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No. 11,437

EL 3549

BURRA HILL

**ANNUAL REPORTS FOR THE PERIOD
1/5/2006 TO 30/4/2009**

Submitted by
Copper Range (SA) Pty Ltd and Phoenix Copper Limited
2009

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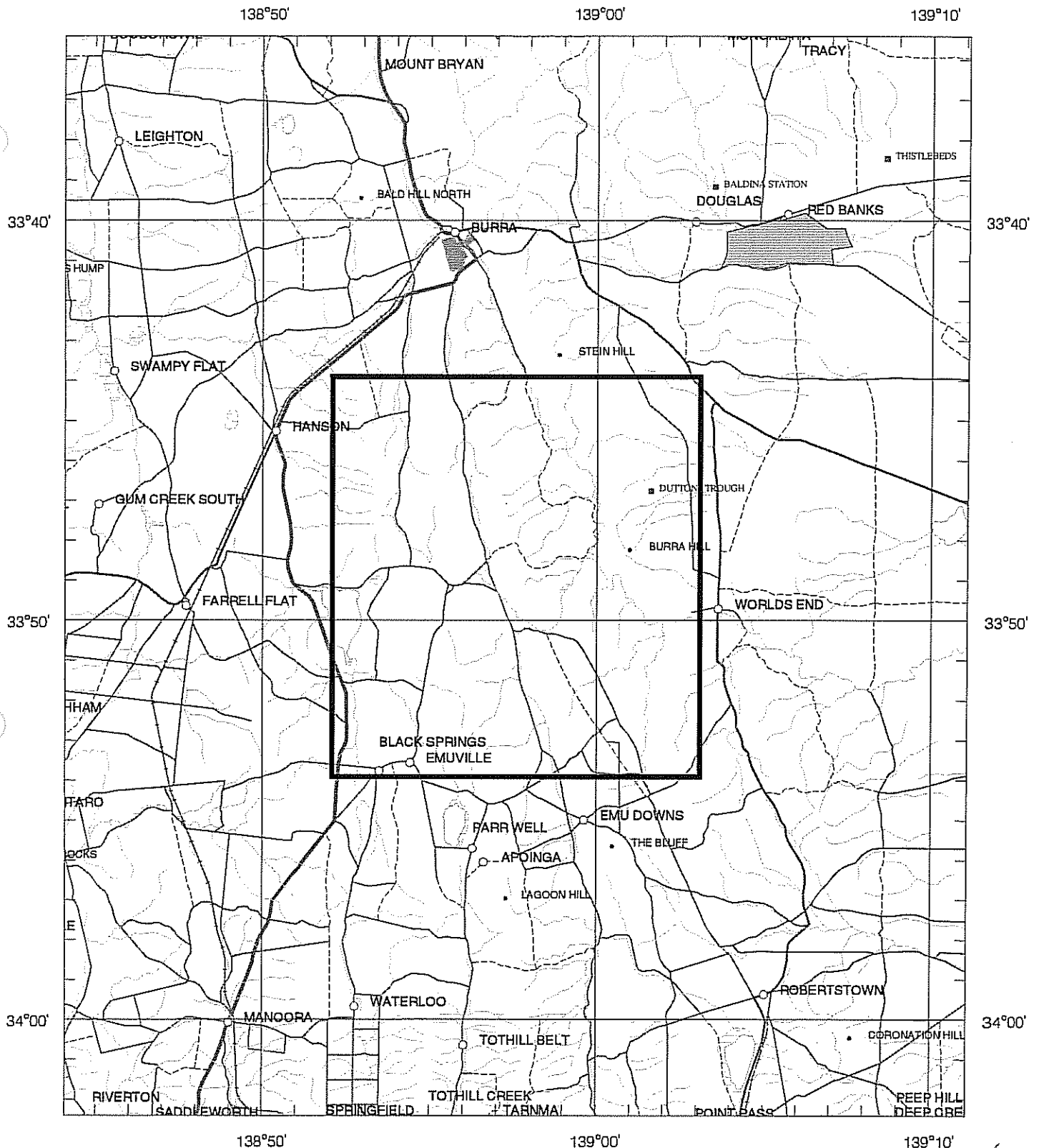
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Government of South Australia
Department of State Development

SCHEDULE A



SCALE 1: 250 000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

LICENCE GRANTED IN : DATUM AGD66

GDA
GEODETIC DATUM
OF AUSTRALIA

APPLICANT : **INTERNATIONAL BASE METALS LTD**

FILE REF : **427/05**

TYPE : **MINERAL ONLY**

AREA : **314 km² (approx.)**

1:250000 MAPSHEETS : **BURRA**

LOCALITY : **BURRA HILL AREA - Approximately 15 km south of Burra**

DATE GRANTED : **01-May-2006**

DATE EXPIRED : **30-Apr-2007**

EL NO : **3549**

COPPER RANGE PTY LTD



**ANNUAL TECHNICAL REPORT
1ST MAY 2006 to 30TH APRIL 2007**

BURRA SOUTH PROJECT

EL 3549 – BURRA SOUTH

TITLE:	ANNUAL TECHNICAL REPORT FOR EL 3549 - Burra South for the Period Ending 30/04/2007
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INTERPRETATION OF THE COPPER RANGE LTD PRINCESS
ROYAL PROSPECT, SOUTH OF BURRA, SOUTH AUSTRALIA

SUMMARY

EL 3549 – Burra South lies 15km south of Burra. The EL was granted to International Base Metals Ltd on 01/05/2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned subsidiary of IBML that was floated on the ASX as an independent company in December 2006.

Copper Range initially targeted near surface copper oxide mineralisation, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group. This setting was interpreted to have similarities with that of the nearby Burra Mine. In due course, the potential for lithologically and structurally controlled primary copper sulphide mineralisation was considered excellent, with minor potential for a secondary oxide blanket developed above it. Other styles of mineralisation were identified, including zinc and gold low temperature hydrothermal mineralisation, as well as supergene processes.

Five prospect areas have been identified around (and named after) historic mines in the Burra South project within EL 3549: Princess Royal, Edelweiss, St Elmo, Burra Creek and Apoinga.

Exploration activities in the Burra South project have so far focussed on the Princess Royal Prospect; a 2x1km zone around the historic Princess Royal and Utica mines, which are located within the same stratigraphic horizon as the Burra Mine.

During the current period exploration included a review of past exploration, interpretation of airborne radiometric and Aster satellite images, preparation of conceptual mineralisation models, a soil geochemical programme, detailed geological mapping, petrological examination and remodelling/interpretation of existing IP data. Table 1 summarises exploration activity in the Burra South project.

Geological mapping and surface geochemical surveys at the Princess Royal prospect have identified elevated Cu values over a strike length of 2000m, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group in the overturned eastern limb of an anticline. Late reactivated faulting has been associated multiple phases of hydrothermal and epithermal quartz veins, silica-alteration of the dolomite, gossans and oxide copper ore breccias.

For the next reporting year follow-up exploration is recommended with a drilling programme in the Princess Royal prospect and mapping and further mapping, data compilation and analysis of other prospect areas i.e. St Elmo, Edelweiss and East Apoinga.

Prospect	Aerial, Satellite imagery	Review past exploration	Rock Chip sampling			Soil (regoleach) geochemical		Geological mapping	IP
			no. of samples	elements analysed	petrology analysis	no. of samples	elements analysed		
Princess Royal	radiometric, Aster	√	94 samples	base metals, Au	15 samples	394	base metals, Au	2.5x1km; 1:5000	10 x 1km remodeled
Edelweiss	radiometric, Aster	√	1 sample	base metals, Au					
St Elmo	radiometric, Aster	√	3 samples	base metals, Au					
Burra Creek	radiometric, Aster	√	1 sample	base metals, Au					
Apoinga	radiometric, Aster	√							

Table 1: Summary of work in EL 3549

The exploration map index (see figure 1) shows the tenement boundaries and the prospect areas. Figure 2 shows the Princess Royal prospect and the locations, in more detail, where exploration activities were undertaken.

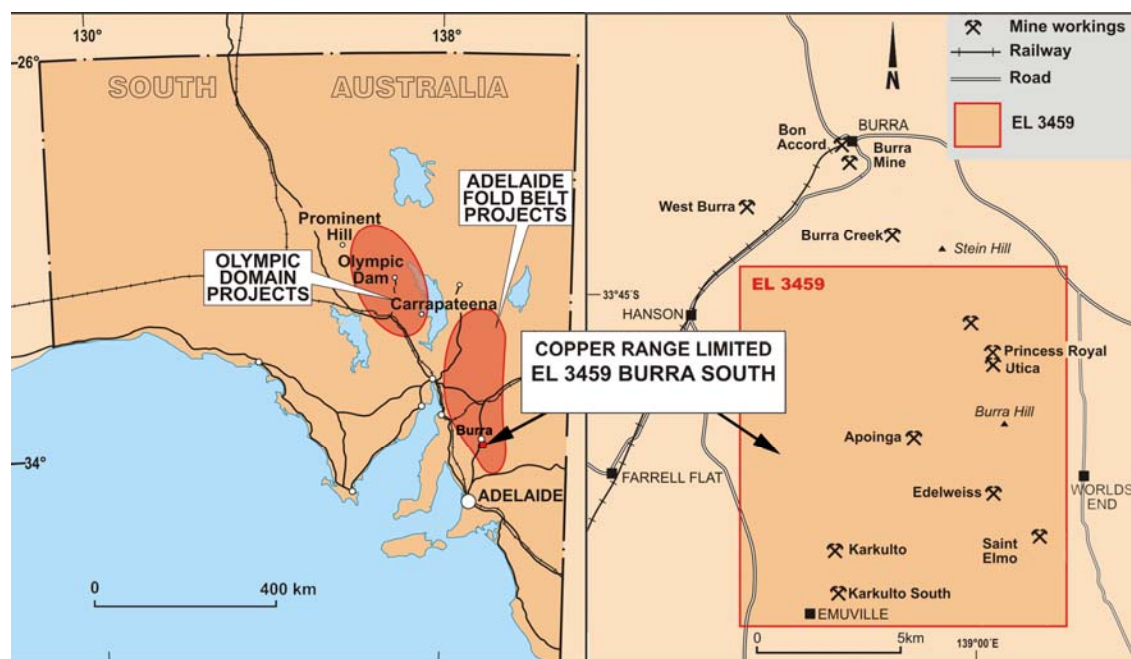


Figure 1. Location of EL3549 within the projects areas of Copper Range.

1. INTRODUCTION

The Burra South project covers Adelaidean sediments of the Burra and Umberatana Groups that strike north-northwest. The Koorunga Fault, which passes through the historic Burra Mine to the north, runs NNW through the tenement area at or near the boundary between Skilloalee Dolomite and overlying calcareous shales of the Burra Group. Seven sites of historic mine workings occur within the tenement area, of which only the Utica and Princess Royal Mines occur within the same stratigraphic horizon as the Burra Mine.

The primary focus of Copper Range was the discovery of a near-surface secondary copper oxide deposit, in the same regional setting as the historic Burra Mine. A secondary aim was the discovery of a primary copper sulphide deposit.

The aim of this report is to describe the exploration carried out from the 1st of May 2006 to the 30th of April 2007 and to report the Department of Primary Industries and Resources of South Australia (PIRSA).

2. LOCATION AND ACCESS

The Burra South tenement (EL 3549) is situated in the Northern Mount Lofty Ranges. The centre of the tenement lies approximately 15km south of the town of Burra together with the historic Burra Mine. Access to Burra is via the Barrier Highway, 150km north-north-east from Adelaide. Access to the project area is via the B64 Spalding Burramble Morgan Road and a gravel road to Dutton's Trough and Princess Royal. See figure 2 for location map of EL 3549.

3. TENURE DETAILS

The Burra South tenement EL 3549 was originally taken out by International Base Metals Ltd in May 2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned South Australian subsidiary of IBML that was floated on the ASX as an independent company in December 2006.

Tenement number	Date granted	Expiry date	Project name	Licensee and operator	Locality	Area km ²
EL 3549	1/05/2006	30/04/2008	Burra South	Copper Range (SA) Pty Ltd	Approximately 15m south of Burra	314

Table 2. Summary of tenement details.

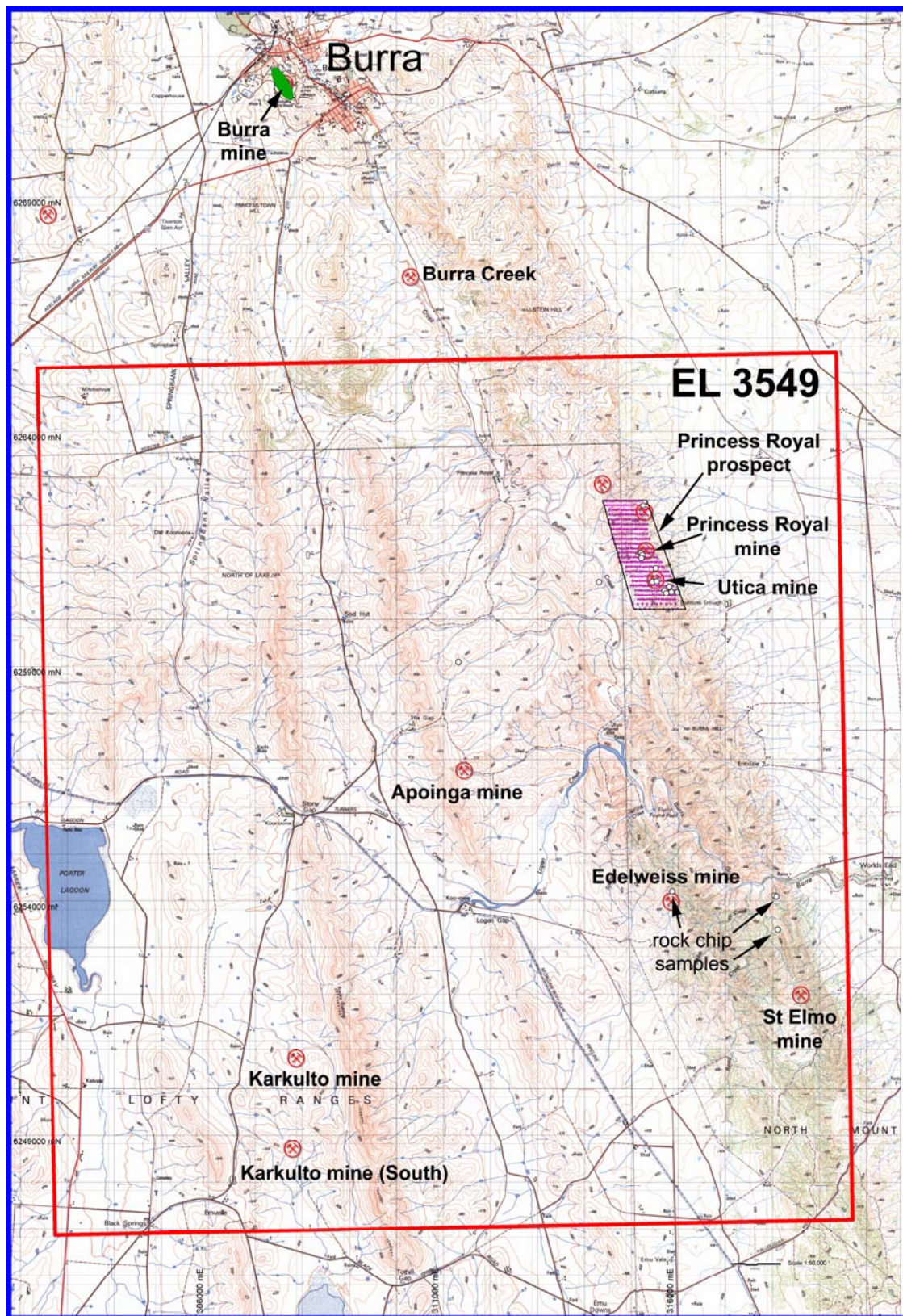


Figure 2. Exploration map index. Location of the EL 3549, the historic mines in the region. The blue border of the map indicates the outline of the area covered by airborne radiometrics and satellite image analysis.

4. MINING HISTORY AND PREVIOUS EXPLORATION

4.1 Mining

The Burra Deposit was discovered in 1845 and was worked until 1877, during which time 235,000 tons of ore was raised. It was the richest copper mine in the world at the time. In 1869 open cut mining was commenced to extract previously rejected lower grade material and the eventual closure of the mine was the result of low ore grades, low copper prices and high pumping and transportation costs. During the 1890's and 1900's the deposit was worked by tributaries, but all work had ceased by 1912. The mine was reopened in 1941 by a syndicate which extended old shafts, drives and crosscuts. In 1969 SAMIN Ltd commenced a large scale open cut mining operation on low grade ore and a large treatment plant was constructed. This was then purchased by Adelaide and Wallaroo Fertilizers in 1978 and operations continued until 1981 when mining ceased.

Discovery of the Princess Royal mine preceded discovery of the Burra mine in 1845. Princess Royal was worked from 1845 until 1851 when water was struck at about 55m depth. Recorded production for this period was 588 tons of hand-picked ore grading 25-30% Cu. It was subsequently worked in 1867-1868 when a further 46 tons averaging 18% Cu was produced. The Utica Mine, immediately south of Princess Royal, produced 50 tons of ore between 1847 and 1851. Further mining occurred between 1912 and 1920 by the Utica Copper Mining Company, but no records of tons and grades exist from this period.

Other historic mines on the current EL include the Apoinga Mine (1882-1885), which produced a small quantity of copper the Edelweiss Mine (1900-1918) which is situated in the same stratigraphic position as the Burra mine, St Elmo Mine (1989-1915) and the Karkulto Mines (1851-1861), which produced 75 tons of copper ore and 855 tons of iron ore, which was predominantly used as flux for the smelter at Burra.

4.2 Past Exploration

Company exploration has occurred in and around several mines in the current EL (Princess Royal, Utica, St Elmo, Apoinga and Karkulto). Most of the exploration activities have been focussed on the area around the Princess Royal mines. Table 3 shows a summary of previous work carried out in the Burra tenement area.

Lease	Holder	Start date	End date	Activities
SML 68	Australian Geophysical	1964	1966	IP, stream sed. survey, mapping of old mine areas, drilling at Princess Royal
MC 5034 - 5040	Mines Exploration JV	1966	1967	IP, sampling, drilling at Burra
SML 395	Southern Cross	1970		Stream sed. survey, drilling at Princess Royal and Edelweiss
SML 685	Australian Aquitane Petroleum	1972	1973	Stream sed. survey, aerial photography
EL 381	CRA Exploration	1978	1979	Review, rock chip sampling, soil sampling of Eudunda Arkose
ELs 425, 804	Adelaide & Wallaroo Fertilizers	1978	1982	Mapping, resistivity, drilling, petrology, drilling at Princess R.
ELs 2161, 2217, 2190	Redfire Resources (MIM), Consolidated Broken Hill	1996	2003	MMI, IP, ground magnetics, percussion drilling

Table 3. Summary of previous work carried out in the Burra tenement area

1964 -1966 Australian Geophysical Pty

Detailed geological mapping of all old mine areas under a SML, focussing on stratigraphically controlled mineralisation.

- Outlined coincident soil geochemistry and IP anomalies at Princess Royal
- Drilled 2 diamond holes (260m and 130m depth) to test shale/dolomite contact
- The first hole BU-1 intersected 60cm of 2.7% Cu in a quartz/dolomite vein + chalcopyrite. The hole was abandoned at 260m depth in a chloritic/graphitic gouge zone
- The second hole BU-2 to the south also intersected the fault zone, but did not encounter copper mineralisation.

In 1964 Australian Geophysical took out a Special Mining Lease over the area south of Burra (similar to the current EL) and undertook an IP survey over the Princess Royal area. Smaller grids were completed at St Elmo, Apoinga, Edelweiss and Karkulto. Geological mapping was also undertaken over the survey areas. A regional stream sediment survey was carried out to attempt to locate poorly exposed or concealed deposits. This survey picked up anomalous copper in creeks east of the Princess Royal Mine (the drainage from the old workings is to the west). The only two streams not to carry anomalous copper do not drain the dolomite – shale transition zone. Another anomaly from the stream sediment survey occurred in Stone Chimney Creek to the east of Burra.

The IP survey in the St Elmo area outlined an anomaly that can be traced over 760m. At Edelweiss, Australian Geophysical considered the folded nature of the stratigraphy to be similar to that at Burra and coupled with an intense IP anomaly, suggested that copper mineralisation may be present at depth, associated with a thickened section of the shale unit.

All prospects were geologically mapped in detail. Two diamond drill holes were completed at Princess Royal in 1965 (260m and 130m depth). The first hole straddled an IP anomaly and intersected a 60cm thick quartz-carbonate+chalcopyrite vein that assayed at 2.7% Cu. Both holes bottomed in graphitic or chloritic fault gouge that was considered responsible for the IP anomaly. No further work was undertaken

1970 – Burra Ridge Pty Ltd

- Drilled ten percussion holes along the main line of the lode – no results
- Southern Cross took over the mining lease in 1971
- Drilled 4 holes to 150m, the best result was only 1.5m at 0.26% Cu.
- Twenty channel samples were taken along the gossanous zone and these averages nearly 7% Cu.
- Strong IP anomaly that runs for 1.3km
- Very high stream sediment geochemical anomalies to the east of the workings, but are almost certainly run off from the workings.

Southern Cross Exploration completed an extensive stream sediment survey in 1970 and located several copper anomalies to the east of St Elmo, Edelweiss and Princess Royal Mines. A distinct trend was also determined along strike of the ridges from Princess Royal in the north to Burra Creek in the south and five adjoining anomalies along Burra Creek. Twenty channel samples were taken along strike of the brecciated zone at Princess Royal. These ranged from 0.4 – 40% Cu, averaging 6.95% Cu. Five percussion holes were drilled at Princess Royal and two at Edelweiss which showed uneconomic mineralisation. Their exploration was largely focussed on structural criteria.

1972 - 1973 Gold Copper Exploration Ltd and Australian Aquitane Petroleum

- Targeted near-surface secondary copper
- Drilled 44 shallow holes that established strike continuity over 340m (location unknown)
- Maximum hole depth was 18m (inclined) and some holes were terminated in mineralisation.
- A “main lode” was established, which was a copper-bearing vein of 1-2% Cu over 450m strike length with some lower grade mineralisation in the wall rock.

Australian Aquitane Petroleum held a Special Mining Lease over the Burra area between 1972 and 1973 with the intention of discovering stratiform copper and “rhombohedral box works with lead” in silicified dolomite south of St Elmo, and Burra Mine-type disseminated copper in association with a magmatic influence and possible intrusion with porphyritic characteristics. They considered the areas of main interest to lie along anticlinal structures, focussing on the Burra Ridge and undertook a stream sediment sampling survey of this area that picked up anomalies from streams draining the old mine workings at Burra, Princess Royal and Utica. A new aerial photography survey was also undertaken, but planned photo-geological and structural maps were not drawn due to a change in company policy leading to the relinquishment of the SML.

1978 - 1982 Adelaide & Wallaroo Fertilizers

- Targeted vein mineralisation
- Drill tested the northern extension of the mineralised zone and depth extensions below the water table at 45m.
- Drill tested the original Princess Royal Shaft to the west of the main ore zone.
- Total 111 rotary percussion holes were drilled and drilling was terminated at or before the water table. Many holes were abandoned prior to target depth due to lack of sample return in soft earthy material [fault/shear zone?] below hard dolomites at approximately 23m depth.
- Six costeans were also dug, orientated E-W at 100m intervals, 25m length to a depth of 7m. These were mapped and channel sampled along their entire length.

Adelaide and Wallaroo Fertilizers undertook exploration for copper at Burra, focussing on the following parameters: faults and lineaments, particularly intersections, small to medium intrusive bodies (including kimberlites), zones of alteration and breccia zones. Regional geological and structural mapping was undertaken and the valley running north from the Burra Mine to Mt Bryan was selected for further exploration. The valley was considered to contain a north-striking fault zone, a continuation of the Koorunga-Kingston Fault. They hoped that this feature would be the locus of any intrusives, breccia or alteration zones. High water flows meant that most reconnaissance drill holes failed to intersect their targets. All holes were radiometrically logged with results corresponding well to the lithological logs. A resistivity survey was also conducted in the valley which showed the depth of cover and the likely position of the continuation of the fault.

Adelaide and Wallaroo Fertilizers undertook exploration at the Princess Royal Deposit to the south of the Burra Mine, targeting oxide copper. Six costeans were dug and channel sampled and 176 percussion holes were drilled in the vicinity of the old workings. The target depth was 25m and the deepest hole reached 50m. Holes were terminated at or near the water table and many holes were abandoned before the target depth due to caving of unconsolidated materials or lack of sample recovery. Each drill hole was sampled over the entire length, at 1m intervals. An ore reserve of 86 700t @ 1.16% Cu was estimated, at a cut-off grade of 0.5%, but these figures were considered preliminary, as drilling of the mineralised zone at 5m spacing was expected to indicate continuation of a narrow steeply dipping higher grade vein to greater depth. However, no further drilling was subsequently undertaken.

Two percussion holes were drilled into the Edelweiss prospect, angled at 62 degrees east and west away from a Southern Cross borehole as it was considered that Southern Cross (which held a SML over the mine in 1970) would not have adequately tested interpreted vertically dipping mineralisation. Maximum values were 243 ppm Cu and 160 ppm V over 1m.

1996 - 2003 Redfire Resources

- Targeted epithermal system adjacent and along strike of the Koorunga fault
- Considered IP anomalies a result of an epithermal vein system
- Magnetic and radiometric data identified regional lithological and structural trends
- Carried out MMI sampling and percussion drilling over Burra North and Grove prospects

Redfire Resources explored the area between 1996 and 2003. Their geological concept was based on a porphyry copper-gold model for the Burra Deposit. They hypothesised that while an epithermal system associated with the intrusive had probably been eroded off the top of the Burra deposit, it may still exist adjacent to it and suggested that these veins may be responsible for some of the IP anomalies along trend of the Burra mineralisation. They considered crosscutting faults and faults parallel to the main trend to be particularly prospective for gold exploration. Exploration for copper targeted the northern extension of the Koorunga/Kingston Fault – two prospect areas were established, the North Burra and Grove prospects. MMI sampling was undertaken on these prospects. Redfire also did some ground magnetics over another identified prospect called Mullaby, followed by 12 percussion drill holes at Grove and North Burra.

5. EXPLORATION RATIONALE

Copper Range's initial targets in the Adelaide Fold and Thrust Belt are secondary near-surface oxide copper deposits that are structurally controlled, related to hydrothermal events focused along faults late in the deformational history of the region.

Much of the previous exploration for copper in the Adelaide Fold and Thrust Belt has been based on the assumption that copper mineralisation was emplaced during or shortly after deposition of the host sedimentary rocks, i.e. syngenetic or early diagenetic deposits. Exploration has been largely confined to the stratigraphic horizons that host mineralisation at Burra (Skillogalee Dolomite of the Burra Group) and Kapunda (Tapley Hill Formation, Umberatana Group), and to areas of known mineralisation, e.g. Wyacca, Wirrawilka etc. An alternative view is that primary sediment-hosted stratiform sulphide bodies are epigenetic, forming in reactive strata and in dilatant sites adjacent to significant through-going structures. With this model in mind multispectral satellite imagery and airborne radiometric data have been used to identify zones of alteration that indicate appropriate stratigraphic horizons and substantial fluid movement. This method has generated targets that are not related to known mineralisation and have thus not been explored in the past.

6. REGIONAL GEOLOGY

Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Neoproterozoic to late Cambrian sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1400 to 570 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss 1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and a later Early Palaeozoic Delamerian Orogeny (Preiss 1987). Following uplift caused by these deformations, erosion of the exposed older formations has taken place and younger Palaeozoic and Cainozoic sediments unconformably overly the Adelaidean sequences in places.

Within the tenement area, dominant formations belong to the Adelaidean (920 to 570 Ma) and comprise Skillogalee Dolomite and Saddleworth Formation slates and siltstone of the Burra Group and conformably overlying shales, quartzites, tillites and slates (Tapley Hill Fm) of the Umberatana Group. Younger Tertiary and Quaternary sand, scree and stream deposits infill much of the valley topography. Deformation is typically of a north-south trend, being regional anticlines and synclines, smaller (local) tightly folded antiforms and synforms, and variable scales of faulting exist throughout the region. The rocks in the area have been folded into a set of N-S trending folds with Umberatana shales occurring within syncline cores and Burra Group sediments along anticlinal axes. These folds plunge both north and south with a cross fold trend developed. Minor structures are considerably more complex on a local scale. The north-trending Koorunga fault is observed to the south of the town of Burra and has been interpreted as continuing to the north, below alluvial cover.

Burra mine geology

Copper in the Burra mine occurs primarily as the carbonates malachite and azurite, with minor chrysocolla, chalcocite and cuprite. The carbonates are secondary supergene minerals that occur as nodules and infillings within favourable lithologies and structures.

The mineralisation within the Burra Mine is hosted within a calcareous and cherty, yellow-brown friable shale horizon of the Skillogalee Dolomite (Simpson, 1998). This horizon is bounded by two distinct lithologies, a lower (western) brecciated, coarse-grained, recrystallised impure marble and an upper (eastern) black dense dolomite with fine white bands. In addition to host dolomite SADME/Amdel (1982) recognised volcanically brecciated lithic tuff, feldspathised and silicified feldspathic tuff, and volcanoclastic, welded tuff.

Structurally the mine is on the steep eastern limb of a regional anticline, some distance from the main, regional Koorunga Fault. Copper mineralisation in the Burra deposit is confined between two easterly dipping and north-westerly trending fault splays, the Kingston and Tinline faults (Dickinson, 1942; Johnson, 1963). The Tinline and Kingston faults may be branches of the Koorunga Fault. It is clear that faulting has some control over the location of the ore, but the exact nature of this has not been determined. The origin of the breccia is also unclear with various interpretations ranging from a tillite, a tectonic breccia related to faulting, a slump breccia, a hydrothermal breccia or a diapiric breccia. A porphyritic intrusive body was uncovered in the base of the open pit and contained primary copper sulphides. The body is associated with hydrothermal alteration, including dissolution of carbonate, kaolinisation, K metasomatism, cloritisation and silicification. Dolomite on the western side of the fault does not display any of this intense alteration, suggesting it was faulted into place after the hydrothermal event.

7. WORK COMPLETED BY COPPER RANGE (SA) PTY LTD

7.1 ACCESS NEGOTIATIONS

The Princess Royal prospect is situated on both the Princess Royal and Dutton's Trough properties. The landowners of both have approved Copper Range's exploration activities, including planned drilling and building tracks for access.

7.2 GEOLOGY

Rocks in the Princess Royal prospect are Skillogalee Dolomite and unconformably overlying slates and siltstones of the Saddleworth Formation. The Skillogalee Dolomite has been tightly folded along the regional trend and located in an anticline plunging both north and south. At the Princess Royal mine the anticline is locally overturned. Minor structures include brittle and reactivated faults.

7.2.1 Reconnaissance mapping

Aerial photographs of the Princess Royal prospect were used for reconnaissance and geological mapping.



Figure 3. Aerial photograph of the Princess Royal prospect shows clearly all the old mine workings and trend of large structures like the plunging anticline.

7.2.2 Geological mapping

Geological mapping of the Princess Royal prospect area, including the Princess Royal and Utica mines, was undertaken in September 2006 (see figure 4).

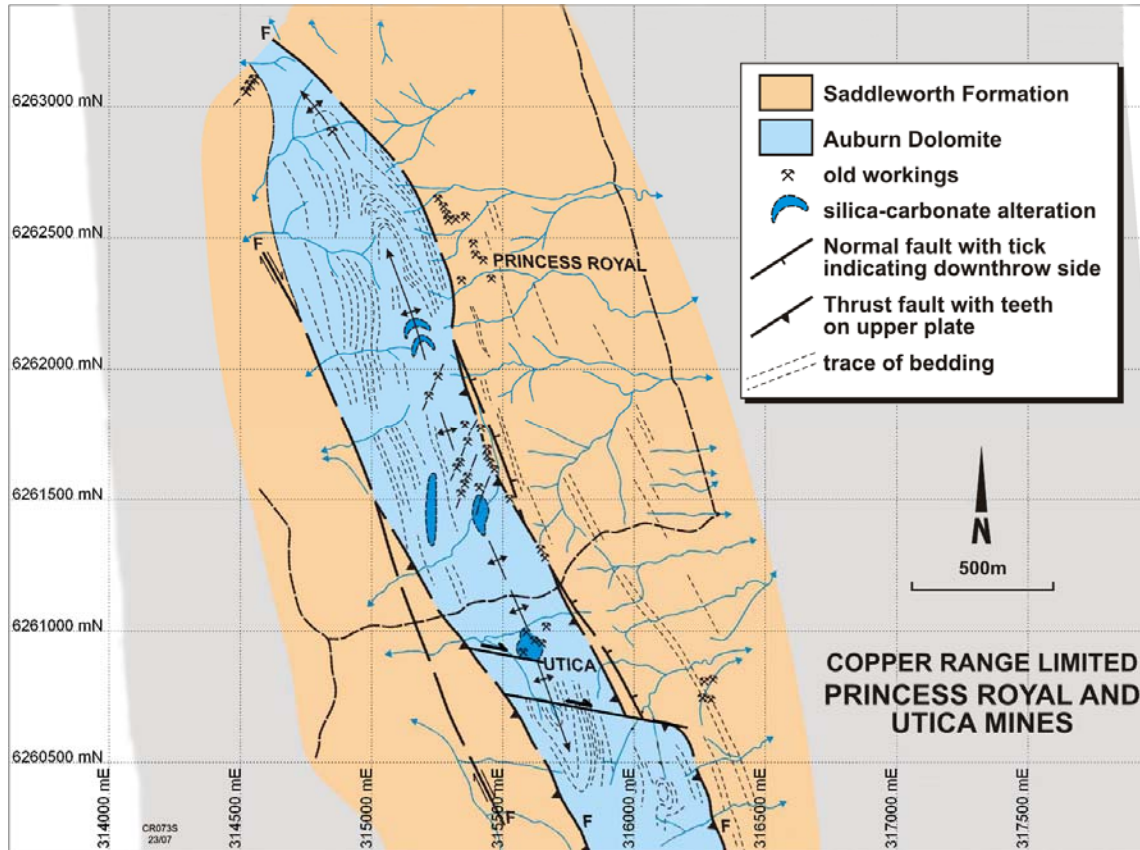


Figure 4. Geological map of the Princess Royal prospect.

Mapping has shown that an over-steepened thrust sets Auburn dolomite (member of Skillogalee Dolomite) against a pyrite rich siltstone unit of the Saddleworth Formation. The dolomite outcrops as an anticline in the hanging wall of the thrust. Copper carbonates are concentrated along this thrust zone and associated tension veins, coincident with silica alteration of dolomite.

A northeast (040° magnetic) structural trend defines tensional veins with associated copper mineralisation. Hydro-fractured breccias also containing copper mineralisation. Zones of hydrothermal silica-alteration in the anticline crest cut across strata and broadly coincide with this 040° trend. Old mine workings are located on intersections of the dolomite-siltstone contact and the 040° structural trends.

Copper carbonates are localised along the dolomite-siltstone contact and also coincide with the 040° trend. A secondary mineralised oxide copper blanket could possibly lie deeper under the zones of silica-alteration in the crest of the anticline and under the gossans located at the surface. There is also the potential for primary mineralisation to be located at depth in the hinge of the fold at the base of the dolomite unit (Figure 5).

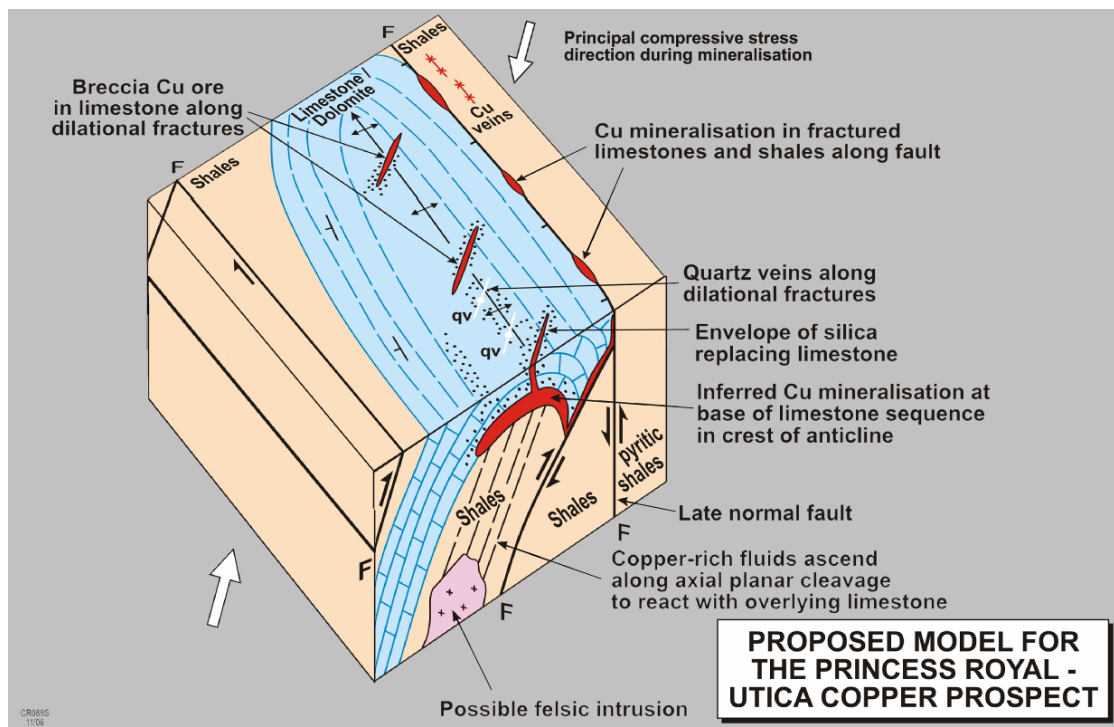


Figure 5. Mineralisation model for the Princess Royal prospect.

7.2.3 Mapping, petrology and whole rock analysis of alteration zone

Additional mapping in the Princess Royal prospect was carried out in December 2006. Detailed mapping focussed on defining the petrological and chemical characteristics of the zone of alteration zone. The geological map is attached in Appendix 1. In summary the findings are:

- Strong silicification of the dolomite is spatially related to quartz veining
- Moderate silicification occurs in dolomite beds which were originally rich cherty
- Within the zone of alteration: silicification diminishes gradually to <50% within a few metres of quartz veins and unaltered rocks can be found within 20m of strongly silicified rocks.
- Heavily leached rocks are found in a 10-20m wide zone around >50% silicified dolomite. Leached rocks often have a rim of copper mineralisation, which implies that copper has been remobilised and secondary enrichment could have occurred.

Eighty-nine rock chip samples were collected and sent to ALS for geochemical analysis (see Section 7.3.1 below). A selection of 15 rock samples was sent to Pontifex for detailed petrographic examination (Appendix 2).

The purpose of the mapping and petrology was to determine the extent and style of the alteration and mineralisation and the spatial and petrological relation between alteration and mineralisation. The rocks which were described as “*silicified dolomite*” in the field were recognised as such by the petrology analysis. It was established that the silicification extended over a broader zone (Appendix 1) than previously mapped (figure 4). Copper mineralisation is found in rocks which are silicified and show hydrothermal quartz veining. The gossans demonstrate the modifications by intense weathering and associated supergene processes

The petrology and chemical analysis also indicated local albite alteration. The albitised rock corresponds with other rocks described in the field as “*altered dolomite, white, very fine ‘sandy’ sugary texture*”, all of which are high in Na, Al and Be. These albitised rocks are also low in copper and other chalcophile metals. They are spatially confined to a pyritic shale unit of the Saddleworth Formation, close to its contact with Skillogalee Dolomite. The breccias found in the pits of Princess Royal are possible solution-collapse breccias overprinting earlier structures and alteration.

A clear-cut relative timing of events remains to be established. The broad chronology is:

- 1) initial silicification
- 2) low-temperature hydrothermal quartz veining and/or hydrothermal brecciation
- 3) weathering, leaching of sulphides, and local supergene mineralisation
- 4) later quartz and carbonate veining.

Timing of the albitisation is unknown. Surfactually the albitisation does not seem to be related to copper mineralisation. However, the alteration and possible mineralisation in the subsurface need to be tested by electro/magnetic surveys and drilling.

The conclusion from the above work is that copper mineralisation is both spatially and petrologically related to silicification and (low-temperature) hydrothermal quartz veining.

7.3 GEOCHEMISTRY

7.3.1 Rock chip sampling

A total of 111 rock chip samples were collected. All rock chip samples were submitted to ALS (Brisbane) for their ME-MS61 technique, a four acid near-total digestion technique that gives 47 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) by HF-HNO₃-HClO₄ acid digestion, HCl leach and combination of ICPMS and ICPAES. Twenty-two rock chip samples were taken during initial reconnaissance. An additional 89 rock chip samples were taken as part of the alteration zone mapping (described above) and sent for whole-rock analysis called ME-ICP85 by ALS as well as to be tested for Au (by Au-AA21). All rock chip sample descriptions, locations and analyses are given in Appendix 3. Figure 6 shows the locations where rock chip samples were taken.

Twenty-two rock chip samples that were taken during reconnaissance in the Princess Royal, St Elmo and Edelweiss prospects highlighted anomalous Cu (up to 6%) in the Princess Royal prospect. A mullock sample taken from the Utica mine had 3.44ppm Au. From the Edelweiss mine a sample was taken with 693ppm V.

Eighty-nine rock chip samples were taken as part of the alteration zone mapping and were used for to assist the petrological analysis and the correlation of the samples with the lithology (described above).

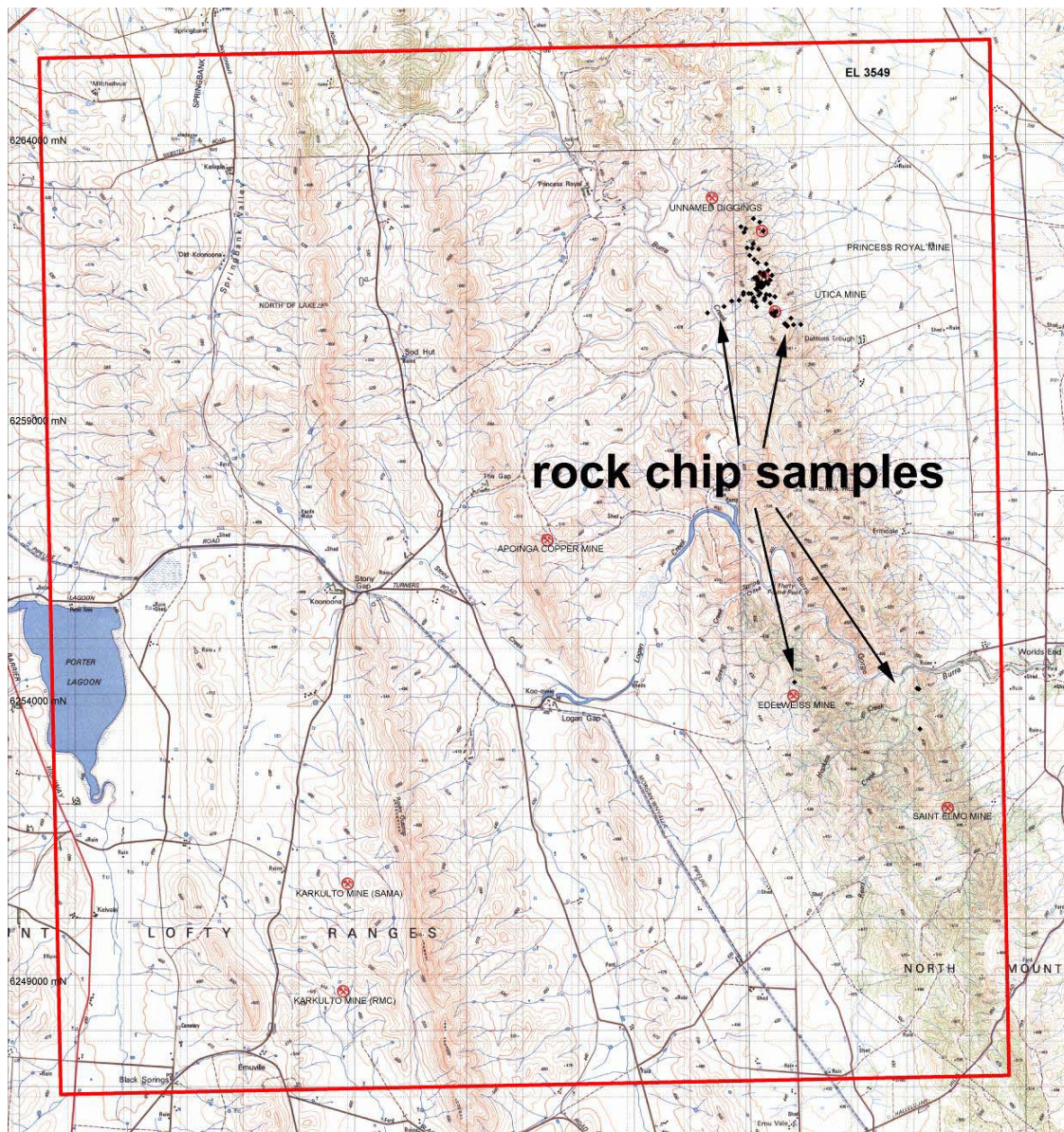


Figure 6. Rock chip sampling location map. All but four rock chips were taken from the Princess Royal prospect.

7.3.2 Soil sampling

A soil geochemistry programme was carried out over the Princess Royal Prospect in November 2006. The grid at 100m line spacing and 50m sample intervals is attached in appendix 4. The grid covers the entire Princess Royal prospect.

Soil samples (<6 mm fraction, at 20cm depth where applicable) were submitted to ALS (Brisbane) to be tested for As, Au and Cu by ME-ICP41s. A selection of 50 samples was tested for Au by AuAA21. All soil samples, locations and analyses are given in Appendix 5.

Detailed soil geochemical sampling has identified a 2000m x 300m strong Cu anomaly over this zone of alteration and scattered oxide copper occurrences. The geochemical results highlight marked metal zoning with arsenic-enriched soils to the north, a partly overlapping copper anomalous zone in the centre and a distinct zinc high to the south.

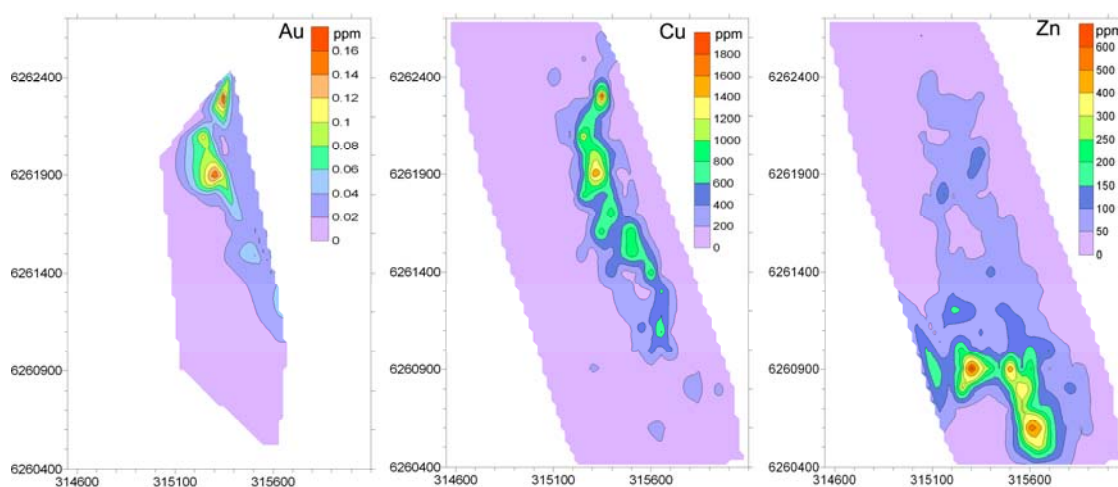


Figure 7. Contour maps of Au, Cu and Zn soil geochemical surveys.

Analysis of the assay results indicates the following:

- Zones of anomalous As, Cu and Zn.
- Anomalous arsenic values are found in the north of the area close to the thrust contact of the dolomite and the siltstones.
- High copper values are found all along the thrust contact.
- Anomalous zinc values are around the Utica mine in the south

7.4 GEOPHYSICS

7.4.1 Airborne radiometric and Aster satellite image analysis

Copper Range consultant Martin I'Ons used state-wide airborne radiometric data obtained from PIRSA and Aster satellite imagery covering the tenement to target alteration features in the region. His report is attached in appendix 6.

The regional radiometric data indicates that there is a prominent zone of potassium depletion (sodium elevation) extending south-south-west from the Burra Copper Mine. It might be a fracture zone and is interpreted by Martin I'Ons to be the fluid-flow zone or feeder to the Burra copper deposit. Sodium rich granite intrusion is likely source of fluids.

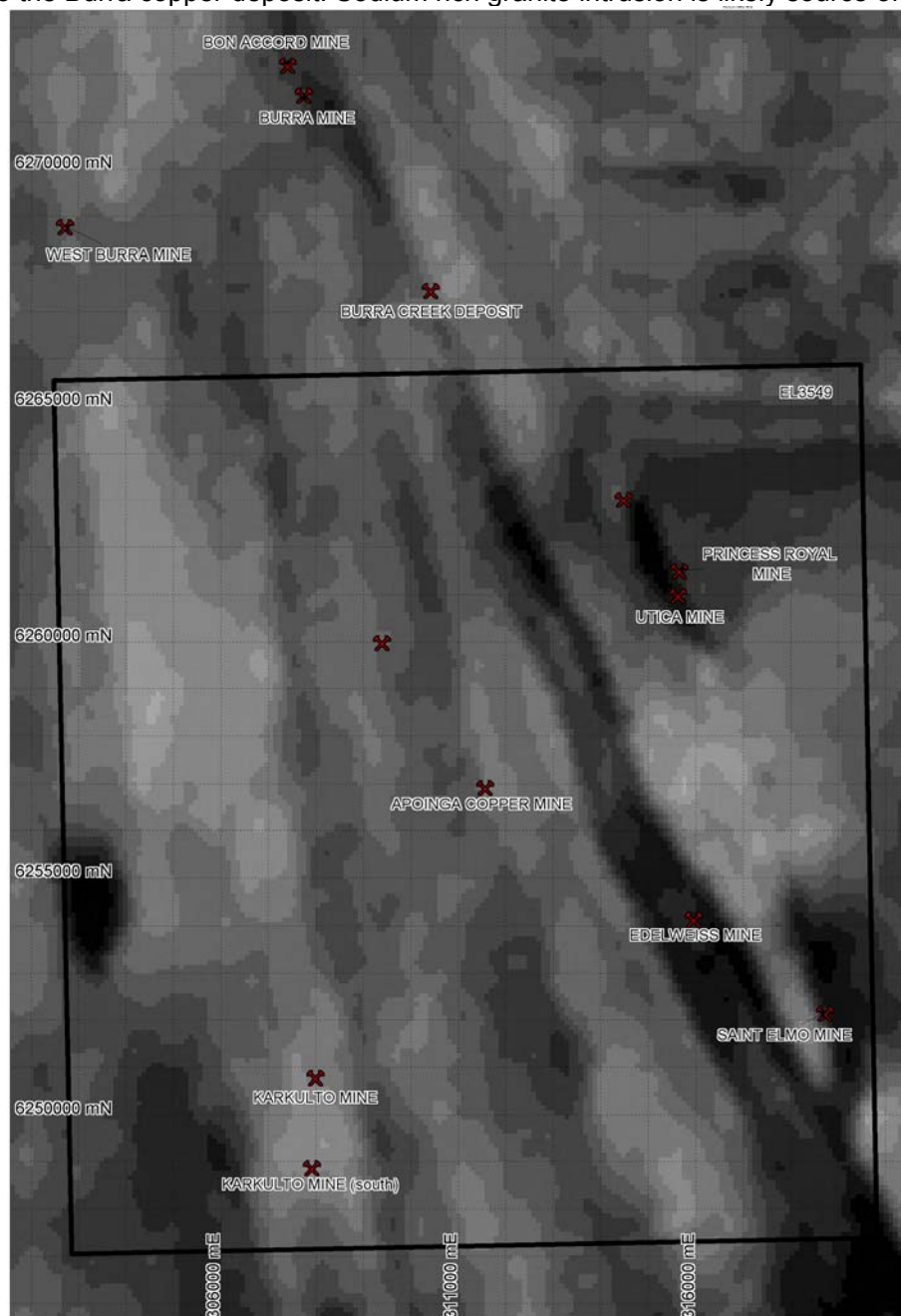


Figure 8. Radiometric image of the tenement area and the Burra mine. Brightness represents relative amount of Thorium-K in the soil. Black zone represents a Thorium-K depletion (or Na enrichment) zone running north-north-east through the Burra and Edelweiss mines. Also the Princess-Royal and St Elmo mines show Thorium-K depletion.

The Aster and modified LSFIT Crippen's Ratio are images, based on digital spectral data collected by the Aster and Landsat TM satellites, which enhance infrared absorption spectra of clay minerals that are known to be produced by hydrothermal alteration associated with mineral deposits. The techniques were developed by CSIRO and are marketed by Geoimage Pty Ltd of Brisbane.

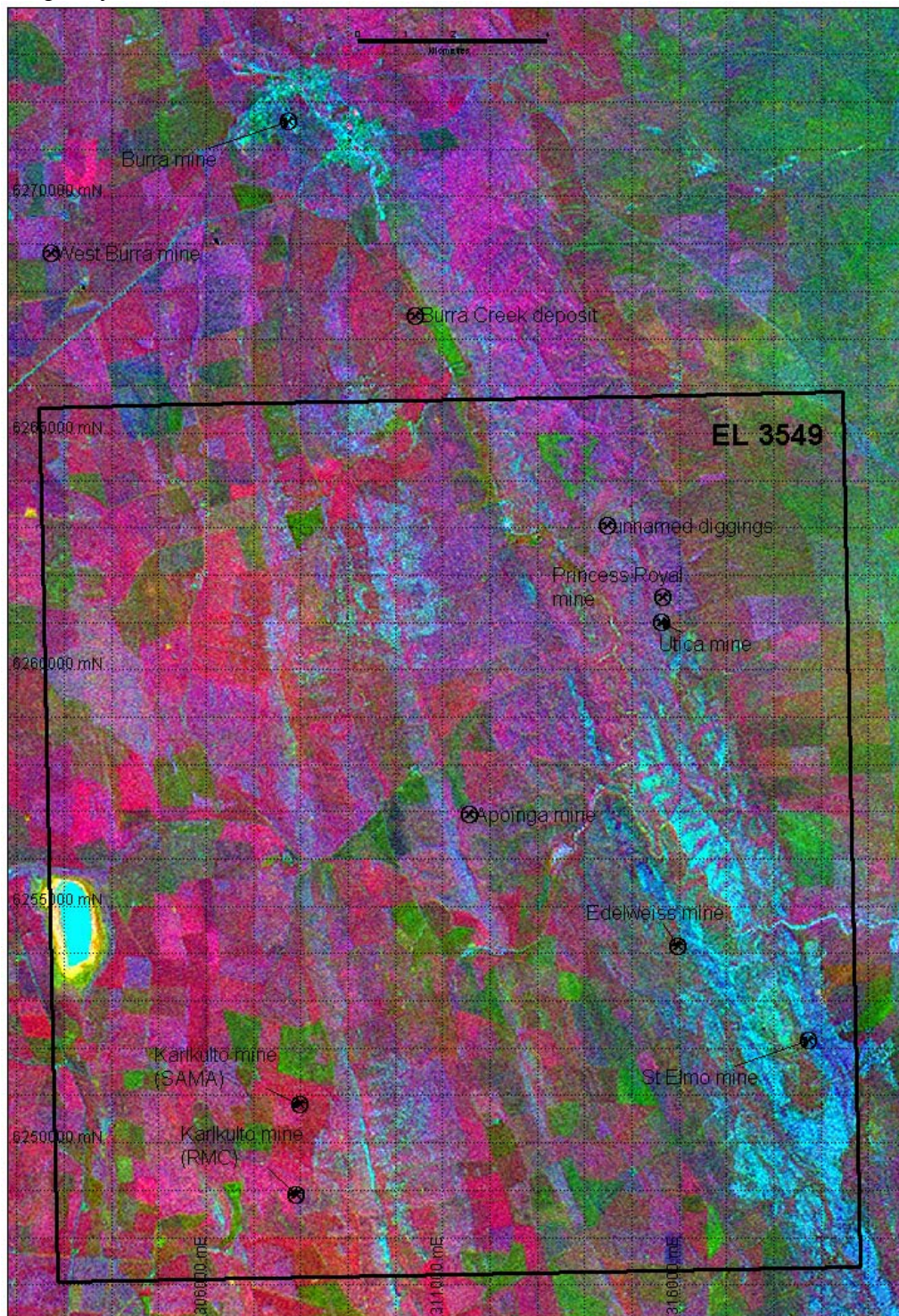


Figure 9. Composite image of Aster satellite RBD channels, showing a shift from light blue to dark green and dark purple along strike of the main geological formations, indicating leached outcrops by chlorite alteration.

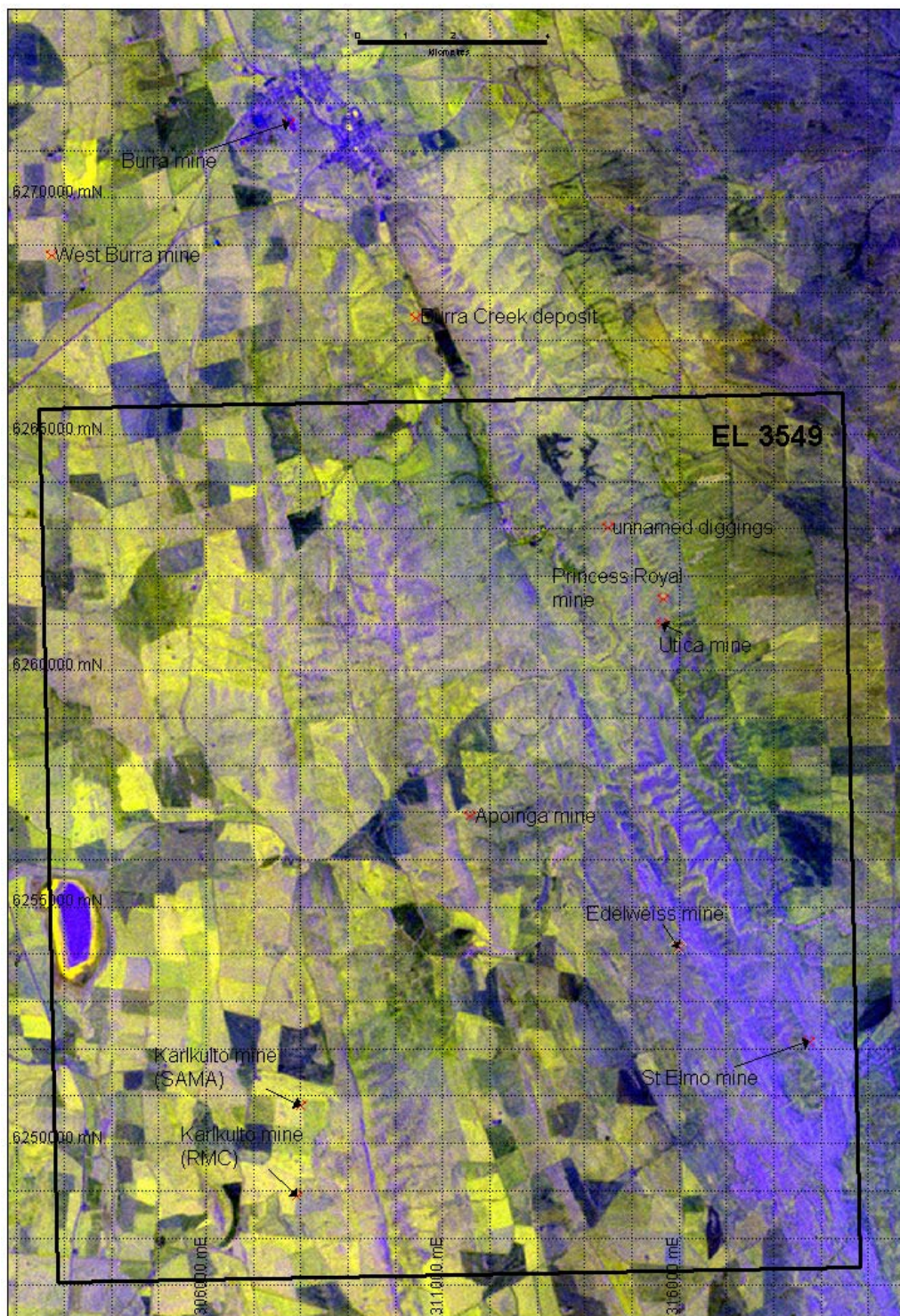


Figure 10. Composite image of Landsat satellite LSFIT 456 channels, showing a gradual shift from purple-blue to green along strike of the main geological formations, indicating leached outcrops by chlorite alteration.

