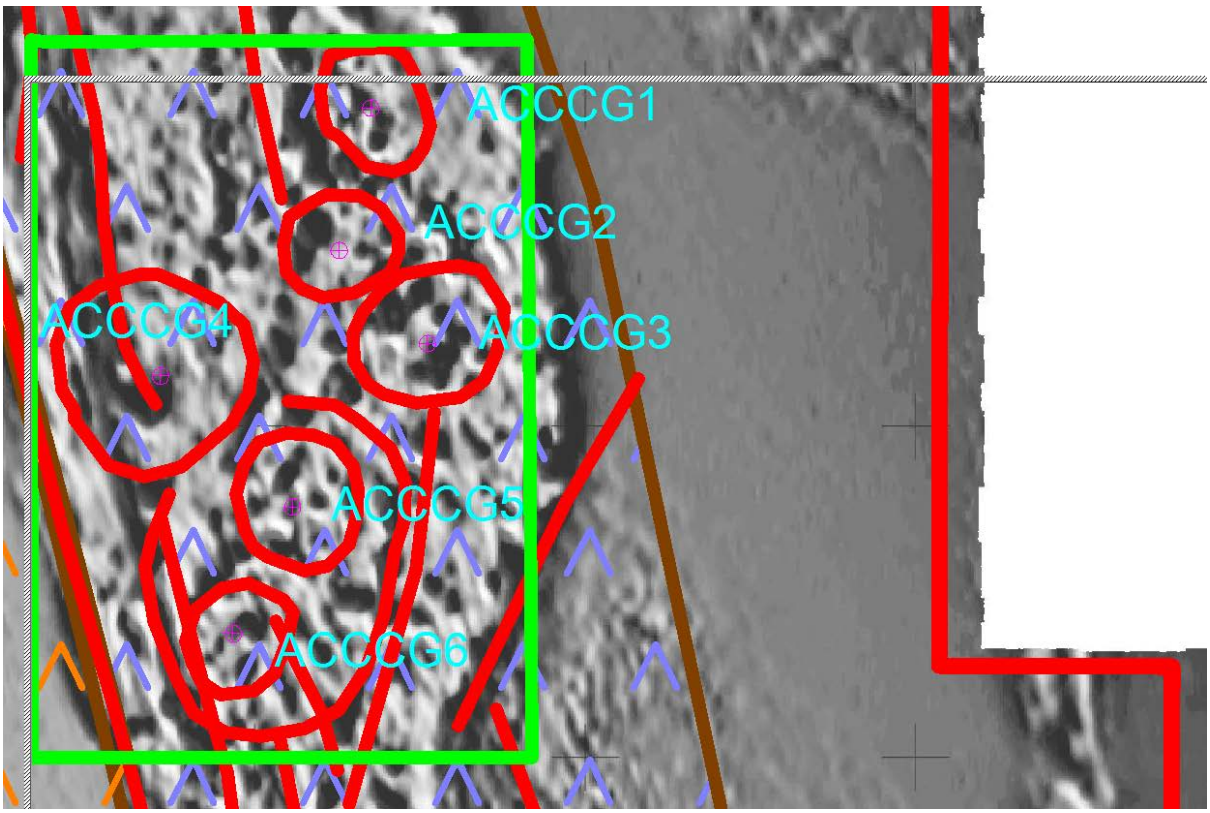
# DAYLIGHT JACK MINERALS

# KIRKIMBIE DIAMOND PROJECT

# EL29803 ANNUAL REPORT
# 24/09/2013-23/09/2014

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For

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September 2014

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# Introduction

## Project History

Daylight Jack Minerals Pty Ltd (DLJM) currently holds four (4) exploration leases at Kirkimbie in the Napier area of the northwest of the Northern Territory in Australia. The area has been recently considered prospective for diamonds with major mining companies holding leases in the area. Regional scale stream sediment sampling has been periodically completed since the late 1970s for diamonds and minerals.

The project is located 150km south southeast of the Argyle Diamond Mine and 50km south west of Rio Tinto's Victoria River Diamond Project, see Appendix.

In the 1990s BHP were involved in exploration in the area immediately covered by the Kirkimbie project. The program involved wide spread regional stream sediment sampling. This work recovered numerous micro diamonds from the Maude Creek Area. This area is covered by the south of EL 24084 and EL 25085. Two samples contained possible kimberlitic chromite. Three (3) magnetic targets were drilled on DLJM current EL's, but no kimberlite was intersected. One single diamond was found in Moonbool creek.

Two companies; Ausquest Pty Ltd and Gravity Diamonds Pty Ltd held leases and have reported on the area covered by the Kirkimbie Project however no significant exploration has taken place in the last 15 years. Ausquest identified six dipole magnetic anomalies occurring in the southern most parts of the project and fall within drainages that contained micro diamond bearing samples.

In 2008 Grant Boxer completed an assessment on the diamond exploration potential of the Kirkimbie project for DLJM.

This work compiled significant historical information for the surrounding area and identified the 6 Ausquest dipole targets for follow up and involved a review of the available regional aeromagnetic data. From this work he identified 17 magnetic anomalies as potential kimberlite targets.

In early 2013 DLJM and Australia China Corporation of Coal Geology Engineering Pty Ltd (ACCCGE) conducted a high resolution aeromagnetic survey over EL 25084 and EL 25085. The results from this survey were interpreted by ACCCGE and DLJM. Based on Total Magnetic Intensity (TMI), and 1Vertical Derivative (1VD) map data a number of exploration targets were generated by both ACCCGE and DLJM, see Appendix. A total of seven targets including both diapole and magnetic targets were selected by DLJM and a further six targets selected by ACCCGE. These targets are in

close proximity to Moonbool creek. In May 2014 a short field visit to the tenements incorporated rock chip sampling at Moonbool creek however none of the targets selected by DLJM were visited.

Figure 1 is an interpretation of EL30219 completed by our consultant geophysicist, Jayson Gregg. This area lies to the south east of EL29803. It shows six target areas which were selected based on their geophysical characteristics. The importance of this particular area to the south east of EL29803 is that it is part of the drainage area of Moonbool creek.

