TOBERMOREY EL28170

Annual Report
For Period Ending 3rd April 2014

KRUCIBLE METALS LIMITED

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Summary

EL28170 ‘Tobermorey’ lies on the Northern Territory and Queensland Border within the Tobermorey pastoral station on the edge of the Simpson Desert. Satellite imagery indicates a number of possible Proterozoic outcrops in an area which has had little previous exploration.

The two concept target models are an Olympic Dam style IOCG (Iron Oxide Copper Gold) deposit in a granitic breccia host, associated with continental faulting and high fluid flow on terrane boundaries; or alternatively Tennant Creek Style orogenic shear related Au-Cu-Bi mineralisation deposited within an iron oxide host, associated with major fault related deformation and granite intrusive sources. Other Targets also include Century and Broken Hill Style lead/zinc/silver mineralisation in Proterozoic rocks as well as Mississippi Valley Style base metal mineralisation in the Tobermorey – Palaeozoic sediments.

Krucible has developed effective geochemical methods to explore for IOCG mineralisation in areas of thin sand cover over basement. This methodology combined with magnetic, gravity and electromagnetic information has helped Krucible define drilling targets. Krucible has previously completed reconnaissance trips and gridded geochemical sampling programs over the EL which has highlighted anomalous lead values over a 1.5km strike. These samples were collected by utilising lag sampling methods which is an innovative technique which Krucible has applied successfully in the Toomba EPM directly adjacent to the Tobermorey EL in Queensland. This technique has been applied in Queensland in the sand dune country and has produced a number of anomalies including Krucible’s Champ Prospect.

Krucible has also contacted UTS Geophysics to complete an aerial magnetic and radiometric survey over the EL at the end of May 2014. This addresses the knowledge gap of the current regional government survey data and will provide more detailed geophysical images to define drill targets.

This area has previously had very little exploration completed and literature also fails to address the geology satisfactorily in this area. This drilling program may link the eastern most aspects of the Proterozoic basement to the better known areas of the Northern Territory.

Previous mapping completed by both the Northern Territory and Queensland governments has indicated a thick sequence of cover however mapping and field investigations by Krucible in Queensland has located a number of granitic bodies and metamorphic units which suggest basement is shallow (<100m). Much of the strongly weathered granite bodies have been mapped (photo interpretation) as upper Proterozoic sandstone.

The Toomba Fault to the north and east of the tenement is interpreted by Krucible as a high angle listric fault system with multiple movements and fracturing along this zone resulting in large scale fluid flow and hydrothermal alteration – ideal conditions for the formation of gold and base metals. It is along this zone directly east (in QLD) of the EL where Krucible has found copper/gold mineralisation in rock chips and shallow (<100m) RC Drilling (up to 3m @ 2.4% Cu).

Magnetic maps provided by Government show numerous destruction zones and obvious large scale folding and faulting. There are a number of sub-parallel structures indicative of stacked or listric fault systems. Gravity images have poor resolution to give much detail over the prospective area.

The tectonic model for the Diamantina region is poorly understood due to paucity of information. However, research suggests the region is characterised by large scale tectonic plate movement and that the Tobermorey tenement lies within the eastern extent of the Arunta Province close to the junction of 3 other major plates i.e. the Mt Isa Block, the Tennant Creek Block, and the Gawler Craton. Subsequent rifting and thrusting would have created zones of high heat flow and brecciation conducive to development of large scale mineral deposits.

During this reporting period Krucible has completed a sampling program over identified areas within the EL. These areas were subject to lag surface geochemical sampling and rock chip/grab sampling. Results of the lag returned anomalous base metal results including a corridor of anomalous lead in the Elstone prospect. Assayed of up to 228ppm copper, 264ppm lead, and 269ppm zinc were recorded. Other anomalous elements include up to 0.54ppm
silver and 0.1ppm gold. These results are considered very encouraging for mineralisation.

