

APPENDIX 1

EL 27281 'OONAGALABI EAST'

OONAGALABI

NORTHERN TERRITORY

REPORT ON HISTORIC

AND

PROPOSED EXPLORATION

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SUMMARY

This report details the results of a historical data review over the area within EL 27281 and a proposed Silex work program for 2010.

The EL was acquired as the result of work carried out over ML 22624 which indicated that the mineralised Oonagalabi Formation may extend to the beyond the ML boundary. EL 27281 is located to the east of Oonagalabi prospect and has potential for the location of further base metal mineralisation. The Silex target in the region is a large copper and zinc rich sulphide body of perhaps 15 to 40 million tonnes of plus 2% copper equivalent metal.

The Oonagalabi prospect is one of at least six occurrences of the same mineralisation type occurring within the Harts and Strangway ranges. In all cases the host lithologies include marble, Mg-Al-rich schist/gneiss, and quartz magnetite or quartz-garnet rock. All are considered to lie at a comparable level within the SMC.

The structural complexity of the mineralised zone at the Oonagalabi prospect indicates that similar zones may be located elsewhere in the Oonagalabi Gneiss Complex within EL 27281. The strong regional folding and faulting may have resulted in blind extensions to Oonagalabi within the gneiss complex.

The review revealed that minimal work has been conducted over the EL and is largely confined to a small number of stream sediments taken by several companies. No record of mapping or systematic rock sampling was located.

An exploration program is recommended over the tenements comprising an airborne VTEM survey to search for massive sulphide deposits of the size sought by Silex and/or a regional geochemical stream sediment survey complimented by reconnaissance mapping and sampling.

1.0 INTRODUCTION

This report details the results of a historical data review over the area within EL 27281 and a proposed work program for 2010.

1.1 Tenure

EL 27281 'Oonagalabi East' covers 12 blocks and was granted to Silex on 24 October 2009 by the Northern Territory Minerals and Titles Division. Silex is the registered operator of the lease.

Silex's adjacent ML 22624 'Oonagalabi' was granted to Clarence River Finance Group Pty Ltd on 6th August 2007. Silex is the registered operator of the lease.

1.2 Location and Access

The tenement is located in the Harts Range area about 135km northeast of Alice Springs (figure 1). It is accessed via the Stuart and Plenty highways and by about 40km of rough undeveloped farm and exploration tracks which end at the Oonagalabi prospect. Travel time by four-wheel drive vehicle is about three hours from Alice Springs.