The Aster image interpretation has identified three areas of leached outcrop and apparent chlorite alteration associated with the corridor of potassium depletion (Figure 10). The Princess Royal prospect area also has a vegetation anomaly consistent with elevated copper in the soil. Aster alteration features are also identified near the St Elmo and Apoinga mines.

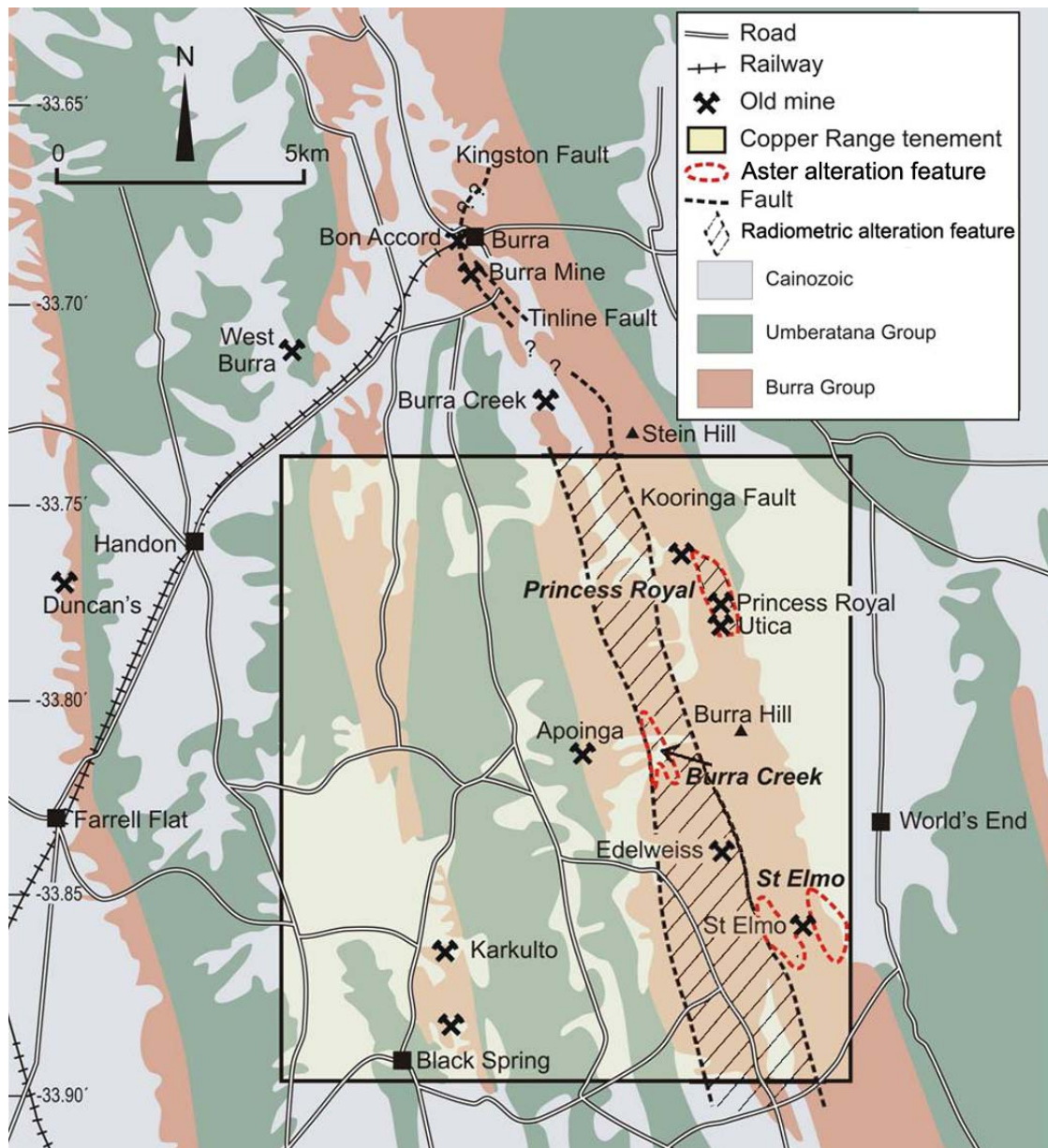


Figure 11. Summary of the regional geology and alteration features indicated by airborne radiometric and Aster satellite imagery.

7.4.2 Induced Polarity data remodelling

Previous IP survey data, which covered the Princess Royal prospect, (produced by Australian Geophysical Pty Ltd in 1964) was digitised by Copper Range. The digitised IP data has been reprocessed by consultant Steve Collins. He concluded that the two very high IP anomalous zones, which coincide with pyritic siltstone at the contact with dolomite, are most likely related to a graphitic black shale in the contact zone.

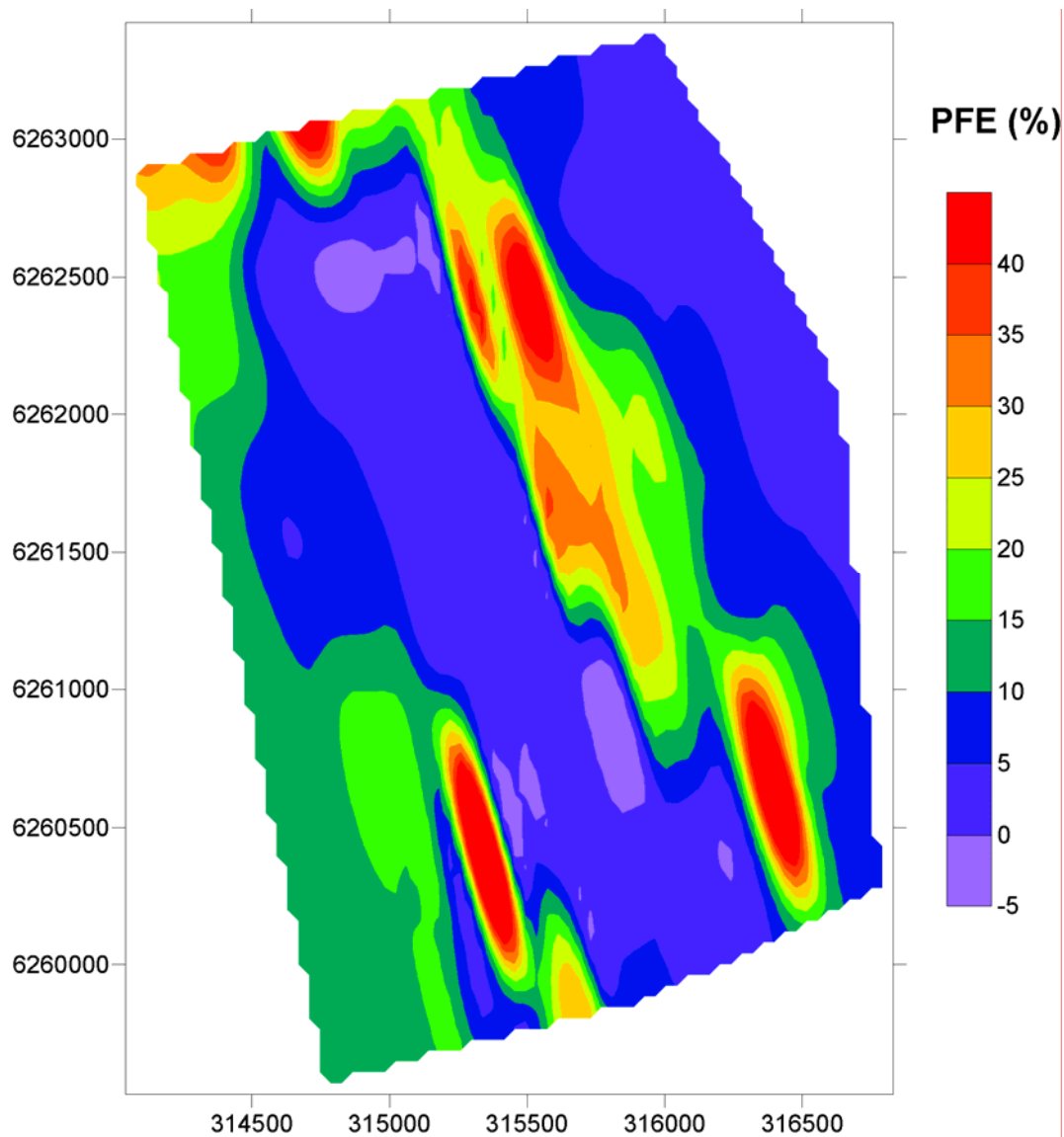


Figure 12. Remodelled IP values at 121m depth expressed in Percentage Frequency Effect. PFE larger than 20% is considered very high.

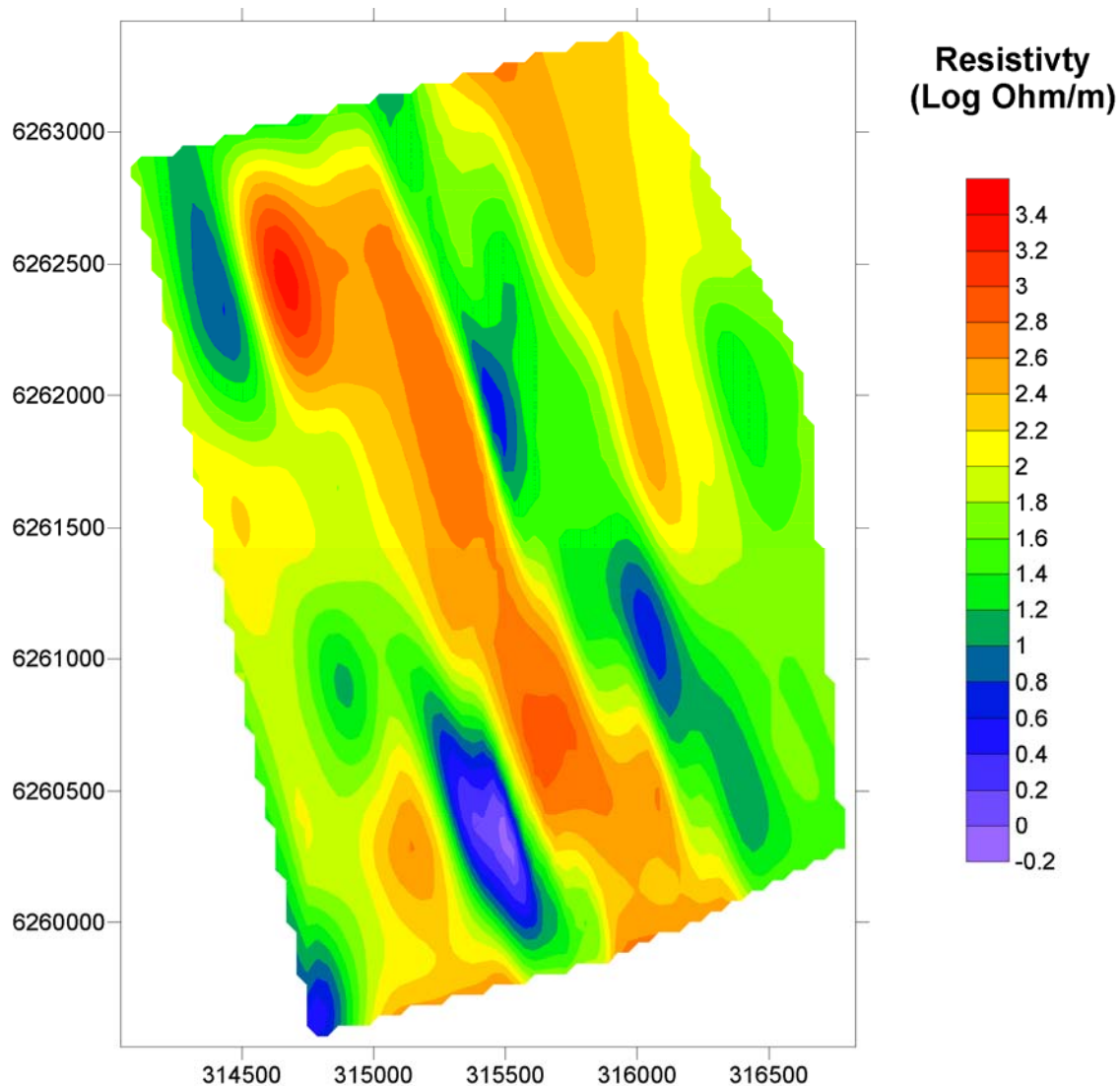


Figure 13. Resistivity values at 85m depth: 5 Ohm/m in purple to 5000 Ohm/m in red along a logarithmic scale. The high resistivity (500-5000 Ohm/m) values correspond with the silicified dolomite.

The IP (PFE) values in excess of 20% are considered very high and could possibly indicate similarly high pyrite content (see figure 1). Australian Geophysical Pty Ltd drilled two diamond holes (BU-1 and BU-2) and reported finely disseminated pyrite in places. The two holes bottomed in graphitic black shale and chloritic fault gauge. It is now considered that this material is largely responsible for the IP anomaly.

Analysis of the remodelled IP surveys indicates:

(1) copper sulphide mineralisation at depth is still possible but not confirmed by the IP, as PFE values are affected by a graphitic black shale and/or chloritic fault gauge in the contact zone.

(2) resistivity corresponds with the intensity of intense silicification of the dolomite. Silicification is not only surficial (silica cap) but extends to at least 120m depth.

The two drill holes by Australian Geophysical Pty Ltd are to be further examined.

8. CONCLUSION

Field investigations, including geological mapping and geochemical surveys, have identified late structures and alteration zones associated with the known copper mineralisation. This has been interpreted to suggest that the mineralisation at Princess Royal is related to tectonic events during the Cambro-Ordovician Delamerian orogeny.

Geological mapping and geochemical surveys have identified surface elevated Cu values over a strike length of 2000m, associated with a faulted transition zone from dolomite to shale country rock in the overturned eastern limb of an anticline. Late reactivated faulting has been associated with multiple phases of hydrothermal and epithermal quartz veining, silica-alteration of the dolomite, gossans and oxide copper ore breccias.

Exploration at the Princess Royal area has outlined limited tonnages of near-surface supergene copper ore. However, a potential underlying zone of primary copper mineralisation was identified, associated with a transition from dolomite to shale country rock in the overturned eastern limb of an anticline. It has little surface expression but has been traced as an IP anomaly associated with high surface Cu values over a strike length of 2000m.

9. RECOMMENDATIONS

The results from Copper Range's exploration activities at the Princess Royal prospect have brought to light excellent potential for lithologically and structurally controlled primary sulphides copper and minor potential for structurally controlled oxide copper. Following these encouraging results a drilling programme has been planned for June/July 2007.

Copper Range's initial exploration activities at the Princess Royal prospect have highlighted lithological and structural controls to epigenetic copper mineralisation along the Princess Royal – Utica trend.

Mapping and geochemical sampling have further defined the strike extent of anomalous supergene copper mineralisation and indicated the potential for underlying lithologically and structurally controlled primary copper sulphides.

Copper Range is unable at this stage to confirm the small geological resource achieved by Adelaide Wallaroo Fertilizers. A search is being conducted to locate the original data used to calculate the resource.

Following these encouraging results from initial reconnaissance mapping and sampling a percussion drill programme has been planned for June/July 2007 to test the zones of supergene enrichment and for potential underlying primary copper sulphide mineralisation

Reconnaissance mapping and sampling will also be undertaken at other target areas defined from airborne radiometric and Aster satellite image analysis eg Apoinga, St Elmo.

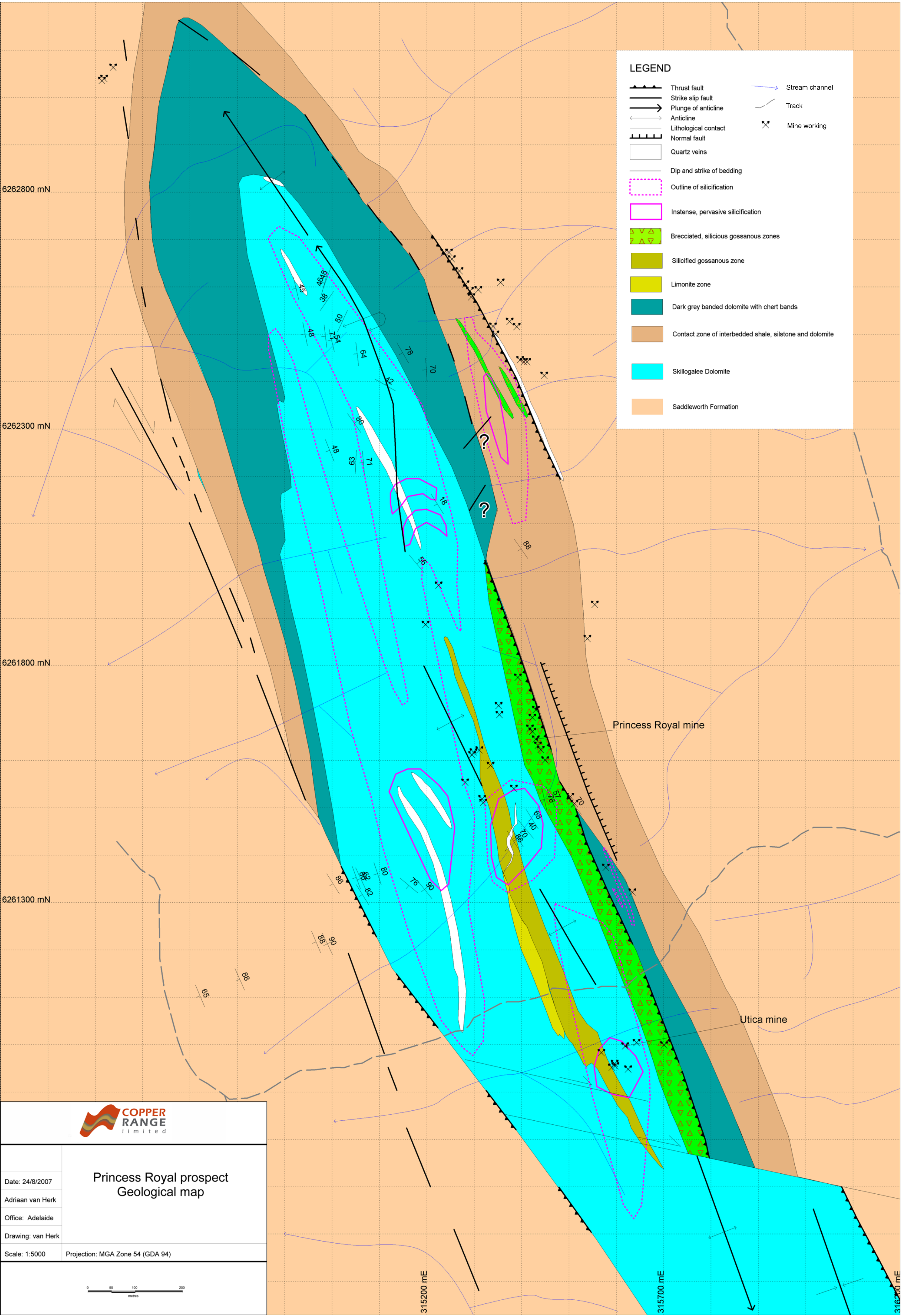
10. EXPENDITURE STATEMENT

Copper Range (SA) Pty Ltd <i>level 4, 72 Pitt Street</i> <i>Sydney</i> Burra South 5005 EL 3549	
Expenditure Summary 1/052006 to 30/04/2007	
Expenditure	Debit
Management Fee - administrative overheads	\$7,547.14
Consultant - Geology	\$17,666.94
Consultant - Drafting	\$350.00
Consultant - Geophysics	\$2,000.00
Consultant - Petrology	\$3,043.34
Wages - Administration	\$100.00
Wages - Geological / Technical	\$3,787.50
Wages- Casual Field	\$12,090.00
T'mnt - Gov Fees, Rates, Rent	\$184.70
T'mnt - Hetherington	\$2,650.76
T'mnt - Native Title	\$1,469.32
T'mnt - Rehab Fees / Access	\$79.16
Computer - Data	\$36.37
Phone - Fax	204.89
Postage, Freight - Field	\$25.92
Postage, Couriers - Office	\$26.40
Photocopies - Printing	\$5.80
Maps,photos, plan prints	\$709.44
Publications	\$78.50
Stationery - Office	\$149.22
MV - Fuel & Maintenance	908.05
MV - Hire	\$1,626.52
MV - Parking Tolls	\$119.68
Travel - Accommodation, Meals	\$5,035.55
Travel - Airfares	\$6,128.90
Travel - Field Taxi, bus	\$245.37
Travel - Office	\$20.00
Assaying	\$13,434.60
Field Consumables Equipment	\$848.09
Field - Supplies Food	\$704.93
House - Supply	\$1,574.50
Safety Equipment	\$148.52
Site Office, Storage shed hire	\$5.64
Travel / Accomodation & Meals	\$12.74
Grand Total	\$ 83,018.49

11. REFERENCES

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- Simpson, C.A. 1998 Redfire Resources Burra Project Literature Research Report dated 13 February 1998.

APPENDIX 1 - Geological map of the Princess Royal prospect



APPENDIX 2 – Pontifex MINERALOGICAL REPORT No. 9011

Pontifex & Associates Pty Ltd

MINERALOGY – PETROLOGY • SECTION PREPARATION

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MINERALOGICAL REPORT No. 9011 *by Alan C. Purvis, PhD*

February 5th, 2007

TO : Adriaan van Herk
Copper Range Ltd
Level 4, 72 Pitt Street
SYDNEY NSW 2000

YOUR REFERENCE : Order No. TBA

MATERIAL : Rock samples from the Burra area, SA

IDENTIFICATION : 40614 to 40698 (not consecutive, (15 in all)

WORK REQUESTED : Section preparation, description and report with
comments as specified.

SAMPLES & SECTIONS : Returned to you with hard copy of this report.

DIGITAL COPY : Enclosed with hard copy of this report.

PONTIFEX & ASSOCIATES PTY. LTD.

SUMMARY COMMENTS

Fifteen rock samples from the Burra area in South Australia are described in this report, using eight polished thin sections and seven thin sections. A list of sixteen samples was provided by Copper Range Limited.

Geochemistry provided by Copper Range Ltd corresponds to the samples received. This chemistry is mostly consistent with the petrology of the samples as received, e.g. with Mg and Ca values indicating > 90% dolomite in some samples and little or no carbonate in other samples. However, barite is almost always underestimated (possibly related to analytical procedures), most obviously for sample 40615, which is almost entirely composed of barite. Some copper values also seem to be too high, and may indicate heterogeneous samples.

The optical microscopy indicates that the relatively unaltered samples are mostly dolomites, represent by 40635, 40651, 40656 and 40666, but there is net-veined or weakly brecciated sandy siltstone in sample 40669. The dolomites commonly contain minor mica and mostly authigenic or low-temperature hydrothermal quartz (partly in veins with carbonate $\pm$ limonite $\pm$ barite), with authigenic albite in 40656 (not reflected in the Na assay). The siltstone is quartz-rich with 25% sericite indicated by K and Al assays, with limonitised or leached pyrite and accessory tourmaline. This sample also has an abundant network of vuggy quartz veins with limonitised or leached pyrite and minor jarosite, as well as sericite and tourmaline.

Several samples contain abundant microcrystalline quartz that may represent silicified dolomite; these include 40627, 40640, 40683, 40692 and possibly 40698. These samples also contain abundant low-temperature hydrothermal quartz in lenses or veins, locally with limonite or secondary copper minerals (malachite or chrysocolla), barite and carbonate. Sample 40627 is relatively rich in mica (~7%), with voids, carbonate and barite; sample 40640 has quartz-carbonate-barite veins and sample 40683 has quartz veins and large limonite-malachite patches derived from coarse-grained sulphide; sample 40692 has quartz-carbonate veins with barite and chrysocolla. The quartz in sample 40698 is coarser in grain size than in the other samples, but silicified dolomite is possible, with very coarse-grained quartz containing barite and malachite.

Sample 40642 may represent limonite-flooded sandy dolomite with limonite partly derived from sulphide as well as more earthy limonite possibly ex-carbonate. Numerous quartz veins occur, locally with vugs and carbonate, and this sample has late carbonate-filled fractures. Sample 40615 is largely barite, as indicated above, but contains very minor chrysocolla, malachite and limonite. The Ba and Cu assays are not consistent with the thin section.

More complex samples are represented by 40625 and 40679. Sample 40625 has abundant millimetre to centimetre-scale angular quartz-rich fragments, largely vein-quartz but with minor barite, chrysocolla and limonite in the largest fragment, which is largely composed of felted or decussate prismatic quartz. The interstitial material is rich in mica and quartz, which could represent insoluble residue in a solution-collapse breccia, and also has large aggregates of barite and voids partly rimmed by chrysocolla and limonite. Patches of malachite are also evident and the original rock may have contained copper sulphides. This sample could also be a superficial breccia, depending on its precise field relationships with the dolomites and silicified dolomites referred to above.

Sample 40679 has layers of limonite-stained carbonate-rich sediment with clays and patches of manganese oxide, and a coarse-grained layer with granule-sized clasts of vein-quartz and limonite, plus patches of manganese oxide, in a carbonate-rich matrix. The assay data indicate 30% calcite and 10% dolomite, but there is less than 1% Mn in the assay. The thin section seems to have 4-5% manganese oxide. This may be a superficial sediment rather than part of the Adelaidean sequence.

Copper in these samples seems to be related to silicification and veining by quartz $\pm$ carbonate $\pm$ barite, with copper as supergene minerals as seen in thin section (malachite and chrysocolla), but possibly previously containing sulphide (notably in 40683). Only one possible solution-collapse breccia was seen (40625), the other mineralised samples showing silicification and veining, with modifications by weathering and associated supergene processes.

INDIVIDUAL DESCRIPTIONS

40614 **Complex mass of quartz and various types of limonite: may have contained sandy dolomite fragments as well as vein or low-temperature hydrothermal quartz and cellular to massive limonite ex-sulphide: late microcrystalline quartz is disseminated and in fractures with limonite and there are incoherent zoned quartz veins.**

Field Note: *Breccia of dolomite with quartz: is this a gossan? Timing of events (brecciation, quartz, silicification, boxworks)?*

Component

Abundance and notes

1. Quartz-rich areas

Quartz-1 with muscovite and limonite	Mostly fine-grained granular quartz, mostly less than 0.5mm in grainsize, with sparse flakes of muscovite and patches of limonite after fine-grained material in and between quartz grains, locally abundant and possibly ex-carbonate: this may represent sandy dolomite? Some of the quartz seems to have cores rimmed by limonite, suggesting a detrital origin.
Inequigranular quartz-2	Medium to coarse-grained granular to prismatic quartz locally as much as 6-7mm in grainsize as curved elongate grains, but mostly finer-grained (<1mm grainsize).
Microcrystalline quartz-3	Irregular masses of very fine-grained quartz, mostly invading finer-grained areas of quartz-2, less commonly with quartz-1, locally marginal to vein-like masses of yellow earthy limonite, possibly ex-carbonate. There also seem to be late veins with cherty quartz and yellow limonite.
Vein-quartz (quartz-4)	Vein segments rimmed by quartz similar to quartz-3, with minor limonite, with cores of granular to prismatic quartz without limonite.

2. Limonite-rich zones

Earthy yellow limonite	Large irregular masses of limonite not obviously ex-sulphide and possibly ex-carbonate, with abundant mostly fine-grained to microsparry quartz inclusions.
Cellular and massive limonite	Large areas of cellular limonite with blocky masses of dense limonite probably ex-sulphide: the main mass is about 15mm long and 3-8mm wide with outliers of dense limonite in finer-grained quartz-2 areas.

This sample seems to have a large area of limonite gossan, derived from sulphides, probably including pyrite, but may also have weathered areas of sandy dolomite and various types and ages of vein and low-temperature hydrothermal quartz (microsparry, coarse sparry to columnar, microcrystalline and granular to prismatic). No obvious copper minerals were identified and copper may be in limonite.

40615 **Massive inequigranular barite with very minor malachite, chrysocolla, limonite and quartz.**

Field Note: *Relationship between copper mineralisation and brecciation of rock (tectonic or collapse breccia?) and nature of boxwork textures in clasts*

Component	Abundance and notes
Barite	Dominant: partly fine-grained, partly coarse tabular and partly as elongate crystals to 15mm long in parallel bundles.
Malachite ± chrysocolla	Sparse, small patches to 0.3mm and on fractures
Limonite	Rare: irregularly disseminated through barite
Quartz	Rare: sparse small prisms 0.4mm long

This sample does not correspond well with the assay provided under the same sample number as it is almost all inequigranular barite with very little in the way of copper minerals. The copper content of the hand specimen is much less than 1%, as malachite and trace chrysocolla, and much more than the 0.33% barite suggested by the assay data. This suggests that the assay represent a different lithology or that only soluble Ba was reported.

40625 Breccia of mostly quartz-rich hydrothermal fragments in a matrix with mica, quartz, limonite, barite, chrysocolla and malachite plus vugs: supergene breccia?

Field Note: *Copper oxides ore breccia from Princess Royal pit: relationship between copper mineralisation and brecciation of rock (tectonic or collapse breccia?) and nature of boxwork textures in clasts?*

Component

Abundance and notes

Fragments

This sample is a breccia with abundant millimetre to centimetre-scale fragments of largely hydrothermal origin in a complex, essentially superficial, partly supergene matrix.

The largest fragment is at least 15mm long and rectangular with abundant decussate prismatic quartz to 1.5mm long. Sparsely disseminated small crystals of barite are accompanied by flaked of muscovite, patches of limonite and sparse chrysocolla, partly rimming small vugs.

Angular single-crystal quartz grains occur from 0.5mm to 7mm in maximum dimension, with sparse polycrystalline fragments.

Barite

Large fan-like aggregates of elongate barite crystals occur, to 8mm long, but may have formed in situ rather than being fragments. The assay allows 0.9% barite but there is much more abundant barite in the thin section (~9%?). Some bladed barite also occurs adjacent to vugs.

Mica, quartz and limonite

Much of the matrix has abundant shredded muscovite or illite, aligned in a contorted foliation between the fragments, with minor sand-sized single-crystal quartz grains and diffuse limonite staining.

Chrysocolla

Patches of colloform chrysocolla are common, locally with complex finer-like extensions into vugs and commonly with bladed crystals of barite.

Limonite	Lamellae of limonite occur in some of these patches (with chrysocolla) and also within the mica-quartz-rich areas.
Malachite	Malachite occurs as fan-like and microspherulitic aggregates to 3mm in diameter, partly adjacent to or intergrown with chrysocolla, partly with unidentified microspherulitic needles
Vugs	Vugs are common and partly rimmed by chrysocolla ± barite ± limonite.

This sample has mostly hydrothermal quartz-rich fragments with barite and chrysocolla in a complex matrix with low-temperature hydrothermal or supergene components as well as detrital or residual micas and quartz. Large aggregates of barite seen to be of low-temperature hydrothermal origin, with supergene chrysocolla and malachite locally lining vugs with limonite. The mica and quartz could be insoluble residue from dolomite leaching but the dolomites do not have significant mica and a very large amount of carbonate would need to have been removed.

40627 **Partly silicified laminated sediment with silty, weakly micaceous lamellae and silicified quartz-rich lamellae with less abundant limonite and sparse voids: cut by veins with quartz and limonite or voids.**

Field Note: *heavily leached dolomitic-siltstone) Is it a gossan (after sulphides)? Timing of events? What has caused the heavy leaching?*

Component

Abundance and notes

Quartz with limonite and mica and voids	This sample is laminated and not brecciated, with layers mostly 1-5mm thick containing abundant cherty to granular quartz, from microcrystalline to 1.5mm in grain size. Limonite is more abundant in finer-grained layers but not obviously derived from sulphide. There is also sparse mica parallel to the layering, with the assay suggesting 7% muscovite. The coarser, less limonite-rich bands seem to have mostly secondary (low-temperature hydrothermal) quartz but the quartz in the fine-grained layers may be detrital, as is the muscovite. Voids in some coarse-grained layers may represent leached sulphide.
Carbonate	Sparse carbonate occurs in coarse-grained quartz, suggesting silicified carbonate?
Possible barite	A lens of possible barite occurs parallel to the layering along the contact between two bands.
Crosscutting quartz-limonite	Apparent veins are oblique to the layering and have granular to prismatic quartz. One vein has more abundant limonite than in the host sediment and may have contained sulphide, but another vein has leached lenses, also possibly ex-sulphide.

This sample is laminated partly silty or sandy sediment that may have had carbonate-rich bands but these are silicified with voids possibly ex-sulphide, and there are crosscutting quartz-rich veins with limonite or voids.

40635 Dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids

Field Note: degree of leaching and/or silicification, nature of brecciation: hydrofracturing?

Component	Abundance and notes
Carbonate (dolomite: 96%)	Dominant as mostly sugary aggregates, very fine-grained to fine-grained
Quartz-1	Sparse fine-grained authigenic quartz, recrystallised
Carbonate-quartz-2-limonite ± muscovite	Veins in various orientations with carbonate, partly stained by limonite, mainly along the vein margins, and sparse granular or elongate quartz, sparse muscovite and rare fine-grained barite. Small voids, to 2mm long, occur in some veins and are rimmed by very small carbonate crystals.

The assay indicates 96% dolomite in this sample but there are veins with carbonate, quartz, mica and barite that seem to be of low-temperature hydrothermal origin and have been modified by weathering. The assay indicates only traces (~0.2%) of barite and muscovite.

40640 **Very fine-grained quartz (silicified dolomite?) with lenses and veins rich in quartz $\pm$ carbonate $\pm$ barite**

Field Note: *completely altered dolomite with calcite cavities, forms rim around quartz vein: is it a silicified dolomite rim around a quartz vein or a quartz vein with a high carbonate content?*

Component	Abundance and notes
Cherty fine-grained quartz	Dominant: may represent silicified dolomite
Microsparry to sparry quartz	Abundant as veins to 6mm wide with sparse voids and as irregular centimetre-scale masses with patches of coarse-grained rhombohedral carbonate. Smaller lenses are finer-grained (to 0.5mm) than larger lenses (to 2mm) and veins (to 4mm). The main vein has minor interstitial carbonate.
Carbonate	Abundant as rhombohedral or irregular crystals to 6mm long with quartz as inclusions, as pressure shadows and as parts of quartz-rich lenses: partly altered to limonite but apparently composed of dolomite. The assay indicates 23.5% dolomite.
Barite + mica	Several anhedral grains of barite occur, to 6 x 2mm, between carbonate rhombs and quartz-rich areas. Minor mica occurs in the margins of the barite. The assay indicates 0.1% mica and 0.3% barite, but the thin section suggests 3% barite by volume.

The fine-grained quartz in this thin section may represent silicified dolomite but there are veins and patches that contain or consist of coarser low-temperature hydrothermal quartz, with carbonate disseminated and in quartz-rich patches and barite also between carbonate grains. It is partly silicified dolomite and partly low-temperature hydrothermal quartz with carbonate and barite.

40642 **Complex quartz-limonite aggregates with various types of quartz, limonite and goethite and late carbonate-filled fractures. Some of the limonite may have replaced sulphide.**

Field Note: *Highly weathered silicified dolomite, iron-rich quartz or Cu gossan?*

Component	Abundance and notes
Limonite-1	Dominant as a matrix to inequigranular quartz in lenses, aggregates and disrupted veins: yellow to orange in colour with areas of colloform material, but also replacing probable crystals (carbonate?), no obvious sulphide replacement.
Limonite-2	Sparse limonite replacing definite crystals to 0.5mm in diameter, possibly sulphide.
Limonite-goethite with quartz	A single laterite-like nodule of microcrystalline goethite with quartz and limonite, possibly 10 x 6mm, on the edge of the thin section, with a vaguely concentric plus decussate fabric.
Sparry quartz	Inequigranular, from 0.2mm to 5mm in grain size, disseminated and in patches or lenses, locally with zones outlined by lamellae of limonite: this quartz has some rounded or irregular voids with partial rims of fine-grained quartz.
Microcrystalline quartz	Partly rimming voids and partly in fragmented narrow veins with microcrystalline rims and microsparry cores, to 10mm long, and in fragmented veins with limonite. There are also more continuous irregular veins with very fine-grained quartz and small voids rimmed by carbonate.
Carbonate	Sparse: separate irregular fractures contain mostly fine-grained carbonate with rare quartz and small voids

This sample seems to be weathered silicified and quartz veined possible dolomite with some limonite ex-sulphide. The carbonate could be Ca or Fe-rich dolomite or a mixture of calcite and dolomite. Complex quartz and carbonate textures suggest a sequence of veining and flooding by quartz and late carbonate.

40651 **Partly brecciated dolomite with sparse quartz, mica ± barite and limonite**

Field Note: *sugary breccia dolomite: nature of breccia (tectonic and/or hydrofracturing?), degree of silicification ?*

Component	Abundance and notes
Carbonate ± limonite	Major: mostly fine-grained and sugary but with areas of breccia containing rectangular blocks of carbonate in a matrix of limonite-stained fractured and fragmented fine-grained carbonate. Lenses of quartz of various types occur (see below)
Quartz	Quartz occurs as single grains and as lenses, partly vein-like, to 6mm long and 1.5mm wide
Mica ± barite	Sparse flakes of muscovite in the dolomite, rarely with possible barite.
Limonite	Sparse, partly ex-sulphide (fine-grained)

This sample is partly brecciated and weakly limonite-stained dolomite with sparse quartz and mica. It may be a solution breccia.

40656 Dolomite with quartz and coarser carbonate in lamellae or veins and minor authigenic albite $\pm$ clay.

Field Note: *white leached? rock, sugary texture*

Component	Abundance and notes
Dolomite (93%)	Abundant, mostly sugary, with lenses of sparry carbonate to 0.8mm in grainsize containing quartz and/or albite.
Quartz	Minor, anhedral quartz to 2mm in grainsize in parallel lamellae or veins with coarser sparry carbonate
Albite	Very minor: largely bladed crystals to 2mm long rarely veined by possible illite.

The assay indicates 93% dolomite and 0.7% mica, but any aluminium is in authigenic albite, not in mica. Quartz is in lamellae or veins with some of the albite.

40666 Dolomite with carbonate-quartz patches and a carbonate vein with limonite and quartz.

Field Note: *copper at surface, altered, and leached, breccia dolomite: Timing and nature of events features: brecciation, leaching, and mineralisation?*

Component	Abundance and notes
Dolomite	Dominant (91-92%), mostly sugary with irregular areas of coarse carbonate partly adjacent to patches of quartz.
Quartz	Common in irregular lenses to 4mm long with partly deformed grains to 2mm in diameter
Late-stage carbonate	In a fracture from 0.2 to 0.4mm wide with limonite and very minor quartz: probably dolomite.

Bedding is not evident in this thin section and the lenses of coarser carbonate and/or quartz do not have any preferred elongation direction, suggesting that they are not controlled by bedding. There is a late carbonate vein with sparse quartz.

**40669 Brecciated or net-veined sandy siltstone with quartz veins
rich in limonitised or leached pyrite with jarosite.**

Field Note: *gossan? in altered siltstone: Is it a gossan (after sulphides)?*

Component

Abundance and notes

Sandy siltstone

Fragments in this breccia or net-veined complex are composed of very fine sandy siltstone with disseminated single-crystal quartz grains mostly less than $\frac{1}{8}$ mm in diameter in a matrix of sericite and quartz with sparse limonitised or leached fine-grained probable pyrite. Limonite-rich bedding laminations are often parallel across fragments suggesting net veining, but some rotation is also evident. The assay suggests 24% mica (if K-rich) or more if K-deficient (but the Al/K atomic ratio is exactly 3, as in ideal muscovite). However, there is trace tourmaline (with Al but little or no K).

Veins (quartz, limonite, sericite)

Abundant interstitial material in the breccia is vein-like with some cherty quartz as well as abundant coarse-grained granular to prismatic quartz and large voids, including crystal-lined cavities and vugs partly filled with limonite, suggesting limonitised or leached sulphide, probably pyrite. Rare tourmaline occurs in the quartz and some limonitised or leached areas also contain jarosite, which is strong evidence for former sulphide. Some quartz-rich areas seem to represent silicified zones in siltstone, again with limonitised or leached pyrite with very minor jarosite

This sample seems to represent net-veined or brecciated sandy siltstone, as there is abundant sericite and accessory tourmaline as well as limonitised or leached fine-grained pyrite. Veins and silicified areas also have limonitised or leached pyrite with minor jarosite. No obvious copper minerals were seen, despite an assay of 0.7% Cu, but this sample seems to have more abundant mica than the 24% calculated from K and Al values and the copper may be in a more quartz-rich part of the sample. The veining is of low-temperature hydrothermal origin but may be partly derived from the siltstone as both siltstone and veins contain tourmaline.

40679 **Layered sandy to granule-bearing calcite-dolomite-rich
sediments with limonite and Mn oxides**

Field Note: *Horizontally bedded sediment in dolomite copper breccia in pit.*

Component

Abundance and notes

Layered sandy to granule-
rich sediments with
limonite and Mn oxides

This sample is composed of partly slumped or irregular bedding laminations from 1.5mm to more than 30mm thick. Some of the thinner layers are poorly defined and grade into each other, but most layers have sharp contacts. The thickest layer has clasts of coarse-grained granular or columnar possible vein-quartz to 4mm in diameter as well as clasts with quartz, carbonate and manganese oxide and fragments of limonitised material. Patches of very fine-grained quartz are quite irregular and may be authigenic, as is a lens of columnar quartz about 6-7mm long. This layer also has a nodule of manganese oxide 6-7mm in diameter with inclusions of quartz. Interstitial carbonate may be mostly calcite.

The next layer is 6-8mm wide and may be older and seems to pass upwards from sandy carbonate into limonite-flooded silty carbonate with quartz-rich clasts to 1mm in diameter in the coarser areas, but only microcrystalline quartz adjacent to the granule-bearing layer described above. The contact is sharp but irregular with lobes extending into the coarser layer (possibly small Monroe structures?) to 4mm high and 6mm wide. The layer has lenses of manganese oxide parallel to the layering to 3 x 1mm. a large patch on limonite occurs and this has been fractured and fragmented and veined by carbonate.

A 6mm-wide layer of limonite-stained silty carbonate follows, with very minor quartz and sericite, followed by limonite-free carbonate with more abundant quartz and narrow lamellae of limonite-rich fine-grained carbonate, all with very minor manganese oxide

The assay suggests 30% calcite and 10% dolomite, with 0.92% Mn (1.2% MnO), but the thin section seems to have rather more abundant manganese oxide than is calculated from the assay and may have more abundant carbonate, although this is less obvious due to the degree of limonite staining and the abundance of clasts in the coarsest layer. Some of the fragments seem to be of low-temperature hydrothermal origin and the carbonate may be a later superficial deposit not of the same age as the dolomites in this batch. There is also supergene manganese oxide and limonite, not seen in the dolomite suite, at least not in the same form.

40683 **Quartz-limonite-malachite aggregate with minor mica:
oxidised low-temperature hydrothermal quartz-pyrite-
copper sulphide aggregate.**

Field Note: *Gossan + Cu: Is it a gossan (after sulphides)?*

<i>Component</i>	<i>Abundance and notes</i>
Microcrystalline to microsparry quartz with limonitised or leached sulphide	Most of this sample is composed of microcrystalline to microsparry quartz to 0.25mm in grain size and abundant limonitised or leached very fine-grained probable pyrite.
Mica	Sparse flakes and aggregates of partly limonite-stained mica occur, with 0.7% mica indicated by the assay data. Some of the mica occurs in veins with quartz, indicating primary rather than supergene veining.
Quartz veins	Narrow quartz-filled fractures locally contain mica or limonite.
Limonite-malachite patches	Patches of limonite and partly fibrous malachite occur, to 6 or 7mm in diameter. Limonite and malachite also occur in fractures. These seem to have replaced copper sulphide patches.

This sample may have been a hydrothermal quartz-pyrite-copper sulphide aggregate that has been weathered to a gossan and modified by supergene processes.

40692 **Net-veined or brecciated (hydrothermal breccia?) silicified sediment (dolomite?) with leached sulphides, sparry to columnar quartz, chrysocolla, clays, barite and chalcedony.**

Field Note: *Leached/silicified dolomite with copper and boxworks: close to massive silica alteration zone: what is the nature of the leaching/heavy weathering of this rock?*

Component	Abundance and notes
Cherty quartz-1	Large masses of cherty fine-grained quartz, possibly silicified dolomite, may represent the host in this sample, which is not obviously a breccia
Sparry to columnar quartz-2	Relatively minor granular to columnar quartz to 2 or 3mm long within cherty quartz and between this quartz and large areas of leached material (sulphide?)
Voids with sparry and fibrous quartz	Voids to 5mm long occur in domains to 15mm in diameter with interstitial granular quartz and some areas of quartz similar to that in pressure shadows against sulphide crystals. One of the voids has patches of colloform chalcedony along the margin and within the void. These voids are rarely rimmed by limonite but may represent leached sulphide.
Barite and illite	Sparse rosettes and decussate patches of barite occur adjacent to some voids and sparse clay patches (illite?) also occur in and adjacent to voids.
Chrysocolla	A mass of microspherulitic and colloform chrysocolla occurs adjacent to a void. This mass is 3mm long and separated from the void by a rim of chalcedony.

This sample seems to represent silicified sediment (dolomite?) with leached possible sulphide, rare barite and clay and chrysocolla ± chalcedony. It does not seem to represent an obvious breccia but the sulphide and associated quartz may represent net-veining or a matrix to a hydrothermal breccia of silicified sediment.

40698 **Heterogeneous and inequigranular granular to prismatic quartz with two patches of malachite.**

Field Note: *Sample from Utica pit: relationship between copper mineralisation and brecciation of rock (tectonic or collapse breccia) and nature of boxwork textures in clasts?*

Component	Abundance and notes
Quartz-1 with limonite after pyrite and malachite	Abundant areas of cherty, microsparry and felted or decussate prismatic quartz, mostly clouded and carrying minor limonite after pyrite as well as rare areas with interstitial malachite. Patches of equant clouded quartz are evident.
Quartz-2 with barite	Clouded to clear granular to prismatic quartz to 6mm in grain size with zones indicated by fluid inclusion-rich and poor bands. Grains and patches of barite to 10mm long occur between quartz aggregates.
Malachite	Malachite occurs in two patches, 3-4mm long, interstitial to fine-grained quartz that is itself interstitial to coarse-grained quartz.

The assay for this sample suggests more abundant dolomite ± calcite than is seen in the thin section, but again much less abundant barite. This sample is low-temperature hydrothermal quartz with barite and malachite but there is insufficient textural preservation to determine the origin of the aggregate.

APPENDIX 3 – Rock chip geochemical assay data

Sample No.	Tenement n	Tenement name	Prospect	Zone	GDA94	GDA94	Sample type	Field description
241940	EL 3549	Burra South	Princess Royal	54 H	315631	6261280	outcrop	Massive white quartzite lode with malachite staining
724401	EL 3549	Burra South	Princess Royal	54 H	315805	6260795	outcrop	Possible gossan
724402	EL 3549	Burra South	Princess Royal	54 H	315819	6260795	outcrop	Possible gossan
724403	EL 3549	Burra South	Princess Royal	54 H	315848	6260753	outcrop	Possible gossan
724404	EL 3549	Burra South	Princess Royal	54 H	315860	6260757	outcrop	Possible gossan
724427	EL 3549	Burra South	Princess Royal	54 H	315322	6261496	mullock	copper ore from shaft
724428	EL 3549	Burra South	Princess Royal	54 H	315332	6261552	mullock	siderite and gossan from shaft
724429	EL 3549	Burra South	Princess Royal	54 H	315310	6261617	mullock	gossan after massive chalcopyrite from shaft
724430	EL 3549	Burra South	Princess Royal	54 H	315310	6261617	outcrop	partly ox silica-chalcopyrite ore
724431	EL 3549	Burra South	Princess Royal	54 H	315649	6261002	outcrop	partly oxidised ore
724432	EL 3549	Burra South	est of Princess Roy	54 H	314425	6260991	outcrop	pyritic micaceous shales near Burra Ck
724433	EL 3549	Burra South	north of St Elmo	54 H	318201	6254278	outcrop	silicified lmst with dissem. pyrite
724434	EL 3549	Burra South	north of St Elmo	54 H	318174	6254290	outcrop	silicified lmst with gossan vein
724435	EL 3549	Burra South	north of St Elmo	54 H	318224	6253568	outcrop	silicified lmst with dissem. sulphides
724436	EL 3549	Burra South	Edelweiss	54 H	315981	6254400	mullock	qtz vein with malachite from Edelweiss shaft
772048	EL 3549	Burra South	Utica	54 H	315640	6261010	mullock	Malachite-stained qtz vein; some leached pyrite boxwork
772049	EL 3549	Burra South	Utica	54 H	315572	6260984	mullock	Siliceous vein in leached dolomitic(?) host
772050	EL 3549	Burra South	Utica East	54 H	315964	6260776	outcrop	Leached f-grained sandstone
772051	EL 3549	Burra South	Utica East	54 H	316098	6260780	outcrop	Leached grey siltstone
772052	EL 3549	Burra South	Utica East	54 H	315916	6260895	outcrop	Strongly weathered and leached argillaceous sandstone; Fe-rich concentrations
772053	EL 3549	Burra South	Utica East	54 H	315916	6260895	outcrop	Leached sandstone; minor Fe spots and lsagangs
772054	EL 3549	Burra South	orth of Princess Roy	54 H	315357	6262610	mullock	Gossan, abundant boxworks, siderite in grey slate
40601	EL3549	Burra South	Princess Royal	54 H	314721	6261103	outcrop	thinly banded with cross-bedding, bedding measured in chert layer, alternate measurement noted was 322/61e
40602	EL3549	Burra South	Princess Royal	54 H	314860	6261201	outcrop	chert dolomite
40603	EL3549	Burra South	Princess Royal	54 H	314990	6261213	outcrop	zone of leached slt, porous sandy texture. oxidised pyrite and cerisite more obvious in unleached rock
40604	EL3549	Burra South	Princess Royal	54 H	314990	6261213	outcrop	zone of leached slt, porous sandy texture. oxidised pyrite and cerisite more obvious in unleached rock
40605	EL3549	Burra South	Princess Royal	54 H	315069	6261355	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40606	EL3549	Burra South	Princess Royal	54 H	315064	6261317	outcrop	sugary lithification/alteration?
40607	EL3549	Burra South	Princess Royal	54 H	315162	6261336	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40610	EL3549	Burra South	Princess Royal	54 H	315319	6261390	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40612	EL3549	Burra South	Princess Royal	54 H	315022	6262528	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40616	EL3549	Burra South	Princess Royal	54 H	315078	6262427	outcrop	gossan; mass of quartz and various types of limonite
40617	EL3549	Burra South	Princess Royal	54 H	315260	6261943	outcrop	barite with malachite ± chrysocolla in fractures
40618	EL3549	Burra South	Princess Royal	54 H	315260	6261943	outcrop	barite with malachite ± chrysocolla in fractures
40619	EL3549	Burra South	Princess Royal	54 H	315179	6262015	outcrop	unaltered solution breccia dolomite, with sparse quartz, mica ± barite and limonite.
40620	EL3549	Burra South	Princess Royal	54 H	315179	6262015	outcrop	gossan; mass of quartz and various types of limonite
40621	EL3549	Burra South	Princess Royal	54 H	315133	6262149	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40622	EL3549	Burra South	Princess Royal	54 H	315222	6262142	outcrop	gossan; mass of quartz and various types of limonite
40623	EL3549	Burra South	Princess Royal	54 H	315110	6262495	outcrop	very finely bedded slt/dolm
40624	EL3549	Burra South	Princess Royal	54 H	315511	6261506	outcrop	heavily fractured slst
40626	EL3549	Burra South	Princess Royal	54 H	315511	6261506	outcrop	heavily fractured slst
40628	EL3549	Burra South	Princess Royal	54 H	315511	6261506	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite
40629	EL3549	Burra South	Princess Royal	54 H	315511	6261506	outcrop	supergene hydro-thermal; supergene solution-collapse breccia; mica, quartz, limonite, barite, chrysocolla and malachite plus vugs
40630	EL3549	Burra South	Princess Royal	54 H	315461	6261523	outcrop	thinly bedded dolomite, some fine silty layers, taken in creek with calcrete
40631	EL3549	Burra South	Princess Royal	54 H	315448	6261518	outcrop	silicified siltstone; mica- and rich-rich lamellae, veins with quartz and limonite or voids
40632	EL3549	Burra South	Princess Royal	54 H	315448	6261518	outcrop	gossan; mass of quartz and various types of limonite
40633	EL3549	Burra South	Princess Royal	54 H	315433	6261508	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite
40634	EL3549	Burra South	Princess Royal	54 H	315432	6261490	outcrop	crossbedded slt within dolomite unit
40636	EL3549	Burra South	Princess Royal	54 H	315432	6261490	outcrop	crossbedded slt within dolomite unit
40637	EL3549	Burra South	Princess Royal	54 H	315422	6261477	outcrop	altered dolm rock; gossanous with chalc. cu rim. alteration is parallel to bedding.
40638	EL3549	Burra South	Princess Royal	54 H	315422	6261477	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite
40641	EL3549	Burra South	Princess Royal	54 H	315409	6261455	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40643	EL3549	Burra South	Princess Royal	54 H	315409	6261455	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40644	EL3549	Burra South	Princess Royal	54 H	315409	6261455	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.