During the next reporting period Krucible is proposing to complete an aeromagnetic survey over the Elstone prospect to further define the broad magnetics. Krucible is also proposing to complete a program on the Elstone prospect of 19 drill holes of 150m each orientated vertically. There are then 6 holes which will be drilled if the prior hole is prospective. The whole program totals 25 RC drill holes to a nominal depth of 150m. This equates to 3750 metres of drilling. It is recommended this EL be retained 100% to complete the proposed exploration.

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Table of Contents

1. Introduction ................................................................................................................ 1
   1.1 Land Tenure ........................................................................................................ 1

2. Geology and Mineralisation ......................................................................................... 2
   2.1 Structure ............................................................................................................. 2
   2.2 Exploration Concepts .......................................................................................... 3

3. Previous work .............................................................................................................. 4

4. Krucible’s Work Program ............................................................................................. 5
   4.1 Interpretations ..................................................................................................... 5
   4.2 Surface Sampling ............................................................................................... 6

5. Future Exploration ....................................................................................................... 7

6. Conclusions ................................................................................................................ 7

7. Bibliography ................................................................................................................ 8

Table of Figures

FIGURE 1  Location Plan Topography
FIGURE 2  Regional Government Magnetics
FIGURE 3  Regional Government Gravity
FIGURE 4  Sub-block Location Plan on Topography
FIGURE 5  Government Regional Geology Plan on Elevation
FIGURE 6  Lag Sampling Results Elstone Prospect on Google Showing Proposed Drilling
FIGURE 7  Lag Sampling Results Southern Area on Google
FIGURE 8  Rock chip and Lag Sampling Locations

Table of Appendices

APPENDIX 1  Rock Chip Sample Descriptions and Assay Results
APPENDIX 2  Rock Chip Descriptions Codes
APPENDIX 3  Lag Sampling Descriptions and Assay Results
APPENDIX 4  Lag Sampling Descriptions Codes
1. **Introduction**

EL28170 ‘Tobermorey’ is composed of 300 sub-blocks (approximately 966 km$^2$) and is located on the Queensland/Northern Territory border about 400km east of Alice Springs and 300km south southwest of Mt Isa (Figure 1) in an area where the Arunta Complex is believed to be at a shallow depth (<100m) and subjected to several phases of deformation. Geophysical images also indicate a number of parallel structures associated with deformation and remobilisation of fluids prospective for IOCG and Orogenic/Tennant Creek Style mineralisation. Secondary targets include Century and Broken Hill Style lead/zinc/silver mineralisation in Proterozoic rocks as well as Mississippi Valley Style basemetal mineralisation in neo-Proterozoic – Palaeozoic sediments.

The area lies in the Hay River (SF53-16) 1:250,000 map sheet on the Northern Territory and Queensland border. The dominant feature of the EL topography is sand dunes of the Simpson Desert. These dunes are approximately 9-12m high with varying distances between dunes. They trend northwest through the EL. There are no obvious tracks through the dunes but the pastoral station may have private tracks through parts of the EL. Geological units outcrop between the dunes and these may consist of Proterozoic units.

Krucible believes this area is prospective due to the geological units present, the complex structural framework, the location close to crustal terrane boundaries and the remote location where no previous companies have completed systematic exploration. The company is focused on this area due to the discovery of anomalous copper from drilling by Krucible approximately 60km across the border in Queensland.

