Notes on

## Soil Sampling on EL32942 Ringwood West Project area

for

## Gempart (NT) Pty. Ltd



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Program undertaken by: Rudy Lennartz (Principal) Central Mining & Exploration Services Pty. Ltd Before any work commenced within the work area on Todd River Station, the following issues were addressed.

- The Todd River Station owners/managers were notified before entering onto the property to check that station activity, i.e., mustering, etc. will not be disrupted by the proposed work program.
- A Station Access Request form was completed and signed off by the Todd River Station management before entering the property.
- Only existing station tracks were used for access to sample lines.
- In accordance with the presented Biosecurity guidelines, the vehicle used to access the region was regularly washed down, in Alice Springs, before entering the property.
- All rubbish was removed from the area at the completion of the program.

## Soil Sampling

In total, 9 lines of soil samples were collected. Samples were collected based on a pre-designed 50m x 50m grid pattern centered on a previous survey's anomalous result. A total of 99 samples were collected.

Samples were collected based on a pre-determined designed GDA 94, MGA53 easting and northing grid and every effort was made to adhere to the design. In many cases, designed sample location points were adjusted to accommodate for physical obstructions e.g., trees, outcropping rocks, or steep gully drainage lines. The GPS sited sample location points with site observations are included in the accompanying Excel spreadsheet.

The terrain is generally very flat and moderately vegetated. Large areas of sheet flooding has resulted in some lower lying areas being scoured of topsoil with very shallow erosional channels being formed. There is evidence of transported soil movement in some spots. It is hoped that a brief description of the sample location may assist with the interpretation of results.

Figure 1. shows a view of the program sites overlayed with an interpreted geological plan.

Figure 2. is a 3D interpretation of the regional landscape (5m vertical exaggeration) and shows a regional South/West – North/East trend of the siliceous carbonate outcrop that was observed during this initial phase of sampling.

99 samples were sent to NTEL Laboratories in Darwin, via Alice Springs, for analysis with: AUS\_SampleSubmissionForm\_GEM003\_FILLABLE\_completed 21072023



Figure 1. EL32942 Soil Sampling sites with geological interpretation.



Regional image view of EL32942 soil sampling program

Figure 2. 3D Regional view with Sth/West- Nth/East trending carbonate outcrop

The methodology used for the collection of the samples followed the following protocol:



The soil sampling location was identified using a Garmin 64S multiband, handheld GPS.

• The surface vegetation was removed over an area of about 40cm square with a shovel.

• A hole was dug to a depth of about 15cm and the material collected in a 1.6mm sieve.



The sample was passed through the 1.6mm aluminum sieve.

• The fines collected after sieving were poured into a paper, soil sample bag.

• The sample site was filled in and the site restored to its original condition.

## Noteworthy Observations

- Initial observations and thoughts are that there is a regional South-West / North-East trend of low relief carbonate rises like the area recently covered with the soil sampling program. The rises as evident in Figure 2, appear to have a strike length of about 3.5km.
  If the recent soil sampling program reveals anomalous mineral element grades, there would certainly be justification to continue sampling along the observed outcrop trend.
- A geological mapping program might show the relationships between the observed outcropping rock units and the published data. Although there is not a direct correlation between the RodingaGeol250k NTGS mapping and the "on-ground" sampling program (possibly a map rectification issue), it appears that the recently observed rises may be the NTGS mapped unit of the Pur (Ringwood Member) of the Aralka Formation and associated with the Bitter Springs Group. The localized area does not appear to be too geologically complex.
- Previous exploration undertaken by CRAE (CR19910586 and CR19920613), in 1991 was sparse and restricted to minimal sampling of the surrounding outcropping ridges. The terrain is very accessible and could be easily traversed if further work was to be programmed.