufactured by Warman Equipment.

Both the magnetic and non-magnetic fractions were retained. All magnetic samples were sent to ALS and analysed by methods ME-MS81h and ME-XRF12. Non magnetic fractions were sent to Diamond Recovery Services Pty Ltd of Welshpool WA for tetrabromoethane (TBE) heavy liquid separation. The TBE sinks (heavy fraction) were then sent to ALS for processing methods ME-MS81h and ME-XRF12. For Methods ME-MS81h a prepared sample is added to lithium metaborate flux, mixed well and fused in a furnace at 1000°C. The resulting melt is then cooled and dissolved in HCl solution. This solution is then analyzed by inductively coupled plasma - mass spectrometry. For methods XRF12 calcined or ignited sample is added to Lithium Borate Flux, mixed well and fused in an auto fluxer between 1050 - 1100°C. A flat molten glass disc is prepared from the resulting melt. This disc is then analyzed by X-ray fluorescence spectrometry. Sample data including assay results, processing data and location data can be found within Appendix 1 and 2 (Non-magnetic samples are numbered as per normal convention, magnetic fractions are denoted with the letter B, or C).

Prior to granting of EL 27284; as part of preliminary exploration; Crossland contracted Fugro Airborne Surveys to conduct a TEMPEST EM Survey. Part of one EM line was flown over the relinquished ground. Flightpath is illustrared in Figure 5. EM data is attached as Appendix 3.



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There were no results of interest derived from the activities carried out in the relinquished areas.

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