Sample No.	Tenement n	Tenement name	Prospect	Zone	GDA94	GDA94	Sample type	Field description
40645	EL3549	Burra South	Princess Royal	54 H	315390	6261439	outcrop	see diagram
40646	EL3549	Burra South	Princess Royal	54 H	315390	6261439	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40647	EL3549	Burra South	Princess Royal	54 H	315390	6261439	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40648	EL3549	Burra South	Princess Royal	54 H	315477	6261321	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite
40649	EL3549	Burra South	Princess Royal	54 H	315452	6261255	outcrop	silicified gossan; sandy dolomite, silicified, limonite partly derived from sulphide as well as possibly ex-carbonate
40650	EL3549	Burra South	Princess Royal	54 H	315448	6261221	outcrop	silicified siltstone; mica- and rich-rich lamellae, veins with quartz and limonite or voids
40652	EL3549	Burra South	Princess Royal	54 H	315448	6261221	outcrop	
40653	EL3549	Burra South	Princess Royal	54 H	315551	6261163	outcrop	barite with malachite ± chrysocolla in fractures
40654	EL3549	Burra South	Princess Royal	54 H	315632	6261276	outcrop	
40655	EL3549	Burra South	Princess Royal	54 H	315392	6261539	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40657	EL3549	Burra South	Princess Royal	54 H	315392	6261539	outcrop	malachite ore in siltstone
40658	EL3549	Burra South	Princess Royal	54 H	315391	6261488	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40659	EL3549	Burra South	Princess Royal	54 H	315391	6261488	outcrop	unaltered solution breccia dolomite, with sparse quartz, mica ± barite and limonite.
40660	EL3549	Burra South	Princess Royal	54 H	315345	6261461	outcrop	unaltered solution breccia dolomite, with sparse quartz, mica ± barite and limonite.
40661	EL3549	Burra South	Princess Royal	54 H	315316	6261441	outcrop	
40662	EL3549	Burra South	Princess Royal	54 H	315289	6261418	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40664	EL3549	Burra South	Princess Royal	54 H	315211	6261331	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40665	EL3549	Burra South	Princess Royal	54 H	315252	6261259	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40667	EL3549	Burra South	Princess Royal	54 H	315252	6261259	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40668	EL3549	Burra South	Princess Royal	54 H	315252	6261259	outcrop	silicified dolomite, partly low-temperature hydrothermal quartz ± carbonate ± barite
40670	EL3549	Burra South	Princess Royal	54 H	315280	6261186	outcrop	
40671	EL3549	Burra South	Princess Royal	54 H	315233	6261202	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40672	EL3549	Burra South	Princess Royal	54 H	315233	6261202	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40673	EL3549	Burra South	Princess Royal	54 H	315302	6261100	outcrop	unaltered white sugery dolomite, with quartz and minor authigenic albite ± clay.
40674	EL3549	Burra South	Princess Royal	54 H	315342	6261303	outcrop	
40675	EL3549	Burra South	Princess Royal	54 H	315370	6261341	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40676	EL3549	Burra South	Princess Royal	54 H	315370	6261341	outcrop	unaltered limonite-flooded sugery dolomite, with late-stage carbonate veins with limonite and quartz
40677	EL3549	Burra South	Princess Royal	54 H	315370	6261341	outcrop	unaltered limonite-flooded sugery dolomite, with late-stage carbonate veins with limonite and quartz
40681	EL3549	Burra South	Princess Royal	54 H	315545	6261573	outcrop	
40682	EL3549	Burra South	Princess Royal	54 H	315578	6261658	outcrop	unaltered limonite-flooded sugery dolomite, with late-stage carbonate veins with limonite and quartz
40684	EL3549	Burra South	Princess Royal	54 H	315509	6261749	outcrop	silicified gossan; sandy siltstone, brecciated or net-veined with quartz veins rich in limonitised or leached pyrite with jarosite.
40685	EL3549	Burra South	Princess Royal	54 H	315477	6261864	outcrop	Leached siltstone, dissolved pyrite crystals, slip surface dextral shear
40686	EL3549	Burra South	Princess Royal	54 H	315341	6262123	outcrop	
40688	EL3549	Burra South	Princess Royal	54 H	315243	6262224	outcrop	
40689	EL3549	Burra South	Princess Royal	54 H	315243	6262224	outcrop	
40690	EL3549	Burra South	Princess Royal	54 H	315243	6262224	outcrop	
40691	EL3549	Burra South	Princess Royal	54 H	315325	6261882	outcrop	breccia with manganese veins in pit
40693	EL3549	Burra South	Princess Royal	54 H	315323	6261505	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite
40694	EL3549	Burra South	Princess Royal	54 H	315325	6261554	outcrop	
40695	EL3549	Burra South	Princess Royal	54 H	315325	6261554	outcrop	superficial sediment; layered sandy to granule-bearing calcite-dolomite-rich, with limonite and supergene Mn oxides
40696	EL3549	Burra South	Princess Royal	54 H	315300	6261616	outcrop	barite with malachite ± chrysocolla in fractures
40697	EL3549	Burra South	Princess Royal	54 H	315296	6261625	outcrop	
40614	EL3549	Burra South	Princess Royal	54 H	315296	6261625	outcrop	silicified gossan; hydrothermal quartz-pyrite-copper sulphide aggregate, weathered and modified by supergene processes
40615	EL3549	Burra South	Princess Royal	54 H	315362	6261715	outcrop	
40625	EL3549	Burra South	Princess Royal	54 H	315362	6261715	outcrop	malachite ore in siltstone
40627	EL3549	Burra South	Princess Royal	54 H	315470	6261540	outcrop	
40635	EL3549	Burra South	Princess Royal	54 H	315422	6261655	outcrop	
40640	EL3549	Burra South	Princess Royal	54 H	315440	6261694	outcrop	
40642	EL3549	Burra South	Princess Royal	54 H	315420	6262446	outcrop	azurite breccia ore
40651	EL3549	Burra South	Princess Royal	54 H	315248	6262673	outcrop	azurite breccia ore
40656	EL3549	Burra South	Princess Royal	54 H	315394	6261530	outcrop	silicified hydrothermal breccia of silicified dolomite with leached sulphides, chrysocolla, clays, barite and chalcedony
40666	EL3549	Burra South	Princess Royal	54 H	315314	6261560	outcrop	
40669	EL3549	Burra South	Princess Royal	54 H	315326	6261585	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40679	EL3549	Burra South	Princess Royal	54 H	315259	6261611	outcrop	
40683	EL3549	Burra South	Princess Royal	54 H	315337	6261455	outcrop	unaltered sugery dolomite with carbonate-limonite-quartz veins containing muscovite, barite and small voids.
40692	EL3549	Burra South	Princess Royal	54 H	315539	6261306	outcrop	
40698	EL3549	Burra South	Princess Royal	54 H	315627	6260938	outcrop	silicified low-temperature hydrothermal quartz with barite and malachite

Au-AA21-25		ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS62	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample No.	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %	
241940		0.6	0.33	19	6710	0.16	0.82	0.09	0.05	2.41	2.7	7	0.17	8960	2.11	
724401		0.2	0.23	24.7	50	1.41	0.88	0.14	0.07	3.93	14.9	7	0.19	261	3.05	
724402		0.2	0.18	47.2	40	2.87	0.88	0.07	0.11	5.43	31	5	0.05	468	6.29	
724403		0.14	0.23	18.9	40	2.57	0.11	0.08	0.05	2.56	15.3	8	0.13	101	4.11	
724404		0.16	0.13	69.9	80	3.69	0.38	0.09	0.18	3.74	49.7	7	0.15	212	6.72	
724427	0.23	1.18	0.24	1610	910	0.25	16.15	0.85	5.73	7.02	71.5	2	0.07	24700	31.1	
724428	0.06	0.12	0.63	178	80	1.07	2.25	16.9	0.34	13.2	4.3	4	0.23	3500	11.85	
724429	0.6	1.13	0.19	415	50	0.2	40.7	2.49	0.38	1.88	3.6	4	0.13	31300	42.5	
724430	0.03	1.13	0.33	80.3	3100	0.54	0.93	0.49	0.06	2.08	3	13	0.13	17900	4.74	
724431	3.44	4.94	0.2	75.5	590	0.07	61.9	0.15	0.06	3.21	7.6	5	0.07	59800	13.7	
724432	<0.01	0.49	7.26	27.4	1110	3.54	0.24	0.82	0.03	71.2	5.1	38	5.67	125.5	3.64	
724433	<0.01	0.21	0.17	20	260	0.88	0.08	12.35	0.1	3.84	28.3	4	0.16	237	3.53	
724434	0.01	0.85	0.13	268	6280	0.6	2.61	0.19	1.86	5.75	12.6	3	0.09	2450	17.05	
724435	<0.01	0.12	0.11	34.1	3440	0.26	0.69	1.32	0.05	5.97	0.8	3	0.08	275	5.83	
724436	<0.01	0.54	0.13	14.1	490	0.1	1.3	1.31	0.1	2.21	2.1	7	0.06	9090	2.37	
772048		1.81	0.31	29.3	5830	0.16	19.3	0.03	0.03	10.15	2.2	4	0.08	30400	3.49	
772049		0.24	0.15	38.7	3760	0.38	0.12	7.36	0.69	4.72	3.4	2	0.17	286	1.82	
772050		0.15	6.68	5.4	220	1.75	0.03	0.23	0.68	68.7	20	32	0.39	16.8	2.02	
772051	<0.01	6.94	7.5	540	2.77	0.06	0.28	0.02	83.1	2.2	43	4.39	83.7	1.48		
772052		0.44	5.17	153.5	470	3.36	2.85	0.09	0.12	54.7	29.4	52	1.33	878	13.6	
772053		0.08	7.23	31	790	3.67	2.24	0.52	0.08	68.6	21.1	47	2.79	199	3.07	
772054		1.18	0.21	21.4	10	0.85	0.19	0.11	0.11	4.13	19	1	0.07	11.9	>50	
40601 < 0.001		0.07	1.54 < 5		40	0.61	0.02	13.85	0.04	16	1.4	6	3.37	4.9	0.74	
40602	0.002	0.07	1.01	10	180	0.83	0.15	20.2	0.02	46.8	1.3	103	0.5	17	0.91	
40603	0.002	0.02	5.79	3.9	500	1.83	0.14	0.11 < 0.02		61.3	4.9	35	7.5	40.4	2.68	
40604	0.002 < 0.01		6.36	8.2	590	2.24	0.35	0.14 < 0.02		66.2	11.6	38	7.88	40.7	3.23	
40605	0.001	0.03	0.12 < 5		10	0.07	0.02	13.6	0.05	2.43	0.8	3	0.28	2.5	0.26	
40606	0.006	0.43	7.63	5.8	1580	1.21	0.57	0.61	0.03	99.7	4	36	0.21	7.2	2.5	
40607 < 0.001		0.11	0.13	11.4	220	0.22	0.47	2.28	0.12	2.88	1.8	3	0.18	146	1.34	
40610	0.001	0.06	0.45 < 5		1630	0.16	0.05	18.8	0.03	13.3	1.5	2	0.32	2.9	0.75	
40612 < 0.001		0.06	0.07	1.6	250	0.08	0.02	3.29	0.03	0.71	0.5	2	0.17	10.4	0.48	
40616	0.005	0.12	0.23	5.2	1640	0.13	0.22	1.02	0.04	3.67	1.6	2	0.24	68.8	1.26	
40617	0.006	0.11	0.17 < 5		350	0.41	0.1	17.4	0.11	4.28	1.1	2	0.17	74.2	0.45	
40618	0.008	0.29	0.57	14.2	410	1.37	0.16	2.09	0.1	3.95	1.6	6	0.73	49.6	1.63	
40619 < 0.001		0.1	0.12	13.7	3220	0.08	0.67	0.07	0.03	1.72	0.8	3	0.17	922	1.16	
40620	0.007	0.19	0.51	31	4920	0.85	16.4	10.9	0.04	7.66	2	1	0.35	487	1.25	
40621 < 0.001		0.17	0.86	45.7	2670	1.54	0.07	3.11	0.05	2.18	1.7	5	1.27	63.2	1.26	
40622	0.019	0.54	2.8	74.2	2280	4.64	3.97	0.14	0.21	26.1	80.7	16	0.77	22700	3.31	
40623	0.012	0.92	7.54	46.9	2350	2.42	0.57	0.08	0.08	84.5	4.9	24	0.5	4620	0.89	
40624	0.279	4.24	0.78	595	5160	5.52	13.45	0.79	3.42	19.5	88.5	14	0.37	4620	7.1	
40626 < 0.001		0.24	0.22	7	2030	0.21	0.3	19.1	0.81	5.25	3.3	1	0.16	1000	0.93	
40628	0.01	0.65	0.15	79.2	3340	0.53	7.27	0.54	0.15	6.41	6.5	5	0.19	2100	3.92	
40629 < 0.001		0.38	0.31	9.3	3330	0.28	0.45	2.1	0.08	3.92	4.7	5	0.2	5230	2.79	
40630 < 0.001		0.1	0.15 < 5		360	0.07	0.05	19.2	0.1	6.43	1.6 < 1		0.14	133.5	0.38	
40631 < 0.001		0.09	0.16 < 5		650	0.09	0.07	14.35	0.14	5.24	1.9	1	0.15	249	0.73	
40632 < 0.001		0.21	0.24	4.3	460	0.17	0.2	0.4	0.03	1.3	1.5	2	0.19	1740	1.2	
40633	0.194	3.6	0.44	9.5	1070	0.28	0.92	0.07	0.04	2.79	1.8	5	0.23	4620	4.91	
40634 < 0.001		0.09	0.07 < 5		1890	0.08	0.09	18.9	0.16	8.11	1.2 < 1		0.12	92.2	0.28	
40636 < 0.001		0.15	0.11 < 5		410	0.13	0.36	15.65	0.18	4	1.6	1	0.17	96.3	0.75	
40637 < 0.001		0.11	0.43	5	450	0.12	0.08	21.4	0.06	3.75	1.6	2	0.18	682	0.39	
40638 < 0.001		0.06	0.11 < 5		130 < 0.05		0.2	19.65	0.05	3.67	1.1 < 1		0.12	21.3	0.17	
40641 < 0.001		0.4	0.16	7	280	0.09	0.07	0.49	0.03	0.84	1.6	3	0.14	4620	2.27	
40643	0.002	0.17	0.89	66.4	350	0.98	0.29	0.67	0.71	10.25	4.8	8	0.55	352	2.17	
40644 < 0.001		0.06	0.16	6	1290	0.12	0.05	25.3	0.11	4.18	1.5	2	0.19	73.4	0.29	

Sample No.	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %
40645	0.021	0.56	0.13	17.7	330	0.3	0.76	0.11	0.03	0.39	2.1	4	0.12	8970	2.28
40646	0.222	39.2	0.16	89	1930	1.18	121	0.07	0.11	1.14	1.7	11	0.17	4620	1.64
40647 < 0.001		0.6	0.12	7.4	4040	0.18	0.82	0.17 < 0.02		16.6	1.2	7	0.15	413	1.2
40648	0.012	0.5	4.13	210	210	6.79	26	1.14	0.2	257	47.5	40	0.44	4620	9.45
40649	0.007	0.3	0.09	1.9	120 < 0.05		0.11	1.24	0.02	1.84	1.1	8	0.15	100.5	0.72
40650	0.013	1.63	0.12	12.4	1920	0.15	5.5	8.1	0.23	3	1.8	2	0.15	4620	0.87
40652	0.003	0.21	0.73	5	650	0.27	0.46	13.5	0.03	12.65	2.2	4	0.32	856	0.69
40653 < 0.001		16.5	0.28 < 5		40	0.07	0.02	22	0.1	4.98	1.6	3	0.24	14.6	0.18
40654	0.004	0.6	0.06 < 5		190	0.05	0.59	19.2	0.28	3.95	1.2	2	0.13	1200	0.16
40655	0.006	0.25	0.13	37	240	0.39	1.07	18.65	0.22	4.15	1.9	2	0.12	314	2.36
40657	0.004	0.18	0.07	0.8	50 < 0.05		0.02	1.74 < 0.02		0.58	0.4	1	0.11	15.3	0.33
40658	0.002	0.17	0.1 < 5		150	0.05	0.12	29.3	0.25	2.69	3.3	1	0.17	278	0.1
40659 < 0.001		0.13	0.04 < 5		30	0.05	0.03	18.85	0.16	3.89	1 < 1		0.12	18.1	0.14
40660	0.001	0.18	0.04	1.2	20	0.05	0.05	9.76	0.08	2.23	0.7 < 1		0.11	56	0.23
40661 < 0.001		0.1	0.07 < 5		20 < 0.05		0.01	10.6	0.03	1.5	0.8	1	0.15	7.1	0.22
40662	0.006	0.08	0.28 < 5		40 < 0.05		0.04	21.4	0.09	4.94	1.6	3	0.13	103	0.13
40664	0.005	0.19	0.29 < 5		360	0.27	0.06	15.05	0.26	9.15	2.9	3	0.19	87.5	0.36
40665	0.244	30.2	0.21	51	2210	0.18	84.9	12.2	0.44	3.82	29.3	4	0.24	4620	0.98
40667 < 0.001		0.25	7.18	3.3	610	3.49	0.12	1.09 < 0.02		92.9	0.7	43	0.9	124	0.57
40668 < 0.001		0.3	1.81 < 5		50	0.14	0.06	16.65	0.08	20.8	3.3	6	0.13	14.2	2.54
40670	3.27	0.6	6.93	10.6	480	3.12	1.38	1.58	0.06	70	2.1	31	0.95	409	0.88
40671	0.001	0.4	0.46	222	620	4.06	5.93	0.15	0.11	13.15	28.2	9	0.18	801	13
40672	0.007	0.45	0.21	184	1920	3.19	4.3	4.07	0.21	1.92	3.2	3	0.22	1510	5.04
40673	0.006	0.55	0.15	11.7	680	0.43	1.13	0.84	0.04	2.76	1.3	5	0.19	624	1.07
40674	0.025	0.34	0.19	256	2730	4.61	6.47	1.47	0.31	1.39	5.8	4	0.18	1970	7.9
40675	0.012	1.69	2.09	104.5 > 10000		0.95	14.05	0.08	0.51 > 500		747 < 1		0.17	5850	0.91
40676	0.892	1.24	0.22	79.7	3080	0.14	2.94	0.17	0.08	2.73	2	4	0.14	4620	2.63
40677	0.094	0.47	0.12	13.8	4220	0.05	3.36	0.06 < 0.02		1.46	0.6	5	0.13	4620	2.03
40681	0.013	0.15	0.11	6.4	4980	0.08	1.51	0.04	0.03	12.65	14	3	0.12	1900	1.98
40682	0.681	0.81	0.09	694	390	0.2	2.31	0.18	0.26	3.74	6.2	2	0.12	4620	20.7
40684	0.009	0.35	0.24	92.7	940	4.22	3.01	0.44	0.12	6	3.6	11	0.27	1400	5.16
40685	0.01	1.5	1.69	121.5	5570	6.83	7	0.08	0.1	37.4	4.6	26	0.74	4620	5.47
40686	0.068	0.33	0.49	53	1410	1.16	6.09	18.95	3.9	7.3	11.1	3	0.26	3280	2.18
40688	0.359	5.13	0.24	77.4	90	2.16	4.04	0.06	1.85	16.25	82.8	3	0.2	4620	0.85
40689	0.024	1.73	0.86	233	4480	8.16	0.68	0.1	0.36	12.85	107	11	0.37	1510	13.65
40690 < 0.001		6.74	0.13	38.2	100	0.16	0.37	3.08	0.18	1.79	8.4	2	0.14	4620	7.74
40691	0.02	7.34	0.35	564	50	2.14	2.07	0.26	0.25	6.19	8.2	26	0.29	4620	18.15
40693 < 0.001		0.15	0.08 < 5		60 < 0.05		0.06	20.3	0.03	5.29	1.1 < 1		0.12	43.4	0.24
40694	0.006	0.4	0.24 < 5		70	0.13	0.04	21	0.05	10.4	1.8 < 1		0.16	4620	0.66
40695	0.002	0.31	4.25	20	130	0.32	0.77	13.5	0.08	57.6	9.3	25	0.31	193	2.76
40696	0.012	0.11	0.14	11	3320	0.15	0.1	20.2	0.05	11.3	1.6 < 1		0.16	232	0.38
40697 < 0.001		0.16	0.17	5.9	130	0.61	0.02	2.65	0.03	1.53	1.3	1	0.6	29.1	0.52
40614	0.005	0.32	0.54	99.8	140	3.14	6.96	0.11	0.15	14.25	2.3	11	0.36	620	9.36
40615	0.044	0.3	0.06	275	1930	0.14	8.5	0.06	0.3	0.5	1.1	1	0.16	4620	1.19
40625	0.078	0.9	2.26	70.9	1830	2.87	5.85	0.24	0.6	37	66.4	12	0.55	4620	2.27
40627	0.385	1.38	1.85	80.9	4630	1.04	3.23	0.11	0.57	6.89	9.4	13	0.38	759	10.4
40635 < 0.001		0.15	0.07 < 5		940	0.09	0.09	21.9	0.14	7.64	1.4 < 1		0.14	129.5	0.21
40640 < 0.001		0.11	0.03	1.6	1840 < 0.05		0.04	5.44	0.03	1.34	0.5	1	0.12	36.3	0.35
40642 < 0.001		0.19	0.2	208	870	4.19	2.01	2.1	0.13	31.1	11.6	32	0.16	1500	13.35
40651	0.005	0.23	0.17 < 5		2570 < 0.05		0.06	21.7	0.05	4.23	1.3	1	0.16	94.7	0.35
40656	0.002	0.23	0.16 < 5		70 < 0.05		0.06	19.7	0.06	5.11	1.2	1	0.12	94	0.2
40666	0.037	0.38	0.11 < 5		50 < 0.05		15.15	20.5	0.42	3.37	1.4	2	0.16	1600	0.29
40669	0.037	3.17	4.88	13.1	2280	2.02	10.25	1.55	0.06	66.2	4.3	42	1.45	7180	1.71
40679	0.009	0.19	1.2	63	2500	1.56	6.53	14.6	0.14	29.7	20.1	4	0.36	2410	2.61
40683	0.558	5.52	0.19	876	720	0.22	19.85	0.15	0.21	1.43	4.4	6	0.17	4620	21.6
40692	0.03	0.55	0.32	30.7	5240	0.56	1.73	1.66	0.06	14.85	4.5	6	0.16	5300	1.65
40698	0.014	0.42	0.14	7.6	2280	0.13	18.25	1.5	0.02	0.96	0.9	2	0.12	4460	1.28

	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
Sample No.	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	Re ppm	
241940	1.08	<0.05	0.2	0.01	0.15	1.2	12	0.07	244	1.14	0.06	0.9	5.2	170	3.1	5.5	0.004	
724401	1.21	0.05	0.2	0.024	0.07	1.9	7.9	0.07	487	1.32	0.02	1.6	26.3	150	2.5	3.1	<0.002	
724402	0.67	0.11	0.1	0.015	0.04	1.1	2.5	0.05	395	0.87	0.01	0.4	49.5	310	1.6	1.6	<0.002	
724403	1.09	0.06	0.1	0.011	0.07	1.1	5.3	0.06	583	1.1	0.01	1.1	47.1	360	1.1	3	<0.002	
724404	0.73	0.1	0.1	0.013	0.06	1.9	3.8	0.06	1470	1.55	0.01	1.7	129	670	1	2.4	<0.002	
724427	0.62	0.32	0.2	0.135	0.04	2.5	1.9	0.12	1490	1.55	0.01	0.5	97.3	590	10.2	1.2	0.002	
724428	2.22	0.15	0.5	0.272	0.18	5.9	6	1.13	433	2.86	0.01	0.5	11.6	580	4.1	6	<0.002	
724429	2.58	1.87	0.1	5.87	0.06	0.9	3	0.1	177	1.2	0.01	0.9	4.3	320	18.4	1.9	<0.002	
724430	3.29	0.07	0.2	4.04	0.09	0.9	21.7	0.15	507	3.67	0.01	0.8	6.2	330	2.1	3.6	0.002	
724431	0.86	0.14	0.1	0.207	0.11	1.6	14.7	0.05	147	4.71	0.01	0.4	15.8	180	20.7	3.2	<0.002	
724432	21.3	0.15	5.4	0.075	2.62	38.1	37.7	1.17	1505	1.19	1.53	11.7	19.2	510	8.8	170	0.002	
724433	2.78	0.05	0.1	0.019	0.04	2.2	29.5	7.48	423	0.51	0.01	0.3	53.2	180	6.5	1.9	<0.002	
724434	2.19	0.19	0.1	0.314	0.04	3.4	10.7	0.11	277	3.39	0.01	0.5	23.9	270	965	1.6	0.004	
724435	4.52	0.07	0.1	0.034	0.02	3.3	15	0.1	102	2.79	<0.01	0.3	1.8	110	8.3	1	0.002	
724436	0.54	<0.05	0.1	0.159	0.03	1	3.4	0.59	132	0.91	0.01	0.5	3.6	50	10.1	0.5	<0.002	
772048	1.32	0.06	0.2	0.066	0.13	5.5	18.2	0.05	225	1.16	0.01	0.8	5.2	150	5.9	4.1	0.004	
772049	2.39	<0.05	0.1	0.046	0.05	2.4	17.4	4.23	1490	1	0.01	0.2	6	350	2.9	1.6	0.003	
772050	16.85	0.14	4.9	0.008	0.3	39	6.8	0.2	150	0.38	4.69	9.1	48.2	540	2.5	14.2	<0.002	
772051	19.8	0.15	4.6	0.049	2.55	45.5	15.3	1.27	58	0.28	2.33	12.4	22.8	850	2.7	133	0.002	
772052	20.5	0.26	4.2	0.079	2.27	29.9	6.2	0.79	193	6.92	0.44	4.8	78.1	1590	18.4	77.9	<0.002	
772053	18.95	0.17	5.5	0.056	2.98	35.6	10.5	1.12	199	2.01	0.73	11.6	37.5	3210	8.5	127.5	<0.002	
772054	3.02	1.83	0.2	0.767	0.02	2.2	0.4	0.22	1945	4.75	0.04	1	49	1400	1.8	0.5	<0.002	
40601	3.9	0.15	1.1	0.016	0.42	7.8	18.9	9.16	184	0.09	0.84	2.5	3.7	210	1.3	37.4	< 0.002	
40602	3.27	0.24	0.2	0.009	0.36	39.3	3.4	0.11	46	0.56	0.23	1.1	2.9	> 10000	3.1	15.6	0.002	
40603	15.45	0.23	4.2	0.052	2.03	34.2	18.8	1.34	79	0.18	1.3	10.6	21	430	4.6	139	0.002	
40604	17.15	0.25	4.7	0.062	2.4	36.7	19.4	1.41	73	0.24	1.37	11.8	15.9	480	4.9	163	0.002	
40605	0.55	0.37	0.1	0.007	0.04	1.2	2.2	8.63	172	0.11	0.03	0.3	1.9	60	0.7	2.3	< 0.002	
40606	20.9	0.31	6.5	< 0.005	0.09	57.2	1.8	0.07	51	0.71	5.91	10.8	12.9	2520	2.4	1.9	0.002	
40607	0.69	0.09	0.1	0.012	0.02	1.2	1.2	1.18	266	0.2	0.02	0.3	5.1	50	4	1.4	< 0.002	
40610	0.76	0.14	0.7	0.045	0.46	5.6	4.3	9.72	421	0.14	0.03	0.8	2.4	150	0.9	5.2	0.003	
40612	0.42	0.11 < 0.1	< 0.005		0.03 < 0.5		6.8	2.07	121	0.14	0.01	0.2	1	30	0.6	1.2	< 0.002	
40616	1.01 < 0.05		0.2	0.047	0.06	1.4	9.5	0.45	652	0.2	0.01	0.3	2.9	250	1.5	2.5	0.002	
40617	0.71	0.06	0.1	0.012	0.07	1.9	3.1	10.95	998	0.12	0.01	0.3	3.1	250	1.9	2.3	0.002	
40618	2.99	0.06	0.2	0.022	0.16	2.3	100	1.1	233	0.39	0.02	0.6	3.7	350	3.7	6.8	< 0.002	
40619	0.46	0.05	0.1	0.007	0.02	0.7	1.3	0.03	171	0.23 < 0.01		0.3	1.7	140	1.2	1	0.003	
40620	1.89	0.06	0.4	0.189	0.19	3.4	7	2	1390	0.38	0.01	0.4	8.3	550	2.7	6.9	0.003	
40621	3.58	0.05	0.5	0.009	0.84	0.9	215	3.67	226	0.73	0.02	1.1	4.3	180	1.5	29.8	0.003	
40622	11.7	0.15	2.2	0.957	1.25	9.4	27.3	0.45	2080	1.12	0.03	2	15	300	5.1	44.5	0.002	
40623	18.15	0.28	6.2	0.041	2.62	43.8	23.6	0.41	113	0.27	0.04	13.1	5.4	250	4.9	90.1	0.003	
40624	1.71	0.3	0.5	0.099	0.17	6	20.2	0.24	2520	7.52	0.05	0.4	128	560	5.7	7	0.004	
40626	0.73 < 0.05		0.2	0.092	0.11	2.6	6	11.75	335	0.32	0.01	0.4	3.8	50	0.7	3.8	0.003	
40628	2.03	0.09	0.1	0.506	0.03	2.9	16.8	0.09	336	1.12	0.02	0.2	13.9	140	2.3	1.3	0.003	
40629	1.31	0.07	0.2	0.093	0.11	1.7	39.9	0.96	438	0.83	0.01	0.9	5.8	80	1.8	4	0.003	
40630	0.56 < 0.05		0.1	0.021	0.09	3	5.9	11.85	369	0.23	0.01	0.3	2.1	30 < 0.5		2.7	0.002	
40631	0.62 < 0.05		0.1	0.056	0.09	2.8	5.6	8.8	492	0.43	0.01	0.3	3.4	50	0.6	2.6	< 0.002	
40632	0.74 < 0.05		0.1	0.059	0.08	0.6	26.9	0.22	362	0.28	0.01	0.2	2.1	190	1.9	2.7	0.002	
40633	1.19	0.13	0.3	0.183	0.14	1.6	36.6	0.06	137	0.73	0.01	0.6	5.5	680	9.6	4.2	0.002	
40634	0.48 < 0.05		0.1	0.018	0.02	4.3	1.4	12.2	534	0.11	0.01	0.2	1.4	150	1.9	0.6	0.003	
40636	0.57	0.07	0.1	0.035	0.04	1.9	2.4	9.75	622	0.21	0.03	0.2	2.7	290	1.4	1.4	0.002	
40637	1.39	0.2	0.2	0.025	0.2	1.5	2.2	11.25	789	0.18	0.01	0.4	2.6	180	2.4	5.4	< 0.002	
40638	0.6	0.53	0.1	0.007	0.05	1.8	0.5	12.45	725	0.16	0.01	0.2	1.7	70	1	1.1	< 0.002	
40641	0.53	0.05	0.1	0.02	0.04 < 0.5		39.3	0.26	169	0.31	0.01	0.1	3.3	80	1.5	1.1	0.002	
40643	5.54	0.07	0.5	0.687	0.16	4.2	11.5	0.4	1005	0.47	0.03	0.9	11.6	310	5.1	8.5	< 0.002	
40644	0.61	0.1	0.1	0.012	0.05	1.5	1.6	7.26	304	0.09	0.03	0.3	2.5	80	0.5	1.6	0.002	

Sample No.	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	Re ppm
40645	0.59	0.05 < 0.1		0.039	0.03 < 0.5			35.8	0.05	248	0.45	0.01	0.1	4.8	130	1.3	1 < 0.002
40646	0.48	0.06		0.1	0.516	0.04	0.6	14.1	0.05	100	0.54	0.01	0.2	12.3	150	6.5	1.7 < 0.002
40647	1.13	0.05		0.2	0.071	0.03	4	5.6	0.11	124	0.33	0.01	0.3	3.2	70	1	1 0.004
40648	5.78	0.44		2.1	0.674	0.33	48.5	35.9	0.77	300	1.19	0.02	0.8	106	1410	17.4	8.6 0.002
40649	0.48 < 0.05			0.1 < 0.005		0.02	0.6	2.1	0.59	546	1.33	0.01	0.2	2.1	240	1.1	1 < 0.002
40650	0.63 < 0.05			0.1	0.039	0.04	1.2	6	5.02	630	0.71	0.01	0.3	3.1	100	0.9	1.4 0.002
40652	1.46	0.08		0.5	0.018	0.85	3.8	35.1	8.28	259	0.48	0.02	0.8	3.8	430	0.8	10 0.002
40653	0.68	0.16		0.2 < 0.005		0.14	3.7	2	9.89	389	0.08	0.03	0.4	1.7	200	2.2	2.9 < 0.002
40654	0.46	0.31		0.1	0.008	0.01	1.7	1.1	11.45	589	0.1	0.01	0.2	1.7	320	1.2	0.4 < 0.002
40655	0.69	0.08		0.1	0.056	0.02	2.2	0.5	11.7	618	0.67	0.01	0.2	3.5	150	5	0.5 < 0.002
40657	0.4	0.08 < 0.1		< 0.005		0.02 < 0.5		1.3	0.68	108	0.06 < 0.01		0.1	0.7	50	0.5	0.4 < 0.002
40658	0.53	0.35		0.1 < 0.005		0.02	1.4	0.8	4.63	242	0.1	0.02	0.3	3.9	130	0.9	0.9 < 0.002
40659	0.43	0.56 < 0.1			0.009 < 0.01		2	0.3	12.15	457	0.1	0.01	0.2	1.5	60	0.5	0.1 < 0.002
40660	0.32	0.39 < 0.1			0.005	0.01	1	0.8	6.01	280	0.11	0.01	0.1	3.5	40	0.8	0.2 < 0.002
40661	0.37	0.23 < 0.1		< 0.005		0.01	0.7	1	6.5	543	0.08	0.01	0.2	1	40	1.3	0.5 < 0.002
40662	0.78	0.53		0.2 < 0.005		0.34	2.4	0.9	12.1	430	0.07	0.01	0.6	1.7	200	0.7	2.4 < 0.002
40664	1.88	0.34		0.1	0.087	0.1	4.6	12	8.77	606	0.11	0.02	0.3	1.6	440	5.6	2.8 < 0.002
40665	1.14	0.06		0.1	1.41	0.09	2	9.6	5.95	928	0.59	0.01	0.2	10.3	230	9.3	2.6 0.002
40667	29	0.35		6.9	0.03	3.57	49.1	41.9	1.42	73	0.78	0.14	11	2.8	120	2.3	103.5 0.002
40668	4.74	0.11		1	0.084	0.02	10.2	0.8	9.93	1285	0.12	1.44	2	4.5	150	4.1	0.5 < 0.002
40670	26.6	0.62		7	0.085	2.21	47.6	41.3	1.38	99	0.14	2.05	12	12.5	610	4	76.6 0.005
40671	1.42	0.22		0.3	0.091	0.15	5.2	3.1	0.1	684	0.48	0.01	0.6	155.5	1520	2.6	4.4 < 0.002
40672	1.34	0.12		0.3	0.397	0.09	2.5	4.8	0.85	9580	2.04	0.03	0.4	29.5	150	1	3.6 0.003
40673	0.63 < 0.05			0.2	0.032	0.07	1.4	4.3	0.17	550	0.23	0.01	0.4	4.8	90	1.4	2.5 < 0.002
40674	1.51	0.15		0.3	0.615	0.1	1.7	5	0.36	14300	2.76	0.01	0.3	44.2	290	1	3.4 0.003
40675	10.85	0.5		0.2	1.725	0.23	155.5	404	0.05 > 100000		3.21	0.03	0.2	121.5	370	0.9	2.4 0.021
40676	1.02	0.06		0.1	0.076	0.07	0.9	23.9	0.06	540	0.84	0.01	0.3	2.6	220	5	2 0.003
40677	0.56	0.05 < 0.1			0.043	0.02	0.6	17.1	0.02	155	0.26	0.01	0.3	1.3	230	4.4	0.7 0.002
40681	0.42	0.05 < 0.1			0.039	0.01	2.1	32	0.01	2360	0.4 < 0.01		0.6	4.4	30 < 0.5		0.4 0.003
40682	2.32	0.33 < 0.1			2.83	0.04	1.2	5.4	0.06	657	4.34 < 0.01		0.3	7.8	390	2.3	0.9 < 0.002
40684	4.77	0.11	0.4		0.161	0.08	1.5	14.6	0.1	494	2	0.01	0.2	18.5	310	8.8	3 0.002
40685	5.58	0.21	1.5		0.169	0.8	12.2	80.2	0.27	225	2.35	0.01	1.7	22.6	530	38.3	27.9 0.005
40686	1.32	0.07	0.3		0.265	0.27	2.7	8.6	8.97	1330	0.93	0.01	0.7	15.5	150	1.5	9.1 0.002
40688	1.18	0.13	0.2		0.164	0.09	7.8	6.8	0.07	943	2.49 < 0.01		0.3	15.2	210	5.3	3.8 < 0.002
40689	2.88	0.25	0.6		0.04	0.39	5	13.7	0.21	577	1.74	0.02	0.8	181.5	1330	4.9	13.8 0.003
40690	0.48	0.13	0.3		1.02	0.04	0.8	4.8	1.61	898	2.77	0.01	0.2	22.7	350	5.2	1.2 < 0.002
40691	1.16	0.27	0.2		0.845	0.16	2.7	2.3	0.16	473	1.43	0.02	0.5	49.7	1010	7.1	4.8 < 0.002
40693	0.29 < 0.05	< 0.1			0.016	0.04	1.9	0.7	13.1	772	0.26	0.01	0.2	0.8	160	0.5	1 < 0.002
40694	0.68	0.05		0.1	0.308	0.11	4.2	1.6	11.9	686	0.25	0.01	0.4	2.3	290	2.6	2.9 < 0.002
40695	8.22	0.15	3.1		0.018	3.31	24.9	8.3	6.02	275	5.46	0.06	6.6	21.2	1950	7.5	32.4 0.003
40696	0.46	0.08	0.1		0.008	0.03	7.4	1.1	11	720	0.27	0.01	0.3	1.4	400	4	1 0.002
40697	5.94 < 0.05	< 0.1		< 0.005		0.12	0.6	54.5	3.7	276	0.19	0.01	0.1	2.1	60	0.6	4.9 < 0.002
40614	2.42	0.19	0.4		0.116	0.2	9.7	11.3	0.11	301	0.4	0.05	0.6	18.6	790	10	6.8 < 0.002
40615	0.33	0.05 < 0.1			0.103	0.01 < 0.5		4	0.04	166	0.29 < 0.01		0.2	2.3	100	1.3	0.6 < 0.002
40625	5.03	0.13	1.8		0.689	0.74	17.1	15.9	0.27	2390	1.02	0.01	1.7	43.9	440	5.3	24.4 0.002
40627	7.23	0.21	1.9		1.205	0.99	3	43.5	0.32	259	2.87	0.01	1.9	27.1	290	5.2	28.1 0.005
40635	0.47	0.07	0.1		0.023	0.02	4.8	1	11.9	592	0.13	0.01	0.2	2	130	1.8	0.7 0.002
40640	0.27	0.18 < 0.1			0.006	0.01	0.6	1	2.85	534	0.1	0.01	0.1	1.1	30	0.5	0.3 0.003
40642	1.51	0.25	0.7		0.12	0.07	17.8	5	0.85	535	2.04	0.01	0.4	56.8	1200	4.1	1.7 0.002
40651	0.53 < 0.05		0.1		0.008	0.07	2.4	1.2	11.05	653	0.26	0.01	0.3	1.6	230	0.6	1.7 0.004
40656	0.68	0.35	0.1		0.012	0.06	2.3	2.5	12.7	653	0.12	0.05	0.3	1.3	140	0.8	0.8 < 0.002
40666	0.46	0.15	0.1		0.196	0.06	1.8	1.2	11.65	694	0.2	0.01	0.2	1.5	180	2.1	1.6 < 0.002
40669	15.9	0.24	4.9		0.205	2.37	34.6	23	1.29	168	1.42	0.07	8.3	3.5	210	4.2	81.8 0.003
40679	4	0.1	0.8		0.383	0.21	10.7	14.9	1.41	9200	1.37	0.01	1.2	16	490	8.2	6.5 0.003
40683	5.54	0.36 < 0.1			6.12	0.07 < 0.5		16.9	0.08	436	1.59	0.01	0.3	4.4	360	4.7	2 < 0.002
40692	1.26	0.06	0.2		0.047	0.06	3.4	6.4	0.87	121	0.58	0.01	0.3	7.5	140	1.4	1.7 0.005
40698	0.44 < 0.05	< 0.1			0.043	0.01	0.6	45	0.49	154	0.55 < 0.01		0.3	2.2	160	2.4	0.5 < 0.002

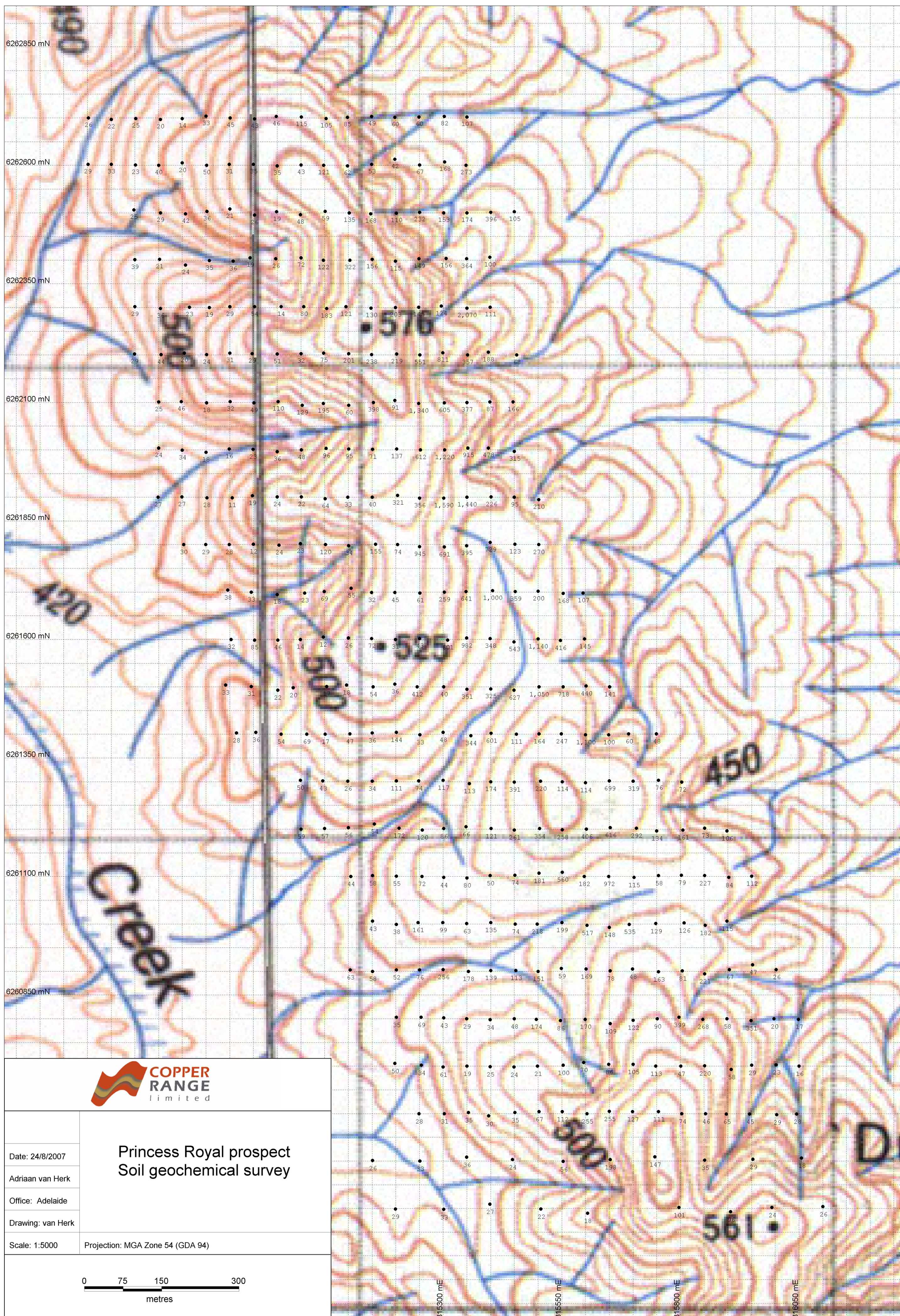
Sample No.	S %	ME-MS61 Sb ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %	ME-MS61 Tl ppm	ME-MS61 U ppm	ME-MS61 V ppm	ME-MS61 W ppm	ME-MS61 Y ppm	ME-MS61 Zn ppm	ME-MS61 Zr ppm
241940	0.17	3.35	2	0.3	160.5	<0.05	<0.05	0.4	0.012	0.05	0.4	4	0.5	1.1	33	6
724401	0.01	4.89	<1	0.3	28.8	<0.05	<0.05	0.6	0.012	0.3	0.4	21	0.7	6.58	78	5.5
724402	0.01	2.14	1	0.2	21.1	<0.05	<0.05	0.3	0.005	0.07	0.6	35	0.3	28.2	129	2.6
724403	0.01	3.61	<1	0.3	20.6	<0.05	<0.05	0.4	0.009	0.15	0.3	19	0.6	3.1	112	4.6
724404	<0.1	3.77	<1	0.2	22.8	<0.05	<0.05	0.4	0.006	0.23	0.4	16	0.3	5	226	3.9
724427	0.06	196.5	2	0.2	217	0.09	<0.05	0.4	<0.005	0.48	12.1	45	0.2	9.4	6170	6.5
724428	0.01	23.9	2	0.2	238	0.05	<0.05	1.5	0.012	0.19	2	41	0.5	17.1	150	19.5
724429	0.08	45.4	3	8.1	63	0.32	<0.05	0.3	<0.005	0.17	1.1	29	0.2	2.5	83	5.4
724430	0.15	10.6	8	0.6	520	0.05	<0.05	0.3	0.018	0.18	0.7	10	0.5	1.9	60	7.5
724431	0.34	41.4	4	1.2	487	<0.05	0.08	0.7	<0.005	0.06	3.4	8	0.8	0.5	118	4.8
724432	0.01	0.77	1	3.3	51.5	1.08	<0.05	15.5	0.319	1.05	2.5	57	1.6	15.6	34	182.5
724433	0.02	1.54	1	<0.2	192	<0.05	<0.05	0.8	0.005	0.09	1.3	11	<0.1	3.1	239	3.4
724434	0.2	26.1	9	23.9	111.5	<0.05	0.31	0.4	<0.005	0.04	1.6	166	0.6	2.2	1280	8.2
724435	0.13	4.18	3	1.1	328	<0.05	0.08	0.2	<0.005	<0.02	0.2	6	<0.1	2.3	21	2.3
724436	0.03	1.73	1	1.5	32.3	<0.05	<0.05	0.4	0.006	0.29	0.2	693	0.2	6	48	3.9
772048	0.21	12.6	1	0.8	265	<0.05	<0.05	2.5	0.007	0.05	0.8	6	0.5	0.4	35	5.5
772049	0.1	4.66	1	0.3	184.5	<0.05	<0.05	0.4	<0.005	0.28	0.7	11	0.4	2.3	123	3.1
772050	0.02	0.3	1	2.4	53.3	0.8	<0.05	17.9	0.258	0.07	3.3	37	4.8	20.5	27	172
772051	0.02	0.28	1	3.2	38.1	1.06	<0.05	18.9	0.375	0.44	2.5	62	1.8	16.8	4	158
772052	0.17	2.34	12	2.2	273	0.34	0.19	21.7	0.164	0.16	13.9	63	2	15	18	144
772053	0.1	1.11	5	3.5	1020	0.98	0.11	17.4	0.361	0.25	11.9	75	2.5	27	14	188
772054	0.11	0.5	6	2.2	34.5	0.05	0.06	0.7	0.008	<0.02	4.3	159	20.4	5.7	30	24.9
40601	0.01	0.11	1	0.6	535	0.23 < 0.05		3.9	0.062	0.19	0.4	12	0.4	8.2	14	33.5
40602	0.02	0.4	2	0.5	1090	< 0.05		3.7	0.028	0.11	3.1	27	0.7	74.7	16	6.4
40603 < 0.01		0.31 < 1		2.7	26.7	1.17 < 0.05		17	0.304	0.64	2.6	47	1.5	13.6	29	133.5
40604	0.01	0.87 < 1		2.9	37.5	1.23	0.05	17.9	0.336	0.7	4	53	3.5	16.2	33	146.5
40605	0.01	0.09 < 1	< 0.2		213 < 0.05	< 0.05		0.4	0.005	0.06	0.1	3	0.2	1.3	8	3.1
40606	0.12	0.21	1	2.3	113	1.15 < 0.05		23.8	0.306	0.07	5.3	23	2.8	12.3	12	208
40607	0.07	6.19	1	0.5	40.6 < 0.05	< 0.05		0.6	0.006	0.05	0.2	22	0.2	1.5	55	4.1
40610	0.06	0.56	1	0.2	313	0.05 < 0.05		1.9	0.016	0.06	0.8	8	0.4	9.1	7	21.9
40612	0.01	0.14 < 1	< 0.2		72.6 < 0.05	< 0.05	< 0.2	< 0.005		0.03	0.1	2	0.1	0.3	4	1.5
40616	0.04	1.68 < 1		0.2	96.4 < 0.05	< 0.05		0.6	0.01	0.06	0.4	6	1.4	1.9	8	5.6
40617	0.02	1.17	1 < 0.2		350 < 0.05	< 0.05		0.4	0.005	0.23	0.4	5	0.3	2.1	41	4.4
40618	0.02	4.22 < 1		0.2	259 < 0.05	< 0.05		1	0.01	0.12	1.1	14	0.7	1.3	28	8.1
40619	0.11	6.15 < 1	< 0.2		313 < 0.05	< 0.05		0.2	0.005	0.04	0.4	2	0.1	0.6	12	3.1
40620	0.15	10.95 < 1		0.3	508 < 0.05	< 0.05		1.4	0.01	0.49	0.8	15	1.3	2.8	60	12.6
40621	0.15	1.58 < 1		0.2	141.5	0.07 < 0.05		1.8	0.032	0.26	0.7	13	0.3	1.3	49	15.7
40622	0.1	8.84	2	3.4	616	0.18 < 0.05		4.4	0.062	0.4	2.4	93	5.4	20.5	65	60.8
40623	0.07	5.49	8	3.3	133	1.23	0.11	18.9	0.334	0.33	3	32	12.5	21.6	20	190
40624	0.15	90.3	41	0.2	311 < 0.05		0.15	0.8	0.008	0.35	3.8	136	2.2	23.3	579	14.1
40626	0.06	2.06	1	0.2	549 < 0.05	< 0.05		0.6	0.006	0.09	0.2	14	0.4	3.1	25	4.9
40628	0.13	8.16	2 < 0.2		251 < 0.05	< 0.05		1.3 < 0.005		0.09	0.4	22	1.8	2.4	122	4.6
40629	0.14	3.96	2	0.3	137.5 < 0.05	< 0.05		0.4	0.009	0.07	0.4	11	0.5	1.8	48	6.1
40630	0.02	1.31	1 < 0.2		617 < 0.05	< 0.05		0.3	0.005	0.03	0.2	15	0.4	2.6	11	4.3
40631	0.03	1.73	1 < 0.2		496 < 0.05	< 0.05		0.2	0.005	0.05	0.2	14	0.3	2	28	4.1
40632	0.02	1.99 < 1	< 0.2		86.6 < 0.05	< 0.05		0.2	0.005	0.06	0.4	6	2.1	0.7	19	3.9
40633	0.13	5.3	17	0.3	829 < 0.05	< 0.05		0.6	0.007	0.05	1.9	10	0.6	1.1	153	8.3
40634	0.07	1.23 < 1		0.3	394 < 0.05	< 0.05		1 < 0.005	< 0.02		0.4	8	0.3	1.6	14	2
40636	0.02	1.59 < 1		0.3	163 < 0.05	< 0.05		0.3	0.005	0.02	0.3	12	2.3	2	28	3.3
40637	0.03	0.71	1 < 0.2		424 < 0.05	< 0.05		0.5	0.008	0.02	0.5	15	0.5	2.2	13	6.9
40638	0.01	0.23 < 1	< 0.2		256 < 0.05	< 0.05		0.3 < 0.005	< 0.02		0.2	6	0.2	1.4	13	2.6
40641	0.01	1.09	1 < 0.2		21.9 < 0.05	< 0.05		0.2 < 0.005		0.14	1.3	5	1.5	0.8	14	1.6
40643	0.01	11.6 < 1		4.3	21	0.06 < 0.05		1.4	0.037	0.13	1.3	17	0.3	6.6	370	16.1
40644	0.05	0.39	1 < 0.2		509 < 0.05	< 0.05		0.4	0.005	0.06	0.2	5	0.1	3	32	5.2

Sample No.	S %	Sb ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	
40645	0.05	2.25 < 1		< 0.2		63.2 < 0.05	< 0.05	< 0.2	< 0.005	0.08	0.2	7	1.9		1	68	1.1
40646	0.41	26.9		4	0.5	355 < 0.05	< 0.05	< 0.2	< 0.005	0.09	0.8	9	0.3	2.5	77	2.5	
40647	0.12	3.59 < 1			0.2	76.9 < 0.05	< 0.05		2 < 0.005	0.05	0.2	11	0.3	3.6	19	5.4	
40648	0.05	81.1		3	0.9	1330	0.15	0.05	12	0.017	0.07	3.9	533	2.6	52.7	534	69.1
40649	0.01	0.49 < 1			0.2	34.6 < 0.05	< 0.05		0.3	0.005	0.02	0.2	3	0.6	0.8	7	3.3
40650	0.08	3.23		1 < 0.2		122 < 0.05	< 0.05		0.3 < 0.005	0.02	0.3	10	0.2	2.1	24	4.2	
40652	0.04	2.24		1	0.2	289	0.05 < 0.05		1.5	0.019	0.04	1.2	25	0.2	4.6	14	15.7
40653	0.02	0.21		1 < 0.2		167.5 < 0.05	< 0.05		0.5	0.012	0.02	0.2	2	0.2	4	15	6.2
40654	0.02	0.99		1 < 0.2		188.5 < 0.05	< 0.05		0.3 < 0.005	< 0.02	0.3	4	0.1	1.6	34	1.9	
40655	0.01	4.58		1	2.5	163.5 < 0.05	< 0.05		0.3 < 0.005	< 0.02	0.2	23	0.1	1.9	149	4.6	
40657	0.01	0.13 < 1		< 0.2		15.1 < 0.05	< 0.05	< 0.2	< 0.005	< 0.02	0.2 < 1		0.4	0.4	4	2.4	
40658	0.02	0.42		1 < 0.2		143.5 < 0.05	< 0.05		0.3 < 0.005	< 0.02	0.2	3	0.1	1.5	19	3.2	
40659	0.01	0.25 < 1		< 0.2		252 < 0.05	< 0.05	< 0.2	< 0.005	< 0.02	0.1	9	0.1	1.3	20	1.1	
40660 < 0.01		0.24 < 1		< 0.2		121 < 0.05	< 0.05	< 0.2	< 0.005	< 0.02	0.1	4	0.1	0.7	16	0.9	
40661 < 0.01		0.14 < 1		< 0.2		72.9 < 0.05	< 0.05	< 0.2	< 0.005		0.4	5	0.3	0.4	7	1.3	
40662	0.01	0.36 < 1		< 0.2		224	0.05 < 0.05		0.6	0.009	0.03	0.5	4	0.3	1.6	21	7.5
40664	0.03	0.96		1 < 0.2		961 < 0.05	< 0.05		1.4	0.005	0.03	0.2	6	0.3	1.8	37	3.9
40665	0.3	12.65		3	0.4	362 < 0.05	< 0.05		0.5 < 0.005	1.21	0.5	16	0.4	2.2	521	5.4	
40667	0.03	0.63 < 1			8.6	38.6	1.01 < 0.05		22	0.346	0.23	2.3	116	8.9	16.6	5	228
40668	0.2	0.11		1	0.8	578	0.19 < 0.05		3.9	0.046	0.03	0.5	9	0.8	11.6	14	27
40670	0.02	1.65		14	4.4	385	1.32 < 0.05		17.3	0.347	0.22	4.2	85	23.8	417	14	209
40671	0.03	78.6 < 1			0.2	227 < 0.05	< 0.05		0.9	0.008	0.04	2.7	29	3	5.2	268	12.5
40672	0.02	46.1 < 1		< 0.2		139 < 0.05	< 0.05		0.3	0.006	5.84	0.8	47	1.2	10.2	170	12.6
40673	0.02	3.34 < 1			0.2	73.2 < 0.05	< 0.05		0.6	0.008	0.4	0.5	6	0.4	1.2	20	5.7
40674	0.01	68.3 < 1		< 0.2		66.8 < 0.05	< 0.05		0.3	0.005	10.8	0.9	66	26.4	11.7	324	10.9
40675 < 0.01		50.2 < 1			0.2	159 < 0.05	< 0.05		0.2 < 0.005	6.81	3.1	4	0.8	25.2	61	4.3	
40676	0.14	17.1		1	0.3	318 < 0.05	< 0.05		0.2 < 0.005	0.25	2.4	5	0.3	0.6	54	3	
40677	0.17	2.45		1	0.2	420 < 0.05	< 0.05		0.2 < 0.005	0.11	0.3	2	0.3	0.3	3	2.9	
40681	0.14	2.19 < 1			0.2	152 < 0.05	< 0.05	< 0.2	< 0.005	0.24	0.1	2	0.1	0.7	7	0.6	
40682	0.01	117		15	0.4	33.6 < 0.05	< 0.05		0.2 < 0.005	0.26	2.5	32	0.2	2	221	2.8	
40684	0.03	308 < 1			0.2	16.7 < 0.05	< 0.05		1.9	0.011	0.09	1.2	116	2	18.7	121	16.6
40685	0.14	485		4	0.3	53.2	0.1 < 0.05		5.4	0.05	0.1	3.5	316	4.3	92.4	137	48.6
40686	0.04	15.35		2	0.2	490 < 0.05	< 0.05		1.1	0.017	0.14	0.6	18	1	10.9	100	14.7
40688	0.02	19.3		13	0.3	150 < 0.05	< 0.05		0.9	0.008	0.17	1.8	39	1.2	87.2	251	6
40689	0.12	11.3		1	0.3	76.2	0.05 < 0.05		3	0.021	0.11	2	35	4.8	16.8	270	27.5
40690	0.59	4.66		2	0.9	50.1 < 0.05	< 0.05		0.4 < 0.005	0.05	4.5	3	0.3	1.3	38	19.8	
40691	0.67	6.77		1	1.1	35.4 < 0.05	< 0.05		1.2	0.008	0.05	1	69	3.1	5.5	291	18.2
40693	0.01	0.26		1 < 0.2		277 < 0.05	< 0.05		0.2 < 0.005	< 0.02	0.2	9	0.2	3.4	13	3.2	
40694	0.04	0.61		1 < 0.2		534 < 0.05	< 0.05		1.3	0.007 < 0.02	0.5	11	0.5	3.7	12	7.2	
40695	0.01	1.13 < 1			1	156.5	0.6 < 0.05		11.4	0.176	0.14	5.8	84	1.5	17.9	13	111
40696	0.13	1.99		1 < 0.2		950 < 0.05	< 0.05		1.2	0.006 < 0.02	0.4	7	0.3	2	19	6.6	
40697	0.01	0.83 < 1		< 0.2		41.7 < 0.05	< 0.05		0.2	0.005	0.03	0.2	4	0.4	0.8	18	2.6
40614	0.03	51.7 < 1			0.4	439 < 0.05	< 0.05		1.9	0.011	0.27	1.3	26	4.3	7.1	159	12.7
40615	0.07	134.5 < 1			0.2	2000 < 0.05	< 0.05	< 0.2	< 0.005	0.05	0.8	2	0.3	0.6	189	1	
40625	0.09	44.6		1	1.1	1120	0.15	0.05	5.2	0.047	0.39	5.3	54	3.6	29.2	124	56.1
40627	0.15	17.3		5	1.1	327	0.13	0.07	1.6	0.046	0.17	1.5	76	3.1	6.2	242	57.1
40635	0.04	0.91		1 < 0.2		328 < 0.05	< 0.05		0.8 < 0.005	< 0.02	0.1	7	0.2	1.4	16	2.6	
40640	0.05	0.26 < 1		< 0.2		68.4 < 0.05	< 0.05	< 0.2	< 0.005	< 0.02	0.1	3	0.1	0.7	6	1.3	
40642	0.04	19 < 1			0.5	279 < 0.05	< 0.05		5 < 0.005		0.1	0.6	205	1.1	17.1	649	25.8
40651	0.08	0.74		1 < 0.2		206 < 0.05	< 0.05		0.5 < 0.005	< 0.02	0.2	7	0.2	1.6	19	4.6	
40656	0.01	0.24 < 1		< 0.2		183 < 0.05	< 0.05		0.3 < 0.005	< 0.02	0.2	4	0.1	1.7	18	3.7	
40666	0.01	3.5		1 < 0.2		272 < 0.05	< 0.05		0.3 < 0.005		0.05	0.2	5	0.2	1.3	77	3.2
40669	0.11	2.34		1	4.5	98.2	0.75	0.17	15.5	0.263	0.32	1.9	87	5	10.6	70	159
40679	0.02	13.7		1	0.5	474	0.08 < 0.05		2.7	0.032	0.77	1.1	50	1.6	17.3	92	33.1
40683	0.07	71		20	1.3	117.5 < 0.05	< 0.05		0.2 < 0.005	0.23	1.9	17	0.3	0.6	186	3.6	
40692	0.14	3.71		1	0.3	215 < 0.05	< 0.05		1.1	0.005	0.03	0.8	28	0.6	6.7	46	11.5
40698	0.15	16.3 < 1			0.2	1060 < 0.05	< 0.05	< 0.2	< 0.005	< 0.02	0.7	3	0.3	0.4	9	3.5	