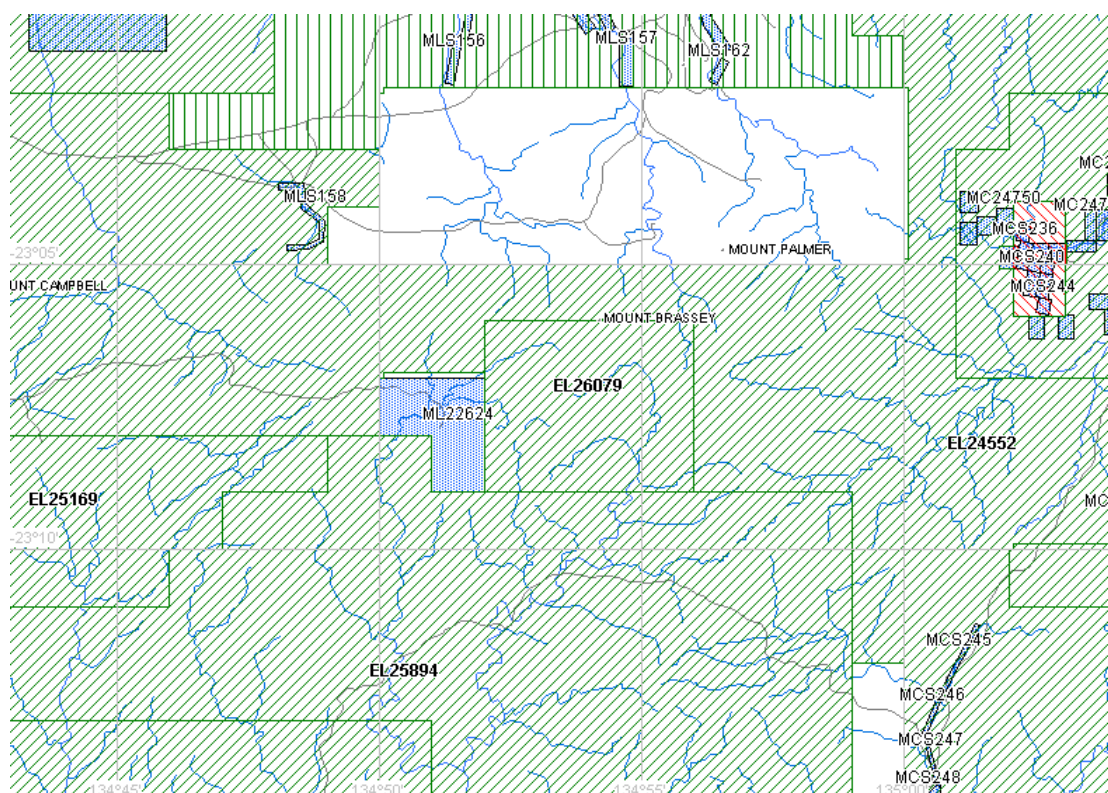


Figure 1: Tenement Location Map

1.3 Exploration Rationale

The Oonagalabi prospect is one of at least six occurrences of a similar style occurring within the Harts and Strangway ranges and represents a possible Broken Hill-style deposit. In all cases the host lithologies include marble, Mg-Al-rich schist/gneiss, and quartz magnetite or quartz-garnet rock. All are considered to lie at a comparable level within the Strangways Metamorphic Complex (SMC).

EL 27281 is located over the NE strike extension of the Oonagalabi prospect host lithologies and thus has potential for the location of a significant base metal deposit of this type.

The Silex target is a large copper and zinc rich sulphide body of perhaps 15 to 40 million tonnes of plus 2% copper equivalent metal.

2.0 REGIONAL GEOLOGY

The regional geological setting is shown in figure 2.

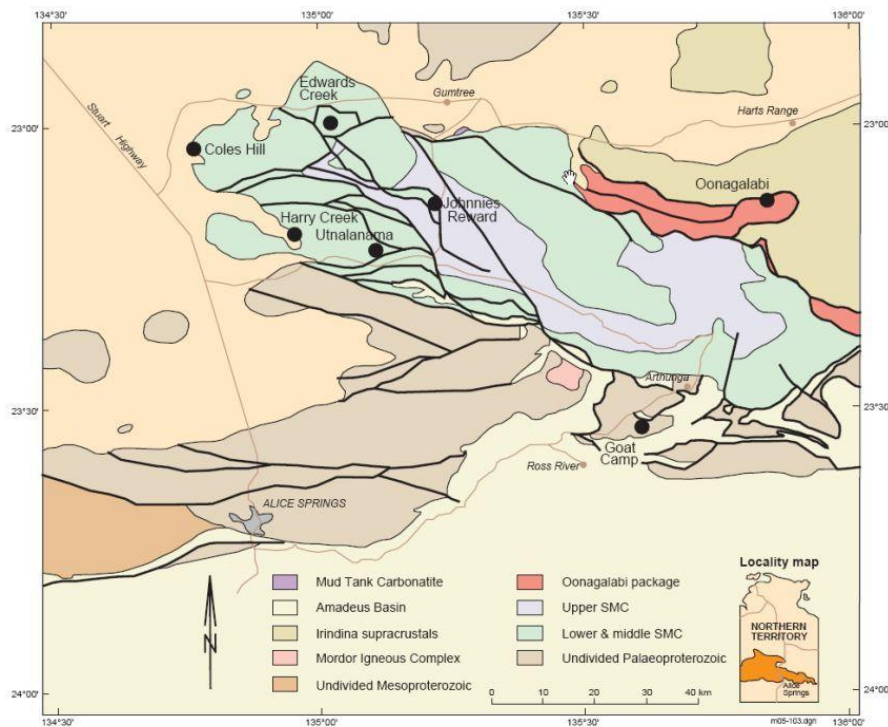


Figure 2. Simplified geological map of the Strangways Metamorphic Complex, showing distribution of main prospects.

Figure 2: Regional Geology and Oonagalabi Location (Hussey et al., 2005)

The Oonagalabi prospect lies within the high-grade metamorphic rocks of the early Proterozoic Strangways Metamorphic Complex (SMC) near its contact with the younger Proterozoic Harts Range Group to the north which has been thrust over the Oonagalabi Gneiss Complex.

