



FINAL REPORT
EL27709
“Paddys Plain”

24 October 2010 to 19 May 2020

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Tenement Holders: DBL Blues Pty Ltd (100%)
Tenements: EL 27709
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1 SUMMARY

EL27709 “Paddys Plain” is located approximately 75km east-northeast of Alice Springs. Access is by the Arltunga Road from the Stuart Highway via The Garden homestead. Access within the area is by means of station track.

Core Lithium Ltd (CXO) has assessed the prospectivity of EL27709 for sedimentary hosted Pb-Zn-Ag within the Amadeus Basin sediments which are extensively mapped within EL27709. CXO was encouraged by the tenements potential to host Pb-Zn-Ag mineralisation with similar characteristics to CXO’s Inkheart Prospect discovery on nearby tenement (EL28136). Inkheart Prospect is Pb-Zn-Ag hosted in a quartz ± carbonate veining system within Bitter Springs Formation sediments.

CXO’s investigation of the potential for Pb-Zn-Ag mineralization has identified a number of prospective mapping targets within EL27709 and further work including IP geophysical techniques and drill testing would be recommended.

Following a review of CXO’s exploration tenure holding in the NT the company has decided to relinquish this license so it can focus further on developing and progressing the Finniss Lithium Project.

2 INTRODUCTION

This report details exploration conducted within Exploration Licence 27709 “Paddys Plain”. The tenement has been held by DBL Blues Pty Ltd, a wholly owned subsidiary of Core Lithium Ltd (CXO). Exploration activities within the tenement have focused on copper and base metals.

The tenement is located 110 km’s east-northeast of Alice Springs, midway between the Amarata Range and Hale River. Access is east from Alice Springs along the Ross Highway to Arltunga, then by station tracks within the tenement area (Figure 1). The general area is hilly with limited track access and climate is typical of central Australia having mild winters and hot summers with heavy rainfall events.