	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-ICP85	ME-GRA05
Sample No.	Al2O3 %	BaO %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	SrO %	TiO2 %	LOI %	
241940															
724401															
724402															
724403															
724404															
724427															
724428															
724429															
724430															
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724434															
724435															
724436															
772048															
772049															
772050															
772051															
772052															
772053															
772054															
40601	2.87 < 0.01		20.6 < 0.01		1.09	0.44	15.5	0.03	0.96	0.06	25.4	0.07	0.12	32.88	
40602	1.88	0.02	29.8	0.02	1.37	0.38	0.2	0.01	0.17	23.5	41.5	0.12	0.06	0.96	
40603	11.4	0.06	0.13	0.01	3.92	2.77	2.39	0.01	1.9	0.11	74.4	0.01	0.57	2.21	
40604	11.85	0.07	0.18	0.01	4.31	3.12	2.37	0.01	1.88	0.1	73.1 < 0.01		0.6	2.32	
40605	0.21 < 0.01		18.95 < 0.01		0.33 < 0.01		13.8	0.02 < 0.01		0.03	35.8	0.02	0.01	30.94	
40606	14.25	0.19	0.81	0.01	3.55	0.06	0.12	0.01	8.07	0.58	70.3	0.01	0.79	1.14	
40607	0.21	0.03	3.14 < 0.01		1.75 < 0.01		2	0.04 < 0.01		0.02	88.1	0.01	0.01	4.8	
40610	0.8	0.2	27.3 < 0.01		1.08	0.48	16	0.06 < 0.01		0.04	14.4	0.03	0.05	39.54	
40612	0.12	0.03	4.31 < 0.01		0.64 < 0.01		3.3	0.01 < 0.01	< 0.01		84.4 < 0.01	< 0.01		7.24	
40616	0.42	0.17	1.39 < 0.01		1.47	0.05	0.73	0.09 < 0.01		0.04	93.6 < 0.01		0.02	2.05	
40617	0.3	0.03	23.8 < 0.01		0.46	0.05	17.1	0.13 < 0.01		0.05	20.2	0.03	0.01	37.83	
40618	1.05	0.04	2.77 < 0.01		2.18	0.18	1.81	0.03 < 0.01		0.08	87.3	0.02	0.03	4.51	
40619	0.22	2.35	0.08 < 0.01		1.52 < 0.01		0.05	0.02 < 0.01		0.06	94.1	0.04	0.01	0.4	
40620	0.9	1.61	15.5 < 0.01		1.74	0.2	3.32	0.19 < 0.01		0.14	59.1	0.06	0.04	16.4	
40621	1.54	0.31	4.21 < 0.01		1.63	1.02	5.99	0.02 < 0.01		0.05	78	0.01	0.07	6.99	
40622	5.15	12.5	0.19 < 0.01		4.49	1.55	0.74	0.28 < 0.01		0.09	61.7	0.1	0.19	4.67	
40623	14	0.27	0.11	0.01	1.2	4.5	0.7	0.02 < 0.01		0.06	74.9	0.02	0.71	2.73	
40624	1.39	1.58	1.05 < 0.01		9.55	0.18	0.39	0.33 < 0.01		0.13	68.8	0.04	0.02	6.59	
40626	0.36	0.16	27.8 < 0.01		1.25	0.1	18.8	0.04 < 0.01		0.02	8.31	0.05	0.01	43.01	
40628	0.28	0.38	0.72 < 0.01		5.22	0.03	0.16	0.04 < 0.01		0.03	91.4	0.02	0.01	1.31	
40629	0.54	0.36	2.68 < 0.01		3.6	0.12	1.52	0.05 < 0.01		0.03	85.5	0.01	0.02	4.76	
40630	0.3	0.04	28 < 0.01		0.53	0.1	18.95	0.05 < 0.01		0.01	8.78	0.06	0.01	43.12	
40631	0.28	0.07	19.55 < 0.01		0.98	0.09	13.7	0.06 < 0.01		0.04	34.5	0.05	0.01	30.62	
40632	0.43	0.05	0.48 < 0.01		1.47	0.11	0.35	0.04 < 0.01		0.04	95.7 < 0.01		0.01	1.12	
40633	0.79	0.12	0.1 < 0.01		6.56	0.19	0.1	0.02 < 0.01		0.17	81.3	0.09	0.03	3.49	
40634	0.14	0.22	27.5 < 0.01		0.45	0.01	19.3	0.07 < 0.01		0.04	9.06	0.04 < 0.01		43.14	
40636	0.2	0.05	21.5 < 0.01		0.98	0.05	15.2	0.08 < 0.01		0.09	27.8	0.02	0.01	34.01	
40637	0.75	0.05	31.5 < 0.01		0.54	0.23	18	0.11 < 0.01		0.04	3.74	0.04	0.02	44.91	
40638	0.21	0.02	28.3 < 0.01		0.23	0.06	19.5	0.1	0.01	0.01	7.52	0.02	0.01	44.03	
40641	0.29	0.03	0.65 < 0.01		3.03	0.07	0.44	0.02	0.03	0.02	89.4 < 0.01		0.01	2.58	
40643	1.61	0.04	0.91 < 0.01		2.95	0.22	0.66	0.13	0.05	0.07	91.1 < 0.01		0.06	2.1	
40644	0.3	0.15	36.8 < 0.01		0.4	0.07	11.65	0.04	0.11	0.04	7.39	0.05	0.01	42.8	

Sample No.	Al2O3 %	BaO %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	SrO %	TiO2 %	LOI %
40645	0.24	0.04		0.13 < 0.01		3.09	0.08	0.09	0.03	0.07	0.04	94.9 < 0.01	< 0.01	0.22
40646	0.25	3.11		0.07 < 0.01		1.88	0.05	0.07	0.01 < 0.01		0.05	38.7	0.05	13.13
40647	0.22	0.47		0.24 < 0.01		1.6	0.07	0.2	0.02	0.06	0.02	96.3	0.01	0.49
40648	7.73	0.03		1.61	0.01	13.85	0.46	1.38	0.04	0.1	0.36	60.4	0.16	7.79
40649	0.16	0.01		1.65 < 0.01		0.62	0.06	1	0.02	0.09	0.07	93.8 < 0.01		2.51
40650	0.22	0.22		11.6 < 0.01		1.2	0.08	7.98	0.09	0.11	0.01	58.1	0.01	18.78
40652	1.25	0.08		19.2 < 0.01		0.96	1.01	13.55	0.04	0.13	0.11	33.5	0.03	30
40653	0.5 < 0.01			31.8 < 0.01		0.25	0.2	15.9	0.05	0.13	0.04	7.88	0.02	43.17
40654	0.14	0.02		27.7 < 0.01		0.2	0.06	18.2	0.08	0.13	0.08	11.15	0.01	42.08
40655	0.24	0.03		27.2 < 0.01		3.36	0.06	18.6	0.08	0.13	0.05	7.68	0.01	42.49
40657	0.12	0.01		2.43 < 0.01		0.45	0.08	1.18	0.01	0.15 < 0.01		92.1 < 0.01	< 0.01	3.43
40658	0.21	0.02		43.6 < 0.01		0.13	0.07	7.56	0.03	0.16	0.03	4.46	0.01	43.74
40659	0.11 < 0.01			27.8 < 0.01		0.21 < 0.01		19.55	0.06 < 0.01		0.02	8.55	0.02 < 0.01	43.64
40660	0.08 < 0.01			13.9 < 0.01		0.53 < 0.01		9.67	0.04 < 0.01		0.01	53.8	0.01 < 0.01	21.93
40661	0.12 < 0.01			14.9 < 0.01		0.3	0.01	10.3	0.07	0.03 < 0.01		51.2 < 0.01	< 0.01	23.03
40662	0.51 < 0.01			31.2 < 0.01		0.2	0.36	19.2	0.06 < 0.01		0.04	2.6	0.02	45.77
40664	0.53	0.04		21.7 < 0.01		0.51	0.1	14.35	0.08	0.01	0.11	29.3	0.1	33.04
40665	0.42	2.01		18.3 < 0.01		1.43	0.08	10.15	0.13 < 0.01		0.05	31.1	0.05	27.88
40667	14.3	0.07		1.57	0.01	0.85	4.5	2.54	0.01	0.21	0.05	70.7	0.01	4.31
40668	3.27 < 0.01			24.4 < 0.01		3.64	0.02	16.25	0.18	1.85	0.04	12.35	0.06	37.76
40670	13.45	0.06		2.31	0.01	1.32	2.89	2.45	0.01	3.09	0.13	68.3	0.04	5.1
40671	0.86	0.07		0.21 < 0.01		17.8	0.19	0.16	0.09	0.03	0.33	77.4	0.02	2.74
40672	0.38	0.23		5.44 < 0.01		7.07	0.12	1.42	1.31	0.07	0.03	76.7	0.01	6.93
40673	0.28	0.08		1.16 < 0.01		1.51	0.09	0.28	0.07	0.04	0.02	94.9	0.01	1.46
40674	0.35	0.32		1.97 < 0.01		11.1	0.13	0.59	1.87	0.03	0.08	79.1	0.01	3.98
40675	4.05	2.49		0.11 < 0.01		1.24	0.3	0.09	20.1	0.04	0.08	64	0.02	5.51
40676	0.42	0.35		0.23 < 0.01		3.6	0.1	0.1	0.07	0.02	0.05	86.5	0.03	2.77
40677	0.22	1.12		0.08 < 0.01		2.71	0.02	0.03	0.02	0.03	0.07	92.9	0.05	0.61
40681	0.2	1.55		0.06 < 0.01		2.66	0.05	0.01	0.32	0.02	0.01	94.2	0.01 < 0.01	-0.13
40682	0.16	0.04		0.24 < 0.01		28.6	0.06	0.08	0.08	0.03	0.09	59.4 < 0.01		5.73
40684	0.41	0.11		0.61 < 0.01		7.3	0.11	0.16	0.06	0.07	0.07	89.2 < 0.01		1.65
40685	3.31	0.68		0.12 < 0.01		7.88	1.03	0.47	0.03	0.04	0.11	81.8 < 0.01		2.56
40686	0.87	0.17		28.3 < 0.01		3.18	0.32	15.05	0.18	0.03	0.04	11.75	0.05	39.57
40688	0.47	0.01		0.07 < 0.01		1.14	0.14	0.12	0.13	0.04	0.06	79.1	0.01	5.93
40689	1.76	0.52		0.13 < 0.01		18.65	0.51	0.41	0.08	0.07	0.33	74 < 0.01		2.95
40690	0.24	0.01		4.22 < 0.01		10.85	0.09	2.75	0.12	0.06	0.08	27.4 < 0.01		19.77
40691	0.63 < 0.01			0.34 < 0.01		24.6	0.22	0.26	0.06	0.04	0.24	65.5 < 0.01		4.55
40693	0.17	0.01		28.8 < 0.01		0.34	0.05	20.4	0.1	0.02	0.05	4.71	0.02	45.25
40694	0.45	0.01		29.9 < 0.01		0.92	0.14	18.65	0.09	0.02	0.07	3.55	0.06	44.71
40695	7.03	0.01		19	0.01	3.75	6.13	9.61	0.04	0.08	0.38	27.8	0.01	25.8
40696	0.29	2.6		29.5 < 0.01		0.53	0.02	17.75	0.1 < 0.01		0.09	4.66	0.11	43.01
40697	0.33	0.01		3.62 < 0.01		0.7	0.18	6.05	0.04	0.04	0.02	82.7 < 0.01		6.33
40614	0.99	0.02		0.14 < 0.01		12.7	0.23	0.18	0.04 < 0.01		0.18	83.6	0.05	1.76
40615	0.03	49.1		0.12 < 0.01		1.72 < 0.01		0.09	0.02 < 0.01		0.05	20.8	0.87	1.58
40625	4.37	10.4		0.33 < 0.01		3.24	0.9	0.49	0.34 < 0.01		0.11	64.8	0.17	5.34
40627	3.37	0.52		0.12 < 0.01		13.75	1.2	0.53	0.03 < 0.01		0.06	77.2	0.04	2.67
40635	0.14	0.11		31.1 < 0.01		0.27	0.03	18.6	0.08 < 0.01		0.02	3.8	0.03	45.74
40640	0.04	0.21		7.54 < 0.01		0.46	0.03	4.57	0.07 < 0.01		0.02	75.8	0.01 < 0.01	11.18
40642	0.35	0.1		2.74 < 0.01		17.95	0.11	1.38	0.07	0.02	0.28	71.6	0.03	5.1
40651	0.31	0.3		31 < 0.01		0.46	0.11	17.4	0.09	0.09	0.08	6.29	0.02	43.68
40656	0.3	0.01		28.7 < 0.01		0.26	0.12	20.2	0.09	0.18	0.04	4.88	0.02	45.17
40666	0.22	0.01		29.3 < 0.01		0.4	0.06	18.4	0.09	0.02	0.04	7.82	0.03	43.43
40669	9.18	0.28		2.18	0.01	2.43	3.02	2.23	0.02	0.13	0.06	73.7	0.01	5.14
40679	2.09	0.3		20.6 < 0.01		3.68	0.25	2.34	1.23	0.03	0.12	48.6	0.05	20.13
40683	0.33	0.08		0.2 < 0.01		28.6	0.11	0.13	0.06	0.05	0.06	54.8	0.01	6.77
40692	0.59	0.62		2.23 < 0.01		2.23	0.09	1.44	0.01 < 0.01		0.04	87.8	0.02	3.92
40698	0.23	9.82		1.98 < 0.01		1.68 < 0.01		0.8	0.02 < 0.01		0.04	77.2	0.14	2.7

APPENDIX 4 – Soil geochemical survey map



APPENDIX 5 – Soil geochemical assay data

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn
B001	54H	315199	6260399	437.8			8	29
B002	54H	315301	6260398	438.7			6	33
B003	54H	315398	6260409	443.5			9	27
B004	54H	315506	6260399	466.8			7	22
B005	54H	315604	6260390	495.9			7	18
B006	54H	315797	6260402	553.6			17	101
B007	54H	315906	6260393	547.8			7	96
B008	54H	315993	6260402	560.6			6	24
B009	54H	316100	6260404	551.4			6	26
B010	54H	315151	6260501	431			5	26
B011	54H	315251	6260500	439			7	33
B012	54H	315349	6260508	439.7			10	36
B013	54H	315446	6260503	449.3			7	24
B014	54H	315553	6260499	462.5	0.003		13	56
B015	54H	315652	6260503	496.9	0.003		51	198
B016	54H	315746	6260509	547.6			17	147
B017	54H	315851	6260502	525.7			11	35
B018	54H	315953	6260504	521.4			8	29
B019	54H	316055	6260506	513.9			5	18
B022	54H	315249	6260600	436.3			16	28
B023	54H	315302	6260600	445.7			14	31
B024	54H	315353	6260602	457.5			14	35
B025	54H	315396	6260595	471.9			9	30
B026	54H	315451	6260602	487			9	35
B027	54H	315502	6260604	496.9			12	67
B028	54H	315551	6260604	505.8			27	112
B029	54H	315603	6260600	517.1	0.007		62	255
B030	54H	315650	6260605	528.6	0.007		60	255
B031	54H	315699	6260604	537			23	127
B032	54H	315754	6260604	543.5			15	111
B033	54H	315803	6260600	542.8			26	74
B034	54H	315853	6260600	532			7	46
B035	54H	315897	6260599	517.8			12	65
B036	54H	315946	6260599	489.9			8	45
B037	54H	316003	6260598	494.7			6	29
B038	54H	316045	6260599	485.8			5	28
B042	54H	315198	6260706	444.5			17	50
B043	54H	315254	6260702	442.6			8	34
B044	54H	315300	6260698	457			16	61
B045	54H	315350	6260700	475			8	19
B046	54H	315399	6260699	484.9			10	25
B047	54H	315449	6260698	493.8			10	24
B048	54H	315499	6260700	500.7			9	21
B049	54H	315553	6260702	495.2	0.002		23	100
B050	54H	315596	6260708	484.6	0.002		17	70
B051	54H	315649	6260704	496.9	0.006		15	86
B052	54H	315700	6260704	517.3			27	105
B053	54H	315748	6260700	526.2			17	113
B054	54H	315801	6260700	530.5			10	47
B055	54H	315851	6260701	523.1			21	220
B056	54H	315907	6260693	510.3			10	58
B057	54H	315950	6260702	487			8	29
B058	54H	316002	6260703	464.9			6	23
B059	54H	316050	6260700	468			10	16

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B062	54H	315201	6260803	448.1			18	35	74
B063	54H	315253	6260803	455.1	0.004		41	69	354
B064	54H	315301	6260802	463.5			13	43	130
B065	54H	315349	6260800	472.1			10	29	76
B066	54H	315399	6260798	473.3			12	34	54
B067	54H	315450	6260800	474.3			12	48	98
B068	54H	315496	6260799	478.9			28	174	152
B069	54H	315547	6260796	472.6	0.002		25	86	375
B070	54H	315599	6260799	476.5	0.007		24	170	308
B071	54H	315652	6260790	497.1			15	109	113
B072	54H	315700	6260797	500.5			21	122	94
B073	54H	315751	6260800	514.2			14	90	72
B074	54H	315797	6260803	510.8			28	399	124
B075	54H	315847	6260799	504.1			17	268	96
B076	54H	315898	6260800	507.5			11	58	49
B077	54H	315949	6260796	482.7			12	351	42
B078	54H	315997	6260800	469.5			7	20	19
B079	54H	316049	6260799	459.4			6	17	19
B081	54H	315104	6260903	439.2	0.003		16	63	214
B082	54H	315151	6260900	440.9			19	58	133
B083	54H	315201	6260903	446.4			22	52	133
B084	54H	315250	6260903	446.9	0.002		18	76	177
B085	54H	315300	6260904	451.2	0.006		43	256	701
B086	54H	315353	6260900	453.9	0.009		25	178	313
B087	54H	315400	6260902	457.7	0.002		14	139	246
B088	54H	315453	6260902	458.9			15	113	126
B089	54H	315500	6260900	459.9	0.001		41	151	549
B090	54H	315549	6260906	468.5			12	59	97
B091	54H	315601	6260905	474.8	0.005		20	169	278
B092	54H	315652	6260901	486.1			13	78	95
B093	54H	315699	6260905	494.7			8	48	41
B094	54H	315754	6260899	501.4			16	163	101
B095	54H	315804	6260901	496.4			15	81	40
B096	54H	315851	6260895	482			27	221	81
B097	54H	315903	6260904	469.5			8	67	39
B098	54H	315952	6260914	464.7			12	47	26
B099	54H	316002	6260904	460.8			12	26	25
B103	54H	315151	6261006	452.4			19	43	37
B104	54H	315201	6260999	461.8			17	38	115
B105	54H	315247	6261003	464.7	0.003		51	161	247
B106	54H	315299	6261003	467.3			11	99	95
B107	54H	315349	6261001	460.8			7	63	85
B108	54H	315400	6261003	467.8			18	135	108
B109	54H	315452	6261000	465.2			6	74	51
B110	54H	315498	6261000	466.1			19	218	119
B111	54H	315550	6261003	470.2			14	199	108
B112	54H	315603	6260997	472.1	0.014		53	517	192
B113	54H	315650	6260993	479.3			16	148	109
B114	54H	315692	6260999	484.4	0.012		36	535	171
B115	54H	315748	6261001	486.1			18	129	67
B116	54H	315808	6261002	483.7			15	126	52
B117	54H	315852	6260997	483.9			12	182	20
B118	54H	315898	6261006	473.3			17	115	25
B122	54H	315105	6261100	442.8			18	44	37

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B123	54H	315151	6261102	451.2			17	58	111
B124	54H	315201	6261101	461.8			11	55	61
B125	54H	315255	6261100	470			9	72	64
B126	54H	315301	6261098	475.5			6	44	56
B127	54H	315350	6261097	479.8			18	80	116
B128	54H	315399	6261102	483.4			10	50	43
B129	54H	315451	6261103	486.3			7	74	58
B130	54H	315502	6261107	486.8			15	181	123
B131	54H	315551	6261109	486.3	0.016		44	560	141
B132	54H	315597	6261100	478.9			11	182	66
B133	54H	315649	6261100	482	0.028		36	972	84
B134	54H	315702	6261098	474.8			15	115	48
B135	54H	315754	6261102	477.2			9	58	31
B136	54H	315802	6261103	479.6			14	79	39
B137	54H	315851	6261102	477.4			16	227	27
B138	54H	315902	6261098	470.7			17	84	24
B139	54H	315950	6261101	467.6			10	112	19
B141	54H	315000	6261200	444			15	59	67
B142	54H	315050	6261201	445.4			24	57	38
B143	54H	315100	6261203	450			38	56	87
B144	54H	315155	6261211	448.1			11	54	83
B145	54H	315207	6261202	454.8	0.003		18	172	178
B146	54H	315256	6261198	463.7			17	120	150
B147	54H	315301	6261201	468.3			14	86	128
B148	54H	315348	6261205	474.8			9	66	71
B149	54H	315401	6261201	490.1			13	121	88
B150	54H	315450	6261198	494.2			17	261	120
B151	54H	315503	6261201	499.8			27	354	103
B152	54H	315551	6261199	495.7			20	258	83
B153	54H	315602	6261200	495.7			28	406	65
B154	54H	315652	6261203	492.8			35	616	46
B155	54H	315707	6261202	477.4			23	292	38
B156	54H	315750	6261196	474.6			18	134	32
B157	54H	315805	6261198	468.6			19	161	18
B158	54H	315851	6261202	465.2			13	73	24
B159	54H	315898	6261196	457			20	106	26
B162	54H	314999	6261303	457.9			14	50	19
B163	54H	315046	6261302	459.6			18	43	38
B164	54H	315099	6261301	470			6	26	35
B165	54H	315150	6261301	470			7	34	57
B166	54H	315201	6261302	468			7	111	104
B167	54H	315248	6261302	463.5			6	74	48
B168	54H	315300	6261303	456.8			11	117	55
B169	54H	315355	6261296	478.4			29	113	91
B170	54H	315400	6261300	485.1			12	174	62
B171	54H	315450	6261299	494.7			25	391	84
B172	54H	315505	6261301	502.4			19	220	78
B173	54H	315551	6261300	503.9			12	114	58
B174	54H	315600	6261298	500.5			11	114	49
B175	54H	315650	6261302	498.6	0.065		53	699	59
B176	54H	315700	6261301	494			26	319	37
B177	54H	315754	6261303	487.8			28	76	12
B178	54H	315803	6261299	475.5			11	72	18
B180	54H	314864	6261403	451.7			6	28	28

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B181	54H	314905	6261404	460.6			10	36	23
B182	54H	314958	6261400	474.1			13	54	13
B183	54H	315012	6261400	474.1			12	69	27
B184	54H	315051	6261400	483.4			7	17	19
B185	54H	315103	6261401	489.4			9	47	44
B186	54H	315150	6261403	492.6			5	36	49
B187	54H	315201	6261404	489.9			19	144	100
B188	54H	315251	6261399	484.9	0.004		7	33	51
B189	54H	315300	6261404	476.5	0.003		8	48	77
B190	54H	315358	6261397	464.2			18	344	81
B191	54H	315401	6261402	473.6			36	601	132
B192	54H	315502	6261401	492.3			19	164	69
B193	54H	315549	6261401	496.9			16	247	57
B194	54H	315600	6261399	491.4	0.015		22	1100	63
B195	54H	315649	6261399	474.5			60	100	46
B196	54H	315691	6261401	476.9			32	60	10
B197	54H	315749	6261401	466.4			9	48	10
B199	54H	315454	6261400	487.3			10	111	54
B200	54H	314841	6261504	447.4			7	33	25
B201	54H	314895	6261501	461.3			6	31	27
B202	54H	314951	6261493	461.1			9	22	28
B203	54H	314984	6261498	470.4			5	20	28
B204	54H	315054	6261501	505.5			7	17	18
B205	54H	315096	6261504	509.9			5	18	29
B206	54H	315152	6261500	515.4			16	54	81
B207	54H	315198	6261506	507.2			9	36	35
B208	54H	315245	6261500	509.4	0.004		8	412	60
B209	54H	315301	6261500	493.8			5	40	32
B210	54H	315350	6261495	484.9			11	351	45
B211	54H	315400	6261496	471.9			17	325	51
B212	54H	315449	6261493	465.9			42	627	80
B213	54H	315502	6261500	479.1	0.067		39	1050	88
B214	54H	315553	6261500	483.4			27	718	43
B215	54H	315601	6261502	478.1			30	440	29
B216	54H	315651	6261500	466.4			21	141	17
B221	54H	314853	6261600	455.8			4	32	36
B222	54H	314902	6261599	456.8			11	85	43
B223	54H	314951	6261599	469.5			12	46	52
B224	54H	314999	6261600	490.9			6	14	22
B225	54H	315047	6261605	503.1			5	12	11
B226	54H	315100	6261603	521.6			5	26	30
B227	54H	315149	6261602	534.9			19	72	67
B228	54H	315199	6261600	529.1			6	31	47
B229	54H	315250	6261602	523.8			6	43	40
B230	54H	315309	6261599	507.2			12	601	41
B231	54H	315349	6261603	497.1	0.011		18	982	48
B232	54H	315399	6261602	490.6			27	348	73
B233	54H	315449	6261595	481			18	543	62
B234	54H	315500	6261601	485.4	0.021		189	1140	102
B235	54H	315547	6261598	486.6			29	416	32
B236	54H	315598	6261601	477.2			15	145	22
B241	54H	314846	6261704	452.4			7	38	15
B242	54H	314895	6261700	455.3			8	33	48
B243	54H	314950	6261695	463.2			3	18	26

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn
B244	54H	315008	6261698	470.2			6	23
B245	54H	315049	6261701	497.1			24	69
B246	54H	315106	6261708	502.2			17	55
B247	54H	315149	6261699	519.2			8	32
B248	54H	315198	6261699	528.4			9	45
B249	54H	315251	6261698	529.1			11	61
B250	54H	315302	6261700	517.8			16	259
B251	54H	315348	6261701	503.1	0.012		50	641
B252	54H	315404	6261703	490.9	0.053		49	1000
B253	54H	315452	6261701	479.6			16	359
B254	54H	315500	6261702	487.3			16	200
B255	54H	315553	6261697	483.4			22	168
B256	54H	315595	6261698	470.9			22	107
B260	54H	314753	6261800	465.6			2	30
B261	54H	314799	6261800	468.5			5	29
B262	54H	314849	6261800	465.4			7	28
B263	54H	314900	6261801	479.3			5	12
B264	54H	314954	6261799	488.5			7	24
B265	54H	314999	6261802	487.5			7	23
B266	54H	315052	6261800	489.9			13	120
B267	54H	315101	6261798	488.2			7	34
B268	54H	315157	6261801	517.1		0.004	40	155
B269	54H	315204	6261800	528.9			9	74
B270	54H	315250	6261796	526.9		0.035	55	945
B271	54H	315302	6261795	516.4		0.02	47	691
B272	54H	315349	6261798	502.6			24	395
B274	54H	315399	6261805	500			48	729
B275	54H	315451	6261801	495			21	123
B276	54H	315501	6261800	493.8			25	270
B280	54H	314699	6261900	455.1			8	27
B281	54H	314749	6261901	463.7			7	27
B282	54H	314802	6261899	468.8			8	28
B283	54H	314855	6261899	487.8			5	11
B284	54H	314898	6261903	502.4			7	19
B285	54H	314950	6261901	516.6			3	24
B286	54H	315001	6261901	522.8			7	22
B287	54H	315051	6261897	521.4		0.002	3	64
B288	54H	315099	6261900	528.9			2	33
B289	54H	315150	6261900	534.4			3	40
B290	54H	315204	6261904	531.3			18	321
B291	54H	315250	6261898	529.8			13	356
B292	54H	315301	6261898	526.2		0.168	315	1590
B293	54H	315350	6261900	507.7		0.109	113	1440
B294	54H	315401	6261901	503.9			12	226
B295	54H	315450	6261900	501.2			8	95
B296	54H	315501	6261895	483.4			39	210
B300	54H	314700	6262004	463			6	24
B301	54H	314750	6261999	461.1			6	34
B302	54H	314800	6261995	463.2			2	18
B303	54H	314849	6262002	475			3	16
B304	54H	314899	6262001	485.4			6	23
B305	54H	314950	6261996	495.2			4	36
B306	54H	315001	6262000	498.3		0.002	4	48
B307	54H	315053	6262003	507.7			5	96

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B308	54H	315101	6262002	527.9			18	95	71
B309	54H	315151	6262001	540.4			7	71	51
B310	54H	315202	6262002	546.1			13	137	77
B311	54H	315252	6262000	544.5			31	612	61
B312	54H	315303	6262000	526.4	0.074		163	1220	102
B313	54H	315352	6262004	510.1	0.007		295	915	164
B314	54H	315395	6262004	497.8			29	478	28
B315	54H	315450	6261997	477.9			19	315	30
B321	54H	314700	6262101	478.9			6	25	32
B322	54H	314748	6262102	485.4			9	46	21
B323	54H	314801	6262099	496.4			6	18	23
B324	54H	314851	6262102	499.3			6	32	30
B325	54H	314901	6262099	501			7	49	39
B326	54H	314952	6262102	501.2			13	110	41
B327	54H	315003	6262094	504.8			6	129	40
B328	54H	315047	6262098	515.9			8	195	57
B329	54H	315101	6262094	520.2	0.003		7	60	40
B330	54H	315153	6262100	544.7			37	398	44
B331	54H	315198	6262104	553.8			13	91	47
B332	54H	315248	6262098	551	0.117		134	1340	100
B333	54H	315302	6262099	535.3	0.022		118	605	35
B334	54H	315350	6262100	526.9	0.017		119	377	48
B335	54H	315398	6262101	513.5			32	87	24
B336	54H	315447	6262101	492.6			27	166	24
B341	54H	314649	6262202	469.3			5	29	43
B342	54H	314705	6262201	478.4			5	44	16
B343	54H	314754	6262204	500			8	20	22
B344	54H	314801	6262201	515.1			6	24	32
B345	54H	314850	6262204	528.1			5	31	31
B346	54H	314897	6262203	534.9			7	29	27
B347	54H	314950	6262202	544			9	51	48
B348	54H	315000	6262203	546.6			7	32	29
B349	54H	315048	6262204	555.5			8	75	34
B350	54H	315101	6262203	567.3			18	201	63
B351	54H	315149	6262201	567.5			28	238	65
B352	54H	315202	6262202	566.8			22	219	65
B353	54H	315251	6262200	537.3	0.014		55	551	72
B354	54H	315299	6262205	510.8	0.05		88	811	76
B355	54H	315351	6262200	492.3			36	357	29
B356	54H	315395	6262206	475.5			44	188	21
B357	54H	315455	6262200	468			16	68	21
B361	54H	314650	6262302	470			5	29	16
B362	54H	314704	6262298	484.4			7	36	18
B363	54H	314765	6262301	513.7			7	23	34
B364	54H	314807	6262300	514.9			4	19	27
B365	54H	314850	6262302	524.3			5	29	34
B366	54H	314902	6262302	537.7			6	54	32
B367	54H	314958	6262302	541.8			10	14	12
B368	54H	315006	6262302	526.2			9	80	36
B369	54H	315054	6262298	550.2			24	183	77
B370	54H	315095	6262302	570.4			9	121	51
B371	54H	315148	6262299	577.9			19	130	51
B372	54H	315199	6262300	564.7			27	203	53
B373	54H	315248	6262301	540.6			21	145	47

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B374	54H	315296	6262303	508.9	0.173		20	124	39
B375	54H	315350	6262299	499.3			90	2070	66
B376	54H	315399	6262301	497.6			34	111	29
B382	54H	314650	6262401	466.8			8	39	19
B383	54H	314702	6262402	478.4			6	21	18
B384	54H	314757	6262390	481.7			8	24	29
B385	54H	314807	6262399	485.8			10	35	40
B386	54H	314857	6262398	490.1			8	36	40
B387	54H	314893	6262405	497.6			5	19	20
B388	54H	314947	6262403	507			7	26	23
B389	54H	315000	6262405	517.3			7	72	35
B390	54H	315047	6262400	543.5			13	122	51
B391	54H	315103	6262400	563			50	322	64
B392	54H	315150	6262402	565.9			16	156	34
B393	54H	315199	6262398	550.5			15	115	31
B394	54H	315249	6262403	521.6			21	149	44
B395	54H	315306	6262404	504.8			22	156	36
B396	54H	315349	6262403	492.3			36	364	13
B397	54H	315398	6262406	476			44	100	17
B403	54H	314648	6262506	459.9			5	25	15
B404	54H	314704	6262500	463.7			9	29	32
B405	54H	314757	6262498	484.4			8	42	37
B406	54H	314802	6262503	486.3			6	36	34
B407	54H	314850	6262508	491.8			5	21	32
B408	54H	314902	6262495	512.5			3	26	25
B409	54H	314949	6262502	517.1			4	19	22
B410	54H	314999	6262496	522.4			15	48	26
B411	54H	315051	6262503	539.2			19	59	26
B412	54H	315102	6262500	552.2			26	135	34
B413	54H	315147	6262498	536.1			25	168	35
B414	54H	315201	6262499	507.2			16	110	33
B415	54H	315250	6262501	491.1			44	232	42
B416	54H	315301	6262500	478.1			32	153	26
B417	54H	315350	6262500	477.2	0.004	38	174	14	
B418	54H	315400	6262501	477.9		64	396	26	
B419	54H	315450	6262502	471.6		23	105	21	
B421	54H	314551	6262602	460.8		7	29	22	
B422	54H	314600	6262602	473.3		8	33	16	
B423	54H	314651	6262601	488.7		8	23	23	
B424	54H	314700	6262600	495.7		9	40	27	
B425	54H	314750	6262605	506.7		4	20	19	
B426	54H	314801	6262600	516.6		8	50	35	
B427	54H	314849	6262602	528.4		4	31	34	
B428	54H	314900	6262602	539.7		4	35	31	
B429	54H	314950	6262599	553.1		4	35	23	
B430	54H	315000	6262601	554.3		6	43	28	
B431	54H	315048	6262600	555		26	121	57	
B432	54H	315098	6262599	540.6		9	62	31	
B433	54H	315149	6262602	505.5		9	53	28	
B434	54H	315198	6262613	488.9		10	42	29	
B435	54H	315250	6262601	482		17	67	30	
B436	54H	315303	6262607	476.9		18	168	10	
B437	54H	315348	6262600	461.6		17	273	16	

Sample ID	Zone	GDA94 E	GDA94 N	Alt m	Au ppm	As	Cu	Zn	
B442	54H	314552	6262700	463.2			5	26	13
B443	54H	314600	6262697	468.3			4	22	22
B444	54H	314652	6262699	481.7			3	25	22
B445	54H	314704	6262697	497.1			4	20	22
B446	54H	314750	6262699	506			6	14	15
B447	54H	314800	6262704	511.1			9	33	20
B448	54H	314851	6262700	525.5			7	45	27
B449	54H	314902	6262698	540.4			5	43	36
B450	54H	314948	6262703	541.6			9	46	32
B451	54H	315001	6262702	544			23	115	49
B452	54H	315053	6262699	536.5			19	105	39
B453	54H	315098	6262701	516.1			19	85	38
B454	54H	315149	6262703	485.8			18	49	32
B455	54H	315198	6262701	472.9			10	60	28
B456	54H	315249	6262702	464.2			10	60	31
B457	54H	315302	6262703	459.9			11	82	26
B458	54H	315350	6262702	450.5			10	107	12

**APPENDIX 6 - ASTER SATELLITE IMAGE AND GEOPHYSICAL
INTERPRETATION OF THE COPPER RANGE LTD PRINCESS
ROYAL PROSPECT, SOUTH OF BURRA, SOUTH AUSTRALIA**

**ASTER SATELLITE IMAGE AND GEOPHYSICAL INTERPRETATION OF
THE COPPER RANGE LTD PRINCESS ROYAL EXPLORATION LICENCE
APPLICATION SOUTH OF BURRA, SOUTH AUSTRALIA**

Martin I'Ons, February 2006

The Aster satellite interpretation of the Princess Royal exploration license covers an area of approximately 600 sq Km just to the south of the town of Burra and the Burra Copper Mine.

In contrast to the Kapunda area, the structural geology of this area is rather simple with a number of north-south trending synclines and anticlines. The exception is the faulted anticline of Burra Group rocks near the eastern side of the study area and directly south along strike from the Burra Copper Mine. The Aster image interpretation suggests that there are at least two strike parallel faults along this anticlinal crest. The regional radiometric data indicate that there is a corridor of strong potassium and thorium depletion coincident with part of this anticline. This corridor extends just beyond and includes the Burra Copper Mine to the north. The orientation of this corridor and subsidiary zones to the east, that may include the Princess Royal Copper Mine, is parallel with prominent brecciated fault zones in the Delamerian Cambro-Ordovician metamorphic terrain to the south east and east. The 1:250,000 geological map indicates that there is a long narrow breccia zone within this alteration corridor in the exploration license area. The nature of this breccia needs to be investigated. It proposed that the corridor of potassium depletion represents a zone along which there was a strong flux of sodium-rich brine derived from the sodium enriched Ordovician granitic intrusions to the south east. Within this alteration zone to the south, outside of the study area, are a number of crocidolite occurrences which are more evidence of sodium metasomatism. There does not appear to be much information available on the trace element geochemistry of the Burra mine; however potassium enrichment was noted (presumably visual observation only). Sodium metasomatism can easily be mistaken for potassium alteration without chemical analyses to confirm it. Currently there does not appear to sufficient data on the chemistry of the Burra ores to determine the nature of the hydrothermal fluids that produced the mineralisation. The potential for other styles of economic mineralisation such as zinc and gold should be investigated along the alteration corridor within the exploration license.

The Aster image interpretation has identified two areas of apparent chlorite alteration associated with the corridor of potassium depletion; the northern area also has a vegetation

anomaly consistent with elevated copper in the soil. A field visit is required to determine the potential of these two targets.

The precise location of the abandoned Princess Royal mine has not yet been determined but it also appears to be associated with a zone of potassium depletion or conversely sodium enrichment.

The copper mineralisation at the Burra and Princess Royal mines is hosted by the Skillogalee Dolomite and is assumed to be of quite a different genesis to the Kapunda mineralisation. The most likely explanation is that the copper mineralisation was produced by sodic magmatic fluids derived from Ordovician granitic intrusions during the Delamerian folding and metamorphic event. The fluid flow was focused along the faulted anticlinal structure in the Burra Group rocks where interaction with the Skillogalee Dolomite resulted in copper sulphide mineralisation. At Burra the fractured nature of the host rocks allowed ground water to circulate through the primary mineralisation which resulted in significant supergene enrichment.

COPPER RANGE PTY LTD



ANNUAL TECHNICAL REPORT 1ST MAY 2007 to 30TH APRIL 2008

BURRA SOUTH PROJECT

EL 3549 – BURRA SOUTH

TITLE:	ANNUAL TECHNICAL REPORT FOR EL 3549 - Burra South for the Period Ending 30/04/2008
HOLDER:	COPPER RANGE (SA) Pty Ltd
OPERATOR:	COPPER RANGE (SA) Pty Ltd
1:250,000 SHEET:	Burra SI5405
1:100,000 SHEET:	Clare 6630 Florieton 6730
AUTHOR:	Adriaan van Herk
SUBMITTED BY:	Mike Ware
DATE:	23/06/2008
KEYWORDS:	Copper, zinc, gold, hydrothermal, silicification, redox, sulphide, Skillogalee, Saddleworth, Burra, Princess Royal, Utica
DISTRIBUTION:	1. Copper Range (SA) Pty Ltd, Adelaide Office 2. Copper Range (SA) Pty Ltd, Sydney Office 3. Department of Primary Industries and Resources, South Australia

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SUMMARY

EL 3549 – Burra South lies 15km south of Burra. The EL was granted to International Base Metals Ltd on 01/05/2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned subsidiary of IBML that was floated on the ASX as an independent company in December 2006.

Copper Range initially targeted near surface copper oxide mineralisation, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group. This setting was interpreted to have similarities with that of the nearby Burra Mine. In due course, the potential for lithologically and structurally controlled primary copper sulphide mineralisation was considered excellent, with minor potential for a secondary oxide blanket developed above it. Other styles of mineralisation were identified, including zinc and gold low temperature hydrothermal mineralisation, as well as supergene processes.

Five prospect areas have been identified around (and named after) historic mines in the Burra South project within EL 3549: Princess Royal, Edelweiss, St Elmo, Burra Creek and Apoinga.

Exploration activities in the Burra South project have so far focussed on the Princess Royal Prospect; a 2.5x1km zone around the historic Princess Royal and Utica mines, which are located within the same stratigraphic horizon as the Burra Mine.

During the current period exploration included a reverse circulation drilling programme, review of geological data, more detailed stratigraphic and structural mapping and planning of a new diamond drilling programme. Table 1 summarises all exploration activity in the Burra South project, including Princess Royal Prospect. Table 2 summarises, in more detail, all exploration activity in the Princess Royal Prospect.

Geological mapping, drilling and surface geochemical surveys at the Princess Royal prospect have identified elevated Cu values over a strike length of 2000m, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group in the overturned eastern limb of an anticline. Late reactivated faulting has been associated multiple phases of hydrothermal and epithermal quartz veins, silica-alteration of the dolomite, gossans and oxide copper ore breccias.

RC drilling carried out by Copper Range in June 2007 has confirmed shallow copper carbonates and identified both a mineralised (1.0% Cu) horizon within the Skillogalee Dolomite in the core of the anticline and gold mineralisation in quartz veins associated with the Princess Royal Fault.

For the next reporting year follow-up exploration is recommended with a diamond drilling programme in the Princess Royal Prospect.

Prospect	Aerial, Satellite imagery	Review past Exploration	Rock Chip sampling			Soil (regoleach) geochemical		Geological mapping area & scale	IP no. of line kms
			no. of samples	elements analysed	petrology analysis	no. of samples	elements analysed		
Princess Royal	radiometric, Aster	√	94 samples	base metals, Au	15 samples	394	base metals, Au	2.5x1km; 1:5000	10 x 1km remodeled
Edelweiss	radiometric, Aster	√	1 sample	base metals, Au					
St Elmo	radiometric, Aster	√	3 samples	base metals, Au					
Burra Creek	radiometric, Aster	√	1 sample	base metals, Au					
Apoinga	radiometric, Aster	√							

Table 1: Summary of all activities conducted by Copper Range in EL 3549

The exploration map index (see figure 1) shows the tenement boundaries and the prospect areas. Figure 2 shows the Princess Royal prospect and the locations, in more detail, where exploration activities were undertaken.

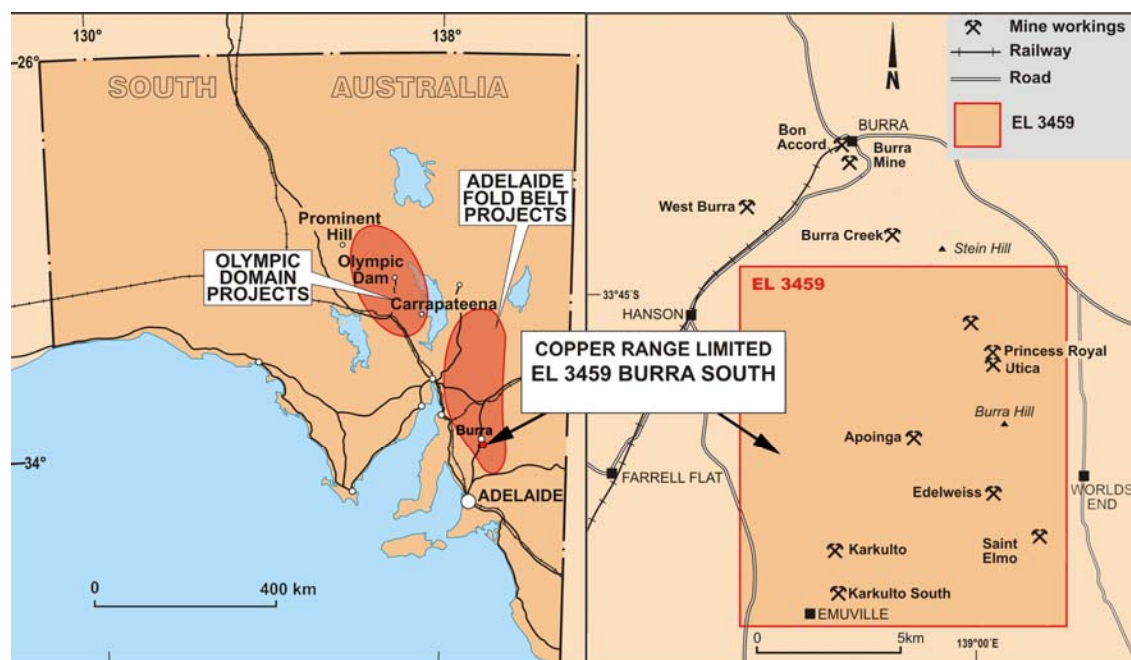


Figure 1. Location of EL3549 within the projects areas of Copper Range.

Date	Activity	Source	Details	Results
Oct-06	review of historic mining	PIRSA mining reviews	ca. 700 tons @ 25% Cu as malachite	Cu as malachite in quartz beccia veins in hangingwall
Oct-06	review Stream sampling	Burra Ridge 1970	20x20km area south of Burra, method unknown	drainages from PR are regionally highly anomalous in Cu and Zn
Oct-06	review Trenching	A.&W.F. 1980	6 short, shallow costeans	surficial supergene Cu blanket
Nov-06	Soil sampling	Copper Range	394 ME-ICP41s samples for base metals, 50 samples AuAA21 for Au	2000x300m anomaly 500+ppm Cu and associated Au; Zn anomaly in south
Dec-06	Mapping	Copper Range	alteration, stratigraphy, structural	2000x300m zone of intense alteration: hydrothermal, silicification, chlorite, albite
Dec-06	Rock chip sampling	Copper Range	111 rock chip samples ME-MS61	supergene Cu spatially related to silicification, hydrothermal quartz veining and fault breccia
Jan-07	Petrology	Pontifex Jan 2007	15 of above samples by Pontifex	low-T hydrothermal alteration, intense leaching of sulphides local supergene mineralisation, albite alteration
Feb-07	Aster satellite	GeolImage Pty Ltd	composite channel RBD image of Aster and 456 of Landsat LSFIT Crippen's Ratio	leached outcrop by chlorite alteration from Burra to PR
Feb-07	Radiometrics	PIRSA	State-wide airborne radiometric data	sodium enrichment zone at Koorunga Fault and around PR, north of Utica
Mar-07	review Magnetism	AWF 1980	AWF map	Shows similar pattern as soils, ie. surface Cu
Apr-07	review and remodel IP	Australian Geophysical 1966	10 lines, 1km long, 50m dipole, remodeled by Steve Collins	anomaly along PR Fault, graphite in PR Fault impedes sulphide detection
Jun-07	RC Drilling	Copper Range	12 holes, total 932m, max depth	PR-RC008: 11m@ 1.0% Cu at 50m deep redox boundary PR-RC006: 4m@0.81ppm Au; other holes: surficial Cu, no Au, Zn; redox boundary not tested/reached in any other drill hole
Aug-07	review of diamond Drilling	Australian Geophysical 1966	2 holes 130m and 260m	chalcopryite veining in footwall; more prospective hanging wall not tested; graphite in fault cause of IP anomaly
Sep-07	Mapping	Copper Range	detailed stratigraphy and structural mapping	sandy dolomite-shale redox boundary within Skilloalee D. overturned, faulted anticline, intersected in PR-RC008

Table 2: Summary of all activities conducted by Copper Range in Princess Royal Prospect

1. INTRODUCTION

The Burra South project covers Adelaidean sediments of the Burra and Umberatana Groups that strike north-northwest. The Koorunga Fault, which passes through the historic Burra Mine to the north, runs NNW through the tenement area at or near the boundary between Skillogalee Dolomite and overlying calcareous shales of the Burra Group. Seven sites of historic mine workings occur within the tenement area, of which only the Utica and Princess Royal Mines occur within the same stratigraphic horizon as the Burra Mine.

The primary focus of Copper Range was the discovery of a near-surface secondary copper oxide deposit, in the same regional setting as the historic Burra Mine. A secondary aim was the discovery of a primary copper sulphide deposit.

The aim of this report is to describe the exploration carried out from the 1st of May 2006 to the 30th of April 2007 and to report the Department of Primary Industries and Resources of South Australia (PIRSA).

2. LOCATION AND ACCESS

The Burra South tenement (EL 3549) is situated in the Northern Mount Lofty Ranges. The centre of the tenement lies approximately 15km south of the town of Burra together with the historic Burra Mine. Access to Burra is via the Barrier Highway, 150km north-north-east from Adelaide. Access to the project area is via the B64 Spalding Burramble Morgan Road and a gravel road to Dutton's Trough and Princess Royal. See figure 2 for location map of EL 3549.

3. TENURE DETAILS

The Burra South tenement EL 3549 was originally taken out by International Base Metals Ltd in May 2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned South Australian subsidiary of IBML that was floated on the ASX as an independent company in December 2006.

Tenement number	Date granted	Expiry date	Project name	Licensee and operator	Locality	Area km ²
EL 3549	1/05/2006	30/04/2008	Burra South	Copper Range (SA) Pty Ltd	Approximately 15m south of Burra	314

Table 3. Summary of tenement details.

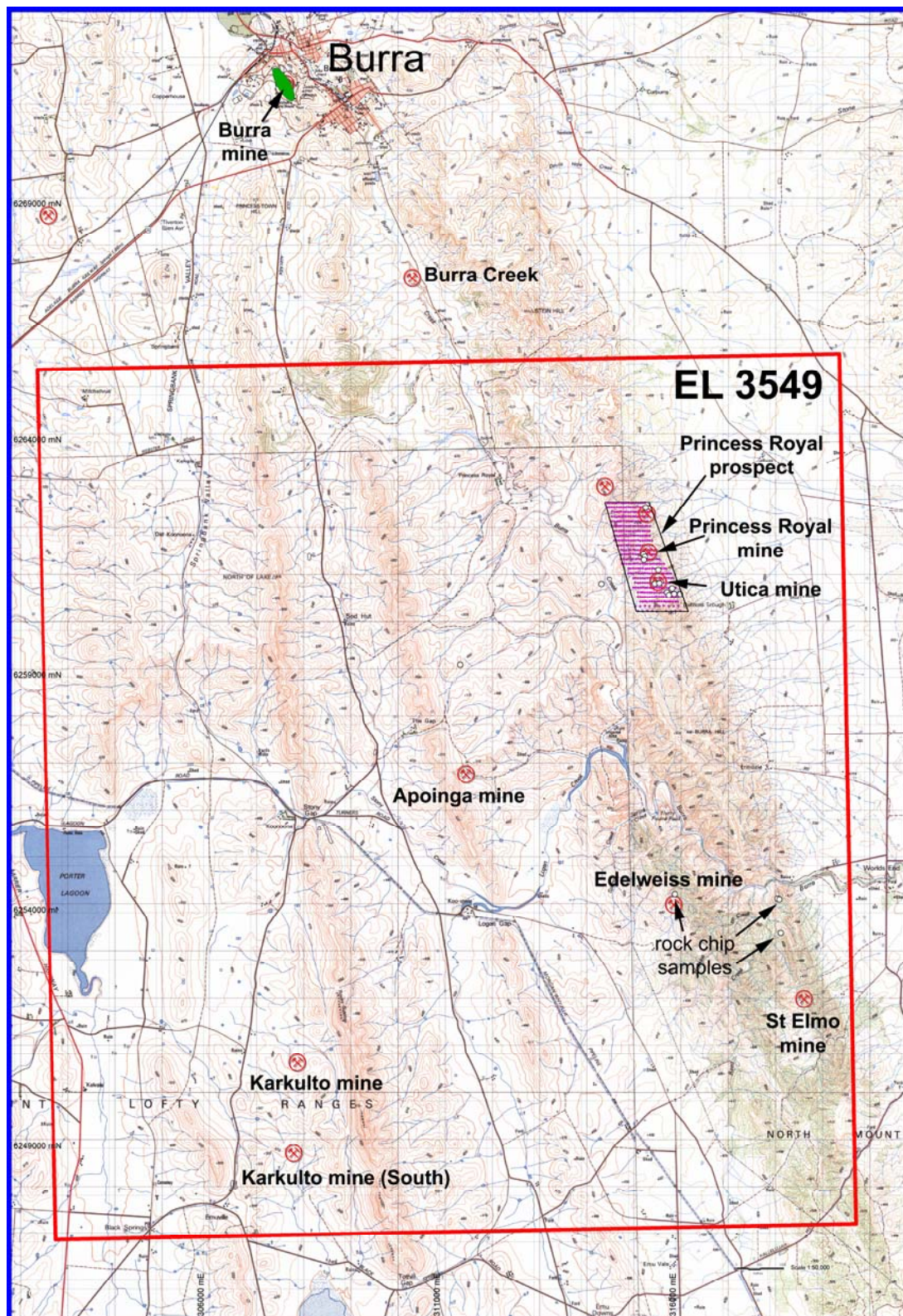


Figure 2. Exploration map index. Location of the EL 3549, the historic mines in the region and prospect areas around them.

4. MINING HISTORY AND PREVIOUS EXPLORATION

4.1 Mining

The Burra Deposit was discovered in 1845 and was worked until 1877, during which time 235,000 tons of ore was raised. It was the richest copper mine in the world at the time. In 1869 open cut mining was commenced to extract previously rejected lower grade material and the eventual closure of the mine was the result of low ore grades, low copper prices and high pumping and transportation costs. During the 1890's and 1900's the deposit was worked by tributers, but all work had ceased by 1912. The mine was reopened in 1941 by a syndicate which extended old shafts, drives and crosscuts. In 1969 SAMIN Ltd commenced a large scale open cut mining operation on low grade ore and a large treatment plant was constructed. This was then purchased by Adelaide and Wallaroo Fertilizers in 1978 and operations continued until 1981 when mining ceased.

Discovery of the Princess Royal mine preceded discovery of the Burra mine in 1845. Princess Royal was worked from 1845 until 1851 when water was struck at about 55m depth. Recorded production for this period was 588 tons of hand-picked ore grading 25-30% Cu. It was subsequently worked in 1867-1868 when a further 46 tons averaging 18% Cu was produced. The Utica Mine, immediately south of Princess Royal, produced 50 tons of ore between 1847 and 1851. Further mining occurred between 1912 and 1920 by the Utica Copper Mining Company, but no records of tons and grades exist from this period.

Other historic mines on the current EL include the Apoinga Mine (1882-1885), which produced a small quantity of copper the Edelweiss Mine (1900-1918) which is situated in the same stratigraphic position as the Burra mine, St Elmo Mine (1989-1915) and the Karkulto Mines (1851-1861), which produced 75 tons of copper ore and 855 tons of iron ore, which was predominantly used as flux for the smelter at Burra.

4.2 Past Exploration

Company exploration has occurred in and around several mines in the current EL (Princess Royal, Utica, St Elmo, Apoinga and Karkulto). Most of the exploration activities have been focussed on the area around the Princess Royal mines. Table 3 shows a summary of previous work carried out in the Burra tenement area.

Lease	Holder	Start date	End date	Activities
SML 68	Australian Geophysical	1964	1966	IP, stream sed. survey, mapping of old mine areas, drilling at Princess Royal
MC 5034 - 5040	Mines Exploration JV	1966	1967	IP, sampling, drilling at Burra
SML 395	Southern Cross	1970		Stream sed. survey, drilling at Princess Royal and Edelweiss
SML 685	Australian Aquitaine Petroleum	1972	1973	Stream sed. survey, aerial photography
EL 381	CRA Exploration	1978	1979	Review, rock chip sampling, soil sampling of Eudunda Arkose
ELs 425, 804	Adelaide & Wallaroo Fertilizers	1978	1982	Mapping, resistivity, drilling, petrology, drilling at Princess R.
ELs 2161 2217, 2190	Redfire Resources (MIM), Consolidated Broken Hill	1996	2003	MMI, IP, ground magnetics, percussion drilling

Table 4. Summary of previous work carried out in the Burra tenement area

1964 -1966 Australian Geophysical Pty

Detailed geological mapping of all old mine areas under a SML, focussing on stratigraphically controlled mineralisation.

- Outlined coincident soil geochemistry and IP anomalies at Princess Royal
- Drilled 2 diamond holes (260m and 130m depth) to test shale/dolomite contact
- The first hole BU-1 intersected 60cm of 2.7% Cu in a quartz/dolomite vein + chalcopryite. The hole was abandoned at 260m depth in a chloritic/graphitic gouge zone
- The second hole BU-2 to the south also intersected the fault zone, but did not encounter copper mineralisation.

In 1964 Australian Geophysical took out a Special Mining Lease over the area south of Burra (similar to the current EL) and undertook an IP survey over the Princess Royal area. Smaller grids were completed at St Elmo, Apoinga, Edelweiss and Karkulto. Geological mapping was also undertaken over the survey areas. A regional stream sediment survey was carried out to attempt to locate poorly exposed or concealed deposits. This survey picked up anomalous copper in creeks east of the Princess Royal Mine (the drainage from the old workings is to the west). The only two streams not to carry anomalous copper do not drain the dolomite – shale transition zone. Another anomaly from the stream sediment survey occurred in Stone Chimney Creek to the east of Burra.

The IP survey in the St Elmo area outlined an anomaly that can be traced over 760m. At Edelweiss, Australian Geophysical considered the folded nature of the stratigraphy to be similar to that at Burra and coupled with an intense IP anomaly, suggested that copper mineralisation may be present at depth, associated with a thickened section of the shale unit.

All prospects were geologically mapped in detail. Two diamond drill holes were completed at Princess Royal in 1965 (260m and 130m depth). The first hole straddled an IP anomaly and intersected a 60cm thick quartz-carbonate+chalcopryite vein that assayed at 2.7% Cu. Both holes bottomed in graphitic or chloritic fault gouge that was considered responsible for the IP anomaly. No further work was undertaken

1970 – Burra Ridge Pty Ltd

- Drilled ten percussion holes along the main line of the lode – no results
- Southern Cross took over the mining lease in 1971
- Drilled 4 holes to 150m, the best result was only 1.5m at 0.26% Cu.
- Twenty channel samples were taken along the gossanous zone and these averages nearly 7% Cu.
- Strong IP anomaly that runs for 1.3km
- Very high stream sediment geochemical anomalies to the east of the workings, but are almost certainly run off from the workings.

Southern Cross Exploration completed an extensive stream sediment survey in 1970 and located several copper anomalies to the east of St Elmo, Edelweiss and Princess Royal Mines. A distinct trend was also determined along strike of the ridges from Princess Royal in the north to Burra Creek in the south and five adjoining anomalies along Burra Creek. Twenty channel samples were taken along strike of the brecciated zone at Princess Royal. These ranged from 0.4 – 40% Cu, averaging 6.95% Cu. Five percussion holes were drilled at Princess Royal and two at Edelweiss which showed uneconomic mineralisation. Their exploration was largely focussed on structural criteria.

1972 - 1973 Gold Copper Exploration Ltd and Australian Aquitane Petroleum

- Targeted near-surface secondary copper
- Drilled 44 shallow holes that established strike continuity over 340m (location unknown)
- Maximum hole depth was 18m (inclined) and some holes were terminated in mineralisation.
- A “main lode” was established, which was a copper-bearing vein of 1-2% Cu over 450m strike length with some lower grade mineralisation in the wall rock.

Australian Aquitane Petroleum held a Special Mining Lease over the Burra area between 1972 and 1973 with the intention of discovering stratiform copper and “rhombohedral box works with lead” in silicified dolomite south of St Elmo, and Burra Mine-type disseminated copper in association with a magmatic influence and possible intrusion with porphyritic characteristics. They considered the areas of main interest to lie along anticlinal structures, focussing on the Burra Ridge and undertook a stream sediment sampling survey of this area that picked up anomalies from streams draining the old mine workings at Burra, Princess Royal and Utica. A new aerial photography survey was also undertaken, but planned photo-geological and structural maps were not drawn due to a change in company policy leading to the relinquishment of the SML.

1978 - 1982 Adelaide & Wallaroo Fertilizers

- Targeted vein mineralisation
- Drill tested the northern extension of the mineralised zone and depth extensions below the water table at 45m.
- Drill tested the original Princess Royal Shaft to the west of the main ore zone.
- Total 111 rotary percussion holes were drilled and drilling was terminated at or before the water table. Many holes were abandoned prior to target depth due to lack of sample return in soft earthy material [fault/shear zone?] below hard dolomites at approximately 23m depth.
- Six costeans were also dug, orientated E-W at 100m intervals, 25m length to a depth of 7m. These were mapped and channel sampled along their entire length.

Adelaide and Wallaroo Fertilizers undertook exploration for copper at Burra, focussing on the following parameters: faults and lineaments, particularly intersections, small to medium intrusive bodies (including kimberlites), zones of alteration and breccia zones. Regional geological and structural mapping was undertaken and the valley running north from the Burra Mine to Mt Bryan was selected for further exploration. The valley was considered to contain a north-striking fault zone, a continuation of the Kooringa-Kingston Fault. They hoped that this feature would be the locus of any intrusives, breccia or alteration zones. High water flows meant that most reconnaissance drill holes failed to intersect their targets. All holes were radiometrically logged with results corresponding well to the lithological logs. A resistivity survey was also conducted in the valley which showed the depth of cover and the likely position of the continuation of the fault.

