SANDFIRE RESOURCES NL

EL26909 Mineral Exploration Surrender Report
Borroloola Project
Report Period 9 June 2009 - 8 June 2013

Holder: Sandfire Resources NL
Operator: Sandfire Resources NL

Date 7 August 2013

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TITLE PAGE AND BIBLIOGRAPHIC DATA SHEET

Project Name	Borroloola Project
Tenement Numbers	EL26909
Tenement Holder	Sandfire Resources NL
Tenement Operator	Sandfire Resources NL
Report Type	Surrender
Report Title	EL26909 Mineral Exploration Surrender Report
Report Period	9 June 2012 to 8 June 2013
Compiled By	Wynne, A.
Date of report	7 August 2013
1:250,000 map sheet	BAUHINIA DOWNS SE5303
1:100,000 map sheet	Batten 6065
Map Projection	MGA94 Zone 53
Target Commodity	Cu, Pb, Zn
Keywords	Proterozoic, McArthur River-type deposits, airborne Magnetic-radiometric, Airborne EM
Contact - Technical	Allan.Wynne@sandfire.com.au
Contact - Expenditure	Adam.Groeneveld@sandfire.com.au
Location	Southwest of Borroloola, NT
Geology	Middle Proterozoic sediments of the McArthur Basin, and cover sediments
Work done	Review of regional airborne magnetic – radiometric and EM surveys, historical stream sediment geochemistry, and geology, nil field activity
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1.0 SUMMARY

EL26909 was applied for over one block on 5 August 2008 and granted on 9 June 2009 for a period of two years. At that time it made a part of Sandfire Resources' Borroloola Project Combined Reporting Group C121-09, of 14 granted tenements, and 4 applications, within the Batten Fault Zone of the MacArthur Basin. Extension of EL26909 for two years to 8 June 2013 was granted o n 8 August 2011.

No field activities were undertaken on EL26909 during its term from 9 June 2009 the date of surrender, 8 June 2013. A comprehensive review was undertaken of published geological mapping and publicly available surface geochemical datasets over the south-west region of the Borroloola Project, including EL26909. It was concluded that because the region had a high proportion of outcrop and a no anomalous geochemical response, it has little potential for significant base metals mineralisation.

EL26909 was surrendered at its expiry date, 8 June 2013.

2.0 LOCATION

EL26909 covers the south-west Borroloola target area and is located about 660 km southeast of Darwin, 75 km west-south west of Borroloola in the Gulf Country of the Northern Territory (Figure 1). Access from Darwin is by travelling about 590 km southwards along the Stuart Highway to Daly Waters and then eastwards along Carpentaria Highway to Cape Crawford (270 km). The unsealed Nathan River Road crosses the tenement area approximately 60 km north of Cape Crawford, and continues north and west to Katherine, providing an alternate access route during the dry season.

Access deteriorates significantly in the north. Multiple creek crossings need to be navigated and are poorly maintained. Each wet season results in substantial damage to most creek crossings.

3.0 TITLES

Tenements

EL26909 was applied for over one block on 5 August 2008 and granted on 9 June 2009 for a period of two years. At that time it made a part of Sandfire Resources' Borroloola Project Combined Reporting Group C121-09, within the Batten Fault Zone of the MacArthur Basin (Figure3-1). Extension of EL26909 for two years to 8 June 2013 was granted on 8 August 2011.

Table 3-1: Tenement Status

Lease_ID	Area	Application	Grant_Date	Renewal	Expiry
EL26909	1 sub-blk	5/08/2008	9/06/2009	9/06/2011	8/06/2013

Cadastre and Native Title

EL26909 lies within the Perpetual Pastoral Lease PPL1069 [BILLENGARAH], held by the NT Land Corporation and within the coverage of the Registered Billengarah Native Title Claim (DC00/29) by the Northern Land Council (Figure 3-2).