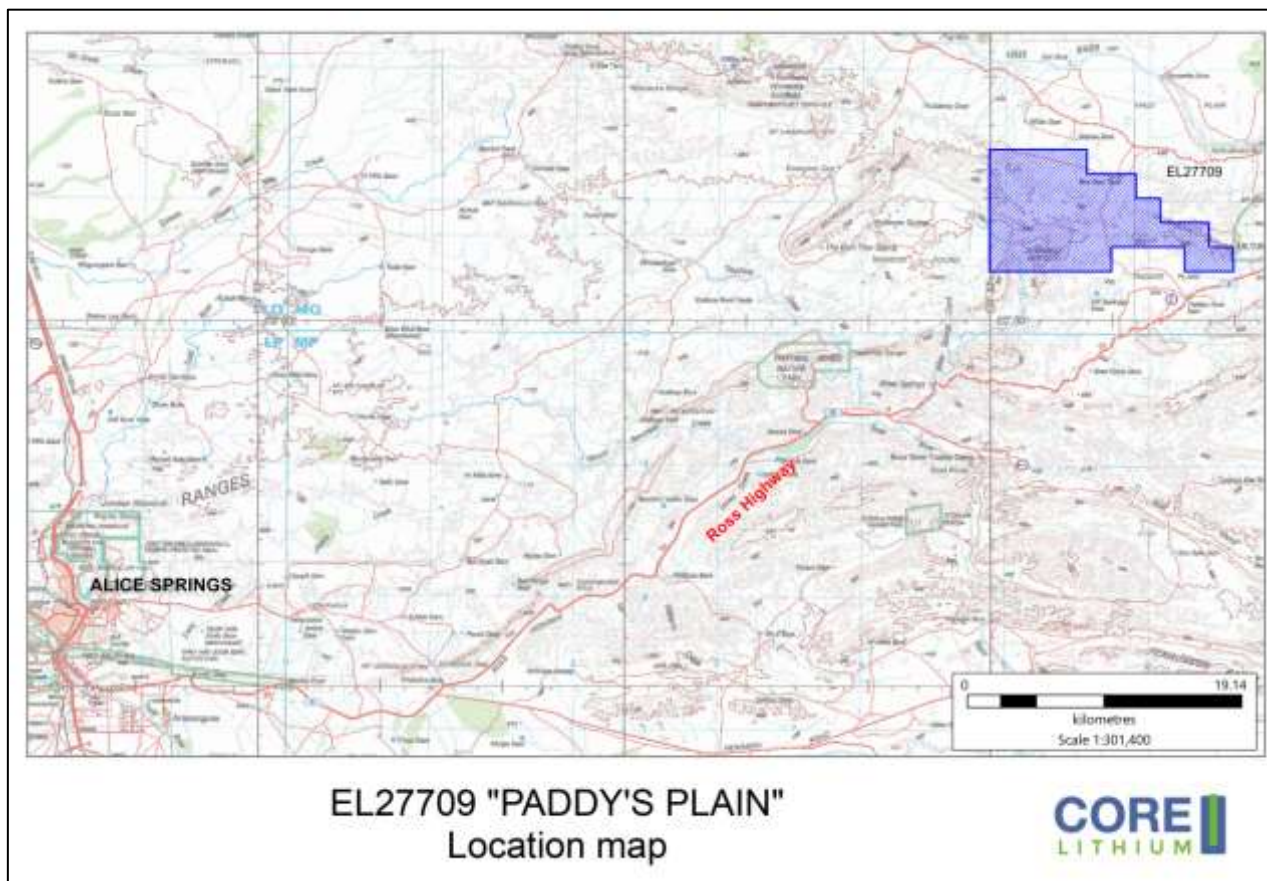


Figure 1: EL27709 Location Map in relation to Alice Springs

3 TENURE

EL27709 was originally granted to Alistair Mackie on 20th May 2010 over an area of 89 graticular blocks before being transferred to Gempart Pty Ltd in February 2013. At Year 3 it was reduced to 44 blocks as per Statutory Requirements of the repealed *Mining Act*. EL27709 (also known as “Paddy’s Plain”) was then transferred to DBL Blues Pty Ltd (a wholly owned subsidiary of CXO) on 24 October 2014. In May 2017 CXO further reduced the area to 33 graticular blocks.

EL27709 formed part of CXO’s Albarta South Project which consisted of four granted Exploration Licences. The project covered an area of approximately 965km² in the Arunta Region, approximately 100 km North East of Alice Springs. Amalgamated Reporting was approved for the Albarta South Project in February 2015 known as GR361.

The tenement overlaps pastoral leases PPL1124 (Ambalindum Station), PPL 1095 (The Gardens) and PPL995 (Loves Creek Station/CLC).

Table 1: Tenure Details for GR 361

Tenement	Owner	Date Granted	Blocks	Area (km ²)
27709	DBL Blues (100%)	20/05/2010	33	103.91

4 GEOLOGY AND MINERALISATION

EL27709 is located in the Proterozoic Aileron Province of the Central Arunta Region. The rocks dominantly comprise variably metamorphosed sediments, volcanics, calcsilicates, amphibolites and granite. The dominant structures appear to trend northeast. The geology of the Aileron Province is detailed by Murrell (1989) and Zhao & Cooper (1992).

The area is underlain by the Palaeoproterozoic Strangways Metamorphic Complex, which forms part of the Aileron Province. The older rocks are overlain unconformably by Amadeus Basin sediments which have been strongly folded and faulted within the west-northwest trending Winnecke Nappe. The northern part of the area is underlain by Cadney Metamorphics, a sequence of calc silicates, marble and gneisses. The rest of the surrounding area is underlain by undifferentiated gneiss of the Arltunga Gneiss complex. The Heavitree Quartzite and Bitter Springs Formation occur as fault bounded outliers in the southern part of the Exploration Licence. Strongly sheared zones are present within the basement and similar zones host gold mineralisation at the Winnecke Goldfield to the north-west.

CXO has studied recent investigations undertaken by Geoscience Australia (GA) and the Geological Survey of the Northern Territory, in conjunction with other explorers in the region, all of whom suggest Iron Oxide Copper Gold (IOCG) affinities can be attributed to the Aileron Province.

This recently suggested IOCG terrain represents a newly-recognised Proterozoic copper–gold province characterised by a long belt of structurally deformed granite and sedimentary sequences that contain variable amounts of quartz veining, strong iron and fluorite alteration, and outcropping copper- silver- gold mineralisation.