Adelaide and Wallaroo Fertilizers undertook exploration at the Princess Royal Deposit to the south of the Burra Mine, targeting oxide copper. Six costeans were dug and channel sampled and 176 percussion holes were drilled in the vicinity of the old workings. The target depth was 25m and the deepest hole reached 50m. Holes were terminated at or near the water table and many holes were abandoned before the target depth due to caving of unconsolidated materials or lack of sample recovery. Each drill hole was sampled over the entire length, at 1m intervals. An ore reserve of 86 700t @ 1.16% Cu was estimated, at a

cut-off grade of 0.5%, but these figures were considered preliminary, as drilling of the mineralised zone at 5m spacing was expected to indicate continuation of a narrow steeply dipping higher grade vein to greater depth. However, no further drilling was subsequently undertaken.

Two percussion holes were drilled into the Edelweiss prospect, angled at 62 degrees east and west away from a Southern Cross borehole as it was considered that Southern Cross (which held a SML over the mine in 1970) would not have adequately tested interpreted vertically dipping mineralisation. Maximum values were 243 ppm Cu and 160 ppm V over 1m.

1996 - 2003 Redfire Resources

- Targeted epithermal system adjacent and along strike of the Koorunga fault
- Considered IP anomalies a result of an epithermal vein system
- Magnetic and radiometric data identified regional lithological and structural trends
- Carried out MMI sampling and percussion drilling over Burra North and Grove prospects

Redfire Resources explored the area between 1996 and 2003. Their geological concept was based on a porphyry copper-gold model for the Burra Deposit. They hypothesised that while an epithermal system associated with the intrusive had probably been eroded off the top of the Burra deposit, it may still exist adjacent to it and suggested that these veins may be responsible for some of the IP anomalies along trend of the Burra mineralisation. They considered crosscutting faults and faults parallel to the main trend to be particularly prospective for gold exploration. Exploration for copper targeted the northern extension of the Koorunga/Kingston Fault – two prospect areas were established, the North Burra and Grove prospects. MMI sampling was undertaken on these prospects. Redfire also did some ground magnetics over another identified prospect called Mullaby, followed by 12 percussion drill holes at Grove and North Burra.

5. EXPLORATION RATIONALE

Copper Range's initial targets in the Adelaide Fold and Thrust Belt are secondary near-surface oxide copper deposits that are structurally controlled, related to hydrothermal events focused along faults late in the deformational history of the region.

Much of the previous exploration for copper in the Adelaide Fold and Thrust Belt has been based on the assumption that copper mineralisation was emplaced during or shortly after deposition of the host sedimentary rocks, i.e. syngenetic or early diagenetic deposits. Exploration has been largely confined to the stratigraphic horizons that host mineralisation at Burra (Skillogalee Dolomite of the Burra Group) and Kapunda (Tapley Hill Formation, Umberatana Group), and to areas of known mineralisation, e.g. Kanyaka, Wheal Sarah, Copper Claim, etc. An alternative view is that primary sediment-hosted stratiform sulphide bodies are epigenetic, forming in reactive strata and in dilatant sites adjacent to significant through-going structures. With this model in mind multispectral satellite imagery and airborne radiometric data have been used to identify zones of alteration that indicate appropriate stratigraphic horizons and substantial fluid movement. This method has generated targets that are not related to known mineralisation and have thus not been explored in the past.

6. REGIONAL GEOLOGY

Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Neoproterozoic to late Cambrian sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1400 to 570 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss 1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and a later Early Palaeozoic Delamerian Orogeny (Preiss 1987). Following uplift caused by these deformations, erosion of the exposed older formations has taken place and younger Palaeozoic and Cainozoic sediments unconformably overly the Adelaidean sequences in places.

Within the tenement area, dominant formations belong to the Adelaidean (920 to 570 Ma) and comprise Skillogalee Dolomite and Saddleworth Formation slates and siltstone of the Burra Group and conformably overlying shales, quartzites, tillites and slates (Tapley Hill Fm) of the Umberatana Group. Younger Tertiary and Quaternary sand, scree and stream deposits infill much of the valley topography. Deformation is typically of a north-south trend, being regional anticlines and synclines, smaller (local) tightly folded antiforms and synforms, and variable scales of faulting exist throughout the region. The rocks in the area have been folded into a set of N-S trending folds with Umberatana shales occurring within syncline cores and Burra Group sediments along anticlinal axes. These folds plunge both north and south with a cross fold trend developed. Minor structures are considerably more complex on a local scale. The north-trending Koorunga fault is observed to the south of the town of Burra and has been interpreted as continuing to the north, below alluvial cover.

Burra Mine Geology

Copper in the Burra mine occurs primarily as the carbonates malachite and azurite, with minor chrysocolla, chalcocite and cuprite. The carbonates are secondary supergene minerals that occur as nodules and infillings within favourable lithologies and structures.

The mineralisation within the Burra Mine is hosted within a calcareous and cherty, yellow-brown friable shale horizon of the Skillogalee Dolomite (Simpson, 1998). This horizon is bounded by two distinct lithologies, a lower (western) brecciated, coarse-grained, recrystallised impure marble and an upper (eastern) black dense dolomite with fine white bands. In addition to the host dolomite Amdel (1982) reported a brecciated lithic tuff, feldspathised and silicified tuff, and volcanoclastic welded tuff within the sequence.

Structurally the mine is on the steep eastern limb of a regional anticline, some distance from the main, regional Koorunga Fault. Copper mineralisation in the Burra deposit is confined between two easterly dipping and north-westerly trending fault splays, the Kingston and Tinline faults (Dickinson, 1942; Johnson, 1963). The Tinline and Kingston faults may be branches of the Koorunga Fault. It is clear that faulting has some control over the location of the ore, but the exact nature of this has not been determined. The origin of the breccia is also unclear with various interpretations ranging from a tillite, a tectonic breccia related to faulting, a slump breccia, a hydrothermal breccia or a diapiric breccia. A porphyritic intrusive body was uncovered in the base of the open pit that contained primary copper sulphides. The body is associated with hydrothermal alteration, including dissolution of carbonate, K metasomatism (kaolinisation), chloritisation and silicification. Dolomite on the western side of the fault does not display any of this intense alteration, suggesting it was faulted into place after the hydrothermal event.

7. WORK COMPLETED BY COPPER RANGE DURING THE REPORTING PERIOD

7.1 ACCESS NEGOTIATIONS

The Princess Royal prospect is situated on both the Princess Royal and Dutton's Trough properties. The landowners of both have approved Copper Range's exploration activities, including planned drilling and building tracks for access.

7.2 GEOLOGY

Rocks in the Princess Royal prospect are Skillogalee Dolomite and unconformably overlying slates and siltstones of the Saddleworth Formation. The Skillogalee Dolomite has been tightly folded along the regional trend and located in an anticline plunging both north and south. At the Princess Royal mine the anticline is locally tilted to the east. Minor structures include brittle and reactivated faults.

Previous geological mapping and geochemical surveys by Copper Range have established surficial supergene copper carbonate mineralisation both spatially and petrologically related to silicification and (low-temperature) hydrothermal quartz breccia. More supergene copper mineralisation may exist below silica caps which have not been drilled yet. Chlorite and albite alteration and intensely leached dolomite rocks surround the copper carbonate zone.

7.2.1 Geological mapping

Detailed stratigraphic and structural mapping of the Princess Royal prospect area, including the Princess Royal and Utica mines, was undertaken in September 2007 (see figure 3 and 4 and APPENDIX 1 and 2).

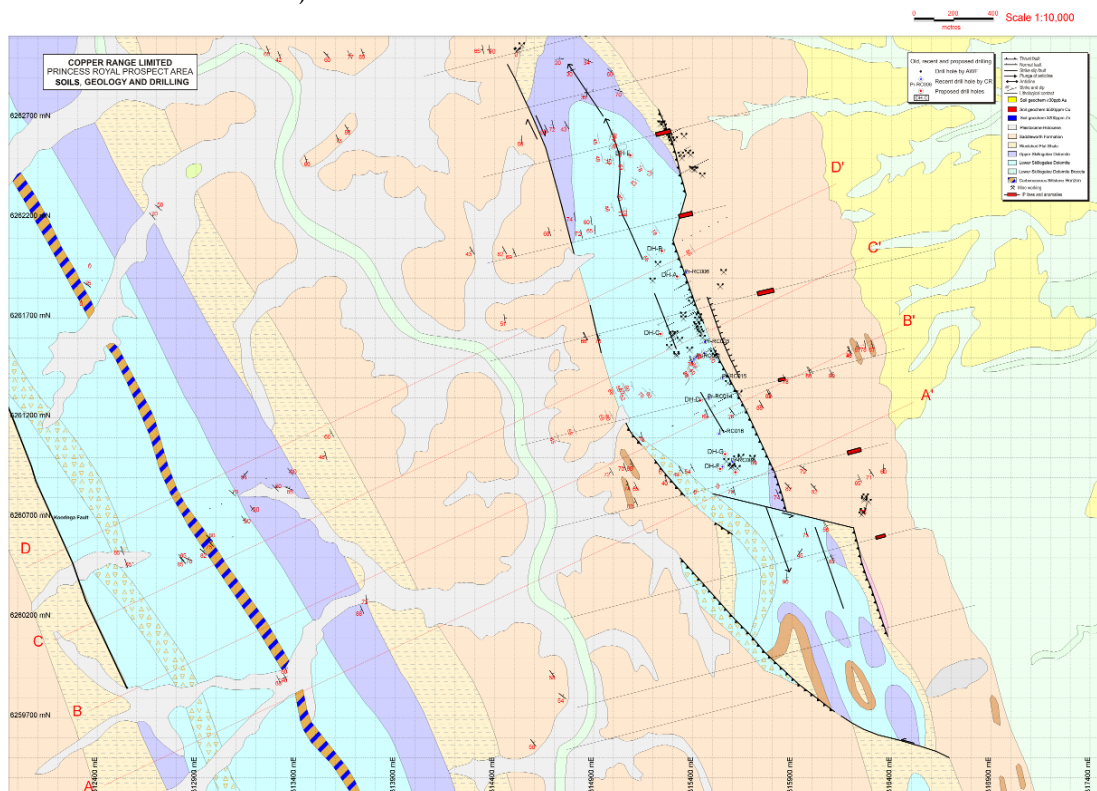


Figure 3. Stratigraphic and structural map of the Princess Royal prospect.

Detailed stratigraphic and structural mapping has established the location of a Laminated Sandy Dolomitic Carbonaceous Siltstone Horizon (LSDCSH) at the stratigraphic base of the Upper Skillogalee Dolomite east of the Princess Royal anticline (see figure 3 and 4 and APPENDIX 1 and 2). LSDCSH was intersected at drill hole PR-RC008, which contained 11m @ 1.0% Cu. LSDCSH occurs in the hinge of the anticline is viewed by Copper Range geologists as a very prospective exploration target. LSDCSH is inferred as the same unit that hosts the Burra Deposit.

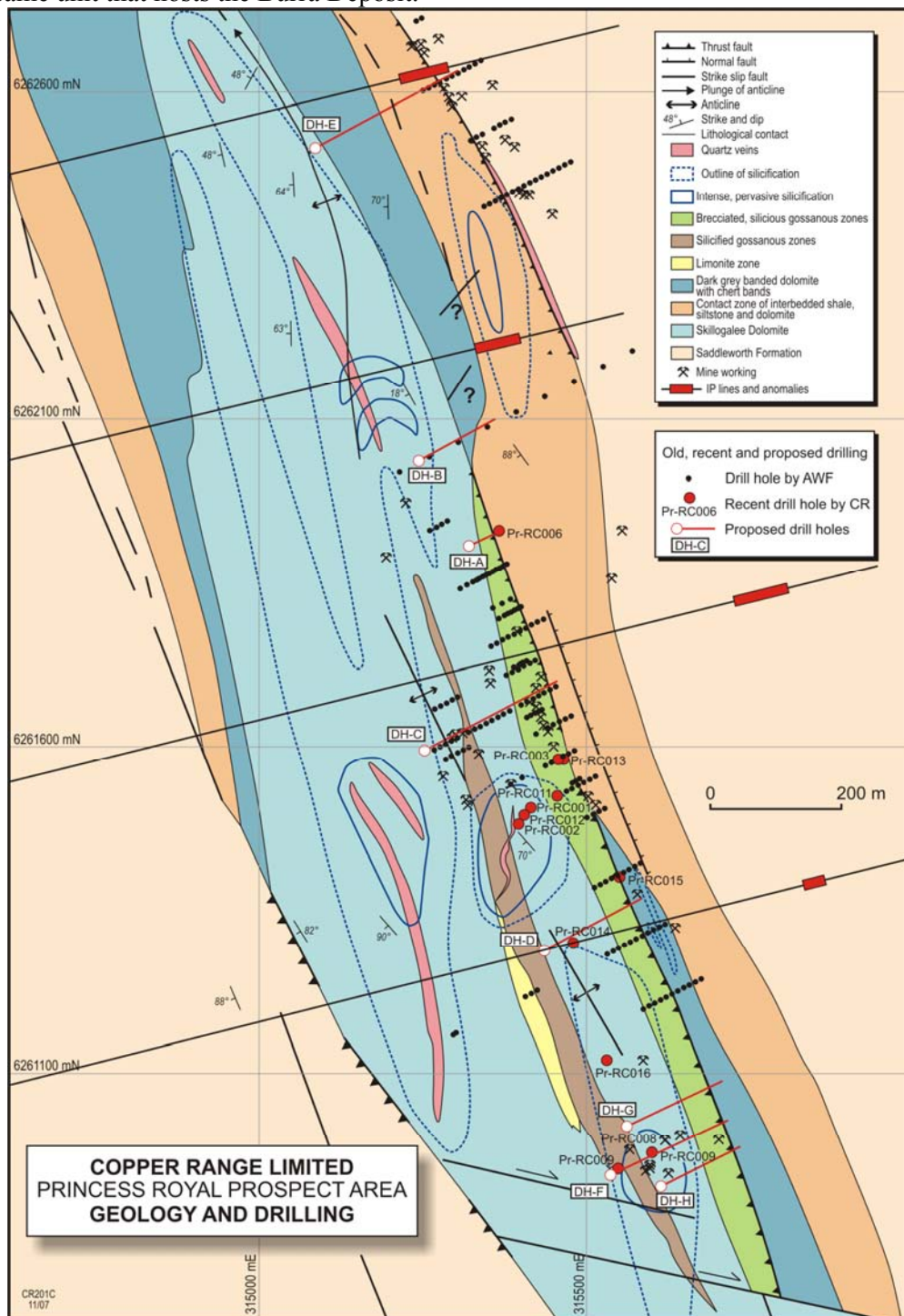


Figure 4. Geology, alteration and drilling map of the Princess Royal anticline.

Assays of 176 RAB holes drilled and sampled (at 1m intervals) by Adelaide & Wallaroo Fertilizers have been digitised and included in a database. The AWF drill assay data shows copper values $>0.3\%$ in most holes drilled along the Princess Royal fault (see Figure 5). The highest grade is found at depths of 4 to 8m. This suggests that a supergene copper blanket was generated within and close to the fault zone.



A data base was generated integrating all possible data in a 3D model, including IP data, geochemical soil assays, AWF assay and CRJ log and assay data into MapInfo and MicroMine. This was used to produced improve the 3D model in figure 6 and to generate targets for a new diamond drilling programme (figure 4 and APPENDIX 2). Cross sections with previous and recent drilling, geology, IP are shown in APPENDIX 6.

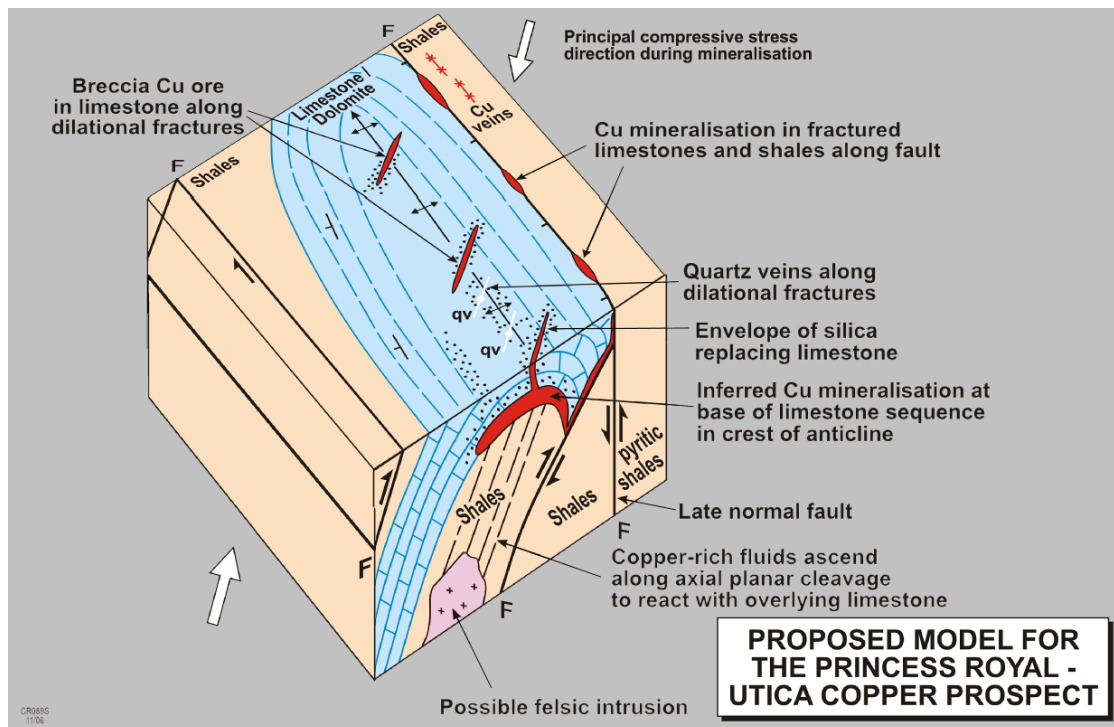


Figure 6. Mineralisation model for the Princess Royal prospect.

The above work has further enhanced the potential for primary mineralisation located at depth in the hinge of the fold at the base of the Upper Skillogalee Dolomite unit (Figure 6).

7.3 DRILLING

7.2.2 RC drilling programme at Princess Royal

A reverse circulation drilling program was carried out late June to the start of July 2008 at the Princess Royal Prospect. The program intersected significant copper and gold mineralisation which requires further drill testing. See APPENDIX 3 for log data, APPENDIX 4 for assay data and below table 5 for summary of assays.

A total of 12 holes for 932 m of RC drilling were completed during the program. The highly broken nature of the ground, combined with the presence of large cavities and water flows meant that only two of the holes reached target depth. These two holes, PR-RC003 and 013 were drilled in the centre of the prospect area.

Drill hole PR-RC008 drilled underneath the into the Utica Mine shaft at the southern end of the prospect area and intersected 11m @ 0.98% Cu from 53m. It includes 4m @ 2.2% Cu and 2m @ 0.10 ppm Au and 4.85 ppm Ag. A 1m sample from 60 to 61m contained 4.21% Cu. Another intersection of 2m @ 0.55% Cu occurs from 25m. The copper occurs as malachite, chalcopryite and minor chalcocite. A follow-up hole PR-RC009 failed to reach the projected depth of the lode due to the poor drilling conditions.

Significant gold values have been encountered in hole PR-RC006. This hole was drilled in the northern part of the prospect area to test the most anomalous zone of Cu and Au soil geochemistry. Access problems meant the hole could not be sited optimally and it was planned to a depth of 250m in attempt to test beneath the target zone. The broken ground

meant that it had to be terminated at a depth of 88m. Assays for this hole have returned an intersection of 18m @ 0.41 ppm Au and 0.26% Cu from 12m, including 5m @ 1.01 ppm Au and 0.47% Cu from 21m, and 1m @ 2.48 ppm Au from 25m.

Drill hole PR-RC015 was drilled adjacent to the target structure near previous drilling carried out in the early 1980's. It had to be abandoned in mineralisation at 26m due to the broken ground. The hole was anomalous over its entire length, with the bottom of the hole containing 6m @ 0.9% Cu as malachite.

These initial results are very encouraging given that only a small portion of the soil geochemical anomaly was tested. Further drilling is planned to assess the zones of gold and copper mineralisation. Some deeper drilling is also planned to test the potential for a larger zone of primary copper mineralisation at depth.

Conclusions from the RC drilling programme:

- Outlined limited tonnages of near-surface supergene copper ore
- Source of geochemical Zn anomaly has not yet been found
- Intense alteration by leaching of sulphides around supergene mineralised zone
- Highlighted potential for hydrothermal gold mineralisation
- Demonstrated mineralisation in structural trap, the core of the anticline
- Demonstrated mineralisation at redox boundary at base of U. Skillogalee Dolomite
- Good intersections below periphery of geochemical copper anomalies draw attention to best part of geochemical anomalies that remain yet untested
- Established LSDCSH (host of the Burra Mine deposit) as target horizon in core of Princess-Royal anticline.
- Poor drilling have prevented previous explorers from carrying through their exploration programmes. This offers an excellent opportunity for Copper Range to address these challenges.

Hole ID	Location		Orientation		Intersection			Assay		
	Northing	Easting	Dip	Bearing	From	To	Interval	Copper	Gold	Silver
	AGD94	AGD94	°	°	m	m	m	%	ppm	ppm
PR-RC001	315416	6261505	-60	60	34	35	1	0.1		
PR-RC002	315397	6261481	-90		7	9	2	0.09		
PR-RC 003	315463	6261580	-60	60	18	25	7	0.09	0.02	6.53
PR-RC 006	315367	6261930	-60	240	12	30	18	0.26	0.41	0.9
including					21	26	5	0.47	1.01	1.4
Including					25	26	1	0.28	2.48	0.5
PR-RC 008	315600	6260980	-60	55	25	27	2	0.55		
PR-RC 008					53	64	11	0.98		
including					59	63	4	2.21		
including					60	61	1	4.21	0.13	5.3
PR-RC 009	315549	6260955	-60	55	100	101	1	0.08		
PR-RC 011	315456	6261524	-60	60	18	20	2	0.11		
PR-RC 012	315405	6261495	-90		4	8	4	0.18		
PR-RC 013	315460	6261580	-90		13	17	4	0.31		
PR-RC 014	315480	6261300	-60	60	92	93	1	0.03		
PR-RC 015	315550	6261400	-60	60	9	10	1	0.43		
PR-RC 015					20	26	6	0.87		
PR-RC 016	315532	6261120	-60	65	0	8	8	0.3		

Table 5. Summary of best intersections for each of the 12 drill holes.

7.4 GEOCHEMISTRY

7.3.1 RC drill chip sampling

A total of 534 drill chip samples were collected from the RC drilling programme. All drill chip samples were submitted to and assayed by ALS for Ag, As, Bi, Ce, Co, Cr, Cu, Fe, La, Mn, Mo, Pb, S, V and Zn using their ME-ICP61s technique and Au by Au-AA25. For assay results see APPENDIX 4.

Analysis of the assay results indicates the following:

- Significantly anomalous Au values in drill hole PR-RC006 over 18m at 1m sample intervals.
- Significantly anomalous Cu values at near-surface in most drill holes
- Significant Cu intersections in drill hole PR-RC008 over 11m at 1m sample intervals.

7.3.2 Diamond drill core sampling

Twelve quartered diamond core samples were collected from core drilled by Australian Geophysical Pty Ltd in 1964, presented by the PIRSA core library at Glenside. All drill core samples were submitted to and assayed by ALS for Ag, As, Bi, Ce, Co, Cr, Cu, Fe, La, Mn, Mo, Pb, S, V and Zn using their ME-ICP61s technique and Au by Au-AA25. For assay results see APPENDIX 5.

7.3.3 Relogging of diamond drill core drilled by Australian Geophysical in 1964

Core of two diamond drill holes drilled by Australian Geophysical Pty Ltd in 1964, were logged by Copper Range geologists at the PIRSA core library, Glenside.

Analysis of the core confirmed copper-sulphides in veins up to 60cm width below base of complete oxidation at 40m depth.

- A 15cm thick quartz-carbonate-chalcopyrite vein, intersected at 169m depth, contained 2.49% Cu.

8. CONCLUSION

Copper Range's initial exploration activities at the Princess Royal prospect have highlighted lithological and structural controls to epigenetic copper mineralisation along the Princess Royal – Utica trend.

RC drilling, detailed stratigraphic and structural mapping have further defined the strike extent of supergene copper mineralisation and indicated the potential for underlying lithologically and structurally controlled primary copper sulphides.

Detailed mapping, construction of cross-sections, re-examination of drill chips and discussions with Wolfgang Preiss confirmed the Laminated Sandy Dolomitic Carbonaceous Siltstone Horizon at the base of the Upper Skillogee Dolomite as a favourable horizon for Cu-mineralisation inferred to be found at less than 150m depth in the core of the Princess Royal anticline.

Conclusions from the RC drilling programme:

- Outlined limited tonnages of near-surface supergene copper ore

- Intense alteration by leaching of sulphides around supergene mineralised zone
- Highlighted potential for hydrothermal gold mineralisation
- Demonstrated mineralisation in structural trap, the core of the anticline
- Demonstrated mineralisation at redox boundary at base of U. Skillogalee Dolomite
- Good intersections below periphery of geochemical copper anomalies draw attention to best part of geochemical anomalies yet untested

Exploration at the Princess Royal area has outlined limited tonnages of near-surface supergene copper ore. However, a potential underlying zone of primary copper mineralisation was identified, associated with a redox boundary at the base of the Upper Skillogalee in the hinge of the anticline. High surface Cu values over a strike length of 2000m are interpreted to have leaked from the underlying primary zone. This suggests that the best part of the primary zone has not yet been tested at all as the only intersection (11m @ 1.0% Cu lies at the far south end of the anomalous Cu zone.

Combining detailed stratigraphic and structural mapping and drilling has established a highly prospective horizon, the Laminated Sandy Dolomitic Carbonaceous Siltstone Horizon, in the core of the Princess Royal anticline, the same unit that hosts the Burra Deposit.

9. RECOMMENDATION

The results from Copper Range's exploration activities at the Princess Royal prospect have indicated potential for lithologically and structurally controlled primary sulphides copper and minor potential for structurally controlled copper oxide. Accordingly a drilling programme has been planned to further evaluate the prospect.

A drilling programme is recommended to further test the following targets:

- Hydrothermal gold mineralisation along strike from hole PR-RC006
- Copper oxide and sulphide in LSDCSH along strike from PR-RC008
- Copper oxide and sulphide in LSDCSH in core of anticline below the best surface geochem values
- Copper sulphide at redox boundary at base of Skillogalee Dolomite

If potentially economic primary copper sulphide mineralisation is outlined by drilling, it is recommended that AWF's surficial resource is re-evaluated and possibly extended by additional drilling.

Pending further encouraging results from Princess Royal Prospect mapping and sampling will also be undertaken at similar alteration zones defined from airborne radiometric and Aster satellite image analysis, within the tenement, eg Edelweiss, Apoinga, St Elmo.

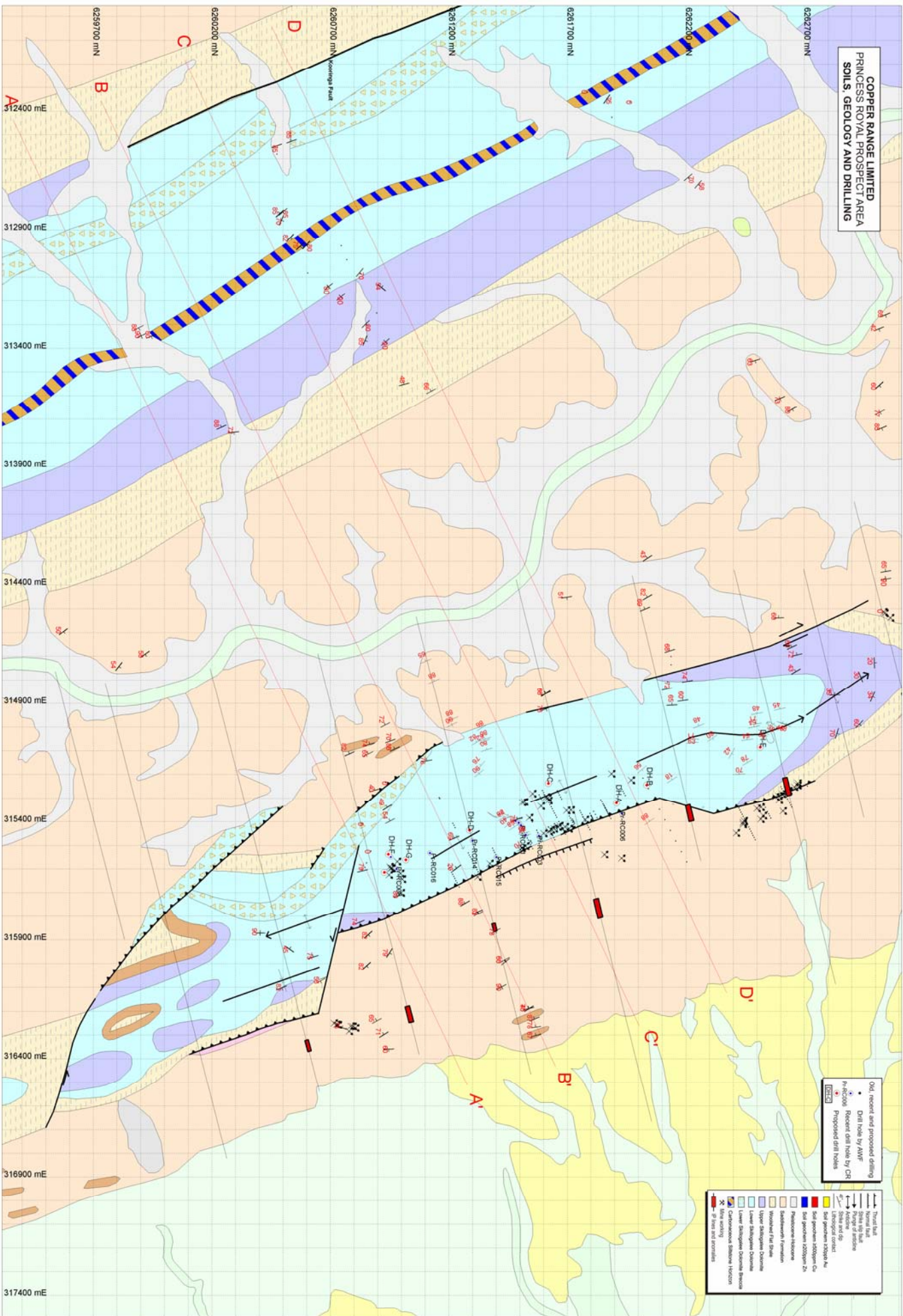
10. EXPENDITURE STATEMENT

Copper Range (SA) Pty Ltd <i>Level 4, 72 Pitt Street</i> <i>Sydney</i> EL 3549 Burra South Expenditure Statement 01/05/07 To 31/04/08	
Job Name	Expenditure
Consultant - Geology	\$53,275.88
Consultant - Drafting	\$1,925.00
Wages/Salaries	\$60,671.85
Tenement - Gov Fees, Rates, Rent	\$1,390.02
Tenement - Native Title	\$182.00
Tenement - Euro, Marlow Communications	\$1,904.30
Phone/Fax, Postage	\$179.12
Computer - Software	\$622.92
Map,Photo,Copy,Plan,Sat Image, Stationery	\$228.55
Vehicles - Fuel, Maintenance, Hire	\$3,321.86
Travel - Accommodation, Meals	\$3,834.56
Travel - Airfares, taxi, bus	\$776.62
Assaying - Rocks/Soil	\$10,782.08
Assaying / Drilling	\$3,216.91
Drilling - RC	\$100,877.01
Field Consumables - Equipment, Supplies	\$4,630.90
Safety Equipment	\$221.39
Gridding, Surveying	\$199.71
Site Preparation - Earth Works	\$8,630.00
Management Fee -HO Overheads (10%)	\$25,687.07
Grand Total:	\$282,557.75

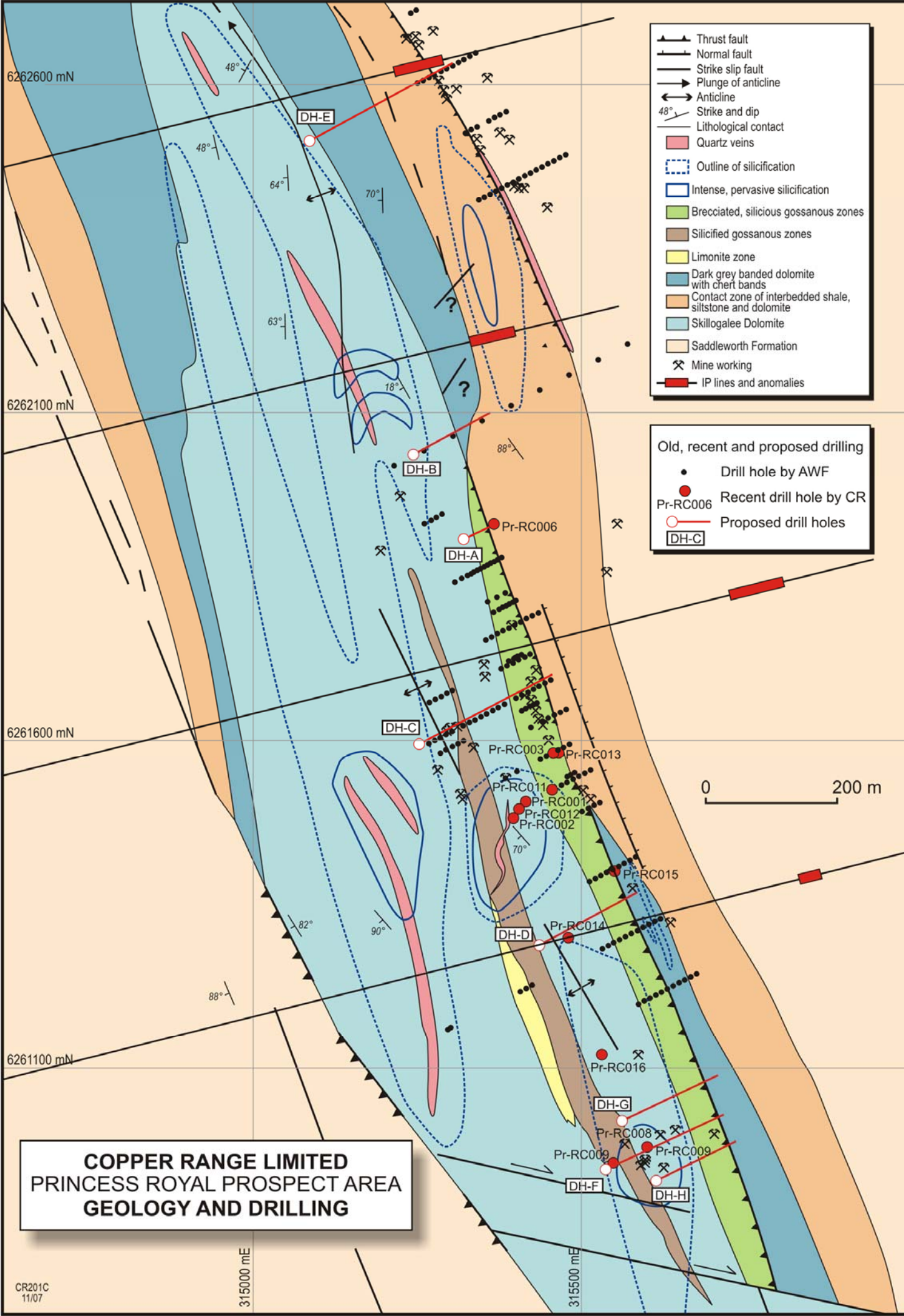
11. REFERENCES

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APPENDIX 1 - Geological map of the Princess Royal prospect

[illegible]

APPENDIX 2 – Geological map of the Princess Royal anticline



**COPPER RANGE LIMITED
PRINCESS ROYAL PROSPECT AREA
GEOLOGY AND DRILLING**

APPENDIX 3 – RC drill log data

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ	Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments
Pr-RC001	315416	6261505	488	60	-60	100	0	1	122001 TX					DOLL	CLC				I	SI	PER									partial drill pad fill
Pr-RC001	315416	6261505	488	60	-60	100	1	2	122001 PW					DOLL	CHY	C	VN		I	SI	PER	50								vein
Pr-RC001	315416	6261505	488	60	-60	100	2	3	122001 PW					DOLL	CHY	C	VN		I	SI	PER	50								vein
Pr-RC001	315416	6261505	488	60	-60	100	3	4	122001 PW					DOLL	CLC	M			I	SI	PER	10								stone powder
Pr-RC001	315416	6261505	488	60	-60	100	4	5	122002 PW		LT	OR	BR	DOLL	CLC	M			I	SI	PER	5								silicified dolomite
Pr-RC001	315416	6261505	488	60	-60	100	5	6	122002 PW		LT	OR	BR	DOLL	CLC	M			I	SI	PER	5								silicified dolomite
Pr-RC001	315416	6261505	488	60	-60	100	6	7	122002 PW		MED		GR	DOLL		M			STG	SI	PER	5								silicified dolomite
Pr-RC001	315416	6261505	488	60	-60	100	7	8	122002 PW		LT	YE		DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	8	9	122003 PW		LT	YE		DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	9	10	122003 PW		DK	YE		DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	10	11	122003 PW		DK	GR		DOLL	CHY	M			STG	SI	PER									cherty dolomite
Pr-RC001	315416	6261505	488	60	-60	100	11	12	122003 PW		DK	GR		DOLL	CHY	M			STG	SI	PER									cherty dolomite
Pr-RC001	315416	6261505	488	60	-60	100	12	13	122004 PW		DK	GR		DOLL	CHY	M			STG	SI	PER									cherty dolomite
Pr-RC001	315416	6261505	488	60	-60	100	13	14	122004 PW		DK	GR		DOLL	CHY	M			STG	SI	PER	5								cherty dolomite + vein
Pr-RC001	315416	6261505	488	60	-60	100	14	15	122004 PW		MED	YE		DOLL		M			STG	SI	PER									pyrite
Pr-RC001	315416	6261505	488	60	-60	100	15	16	122004 PW		MED	YE		DOLL		M			STG	SI	PER									pyrite
Pr-RC001	315416	6261505	488	60	-60	100	16	17	122005 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								
Pr-RC001	315416	6261505	488	60	-60	100	17	18	122005 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								
Pr-RC001	315416	6261505	488	60	-60	100	18	19	122005 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								fine grained pyrite
Pr-RC001	315416	6261505	488	60	-60	100	19	20	122005 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								fine grained pyrite
Pr-RC001	315416	6261505	488	60	-60	100	20	21	122006 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								
Pr-RC001	315416	6261505	488	60	-60	100	21	22	122006 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	22	23	122006 PW		MED	YE	GR	DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	23	24	122006 PW		MED	GR		DOLL		M			STG	SI	PER	5								manganse
Pr-RC001	315416	6261505	488	60	-60	100	24	25	122007 PW		MED	GR		DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	25	26	122007 PW		MED	YE		DOLL		M			STG	SI	PER	5								limonite
Pr-RC001	315416	6261505	488	60	-60	100	26	27	122007 PW		MED	YE		DOLL		M			STG	SI	PER									limonite
Pr-RC001	315416	6261505	488	60	-60	100	27	28	122007 PW		MED	YE		DOLL		M			STG	SI	PER									limonite
Pr-RC001	315416	6261505	488	60	-60	100	28	29	122008 PW		MED	YE		DOLL		M			STG	SI	PER									limonite
Pr-RC001	315416	6261505	488	60	-60	100	29	30	122008 PW		MED	GR	YE	DOLL		M			STG	SI	PER									pyrite in limonite vein
Pr-RC001	315416	6261505	488	60	-60	100	30	31	122008 PW		MED	GR	YE	DOLL		M			STG	SI	PER	1 trace								pyrite in limonite vein
Pr-RC001	315416	6261505	488	60	-60	100	31	32	122008 PW		DK			DOLL		M			STG	SI	PER	5								
Pr-RC001	315416	6261505	488	60	-60	100	32	33	122009 PW		DK			DOLL		M			STG	SI	PER	1 trace								
Pr-RC001	315416	6261505	488	60	-60	100	33	34	122010 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	34	35	122011 PW		DK			DOLL		M			STG	SI	PER	1								
Pr-RC001	315416	6261505	488	60	-60	100	35	36	122012 PW		DK			DOLL		M			STG	SI	PER	10								
Pr-RC001	315416	6261505	488	60	-60	100	36	37	122013 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	37	38	122013 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	38	39	122013 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	39	40	122013 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	40	41	122014 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	41	42	122014 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	42	43	122014 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	43	44	122014 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	44	45	122015 PW		DK			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	45	46	122015 PW		MED			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	46	47	122015 PW		LT			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	47	48	122015 PW		LT			DOLL		M			STG	SI	PER	40								
Pr-RC001	315416	6261505	488	60	-60	100	48	49	122016 PW		LT			DOLL		M			STG	SI	PER	20								
Pr-RC001	315416	6261505	488	60	-60	100	49	50	122016 PW		LT			DOLL		M			STG	SI	PER	20								
Pr-RC001	315416	6261505	488	60	-60	100	50	51	122016 PW		LT			DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	51	52	122016 PW		MED			DOLL		M			STG	SI	PER	20								
Pr-RC001	315416	6261505	488	60	-60	100	52	53	122017 PW		MED	YE		DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	53	54	122017 PW		MED	GR		DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	54	55	122017 PW		MED	GR		DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	55	56	122017 PW		MED	GR		DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	56	57	122018 PW		MED	GR		DOLL		M			STG	SI	PER	20								
Pr-RC001	315416	6261505	488	60	-60	100	57	58	122018 PW		MED	GR		DOLL		M			STG	SI	PER									
Pr-RC001	315416	6261505	488	60	-60	100	58	59	122018 PW		MED	YE	WH	DOLL		M			STG	SI	PER	30								
Pr-RC001	315416	6261505	488	60	-60	100	59	60	122018 PW		MED	YE	WH	DOLL		M	VN		STG	SI	PER	50								massive quartz vein
Pr-RC001	315416	6261505	488	60	-60	100	60	61	122019 PW		MED			DOLL		M	VN		STG	SI	PER	50								massive quartz vein
Pr-RC001	315416	6261505	488	60	-60	100	61	62	122020 PW		MED	GR	BK	DOLL		M			STG	SI	PER									silicified doll, qtz breccia
Pr-RC001	315416	6261505	488																											

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ	Vn%	PY%	Po%	FEOX%	CCP%	Minerals	Interval	Comments		
Pr-RC001	315416	6261505	488	60	-60	100	83	84	122040	SW	LT	YE	BR	DOLL		M				STG	SI	PER							limonite	silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	84	85	122041	SW	LT	YE	BR	DOLL		M				STG	SI	PER							limonite	silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	85	86	122041	SW	MED	GY	YE	DOLL	CHY	M				STG	SI	PER							limonite	silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	86	87	122042	SW	LT	GY	YE	DOLL	CHY	M				STG	SI	PER							limonite	silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	87	88	122042	SW	LT	GR	WH	DOLL		M				STG	SI	PER								silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	88	89	122043	SW	LT	GR	BR	DOLL		M				STG	SI	PER								silicified doll		
Pr-RC001	315416	6261505	488	60	-60	100	89	90	122043	SW	LT	GR	YE	DOLL		M				STG	SI	PER		10	Trace			1		some FeOx		
Pr-RC001	315416	6261505	488	60	-60	100	90	91	122044	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1		weathered sulphide		
Pr-RC001	315416	6261505	488	60	-60	100	91	92	122044	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1				
Pr-RC001	315416	6261505	488	60	-60	100	92	93	122044	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1				
Pr-RC001	315416	6261505	488	60	-60	100	93	94	122044	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1				
Pr-RC001	315416	6261505	488	60	-60	100	94	95	122046	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1		ticket 122045 missing		
Pr-RC001	315416	6261505	488	60	-60	100	95	96	122046	SW	LT	GR		DOLL	SLY	M				STG	SI	PER		2				1				
Pr-RC001	315416	6261505	488	60	-60	100	96	97	122047	SW	LT	WH	YE	DOLL	SLY	M				STG	SI	PER		10	1			1	Trace	limonite	chalcopyrite	
Pr-RC001	315416	6261505	488	60	-60	100	97	98	122048	SW	LT	WH	YE	DOLL	CHY	M				STG	SI	PER		10	1			1		pyrite		
Pr-RC001	315416	6261505	488	60	-60	100	98	99	122049	SW	MED	PI	WH	DOLL	SLY	M				STG	SI	PER		2				1		limonite		
Pr-RC001	315416	6261505	488	60	-60	100	99	100	122049	SW	MED	YE	WH	DOLL	CHY	M				STG	SI	PER		2						drill stuck		
Pr-RC011	315456	6261524	480	60	-60	82	0	1	122108	PW	MED			DOLL		M				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	1	2	122108	PW	MED			DOLL		M				STG	SI	PER									strongly weathered	
Pr-RC011	315456	6261524	480	60	-60	82	2	3	122108	PW	MED			DOLL		M				STG	SI	PER						1		silicified dolomite, weathered pyrite		
Pr-RC011	315456	6261524	480	60	-60	82	3	4	122108	PW	MED			DOLL		M				STG	SI	PER		Trace				1		mudstone?, weathered pyrite		
Pr-RC011	315456	6261524	480	60	-60	82	4	5	122109	PW	MED			DOLL		M		VN		STG	SI	PER		5	Trace			1		limonite		
Pr-RC011	315456	6261524	480	60	-60	82	5	6	122109	PW	MED			DOLL		M		VN		STG	SI	PER		5	Trace			1		limonite	casing put in	
Pr-RC011	315456	6261524	480	60	-60	82	6	7	122109	PW	MED			DOLL		M				STG	SI	PER						1		limonite		
Pr-RC011	315456	6261524	480	60	-60	82	7	8	122110	PW	MED			DOLL		M				STG	SI	PER						1		limonite	weathered pyrite in limonite vein	
Pr-RC011	315456	6261524	480	60	-60	82	8	9	122110	PW	MED			DOLL		M				STG	SI	PER						1		limonite		
Pr-RC011	315456	6261524	480	60	-60	82	9	10	122111	PW	MED			DOLL		M				STG	SI	PER					Trace		1		limonite	
Pr-RC011	315456	6261524	480	60	-60	82	10	11	122111	PW	MED			DOLL		M				STG	SI	PER						1				
Pr-RC011	315456	6261524	480	60	-60	82	11	12	122111	PW	MED			DOLL		M				STG	SI	PER					Trace		1			
Pr-RC011	315456	6261524	480	60	-60	82	12	13	122111	PW	MED			DOLL		M				STG	SI	PER						1			quartz vein, chalcopryite in pyrite	
Pr-RC011	315456	6261524	480	60	-60	82	13	14	122112	PW	LT			DOLL		M		VN		STG	SI	PER		80	Trace			1	Trace	chert, vein, wetahered (chalco) pyrite		
Pr-RC011	315456	6261524	480	60	-60	82	14	15	122112	PW	MED			DOLL		M		VN		STG	SI	PER		10	Trace			1				
Pr-RC011	315456	6261524	480	60	-60	82	15	16	122112	PW	MED			DOLL		M				STG	SI	PER						1		weathered silicified dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	16	17	122112	PW	MED			DOLL		M		VN		STG	SI	PER		20				1		weathered silicified dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	17	18	122113	PW	MED			DOLL		M				STG	SI	PER						1		weathered silicified dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	18	19	122113	PW	MED			DOLL		M				STG	SI	PER								weathered silicified dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	19	20	122113	PW	MED			DOLL		M				STG	SI	PER								weathered silicified dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	20	21	122113	PW	MED			DOLL		M				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	21	22	122114	PW	DK			DOLL		M				STG	SI	PER					Trace			cherty dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	22	23	122114	PW	DK			DOLL	CHY	M				STG	SI	PER					Trace			cherty dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	23	24	122115	PW	DK			DOLL	CHY	M				STG	SI	PER					Trace			cherty dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	24	25	122115	PW	DK			DOLL	CHY	M				STG	SI	PER								cherty dolomite		
Pr-RC011	315456	6261524	480	60	-60	82	25	26	122116	PW	MED			DOLL	ARG	M				STG	SI	PER								finer grey dolomite + clay		
Pr-RC011	315456	6261524	480	60	-60	82	26	27	122116	PW	MED			DOLL	PEL	F				STG	SI	PER								finer grey dolomite + clay		
Pr-RC011	315456	6261524	480	60	-60	82	27	28	122117	PW	MED			DOLL	PEL	F				STG	SI	PER								finer grey dolomite + clay		
Pr-RC011	315456	6261524	480	60	-60	82	28	29	122117	PW	MED			DOLL	PEL	F				STG	SI	PER								finer grey dolomite + clay		
Pr-RC011	315456	6261524	480	60	-60	82	29	30	122117	PW	MED			DOLL	PEL	F				STG	SI	PER								finer grey dolomite + clay		
Pr-RC011	315456	6261524	480	60	-60	82	30	31	122117	PW	MED			DOLL		F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	31	32	122118	PW	MED			DOLL		F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	32	33	122118	PW	MED			DOLL		F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	33	34	122119	PW	MED			DOLL		C		VN		STG	SI	PER					60	Trace		quartz vein		
Pr-RC011	315456	6261524	480	60	-60	82	34	35	122119	PW	MED			MDST	DMT	F				STG	SI	PER								dark mud		
Pr-RC011	315456	6261524	480	60	-60	82	35	36	122119	PW	MED			MDST	DMT	F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	36	37	122119	PW	MED			MDST	DMT	F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	37	38	122120	PW	MED			MDST	DMT	F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	38	39	122120	PW	MED			MDST	DMT	F				STG	SI	PER										
Pr-RC011	315456	6261524	480	60	-60	82	39	40	122120	PW	MED		BR	SLST	DMT	F		VN		STG	SI	PER		10	Trace					siltstone +quartz vein		
Pr-RC011	315456	6261524	480	60	-60	82	40	41	122164	PW	MED	BR		DOLL	SLY	F				STG	SI	PER								water table		
Pr-RC011	315456	6261524	480	60	-60	82	41	42	122165	SW	MED	BR		DOLL	SLY	F				STG	SI	PER					Trace			fresh pyrite		
Pr-RC011	315456	6261524	480	60	-60	82	42	4																								

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FEOX%	CCP%	Minerals	Interval	Comments	
Pr-RC011	315456	6261524	480	60	-60	82	66	67	123089	FR	DK	GY	BK	SLST	DMT	F			MOD	SI	PER	1	1		Trace					
Pr-RC011	315456	6261524	480	60	-60	82	67	68	123090	FR	DK	GY	BK	SLST	DMT	F			MOD	SI	PER	5	1		Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	68	69	122180	FR	MED	GY	BR	SLST	DMT	F			MOD	SI	PER	1	trace			2	Trace			
Pr-RC011	315456	6261524	480	60	-60	82	69	70	122180	FR	MED	GY	BR	SLST	DMT	F			MOD	SI	PER	5			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	70	71	122180	FR	MED	GY	BR	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	71	72	122180	FR	MED	GY	BR	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	72	73	122181	FR	MED	GY	BR	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	73	74	122181	FR	MED	BK	BR	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	74	75	122182	FR	LT	GY	BL	SLST	DMT	F			MOD	SI	PER	5	Trace		Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	75	76	122183	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	76	77	122183	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	77	78	122184	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	5			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	78	79	122185	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	10	1		Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	79	80	122186	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	5			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	80	81	122187	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	1			Trace	Trace				
Pr-RC011	315456	6261524	480	60	-60	82	81	82	122187	FR	MED	GY	GY	SLST	DMT	F			MOD	SI	PER	10			Trace	Trace				
Pr-RC002	315397	6261481	496	0	-90	40	0	1	122188	PW	MED			DOLL	CLC	M			I	SI	PER									Hole abandoned
Pr-RC002	315397	6261481	496	0	-90	40	1	2	122188	PW	MED			DOLL	CLC				I	SI	PER	10								
Pr-RC002	315397	6261481	496	0	-90	40	2	3	122189	PW	MED	CRM	BR	DOLL					I	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	3	4	122189	PW	MED	CRM	BR	DOLL					I	SI	PER	15								
Pr-RC002	315397	6261481	496	0	-90	40	4	5	122190	PW	MED	CRM	BR	DOLL					I	SI	PER	10	trace							limonite after pyrite
Pr-RC002	315397	6261481	496	0	-90	40	5	6	122190	PW	MED	CRM	WH	DOLL					I	SI	PER	60	5							weathered and fresh pyrite
Pr-RC002	315397	6261481	496	0	-90	40	6	7	122191	PW	MED	CRM	WH	DOLL					I	SI	PER	60	5							
Pr-RC002	315397	6261481	496	0	-90	40	7	8	122191	PW	LT	CRM		DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	8	9	122192	PW	MED	BR	YE	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	9	10	122192	PW	MED	BK	WH	DOLL					I	SI	PER	30	2							
Pr-RC002	315397	6261481	496	0	-90	40	10	11	122193	PW		CRM	WH	DOLL					I	SI	PER	20	1							
Pr-RC002	315397	6261481	496	0	-90	40	11	12	122194	PW		CRM	WH	DOLL					I	SI	PER	20	1							
Pr-RC002	315397	6261481	496	0	-90	40	12	13	122195	PW		CRM	WH	DOLL					I	SI	PER	2	1							
Pr-RC002	315397	6261481	496	0	-90	40	13	14	122196	PW	LT	CRM	BR	DOLL					I	SI	PER	0	1							
Pr-RC002	315397	6261481	496	0	-90	40	14	15	122197	PW	LT	CRM	BR	DOLL					I	SI	PER	5	1							
Pr-RC002	315397	6261481	496	0	-90	40	15	16	122198	PW	LT	CRM	BR	DOLL					I	SI	PER	5	1							
Pr-RC002	315397	6261481	496	0	-90	40	16	17	122199	PW	LT	CRM	BR	DOLL					I	SI	PER	5	1							
Pr-RC002	315397	6261481	496	0	-90	40	17	18	122200	PW	LT	CRM		DOLL					I	SI	PER	10	2							
Pr-RC002	315397	6261481	496	0	-90	40	18	19	122201	PW	LT	CRM		DOLL					I	SI	PER	10	1							
Pr-RC002	315397	6261481	496	0	-90	40	19	20	122202	PW	LT	CRM	WH	DOLL					I	SI	PER	20	2							
Pr-RC002	315397	6261481	496	0	-90	40	20	21	122203	PW	LT	CRM	BR	DOLL					I	SI	PER	15								
Pr-RC002	315397	6261481	496	0	-90	40	21	22	122204	PW	LT	CRM	BR	DOLL					I	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	22	23	122205	PW	MED	CRM	BK	DOLL					I	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	23	24	122206	PW	LT	CRM	WH	DOLL					I	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	24	25	122207	PW	LT	CRM	WH	DOLL					I	SI	PER	15								
Pr-RC002	315397	6261481	496	0	-90	40	25	26	122208	PW	LT	CRM	BR	DOLL					I	SI	PER	10								
Pr-RC002	315397	6261481	496	0	-90	40	26	27	122209	PW	LT	CRM	BR	DOLL					I	SI	PER	10								
Pr-RC002	315397	6261481	496	0	-90	40	27	28	122210	PW	LT	WH	CRM	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	28	29	122211	PW	LT	WH	CRM	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	29	30	122212	PW	LT	WH	CRM	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	30	31	122213	PW	LT	WH	CRM	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	31	32	122214	PW	LT	CRM	WH	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	32	33	122215	PW	LT	BR	WH	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	33	34	122216	PW	MED	BR	CRM	DOLL					I	SI	PER									
Pr-RC002	315397	6261481	496	0	-90	40	34	35	122217																					
Pr-RC002	315397	6261481	496	0	-90	40	35	36	122218																					
Pr-RC002	315397	6261481	496	0	-90	40	36	37	122219	PW	MED	BR	CRM	SLST		F			I	SI	PER	5	1							
Pr-RC002	315397	6261481	496	0	-90	40	37	38	122220	SW	LT	CRM	WH	DOLL		M			STG	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	38	39	122221	SW	LT	CRM	WH	DOLL		M			STG	SI	PER	5								
Pr-RC002	315397	6261481	496	0	-90	40	39	40	122222	SW	LT	CRM	WH	DOLL		M			STG	SI	PER	5								
Pr-RC012	315405	6261495	488	0	-90	46	0	1	122223	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	1	2	122224	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	2	3	122225	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	3	4	122226	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	4	5	122227	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	5	6	122228	FW				CLY		F			STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	6	7	122229	PW</																				

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments		
Pr-RC012	315405	6261495	488	0	-90	46	27	28	39220 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	28	29	39221 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	29	30	39222 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	30	31	39223 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	31	32	39224 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	32	33	39225 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	33	34	39226 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	34	35	39227 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	35	36	39228 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	36	37	39229 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	37	38	39230 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	38	39	39231 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	39	40	39232 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	40	41	39233 PW					DOLL		M				STG	SI	PER								water table	
Pr-RC012	315405	6261495	488	0	-90	46	41	42	39234 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	42	43	39235 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	43	44	39236 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	44	45	39237 PW					DOLL		M				STG	SI	PER									
Pr-RC012	315405	6261495	488	0	-90	46	45	46	39238 PW					DOLL		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	0	1	39239 PW		MED	BR	YE	SLST	CLC	F														calcrete	soil/ calcrete
Pr-RC006	315367	6261930	514	240	-60	88	1	2	39240 PW		DK	BR	RE	SLST		F	VN		I		SI	PER	10	1	1	10					ironstoned siltstone
Pr-RC006	315367	6261930	514	240	-60	88	2	3	39241 SW		DK	BR	RE	SLST		F	VN		I		SI	PER	10	1	1	10					ironstoned siltstone
Pr-RC006	315367	6261930	514	240	-60	88	3	4	39242 SW		DK	BR	RE	SLST		F			I		SI	PER								soil	
Pr-RC006	315367	6261930	514	240	-60	88	4	5	39243 SW		DK	BR	YE	SLST		F	VN		I		SI	PER	10	1	1	10					manganese ironstoned siltstone
Pr-RC006	315367	6261930	514	240	-60	88	5	6	39244 SW		MED	WH	BR	SLST	DMT	M			I		SI	PER	5								manganese ironstoned siltstone / doll brx contact
Pr-RC006	315367	6261930	514	240	-60	88	6	7	39245 SW		MED	WH	BK	SLST	DMT	M			I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	7	8	39246 SW		DK	BK	BR	DOL	CHY	M			I		SI	PER	2								manganese
Pr-RC006	315367	6261930	514	240	-60	88	8	9	39247 SW		DK	BK	BR	DOL	CHY	M			I		SI	PER	2								manganese
Pr-RC006	315367	6261930	514	240	-60	88	9	10	39248 SW		MED	BK	WH	DOL		M	VN		I		SI	PER	5								manganese quartz doll and black chrt brx
Pr-RC006	315367	6261930	514	240	-60	88	10	11	39249 SW		MED	BK	WH	DOL		M	VN		I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	11	12	39250 SW		MED	BK	WH	DOL		M	VN		I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	12	13	123021 SW		MED	BK	WH	DOL		M	VN		I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	13	14	123022 SW		MED	BK	WH	DOL		M	VN		I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	14	15	123023 SW		MED	BK	WH	SLST	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	15	16	123024 SW		MED	BK	WH	SLST	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	16	17	123025 SW		MED	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	17	18	123026 SW		MED	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	18	19	123027 SW		MED	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	19	20	123028 SW		MED	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	20	21	123029 SW		DK	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	21	22	123030 SW		DK	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	22	23	122151 SW		DK	BK	WH	DOL	CHY	M	VN		I		SI	PER	2			1	5				manganese
Pr-RC006	315367	6261930	514	240	-60	88	23	24	122151 SW		DK	BK	WH	DOL	CHY	M	VN		I		SI	PER	5								manganese
Pr-RC006	315367	6261930	514	240	-60	88	24	25	122151 SW		DK	BK	WH	DOL	CHY	M			I		SI	PER	20								manganese
Pr-RC006	315367	6261930	514	240	-60	88	25	26	122151 SW		DK	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	26	27	122152 SW		DK	BK	WH	DOL	CHY	M			I		SI	PER									manganese
Pr-RC006	315367	6261930	514	240	-60	88	27	28	122152 SW		DK	BR	BK	DOL	BXD	M			I		SI	PER	5								doll brx
Pr-RC006	315367	6261930	514	240	-60	88	28	29	122152 SW		DK	BR	BK	DOL	BXD	M			I		SI	PER									limonite veins
Pr-RC006	315367	6261930	514	240	-60	88	29	30	122152 SW		DK	BR	BK	DOL	BXD	M			I		SI	PER									slst / doll brx
Pr-RC006	315367	6261930	514	240	-60	88	30	31	122153 PW		MED	GR	BK	DOL		M			I		SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	31	32	122153 PW		MED	GR	CRM	DOL		M			I		SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	32	33	122154 PW		MED	GR	CRM	DOL		M			I		SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	33	34	122154 PW		MED	GY	BR	DOL		M	VN			STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	34	35	122154 PW		MED	GY	BR	DOL		M				STG	SI	PER	5								
Pr-RC006	315367	6261930	514	240	-60	88	35	36	122154 PW		MED	GY	BR	DOL		M				STG	SI	PER	1								
Pr-RC006	315367	6261930	514	240	-60	88	36	37	122155 PW		DK	GY		CHY		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	37	38	122155 PW		DK	GY		CHY		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	38	39	122155 PW		DK	GY		CHY		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	39	40	122155 PW		DK	GY		CHY		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	40	41	122156 PW		DK	GY		CHY		M	VN			STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	41	42	122156 SW		DK	GY		CHY		M				STG	SI	PER									
Pr-RC006	315367	6261930	514	240	-60	88	42	4																							