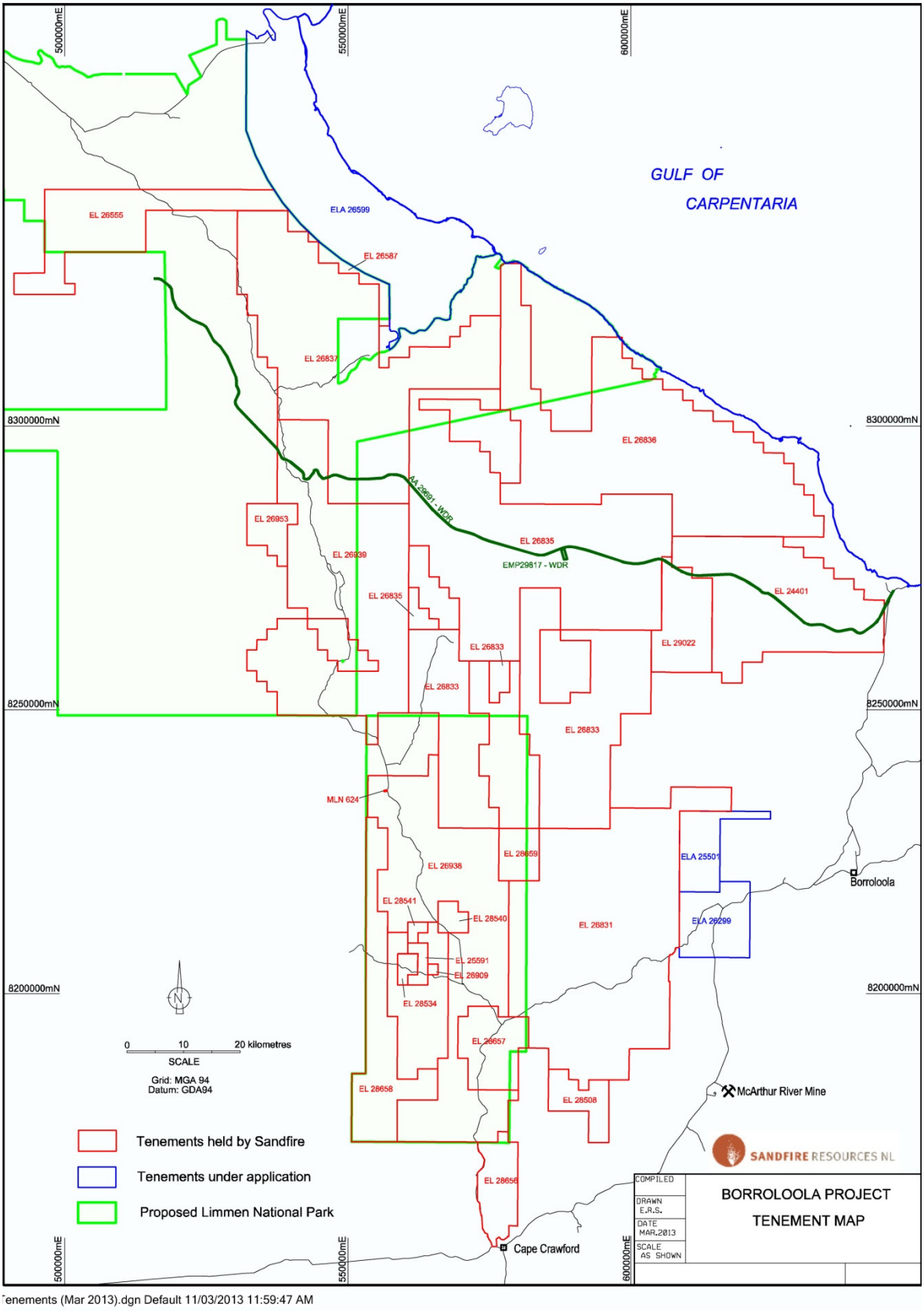

Figure 3-1: Borroloola Project Tenements

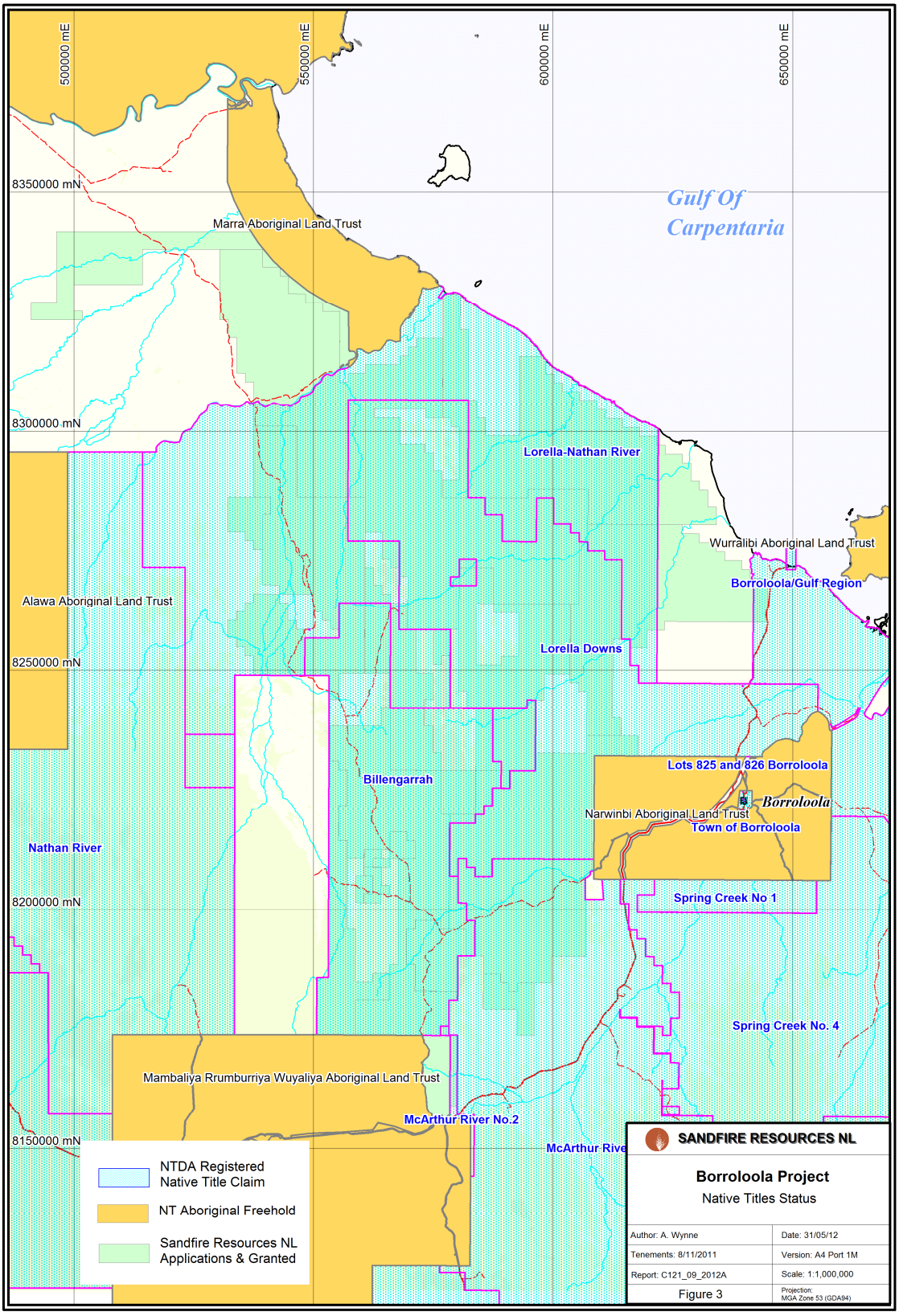

Figure 3-2: Borroloola Project Native Title

4.0 GEOLOGY

The McArthur Basin is a large sedimentary basin with an exposed area of about 180,000 km². Most of it lies within the north-eastern Northern Territory, and it extends over the border into the state of Queensland. Thick marine and non-marine sedimentary rocks were deposited from the late Palaeoproterozoic to the early Mesoproterozoic (1800-1430 Ma). The Borroloola Project area lies within the Batten Fault Zone (BFZ) where sediments of the Tawallah, McArthur and Roper Groups rest unconformably on the Scrutton Volcanics, and are partially concealed by Cretaceous and Tertiary sediments.

As a base metals target, the McArthur Basin contains volcanic rocks and related intrusive igneous rocks and is a prime target area for SEDEX type economic sulphide deposits. Diamonds have been the target of previous exploration over the area covered by the southern part of the Borroloola Project; where there has been recovery of multiple macro diamonds, as well as microdiamonds and kimberlitic indicator minerals from alluvial samples.

5.0 EXPLORATION UNDERTAKEN

No field work was undertaken on EL26909 during the reporting period.

During the period up until renewal, a review of the available geological, surface geochemical, and ground and airborne geophysical datasets had been undertaken:

- available geological survey mapping at 1:1,000,000, 1:250,000 and 1:100,000 scales, and 2007 ALOS geological interpretation by Nash and Associates
- in-house 2008 interpretation of available NTGS geochemical datasets,
- Baigent Geosciences reprocessing of historical Airborne Magnetics-Radiometrics surveys,
- CSIRO reprocessing and interpretation of historical Airborne EM Surveys.

Results from this study are indictated in Figure 5-1, and were used in the EL26909 renewal application.