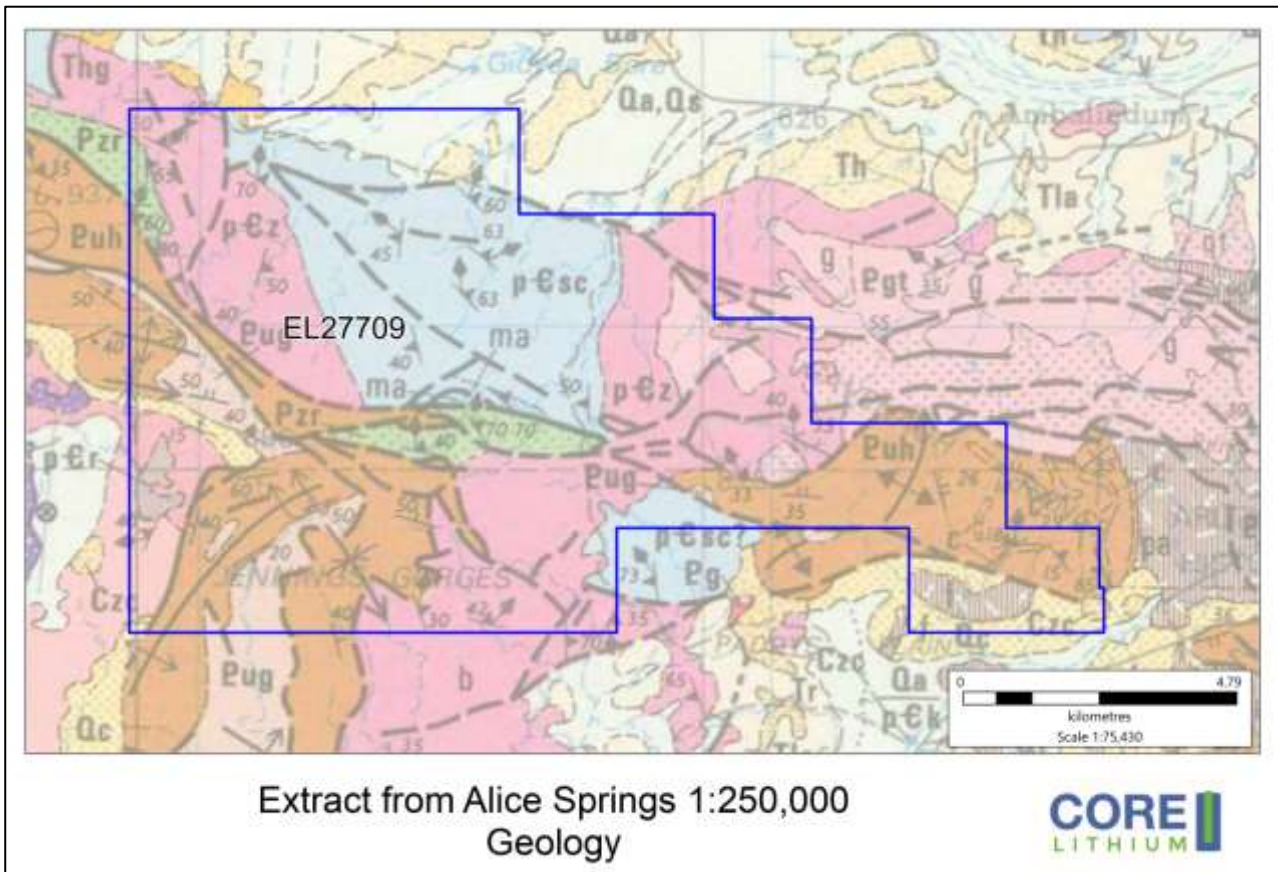


Figure 2: EL27709 Geology - Extract from Alice Springs 1:250,000 Geology map

5 PREVIOUS EXPLORATION

Historical Exploration

The south-eastern portion of EL 27709 was held by Esso Exploration as EL 1325 between 1976 and 1978 (CR1978/0029 and CR1979/0031). Esso were exploring for uranium and no work was done in the current tenement. Alcoa Australia explored the Hale River Basin to the north of EL 27709 from 1979 to 1983 under EL 1860. Exploration was undertaken for roll-front uranium deposits (Howard, 1980 and 1981). Some zones of uneconomic uranium mineralization were discovered but they are located outside of EL 27709.