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval Comments	
Pr-RC006	315367	6261930	514	240	-60	88	64	65	122310 SW	LT	GY	WH	DOL	CHY	M	VN			STG	SI	PER	20				1			doll chert and qtz vn
Pr-RC006	315367	6261930	514	240	-60	88	65	66	122310 SW	MED	GY	WH	DOL		M				STG	SI	PER				1				
Pr-RC006	315367	6261930	514	240	-60	88	66	67	122310 PW	MED	BR	GY	DOL		M				STG	SI	PER				2		limonite		
Pr-RC006	315367	6261930	514	240	-60	88	67	68	122311 SW	LT	BR	GY	DOL		M	VN			STG	SI	PER	10							
Pr-RC006	315367	6261930	514	240	-60	88	68	69	122311 SW	LT	BR	GY	DOL		M				STG	SI	PER								
Pr-RC006	315367	6261930	514	240	-60	88	69	70	122312 SW	LT	GY	WH	DOL		M				STG	SI	PER								
Pr-RC006	315367	6261930	514	240	-60	88	70	71	122312 SW	LT	GY	WH	DOL		M	VN			STG	SI	PER	20			1		limonite, manganese	Cubic cavities: weathered out pyrite cristals	
Pr-RC006	315367	6261930	514	240	-60	88	71	72	122312 SW	LT	GY	WH	DOL		M				STG	SI	PER	10			1				
Pr-RC006	315367	6261930	514	240	-60	88	72	73	122313 SW	LT	GY	WH	DOL		M	VN			STG	SI	PER	5			1				
Pr-RC006	315367	6261930	514	240	-60	88	73	74	122313 SW	LT	GY	WH	DOL		M				STG	SI	PER	15			1				
Pr-RC006	315367	6261930	514	240	-60	88	74	75	122313 SW	LT	GY	WH	DOL		M	VN			STG	SI	PER	10			1				
Pr-RC006	315367	6261930	514	240	-60	88	75	76	122314 PW	LT	GY	WH	DOL		M				STG	SI	PER	5					partly weathered silicified dolomite		
Pr-RC006	315367	6261930	514	240	-60	88	76	77	122314 PW	LT	GY	WH	DOL		M	VN			STG	SI	PER	5							
Pr-RC006	315367	6261930	514	240	-60	88	77	78	122314 PW	LT	GY	WH	DOL		M	VN			STG	SI	PER	5							
Pr-RC006	315367	6261930	514	240	-60	88	78	79	122315 PW	LT	GY	WH	DOL		M	VN			STG	SI	PER	5							
Pr-RC006	315367	6261930	514	240	-60	88	79	80	122315 SW	LT	GY	CRM	DOL	CHY	M	VN			STG	SI	PER	5				1	limonite	water table	
Pr-RC006	315367	6261930	514	240	-60	88	80	81	122315 PW	LT	WH	GY	DOL		M				STG	SI	PER	5			1			weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	81	82	122315 PW	LT	WH	GY	DOL		M	VN			STG	SI	PER	5				1	limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	82	83	122316 PW	LT	WH	GY	DOL		M				STG	SI	PER	5				1	limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	83	84	122316 PW	LT	WH	GY	DOL	CHY	M	VN			STG	SI	PER	1			1		limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	84	85	122317 PW	LT	WH	GY	DOL		M				STG	SI	PER	2			1		limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	85	86	122318 PW	LT	WH	GY	DOL		M	VN			STG	SI	PER	1			1		limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	86	87	122319 PW	LT	WH	GY	DOL		M				STG	SI	PER	20			1		limonite	weathered pyrite	
Pr-RC006	315367	6261930	514	240	-60	88	87	88	122320 PW	LT	WH	GY	DOL		M	VN			STG	SI	PER	5			1		limonite	weathered pyrite	
Pr-RC003	315463	6261580	478	60	-60	100	0	1	122321					CLY														pad fill	
Pr-RC003	315463	6261580	478	60	-60	100	1	2	122321 PW	MED	BR	GY	DOL	CHY	M				I	SI	PER	5			1				
Pr-RC003	315463	6261580	478	60	-60	100	2	3	122322 PW	MED	BR	GY	SLST	DMT	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	3	4	122322 PW	MED	BR	GY	SLST	DMT	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	4	5	122322 PW	MED	BR	GY	SLST	DMT	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	5	6	122323 PW	MED	BR	GY	SLST	DMT	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	6	7	122324 PW	MED	GY	GY	SLST	CHY	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	7	8	122324 PW	MED	GY	GY	SLST	CHY	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	8	9	122324 PW	MED	GY	GY	SLST	CHY	F				I	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	9	10	122325 PW	MED	GY	WH	DOL	CHY	M	BX	VN		I	SI	PER	30			2			BRX contact	
Pr-RC003	315463	6261580	478	60	-60	100	10	11	122325 PW	MED	GY	WH	DOL	SLST	M	BX	VN		I	SI	PER	5				2		chert	
Pr-RC003	315463	6261580	478	60	-60	100	11	12	122325 PW	DK	GY	BR	SLST	SLST	F	BX	VN		I	SI	PER	1	1		2			weathered pyrite	
Pr-RC003	315463	6261580	478	60	-60	100	12	13	122326 FW	MED	GY	BR	SLST	CHY	F				STG	SI	PER				1		manganese		
Pr-RC003	315463	6261580	478	60	-60	100	13	14	122326 FW	MED	GY	BR	SLST	CHY	F	VN			STG	SI	PER	5	1		2		limonite	limonite veins in qtz veins	
Pr-RC003	315463	6261580	478	60	-60	100	14	15	122326 FW	MED	GY	BR	SLST		F				STG	SI	PER	1	1		2		limonite		
Pr-RC003	315463	6261580	478	60	-60	100	15	16	122327 FW	DK	GY	BK	SLST	CHY	F				STG	SI	PER					1	limonite		
Pr-RC003	315463	6261580	478	60	-60	100	16	17	122327 FW	MED	GY	BK	SLST		F				STG	SI	PER					1	limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	17	18	122328 FW	MED	GY	BK	SLST		F				STG	SI	PER	1			2		limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	18	19	122328 FW	MED	GY	BK	SLST		F				STG	SI	PER	2			2		limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	19	20	122328 FW	MED	GY	BK	SLST		F				STG	SI	PER	5			9		limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	20	21	122328 FW	MED	GY	BK	SLST		F				STG	SI	PER	10	1		10		limonite, manganese	weathered pyrite	
Pr-RC003	315463	6261580	478	60	-60	100	21	22	122329 FW	MED	BR	BK	SLST		F				STG	SI	PER	10	2				limonite, manganese	speckled weathered pyrite throughout	
Pr-RC003	315463	6261580	478	60	-60	100	22	23	122329 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	23	24	122330 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	24	25	122331 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	25	26	122332 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	26	27	122333 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	27	28	122334 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	28	29	122335 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	29	30	122336 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	30	31	122337 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	31	32	122338 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	32	33	122339 FW	MED	BR	BK	SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	33	34	122340 FW	MED	BR	BK	SLST		F				STG	SI	PER	10							
Pr-RC003	315463	6261580	478	60	-60	100	34	35	122341 PW	MED	BR		SLST		F	VN			STG	SI	PER	60			2		limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	35	36	122342 PW	MED	BR		SLST		F				STG	SI	PER	5			2		limonite, manganese		
Pr-RC003	315463	6261580	478	60	-60	100	36	37	122343 PW	MED	BR		SLST		F				STG	SI	PER								
Pr-RC003	315463	6261580	478	60	-60	100	37	38	122344 PW	MED	BR		SLST		F				STG	SI	PER	5	1				manganese	weathered py	
Pr-RC003	315463	6261																											

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	Tectonic GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments
Pr-RC003	315463	6261580	478	60	-60	100	59	60	122358 PW	DK	GY			SLST					STG	SI	PER	5	1						
Pr-RC003	315463	6261580	478	60	-60	100	60	61	122359 PW	DK	GY			SLST					STG	SI	PER		1		tr		1		
Pr-RC003	315463	6261580	478	60	-60	100	61	62	122359 PW	DK	GY	GR		SLST					STG	SI	PER		1		tr				
Pr-RC003	315463	6261580	478	60	-60	100	62	63	122360 PW		GY	GR		SLST					STG	SI	PER	2	1		tr				
Pr-RC003	315463	6261580	478	60	-60	100	63	64	122360 PW	MED	GY	GR		SLST					STG	SI	PER		1		tr	tr		py with chalco rim	
Pr-RC003	315463	6261580	478	60	-60	100	64	65	122361 PW	MED	GY	GR		SLST					STG	SI	PER				tr		chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	65	66	122362 PW	MED	GY	GR		SLST					STG	SI	PER			1	tr		chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	66	67	122363 PW	MED	GY	GR		SLST					STG	SI	PER				tr		1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	67	68	122363 PW	LT	GY	GR		SLST					STG	SI	PER	5					1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	68	69	122364 PW	MED	GY	GR		SLST					STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	69	70	122364 PW	DK	GY	GR		SLST					STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	70	71	122364 PW	DK	GY	GR		SLST					STG	SI	PER	2					1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	71	72	122365 PW	DK	GY	GR		SLST					STG	SI	PER	1					1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	72	73	122366 SW	DK	GY	GR		SLST					STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	73	74	122367 SW	MED	GY			SLST		F			STG	SI	PER	10					1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	74	75	122367 SW	MED	GY			SLST		F			STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	75	76	122367 SW	MED	GY			SLST		F			STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	76	77	122368 SW	MED	GY			SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	77	78	122368 SW	MED	GY			SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	78	79	122369 SW	MED	GY	WH		SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	79	80	122369 SW	MED	GY	WH		SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	80	81	122369 SW	MED	GY	WH		SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	81	82	122369 SW	MED	GY	WH		SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	82	83	122370 SW	LT	GY	WH		SLST		F			STG	SI	PER	2	1		tr				
Pr-RC003	315463	6261580	478	60	-60	100	83	84	122370 SW	LT	GY	WH		SLST		F			STG	SI	PER	5	1				1		
Pr-RC003	315463	6261580	478	60	-60	100	84	85	122370 SW	MED	GY	WH		SLST		F			STG	SI	PER	5					1		
Pr-RC003	315463	6261580	478	60	-60	100	85	86	122371 SW	MED	GY	WH		SLST		F			STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	86	87	122371 SW	LT	GY	WH		SLST		F	vn		STG	SI	PER	2	1				1		
Pr-RC003	315463	6261580	478	60	-60	100	87	88	122371 SW	LT	GY	WH		SLST					STG	SI	PER	2	1				1		
Pr-RC003	315463	6261580	478	60	-60	100	88	89	122372 SW	LT	GY	WH		SLST					STG	SI	PER						1 low	limonite vein	
Pr-RC003	315463	6261580	478	60	-60	100	89	90	122372 SW	LT	GY	WH		SLST					STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	90	91	122372 SW	LT	GY	WH		QZT	SLST		vn		STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	91	92	122373 SW	LT	GY	WH		SLST					STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	92	93	122373 SW	LT	GY	WH		SLST					STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	93	94	122373 SW	LT	GY	WH		SLST					STG	SI	PER						1 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	94	95	122373 SW	LT	GY	WH		SLST					STG	SI	PER						1		
Pr-RC003	315463	6261580	478	60	-60	100	95	96	122373 SW	DK	GY	BK		SLST	CAR				STG	SI	PER						2 chlorite?		
Pr-RC003	315463	6261580	478	60	-60	100	96	97	122374 SW	DK	GY	BK		SLST	CAR				STG	SI	PER						1 chlorite?	grey and black slate and chert	
Pr-RC003	315463	6261580	478	60	-60	100	97	98	122374 SW	DK	GY	BK		SLST	CAR				STG	SI	PER						1	charcopryite replacing py, grey and black slate and chert	
Pr-RC003	315463	6261580	478	60	-60	100	98	99	122375 SW	DK	GY	BK		SLST	CAR				STG	SI	PER						1	charcopryite replacing py, grey and black slate and chert	
Pr-RC003	315463	6261580	478	60	-60	100	99	100	122376 SW	DK	GY	BK		SLST	CAR				STG	SI	PER						1	charcopryite replacing py, grey and black slate and chert	
Pr-RC013	315460	6261580	478	0	-90	100	0	1	122376																			clay pad fill	
Pr-RC013	315460	6261580	478	0	-90	100	1	2	122377 FW	MED	BR	GR		DOL		M			I	SI	PER						mg, lim		
Pr-RC013	315460	6261580	478	0	-90	100	2	3	122377 FW	MED	BR	GR		DOL		M			I	SI	PER						lim	ironstone	
Pr-RC013	315460	6261580	478	0	-90	100	3	4	122377 FW	MED	BR	GR		DOL		M			I	SI	PER				5				
Pr-RC013	315460	6261580	478	0	-90	100	4	5	122378 FW	MED	BR	GR		DOL		M			I	SI	PER	1					5		
Pr-RC013	315460	6261580	478	0	-90	100	5	6	122378 PW	DK	GR	GR		DOL		M			I	SI	PER	2					5		
Pr-RC013	315460	6261580	478	0	-90	100	6	7	122378 PW	MED	GR	GR		DOL		M			I	SI	PER	5	1				2	lim, py	
Pr-RC013	315460	6261580	478	0	-90	100	7	8	122379 FW	MED	GR	GR		DOL		M			I	SI	PER	1					1	mag	
Pr-RC013	315460	6261580	478	0	-90	100	8	9	122379 FW	MED	GR	GR		DOL		M			I	SI	PER						5		
Pr-RC013	315460	6261580	478	0	-90	100	9	10	122379 FW	MED	BR	GR		DOL		M			I	SI	PER						5	limo + mg /Cu?	
Pr-RC013	315460	6261580	478	0	-90	100	10	11	122379 FW	MED	BR	GR		DOL		M			I	SI	PER						5	limo + mg /Cu?	
Pr-RC013	315460	6261580	478	0	-90	100	11	12	122380 FW	MED	BR	GR		DOL		M			I	SI	PER						5	limo + mg /Cu?	
Pr-RC013	315460	6261580	478	0	-90	100	12	13	122380 FW	MED	BR	GR		DOL		M			I	SI	PER								
Pr-RC013	315460	6261580	478	0	-90	100	13	14	122380 TX	MED	BR	GR		DOL	CHY	M			I	SI	PER								Totally weathered clay / fault guage?
Pr-RC013	315460	6261580	478	0	-90	100	14	15	122381 TX	MED	BR	GR		CLY	CHY	M			I	SI	PER								Totally weathered clay / fault guage?
Pr-RC013	315460	6261580	478	0	-90	100	15	16	122381 TX	MED	BR	GR		CLY	CHY	M			I	SI	PER	5							Totally weathered clay / fault guage?
Pr-RC013	315460	6261580	478	0	-90	100	16	17	122381 TX	MED	BR	GR		CLY	CHY	M			I	SI	PER								Totally weathered clay / fault guage?
Pr-RC013	315460	6261580	478	0	-90	100	17	18	122382 FW	MED	BR	GY		CLY	CHY	M			I	SI	PER	5							
Pr-RC013	315460	6261580	478	0	-90	100	18	19	122382 PW	MED	BR	BR		DOL	SLT	F	VN		STG	SI	PER	20			2		Limo	DOL / SLST BRX contact	
Pr-RC013	315460	6261580	478	0	-90	100	19	20	122382 PW	MED	BR	GR		SLST	SLT	F			STG	SI	PER								
Pr-RC013	315460	6261580	478	0	-90	100	20	21	122383 PW	MED	BR	GR		CHRT	SLT	F			STG	SI	PER								
Pr-RC013	315460	6261580	478	0	-90	100	21	22	122383 PW	MED	BR	GR																	

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	Tectonic GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments
Pr-RC013	315460	6261580	478	0	-90	100	42	43	122392 PW	MED	GY	BR	SLST			F			STG	SI	PER		1		2				weathered py
Pr-RC013	315460	6261580	478	0	-90	100	43	44	122392 PW	MED	GY	BR	SLST			F			STG	SI	PER	2	1		5				weathered py
Pr-RC013	315460	6261580	478	0	-90	100	44	45	122392 PW	MED	GY	BR	SLST			F			STG	SI	PER	1	1						weathered py
Pr-RC013	315460	6261580	478	0	-90	100	45	46	122393 PW	LT	GY	BR	SLST			F			STG	SI	PER	5	1					limonite	
Pr-RC013	315460	6261580	478	0	-90	100	46	47	122393 PW	LT	GY	BR	SLST			F			STG	SI	PER	5	1					limonite	
Pr-RC013	315460	6261580	478	0	-90	100	47	48	122393 SW	MED	GY	BR	SLST	CHY		F			STG	SI	PER	5	2		10				fresh py
Pr-RC013	315460	6261580	478	0	-90	100	48	49	122393 SW	MED	GY		SLST			F			STG	SI	PER	2	2		5				fresh py
Pr-RC013	315460	6261580	478	0	-90	100	49	50	122394 SW	MED		BR	SLST			F			STG	SI	PER							chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	50	51	122394 SW	MED	GR	BR	SLST			F			STG	SI	PER	5	2					chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	51	52	122394 SW	MED	GR	BR	SLST			F			STG	SI	PER	5	2			tr		chlorite?	water table
Pr-RC013	315460	6261580	478	0	-90	100	52	53	122394 SW		GR		SLST			F			STG	SI	PER	5	2			tr		chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	53	54	122395 SW	DK	GR	GY	SLST			F			STG	SI	PER	5	2			tr		chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	54	55	122395 SW	DK	GR	GY	SLST			F			STG	SI	PER			1		tr		chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	55	56	122396 SW	MED	GR	GY	SLST			F			STG	SI	PER					tr		chlorite?	very green powder in bag
Pr-RC013	315460	6261580	478	0	-90	100	56	57	122396 SW	MED	GR	WH	SLST			F			STG	SI	PER	2	1					chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	57	58	122396 SW	MED	GR	WH	SLST			F			STG	SI	PER	30						1 limonite	limonite clay
Pr-RC013	315460	6261580	478	0	-90	100	58	59	122397 SW		GR		SLST			F	VN		STG	SI	PER	20	1					1 limonite	
Pr-RC013	315460	6261580	478	0	-90	100	59	60	122397 SW	DK	GR	GY	SLST			F			STG	SI	PER	5	1					1 limonite	
Pr-RC013	315460	6261580	478	0	-90	100	60	61	122397 SW	DK	GR	GY	SLST			F			STG	SI	PER							1 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	61	62	122397 SW	DK	GR	GY	SLST			F			STG	SI	PER							1 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	62	63	122398 SW	DK	GR	GR	SLST			F			STG	SI	PER							1	
Pr-RC013	315460	6261580	478	0	-90	100	63	64	122399 SW	DK	GR	GY	SLST			F			STG	SI	PER							2	
Pr-RC013	315460	6261580	478	0	-90	100	64	65	122399 FR	DK	GR	GY	SLST			F			STG	SI	PER	2	1		TR			2 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	65	66	122399 FR	MED	CRM	GY	SLST			F			I	SI	PER	5						2	
Pr-RC013	315460	6261580	478	0	-90	100	66	67	122400 FR	MED	CRM	GY	SLST			F			I	SI	PER	1						1	
Pr-RC013	315460	6261580	478	0	-90	100	67	68	122400 FR	MED	CRM	GY	SLST			F			I	SI	PER	1						1	
Pr-RC013	315460	6261580	478	0	-90	100	68	69	122400 FR	MED	CRM	GY	SLST			F			I	SI	PER	1						1	
Pr-RC013	315460	6261580	478	0	-90	100	69	70	122401 FR	MED	GR	GY	SLST			F			I	SI	PER	1						1	
Pr-RC013	315460	6261580	478	0	-90	100	70	71	122401 FR	MED	GR	GY	SLST			F	VN		I	SI	PER	20						1 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	71	72	122401 FR	MED	GR	GY	SLST			F	VN		I	SI	PER	20						1 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	72	73	122402 FR	MED	BR	GY	SLST			F	VN		I	SI	PER	10						1 chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	73	74	122403 FW	MED	BR	VG	SLST			F			I	SI	PER	1						limonite	lots of clay 1 fault gauge
Pr-RC013	315460	6261580	478	0	-90	100	74	75	122403 FW	MED	BR	VG	SLST			F			I	SI	PER	5						2	
Pr-RC013	315460	6261580	478	0	-90	100	75	76	122403 FW	MED	BR	VG	SLST			F	VN		I	SI	PER	10							
Pr-RC013	315460	6261580	478	0	-90	100	76	77	122403 FW	LT	BR	WH	SLST			F	VN		I	SI	PER	40						chlorite?	
Pr-RC013	315460	6261580	478	0	-90	100	77	78	122404 FW	LT	BR	WH	SLST			M	VN		I	SI	PER	10							
Pr-RC013	315460	6261580	478	0	-90	100	78	79	122405 FW	LT	BR	WH	SLST			M	VN		I	SI	PER	20						1 limonite	
Pr-RC013	315460	6261580	478	0	-90	100	79	80	122406 FW	LT	BR	WH	SLST			F	VN		I	SI	PER	20						1	
Pr-RC013	315460	6261580	478	0	-90	100	80	81	122407 FW	LT	CRM	WH	DOL			M	VN		I	SI	PER	50	2		1			2	
Pr-RC013	315460	6261580	478	0	-90	100	81	82	122408 PW	LT	GY	WH	SLST			M			I	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	82	83	122408 FW	LT	BR		SLST			M	VN		STG	SI	PER	10	2						
Pr-RC013	315460	6261580	478	0	-90	100	83	84	122408 PW	LT			SLST			M			STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	84	85	122408 PW	LT			SLST			M			STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	85	86	122409 PW	LT			SLST			M			STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	86	87	122409 PW	MED	GY	WH	SLST			F			STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	87	88	122409 PW	MED	GY	WH	SLST	CHY		F			STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	88	89	122409 PW	MED	GY	WH	SLST	CHY					STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	89	90	122410 FW	MED	BR	CRM	SLST						STG	SI	PER	5	2					limonite	weathered pyrite
Pr-RC013	315460	6261580	478	0	-90	100	90	91	122051 FW	MED	BR	CRM	SLST						STG	SI	PER	5	1					ironstone	
Pr-RC013	315460	6261580	478	0	-90	100	91	92	122051 FW	LT	WH	BR	SLST				VN		STG	SI	PER	10	2						
Pr-RC013	315460	6261580	478	0	-90	100	92	93	122052 FW	LT	WH	CRM	SLST				VN		STG	SI	PER	20	1						
Pr-RC013	315460	6261580	478	0	-90	100	93	94	122052 PW	LT	WH		SLST						STG	SI	PER	5	1					limonite	weathered pyrite
Pr-RC013	315460	6261580	478	0	-90	100	94	95	122053 PW	MED	GY	WH	SLST	CHY					STG	SI	PER	5	1						
Pr-RC013	315460	6261580	478	0	-90	100	95	96	122053 PW	MED	GY	WH	SLST	CHY					STG	SI	PER	1	1						
Pr-RC013	315460	6261580	478	0	-90	100	96	97	122054 PW	MED	GY	WH	SLST	CHY					STG	SI	PER	1	1					1	
Pr-RC013	315460	6261580	478	0	-90	100	97	98	122054 FW	MED	GY	WH	SLST	CHY					STG	SI	PER	1	1						
Pr-RC013	315460	6261580	478	0	-90	100	98	99	122055 PW	MED	GY	WH	SLST	CHY					STG	SI	PER	1							
Pr-RC013	315460	6261580	478	0	-90	100	99	100	122056 PW	MED	GY	WH	SLST	CHY					STG	SI	PER			1					
Pr-RC008	315600	6260980	481	55	-60	106	0	1	122057 FW	MED	GY	YE	DOL			M	BX		I	SI	PER				2			Limonite, mg	limonite vein
Pr-RC008	315600	6260980	481	55	-60	106	1	2	122058 FW	DK	BK	GY	DOL	CHY		M	BX		I	SI	PER	5			5				
Pr-RC008	315600	6260980	481	55	-60	106	2	3	122059 FW	MED	BR	YE	DOL			M	BX		I	SI	PER	5			2				
Pr-RC008	315600	6260980	481	55																									

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments	
Pr-RC008	315600	6260980	481	55	-60	106	25	26	122077 FW	LT	BR	GY	DOL		M				STG	SI	PER	30	5				1 chalcopyrite		chalcocite, malachite	
Pr-RC008	315600	6260980	481	55	-60	106	26	27	122078 FW	LT	BR	GY	DOL		M				STG	SI	PER	30	5				1 chalcopyrite		chalcocite, malachite	
Pr-RC008	315600	6260980	481	55	-60	106	27	28	122079 FW	LT	BR	GY	DOL		M				STG	SI	PER								stylolites	
Pr-RC008	315600	6260980	481	55	-60	106	28	29	122080 FW	MED	GY	BR	DOL		M				STG	SI	PER								stylolites	
Pr-RC008	315600	6260980	481	55	-60	106	29	30	122081 FW	MED	GY	BR	DOL		M				STG	SI	PER								weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	30	31	122082 FW	MED	GY	BR	DOL		M				STG	SI	PER								stylolites	
Pr-RC008	315600	6260980	481	55	-60	106	31	32	122083 FW	MED	GY	BR	DOL		M				STG	SI	PER								stylolites	
Pr-RC008	315600	6260980	481	55	-60	106	32	33	122084 FW	MED	GY	BR	DOL		M				STG	SI	PER								stylolites	
Pr-RC008	315600	6260980	481	55	-60	106	33	34	122085 FW	MED	YE	BR	DOL		M				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	34	35	122086 FW	MED	GR	BR	DOL		M				STG	SI	PER			1		5	limonite		water table, cavity	
Pr-RC008	315600	6260980	481	55	-60	106	35	36	122087 FW	MED	GR	BR	DOL		M				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	36	37	122088 FW	MED	GR	BR	DOL		M				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	37	38	122089 FW	MED	GR	BR	DOL		M	BX			STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	38	39	122090 FW	LT	WH	GY	DOL		M	VN			STG	SI	PER								limonite	
Pr-RC008	315600	6260980	481	55	-60	106	39	40	122091 FW	LT	WH		DOL		M	VN			STG	SI	PER	20	1						sugery silicified dolomite	
Pr-RC008	315600	6260980	481	55	-60	106	40	41	122092 PW	MED			DOL	CHY	M				STG	SI	PER	20	1						weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	41	42	122092 PW	MED			DOL		M				STG	SI	PER	5	2						weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	42	43	122093 PW	MED			DOL		M				STG	SI	PER	10	1			2			black mineral in quartz/transparent dolomite	
Pr-RC008	315600	6260980	481	55	-60	106	43	44	122093 FW	MED	YE	WH	DOL		M	BX			STG	SI	PER	5	1						black mineral in quartz/transparent dolomite	
Pr-RC008	315600	6260980	481	55	-60	106	44	45	122094 FW	MED	YE	WH	DOL		M				STG	SI	PER	5	1						weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	45	46	122095 PW	MED	GR	WH	DOL		M				STG	SI	PER	5	1						weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	46	47	122095 PW	MED	GR	WH	DOL		M				STG	SI	PER	5	1						weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	47	48	122096 PW	MED	GR	WH	DOL		M				STG	SI	PER			1					weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	48	49	122096 PW	MED	GR	WH	DOL		M				STG	SI	PER								weathered pyrite	
Pr-RC008	315600	6260980	481	55	-60	106	49	50	122097 FW	MED	YE	GR	DOL	BXD	M				STG	SI	PER	10	1		1		withpy		lots of water	
Pr-RC008	315600	6260980	481	55	-60	106	50	51	122098 FW	MED	YE	GR	DOL		M	FA			STG	SI	PER	10	1		1		with py		sandy powder, fault gauge	
Pr-RC008	315600	6260980	481	55	-60	106	51	52	122099 FW	MED			DOL		M				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	52	53	122100 FW	DK	GY	BR	DOL		M	BX			STG	SI	PER	5	1		2		limonite		stylolitic solution breccia	
Pr-RC008	315600	6260980	481	55	-60	106	53	54	122100 FW	DK	GY	BR	DOL		M	BX			STG	SI	PER	15	2		2		malachite, limonite		Cu, main lode	
Pr-RC008	315600	6260980	481	55	-60	106	54	55	122101 FW	DK	GY	BR	DOL		M	BX			STG	SI	PER	10	2		2		limonite			
Pr-RC008	315600	6260980	481	55	-60	106	55	56	122101 FW	DK	GY	BR	DOL		M	BX			STG	SI	PER	10	2		5		malachite		Cu, dark green Cu mineral	
Pr-RC008	315600	6260980	481	55	-60	106	56	57	122102 FW	MED	YE	BR	DOL		M				STG	SI	PER	5	1		5					
Pr-RC008	315600	6260980	481	55	-60	106	57	58	122102 FW	MED			DOL		M				STG	SI	PER	5			1			1		
Pr-RC008	315600	6260980	481	55	-60	106	58	59	122103 FW	DK	RE	WH	DOL		M	VN			STG	SI	PER	20			20		2 chalcocite		ironsonse, chalcocite replacing chalcopyrite	
Pr-RC008	315600	6260980	481	55	-60	106	59	60	122103 FW	DK	RE	YE	DOL		M	VN			STG	SI	PER	10			30		2 chalcocite		ironsonse, chalcocite replacing chalcopyrite	
Pr-RC008	315600	6260980	481	55	-60	106	60	61	122104 FW	DK	RE	WH	DOL		M	VN			STG	SI	PER	5			30		2 malachite, chalcocite		ironsonse, chalcocite replacing chalcopyrite	
Pr-RC008	315600	6260980	481	55	-60	106	61	62	122104 FW	DK	RE	YE	DOL		M	VN			STG	SI	PER	20			30		2 malachite, chalcocite		ironsonse, chalcocite replacing chalcopyrite	
Pr-RC008	315600	6260980	481	55	-60	106	62	63	122104 FW	DK	RE	YE	DOL		M				STG	SI	PER	5			30		2 malachite, chalcocite		ironsonse, chalcocite replacing chalcopyrite	
Pr-RC008	315600	6260980	481	55	-60	106	63	64	122105 FW	MED	BR	GY	DOL		M				STG	SI	PER				5					
Pr-RC008	315600	6260980	481	55	-60	106	64	65	122106 FW	DK	BR	GY	DOL		M				STG	SI	PER								limonite	
Pr-RC008	315600	6260980	481	55	-60	106	65	66	122106 FW	DK	BR	GY	DOL		M	STY			STG	SI	PER								limonite	
Pr-RC008	315600	6260980	481	55	-60	106	66	67	122106 FW	DK	BR	GY	DOL		M	BX			STG	SI	PER	10			5		1 malchite		stylolitic solution breccia	
Pr-RC008	315600	6260980	481	55	-60	106	67	68	122106 FW	DK	BR	GY	DOL		M	BX			STG	SI	PER	5			2		1 malchite, limonite		stylolitic solution breccia	
Pr-RC008	315600	6260980	481	55	-60	106	68	69	122107 FW	DK	BR		DOL		M	BX			STG	SI	PER	1					limonite			
Pr-RC008	315600	6260980	481	55	-60	106	69	70	122107 PW	DK	GY	WH	SLST	CHY	F	BX			STG	SI	PER					2		limonite		Cherty , dolomite/ slst contact
Pr-RC008	315600	6260980	481	55	-60	106	70	71	122107 PW	DK	GY	BR	SLST	CHY	F				STG	SI	PER								green tint , siltstone	
Pr-RC008	315600	6260980	481	55	-60	106	71	72	122107 PW	DK	GY		SLST	CHY	F				STG	SI	PER	5					chalcocite ? (TR)		black mineral in transparentdolomite/ siltstone	
Pr-RC008	315600	6260980	481	55	-60	106	72	73	122122 PW	DK	GY		SLST	CHY	F				STG	SI	PER	1								
Pr-RC008	315600	6260980	481	55	-60	106	73	74	122122 FW	DK	BR	GY	SLST		F				STG	SI	PER	5				1		1		
Pr-RC008	315600	6260980	481	55	-60	106	74	75	122122 FW	DK	BR	GY	SLST		F				STG	SI	PER					1		1		
Pr-RC008	315600	6260980	481	55	-60	106	75	76	122122 FW	DK	GY	BR	SLST		F				STG	SI	PER							TR		
Pr-RC008	315600	6260980	481	55	-60	106	76	77	122123 PW	DK	BR	GY	SLST		F				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	77	78	122123 PW	DK	GY		SLST	CHY	F				STG	SI	PER									
Pr-RC008	315600	6260980	481	55	-60	106	78	79	122123 PW	DK	GY	BR	SLST	CHY	F				STG	SI	PER					1		limonite		
Pr-RC008	315600	6260980	481	55	-60	106	79	80	122123 PW	DK	GY	BR	SLST	CHY	F				STG	SI	PER								limonite	
Pr-RC008	315600	6260980	481	55	-60	106	80	81	122124 PW	DK	GY	BR	SLST	SLST	F	BX		VN	STG	SI	PER	1			5				back in stylolitic dolomite	
Pr-RC008	315600	6260980	481	55	-60	106	81	82	122124 PW	MED	GY	BR	DOL		M	BX		VN	STG	SI	PER	10	1		5	TR			cpy	
Pr-RC008	315600	6260980	481	55	-60	106	82	83	122124 PW	MED	GY	BR	DOL		F	BX			STG	SI	PER	2			5	TR			black silt stone/shale	
Pr-RC008	315600	6260980	481	55	-60	106	83	84	122124 PW	DK	GY	BR	SLST		F	BX			STG	SI	PER				5				black silt stone/shale	
Pr-RC008	315600	6260980	481	55	-60	106	84	85	122125 PW	DK	GY	BR	SLST		F				STG	SI	PER	2			5				black	

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	Tectonic GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ	Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments		
Pr-RC009	315549	6260955	471	55	-60	112	2	3	122134 FW		MED	BR	YE	DOL	F				I	SI	PER						5		limonite, white mica		gossanous yellow-brown-black rock	
Pr-RC009	315549	6260955	471	55	-60	112	3	4	122134 FW		LT	YE	WH	DOL					I	SI	PER		5			1					pre collar	
Pr-RC009	315549	6260955	471	55	-60	112	4	5	122135 FW		DK	BR	GY	DOL	M	BX	LI		I	SI	PER		1			5			limonite, white mica			
Pr-RC009	315549	6260955	471	55	-60	112	5	6	122135 FW		LT	GY	WH	DOL	M				I	SI	PER	10		1					limonite, white mica		disseminated weathered pyrite	
Pr-RC009	315549	6260955	471	55	-60	112	6	7	122135 FW		LT	GY	WH	DOL	M				I	SI	PER					2						
Pr-RC009	315549	6260955	471	55	-60	112	7	8	122136 FW		LT	GY	WH	DOL	M				I	SI	PER		5						limo alt. Py 1%		gossanous yellow-brown-black rock	
Pr-RC009	315549	6260955	471	55	-60	112	8	9	122136 FW		LT	GY	WH	DOL	M				I	SI	PER		5				10		limo alt. Py 1%		weathered chalcopyrite	
Pr-RC009	315549	6260955	471	55	-60	112	9	10	122136 FW		LT	GY	WH	DOL	M				I	SI	PER		5			5 TR			limo alt. Py 1%			
Pr-RC009	315549	6260955	471	55	-60	112	10	11	122136 FW		LT	GY	WH	DOL	M	vn			I	SI	PER		2				5		limo alt. Py 1%			
Pr-RC009	315549	6260955	471	55	-60	112	11	12	122136 FW		LT	GY	WH	DOL	M				I	SI	PER	10		1			1		limo alt. Py 1%		wheatered +fresh pyrite in quartz vein	
Pr-RC009	315549	6260955	471	55	-60	112	12	13	122241 FW		LT	GY	WH	DOL	M				I	SI	PER		2						limo alt. Py 1%			
Pr-RC009	315549	6260955	471	55	-60	112	13	14	122241 FW		LT	GY	WH	DOL	M				I	SI	PER		1			TR						
Pr-RC009	315549	6260955	471	55	-60	112	14	15	122242 FW		MED	GY	GY	DOL	M				I	SI	PER					TR						
Pr-RC009	315549	6260955	471	55	-60	112	15	16	122242 FW		MED	BR	BK	DOL	M				I	SI	PER		1			TR			limonite			
Pr-RC009	315549	6260955	471	55	-60	112	16	17	122242 FW		MED	YE		DOL	M			LI	I	SI	PER		1			TR			limonite		limo vein in qu	
Pr-RC009	315549	6260955	471	55	-60	112	17	18	122243 FW					DOL	M				I	SI	PER											
Pr-RC009	315549	6260955	471	55	-60	112	18	19	122243 FW		MED	YE	BK	DOL	M				I	SI	PER						10		limonite 5%			
Pr-RC009	315549	6260955	471	55	-60	112	19	20	122244 FW					DOL	M				I	SI	PER						1		limonite 1%, Mg		stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	20	21	122245 FW		MED	YE	BR	DOL	M				I	SI	PER						10					
Pr-RC009	315549	6260955	471	55	-60	112	21	22	122246 FW		DK	RE	BR	DOL	M				I	SI	PER						20				ironstone	
Pr-RC009	315549	6260955	471	55	-60	112	22	23	122247 FW		DK	BK	RE	DOL	M				I	SI	PER						20				ironstone	
Pr-RC009	315549	6260955	471	55	-60	112	23	24	122247 FW		DK	GY	BR	DOL	M				I	SI	PER						5				stylonite	
Pr-RC009	315549	6260955	471	55	-60	112	24	25	122248 FW		DK	GY	BR	DOL	M				I	SI	PER						5				stylonite	
Pr-RC009	315549	6260955	471	55	-60	112	25	26	123092 FW		DK	GY	BR	DOL	M				I	SI	PER						5				stylonite	
Pr-RC009	315549	6260955	471	55	-60	112	26	27	123093 FW		DK	GY	BR	DOL	M				I	SI	PER					10			limo		stylonite	
Pr-RC009	315549	6260955	471	55	-60	112	27	28	123094 FW		DK	GY	BR	DOL	CHY	M				I	SI	PER					5			limo		stylonite
Pr-RC009	315549	6260955	471	55	-60	112	28	29	123095 FW		MED	GY	BR	DOL	M				I	SI	PER						5			limo		stylonite
Pr-RC009	315549	6260955	471	55	-60	112	29	30	122250 FW		MED	BR	GY	DOL	F				I	SI	PER					1						
Pr-RC009	315549	6260955	471	55	-60	112	30	31	122251 FW		MED	BR	GY	DOL	F				I	SI	PER					TR					water table	
Pr-RC009	315549	6260955	471	55	-60	112	31	32	122251 FW		MED	BR	GY	DOL	F				I	SI	PER					TR						
Pr-RC009	315549	6260955	471	55	-60	112	32	33	122252 FW		MED	BR	GY	DOL	F				I	SI	PER							1				
Pr-RC009	315549	6260955	471	55	-60	112	33	34	122252 FW		MED	GY	BR	DOL	M				STG	SI	PER		1				1		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	34	35	122253 FW		MED	GY	BR	DOL	M				STG	SI	PER						2		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	35	36	122253 FW		MED	GY	BR	DOL	M				STG	SI	PER						2		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	36	37	122254 FW		MED	GY	BR	DOL	M				STG	SI	PER						2		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	37	38	122254 FW		MED	GY	BR	DOL	M				STG	SI	PER						1		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	38	39	122255 FW		MED	GY	BR	DOL	F				STG	SI	PER						1		limonite 1%		sandy dolomite, stylonites	
Pr-RC009	315549	6260955	471	55	-60	112	39	40	122255 FW		MED	GY	BR	DOL	F				STG	SI	PER					TR					sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	40	41	122256 FW		MED	GY	BR	DOL	F				STG	SI	PER					TR					sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	41	42	122256 FW		MED	GY	BR	DOL	M				STG	SI	PER		1		1						sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	42	43	122257 FW		MED	GY	BR	DOL	F				STG	SI	PER						1				sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	43	44	122257 FW		MED	GY	BR	DOL	F				STG	SI	PER		1								sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	44	45	122258 FW		MED	GY	BR	DOL	F				STG	SI	PER		1								sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	45	46	122259 FW		MED	GY	BR	DOL	M				STG	SI	PER										sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	46	47	122260 FW		MED	GY	BR	DOL	M				STG	SI	PER		1				1		limonite		sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	47	48	122261 FW		MED	GY	BR	DOL	M				STG	SI	PER								limonite		sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	48	49	122262 FW		MED	GY	BR	DOL	M				STG	SI	PER								limonite 1%		sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	49	50	122263 FW		MED	GY	BR	DOL	M				STG	SI	PER								limonite 1%		sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	50	51	122264 FW		DK	BK	BR	DOL	M				STG	SI	PER								limonite 1%		sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	51	52	122264 FW		DK	BK		DOL	CHY	F				STG	SI	PER							gossan 1%			
Pr-RC009	315549	6260955	471	55	-60	112	52	53	122265 FW		DK	BK		DOL	CHY	F				STG	SI	PER		5					gossan 1%			
Pr-RC009	315549	6260955	471	55	-60	112	53	54	122265 FW		DK	BK		DOL	CHY	F				STG	SI	PER		2		1		10		limonite after pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	54	55	122265 FW		DK	BK		DOL	CHY	F				STG	SI	PER		5								
Pr-RC009	315549	6260955	471	55	-60	112	55	56	122265 FW		DK	BK		DOL	CHY	F				STG	SI	PER									gossan	
Pr-RC009	315549	6260955	471	55	-60	112	56	57	122266 FW		DK	BK		SLST	CHY	F				STG	SI	PER										
Pr-RC009	315549	6260955	471	55	-60	112	57	58	122266 FW		DK	BK		SLST	CHY	F				STG	SI	PER										
Pr-RC009	315549	6260955	471	55	-60	112	58	59	122267 FW		DK	GY		SLST	CHY	F				STG	SI	PER										
Pr-RC009	315549	6260955	471	55	-60	112	59	60	122268 FW		DK	GY		SLST	F				F	STG	SI	PER						1				
Pr-RC009	315549	6260955	471	55	-60	112	60	61	122269 FW		DK	RE	BK	SLST	F				F	STG	SI	PER										

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	Tectonic GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ	Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments
Pr-RC009	315549	6260955	471	55	-60	112	85	86	122294 PW	MED	RE	GY	DOL	M					STG	SI	PER						1		limonite afte pyrite	
Pr-RC009	315549	6260955	471	55	-60	112	86	87	122295 PW	MED	BR	GY	DOL	M					STG	SI	PER	10	TR			2		limonite afte pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	87	88	122296 PW	MED	BR	GR	DOL	F					STG	SI	PER							limonite afte pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	88	89	122297 PW	MED	BR	GR	DOL	M					STG	SI	PER							limonite afte pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	89	90	122298 PW	MED	BR	GR	DOL	M					STG	SI	PER							silty dolomite/ dolomite silstone		
Pr-RC009	315549	6260955	471	55	-60	112	90	91	122299 PW	MED	BR	GR	DOL	M					STG	SI	PER	1				1		silty dolomite/ dolomite silstone		
Pr-RC009	315549	6260955	471	55	-60	112	91	92	122300 PW	MED	BR	GR	DOL	F					STG	SI	PER		TR							
Pr-RC009	315549	6260955	471	55	-60	112	92	93	122301 PW	LT	BR	GR	DOL	F					STG	SI	PER	1	TR						pyritic siltstone	
Pr-RC009	315549	6260955	471	55	-60	112	93	94	122301 FW	LT	BR	GR	DOL	VF					STG	SI	PER							weathered pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	94	95	122302 FW	MED	YE	BR	CLY	F	FA				STG	SI	PER					TR		fault		
Pr-RC009	315549	6260955	471	55	-60	112	95	96	122302 FW	LT	BR	GY	SLST	F					STG	SI	PER					TR	TR	siltstone		
Pr-RC009	315549	6260955	471	55	-60	112	96	97	122302 FW	MED	BR	GY	SLST	F					STG	SI	PER					TR	TR	weathered pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	97	98	122302 FW	MED	BR	GY	SLST	F					STG	SI	PER					TR	TR	weathered pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	98	99	122303 FW	MED	BR	GY	SLST	F					STG	SI	PER					TR		weathered pyrite		
Pr-RC009	315549	6260955	471	55	-60	112	99	100	122303 FW	MED	YE	CRM	DOL	M	VN				STG	SI	PER	20		2		10	1		limonite after pyrite, ironstone dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	100	101	122303 FW	LT	YE	CRM	DOL	F	FA		VN		STG	SI	PER	100								
Pr-RC009	315549	6260955	471	55	-60	112	101	102	122304 FW	LT	YE	CRM	DOL	F					STG	SI	PER	2								
Pr-RC009	315549	6260955	471	55	-60	112	102	103	122304 FW	LT	BR	WH	SLST	F	FA				STG	SI	PER	50		1		10			fine sugery dolomitic silstone	
Pr-RC009	315549	6260955	471	55	-60	112	103	104	122305 PW	MED	GY	BR	SLST	F					STG	SI	PER								limonite after pyrit, fault gauge	
Pr-RC009	315549	6260955	471	55	-60	112	104	105	122305 PW	MED	GY	BR	SLST	F					STG	SI	PER					TR			dol/ silstone, pyritic siltstone	
Pr-RC009	315549	6260955	471	55	-60	112	105	106	122305 PW	MED	GY	BR	SLST	F					STG	SI	PER					TR			dol/ silstone, pyritic siltstone	
Pr-RC009	315549	6260955	471	55	-60	112	106	107	122306 PW	LT	GY	BR	SLST	F					STG	SI	PER	5							sugery dol/silst	
Pr-RC009	315549	6260955	471	55	-60	112	107	108	122306 PW	DK	GY	BR	SLST	F					STG	SI	PER								sandy dolomite	
Pr-RC009	315549	6260955	471	55	-60	112	108	109	122306 PW	MED	GY	BR	SLST	F					STG	SI	PER	1								
Pr-RC009	315549	6260955	471	55	-60	112	109	110	122307 PW	MED	GY	BR	DOLL	F					STG	SI	PER	5		1		1				
Pr-RC009	315549	6260955	471	55	-60	112	110	111	122307 PW	MED	GY	BR	SLT	F					STG	SI	PER								limonite	
Pr-RC009	315549	6260955	471	55	-60	112	111	112	122307 FW	MED	GY	BR	DOL	M					STG	SI	PER	2	TR			2			stytolitic dol	
Pr-RC014	315480	6261300	503	60	-60	110	0	1	122412 FW	MED	BR	CRM	DOL	M	LI				I	SI	PER	1							weathered pyrite, E.O.H. in cavity, failed to reach main lode!	
Pr-RC014	315480	6261300	503	60	-60	110	1	2	122412 FW	MED	BR	GY	DOL	M	LI				I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	2	3	122412 FW	MED	BR	GY	DOL	M	LI				I	SI	PER					TR			mg	
Pr-RC014	315480	6261300	503	60	-60	110	3	4	122412 FW	MED	BR	GY	DOL	M	LI				I	SI	PER					TR			mg, white mica	
Pr-RC014	315480	6261300	503	60	-60	110	4	5	122413 FW	MED	BR	GY	DOL	M					I	SI	PER					TR			limonite	
Pr-RC014	315480	6261300	503	60	-60	110	5	6	122413 FW	MED	BR	GY	DOL	M	LI				I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	6	7	122413 FW	MED	BR	GY	DOL	M					I	SI	PER					TR				
Pr-RC014	315480	6261300	503	60	-60	110	7	8	122413 FW	MED	BR	GY	DOL	M	LI				I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	8	9	122414 FW	MED	BR	GY	DOL	M					I	SI	PER					1	TR		limonite	
Pr-RC014	315480	6261300	503	60	-60	110	9	10	122414 FW	MED	BR	GY	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	10	11	122414 FW	MED	BR	GY	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	11	12	122414 FW	MED	GY	BR	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	12	13	122415 FW	DK	GY	BR	DOL	M	LI		BX		I	SI	PER	2				5			hydro-fractured limonite vein	
Pr-RC014	315480	6261300	503	60	-60	110	13	14	122415 FW	DK	BR	GY	DOL	M	LI		BX		I	SI	PER	5				5			hydro-fractured limonite vein	
Pr-RC014	315480	6261300	503	60	-60	110	14	15	122416 FW	MED	BR	GY	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	15	16	122416 FW	MED	BR	GY	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	16	17	122416 FW	MED	GY	GY	DOL	C	LI		BX		I	SI	PER								fault breccia, limonite veins, cavity	
Pr-RC014	315480	6261300	503	60	-60	110	17	18	122417 FW	LT	GY	GY	DOL	F					I	SI	PER	5							fault	
Pr-RC014	315480	6261300	503	60	-60	110	18	19	122417 FW	LT	GY	GY	DOL	F	BX				I	SI	PER	5								
Pr-RC014	315480	6261300	503	60	-60	110	19	20	122417 FW	LT	GY	GY	DOL	F	BX				I	SI	PER	5								
Pr-RC014	315480	6261300	503	60	-60	110	20	21	122417 FW	LT	GY	GY	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	21	22	122418 FW	MED	GY	GY	DOL	F					I	SI	PER	5								
Pr-RC014	315480	6261300	503	60	-60	110	22	23	122418 FW	MED	GY	GY	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	23	24	122418 FW	MED	GY	GY	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	24	25	122418 FW	MED	GY	GY	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	25	26	122419 FW	LT	GY	CRM	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	26	27	122419 FW	LT	GY	CRM	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	27	28	122419 FW	LT	GY	CRM	DOL	F					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	28	29	122419 FW	LT	GY	CRM	DOL	F	VN				I	SI	PER	10								
Pr-RC014	315480	6261300	503	60	-60	110	29	30	122420 FW	LT	BR	GY	DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	30	31	122420 FW	LT	BR	GY	DOL	M					I	SI	PER	5							Mg	
Pr-RC014	315480	6261300	503	60	-60	110	31	32	122420 FW	LT	CRM	BR	DOL	M					I	SI	PER	5							limonite, Mg	
Pr-RC014	315480	6261300	503	60	-60	110	32	33	122420 FW	LT	CRM	BR	DOL	M					I	SI	PER	5							limonite, Mg	
Pr-RC014	315480	6261300	503	60	-60	110	33	34	122421 SW	LT	GY		DOL	M					I	SI	PER									
Pr-RC014	315480	6261300	503	60	-60	110	34	35	122421 FW	MED	GR	GY																		

Hole ID	AGD94E	AGD94N	Elevation	503	60	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	Tectonic GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FeOX%	CCP%	Minerals	Interval	Comments
Pr-RC014	315480	6261300	503	60	-60	110	56	57	122426	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	57	58	122427	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	58	59	122427	PW	MED	CRM	GR	DOL	M		VN				SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	59	60	122427	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	60	61	122427	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	61	62	122428	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	62	63	122428	PW	MED	CRM	GR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	63	64	122428	PW	MED	CRM	GR	DOL	M		VN		LI		SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	64	65	122428	PW	MED	CRM	GR	DOL	M		VN				SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	65	66	122429	PW	MED	WH	CRM	DOL	M						SI	PER								
Pr-RC014	315480	6261300	503	60	-60	110	66	67	122429	PW	MED	WH	CRM	DOL	M						SI	PER								
Pr-RC014	315480	6261300	503	60	-60	110	67	68	122429	PW	MED	WH	CRM	DOL	M						SI	PER								
Pr-RC014	315480	6261300	503	60	-60	110	68	69	122429	PW	MED	WH	GR	DOL	M						SI	PER	10 TR							
Pr-RC014	315480	6261300	503	60	-60	110	69	70	122430	PW	MED	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	70	71	122430	PW	MED	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	71	72	122430	PW	MED	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	72	73	122430	SW	MED	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	73	74	122431	SW	MED	CRM	WH	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	74	75	122431	SW	MED	CRM	WH	DOL	M						SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	75	76	122431	SW	MED	CRM	WH	DOL	M						SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	76	77	122431	SW	MED	CRM	WH	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	77	78	122432	SW	MED	YE	CRM	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	78	79	122432	SW	MED	CRM	WH	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	79	80	122432	SW	MED	RE	GY	DOL	M						SI	PER	2 TR							
Pr-RC014	315480	6261300	503	60	-60	110	80	81	122433	SW	LT	CRM	WH	DOL	M						SI	PER	2 TR							
Pr-RC014	315480	6261300	503	60	-60	110	81	82	122433	SW	LT	CRM	WH	DOL	M						SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	82	83	122433	SW	LT	CRM	WH	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	83	84	122433	SW	LT	WH	BK	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	84	85	122434	SW	LT	WH	BK	DOL	M						SI	PER	1 TR							
Pr-RC014	315480	6261300	503	60	-60	110	85	86	122434	SW	LT	WH	BK	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	86	87	122434	SW	LT	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	87	88	122435	SW	MED	BR	WH	DOL	M		VN				SI	PER	10	1						
Pr-RC014	315480	6261300	503	60	-60	110	88	89	122435	SW	MED	BR	WH	DOL	M		VN				SI	PER	5 TR							
Pr-RC014	315480	6261300	503	60	-60	110	89	90	122436	SW	LT	WH	GY	DOL	M						SI	PER	1	1						
Pr-RC014	315480	6261300	503	60	-60	110	90	91	122437	SW	MED	RE	WH	DOL	M		VN				SI	PER	10	5						
Pr-RC014	315480	6261300	503	60	-60	110	91	92	122438	SW	MED	BR	BR	DOL	M		VN				SI	PER	10	2						
Pr-RC014	315480	6261300	503	60	-60	110	92	93	122439	SW	MED	BR	BR	DOL	M						SI	PER	2	1						
Pr-RC014	315480	6261300	503	60	-60	110	93	94	122440	SW	LT	WH	GY	DOL	M						SI	PER	2							
Pr-RC014	315480	6261300	503	60	-60	110	94	95	122441	SW	MED	GY	BR	DOL	M						SI	PER	2							
Pr-RC014	315480	6261300	503	60	-60	110	95	96	122441	SW	MED	CRM	GY	DOL	M						SI	PER	1							
Pr-RC014	315480	6261300	503	60	-60	110	96	97	122442	SW	LT	WH	GY	DOL	M						SI	PER	1							
Pr-RC014	315480	6261300	503	60	-60	110	97	98	122443	SW	LT	WH	GY	DOL	M						SI	PER								
Pr-RC014	315480	6261300	503	60	-60	110	98	99	122444	SW	LT	WH	GY	DOL	M						SI	PER								
Pr-RC014	315480	6261300	503	60	-60	110	99	100	122445	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	100	101	122445	SW	LT	CRM	WH	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	101	102	122446	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	102	103	122447	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	103	104	122448	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	104	105	122449	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	105	106	122450	SW	LT	WH	GY	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	106	107	122451	SW	MED	GY	BR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	107	108	122452	SW	MED	GY	BR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	108	109	122453	SW	MED	GY	BR	DOL	M						SI	PER	TR							
Pr-RC014	315480	6261300	503	60	-60	110	109	110	122454	SW	MED	GY	BR	DOL	M						SI	PER	TR							
Pr-RC015	315550	6261400	500	60	-60	26	0	1	122461	FW	MED	YE	BR	DOL	CHY	M					SI	PER	5 TR							
Pr-RC015	315550	6261400	500	60	-60	26	1	2	122461	FW	MED	YE	BR	DOL	CHY	M					SI	PER	1							
Pr-RC015	315550	6261400	500	60	-60	26	2	3	122462	FW	MED	YE	BR	DOL	CHY	M					SI	PER	1 TR							
Pr-RC015	315550	6261400	500	60	-60	26	3	4	122462	FW	MED	YE	BR	DOL	CHY	M					SI	PER								
Pr-RC015	315550	6261400	500	60	-60	26	4	5	122463	FW	MED	YE	BR	DOL	M						SI	PER	5							
Pr-RC015	315550	6261400	500	60	-60	26	5	6	122463	FW	MED	YE	BR	DOL	M						SI	PER	5							
Pr-RC015	315550	6261400	500	60	-60	26	6	7	122464	FW	MED	YE	BR	DOL	M						SI	PER								
Pr-RC015	315550	6261400	500	60	-60	26	7	8	122465	FW	MED	YE	BR	DOL																

Hole ID	AGD94E	AGD94N	Elevation	Azimuth	Dip	Total Depth	From	To	Sample Number	Weathering	Colour Intensity	Main colour	Second colour	Lithology	Lithology Qualifier	GS	Tectonic Feat1	Tectonic Feat2	Alteration Intensity	Alteration Type	Alteration Qualifier	QZ Vn%	PY%	Po%	FEOX%	CCP%	Minerals	Interval Comments
Pr-RC016	315532	6261120	490	65	-60	22	3	4	123034 FW	MED	BR			DOL		M			I	SI	PER							soil, clay, calcrete
Pr-RC016	315532	6261120	490	65	-60	22	4	5	123035 FW	MED	BR			DOL		M			I	SI	PER							soil, clay, calcrete
Pr-RC016	315532	6261120	490	65	-60	22	5	6	123036 FW	MED	BR			DOL		M			I	SI	PER					1		soil, clay, calcrete, pre-collar
Pr-RC016	315532	6261120	490	65	-60	22	6	7	123037 FW	MED	BR			DOL		M			I	SI	PER							soil, clay, calcrete
Pr-RC016	315532	6261120	490	65	-60	22	7	8	123038 FW	MED	BR			DOL		M			I	SI	PER							soil, clay, calcrete
Pr-RC016	315532	6261120	490	65	-60	22	8	9	123039 FW	MED	GY	BR		DOL		M	VN		I	SI	PER	10				1	manganese	
Pr-RC016	315532	6261120	490	65	-60	22	9	10	123040 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							cherty, stylolitic
Pr-RC016	315532	6261120	490	65	-60	22	10	11	123041 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER	1		TR		1	manganese, limonite	cherty, soil clay
Pr-RC016	315532	6261120	490	65	-60	22	11	12	123042 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							cherty
Pr-RC016	315532	6261120	490	65	-60	22	12	13	122458 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	13	14	122458 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	14	15	122458 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	15	16	122458 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	16	17	122459 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	17	18	122459 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	18	19	122459 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	19	20	122459 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	20	21	122459 FW	MED	GY	BR		DOL	CHY	M			I	SI	PER							
Pr-RC016	315532	6261120	490	65	-60	22	21	22	122460 FW	MED	BR	WH		DOL		M	VN		I	SI	PER	10				3		fault, qurtz vein, cavity