Due to the high proportion of outcrop, poor geological prospectivity of the stratigraphic units, and lack of anomalous geochemical signature, EL26909 was considered to have low potential for base metals mineralisation.

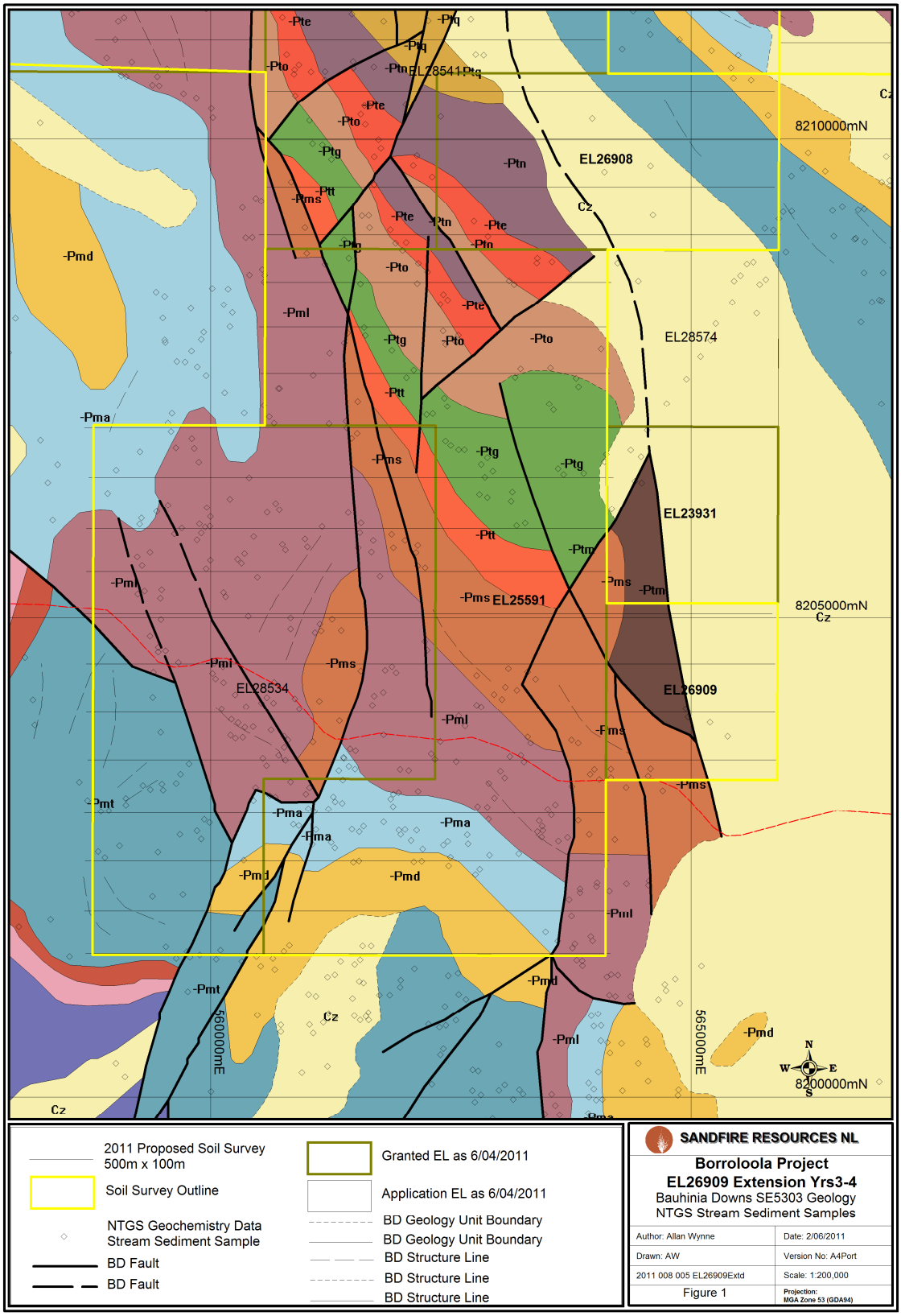

Figure 5-1: EL26909 Geology and Stream Sediment Geochemistry

6.0 CONCLUSIONS AND RECOMMENDATIONS

Due to the region being dominated by a high proportion of outcrop, poor geological prospectivity and a lack of elevated geochemical response it was recommend that EL26909 be relinquished.

7.0 DIGITAL DATA

This annual technical report, including tables and figures is submitted in pdf format.