1.1 **Land Tenure**

The EL28070 ‘Tobermorey’ consists of 490 sub-blocks (Figure 4) and was granted to Krucible Metals 100% on the 5$^{th}$ of March 2011 for a period of six years and is not known to contain any restricted lands under the Mining Management Act. The EL is not subject to Native Title but is to heritage protection conditions. Krucible has relinquished 190 sub-blocks during this year of grant 112 on the 4$^{th}$ of September 2013 and 78 on the 24$^{th}$ February 2014. The current sub-blocks are listed below:

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Total = 300 Sub-Blocks
2. Geology and Mineralisation

The regional basement geology (Figure 5) of Tobermorey is interpreted to consist of the Northeast Aileron Province which ‘A Paleo-Proterozoic crust in the Arunta Region’ (pg 12:1 Ahmad & Munson 2013) the age of which is prior to 1700Ma. This Province is thought to consist of Metasediments with numerous granatoid intrusions. North of this is the Altjawarra Domain underlying the Georgina Basin. This domain is interpreted as comprising large mafic-intermediate intrusive bodies and late non-magnetic granites (Ahmad & Munson 2013). This domain is also considered prospective for diamonds with a number of exploration studies on diamond potential. All available geochronological data from the Jervois district suggests the age of the Altjawarra Domain is 1846Ma.

Most of the EL is covered by recent sediments and sand dunes. Below this, the geology is interpreted to consist of:

Cambrian
The Georgina Basin is a widespread neo-Proterozoic-Palaeozoic intracratonic basin that was initiated as part of the centralian super-basin and extends east into Queensland (NTGS 2011). The basin is comprised of clastic and calcareous units consisting of shales, limestones, dolostones, and siltstones sitting unconformably on paleo-Proterozoic rocks of the Aileron (east Arunta) Province (GA 2012). These Cambrian aged sediments are prospective for phosphate and rare earth elements (REE) enrichment, as there are a number of these style deposits located in Northern Territory and Queensland.

Proterozoic
The Arunta Complex is comprised of granite, metamorphic rocks, and pegmatite’s intruded by alkali granitoids, outcrops occur as sporadic granitic and schist outcrops. The northern section of the block is considered to be continuous with the gold bearing Tanami and Tennant Creek Regions (Carroll 2008). In the southern area of the EL the Strangeways Metamorphic Complex (part of the eastern Arunta Province) is interpreted to be at shallow depths (Figure 4). This complex contains a number of metamorphic assemblages derived from mafic and felsic granitic units (GA 2012).

The Arunta Complex historically has not been considered a highly prospective province but this may be due to the limited exploration. Copper, gold, lead and zinc deposits have all been found and mined in this province and there is increasing interest in this under explored terrane. The Strangeways Metamorphic complex is prospective for carbonatites associated with REE mineralization and marble lenses in the lower stratigraphic units of the complex are prospective for basemetal mineralization.

2.1 Structure
The structural framework of the Arunta complex is convoluted, with a long history of reactivation and multiple stages of deformation affecting the geological units of the area, (significant tectonic movement ceased in the early meso-Proterozoic). There is a general north western trend to the Proterozoic geology caused by strong east-west thrust zones, these now form geological contacts (Figures 2 and 3).

To the east and north of the Tobermorey tenement the Toomba Fault extends for over 150km trending north-north-west and dipping west-south-west, close to the interpreted Proterozoic Craton boundary of the Mount Isa Inlier and the Arunta Complex. The movement juxtaposes Proterozoic crystalline basement of the Arunta Complex with Palaeozoic sedimentary units of the Toko Syncline. Movement began in the Proterozoic and continued intermittently until the Cretaceous. 5 seismic and gravity profiles by BMR (Bureau of Mineral Resources) across the Toomba fault have established it is a high angle reverse thrust fault with a fault plane dipping south-westerly, with a vertical displacement of up to 6.5km and a strike-slip component estimated at 4km of dextral movement (Shergold 1985). The size of this fault would have provided the channel way for large scale fluid movement.