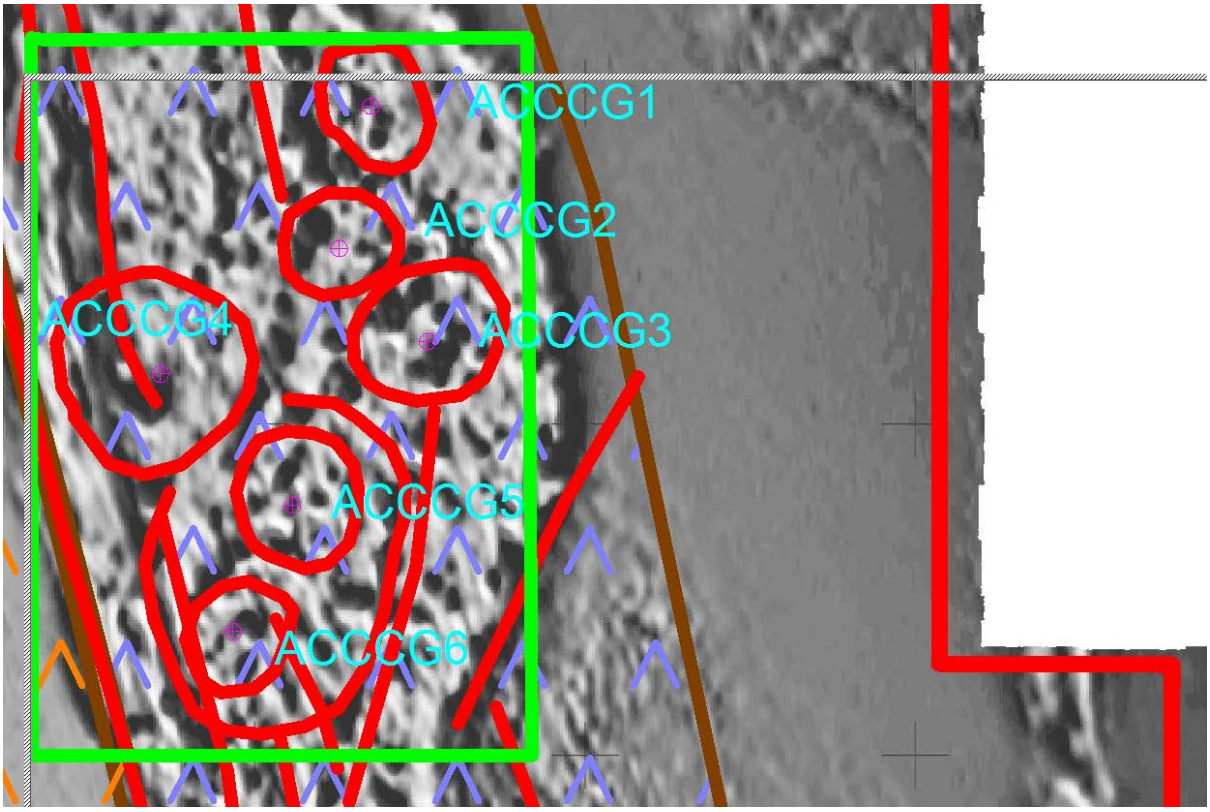



Figure 1 EL30219 drainage area which lies to the south east of EL29803.

## Regional Geology

The Kirkimbie Project lies in the Palaeoproterozoic to Mesoproterozoic aged Victoria and Birrindudu Basins and the southern part of the Neoproterozoic aged Victoria Basin. Extensive areas are covered by flood basalts of the Kalkarindji Continental Flood Basalt.

EL 29803 lies within the Victoria and Birrindudu Basins sediments with some areas covered by volcanics. The Limbunya Group (Palaeoproterozoic) comprises largely sandstone, siltstones, mudstone and dolomitic rocks with minor water-laid tuff horizons. These tuff horizons have been dated at 1635 Ma for the Blue Hole Formation (Phi). Interestingly, these dates are very similar to dates on volcanic pipes in the microdiamond bearing Coanjula area where kaersutit xenocrysts were dated at 1665 Ma (Lee et al 1994). Large areas of EL 29803 are covered by black soil (Czb) and recent alluvium (Czs).

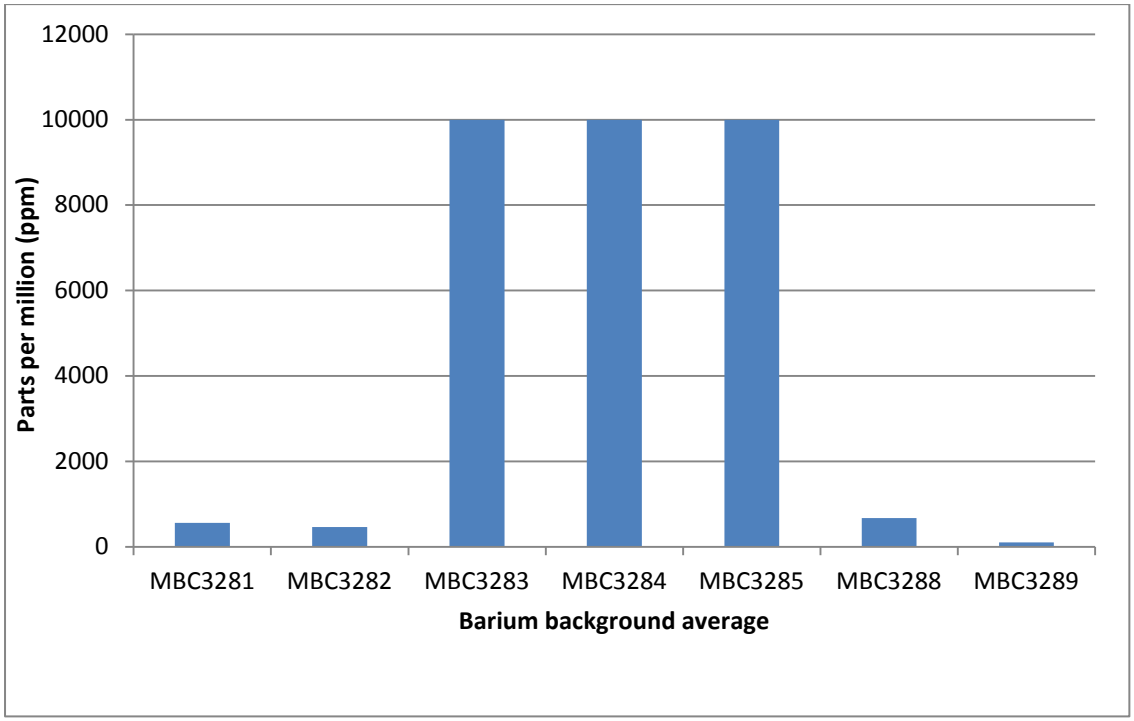
The geologically ancient shield areas in this region are prime targets for diamond exploration. A shield area, or craton, is a portion of the continental crust that has been geologically stable (i.e., not involved in mountain building, faulting, deformation, etc.) for billions of years.