EL 3558 covered the northern and central parts of EL 27709 and was held by Uranerz Australia during 1982. Some reconnaissance work was done for uranium within the strongly sheared retrogressed zones in the basement, no anomalies were found (Booth et al, 1983). The eastern part of the tenement was covered by EL 4674 from 1985 to 1989. Exploration for gold was undertaken by two local prospectors (G. Bohning and E. Bowman). Initial work included prospecting and metal detecting (Carthew, 1986). Further prospecting of the Cavanagh Range area was undertaken during the second year. The John Bull prospect was also visited and sampled (Carthew, 1988). A drilling programme was undertaken in late 1987 to early 1988 to test the Patterson's Gully (John Bull) prospect and the Cavanagh Range/Whites Gully area (Murrell, 1988). 37 RC percussion holes were completed. The best results were from hole PG-3 at Patterson's Gully with 3 m at 1.9 g/t Au from 46 m downhole. This hole also had elevated base metal values (Pb up to 0.11 %). No work was undertaken in the final year and the EL was surrendered (Murrell, 1989).

EL 5100 covered the northern part of EL 27709 and was held by Conapaira Metals. Some reconnaissance activities were carried out during 1988 but nothing substantial was achieved

(Garside, 1988). Ramsgate Resources explored the western part of the area under EL 5486 during 1988 (James, 1988). Some rock chip sampling was completed in the current EL, however Ramsgate concentrated their activities on the Mordor Complex.

A portion of the eastern side of the area was covered by EL 5809 which was explored by White Industries from 1988 to 1990. Stream sediment sampling (-80#, heavy mineral and BLEG) was undertaken but the results were disappointing. Some reconnaissance rock chip sampling also proved discouraging (Stidolph, 1989). In 1990 White Industries was granted EL 6596 which covered the same ground previously held under EL 4674. A field inspection of the Cavenagh Range area was carried out. however, the most prospective ground was held under claim and the tenure was surrendered (Murrell, 1991).

The eastern half of the tenement was held by Shandona Pty Ltd (Alice Springs prospectors) under EL8785 from 1996 to 1998. Some stream sediment samples were collected and panned for gold with poor results. The reports on this work were not available.

CRA Exploration explored the Mordor complex under EL 9371 from 1995 to 1997. This EL also covered the western part of the current tenement. CRA followed up a GEOTEM conductive anomaly near the fault contact between basement and Heavitree Quartzite within EL 27709 (McCoy et. al., 1997). Limonitic float in the vicinity returned 0.12 % Cu. CRA postulated that the anomaly might be related to mineralization within the Amadeus Basin sequence (Bitter Springs Formation). No further work was done.

EL 22625 was held by Tanami Exploration from 2001 to 2005 and covered all the current tenement. Little exploration was carried out by Tanami during this period. Minor rock chip sampling was carried out during a visit to the John Bulls Surprise gold prospect. The best result was 3.5 g/t Au from a sample of the mullock (Rohde, 2005).

Cullen Resources undertook some reconnaissance work in the area during 2008 under EL 25620. The Patterson's Gully prospect was visited, and rock chip samples collected which returned low values for gold – maximum 45 ppb Au (Hamilton et al, 2008).

6 CORE LITHIUM EXPLORATION ACTIVITY

Since taking over management of EL 27709, CXO completed a thorough review of historical exploration work. The Arltunga-Winnecke Goldfields have been extensively explored for gold by various companies, including well-funded modern gold explorers Normandy NFM and Tanami Gold. The gold at Arltunga and Winnecke is contained within massive white quartz veins which contain pyrite and rare chalcopyrite. The veins are hosted by various rock units in the Arunta basement and overlying Amadeus Basin. Their emplacement has been interpreted to be related to the ca.320 Ma Alice Springs orogeny. These auriferous veins extend beyond and between the two known goldfields, including at Patterson's (also known as John Bulls Surprise). The greatest problem with this gold system is the extreme variability of results from the same vein and between adjacent prospects. Rock chips from known prospects can frequently return >10 g/t Au but drilling results consistently failed to return economic grades and widths, despite intersecting the veins.