The SMC consists of mafic, felsic and pelitic granulites and gneisses, marble, calc-silicate rocks and charnokite. These rocks generally attain granulite facies metamorphic grades, locally grading into amphibolite facies. The Harts Range Group consists of pelitic, semi-pelitic, calcareous and felsic gneisses, quartzite and amphibolite.

3.0 OONAGALABI GEOLOGY AND MINERALISATION

3.1 Oonagalabi Prospect

A simplified map of the prospect geology is shown in figure 3.

Base metal mineralisation at Oonagalabi is preferentially hosted in metamorphosed carbonate-rich rocks within the SMC and appears to represent a stratabound

carbonate replacement style of mineralisation. This is hosted within a sequence of quartzofeldspathic-rich sedimentary and amphibolitic-granulitic mafic rocks which has been modified by metamorphic processes. Original alteration assemblages have been metamorphosed to produce a complex variety of minerals including olivine, diopside, garnet, spinel and anthophyllite assemblages.

The Oonagalabi prospect is one of at least six occurrences of the same mineralisation type occurring within the Harts and Strangway ranges. In all cases the host lithologies include marble, Mg-Al-rich schist/gneiss, and quartz magnetite or quartz-garnet rock. All are considered to lie at a comparable level within the SMC.

Various authors (Warren and Shaw 1985, Huston et al 2006) have suggested that the base metal occurrences located within the SMC are either metamorphosed volcanogenic massive sulphide, carbonate replacement and/or SEDEX deposits. The original Amoco exploration hypothesis was that Oonagalabi may be genetically analogous to the Broken Hill Pb-Zn-Ag deposit.

3.2 EL 27281

The Landsat imagery and a geological interpretation by Rhode, 2004 of the Oonagalabi Gneiss Complex are shown in figures 4 and 5.

The Oonagalabi Gneiss Complex lies within the SMC and is bounded by a ductile shear zone designated the Oonagalabi Thrust.

Visual comparison of the rock types mapped and traversed in ML 22624 in 2009 and interpreted from the Landsat imagery indicates that the principal rock types in the EL appear to comprise light coloured quartzofeldspathic gneiss intercalated with zones of darker granulite (amphibolite) trending NNE in the south and N in the north of the tenement (figure 4). Dips have been interpreted by to be to the west.

The Landsat imagery reveals that the dominant structures comprise large faults with E-W and NE-SE orientations. These cut across the stratigraphy and control the principal creeks in the area with subsidiary trends running off them (figure 4).

4.0 SILEX RESEARCH 2010

Silex began work on the EL in January 2010. This involved acquiring the relevant historic exploration data in digital format from the NT Mines Department over both ML 22624 and EL 27281 tenement areas. A review of the data has been carried out and revealed that minimal work has been conducted over the area of EL 27281. The results are outlined below.

4.1 Amoco Minerals (1978-1981)

Rpt CR1980-0016

In 1979-81 Amoco Minerals Australia Company (Amoco) undertook an extensive exploration program in the Oonagalabi region under EL 1337. This included geological mapping, rock sampling, grid soil sampling and the drilling of six RC holes at the Oonagalabi prospect.

Outside the prospect area a regional stream sediment sampling program was completed over the entire tenement, part of which included the area now covered by EL 27281 (figure 6). A total of 120 samples were collected and the -80 mesh fraction was analysed for Cu, Pb, Zn, Ag, Au, Co, Sn and W. Eighteen of the samples were collected within the area covered by EL 27281. Sample locations and results for Cu, Pb and Zn are shown in figure 6.

The only anomalous values obtained were from creeks draining the known areas of mineralisation at the Oonagalabi prospect.

4.2 Astron Resources Limited (1985)

Report CR1985-0019

A regional heavy mineral investigation was conducted by Astron Resources in 1985. As part of the program 31 samples were submitted to G D Bartram for examination. The samples were Harris concentrates of approximately 20kg of alluvial samples which had been sorted into six size fractions by Minlab. His brief was to examine and report on the mineral content of the samples and to search for copper-zinc indicators, gold grains and, most specifically, for gahnite (a zincian spinel).

Two searches were made of the non-magnetic sub-fractions under a binocular microscope. The first involved a general study of the mineralogy and approximate mineral percentages, and during the course of this study gahnite was tentatively identified and recorded in eight samples. Only one grain was recorded per sample (sample size around 700 grains). A more detailed search involving 1400 grains per sample was carried out, and gahnite was recorded in a further five samples as well as in all but one of the previous eight samples (figure 7). However, the maximum number of grains recorded was still only one per sample, except in one case where two grains were noted.