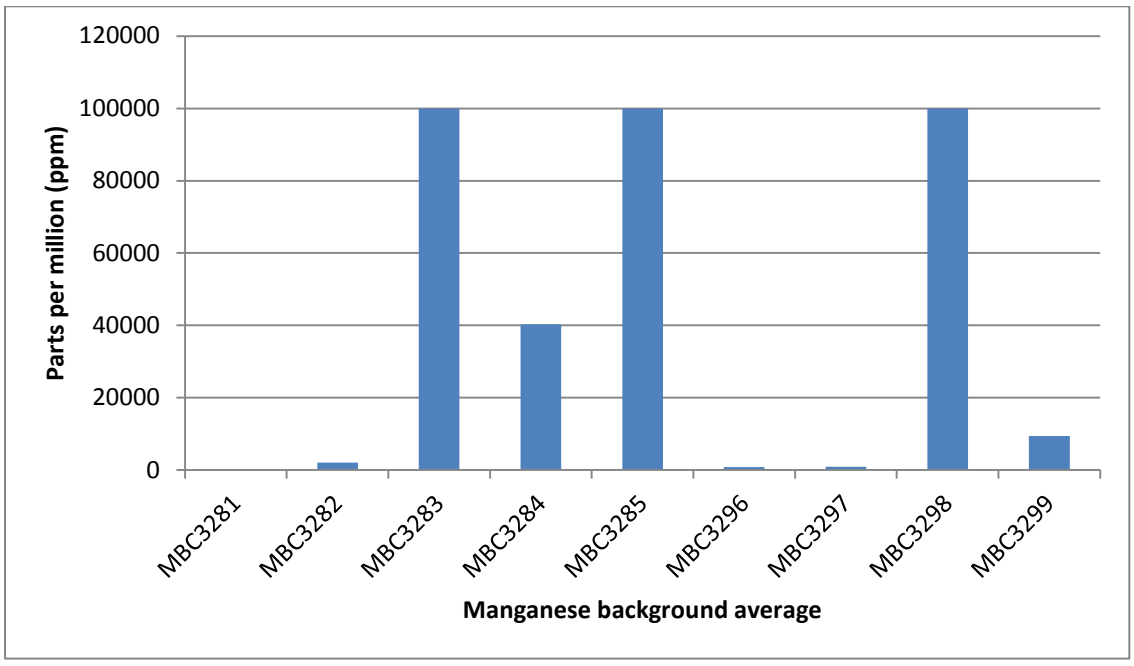
# Methods

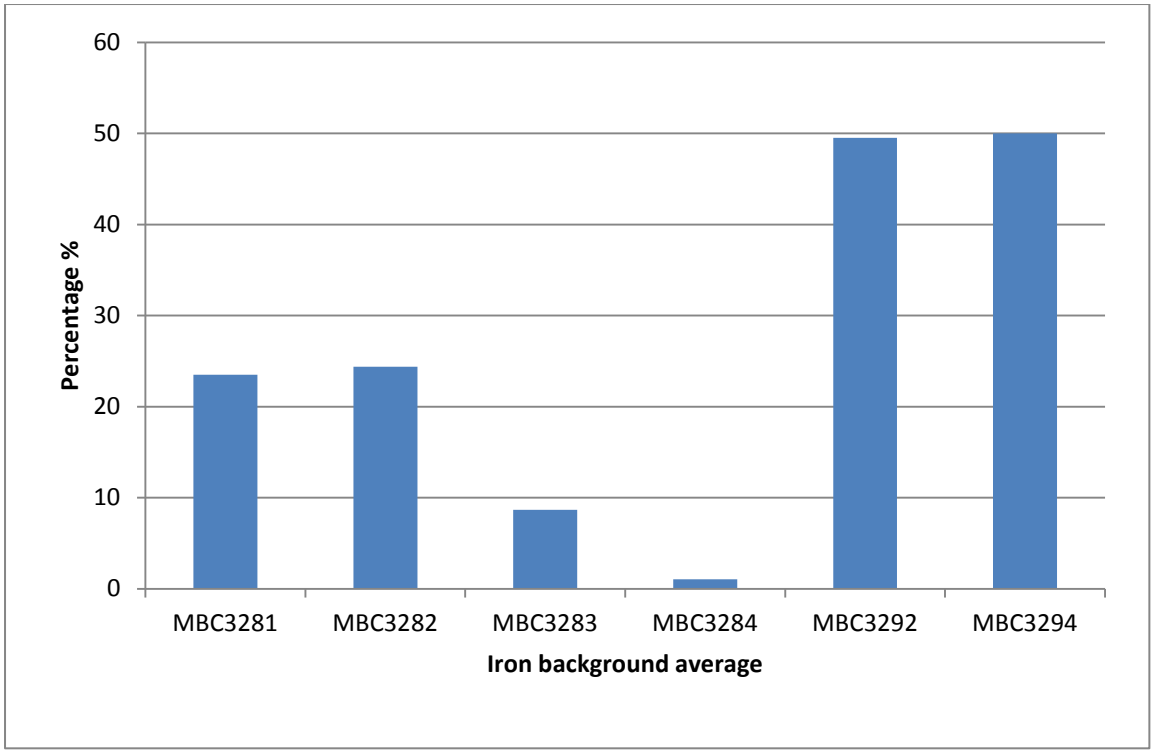
## Field methods

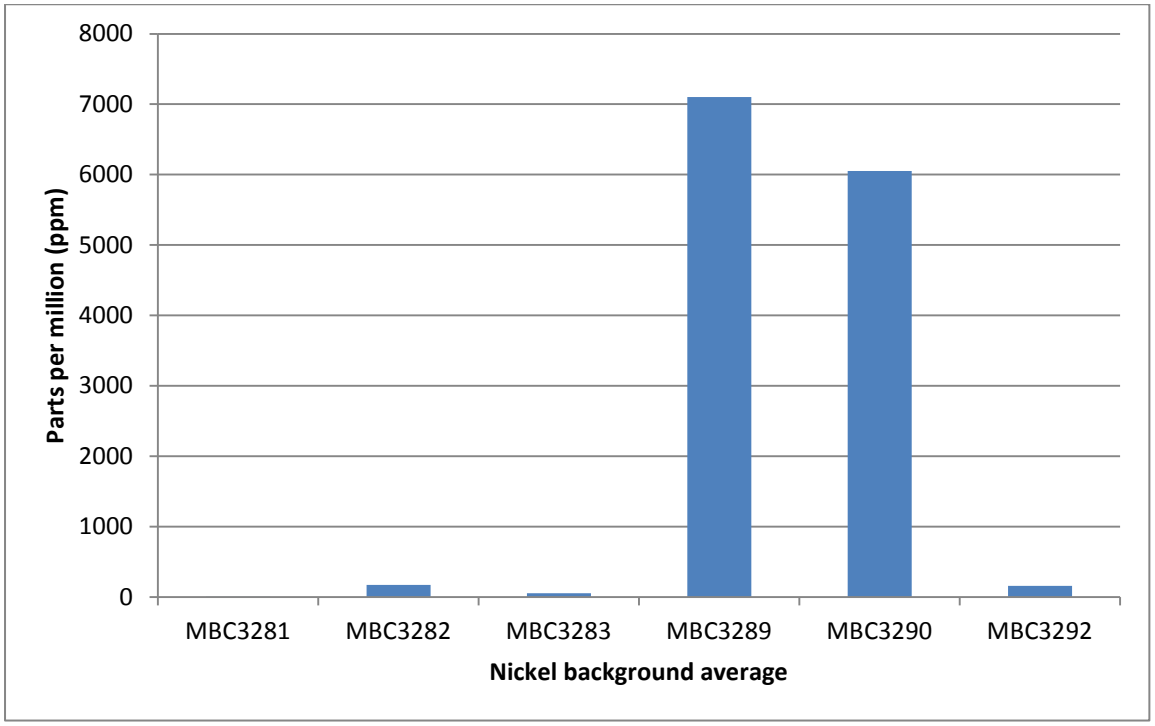
A total of nineteen rock chip samples concentrated at Moonbool creek were taken from EL29803. The location was recorded using a GPS. Descriptions of the rocks were noted and photos of the outcrops were taken.

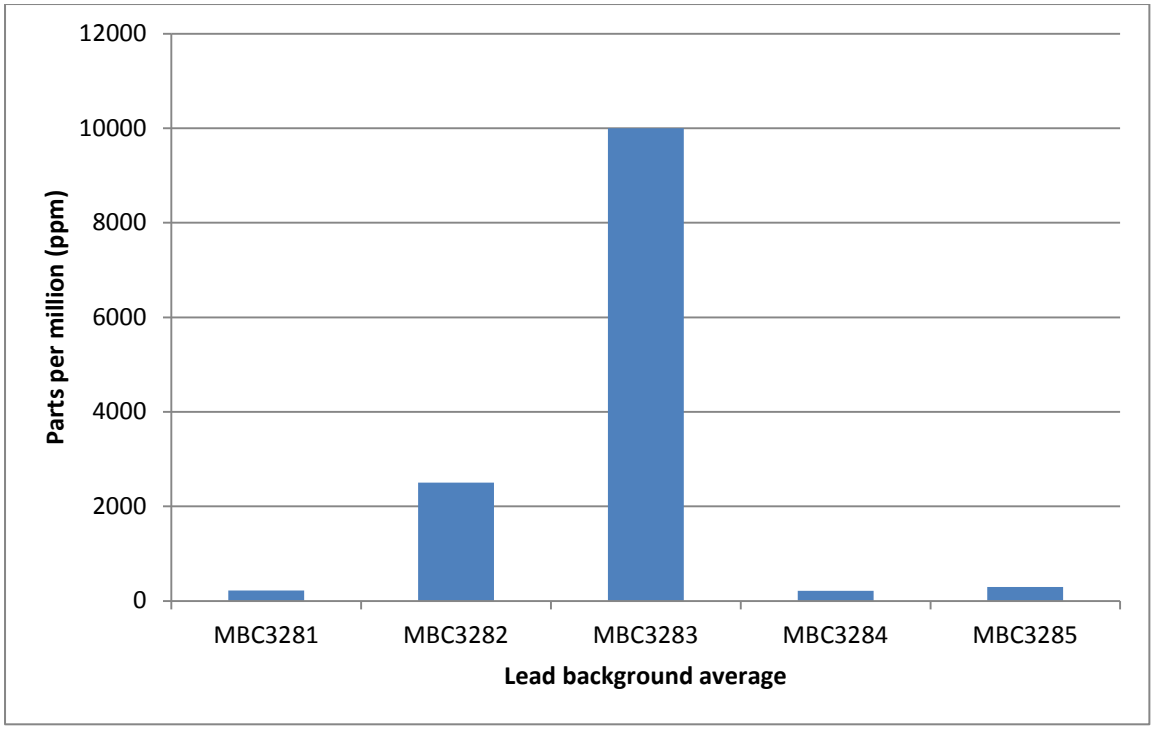
# Results




60
50
40
30
20
10
0
Percentage %
MBC3281
MBC3282
MBC3283
MBC3284
MBC3292
MBC3294
Iron background average


8000
7000
6000
5000
4000
3000
2000
1000
0
Parts per million (ppm)
MBC3281
MBC3282
MBC3283
MBC3289
MBC3290
MBC3292
Nickel background average


12000
10000
8000
6000
4000
2000
0
Parts per million (ppm)
MBC3281
MBC3282
MBC3283
MBC3284
MBC3285
Lead background average

## Interpretations

The tenement has been relatively well covered by traditional heavy mineral stream sampling for kimberlitic indicator minerals and diamond. Microdiamonds were routinely recovered in the southern tenement group but no source could be determined. No kimberlitic indicator minerals were recovered that would indicate the presence of kimberlite or lamproite.

A total of six diapole targets on EL 29803, see Appendix have been selected for ground inspection, but some of these will probably be shown to be caused by volcanics on inspection. It is recommended that those targets unexplained after field inspection, be covered by small ground magnetic grids. Single line or two line “cross” profiles of ground magnetic traverses are not considered adequate to test magnetic targets. A line spacing of 50 m with a station spacing of 10 m is recommended. The grid must be large enough to cover the target and the background geology.

The recent analyses of samples undertaken during 2014 have returned encouraging indicators of Mn, Ni, Pb, Fe and Ba. The manganese rick rock, see figure 2, found at the surface is very interesting and requires further investigation. Considering these samples have been taken from the weathered soil profile it is an encouraging sign that mineralization may be present below the weathering profile.

Figure 2 Rock enriched in Manganese found near Moonbool creek.

It is important to keep in mind that what we are dealing with is undercover mineralization. True bulls eye targets and diffuse magnetic anomalies could be either deeply buried targets or a result of surface weathering of iron/manganese rich rocks. They will need to be carefully considered in the field, based on careful field observation and sampling.

To do justice to the tenement which is considered to be under-explored, more vigorous exploration is required.