The Toko syncline is a south-easterly plunging asymmetrical feature caused by tectonic unrest and a major dilation zone forming a half graben (Figures 2 and 3). The syncline has relatively steep dips along its western side, near the Toomba Fault (indicating compression) and shallow dips on the eastern limb (Shergold 1985). The axis runs parallel to the Toomba Fault and the younger (Neoproterozoic to Palaeozoic) sediments are interpreted to have formed in a half graben approximately 5km thick. It is possible early normal faulting associated closely with the Toomba Fault created this extension depositional environment. Magmatic activity might be expected within a deep seated extensional fault system.
The Fault has a long and complicated geological history and because of complexity and poor surface exposure, the structural history of the Fault is difficult to determine. Initial movement of the fault may have been closely associated with the formation of the Toko Syncline in an extensional environment controlled by normal faulting. At some stage a major fault zone like this could have produced a situation where a relatively permeable zone in between a cool block and a hotter one, creates an opportunity for hot fluids to deposit metals with cooling.

Recent modelling by geological and geophysical consultants to Krucible have indicated the Toomba Fault may be part of a listric fault system where parallel structures emanate from an underlying, deep seeded crustal suture.

The Adam Fault Zone which is mapped to the north of the Tobermorey EL is interpreted as ‘essentially a thrust system’ (pg. 23 Shergold 1985). The southern extrapolation of this system indicates it may link to the Stella Shear Zone interpreted on the Queensland side of the Northern Territory border. These two systems both have thrust components and may have a listric aspect relating to the Toomba Fault Zone.

### 2.2 Exploration Concepts

There are two possible targets within this EL; IOCG Olympic Dam Style which is breccia hosted and IOCG/IRG (Intrusion Related gold) Tennant Creek Style. Both these styles are very plausible within the tenement area.

**IOCG OLYMIC DAM STYLE - Breccia Hosted**

Krucible’s main target in this EPM is Olympic Dam IOCG+REE style intrusive granite breccia systems within a shallow-level magmatic-hydrothermal breccia complex.

The reasons for selection of this are as follows:

- The Toomba Fault is a major thrust separating the Toko Syncline (east) from platform basement (west) - this is considered to be analogous to the Stuart Shelf setting in the Gawler Craton that hosts the Olympic Dam mineralisation.
- There are a number of co-incident & near co-incident magnetic / gravity anomalies as well as magnetic anomalies on gravity gradients which are considered to be ideal conduits for IOCG mineralisation
- The magnetics at Tobermorey indicate strongly magnetic units which may equate to steely hematites and iron rich metasediments. These are considered to be analogous to the footwall units to mineralisation at Olympic and Prominent Hill
- Granites outcrop within the tenement indicating basement is shallow within the EPM (<100m)

On a continental scale it appears that a major rift and/or thrust has separated the Willyama and Gawler Craton from the Mt Isa Block (at 1500ma?) so that the original position of Olympic Dam would have been quite close to the Diamantina Hinge Zone (Betts & Lister –cited Alston 2001).

The Diamantina Hinge Zone is considered to be similar to the regional setting for Olympic Dam i.e. the north-west trending Toomba Fault and Toko Syncline are analogous to the Stuart Shelf and Adelaide Geosyncline, with the Toomba Fault acting as a hinge zone and possible conduit for hydrothermal fluids

The geological setting is similar; Olympic Dam lies beneath 350m of flat lying sediments and is contained in an intrusive breccia complex of middle Proterozoic age. Likewise in Toomba area, thick flat lying sediments of the Eromanga Basin cover Palaeozoic and Proterozoic rock.

**IOCG/IRG TENNANT CREEK STYLE - Orogenic-shear hosted**

The Tennant Creek region is known for shear related gold, copper, and bismuth deposits hosted within a magnetite +/- hematite ironstone unit, the genesis involves deposition of turbiditic sediments which were then hydrothermally altered to discordant magnetite-hematite-chlorite-quartz ironstone bodies and deformed by faulting during the Barramundi Orogen (1860-1840Ma). A period of granitic intrusions within close vicinity were the source for the economic fluids which precipitated within dilation, fold hinges and shear zones to form many thin pipe-like, ellipsoidal or lensoidal mineralised bodies. (Skirrow, Walshe 2002)
The reasons for selection of this are as follows:

- The Toomba Fault is a major reverse thrust fault similar to those responsible for the deformation and alteration in the Tennant Creek Province.