APPENDIX 4 – RC drill chip geochemical assay data

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122001	PR-RC001	0	4	0.01	<0.5	19	<2	2	5	382	0.8	200	1	4	0.07	36
122002	PR-RC001	4	8	<0.01	<0.5	14	<2	2	3	312	0.86	322	1	4	0.03	35
122003	PR-RC001	8	12	<0.01	<0.5	14	<2	2	3	975	0.93	447	1	2	0.1	46
122004	PR-RC001	12	16	0.01	<0.5	23	<2	3	2	227	0.98	463	1	<2	0.09	31
122005	PR-RC001	16	20	<0.01	<0.5	18	<2	2	2	239	0.76	544	1	2	0.06	50
122006	PR-RC001	20	24	<0.01	<0.5	17	<2	2	3	242	0.84	565	<1	3	0.03	53
122007	PR-RC001	24	28	<0.01	<0.5	12	<2	2	2	127	0.76	532	<1	<2	0.02	31
122008	PR-RC001	28	32	<0.01	<0.5	19	<2	2	1	209	0.92	528	1	<2	0.02	37
122009	PR-RC001	32	33	<0.01	<0.5	11	<2	1	1	177	0.63	433	1	<2	0.02	31
122010	PR-RC001	33	34	<0.01	<0.5	10	<2	2	<1	160	0.5	467	<1	<2	0.02	24
122011	PR-RC001	34	35	0.01	<0.5	102	4	11	7	969	7.23	7350	4	3	0.04	165
122012	PR-RC001	35	36	0.01	<0.5	27	6	3	4	294	1.13	1225	1	4	0.16	77
122013	PR-RC001	36	40	0.01	<0.5	43	<2	4	5	224	2.66	1400	2	2	0.13	59
122014	PR-RC001	40	44	0.01	<0.5	38	<2	3	4	167	1.53	610	1	2	0.33	49
122015	PR-RC001	44	48	<0.01	<0.5	16	<2	2	1	107	0.63	546	1	<2	0.18	27
122016	PR-RC001	48	52	<0.01	<0.5	16	<2	4	5	208	0.89	373	<1	3	0.07	45
122017	PR-RC001	52	56	<0.01	<0.5	13	<2	2	2	232	0.76	591	<1	2	0.06	41
122018	PR-RC001	59	60	<0.01	<0.5	15	<2	2	3	211	0.84	570	<1	2	0.05	42
122019	PR-RC001	60	61	<0.01	<0.5	11	<2	1	1	96	0.88	753	1	3	0.03	33
122020	PR-RC001	61	62	<0.01	0.5	7	<2	1	1	74	0.78	446	<1	<2	0.04	21
122021	PR-RC001	62	63	<0.01	0.5	22	<2	2	3	125	1	590	1	3	0.04	42
122022	PR-RC001	63	64	0.01	0.5	15	<2	2	2	68	1.11	1110	1	<2	0.05	41
122023	PR-RC001	64	65	<0.01	2	121	<2	6	4	286	4.04	1040	2	<2	0.17	81
122024	PR-RC001	65	66	<0.01	<0.5	23	<2	2	1	13	1.24	897	1	<2	0.25	24
122025	PR-RC001	66	67	<0.01	0.7	42	<2	2	3	22	2.03	883	1	2	0.54	58
122026	PR-RC001	67	68	0.01	0.7	62	<2	3	4	38	2.3	711	1	<2	0.35	86
122027	PR-RC001	68	69	<0.01	<0.5	197	<2	10	6	37	9	841	3	4	6.05	99
122028	PR-RC001	69	70	0.01	<0.5	142	<2	6	3	25	4.46	1675	2	6	3.42	45
122029	PR-RC001	70	71	0.01	<0.5	189	2	5	4	10	4.74	2170	1	3	4.07	77
122030	PR-RC001	71	72	<0.01	<0.5	22	<2	2	2	10	1.1	859	1	2	0.68	33
122031	PR-RC001	72	73	0.01	<0.5	21	<2	3	2	20	1	818	<1	3	0.65	33
122032	PR-RC001	73	74	<0.01	<0.5	19	<2	1	1	33	0.95	833	<1	2	0.45	24
122033	PR-RC001	74	75	<0.01	<0.5	17	<2	1	<1	4	0.91	520	2	2	0.39	17
122034	PR-RC001	75	76	<0.01	<0.5	13	<2	1	1	6	0.71	443	1	2	0.23	13
122035	PR-RC001	76	77	0.01	<0.5	13	<2	2	6	23	1.42	680	<1	10	0.75	132
122036	PR-RC001	77	78	<0.01	1.1	16	<2	2	4	54	0.93	478	<1	4	0.11	30
122037	PR-RC001	78	79	<0.01	1	19	<2	2	2	57	1	560	1	2	0.23	22
122038	PR-RC001	79	80	<0.01	<0.5	15	<2	2	1	41	0.83	485	1	<2	0.09	21
122039	PR-RC001	80	82	<0.01	0.8	20	<2	2	6	36	1.36	750	1	4	0.39	31
122040	PR-RC001	82	84	<0.01	<0.5	9	<2	2	4	118	1.06	633	1	<2	0.06	30
122041	PR-RC001	84	86	0.01	<0.5	14	<2	1	2	94	0.87	533	1	<2	0.04	25
122042	PR-RC001	86	88	<0.01	<0.5	8	<2	1	2	46	0.65	544	<1	<2	0.07	20

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122043	PR-RC001	88	90	0.01	<0.5	9	<2	1	1	59	0.6	527	<1	2	0.06	17
122044	PR-RC001	90	94	0.01	<0.5	16	<2	1	2	57	0.71	430	<1	3	0.06	33
122046	PR-RC001	94	96	<0.01	<0.5	6	<2	1	1	25	0.29	162	<1	2	0.05	14
122047	PR-RC001	96	97	<0.01	<0.5	<5	<2	<1	1	15	0.24	129	<1	<2	0.03	13
122048	PR-RC001	97	98	<0.01	<0.5	<5	<2	1	1	13	0.23	139	<1	2	0.03	13
122049	PR-RC001	98	100	<0.01	<0.5	9	<2	1	2	33	0.52	394	<1	<2	0.05	26
122051	PR-RC011	0	2	0.01	<0.5	15	<2	3	5	438	1.07	190	<1	2	0.02	56
122052	PR-RC011	2	4	0.02	<0.5	14	<2	2	3	405	1.02	176	<1	<2	0.02	49
122053	PR-RC011	4	6	<0.01	<0.5	8	<2	1	<1	254	0.62	186	<1	<2	0.01	25
122054	PR-RC011	6	8	<0.01	<0.5	14	<2	1	2	334	0.62	200	1	2	0.05	26
122055	PR-RC011	8	9	<0.01	<0.5	16	<2	1	2	465	0.94	175	1	<2	0.03	39
122056	PR-RC011	9	10	<0.01	<0.5	15	<2	1	2	355	0.65	209	1	<2	0.05	27
122057	PR-RC011	10	11	<0.01	<0.5	18	<2	1	2	320	0.98	161	1	<2	0.04	40
122058	PR-RC011	11	12	<0.01	<0.5	26	<2	2	3	582	0.94	294	1	2	0.12	47
122059	PR-RC011	12	13	<0.01	<0.5	14	<2	1	7	309	0.7	176	1	<2	0.16	21
122060	PR-RC011	13	14	<0.01	<0.5	17	<2	1	5	473	0.97	259	1	3	0.17	36
122061	PR-RC011	14	16	<0.01	<0.5	21	<2	1	1	557	0.8	238	<1	<2	0.21	35
122062	PR-RC011	16	18	0.01	<0.5	20	5	2	2	633	1.35	408	1	2	0.05	50
122063	PR-RC011	18	20	0.02	<0.5	32	<2	4	2	1095	2.3	1670	1	2	0.02	83
122064	PR-RC011	20	21	0.01	<0.5	25	<2	2	3	779	1.59	1065	1	<2	0.04	77
122065	PR-RC011	21	22	0.02	<0.5	7	<2	2	<1	329	1.42	1620	<1	3	0.02	50
122066	PR-RC011	22	23	<0.01	<0.5	<5	<2	3	2	44	2.87	3430	1	4	0.17	46
122067	PR-RC011	23	24	<0.01	<0.5	5	3	5	4	108	8.52	7760	1	4	0.02	127
122068	PR-RC011	24	25	0.01	<0.5	<5	<2	3	4	126	1.56	1230	<1	3	0.03	61
122069	PR-RC011	25	26	<0.01	<0.5	32	<2	5	5	438	2.58	1925	1	2	0.02	95
122070	PR-RC011	26	28	<0.01	0.5	6	<2	3	3	134	1.74	1790	<1	2	0.05	41
122071	PR-RC011	28	29	<0.01	0.5	10	<2	2	2	38	1.19	1445	<1	2	0.06	39
122072	PR-RC011	29	30	0.01	<0.5	14	<2	3	8	35	1.96	1080	1	2	0.09	46
122073	PR-RC011	30	32	<0.01	<0.5	15	<2	5	7	39	2.21	1750	1	4	0.09	52
122074	PR-RC011	32	33	<0.01	<0.5	<5	<2	4	3	17	1.71	1405	<1	3	0.16	38
122075	PR-RC011	33	34	0.01	<0.5	<5	<2	2	2	10	1.39	1200	1	<2	0.11	24
122076	PR-RC011	34	35	<0.01	<0.5	15	<2	8	16	34	2.9	1250	3	6	0.16	28
122077	PR-RC011	35	36	<0.01	<0.5	12	<2	9	26	25	1.8	1140	<1	5	0.11	17
122078	PR-RC011	36	37	<0.01	<0.5	<5	<2	15	32	21	2.32	1085	<1	6	0.08	27
122079	PR-RC011	37	38	<0.01	<0.5	6	<2	16	32	6	3.37	734	1	3	0.19	39
122080	PR-RC011	38	39	<0.01	<0.5	<5	<2	14	28	13	3.48	1090	<1	3	0.57	30
122081	PR-RC011	39	40	0.01	<0.5	10	<2	10	21	6	2.37	1325	<1	5	0.44	36
122082	PR-RC011	40	41	<0.01	<0.5	21	<2	14	24	16	2.68	1090	1	5	0.19	37
122083	PR-RC011	41	42	<0.01	<0.5	18	<2	11	22	9	3.25	1120	<1	4	0.36	31
122084	PR-RC011	42	43	<0.01	<0.5	5	<2	14	27	11	2.18	573	<1	10	0.5	27
122085	PR-RC011	43	44	<0.01	<0.5	9	<2	9	27	18	2.12	761	<1	7	0.45	30
122086	PR-RC011	44	45	0.01	<0.5	8	<2	19	23	13	2.65	1075	<1	6	0.96	28

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122087	PR-RC011	45	46	<0.01	<0.5	14	<2	31	16	27	5.92	1260	<1	8	1.27	22
122088	PR-RC011	46	47	<0.01	<0.5	15	<2	29	15	26	5.62	1210	<1	6	1.17	20
122089	PR-RC011	47	48	<0.01	<0.5	9	<2	8	26	12	1.88	870	1	3	0.1	27
122090	PR-RC011	48	49	<0.01	<0.5	8	<2	7	27	17	1.98	1430	<1	3	0.1	38
122091	PR-RC011	49	50	<0.01	<0.5	6	<2	9	30	11	2.08	1305	<1	4	0.1	35
122092	PR-RC011	50	52	<0.01	<0.5	<5	<2	8	35	12	2.53	1465	<1	5	0.06	32
122093	PR-RC011	52	54	<0.01	<0.5	5	<2	12	31	4	2.32	832	<1	4	0.17	29
122094	PR-RC011	54	55	0.01	<0.5	<5	<2	17	36	2	2.59	393	<1	5	0.17	20
122095	PR-RC011	55	57	<0.01	<0.5	8	<2	25	35	30	2.17	793	<1	3	0.19	41
122096	PR-RC011	57	59	<0.01	<0.5	6	<2	2	36	17	1.98	977	<1	3	0.04	40
122097	PR-RC011	59	60	<0.01	<0.5	<5	<2	5	28	3	2.08	1275	<1	<2	0.06	54
122098	PR-RC011	60	61	<0.01	<0.5	<5	<2	7	29	6	1.28	670	<1	3	0.08	36
122099	PR-RC011	61	62	<0.01	<0.5	5	<2	7	39	5	2.19	1270	<1	3	0.07	46
122100	PR-RC011	62	64	<0.01	<0.5	8	<2	12	34	37	2.1	1185	<1	2	0.1	33
122101	PR-RC011	64	66	0.02	<0.5	9	<2	5	38	9	2.59	1110	<1	4	0.04	35
122102	PR-RC011	66	68	<0.01	<0.5	6	<2	6	37	15	2.58	803	<1	6	0.04	40
122103	PR-RC011	68	70	<0.01	<0.5	<5	<2	6	34	3	2.47	1640	<1	8	0.06	51
122104	PR-RC011	66	73	0.01	<0.5	5	<2	4	38	2	2.8	1855	<1	9	0.05	77
122105	PR-RC011	73	74	<0.01	<0.5	<5	<2	6	37	6	2.6	462	<1	8	0.06	25
122106	PR-RC011	74	78	<0.01	<0.5	<5	<2	3	33	3	1.84	987	<1	6	0.04	54
122107	PR-RC011	78	82	0.01	<0.5	<5	<2	2	30	14	1.47	969	<1	3	0.06	37
122108	PR-RC002	0	4	<0.01	<0.5	6	<2	1	1	127	0.51	504	<1	<2	0.03	24
122109	PR-RC002	4	7	0.01	<0.5	<5	<2	1	4	142	0.88	373	<1	2	0.11	23
122110	PR-RC002	7	9	0.01	<0.5	33	8	6	18	914	3.77	215	1	6	0.1	159
122111	PR-RC002	9	13	<0.01	<0.5	6	<2	<1	<1	86	0.62	785	<1	<2	0.03	23
122112	PR-RC002	13	17	<0.01	<0.5	<5	<2	<1	<1	36	0.48	676	<1	<2	0.03	22
122113	PR-RC002	17	21	0.01	<0.5	7	<2	<1	<1	82	0.62	528	1	<2	0.01	27
122114	PR-RC002	21	23	0.01	<0.5	5	<2	<1	<1	59	0.5	537	<1	<2	0.02	39
122115	PR-RC002	23	25	<0.01	<0.5	<5	<2	<1	<1	15	0.33	642	<1	3	0.06	17
122116	PR-RC002	25	27	<0.01	<0.5	16	<2	<1	<1	136	1.1	552	<1	2	0.17	44
122117	PR-RC002	27	31	<0.01	<0.5	<5	<2	<1	<1	37	0.51	580	<1	<2	0.1	38
122118	PR-RC002	31	33	0.01	<0.5	<5	<2	<1	<1	31	0.25	640	<1	2	0.04	16
122119	PR-RC002	33	37	<0.01	<0.5	14	<2	<1	<1	186	0.93	582	1	<2	0.12	52
122120	PR-RC002	37	40	<0.01	<0.5	9	<2	<1	<1	89	0.6	632	1	<2	0.06	40
122122	PR-RC012	0	4	0.03	<0.5	30	11	4	17	691	2.26	146	1	3	0.15	64
122123	PR-RC012	4	8	0.01	<0.5	117	22	10	28	1820	7.49	452	2	4	0.08	249
122124	PR-RC012	8	12	<0.01	<0.5	11	<2	1	1	169	0.66	534	1	<2	0.06	30
122125	PR-RC012	12	16	0.02	<0.5	61	<2	4	9	613	2.95	515	1	3	0.08	116
122126	PR-RC012	16	18	<0.01	<0.5	7	<2	1	2	143	0.83	697	1	<2	0.04	38
122127	PR-RC012	18	20	<0.01	<0.5	5	<2	1	<1	125	0.46	564	<1	<2	0.02	26
122128	PR-RC012	20	21	<0.01	<0.5	<5	<2	<1	2	75	0.31	485	<1	<2	0.01	19
122129	PR-RC012	21	22	<0.01	<0.5	10	<2	<1	2	183	0.56	456	1	<2	0.07	22

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122130	PR-RC012	22	23	0.01	< 0.5	< 5	< 2	< 1	2	115	0.4	375	< 1	< 2	0.04	23
122131	PR-RC012	23	27	< 0.01	< 0.5	< 5	< 2	< 1	< 1	90	0.31	497	< 1	< 2	0.02	23
122132	PR-RC012	27	31	< 0.01	< 0.5	8	< 2	1	1	141	0.64	649	1	< 2	0.02	40
122133	PR-RC012	31	34	< 0.01	< 0.5	9	< 2	< 1	< 1	112	0.57	625	1	< 2	0.04	36
122134	PR-RC012	34	38	0.01	< 0.5	22	< 2	1	< 1	208	1.85	779	1	< 2	0.16	126
122135	PR-RC012	38	41	0.01	< 0.5	43	< 2	4	2	337	2.62	642	1	5	0.03	115
122136	PR-RC012	41	46	0.01	< 0.5	22	< 2	3	1	228	1.68	706	< 1	< 2	0.25	88
122164	PR-RC003	0	1	0.03	< 0.5	13	< 2	4	14	438	1.45	426	1	7	0.03	44
122165	PR-RC003	1	2	0.05	< 0.5	19	< 2	4	7	405	0.99	176	1	2	0.02	58
122166	PR-RC003	2	4	0.04	< 0.5	59	3	16	13	254	4.3	245	1	3	0.05	263
122167	PR-RC003	4	6	0.04	< 0.5	23	< 2	7	8	334	2.32	199	1	3	0.02	150
122168	PR-RC003	6	8	0.03	< 0.5	11	< 2	3	3	465	1.26	629	1	3	0.02	86
122169	PR-RC003	8	9	0.03	< 0.5	15	2	5	5	355	1.53	1100	1	< 2	0.1	93
122170	PR-RC003	9	10	0.02	< 0.5	6	< 2	2	2	320	0.9	610	< 1	< 2	0.01	47
122171	PR-RC003	10	11	0.05	< 0.5	54	< 2	11	13	582	3.48	1510	1	8	0.06	243
122172	PR-RC003	11	12	0.01	< 0.5	26	< 2	7	6	309	2.05	1830	1	< 2	0.02	123
122173	PR-RC003	12	15	0.01	0.5	15	< 2	4	3	473	1.46	1510	1	< 2	0.02	62
123043	PR-RC003	15	16	0.02	0.9	29	< 2	10	4	2270	1.77	2130	1	2	0.03	87
123044	PR-RC003	16	17	< 0.01	2.8	7	< 2	2	1	553	1.16	1430	1	2	0.01	53
123045	PR-RC003	17	18	< 0.01	2.8	53	< 2	7	4	1560	1.81	1345	1	3	0.05	90
123046	PR-RC003	18	19	< 0.01	9.8	174	< 2	12	22	2360	2.26	1920	1	6	0.04	142
123047	PR-RC003	19	20	0.01	9.8	124	< 2	11	9	1760	2.66	1225	1	8	0.11	119
123048	PR-RC003	20	21	0.01	2.4	158	3	17	29	585	2.89	1515	1	7	0.05	102
123049	PR-RC003	21	22	0.01	2.4	178	< 2	15	24	507	2.24	1570	1	8	0.12	84
123050	PR-RC003	22	23	0.01	2.4	51	< 2	8	28	361	2.41	1190	< 1	4	0.03	107
123086	PR-RC003	23	24	< 0.01	6.2	107	< 2	13	43	276	2.76	1000	< 1	3	0.03	130
123087	PR-RC003	24	25	0.01	6.2	195	< 2	33	28	807	5.51	607	< 1	4	0.18	132
123088	PR-RC003	25	26	< 0.01	1	88	< 2	14	52	318	1.94	1015	< 1	5	0.04	85
123089	PR-RC003	26	27	0.01	1	86	< 2	3	15	277	1.12	1110	1	3	0.03	31
123090	PR-RC003	27	28	< 0.01	1	109	< 2	5	28	117	1.5	1340	< 1	7	0.04	46
122180	PR-RC003	28	32	0.02	2	47	< 2	16	32	108	2.69	740	< 1	2	0.03	47
122181	PR-RC003	32	34	0.02	2.3	56	< 2	13	32	126	2.24	1260	< 1	< 2	0.01	44
122182	PR-RC003	34	35	0.03	3.5	103	< 2	14	20	438	2.77	1140	< 1	2	0.05	42
122183	PR-RC003	35	37	0.01	0.9	17	< 2	2	33	134	2.1	1120	< 1	< 2	0.01	46
122184	PR-RC003	37	38	0.03	1.2	8	< 2	19	37	38	2.15	774	< 1	< 2	0.05	48
122185	PR-RC003	38	39	0.04	0.8	7	2	13	28	35	2.39	778	< 1	< 2	0.09	42
122186	PR-RC003	39	40	0.01	< 0.5	6	< 2	6	36	39	2.1	495	1	5	0.03	42
122187	PR-RC003	40	42	0.01	1.7	5	< 2	11	29	17	2.48	770	< 1	3	0.17	36
122188	PR-RC003	42	44	< 0.01	0.6	58	< 2	11	26	10	4.76	271	< 1	2	0.14	52
122189	PR-RC003	44	46	0.01	< 0.5	20	< 2	7	20	34	2.17	364	< 1	2	0.74	30
122190	PR-RC003	46	48	0.01	< 0.5	7	< 2	36	21	25	3.45	717	< 1	4	1.91	42
122191	PR-RC003	48	50	0.03	< 0.5	26	< 2	32	14	21	11.95	523	< 1	4	10.5	28

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122192	PR-RC003	50	52	0.01	< 0.5	< 5	< 2	6	11	6	1.77	1070	< 1	< 2	1.14	8
122193	PR-RC003	52	53	0.01	< 0.5	< 5	< 2	5	26	13	1.07	282	< 1	13	0.2	9
122194	PR-RC003	53	54	0.01	< 0.5	< 5	< 2	6	36	6	1.39	214	< 1	4	0.14	24
122195	PR-RC003	54	55	0.02	< 0.5	< 5	< 2	9	30	16	1.6	294	< 1	5	0.08	14
122196	PR-RC003	55	56	0.01	< 0.5	< 5	< 2	4	25	9	1.12	340	< 1	18	0.09	15
122197	PR-RC003	56	57	0.01	< 0.5	< 5	< 2	6	28	11	1.28	316	< 1	2	0.2	11
122198	PR-RC003	57	58	0.01	< 0.5	< 5	< 2	5	25	18	1.07	300	< 1	7	0.14	13
122199	PR-RC003	58	59	0.01	0.5	7	< 2	2	27	13	1.46	536	< 1	8	0.11	18
122200	PR-RC003	59	60	0.02	0.8	5	< 2	8	28	27	1.24	334	< 1	18	0.22	20
122201	PR-RC003	60	61	< 0.01	< 0.5	< 5	< 2	2	29	26	1.3	483	< 1	4	0.05	7
122202	PR-RC003	61	62	< 0.01	< 0.5	< 5	< 2	3	28	12	1.37	390	< 1	4	0.11	16
122203	PR-RC003	62	63	< 0.01	< 0.5	26	< 2	13	23	17	2.11	715	< 1	11	0.72	15
122204	PR-RC003	63	64	< 0.01	< 0.5	< 5	< 2	2	28	11	1.26	495	< 1	10	0.07	22
122205	PR-RC003	64	65	< 0.01	< 0.5	< 5	< 2	2	24	12	1.46	496	< 1	6	0.05	11
122206	PR-RC003	65	66	< 0.01	< 0.5	< 5	< 2	3	29	4	1.6	380	< 1	< 2	0.06	21
122207	PR-RC003	66	67	< 0.01	< 0.5	< 5	< 2	7	27	2	1.71	470	< 1	5	0.16	10
122208	PR-RC003	67	68	< 0.01	< 0.5	< 5	< 2	3	21	30	1.46	545	< 1	9	0.07	12
122209	PR-RC003	68	69	< 0.01	< 0.5	< 5	< 2	5	22	17	1.67	739	< 1	2	0.04	12
122210	PR-RC003	69	70	< 0.01	< 0.5	< 5	< 2	9	19	3	1.79	870	< 1	6	0.13	21
122211	PR-RC003	70	71	< 0.01	< 0.5	< 5	< 2	25	34	6	1.82	351	1	< 2	0.43	13
122212	PR-RC003	71	72	< 0.01	0.5	< 5	2	5	32	5	2.04	545	< 1	< 2	0.34	9
122213	PR-RC003	72	73	< 0.01	< 0.5	< 5	< 2	6	26	37	1.49	364	< 1	2	0.35	10
122214	PR-RC003	73	74	< 0.01	< 0.5	< 5	< 2	7	22	9	2.2	911	< 1	2	0.3	10
122215	PR-RC003	74	75	< 0.01	< 0.5	< 5	< 2	12	40	15	2.28	685	< 1	3	0.17	23
122216	PR-RC003	75	76	< 0.01	< 0.5	< 5	< 2	13	38	3	2.6	822	< 1	4	0.26	23
122217	PR-RC003	76	77	< 0.01	< 0.5	< 5	2	< 1	< 1	2	< 0.01	< 5	< 1	< 2	< 0.01	< 2
122218	PR-RC003	77	78	< 0.01	< 0.5	7	< 2	14	39	6	2.93	1030	< 1	4	0.35	24
122219	PR-RC003	78	79	< 0.01	< 0.5	< 5	< 2	11	17	3	2.39	1250	< 1	3	0.09	16
122220	PR-RC003	79	80	< 0.01	< 0.5	5	< 2	4	30	13	1.93	609	< 1	4	0.1	14
122221	PR-RC003	80	81	0.01	< 0.5	6	< 2	6	28	4	2.12	898	< 1	3	0.11	22
122222	PR-RC003	81	82	< 0.01	< 0.5	6	< 2	4	32	6	2.05	1050	< 1	4	0.11	27
122223	PR-RC003	82	83	0.01	< 0.5	7	< 2	5	35	6	2.17	1110	1	< 2	0.11	29
122224	PR-RC003	83	84	< 0.01	< 0.5	5	< 2	5	34	15	2.28	1090	< 1	13	0.16	24
122225	PR-RC003	84	85	< 0.01	< 0.5	< 5	< 2	3	24	7	1.53	1090	< 1	5	0.12	17
122226	PR-RC003	85	86	< 0.01	< 0.5	< 5	< 2	5	26	12	1.44	1060	1	15	0.21	22
122227	PR-RC003	86	87	< 0.01	0.8	6	< 2	12	24	32	1.57	951	< 1	12	0.4	17
122228	PR-RC003	87	88	< 0.01	< 0.5	5	< 2	19	28	14	1.44	709	< 1	5	0.48	15
122229	PR-RC003	88	89	< 0.01	< 0.5	< 5	< 2	5	41	28	1.32	531	< 1	6	0.09	17
122230	PR-RC003	89	90	< 0.01	< 0.5	6	< 2	2	30	9	1.47	808	< 1	7	0.08	18
122231	PR-RC003	90	91	< 0.01	< 0.5	< 5	< 2	2	23	14	0.89	495	1	7	0.07	11
122232	PR-RC003	91	92	< 0.01	< 0.5	6	< 2	4	29	11	1.35	906	< 1	8	0.39	11
122233	PR-RC003	92	93	< 0.01	< 0.5	5	< 2	4	28	11	0.98	397	< 1	6	0.27	9

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122234	PR-RC003	93	94	<0.01	< 0.5	9	< 2	10	24	27	1.7	687	< 1	3	0.54	9
122235	PR-RC003	94	95	<0.01	< 0.5	6	< 2	4	21	25	1.63	918	< 1	4	0.3	10
122236	PR-RC003	95	96	<0.01	< 0.5	9	< 2	11	26	19	2.25	917	1	4	0.6	14
122237	PR-RC003	96	97	<0.01	< 0.5	< 5	< 2	6	35	5	2.69	355	< 1	4	0.12	12
122238	PR-RC003	97	98	<0.01	< 0.5	< 5	< 2	6	40	24	2.52	341	< 1	4	0.11	22
122239	PR-RC003	98	99	<0.01	< 0.5	< 5	< 2	4	34	11	2.17	511	1	3	0.09	18
122240	PR-RC003	99	100	<0.01	< 0.5	5	< 2	4	27	19	1.53	750	1	10	0.28	18
122241	PR-RC013	0	2	0.02	< 0.5	13	< 2	3	6	472	0.81	241	< 1	< 2	0.02	55
122242	PR-RC013	2	5	0.01	< 0.5	17	3	3	3	746	0.86	185	< 1	2	0.01	54
122243	PR-RC013	5	7	0.02	< 0.5	11	< 2	2	2	448	0.6	312	< 1	3	0.01	36
122244	PR-RC013	7	8	0.01	< 0.5	11	< 2	3	14	497	0.77	382	1	2	0.01	52
122245	PR-RC013	8	9	0.02	< 0.5	13	< 2	3	3	1380	1	553	1	2	0.01	68
122246	PR-RC013	9	10	0.01	< 0.5	20	< 2	7	4	1430	1.29	584	< 1	4	0.02	102
122247	PR-RC013	10	12	0.01	< 0.5	16	< 2	6	2	780	0.78	368	< 1	2	0.01	60
122248	PR-RC013	12	13	0.03	0.6	51	< 2	15	11	1310	2.72	200	1	2	0.01	196
123092	PR-RC013	13	14	0.04	< 0.5	99	4	45	24	3990	8.95	624	1	4	0.05	626
123093	PR-RC013	14	15	0.01	< 0.5	165	6	56	31	4550	13.2	552	1	7	0.04	688
123094	PR-RC013	15	16	0.01	< 0.5	123	<2	32	20	2940	9.9	338	1	<2	0.02	383
123095	PR-RC013	16	17	0.01	< 0.5	68	<2	27	15	1920	6.24	440	2	3	0.03	243
122250	PR-RC013	17	18	0.01	0.6	31	< 2	9	9	964	2.21	216	1	6	0.15	90
122251	PR-RC013	18	20	0.02	0.6	67	2	17	8	1970	3.94	234	1	6	0.04	185
122252	PR-RC013	20	22	<0.01	< 0.5	34	< 2	8	6	884	2.01	349	< 1	3	0.01	92
122253	PR-RC013	22	24	<0.01	< 0.5	27	< 2	4	1	606	1.24	928	< 1	2	0.03	59
122254	PR-RC013	24	26	<0.01	1.1	74	< 2	6	5	879	2.6	967	1	4	0.05	120
122255	PR-RC013	26	28	<0.01	1	56	< 2	6	4	288	2.16	1490	< 1	4	0.09	62
122256	PR-RC013	28	30	<0.01	0.7	40	< 2	14	28	131	2.44	681	< 1	13	0.07	82
122257	PR-RC013	30	32	<0.01	1.5	71	< 2	11	32	223	2.5	578	< 1	5	0.03	57
122258	PR-RC013	32	33	<0.01	< 0.5	19	< 2	8	25	41	2.03	656	< 1	2	0.22	22
122259	PR-RC013	33	34	<0.01	0.7	25	2	19	33	157	2.79	750	< 1	6	0.2	53
122260	PR-RC013	34	35	<0.01	< 0.5	27	< 2	10	28	115	2.29	921	< 1	7	0.06	48
122261	PR-RC013	35	36	<0.01	0.6	27	3	12	27	165	2.82	1040	< 1	5	0.14	47
122262	PR-RC013	36	37	<0.01	< 0.5	19	< 2	9	26	141	1.89	1250	< 1	6	0.27	27
122263	PR-RC013	37	38	<0.01	< 0.5	15	< 2	5	32	116	2.29	1150	< 1	3	0.06	41
122264	PR-RC013	38	40	<0.01	< 0.5	10	< 2	3	25	28	2.15	1310	< 1	5	0.02	29
122265	PR-RC013	40	44	<0.01	< 0.5	9	< 2	9	25	24	2.26	1870	1	6	0.06	34
122266	PR-RC013	44	46	0.01	< 0.5	6	< 2	8	16	26	2.17	2670	< 1	10	0.09	28
122267	PR-RC013	46	47	0.02	1.2	28	9	23	25	192	4.59	1080	1	10	1.17	52
122268	PR-RC013	47	48	<0.01	< 0.5	11	< 2	8	22	55	2.36	1830	< 1	10	0.22	56
122269	PR-RC013	48	49	0.01	< 0.5	7	< 2	3	21	7	1.34	1020	< 1	6	0.05	30
122270	PR-RC013	49	50	<0.01	< 0.5	6	< 2	12	15	8	2.14	2390	< 1	4	0.31	14
122271	PR-RC013	50	51	<0.01	< 0.5	5	< 2	3	18	4	2.02	1850	< 1	5	0.21	14
122272	PR-RC013	51	52	0.01	< 0.5	< 5	< 2	10	19	6	1.96	1640	< 1	3	0.16	14

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122273	PR-RC013	52	53	0.02	< 0.5	< 5	< 2	4	18	7	1.66	1120	< 1	7	0.08	15
122274	PR-RC013	53	54	<0.01	< 0.5	5	< 2	7	28	5	1.58	562	< 1	4	0.14	28
122275	PR-RC013	54	55	<0.01	< 0.5	9	< 2	18	15	6	3.6	632	< 1	< 2	3.28	7
122276	PR-RC013	55	56	<0.01	< 0.5	5	< 2	23	12	6	2.76	1000	< 1	2	2.23	22
122277	PR-RC013	56	57	<0.01	< 0.5	< 5	< 2	4	11	17	1.66	1780	< 1	5	0.11	22
122278	PR-RC013	57	58	<0.01	< 0.5	13	< 2	5	16	166	1.26	958	< 1	4	0.35	21
122279	PR-RC013	58	59	<0.01	< 0.5	5	< 2	5	20	14	1.9	931	< 1	4	0.57	20
122280	PR-RC013	59	60	<0.01	< 0.5	5	< 2	11	17	11	2.95	617	< 1	5	2.28	19
122281	PR-RC013	60	61	<0.01	< 0.5	5	< 2	13	19	16	2.31	569	< 1	2	1.38	11
122282	PR-RC013	61	62	0.01	< 0.5	7	< 2	23	17	21	4.15	500	< 1	4	3.75	24
122283	PR-RC013	62	63	<0.01	< 0.5	8	< 2	8	20	13	1.61	656	< 1	3	0.53	24
122284	PR-RC013	63	64	0.01	< 0.5	20	< 2	14	16	30	3.42	751	< 1	6	2.84	16
122285	PR-RC013	64	65	<0.01	< 0.5	5	< 2	10	26	3	1.78	490	< 1	2	0.34	11
122286	PR-RC013	65	66	0.01	< 0.5	< 5	< 2	7	25	4	1.61	564	< 1	4	0.23	11
122287	PR-RC013	66	67	<0.01	< 0.5	7	< 2	2	29	5	2.1	595	< 1	3	0.09	12
122288	PR-RC013	67	68	<0.01	< 0.5	18	< 2	13	27	50	2.35	740	< 1	7	0.69	24
122289	PR-RC013	68	69	<0.01	< 0.5	8	< 2	7	30	9	2.12	607	1	5	0.14	20
122290	PR-RC013	69	70	<0.01	< 0.5	9	< 2	8	20	9	1.91	1510	< 1	5	0.15	22
122291	PR-RC013	70	71	<0.01	< 0.5	7	< 2	7	20	4	1.53	1110	< 1	6	0.08	26
122292	PR-RC013	71	72	<0.01	< 0.5	< 5	< 2	10	22	3	1.83	1300	< 1	5	0.11	48
122293	PR-RC013	72	73	0.01	0.6	11	< 2	9	25	595	1.67	583	< 1	8	0.3	68
122294	PR-RC013	73	74	0.03	3.1	46	20	17	9	1030	4.76	3780	1	9	0.24	173
122295	PR-RC013	74	75	<0.01	< 0.5	23	< 2	5	2	330	4.01	4560	1	2	0.07	87
122296	PR-RC013	75	76	<0.01	< 0.5	45	< 2	3	3	1590	1.27	724	1	< 2	0.22	55
122297	PR-RC013	76	77	<0.01	< 0.5	65	< 2	3	1	741	1.08	1450	< 1	< 2	0.08	52
122298	PR-RC013	77	78	<0.01	< 0.5	99	< 2	3	2	374	1.43	997	< 1	3	0.13	74
122299	PR-RC013	78	79	<0.01	< 0.5	73	< 2	3	2	268	1.12	907	1	2	0.07	61
122300	PR-RC013	79	80	<0.01	< 0.5	16	< 2	1	2	119	0.61	410	1	2	0.13	28
122301	PR-RC013	80	82	<0.01	< 0.5	15	< 2	< 1	3	62	0.79	344	1	< 2	0.13	27
122302	PR-RC013	82	86	<0.01	< 0.5	< 5	< 2	< 1	1	12	0.47	275	1	< 2	0.08	14
122303	PR-RC013	86	89	0.09	< 0.5	57	< 2	3	3	357	1.99	800	1	< 2	0.11	51
122304	PR-RC013	89	91	<0.01	< 0.5	6	< 2	< 1	< 1	25	0.44	245	1	< 2	0.06	14
122305	PR-RC013	91	94	<0.01	< 0.5	5	< 2	< 1	1	22	0.58	233	1	< 2	0.15	17
122306	PR-RC013	94	97	<0.01	< 0.5	< 5	< 2	1	1	15	0.69	307	1	< 2	0.22	12
122307	PR-RC013	97	100	<0.01	0.6	< 5	< 2	2	1	20	0.69	305	< 1	< 2	0.23	12
39211	PR-RC006	0	1	0.04	< 0.5	59	16	24	15	447	2.61	1435	1	7	0.15	55
39212	PR-RC006	1	2	0.03	< 0.5	61	11	64	18	487	3.15	1040	1	9	0.16	59
39213	PR-RC006	2	3	0.02	1.8	73	11	33	20	483	3.42	526	1	8	0.16	54
39214	PR-RC006	3	4	0.01	1.8	134	25	35	22	609	3.79	2500	2	9	0.15	63
39215	PR-RC006	4	5	0.02	1.2	80	2	448	16	2070	4.34	29400	7	7	0.05	201
39216	PR-RC006	5	6	<0.01	1.2	65	<2	103	13	1120	4.26	9980	1	11	0.13	237
39217	PR-RC006	6	7	0.01	1.4	68	3	119	17	1410	4.47	12500	2	16	0.12	258

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
39218	PR-RC006	7	8	<0.01	1.4	45	<2	306	14	2550	2.79	26200	1	11	0.02	123
39219	PR-RC006	8	9	0.01	1.4	58	4	250	23	3730	4.32	35500	2	16	0.03	120
39220	PR-RC006	9	10	0.05	1.4	63	35	86	21	1670	6.23	16450	1	15	0.03	259
39221	PR-RC006	10	11	0.04	0.5	71	16	142	17	2160	6.63	21100	1	15	0.05	222
39222	PR-RC006	11	12	0.01	0.5	51	8	500	18	3700	4.98	40400	2	15	0.02	154
39223	PR-RC006	12	13	0.23	0.5	51	6	377	13	4480	5.87	43300	2	20	0.03	307
39224	PR-RC006	13	14	0.12	0.5	64	11	82	22	1670	6.84	17900	1	22	0.04	291
39225	PR-RC006	14	15	0.09	1.8	142	3	115	18	1985	7.67	14850	<1	28	0.03	303
39226	PR-RC006	15	16	0.04	1.8	70	<2	73	13	1465	4.96	9080	<1	17	0.02	172
39227	PR-RC006	16	17	0.01	1.8	56	<2	36	18	894	3.86	5810	1	52	0.03	117
39228	PR-RC006	17	18	0.15	1.8	147	<2	35	25	1070	6.9	7620	<1	46	0.1	222
39229	PR-RC006	18	19	0.03	1.4	80	<2	51	16	864	4.12	8060	<1	15	0.03	148
39230	PR-RC006	19	20	0.08	1.4	79	5	99	22	1490	5.46	20100	<1	20	0.03	156
39231	PR-RC006	20	21	0.38	1.4	46	7	232	10	1410	2.38	19450	<1	6	0.01	71
39232	PR-RC006	21	22	1.12	1.4	51	3	631	11	5860	3.14	46600	1	16	0.03	87
39233	PR-RC006	22	23	0.31	0.5	96	3	464	20	4430	6.35	39900	2	23	0.04	129
39234	PR-RC006	23	24	0.1	0.5	96	<2	635	20	4120	7.13	33500	1	29	0.04	139
39235	PR-RC006	24	25	1.04	0.5	51	7	417	18	6520	3.24	53700	3	18	0.01	104
39236	PR-RC006	25	26	2.48	0.5	126	5	104	17	2790	5.98	15800	1	20	0.02	154
39237	PR-RC006	26	27	0.48	< 0.5	139	7	79	23	2070	6.62	9770	<1	13	0.02	183
39238	PR-RC006	27	28	0.12	< 0.5	84	2	111	12	1880	5.61	10800	1	9	0.04	171
39239	PR-RC006	28	29	0.38	< 0.5	117	2	140	18	2230	6.18	13900	1	10	0.09	198
39240	PR-RC006	29	30	0.17	< 0.5	107	<2	33	22	1790	5.41	4880	<1	8	0.03	145
39241	PR-RC006	30	31	0.07	< 0.5	53	<2	11	5	1040	1.9	1935	<1	4	0.02	66
39242	PR-RC006	31	32	0.02	< 0.5	49	<2	8	8	788	1.73	1430	<1	<2	0.01	73
39243	PR-RC006	32	33	0.01	< 0.5	58	<2	4	10	668	1.85	1135	<1	3	0.01	87
39244	PR-RC006	33	34	0.03	< 0.5	79	<2	3	9	591	2.1	926	<1	3	0.17	100
39245	PR-RC006	34	35	0.08	1	48	<2	11	5	509	1.55	1470	<1	2	0.04	62
39246	PR-RC006	35	36	0.03	1	63	<2	3	4	613	1.84	1390	<1	4	0.02	94
39247	PR-RC006	36	37	0.08	1	45	<2	18	5	580	1.75	2080	<1	<2	0.04	67
39248	PR-RC006	37	38	0.1	1	228	34	88	10	1640	6.84	9420	2	10	0.13	238
39249	PR-RC006	38	39	0.05	< 0.5	236	28	77	14	1755	7.77	12500	1	11	0.06	251
39250	PR-RC006	39	40	0.12	< 0.5	245	7	76	18	2060	8.62	15450	2	11	0.06	295
123021	PR-RC006	40	41	0.06	< 0.5	74	6	24	6	700	3.21	4790	2	4	0.14	90
123022	PR-RC006	41	42	0.03	< 0.5	78	9	73	5	991	2.39	10750	3	6	0.06	112
123023	PR-RC006	42	43	0.02	0.5	81	<2	34	7	717	2.03	2850	1	5	0.2	116
122149	PR-RC006	42	46	0.02	< 0.5	38	< 2	22	3	426	1.15	1790	1	< 2	0.03	61
123024	PR-RC006	43	44	<0.01	0.5	52	<2	11	1	386	1.15	1540	1	5	0.05	71
123025	PR-RC006	44	45	<0.01	0.5	16	<2	3	30	141	0.39	830	1	<2	0.02	28
123026	PR-RC006	45	46	0.02	0.5	23	<2	3	3	186	0.75	580	1	2	0.03	32
123027	PR-RC006	46	47	0.01	< 0.5	25	<2	7	43	200	0.72	956	2	2	0.02	34
122150	PR-RC006	46	50	0.01	0.5	20	< 2	5	3	165	0.57	730	1	3	0.01	32

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
123028	PR-RC006	47	48	<0.01	< 0.5	17	<2	3	4	147	0.51	400	1	3	0.01	17
123029	PR-RC006	48	49	0.02	< 0.5	14	<2	4	1	114	0.37	665	1	<2	0.01	19
123030	PR-RC006	49	50	<0.01	< 0.5	14	<2	1	1	110	0.4	439	<1	2	0.02	29
122151	PR-RC006	50	54	0.01	< 0.5	34	< 2	4	2	223	0.94	1050	< 1	< 2	0.02	48
122152	PR-RC006	54	58	0.01	0.5	27	2	4	1	194	0.81	825	< 1	< 2	0.02	40
122153	PR-RC006	58	60	0.03	< 0.5	59	< 2	8	2	403	2.53	2230	2	2	0.09	88
122154	PR-RC006	60	64	< 0.01	< 0.5	50	< 2	5	2	109	1.78	665	1	< 2	0.05	63
122155	PR-RC006	64	68	0.01	0.5	19	< 2	1	< 1	77	0.74	595	1	< 2	0.05	26
122156	PR-RC006	68	72	< 0.01	< 0.5	16	< 2	1	< 1	57	0.45	376	1	< 2	0.02	17
122157	PR-RC006	72	76	< 0.01	< 0.5	8	< 2	1	1	25	0.25	177	1	< 2	0.01	13
122158	PR-RC006	76	80	< 0.01	< 0.5	8	< 2	< 1	< 1	31	0.29	258	1	< 2	0.01	17
122159	PR-RC006	80	82	< 0.01	< 0.5	8	< 2	< 1	< 1	24	0.24	229	< 1	< 2	0.01	17
122160	PR-RC006	82	84	< 0.01	< 0.5	11	< 2	< 1	< 1	25	0.31	252	< 1	3	0.02	16
122161	PR-RC006	84	86	< 0.01	< 0.5	6	2	< 1	< 1	15	0.33	254	< 1	2	0.01	14
122162	PR-RC006	86	87	< 0.01	< 0.5	7	< 2	< 1	1	14	0.22	259	< 1	< 2	< 0.01	8
122163	PR-RC006	87	88	< 0.01	< 0.5	21	< 2	1	3	112	0.89	403	1	< 2	0.01	29
122308	PR-RC008	0	3	<0.01	<0.5	16	<2	2	1	169	0.66	947	1	3	0.02	146
122309	PR-RC008	3	4	<0.01	<0.5	30	<2	10	<1	340	0.87	4410	1	4	0.05	167
122310	PR-RC008	4	7	<0.01	<0.5	32	<2	10	<1	338	0.98	4120	2	3	0.07	124
122311	PR-RC008	7	9	<0.01	<0.5	14	<2	3	<1	176	0.55	1260	1	<2	0.03	113
122312	PR-RC008	9	12	<0.01	<0.5	19	<2	5	<1	317	0.69	3010	1	2	0.07	149
122313	PR-RC008	12	15	<0.01	<0.5	14	<2	2	<1	197	0.54	1175	1	2	0.03	147
122314	PR-RC008	15	18	<0.01	<0.5	10	<2	1	<1	135	0.5	628	<1	<2	0.03	134
122315	PR-RC008	18	22	<0.01	<0.5	15	<2	1	2	166	0.67	1025	1	<2	0.02	113
122316	PR-RC008	22	24	<0.01	<0.5	10	<2	1	1	141	0.49	503	1	2	0.01	86
122317	PR-RC008	24	25	0.02	<0.5	21	3	<1	2	1310	1.02	433	1	2	0.15	87
122318	PR-RC008	25	26	<0.01	<0.5	36	77	1	3	4330	1.46	218	1	2	0.13	58
122319	PR-RC008	26	27	<0.01	<0.5	31	44	<1	13	6640	1.76	179	1	13	0.16	49
122320	PR-RC008	27	28	<0.01	<0.5	31	<2	2	9	532	1.35	486	<1	104	0.17	108
122321	PR-RC008	28	30	<0.01	<0.5	23	<2	3	6	407	1.18	699	<1	19	0.17	101
122322	PR-RC008	30	33	<0.01	<0.5	14	<2	1	2	247	0.66	562	<1	<2	0.07	67
122323	PR-RC008	33	34	<0.01	<0.5	23	<2	3	3	308	0.95	783	<1	5	0.01	139
122324	PR-RC008	34	37	<0.01	<0.5	12	<2	1	2	128	0.53	444	1	3	0.01	80
122325	PR-RC008	37	40	<0.01	<0.5	13	<2	1	2	131	0.5	329	<1	4	0.02	64
122326	PR-RC008	40	43	0.01	<0.5	5	<2	<1	<1	25	0.27	187	<1	<2	0.01	24
122327	PR-RC008	43	45	<0.01	<0.5	6	<2	<1	3	71	0.53	211	<1	2	0.01	47
122328	PR-RC008	45	49	<0.01	<0.5	9	<2	<1	2	79	0.44	264	1	<2	0.01	53
122329	PR-RC008	49	51	<0.01	<0.5	12	<2	1	4	101	0.96	284	<1	10	0.02	80
122330	PR-RC008	51	52	<0.01	0.6	11	<2	1	2	66	0.65	294	<1	7	0.02	46
122331	PR-RC008	52	53	<0.01	<0.5	16	<2	1	2	132	0.65	356	<1	6	0.02	82
122332	PR-RC008	53	54	<0.01	<0.5	32	14	1	4	1010	0.93	278	1	5	0.05	57
122333	PR-RC008	54	55	<0.01	<0.5	20	3	<1	4	593	0.72	260	1	4	0.04	44

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122334	PR-RC008	55	56	0.01	<0.5	27	8	1	3	11100	2.05	160	1	4	0.41	46
122335	PR-RC008	56	57	<0.01	<0.5	26	<2	1	17	1640	1.27	250	1	4	0.2	70
122336	PR-RC008	57	58	<0.01	<0.5	21	<2	1	2	364	1.77	295	1	5	0.21	73
122337	PR-RC008	58	59	0.01	<0.5	99	11	2	3	2650	2.5	161	1	2	0.21	101
122338	PR-RC008	59	60	0.06	4.4	568	84	11	8	18900	16.55	120	3	6	0.28	325
122339	PR-RC008	60	61	0.13	5.3	1625	124	16	6	42100	24.3	62	10	16	0.35	431
122340	PR-RC008	61	62	0.03	1.5	815	58	8	9	16600	9.89	142	4	9	0.22	146
122341	PR-RC008	62	63	0.02	0.6	384	26	4	5	10600	5.08	154	2	5	0.21	115
122342	PR-RC008	63	64	0.1	<0.5	92	18	1	1	2460	1.34	340	1	3	0.14	70
122343	PR-RC008	64	65	<0.01	<0.5	39	<2	<1	1	457	0.92	551	1	3	0.14	62
122344	PR-RC008	65	66	<0.01	<0.5	25	<2	1	<1	274	0.76	644	<1	5	0.06	60
122345	PR-RC008	66	67	<0.01	0.6	53	4	2	5	1290	1.99	316	1	6	0.13	64
122346	PR-RC008	67	68	<0.01	<0.5	38	3	<1	3	379	1.33	462	<1	8	0.06	122
122347	PR-RC008	68	69	0.01	<0.5	40	3	1	9	496	1.53	658	1	6	0.07	146
122348	PR-RC008	69	70	<0.01	<0.5	25	<2	<1	<1	129	0.43	226	<1	3	0.04	32
122349	PR-RC008	70	71	0.01	<0.5	10	<2	<1	2	102	0.44	149	<1	9	0.04	46
122350	PR-RC008	71	72	<0.01	<0.5	8	<2	<1	1	35	0.25	116	<1	8	0.01	25
122351	PR-RC008	75	76	<0.01	<0.5	14	<2	<1	<1	84	0.56	287	<1	2	0.01	64
122352	PR-RC008	76	77	0.01	0.7	41	<2	<1	<1	94	0.92	326	<1	<2	0.01	72
122353	PR-RC008	77	80	<0.01	<0.5	17	<2	<1	1	83	0.56	304	<1	<2	0.02	64
122354	PR-RC008	80	81	<0.01	<0.5	71	2	8	2	402	3.47	3230	1	2	0.02	148
122355	PR-RC008	81	82	<0.01	<0.5	74	<2	9	4	322	1.9	1495	1	7	0.05	115
122356	PR-RC008	82	84	0.01	<0.5	46	10	3	5	421	1.89	704	1	3	0.04	82
122357	PR-RC008	84	86	<0.01	<0.5	35	<2	2	1	209	1.42	576	1	<2	0.03	121
122358	PR-RC008	86	88	<0.01	<0.5	27	6	1	1	142	0.68	423	1	2	0.09	71
122359	PR-RC008	88	90	<0.01	<0.5	22	<2	<1	3	89	0.74	320	2	3	0.02	69
122360	PR-RC008	90	92	<0.01	<0.5	16	<2	<1	<1	64	0.57	297	<1	4	0.02	60
122361	PR-RC008	92	93	<0.01	<0.5	19	<2	1	1	76	0.75	589	1	4	0.03	54
122362	PR-RC008	93	94	<0.01	<0.5	7	<2	<1	3	36	0.44	272	<1	4	0.02	34
122363	PR-RC008	94	96	<0.01	<0.5	<5	<2	<1	1	14	0.26	163	<1	<2	0.01	23
122364	PR-RC008	96	99	<0.01	<0.5	7	<2	<1	2	18	0.34	164	<1	3	0.02	19
122365	PR-RC008	99	100	<0.01	<0.5	9	<2	<1	3	38	0.55	199	<1	2	0.02	45
122366	PR-RC008	100	101	<0.01	< 0.5	8	< 2	1	4	39	0.61	192	< 1	2	0.02	59
122367	PR-RC008	101	104	<0.01	< 0.5	5	< 2	< 1	2	22	0.38	129	< 1	3	0.02	32
122368	PR-RC008	104	106	<0.01	< 0.5	7	< 2	< 1	1	25	0.33	117	< 1	3	0.02	28
122369	PR-RC009	0	4	<0.01	< 0.5	15	< 2	< 1	< 1	72	0.53	690	< 1	< 2	0.01	147
122370	PR-RC009	4	7	<0.01	< 0.5	45	< 2	1	< 1	125	0.91	831	1	< 2	0.01	192
122371	PR-RC009	7	10	<0.01	< 0.5	82	< 2	1	< 1	172	1.28	1070	1	3	0.01	176
122372	PR-RC009	10	13	<0.01	< 0.5	18	< 2	< 1	< 1	60	0.59	927	< 1	2	0.01	79
122373	PR-RC009	13	18	<0.01	< 0.5	15	< 2	< 1	< 1	71	0.49	833	< 1	< 2	0.01	199
122374	PR-RC009	18	20	<0.01	< 0.5	35	< 2	1	2	197	1.52	1165	< 1	9	0.03	355
122375	PR-RC009	20	21	<0.01	< 0.5	34	< 2	2	2	248	1.56	1380	1	6	0.04	246

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122376	PR-RC009	21	23	<0.01	0.5	94	< 2	20	6	566	2.44	5000	3	13	0.13	193
122377	PR-RC009	23	26	<0.01	< 0.5	45	< 2	4	< 1	256	1	1975	1	3	0.02	346
122378	PR-RC009	26	29	<0.01	< 0.5	75	< 2	10	< 1	524	1.33	4420	1	43	0.04	439
122379	PR-RC009	29	33	<0.01	< 0.5	14	< 2	2	< 1	151	0.52	1455	1	< 2	0.01	243
122380	PR-RC009	33	36	<0.01	< 0.5	22	< 2	3	< 1	212	0.59	1910	1	5	0.01	250
122381	PR-RC009	36	39	<0.01	< 0.5	21	< 2	1	1	232	0.63	1070	< 1	2	0.01	288
122382	PR-RC009	39	42	<0.01	< 0.5	13	< 2	< 1	< 1	187	0.47	782	1	< 2	0.01	256
122383	PR-RC009	42	45	<0.01	< 0.5	20	< 2	< 1	< 1	221	0.64	1305	1	< 2	0.02	285
122384	PR-RC009	45	48	<0.01	< 0.5	13	< 2	1	< 1	192	0.46	1130	< 1	2	0.02	266
122385	PR-RC009	48	51	<0.01	< 0.5	26	< 2	1	< 1	232	0.5	1090	1	5	0.01	261
122386	PR-RC009	51	53	<0.01	< 0.5	26	< 2	4	< 1	248	0.64	1815	1	8	0.02	239
122387	PR-RC009	53	55	<0.01	< 0.5	25	< 2	1	< 1	229	0.59	1415	1	6	0.02	251
122388	PR-RC009	55	57	<0.01	< 0.5	14	< 2	< 1	< 1	216	0.49	884	1	7	0.02	243
122389	PR-RC009	57	60	<0.01	< 0.5	10	< 2	1	< 1	148	0.52	711	1	< 2	0.02	161
122390	PR-RC009	60	62	<0.01	< 0.5	11	< 2	< 1	< 1	235	0.63	538	1	< 2	0.01	216
122391	PR-RC009	62	64	0.01	< 0.5	14	< 2	< 1	1	208	0.95	406	1	4	0.15	177
122392	PR-RC009	64	67	0.01	< 0.5	19	2	< 1	< 1	275	0.83	357	1	8	0.01	139
122393	PR-RC009	67	71	<0.01	< 0.5	18	< 2	2	2	185	0.88	531	1	15	0.05	100
122394	PR-RC009	71	75	<0.01	< 0.5	19	< 2	< 1	1	175	1.08	354	1	7	0.01	169
122395	PR-RC009	75	77	<0.01	< 0.5	12	< 2	< 1	< 1	128	0.69	301	1	3	< 0.01	149
122396	PR-RC009	77	80	<0.01	< 0.5	12	< 2	1	1	199	0.63	434	1	2	0.01	167
122397	PR-RC009	80	84	<0.01	< 0.5	15	< 2	1	< 1	273	0.71	419	1	< 2	0.07	165
122398	PR-RC009	84	85	<0.01	< 0.5	12	< 2	< 1	< 1	177	0.5	364	1	< 2	0.01	159
122399	PR-RC009	85	88	<0.01	< 0.5	21	< 2	< 1	1	244	0.75	473	< 1	2	0.21	171
122400	PR-RC009	88	91	<0.01	< 0.5	15	< 2	< 1	1	171	0.67	409	1	< 2	0.02	169
122401	PR-RC009	91	94	<0.01	< 0.5	13	< 2	< 1	4	181	0.52	352	1	< 2	0.02	181
122402	PR-RC009	94	95	<0.01	< 0.5	31	< 2	1	11	374	1.69	308	< 1	5	0.07	214
122403	PR-RC009	95	99	0.01	< 0.5	17	< 2	1	4	206	1.03	261	< 1	7	0.04	114
122404	PR-RC009	99	100	0.01	< 0.5	14	< 2	1	2	237	0.93	390	< 1	3	0.02	118
122405	PR-RC009	100	101	0.01	< 0.5	75	< 2	2	6	789	3.53	429	1	11	0.12	215
122406	PR-RC009	101	102	<0.01	< 0.5	7	< 2	< 1	< 1	88	0.28	306	< 1	< 2	0.01	58
122407	PR-RC009	102	103	<0.01	< 0.5	17	< 2	1	1	212	0.82	368	< 1	2	0.01	99
122408	PR-RC009	103	107	0.01	< 0.5	27	< 2	2	5	310	1.44	352	1	8	0.03	166
122409	PR-RC009	107	111	<0.01	< 0.5	12	< 2	< 1	< 1	153	0.6	233	< 1	2	0.01	110
122410	PR-RC009	111	112	0.01	< 0.5	16	< 2	2	2	198	0.9	310	< 1	< 2	0.02	127
122411	PR-RC009	85	88	<0.01	< 0.5	21	< 2	3	< 1	185	0.57	497	1	< 2	0.02	127
122412	PR-RC014	0	4	<0.01	< 0.5	< 5	< 2	< 1	< 1	214	0.41	711	< 1	< 2	0.01	37
122413	PR-RC014	4	8	<0.01	< 0.5	< 5	< 2	< 1	< 1	87	0.44	789	1	< 2	0.02	20
122414	PR-RC014	8	12	<0.01	< 0.5	6	< 2	1	3	70	0.41	621	1	< 2	0.01	26
122415	PR-RC014	12	14	<0.01	< 0.5	< 5	< 2	< 1	1	68	0.68	727	1	< 2	0.01	21
122416	PR-RC014	14	17	<0.01	< 0.5	8	< 2	< 1	< 1	137	0.76	902	1	< 2	0.03	30
122417	PR-RC014	17	21	<0.01	< 0.5	< 5	< 2	< 1	< 1	68	0.48	833	1	< 2	0.01	23