CXO also undertook a field trip to the Patterson Prospect during the 2011-2012 reporting period. 4 rock chip samples were collected from outcropping quartz veins within the tenure (Figure 3 and Figure 4) however gold values were generally low.



Figure 3: Outcropping quartz veins on EL27709 - potential hosts for gold mineralisation

CXO undertook a detailed review of GIS datasets and mineral potential modelling based on epigenetic vein hosted gold systems during the 2013-2014 reporting period. A few geological features were identified as potentially having an important role in the development of gold bearing epigenetic quartz veins:

- North-easterly structures
- Retrogressive alteration
- Outcropping quartz dominant vein systems
- Contacts between the Heavitree Quartzite and Palaeo-Proterozoic basement
- Zones of dilation along regional structures including inflections and fault jogs
- Zones of demagnetization associated with retrogressive alteration

Each of these features were identified within various datasets (Landsat, Google Earth, regional magnetics, Aster data) and incorporated into a mineral potential model within the company's GIS system. Each geological feature was given a weighting according to how likely it is to influence the development of the targeted epithermal quartz veins.

A comparison was then made between known occurrences of epithermal gold mineralisation, elevated gold in rock chip samples from previous explorers and the geological environment as determined from the interpretation exercise.

The results indicated several areas that were previously unidentified as target areas for further work including soil sampling, rock chip sampling and mapping.

Black Gate Surface Sampling EL 27709

Geological mapping and soil / rock-chip sampling were undertaken in 2015/16 on EL27709 in an area which has a similar geological setting to nearby Blueys/Inkheart with basement overthrust on Bitter Springs and Heavitree Quartzite Formations (Figure 4). This area has now been termed “Black Gate”. A total of 601 samples were collected and analysed using the Niton handheld XRF (Appendix 1). QAQC involved collecting a duplicate sample for every twentieth sample number and running a Niton Standard on every twenty-fifth sample number. Laboratory check sampling was undertaken on 25 Black Gate samples which were submitted to Intertek Genalysis for Ag, Cu, Pb and Zn using their TL7 partial leach method. The Check Samples confirmed the anomalism is real however the absolute numbers vary due to the analysis of different medium (XRF is a total analysis a very small volume whereas the TL7 is only a partial digest of the grain surface over a greater sample volume).

Anomalous lead, zinc and silver occurs at Black Gate over >1 km of strike length (Figure 4). Gossanous outcrop was mapped however most of the silver anomalism was offset from the gossans. Further work including IP geophysical techniques and drill testing is warranted.