- The magnetics show indications of folding which maybe reflecting BIF (Banded Iron Formations) or Ironstone units similar to the host type in the Tennant Creek Region.

- The Arunta Complex which outcrops within the area has been said to be geologically continuous with the gold bearing Tanami and Tennant Creek provinces (Carroll 2008). Possible metamorphosed sediments with hydrothermal oxidation close to Toomba fault zone within the Arunta Complex would be a favourable host setting.

- Granite’s outcropping at the surface indicate possible sources for the economic fluids required within close vicinity.

- Both areas have similar evolution settings: there is the initial deformation event (Barramundi Orogen) creating the hydrothermal ironstones as well as dilation and shear zones and possible folding, and then later granitoid intrusions which provide the economic fluids.

3. Previous work

Very little exploration has been carried out in this area presumably due to the lack of knowledge and infrastructure, as well as assumptions of deep cover over the mid-Proterozoic basement. Exploration which has been completed over the EL has focused on uranium mineralisation in the sandstone units. No anomalous results were recorded. A little exploration has been completed for base metals and gold with the only anomalous results recorded by CRA Exploration to the north of Tobermorey where drainage samples and follow up rock chip sampling indicated weakly anomalous lead and zinc. Broken Hill completed exploration including drilling within the EL in 1983 for diamonds however the results were negative. See below for a summary table of previous exploration on the Tobermorey EL.

<table>
<thead>
<tr>
<th>Company</th>
<th>EL</th>
<th>Date</th>
<th>Commodity</th>
<th>Work Done</th>
<th>Results</th>
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<td>EL366</td>
<td>1973</td>
<td>Uranium</td>
<td>Helicopter supported reconnaissance</td>
<td>Failed to locate any prospective areas</td>
<td>Carrie 1973</td>
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<tr>
<td>Broken Hill</td>
<td>EL3164</td>
<td>1983</td>
<td>Diamonds</td>
<td>Geophysical Interpretation and Percussion drilling</td>
<td>Negative results</td>
<td></td>
</tr>
<tr>
<td>Jones Mining/BHP Minerals</td>
<td>EL4320</td>
<td></td>
<td>Roxby Downs targets</td>
<td>Geophysical interpretations</td>
<td>2 anomalies not followed up</td>
<td></td>
</tr>
<tr>
<td>CRA Exploration</td>
<td>EL7311</td>
<td></td>
<td>Pb, Zn, Cu, Au</td>
<td>111 Stream sediments, 6 rock chips</td>
<td>120ppm Pb, 550ppm Zn in rock chip</td>
<td></td>
</tr>
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</table>
4. Krucible’s Work Program

During this reporting period Krucible has completed a reconnaissance field trip which has included rock chip/grab sampling over areas of interest and lag sampling in 3 separate areas. Geological mapping was also completed in the Elstone prospect area. Planning of a geophysical survey has also commenced. A review of the El’s prospectivity was completed during this reporting period and as a result 190 sub-blocks were relinquished.

The airborne survey is expected to further define the broad magnetic high covering the anomalous surface geochemical samples. Interpretations of this anomaly suggest it may be part of the Stella and Dukes Shear zones identified from geophysical interpretations on the Toomba tenement 60km to the east in Queensland. These interpretations completed by Terra Search Pty Ltd indicate the Duke and Stella structures appear to be sub-parallel magnetic features representing up faulted basement structures.

4.1 Interpretations

Interpretations from the government geophysical images have identified 4 broad target areas (Figure 5).

**Target 1** In the southern area of the EL the magnetics show a number of thin magnetically high bands parallel to each other. These appear to be strongly folded and may consist of BIF’s or less likely a series of off-set parallel structures in a listric fault setting. Both hypotheses would create ideal situations for mineralisation either IOCG or Orogenic/Tennant Creek style mineralisation.