## Proposed Future Exploration Strategy

- 3D Geophysical Inversion modelling of the selected magnetic anomalies
- Ground Inspection at the site of the selected anomalies and soil sampling
- Ground based gravity follow up surveys (optional magnetic survey)
- 3D Geophysical Inversion modelling of follow up surveys
- Design of drill testing program for the most prospective anomalies

### Geophysical Inversion Modelling

Geophysical modelling can be completed on the aero magnetic dataset to better define the shape and extent of the causative bodies producing the dipole anomalies selected as possible kimberlite pipes. This may improve the interpretation of the magnetic targets and allow further and more accurate ranking of their exploration potential.

However the best results will be obtained by modelling the aeromagnetic dataset in combination with newly acquired follow up gravity data.

### Ground Based Follow Up

It is proposed that all highly ranked exploration targets are candidates for ground based gravity survey follow up. Additional soil sampling will be conducted on the proposed gravity survey grid. In addition to the gravity survey it will also be possible to cover the magnetic exploration targets with an even higher detail ground based magnetic survey for a relatively low cost.

Ground based geophysical surveys offer the highest data resolution and will produce the most accurate geophysical models to aid in designing the drilling program to test the magnetic anomalies.

### Drill Testing

Drill testing will be assessed after the proposed ground based follow up. Alternatively direct drill testing of modelled aeromagnetic targets may be applicable if the financial costs are within budget.

# Appendices

| DLJM<br>Target grid coordinates | | |
|---|---|---|
| Sample ID | Latitude | Longitude |
| MBC3280 | -17.80207 | 129.32088 |
| MBC3281 | -17.80001 | 129.32106 |
| MBC3282 | -17.79463 | 129.32078 |
| MBC3283 | -17.7946 | 129.32075 |
| MBC3284 | -17.79451 | 129.32075 |
| MBC3285 | -17.79451 | 129.32075 |
| MBC3286 | -17.79451 | 129.32075 |
| MBC3287 | -17.79451 | 129.32075 |
| MBC3288 | -17.79565 | 129.32086 |
| MBC3289 | -17.796 | 129.32094 |
| MBC3290 | -17.79597 | 129.32096 |
| MBC3291 | -17.79457 | 129.32077 |
| MBC3292 | -17.79388 | 129.3207 |
| MBC3293 | -17.79391 | 129.32068 |
| MBC3294 | -17.79382 | 129.32071 |
| MBC3295 | -17.79296 | 129.32086 |
| MBC3296 | -17.7924 | 129.32086 |
| MBC3297 | -17.79159 | 129.32092 |
| MBC3298 | -17.79051 | 129.32004 |

| | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | K | La | Mg | Mn | Mo | Na |
| DESCRIPTION | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | % | ppm | % | ppm | ppm | % |
| MBC3280 | <0.5 | 0.98 | 69 | 890 | 0.8 | 2 | 0.05 | <0.5 | 3 | 24 | 9 | 17.5 | <10 | 0.36 | 10 | 0.07 | 512 | <1 | 0.02 |
| MBC3281 | 0.5 | 2.01 | 90 | 560 | 0.8 | 2 | 0.19 | <0.5 | 2 | 25 | 19 | 23.5 | 10 | 0.63 | 40 | 0.14 | 230 | 2 | 0.01 |
| MBC3282 | <0.5 | 1.27 | 260 | 450 | 6.5 | 3 | 0.11 | <0.5 | 60 | 14 | 62 | 24.4 | <10 | 0.52 | <10 | 0.13 | 2110 | 2 | 0.02 |
| MBC3283 | 1.1 | 0.75 | 44 | >10000 | 5.9 | <2 | 0.09 | <0.5 | 429 | 6 | 145 | 8.69 | <10 | 0.14 | 50 | 0.04 | >100000 | 7 | 0.18 |
| MBC3284 | <0.5 | 0.57 | 12 | >10000 | 1.3 | <2 | 0.1 | <0.5 | 115 | 1 | 28 | 1.07 | <10 | 0.12 | 10 | 0.05 | 40300 | 1 | 0.03 |
| MBC3285 | <0.5 | 0.52 | 20 | >10000 | 4.7 | 4 | 0.07 | <0.5 | 191 | <1 | 116 | 1.47 | <10 | 0.15 | 10 | 0.04 | >100000 | 3 | 0.04 |
| MBC3286 | | | | | | | | | | | | | | | | | | | |
| MBC3287 | | | | | | | | | | | | | | | | | | | |
| MBC3288 | <0.5 | 0.75 | 115 | 670 | 12.9 | <2 | 0.08 | <0.5 | 20 | 11 | 25 | 28.6 | <10 | 0.21 | 10 | 0.06 | 1945 | 1 | 0.01 |
| MBC3289 | <0.5 | 2.92 | 130 | 100 | 9.2 | 3 | 0.06 | <0.5 | 5 | 33 | 202 | 35.1 | 10 | 1 | 20 | 0.13 | 213 | <1 | 0.01 |
| MBC3290 | <0.5 | 1.97 | 139 | 140 | 6.3 | 3 | 0.05 | <0.5 | 4 | 25 | 147 | 31.8 | <10 | 0.69 | 30 | 0.07 | 114 | <1 | 0.01 |
| MBC3291 | | | | | | | | | | | | | | | | | | | |
| MBC3292 | <0.5 | 0.31 | 123 | 70 | <0.5 | 4 | 0.06 | <0.5 | <1 | 2 | 12 | 49.5 | 10 | 0.06 | <10 | 0.02 | 311 | 17 | 0.01 |
| MBC3293 | <0.5 | 0.76 | 211 | 250 | 0.5 | 2 | 0.07 | <0.5 | 4 | 10 | 17 | 39 | 10 | 0.19 | 20 | 0.06 | 871 | 14 | 0.03 |
| MBC3294 | <0.5 | 0.5 | 219 | 70 | 0.5 | 5 | 0.03 | <0.5 | <1 | 4 | 15 | >50 | 10 | 0.11 | 10 | 0.03 | 275 | 11 | 0.01 |
| MBC3295 | <0.5 | 1.34 | 141 | 580 | 1.2 | 2 | 0.08 | <0.5 | 3 | 16 | 26 | 41.1 | 10 | 0.52 | 30 | 0.11 | 465 | 8 | 0.01 |
| MBC3296 | <0.5 | 1.35 | 43 | 2490 | 1.5 | 2 | 0.17 | <0.5 | 8 | 25 | 71 | 24.2 | 10 | 0.33 | 10 | 0.12 | 800 | <1 | <0.01 |
| MBC3297 | <0.5 | 0.94 | 55 | 370 | 1.1 | 4 | 0.73 | <0.5 | 14 | 8 | 48 | 31.5 | 10 | 0.25 | <10 | 0.06 | 949 | 16 | 0.01 |
| MBC3298 | 2.9 | 0.64 | 48 | >10000 | 9.3 | 14 | 0.19 | <0.5 | 457 | <1 | 197 | 6.85 | <10 | 0.21 | 30 | 0.1 | >100000 | 5 | <0.01 |
| | | | | | | | | | | | | | | | | | | | |

| | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | ME-ICP61 | Pb-OG62 | Au-ICP21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE | Nb | Ni | P | Pb | S | Sb | Sc | Sr | Th | Ti | Tl | U | V | W | Zn | Pb | Au |
| DESCRIPTION | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm |
| MBC3280 | <5 | 3 | 190 | 62 | 0.04 | <5 | 3 | 13 | <20 | 0.05 | <10 | <10 | 72 | <10 | 14 | | 0.001 |
| MBC3281 | <5 | 6 | 560 | 223 | 0.04 | 9 | 5 | 35 | <20 | 0.06 | <10 | 10 | 217 | <10 | 21 | | 0.001 |
| MBC3282 | <5 | 172 | 1460 | 2500 | 0.01 | <5 | 3 | 11 | <20 | 0.05 | <10 | <10 | 77 | <10 | 284 | | 0.002 |
| MBC3283 | <5 | 54 | 890 | >10000 | 0.02 | 5 | 2 | 28 | <20 | 0.02 | 20 | <10 | 308 | <10 | 171 | 1.105 | 0.005 |
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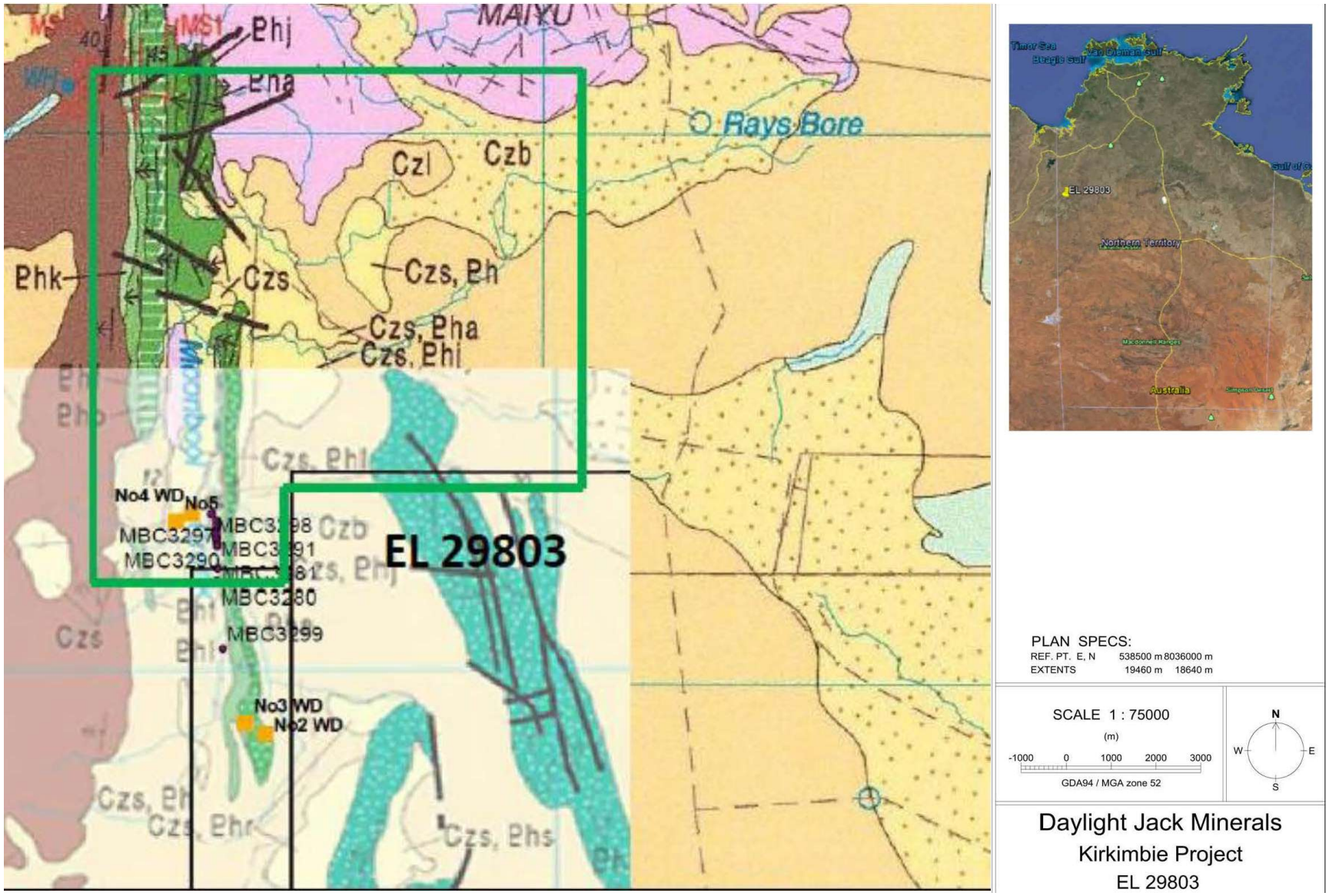
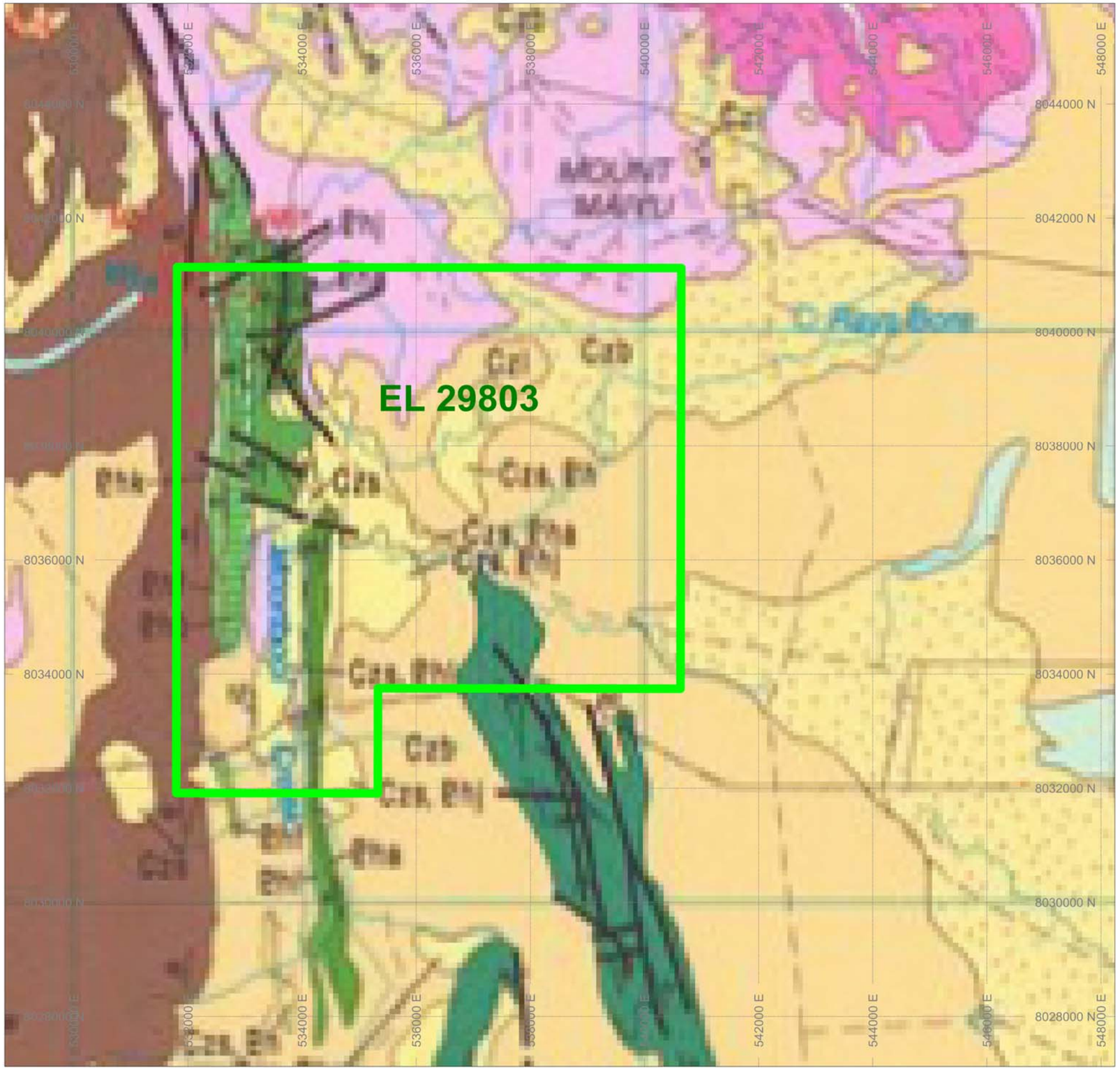
| MBC3285 | <5 | 88 | 570 | 297 | 0.01 | <5 | 2 | 11 | <20 | 0.01 | 80 | 40 | 109 | <10 | 199 | | 0.001 |
| MBC3286 | | | | | | | | | | | | | | | | | |
| MBC3287 | | | | | | | | | | | | | | | | | |