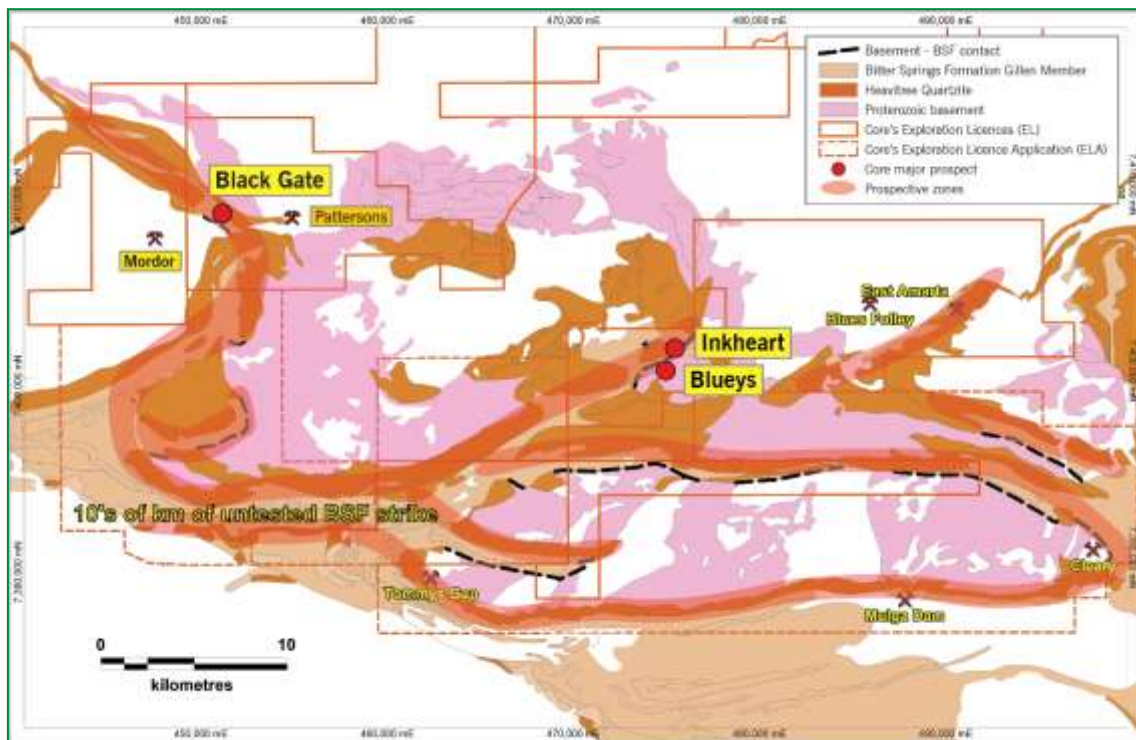


Figure 4: Black Gate Prospect location with nearby tenements (as at 2016) overlain on regional geology and highlighted interpreted prospective zones.