The gravity image in this area shows a circular low feature on the edge of these parallel features. This low is considered to be a felsic intrusive feature and has disrupted the magnetic signature. The intrusion may also have instigated brecciation and fracturing of the country rock necessary for formation of large mineral deposits.

Google Earth and land satellite images show potential outcropping units with geological interpretations suggesting this area is a contact zone between the Strangeways Metamorphic Complex and sediments from the Neo-Proterozoic Amadeus Basin. The interpretations of structure to date show almost all trending northwest-southeast, geological reconnaissance of this area has indicated the outcrop consists of large resistant ridges composed of young siliceous sediments which are not considered prospective. Areas (including target 1) where these units appear to be thick (>100m) were relinquished as depth to basement is considered prohibitive.

**Target 2** In the western area of the EL there is a large isolated magnetic high. This circular feature is thought to be an intrusion possibly mafic in composition. The aureole of this intrusion is prospective for mineralisation for a number of reasons:

- There appears to be a structure cutting through the northern side of the anomaly creating potentially several phases of re-mobilisation and enrichment.
- There is an associated subdued gravity anomaly which is near co-incident - similar to Olympic Dam geophysical signature
- The anomaly also lies on the interpreted geological contact between the Arunta Complex and the Georgina Region Neo-Proterozoic units.

Outcrop observed from land satellite and Google Earth images appears to be folded and may be associated with the contact aureole of the a potential mafic intrusive. Field reconnaissance did not return any anomalous results mapping showed non-prospective units, this area has since been relinquished however the magnetic anomaly is still considered a target and has been retained.

**Target 3 (Elstone Prospect)** In the northern area of the EL the magnetics show a large highly magnetic zone which trends from the Queensland side of the border north-west through to the Northern Territory. The eastern side of this zone is bound by the Toomba Fault and the south western side also appears to be fault bound. This feature is possibly a listric fault zone where there are a number of faults permeating upwards from a large crustal fault structure and depth. This hypothesis would also mean there is shallow basement in this area which has been uplifted along the series of parallel structures; this is backed up by the wide spaced sand dunes in this area indicating outcrop or thin cover.

The gravity image also indicates a discontinuity in the Toomba Fault to the east of the EL. This is associated with an east-west gravity feature most likely a fault cross-cutting the Toomba Fault and off-setting the structure. This
indicates large scale movement and possible extensive deformation to the associated geological units. This produces high fluid movement pathways and brecciation and fracturing of the surrounding country rock – ideal for Orogenic/Tennant Creek or IOCG style mineralisation.

Geology of this area is interpreted to be part of the Aeyonga Formation which consists of Neo-Proterozoic sediments. There is potential for older basement to be outcropping in the area as previous sampling has indicated a large amount of quartz in the area. Krucible has completed a 400m by 200m lag sampling program over the area with anomalous results further work will include an aerial magnetic survey.

Target 4 This is an extension of target 1 which has now been relinquished. The magnetics are interesting showing a tightly folded magnetic unit along an interpreted basement geological contact. The target is on a gravity high however the gravity is too coarse in this area to determine any specific anomalies.

Outcrop in this area consists of large ridges of siliceous sediment and below this field exploration has indicated there is a large area of quartz scree with abundant iron. 1 rock chip collected here returned 93ppm zinc, 30ppm lead and 43 ppm copper.

4.2 Surface Sampling
Rock Chip Sampling
22 rock chip/grab samples were collected during a field program on the EL (Figures 6 and 7); these were collected to help determine the prospectivity of the tenement. Geological mapping completed at the same time also identified numerous quartz veins as well as quartz and iron rich breccia zones prospective as economic fluid conduits and trap sites. Rock chip sampling from this exploration showed anomalous values in an iron rich quartz breccia with results including:

- TYRK19  (796000E, 7421819N) 0.17ppm silver, 291ppm lead, 264ppm zinc
- TYRK21  (794755E, 7422283N) 0.27ppm silver, 159ppm lead

(See Appendix 1 for full results)

The anomalism occurs within an iron rich quartz breccia which outcrops on the eastern and to a lesser extent on the western edges of a ridge composed of quartz breccia and sandstones. This enrichment may be caused by leakage from a source of mineralisation below surface and further work on this area is warranted.