| MBC3288 | <5 | 87 | 1570 | 49 | 0.02 | 9 | 2 | 10 | <20 | 0.03 | <10 | <10 | 82 | 10 | 190 | | 0.001 |
| MBC3289 | 15 | 7100 | 7 | 0.02 | <5 | 9 | 30 | <20 | 0.14 | <10 | 10 | 21 | <10 | 20 | | | |
| MBC3290 | 15 | 6050 | 8 | 0.02 | <5 | 7 | 55 | <20 | 0.1 | <10 | 10 | 41 | <10 | 17 | | | |
| MBC3291 | | | | | | | | | | | | | | | | | |
| MBC3292 | 28 | 160 | 21 | 0.05 | 7 | 1 | 8 | <20 | 0.01 | <10 | 10 | 68 | 10 | 9 | | | |
| MBC3293 | 22 | 150 | 50 | 0.03 | <5 | 2 | 22 | <20 | 0.03 | <10 | 10 | 71 | 10 | 8 | | | |
| MBC3294 | 17 | 120 | 74 | 0.03 | 5 | 1 | 22 | <20 | 0.02 | <10 | 10 | 71 | 10 | 10 | | | |
| MBC3295 | 10 | 400 | 31 | 0.04 | <5 | 2 | 37 | <20 | 0.06 | <10 | 10 | 134 | 10 | 11 | | | |
| MBC3296 | 21 | 470 | 72 | 0.09 | <5 | 4 | 45 | <20 | 0.03 | <10 | <10 | 209 | <10 | 55 | | | |
| MBC3297 | 22 | 220 | 81 | 0.02 | 5 | 3 | 12 | <20 | 0.03 | <10 | <10 | 187 | 10 | 36 | | | |
| MBC3298 | 181 | 1290 | 608 | <0.01 | <5 | 3 | 47 | <20 | 0.02 | <10 | 90 | 272 | <10 | 393 | | | |
| | | | | | | | | | | | | | | | | | |