Gahnite was positively identified in very small quantities in the +105 micron to -250 micron non-magnetic sub-fractions where its distribution is reasonably widespread. While the survey of the +1000 micron to -2000 micron non-magnetic sub-fractions was limited, the concentrations of coarser gahnite in samples 30 and 31 in creeks draining Oonagalabi was pronounced due to their proximity to the mineralised source. Bartram noted that the finer sub-fraction would be the most useful in regional reconnaissance surveys.

Gahnite was located in two samples within the EL with a possible grain noted in a creek in the NW corner (figure 7).

4.3 Pasminco Exploration (1995)

Report CR1997-0277

Seven orientation stream sediment samples were collected in the Oonagalabi area in conjunction with a heavy mineral sampling program.

Active stream sand/silt was collected from numerous points across the full width of the active channel. Two size fractions, -80 mesh (-200 microns) and -40 mesh (-450 microns) were sieved on site. Sample size was 300-500gm for both fractions. Generally the sampled creeks contained only a small portion of silt-size material and collection was occasionally time consuming leading to the suggestion that over-bank silts could be considered as a possible alternative fines sampling medium.

Sample locations are shown in figures 8, 9 and the results appear in Table 1. No anomalous values were obtained.

4.4 Skwarnecki et al., (2000)

Skwarnecki et al (Skwarnecki) undertook a systematic stream sediment geochemical orientation survey at Oonagalabi in 2000. Five size fractions from stream sediments were analysed as follows: bulk <6mm, 2-6mm, 0.5-2mm, 75-80microns and <75 microns. Samples were from first- and second-order creeks draining the mineralised area, and the remainder were from major third-order streams. Sample sites included those from barren areas upstream, or away from mineralisation (figure 10).

The westernmost creek was sampled at 100m intervals, to determine geochemical dispersion from background, through the mineralised zone, and downstream into the major drainage at Florence Creek. The sediments varied from sand to boulders and outcrops were common. The dominant lithologies were quartz-feldspar-biotite gneiss, mafic amphibolite and gneiss (country rocks) and malachite-stained magnesian-amphibole schists, marbles and diopside-bearing calc-silicate rocks (mineralisation).

The results indicate that the Oonagalabi prospect displays a distinct Au, Bi, Cd, Cu, Pb, Sn, W, and Zn geochemical signature for all fractions. There is no apparent scavenging by Fe and Mn oxides, as these elements have been incorporated as detritus into the stream sediments by erosion of the mineralised zones. Cu, Pb and Zn, and to a lesser extent, Au and Bi, are widely dispersed in streams over the mineralised zones and downstream to Florence Creek. Anomalous Cd, Sn and W are restricted to the mineralised zones. The results are shown in figure 10.

Skwarnecki found that geochemical anomalies attributed to the Oonagalabi prospect are restricted to first- and second-order creeks, and do not persist into the major third-order creeks. The nearby Florence Creek is a major third-order creek that drains other regions and this appears to completely mute the Oonagalabi signature.

The survey indicated that the 2–6 mm fractions in the streams are the most effective in all elements, except for Au and that the <75 micron fraction (-200 mesh) is effective for all elements except Sn and W. Arsenic and Sb show no relationship to the mineralisation at Oonagalabi and Skwarnecki pointed out that this contrasts with many VAMS deposits. However, they also noted that the Utnalanama-type deposits, which are interpreted to be metamorphosed VAMS deposits, also lack As and Sb anomalies.

4.5 Tanami Gold NL (2004-2006)

Report CR2004-0388

Tanami Gold identified the potential for Selwyn-style copper-gold mineralisation and Coronation Hill style gold-PGM mineralisation in the Harts Range region which led to the acquisition of a significant tenement holding in the district.

EL 10142 'Brumby Dam' formed part of the Harts Range Project and was situated approximately 110km northeast of Alice Springs. From 2001-06 Tanami Gold undertook exploration over, and to the south of, the area covered by Silex EL 22624. The initial phases of exploration in the Harts Range area comprised regional geological mapping, assessment of target commodities and prospectivity and limited reconnaissance sampling.

Landsat imagery and aeromagnetics of the region were obtained and a geological interpretation was carried out utilising the imagery. Figures 4 and 5 of this report have been modified from the Tanami Gold originals and provide a good overview of lithology and structure within the Silex tenements.