Lag Sampling
Lag sampling was completed over 3 separate areas in the EL, the southern area, Elstone South and Elstone (the Elstone south area is now considered part of the Elstone prospect area) (Figure 5).

Southern Area
Previous sampling by Krucible returned weakly anomalous results from 1 reconnaissance sample in a prospective iron/quartz breccia subcrop including 43ppm copper and 30ppm lead. The rock unit was considered prospective even though the results were weak. Krucible determined to follow up this prospect with a lag sampling program.

The program consisted of 16 samples on a grid spacing of 100m x 50m. Due to the transported and sandy nature of the area not all of the sample points could be collected. Where samples could be collected consisted of an area where there was scree, subcrop or outcrop.

Samples were collected by finding the point by a Garmin 76 GPS. A brush and shovel were used to sweep the sample from the grounds surface and this is placed in to a 6mm sieve with a 2mm sieve below. The +6mm and -2mm material is discarded. This process is repeated in different spots at the sample point (within a 20m radius) until the sample weighs approximately 2kg. Once the desired weight is collected the material is placed in a numbered calico bag and sent to ALS Laboratory Townsville. All samples were analysed by method Au-AA22 for gold and ME-MS41 for the full suite.

Results from this prospect were disappointing (Figure 7) with maximum results of 0.06ppm silver, 23.6ppm copper, 25.2ppm lead and 71ppm zinc (See Appendix 2 for full results).
Elstone Prospect
The program consisted of 117 samples on a grid spacing of 200m x 100m. Due to the transported and sandy nature of the area not all of the sample points could be collected. Where samples could be collected consisted of an area where there was scree, subcrop or outcrop.

Samples were collected by finding the point by a Garmin 76 GPS. A brush and shovel were used to sweep the sample from the grounds surface and this is placed in to a 6mm sieve with a 2mm sieve below. The +6mm and -2mm material is discarded. This process is repeated in different spots at the sample point (within a 40m radius) until the sample weighs approximately 2kg. Once the desired weight is collected the material is placed in a numbered calico bag and sent to ALS Laboratory Townsville. All samples were analysed by method Au-AA22 for gold and ME-MS41 for the full suite.

Assay results from this sampling showed a zone 1.0km by 1.5km of anomalous lead (Figure 6) with corresponding silver, zinc and copper anomalism. The most anomalous results included 0.093g/t gold, 0.54ppm silver, 228ppm copper, 264ppm lead and 269ppm zinc (See Appendix 2 for full results).

5. Future Exploration
Work for the next reporting period will comprise an aerial magnetic survey over the Elstone prospect to further define the broad magnetic anomaly. Drilling targets have also been identified however these are subject to change based on the results of the magnetic survey.

6. Conclusions
Krucible has completed surface sampling and geological mapping on a number of areas within the EL during this reporting period. A review of the prospectivity of the tenement has also been completed and planning for future exploration has begun.

Surface sampling was completed on 3 main areas. The southern area lag sampling returned weak results and further review of this area is required. The Elstone prospect includes the other 2 sampling areas the grids extend 1.5km NW-SE along a quartz rich outcropping unit which is anomalous in lead, copper, zinc and silver.

Field observations of magnetic features have resulted in identifying areas where depth to prospective basement units is considered beyond economic parameters. Krucible has relinquished 190 sub-blocks during this reporting period.

Further exploration has been identified for the area and it is recommended the EL be retained 100% for the next reporting period to complete the proposed field work.
7. Bibliography

Alston, T. 2001 *Diamantina Project – West Queensland Status Report* Glengarry Resources Ltd, Townsville


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