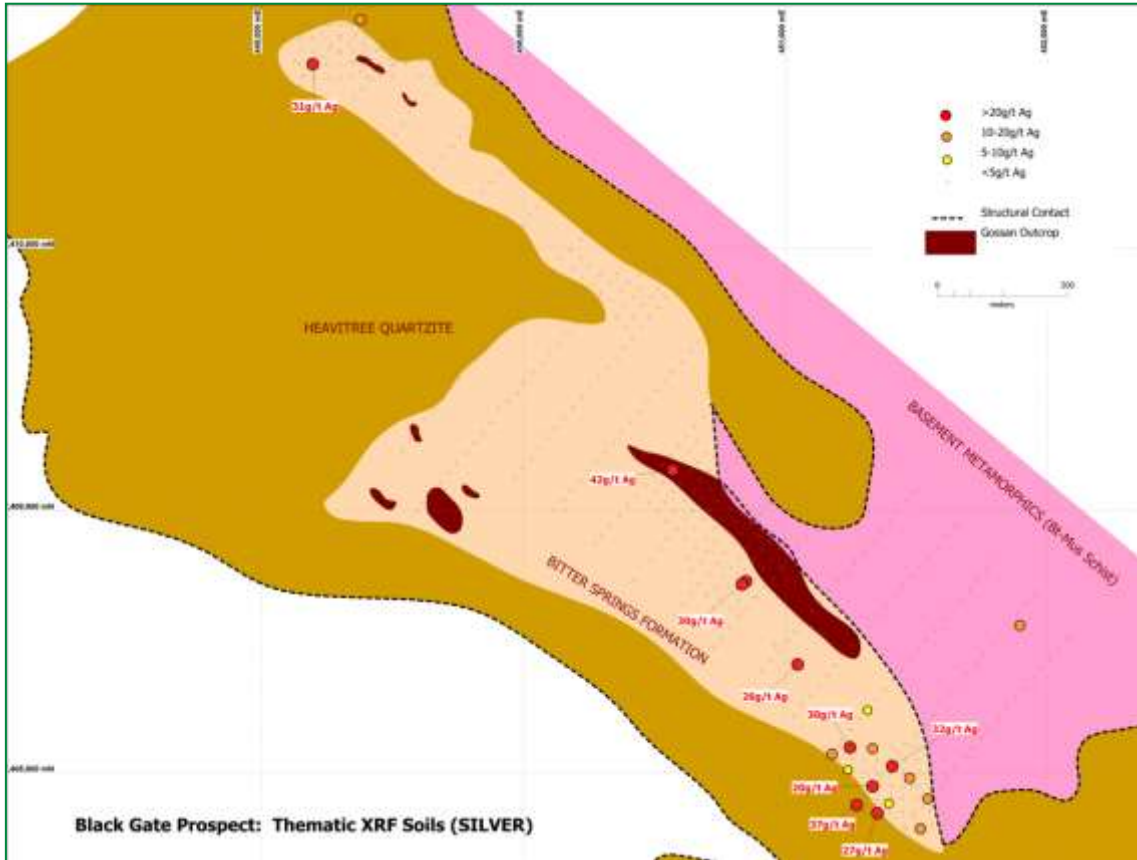


Figure 5: Black Gate XRF soils / rock-chips (Thematic Silver)

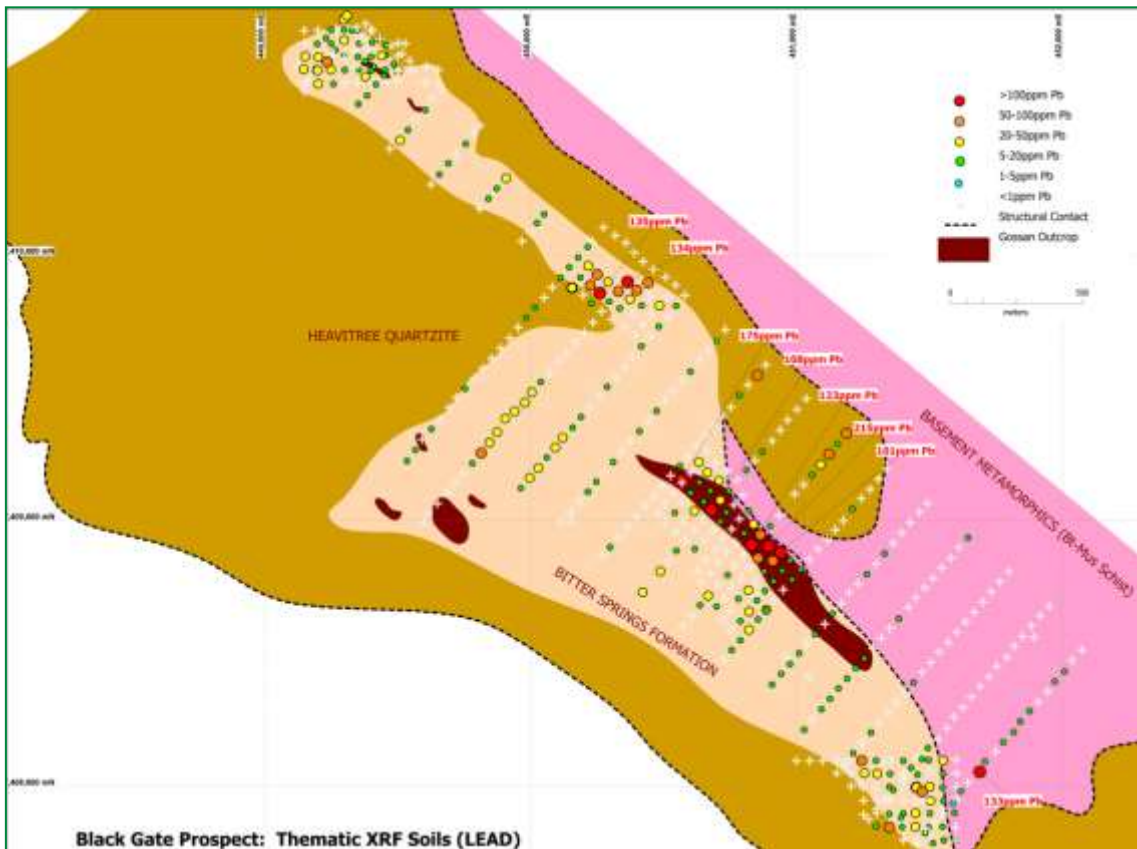


Figure 6: Black Gate XRF soils / rock-chips (Thematic Lead)