EL29803 Moonbool creek sampling locations.





PLAN SPECS:

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| EXTENTS | 19460 m | 18640 m |

SCALE 1 : 75000

(m)

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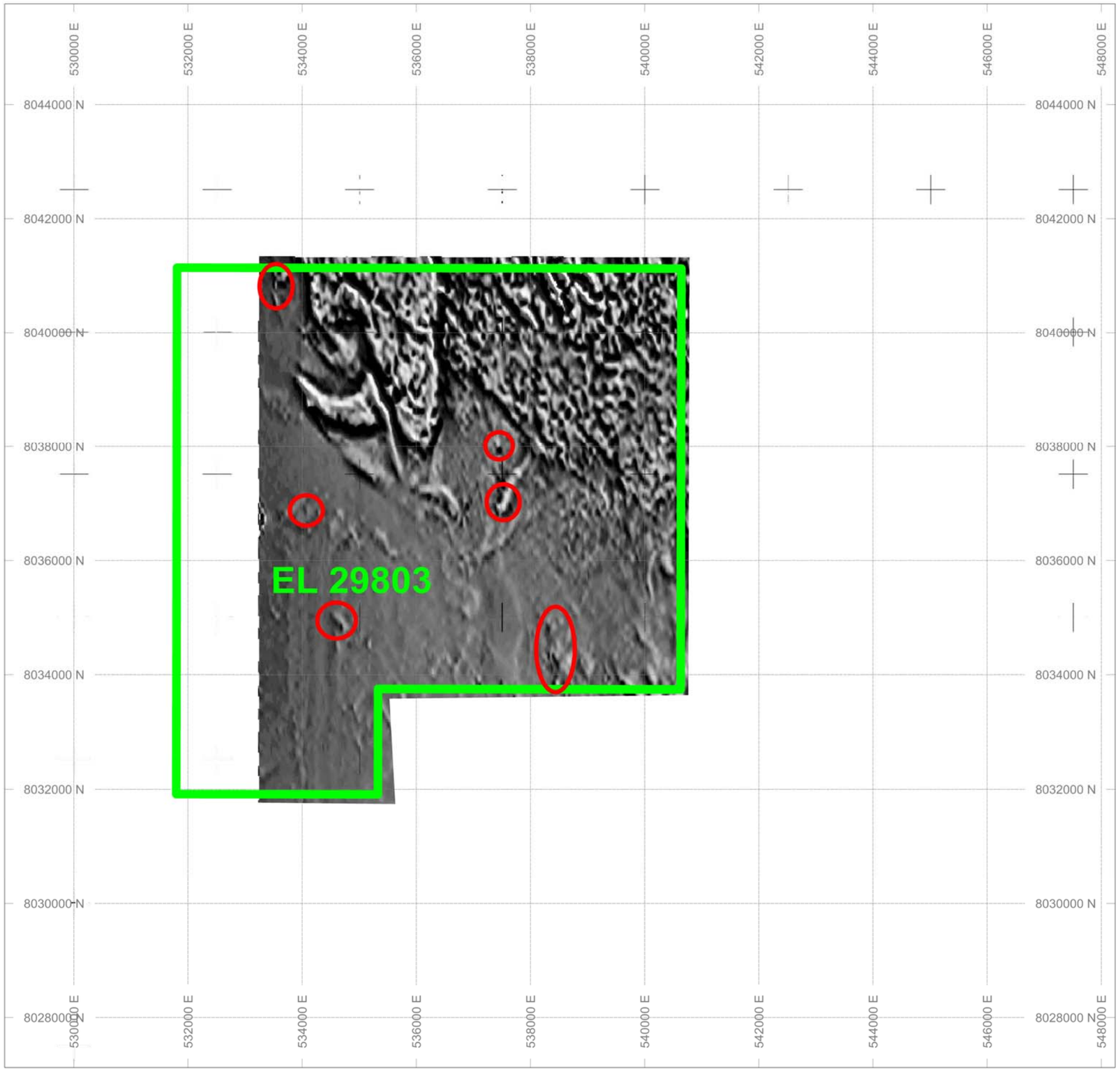
GDA94 / MGA zone 52

N W E S

# Daylight Jack Minerals

## Kirkimbie Project

## EL 29803





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| EXTENTS | 19460 m | 18640 m |

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(m)

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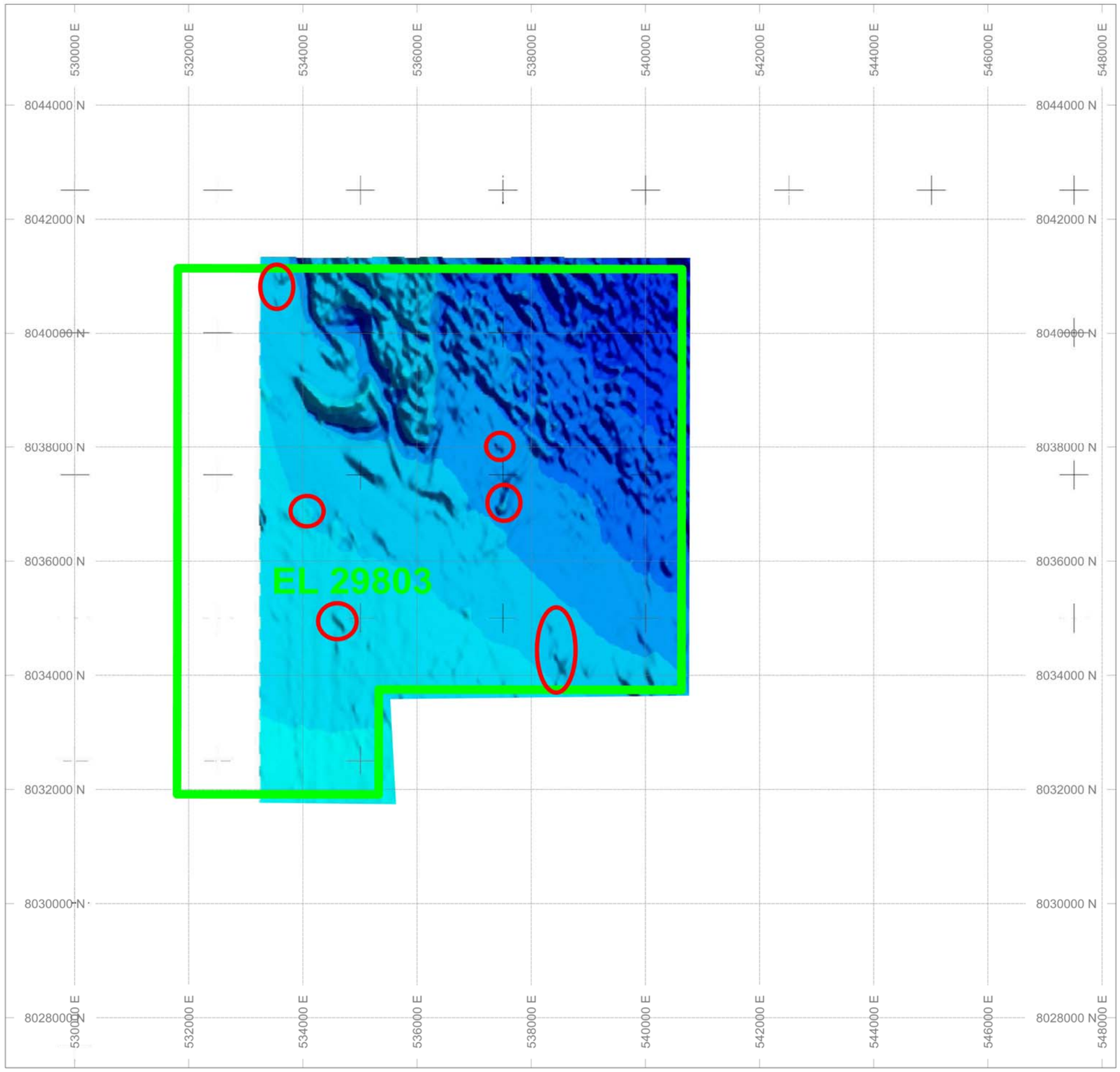
Daylight Jack Minerals

Kirkimbie Project

EL 29803

9[н9803 diapole target locations.





PLAN SPECS:

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| EXTENTS | 19460 m | 18640 m |

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(m)

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GDA94 / MGA zone 52

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Daylight Jack Minerals

Kirkimbie Project

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9[H9803 diapole target locations.