5.0 GEOPHYSICS

5.1 TMI Aeromagnetics and Residual Gravity

The Tanami Gold TMI magnetics show relatively low magnetic signatures over ML 22624. In the EL a central zone of higher magnetic intensity is located over the amphibolites (figure 11).

5.2 Oonagalabi IP Survey

The Silex 2008 Oonagalabi IP survey located a strong anomaly in the main prospect area (figure 12) which was drilled in September 2009 in DDH SLX001. No significantly mineralised horizons were encountered in the 500m hole.

In addition to this anomaly a weaker IP anomaly was located in the NE corner of the survey area on the boundary of the two tenements. This anomaly lies on the projected strike extension of the Oonagalabi mineralisation. No Oonagalabi unit rocks have previously been mapped in this area and follow-up reconnaissance of the area is recommended.

6.0 DISCUSSION

The results of the literature review show that little work has been undertaken over EL 22624 despite its prospectivity for the discovery of additional Oonagalabi-style mineralisation. The target sought is a large tonnage Broken Hill-style base metal deposit.

The Amoco stream sediment sampling was of a reconnaissance nature only with a low sample density. The results of the orientation survey by Skwarnecki appear to indicate that the Amoco sampling was too widely spaced to have located any mineralised outcrops in first and second order creeks.

Pasminco reported difficulty in locating sufficient -80 mesh fines in their survey indicating that this would be a problem elsewhere in the region making sampling time consuming and not as cost effective as required. A reversion to a slightly coarser mesh size may well be required.

The Swarnecki orientation survey revealed the 2–6 mm sediment fraction to be the most effective in all elements, except for Au. They also indicated that the <75 micron fraction (-200 mesh) is effective for all elements except Sn and W. Arsenic and Sb show no relationship to the mineralisation at Oonagalabi and Skwarnecki pointed out that this contrasts with many VAMS deposits.

A closer analysis of the Swarnecki results reveals a number of inconsistencies. It stands to reason that the coarse 2-6mm fraction will give a good result immediately downstream from Oonagalabi as the material collected will contain abundant mineralised rock fragments. What is less likely is that this size fraction will give similar results several kilometres downstream where the mineralised rock fragments will have been mechanically reduced to much smaller particles and ionic adsorption of base metals on to the clay fraction will become more common. Also, the other size fraction of <75 microns is far too fine for a regional survey considering the paucity of fines reported by Pasminco.

The Swarnecki sampling did not go far enough from source (approx 800m down to Florence creek) to confirm the distance that an anomalous train may be recorded in the finer fractions. The results show that the principal pathfinder elements Cu, Pb and Zn are in fact still anomalous at the downstream end of each sample traverse where the tributaries enter Florence creek. This indicates that anomalies could be located in finer fractions in first and second order creeks for distances well in excess of 800m

Swarnecki base metal values from the upstream side of the mineralised zone indicates background values will be <78ppm Cu, <31ppm Pb and <164ppm Zn. This is confirmed by the Amoco -80 mesh threshold values of 75ppm for Cu, 33ppm for Pb and 65ppm for Zn (Table 2). A much larger data set would be required to more accurately determine this. The mobility of zinc and copper should result in trains that are in excess of 1km downstream from mineralised sources and that a 800m sample spacing would probably be adequate using -80mesh.

The widespread presence of gahnite located by Astron in the Oonagalabi area is of interest and suggests the possibility of more widespread mineralisation within the broader Oonabalabi Gneiss Complex within the EL. Other spinel-group mineral such as spinel (ss), hercynite and magnetite are also present at Oonagalabi.

7.0 PROPOSED EXPLORATION

It is proposed that Silex undertake several surveys over both the EL and the ML if funding permits. Considering of the size of the target sought an airborne VTEM survey would theoretically be the most effective and should be costed to cover prospective portions of both the ML and EL.

Alternatively, the prospective lithologies in both tenements should be covered by a comprehensive detailed stream sediment survey at an appropriate sample spacing. Sampling should be conducted utilising dry sieving to -40 or -60 mesh in the field to facilitate speed, minimise weight and reduce laboratory preparation costs. Reconnaissance geological mapping and rock sampling should be undertaken in conjunction with the sediment survey.

Base maps should comprise Landsat or Quickbird imagery at 1:5000 scale, possibly with a topographic contour overlay. Alternatively, 1:5000 scale topographic maps enlarged to 1:25000 may suffice. Any available air photo coverage may also be useful.

8.0 REFERENCES

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