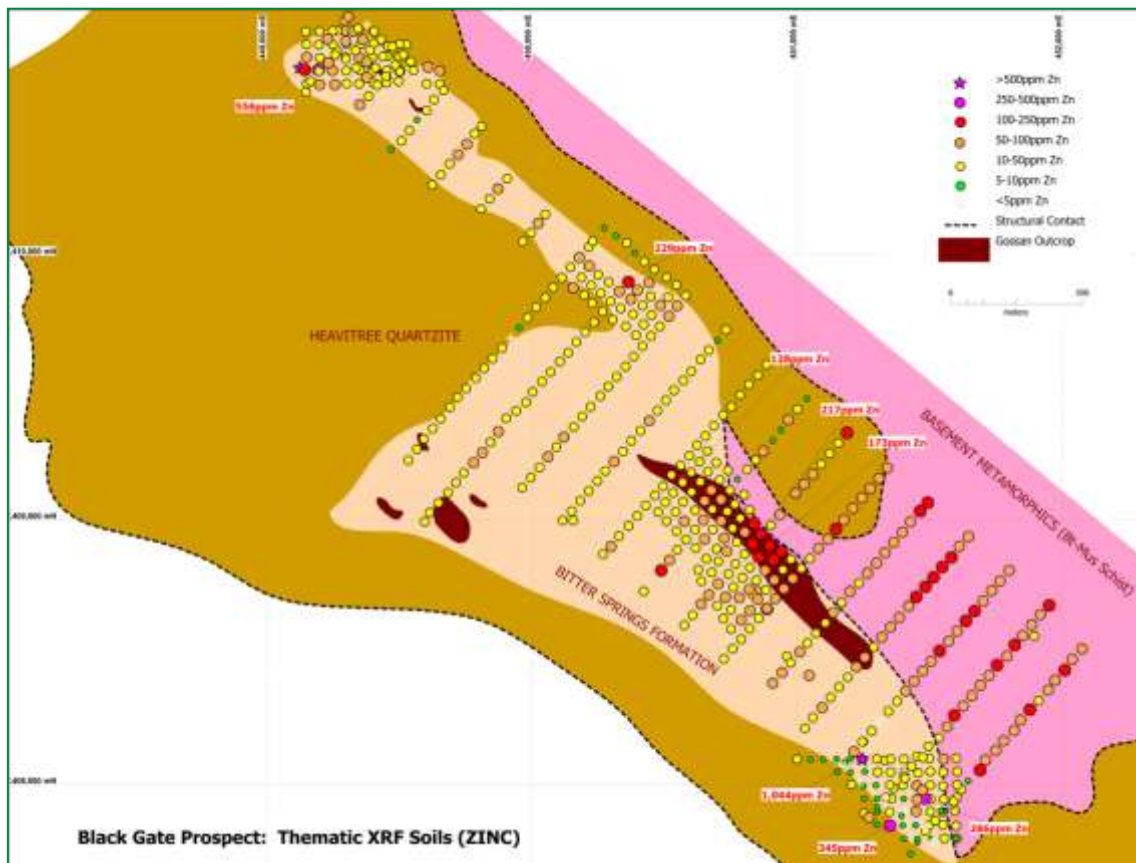


Figure 7: Black Gate XRF soils / rock-chips (Thematic Zinc)

During 2016 to 2017, no ground-based work was undertaken on the EL27709. Ongoing review of exploration potential and prospectivity was conducted by CXO's Exploration Manager of the existing data held.

Between 2017 and 2020 minimal work was conducted over the tenement, in part due to the depressed base metals market. During this period CXO primarily focussed resources and funding on their Finniss Project tenements held by Lithium Developments Pty Ltd, a wholly owned subsidiary of CXO, where drilling has been ongoing for the past 3 years.

7 REHABILITATION

No ground disturbing work or rehabilitation was undertaken in the reporting period on EL27709.

8 CONCLUSIONS AND RECOMMENDATIONS

Following a review of Core Lithium's tenure in the Northern Territory the company has decided to relinquish Exploration Licence 27709 at the anniversary of the Grant date. This review takes into consideration previous work carried out on the tenement in addition to CXO's ongoing activity and resource commitment to progressing the Finniss Lithium Project.

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