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
122418	PR-RC014	21	25	<0.01	< 0.5	< 5	< 2	< 1	< 1	27	0.52	724	< 1	< 2	0.02	16
122419	PR-RC014	25	29	<0.01	< 0.5	6	< 2	< 1	< 1	91	0.54	587	< 1	< 2	0.02	37
122420	PR-RC014	29	33	<0.01	< 0.5	< 5	< 2	1	< 1	46	0.38	457	< 1	< 2	0.01	25
122421	PR-RC014	33	37	<0.01	< 0.5	< 5	< 2	< 1	4	51	0.39	384	1	< 2	0.1	15
122422	PR-RC014	37	41	0.01	< 0.5	< 5	< 2	< 1	< 1	48	0.29	292	< 1	< 2	0.02	11
122423	PR-RC014	41	45	0.02	< 0.5	< 5	< 2	< 1	< 1	17	0.24	316	< 1	< 2	0.03	9
122424	PR-RC014	45	49	0.02	< 0.5	6	< 2	2	2	102	0.75	485	< 1	< 2	0.02	13
122425	PR-RC014	49	53	0.01	< 0.5	8	< 2	2	3	27	0.93	604	< 1	< 2	0.06	13
122426	PR-RC014	53	57	<0.01	< 0.5	5	< 2	1	< 1	41	0.73	603	1	< 2	0.08	13
122427	PR-RC014	57	61	<0.01	< 0.5	6	< 2	1	1	48	0.7	475	1	< 2	0.06	11
122428	PR-RC014	61	65	<0.01	< 0.5	10	< 2	1	1	32	0.63	313	1	2	0.02	21
122429	PR-RC014	65	69	<0.01	< 0.5	8	< 2	< 1	1	36	0.35	346	< 1	< 2	0.03	11
122430	PR-RC014	69	73	<0.01	< 0.5	< 5	< 2	1	< 1	24	0.47	454	1	< 2	0.04	11
122431	PR-RC014	73	77	<0.01	< 0.5	8	< 2	1	1	16	0.6	362	1	< 2	0.05	14
122432	PR-RC014	77	80	<0.01	< 0.5	9	< 2	2	3	38	0.87	475	1	2	0.19	15
122433	PR-RC014	80	84	<0.01	< 0.5	8	< 2	< 1	1	42	0.46	380	< 1	< 2	0.08	15
122434	PR-RC014	84	87	<0.01	< 0.5	5	< 2	< 1	< 1	11	0.31	319	< 1	< 2	0.07	10
122435	PR-RC014	87	89	<0.01	< 0.5	28	< 2	1	< 1	24	0.91	909	1	< 2	0.06	23
122436	PR-RC014	89	90	<0.01	< 0.5	< 5	< 2	< 1	1	5	0.66	700	1	< 2	0.1	13
122437	PR-RC014	90	91	<0.01	< 0.5	5	< 2	< 1	< 1	13	0.79	931	< 1	< 2	0.17	14
122438	PR-RC014	91	92	<0.01	0.6	23	< 2	5	4	181	5.69	2620	1	2	2.69	37
122439	PR-RC014	92	93	0.01	1.7	26	< 2	6	1	330	4.13	1300	1	6	1.46	39
122440	PR-RC014	93	94	<0.01	< 0.5	< 5	< 2	1	11	15	0.86	1005	1	< 2	0.1	13
122441	PR-RC014	94	96	0.01	< 0.5	6	< 2	2	2	37	1.67	1475	1	< 2	0.31	28
122442	PR-RC014	96	97	<0.01	< 0.5	< 5	< 2	1	< 1	10	0.95	954	1	< 2	0.16	14
122443	PR-RC014	97	98	<0.01	< 0.5	< 5	< 2	< 1	< 1	13	0.59	576	< 1	< 2	0.14	11
122444	PR-RC014	98	99	0.02	< 0.5	< 5	< 2	< 1	< 1	8	0.78	799	1	< 2	0.13	8
122445	PR-RC014	99	101	<0.01	< 0.5	< 5	< 2	< 1	< 1	5	0.61	615	1	< 2	0.09	10
122446	PR-RC014	101	102	<0.01	< 0.5	< 5	< 2	< 1	< 1	8	0.45	427	1	< 2	0.08	9
122447	PR-RC014	102	103	<0.01	< 0.5	8	< 2	1	1	36	1.22	1030	1	< 2	0.13	23
122448	PR-RC014	103	104	<0.01	< 0.5	< 5	< 2	< 1	< 1	14	0.67	602	1	< 2	0.21	13
122449	PR-RC014	104	105	<0.01	< 0.5	< 5	< 2	< 1	< 1	7	0.51	487	1	< 2	0.1	10
122450	PR-RC014	105	106	<0.01	< 0.5	< 5	< 2	< 1	< 1	6	0.54	532	1	< 2	0.1	8
122451	PR-RC014	106	107	0.03	< 0.5	< 5	< 2	< 1	< 1	19	0.83	897	2	< 2	0.15	19
122452	PR-RC014	107	108	<0.01	< 0.5	9	< 2	< 1	1	42	0.93	797	3	< 2	0.3	21
122453	PR-RC014	108	109	<0.01	< 0.5	9	3	2	2	43	0.92	733	1	< 2	0.3	32
122454	PR-RC014	109	110	0.01	1	19	< 2	2	5	91	0.96	367	1	< 2	0.46	73
123031	PR-RC016	0	1	0.01	< 0.5	28	<2	38	10	2480	1.78	1805	2	10	0.09	158
123032	PR-RC016	1	2	<0.01	< 0.5	42	<2	18	18	2780	2.58	1160	3	12	0.09	219
123033	PR-RC016	2	3	<0.01	< 0.5	46	2	33	25	2910	3.39	2490	3	16	0.07	287
123034	PR-RC016	3	4	<0.01	< 0.5	58	3	23	21	2440	3.43	1360	2	17	0.07	273
123035	PR-RC016	4	5	<0.01	< 0.5	48	3	8	20	1920	3.42	344	2	9	0.03	224

Sample#	Drill hole#	From:	To:	Au (ppm)	Ag (ppm)	As (ppm)	Bi (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Mn (ppm)	Mo (ppm)	Pb (ppm)	S (%)	Zn (ppm)
123036	PR-RC016	5	6	<0.01	< 0.5	65	4	10	23	2340	3.37	337	1	14	0.03	213
123037	PR-RC016	6	7	<0.01	< 0.5	140	5	45	35	4050	5.63	1710	2	60	0.14	339
123038	PR-RC016	7	8	<0.01	< 0.5	91	<2	22	30	4100	4.68	936	1	29	0.03	311
123039	PR-RC016	8	9	0.01	< 0.5	21	<2	11	7	2360	1.4	1980	1	8	0.04	187
123040	PR-RC016	9	10	<0.01	< 0.5	10	<2	3	5	994	0.7	2320	1	5	0.03	190
123041	PR-RC016	10	11	<0.01	< 0.5	44	<2	12	11	1540	2.08	1885	2	13	0.06	185
123042	PR-RC016	11	12	<0.01	< 0.5	11	<2	2	1	353	0.55	1910	1	4	0.02	137
122461	PR-RC015	0	2	<0.01	< 0.5	36	< 2	8	9	1400	2.18	1145	2	11	0.04	120
122462	PR-RC015	2	4	0.01	0.5	7	< 2	< 1	1	366	0.66	411	< 1	< 2	0.01	28
122463	PR-RC015	4	6	0.01	1	11	< 2	1	3	456	0.93	284	1	< 2	0.01	39
122464	PR-RC015	6	7	0.02	0.5	14	2	7	11	586	1.87	179	< 1	12	0.01	85
122465	PR-RC015	7	8	0.03	< 0.5	33	7	17	18	1390	5.08	299	1	8	0.01	208
122466	PR-RC015	8	9	0.03	1.1	21	4	14	18	1200	3.73	294	1	6	0.01	135
122467	PR-RC015	9	10	0.03	2	73	17	21	14	4270	3.92	966	1	5	0.12	160
122468	PR-RC015	10	11	0.03	0.7	44	10	11	12	1760	3.27	231	1	4	0.21	115
122469	PR-RC015	11	12	0.02	1	18	5	14	8	1460	1.94	738	< 1	3	0.13	68
122470	PR-RC015	12	13	0.01	< 0.5	11	< 2	2	3	713	0.98	418	< 1	2	0.04	31
122471	PR-RC015	13	14	<0.01	< 0.5	11	< 2	4	4	602	1.14	600	< 1	9	0.04	46
122472	PR-RC015	14	15	0.01	< 0.5	10	< 2	2	2	400	0.86	507	< 1	2	0.02	28
122473	PR-RC015	15	16	0.02	< 0.5	17	< 2	4	3	724	0.87	607	< 1	3	0.06	31
122474	PR-RC015	16	17	0.05	< 0.5	7	< 2	2	1	538	0.73	727	< 1	2	0.04	27
122475	PR-RC015	17	18	0.01	< 0.5	8	< 2	2	1	452	0.72	795	< 1	< 2	0.01	26
122476	PR-RC015	18	19	0.01	< 0.5	5	< 2	2	1	431	0.59	605	< 1	2	0.02	25
122477	PR-RC015	19	20	0.01	0.6	8	2	7	7	1570	0.97	1000	1	3	0.05	40
122478	PR-RC015	20	21	0.02	0.8	12	5	11	11	8410	1.53	979	1	6	0.05	56
122479	PR-RC015	21	22	<0.01	0.6	20	4	4	16	7570	1.86	161	< 1	7	0.16	64
122480	PR-RC015	22	23	0.01	0.7	46	2	4	21	11000	4.34	189	1	26	0.12	62
122481	PR-RC015	23	24	<0.01	0.8	37	11	12	18	5950	3.32	927	1	19	0.08	53
122482	PR-RC015	24	25	<0.01	0.9	39	15	3	18	15000	2.26	138	2	8	0.1	42
122483	PR-RC015	25	26	<0.01	0.7	44	12	2	21	4250	2.74	112	1	9	0.11	34

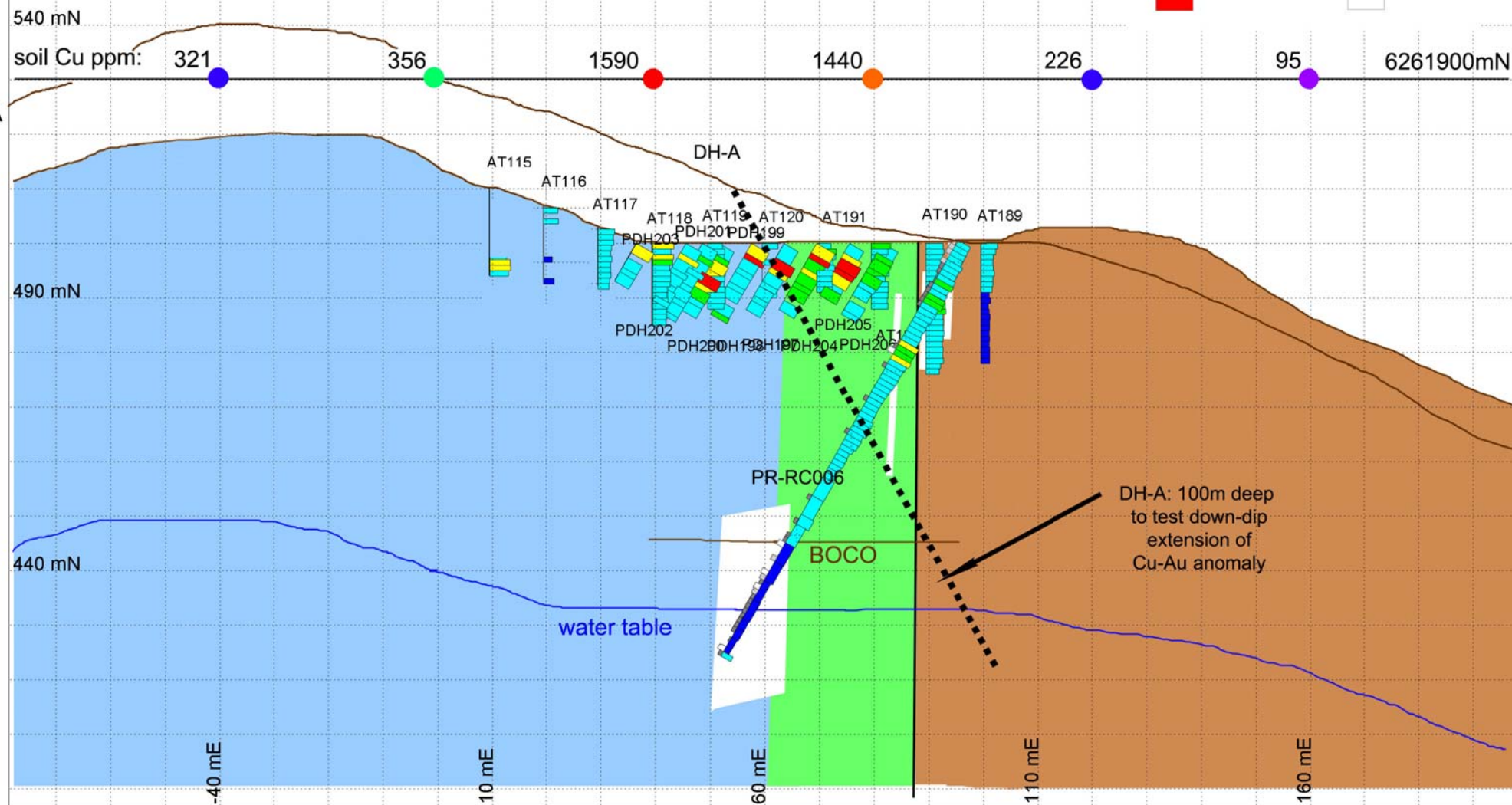
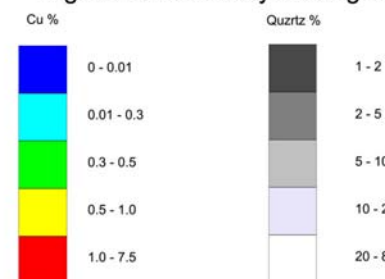
**APPENDIX 5 – Australian Geophysical Pty Ltd (1967) Diamond drill
Core - geochemical assay data**

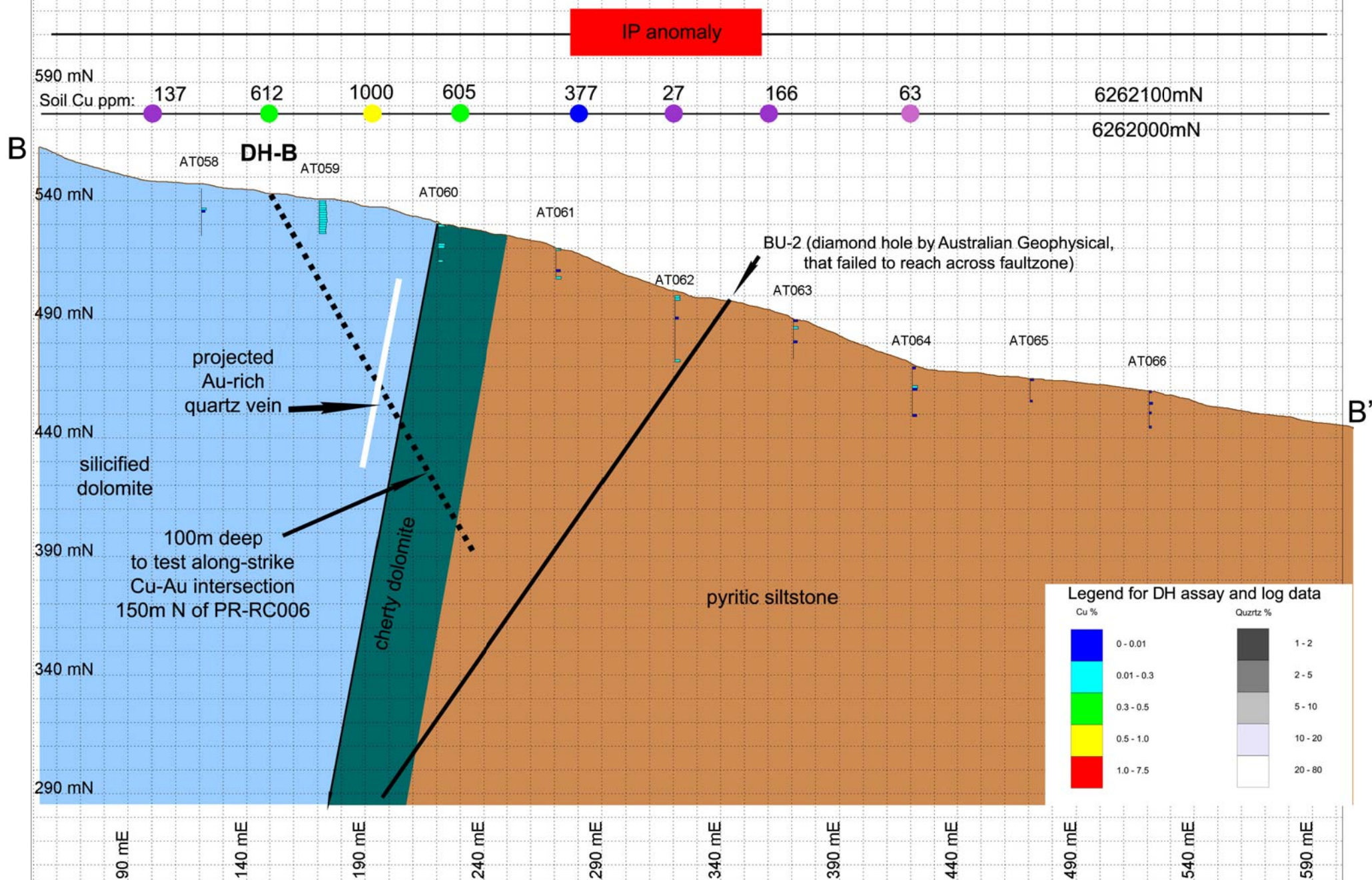
Sample#	Au ppm	Ag ppm	As ppm	Bi ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %	La ppm	Mn ppm	Mo ppm	Pb ppm	S %	Zn ppm	V ppm
1585686	0.01	<0.5	<5	4	<50	3	7	24900	6.13	<10	4780	<1	14	3.16	50	25
1585687	<0.01	<0.5	<5	<2	<50	1	14	68	3.84	<10	5550	<1	8	0.3	45	41
1585688	0.01	<0.5	27	<2	<50	73	37	51	10.15	10	719	<1	5	4.66	10	27
1585689	0.02	<0.5	37	<2	80	8	38	2060	3.71	40	418	2	5	2.92	22	67
1585690	0.1	0.8	39	4	60	15	53	150	5.47	30	1005	3	22	3.15	90	58
1585691	<0.01	<0.5	22	<2	50	12	39	784	2.96	30	740	<1	2	1.23	25	56
1585692	<0.01	<0.5	11	<2	70	15	32	80	2.24	30	725	<1	4	1.17	16	66
1585693	<0.01	<0.5	6	<2	<50	8	36	11	3.68	20	577	<1	3	2.14	41	62
1585694	0.01	<0.5	20	<2	100	11	28	178	4.96	50	1590	<1	5	1.6	24	67
1585695	<0.01	<0.5	40	<2	<50	144	23	67	26.2	<10	1355	<1	7	11	16	28
1585696	<0.01	<0.5	<5	<2	<50	4	7	17	10.35	10	4910	<1	12	0.58	19	10
1585697	<0.01	<0.5	27	2	70	8	47	18	3.9	40	128	<1	18	0.09	10	58
1585698	<0.01	<0.5	11	<2	90	17	43	20	2.87	40	397	<1	7	1.56	19	77
1585699	0.01	<0.5	12	<2	70	14	36	68	2.74	30	609	<1	8	1.26	15	60
1585700	0.01	<0.5	12	<2	<50	4	15	46	1.82	20	491	<1	7	0.95	9	21
1585701	<0.01	<0.5	53	<2	<50	12	12	26	3.54	10	546	<1	7	2.86	7	16
1585702	<0.01	<0.5	6	3	90	9	37	10	2.42	40	415	<1	3	1.05	12	60
1585703	0.01	<0.5	20	<2	80	24	27	20	5.77	40	544	1	15	5.3	13	51
1585704	0.01	<0.5	10	<2	50	7	23	10	4.14	30	581	<1	<2	2.86	15	67
1585705	<0.01	<0.5	<5	<2	60	3	19	1	4.44	30	1570	<1	2	0.92	12	31

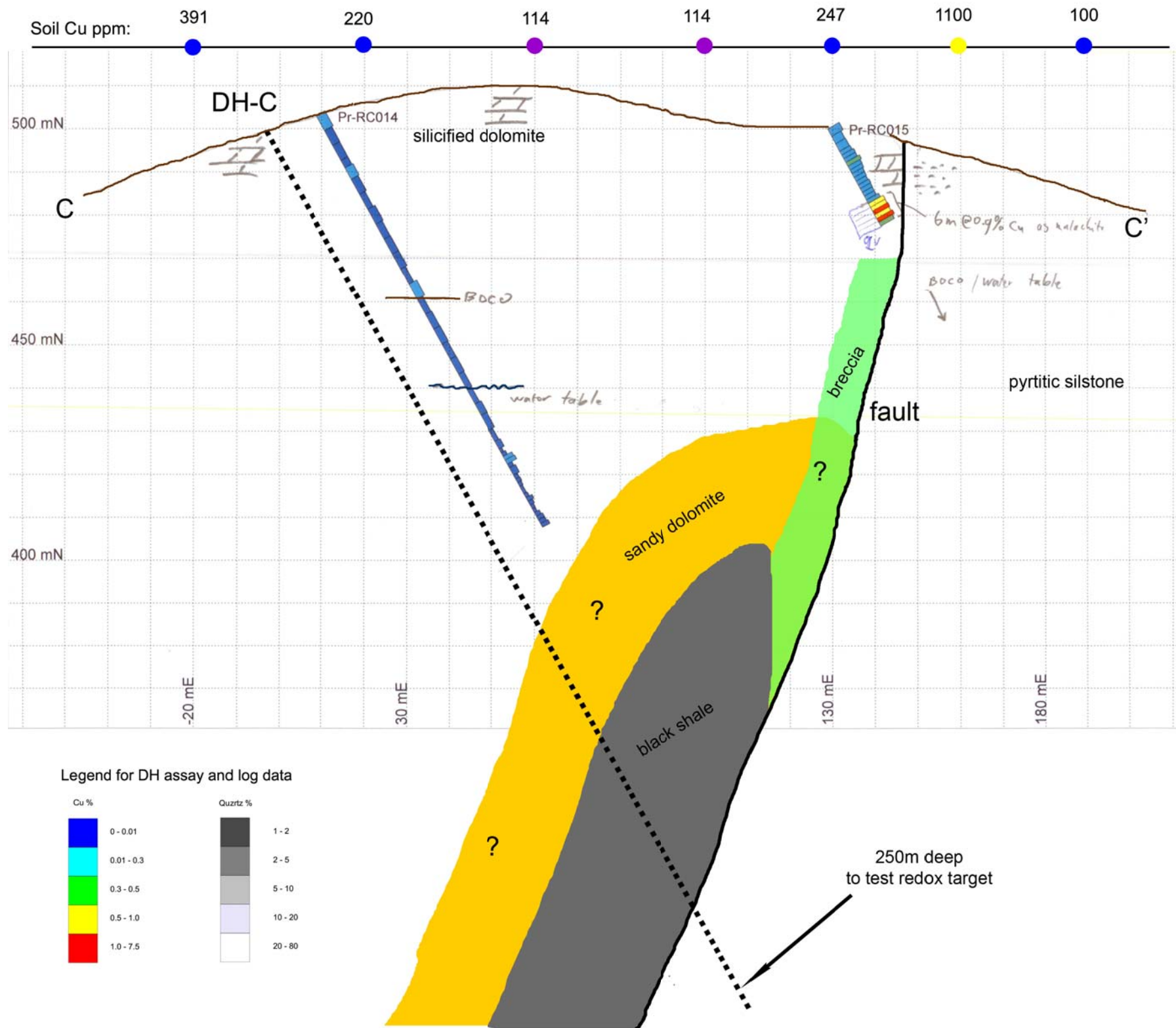
APPENDIX 6 – RC drill cross sections and baseline mappings sections

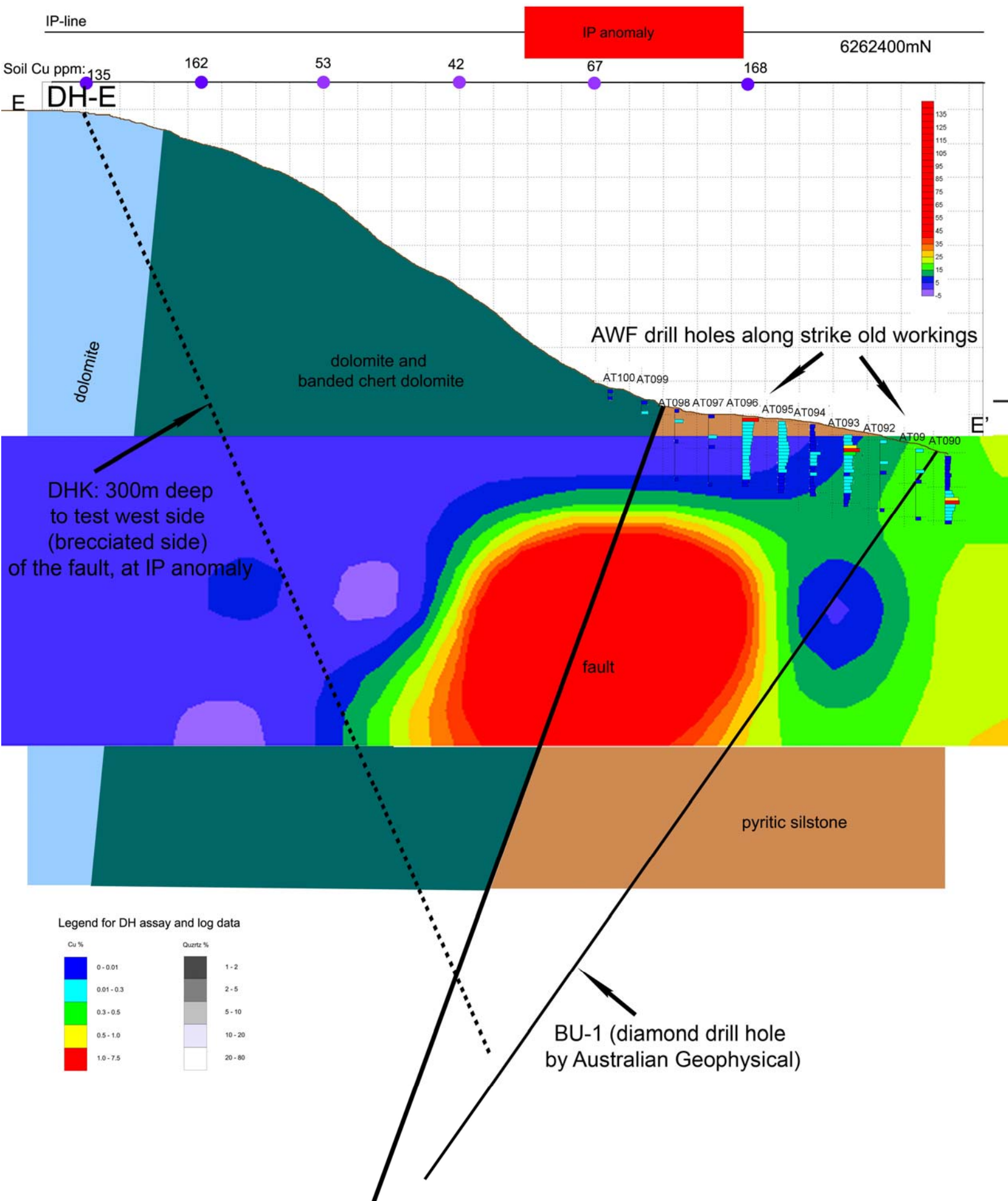
0 5 10 20 metres Scale 1:1,000

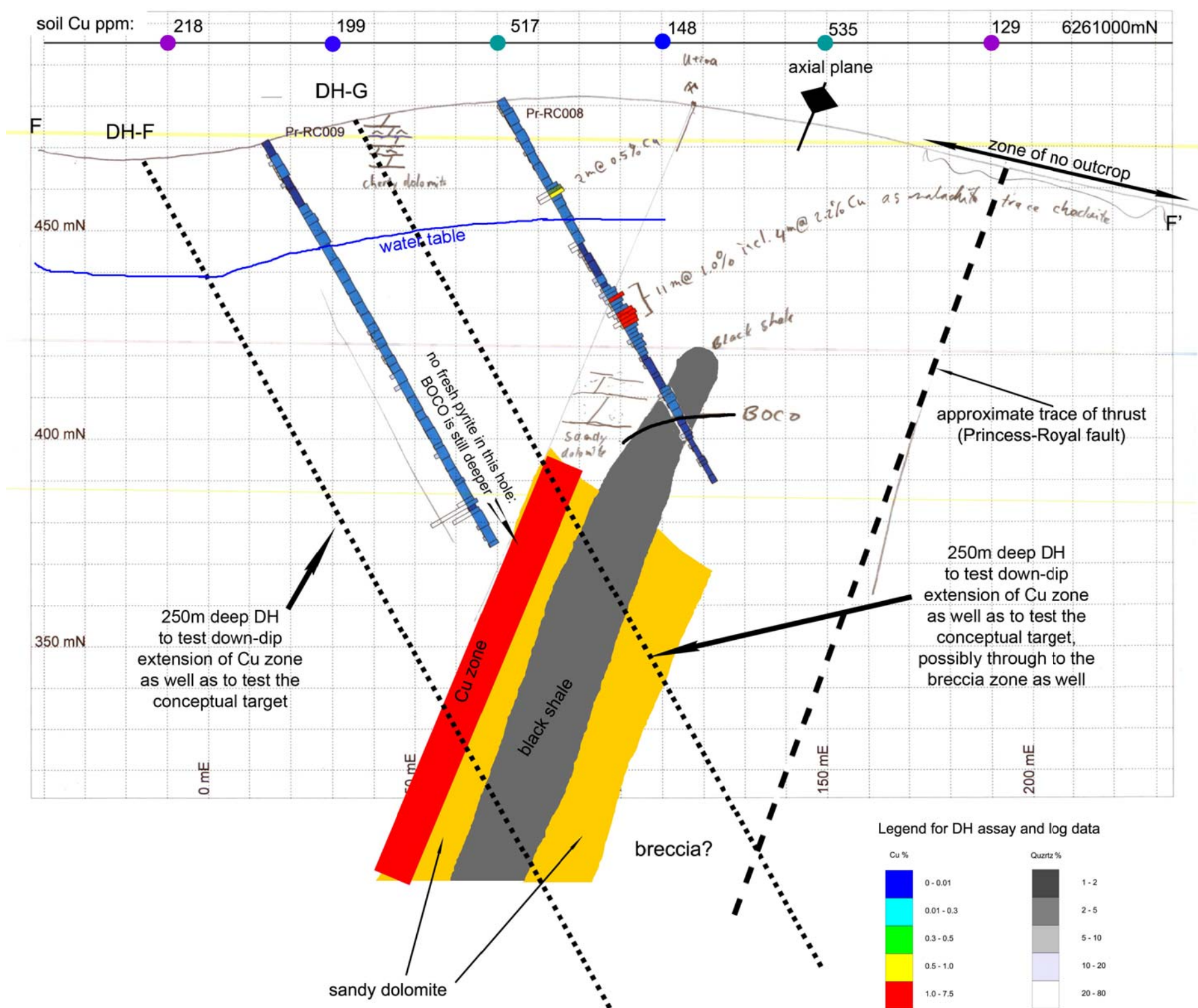
Legend for DH assay and log data

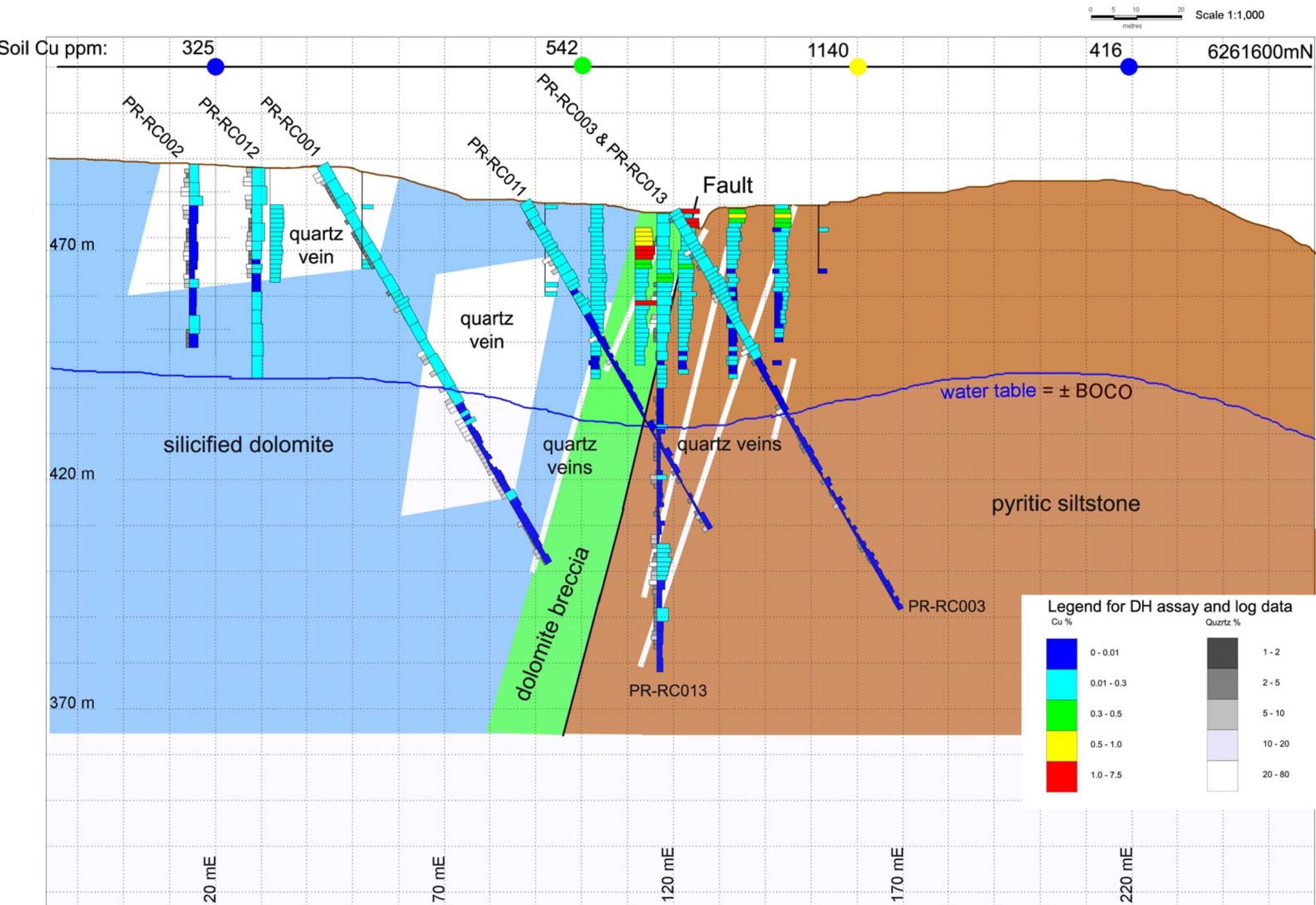












EXPLORATION LICENCE 3549 'Burra South / Princess Royal'

ANNUAL TECHNICAL REPORT

For the period 01st May 2008 to 30th April 2009

Phoenix Copper Limited
Burra

July 2009

1:250,000 map sheet Burra SI 5405

1:100,000 map sheet Clare 6630 & Florieton 6730

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ATTACHMENTS

1. EL3549_2008_2009_AR_01_ReportBody.pdf
2. EL3549_2008_2009_AR_02_SurfaceGeochem_RockChips.txt
3. EL3549_2008_2009_AR_03_SurfaceGeochem_SievedSoils.txt
4. EL3549_2008_2009_AR_04_FileListing.txt
5. EL3549_2008_2009_Report CD

Key Words

Copper, zinc, gold, hydrothermal, silicification, redox, sulphide, Skillogalee, Saddleworth, Burra, Princess Royal, Utica

SUMMARY

EL 3549 – Burra South lies 15km south of Burra. The EL was granted to International Base Metals Ltd on 01/05/2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned subsidiary of IBML that was floated on the ASX as an independent company in December 2006. The tenement was subsequently purchased and transferred to Phoenix Copper Limited on the 5th March 2009.

From the 5th of March 2009 to the end of the Period Phoenix Copper have undertaken a review of all work to date and planned out the soil geochemistry lines to be analysed with the portable handheld XRF machines.

Copper Range initially targeted near surface copper oxide mineralisation, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group. This setting was interpreted to have similarities with that of the nearby Burra Mine. In due course, the potential for lithologically and structurally controlled primary copper sulphide mineralisation was considered excellent, with minor potential for a secondary oxide blanket developed above it. Other styles of mineralisation were identified, including zinc and gold low temperature hydrothermal mineralisation, as well as supergene processes.

Five prospect areas have been identified around (and named after) historic mines in the Burra South project within EL 3549: Princess Royal, Edelweiss, St Elmo, Burra Creek and Apoinga.

Geological mapping and surface geochemical surveys at the Princess Royal prospect have identified elevated Cu values over a strike length of 2000m, associated with an altered and brecciated contact zone between Skillogalee Dolomite and overlying calcareous shales of the Burra Group in the overturned eastern limb of an anticline. Late reactivated faulting has been associated multiple phases of hydrothermal and epithermal quartz veins, silica-alteration of the dolomite, gossans and oxide copper ore breccias.

RC drilling carried out by Copper Range in late June early July 2007 has confirmed shallow copper carbonates and identified both a mineralised (1.0% Cu) horizon within the Skillogalee Dolomite in the core of the anticline and gold mineralisation in quartz veins associated with the Princess Royal Fault.

For the next reporting year exploration will be undertaken by Phoenix Copper in the form of regional soil geochemistry infill RAB drilling if required and budget permitting some deep diamond drilling to determine at depth geology and potential feeder zones in the Princess Royal Prospect.

1. INTRODUCTION

The Burra South project covers Adelaidean sediments of the Burra and Umberatana Groups that strike north-northwest. The Koorunga Fault, which passes through the historic Burra Mine to the north, runs NNW through the tenement area at or near the boundary between Skillogalee Dolomite and overlying calcareous shales of the Burra Group. Seven sites of historic mine workings occur within the tenement area, of which only the Utica and Princess Royal Mines occur within the same stratigraphic horizon as the Burra Mine. Recent work by PIRSA (Drexel, J.F., 2008) has highlighted the exploration significance of a member (Preiss in prep) within the Skillogalee Unit that can assist in further narrowing down the rock types associated with high grade copper mineralisation in the district.

The primary focus for Phoenix Copper is similar to Copper Range however there is a greater interest in the discovery of a primary copper sulphide deposit and any associated near-surface secondary copper oxide deposit, in the same regional setting as the historic Burra Mine.

The aim of this report is to describe the exploration carried out from the 1st of May 2008 to the 30th of April 2009 and to report the Department of Primary Industries and Resources of South Australia (PIRSA).

The Burra South tenement (EL 3549) is situated in the Northern Mount Lofty Ranges. The centre of the tenement lies approximately 15km south of the town of Burra together with the historic Burra Mine. Access to Burra is via the Barrier Highway, 150km north-north-east from Adelaide. Access to the project area is via the B64 Spalding Burra Morgan Road and a gravel road to Dutton's Trough and Princess Royal. See figure 1 for location map of EL 3549.

2. TENURE

The Burra South tenement EL 3549 was originally taken out by International Base Metals Ltd in May 2006. It was then transferred to Copper Range (SA) Pty Ltd, a wholly-owned South Australian subsidiary of IBML that was floated on the ASX as an independent company in December 2006. The tenement was subsequently purchased and transferred to Phoenix Copper on the 5th March 2009.

3. NATIVE TITLE

The Burra South/ Princess Royal area is not subject to Native Title claims at this stage.

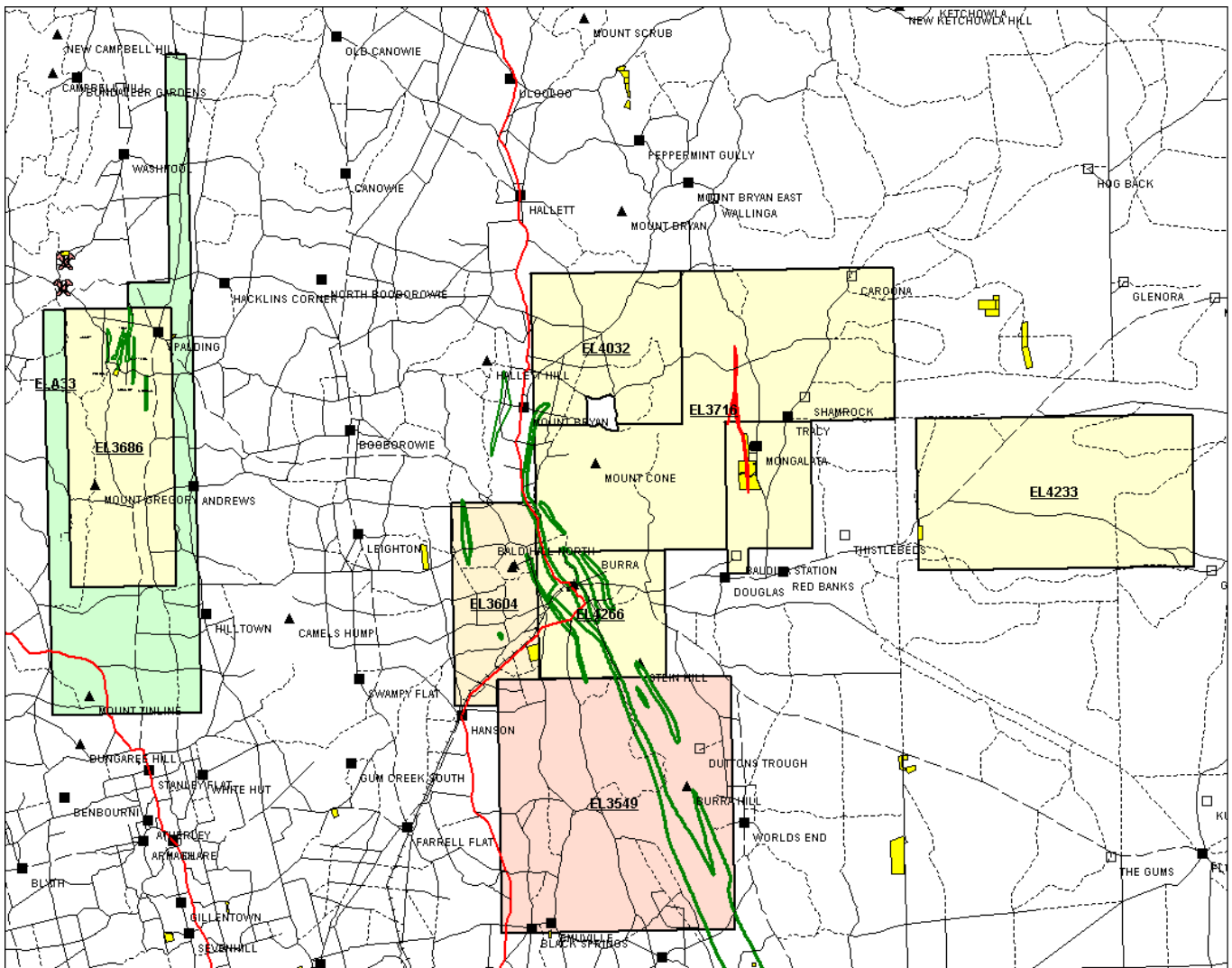


Figure 1: EL 3549 Burra South/ Princess Royal Location

4. GEOLOGY

4.1 Geology

Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Neoproterozoic to late Cambrian sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1400 to 570 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss 1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and a later Early Palaeozoic Delamerian Orogeny (Preiss 1987). Following uplift caused by these deformations, erosion of the exposed older formations has taken place and younger Palaeozoic and Cainozoic sediments unconformably overlie the Adelaidean sequences in places.

Within the tenement area, dominant formations belong to the Adelaidean (920 to 570 Ma) and comprise Skillogalee Dolomite and Saddleworth Formation slates and siltstone of the Burra Group and conformably overlying shales, quartzites, tillites and slates (Tapley Hill Fm) of the Umberatana Group. Younger Tertiary and Quaternary sand, scree and stream deposits infill much of the valley topography.

Deformation is typically of a north-south trend, being regional anticlines and synclines, smaller (local) tightly folded antiforms and synforms, and variable scales of faulting exist throughout the region. The rocks in the area have been folded into a set of N-S trending folds with Umberatana shales occurring within syncline cores and Burra Group sediments along anticlinal axes. These folds plunge both north and south with a cross fold trend developed. Minor structures are considerably more complex on a local scale. The north-trending Koorunga fault is observed to the south of the town of Burra and has been interpreted as continuing to the north, below alluvial cover.

4.2 Structure

Rocks in the Princess Royal prospect are Skillogalee Dolomite and unconformably overlying slates and siltstones of the Saddleworth Formation. The Skillogalee Dolomite has been tightly folded along the regional trend and located in an anticline plunging both north and south. At the Princess Royal mine the anticline is locally overturned. Minor structures include brittle and reactivated faults.

4.3 Physiography

The topography is gently undulating and open, vegetation away from the cultivated areas is dominantly salt bush and blue bush.

4.4 Mineralisation

Copper carbonates are concentrated along a thrust zone and associated tension veins, coincident with silica alteration of dolomite. A northeast (040° magnetic) structural trend defines tensional veins with associated copper mineralisation. Hydro-fractured breccias containing copper mineralisation are also present. Zones of hydrothermal silica-alteration in the anticline crest cut across strata and broadly coincide with this 040° trend. Old mine workings are located on intersections of the dolomite-siltstone contact and the 040° structural trends.

Copper carbonates are localised along the dolomite-siltstone contact and also coincide with the 040° trend. A secondary mineralised oxide copper blanket could possibly lie deeper under the zones of silica-alteration in the crest of the anticline and under the gossans located at the surface. There is also the potential for primary mineralisation to be located at depth in the hinge of the fold at the base of the dolomite unit.

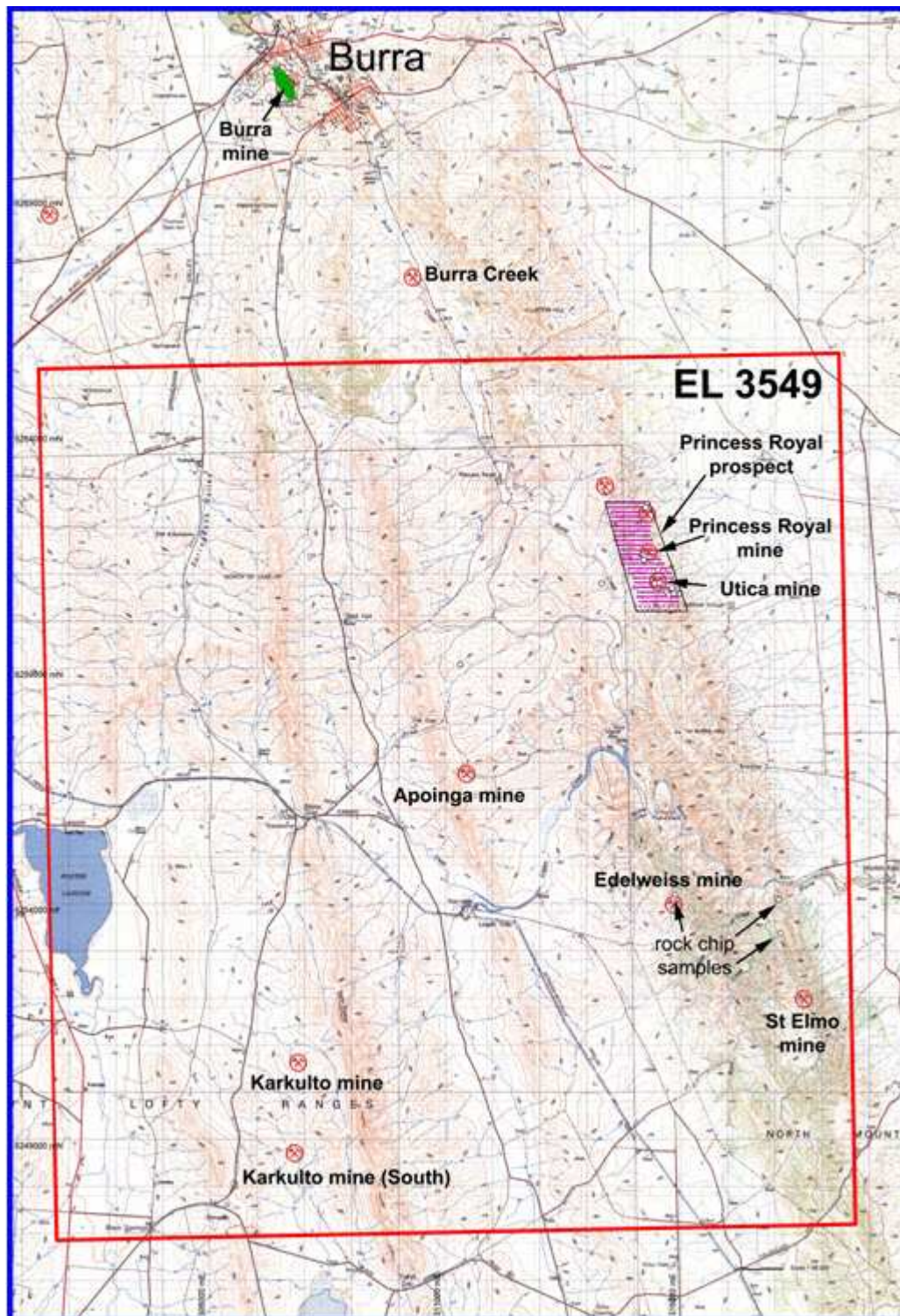


Figure 2: EL 3549 Location & Exploration map index including Locations of historic mines in the region

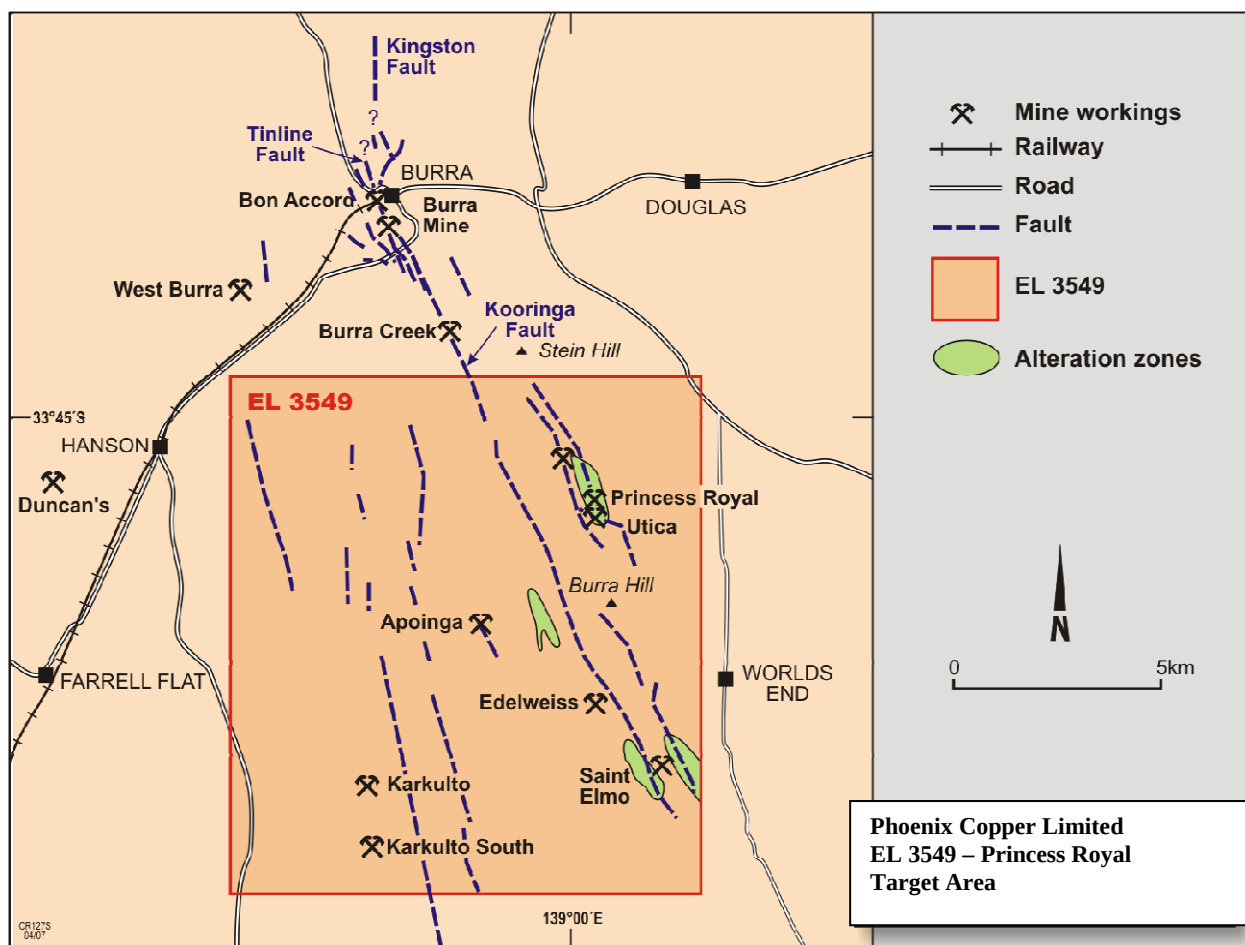


Figure 3: EL 3549 Tenement location and target areas

PREVIOUS MINING & EXPLORATION

5.1 Mining

The Burra Deposit was discovered in 1845 and was worked until 1877, during which time 235,000 tons of ore was raised. It was the richest copper mine in the world at the time. In 1869 open cut mining was commenced to extract previously rejected lower grade material and the eventual closure of the mine was the result of low ore grades, low copper prices and high pumping and transportation costs. During the 1890's and 1900's the deposit was worked by tributers, but all work had ceased by 1912. The mine was reopened in 1941 by a syndicate which extended old shafts, drives and crosscuts. In 1969 SAMIN Ltd commenced a large scale open cut mining operation on low grade ore and a large treatment plant was constructed. This was then purchased by Adelaide and Wallaroo Fertilizers in 1978 and operations continued until 1981 when mining ceased.

Discovery of the Princess Royal mine preceded discovery of the Burra mine in 1845. Princess Royal was worked from 1845 until 1851 when water was struck at about 55m depth. Recorded production for this period was 588 tons of hand-picked ore grading 25-30% Cu. It was subsequently worked in 1867-1868 when a further 46 tons averaging 18% Cu was produced. The Utica Mine, immediately south of Princess Royal, produced 50 tons of ore between 1847 and 1851. Further mining occurred between 1912 and 1920 by the Utica Copper Mining Company, but no records of tons and grades exist from this period.

Other historic mines on the current EL include the Apoinga Mine (1882-1885), which produced a small quantity of copper the Edelweiss Mine (1900-1918) which is situated in the same stratigraphic position as the Burra mine, St Elmo Mine (1989-1915) and the Karkulto Mines (1851-1861), which produced 75 tons of copper ore and 855 tons of iron ore, which was predominantly used as flux for the smelter at Burra.

5.2 Past Exploration

Company exploration has occurred in and around several mines in the current EL (Princess Royal, Utica, St Elmo, Apoinga and Karkulto). Most of the exploration activities have been focussed on the area around the Princess Royal mines. Table 3 shows a summary of previous work carried out in the Burra tenement area.

Lease	Holder	Start date	End date	Activities
SML 68	Australian Geophysical	1964	1966	IP, stream sed. survey, mapping of old mine areas, drilling at Princess Royal
MC 5034 -5040	Mines Exploration JV	1966	1967	IP, sampling, drilling at Burra
SML 395	Southern Cross	1970		Stream sed. survey, drilling at Princess Royal and Edelweiss
SML 685	Australian Aquitaine Petroleum	1972	1973	Stream sed. survey, aerial photography
EL 381	CRA Exploration	1978	1979	Review, rock chip sampling, soil sampling of Eudunda Arkose
ELs 425, 804	Adelaide & Wallaroo Fertilizers	1978	1982	Mapping, resistivity, drilling, petrology, drilling at Princess R.
ELs 2161 2217, 2190	Redfire Resources (MIM), Consolidated Broken Hill	1996	2003	MMI, IP, ground magnetics, percussion drilling

Table 1. Summary of previous work carried out in the Burra tenement area

1964 -1966 Australian Geophysical Pty

Detailed geological mapping of all old mine areas under a SML, focussing on stratigraphically controlled mineralisation.

- Outlined coincident soil geochemistry and IP anomalies at Princess Royal
- Drilled 2 diamond holes (260m and 130m depth) to test shale/dolomite contact
- The first hole BU-1 intersected 60cm of 2.7% Cu in a quartz/dolomite vein + chalcopyrite. The hole was abandoned at 260m depth in a chloritic/graphitic gouge zone
- The second hole BU-2 to the south also intersected the fault zone, but did not encounter copper mineralisation.

In 1964 Australian Geophysical took out a Special Mining Lease over the area south of Burra (similar to the current EL) and undertook an IP survey over the Princess Royal area. Smaller grids were completed at St Elmo, Apoinga, Edelweiss and Karkulto. Geological mapping was also undertaken over the survey areas. A regional stream sediment survey was carried out to attempt to locate poorly exposed or concealed deposits. This survey picked up anomalous copper in creeks east of the Princess Royal Mine (the drainage from the old workings is to the west). The only two streams not to carry anomalous copper do not drain the dolomite – shale transition zone. Another anomaly from the stream sediment survey occurred in Stone Chimney Creek to the east of Burra.

The IP survey in the St Elmo area outlined an anomaly that can be traced over 760m. At Edelweiss, Australian Geophysical considered the folded nature of the stratigraphy to be similar to that at Burra and coupled with an intense IP anomaly, suggested that copper mineralisation may be present at depth, associated with a thickened section of the shale unit.

All prospects were geologically mapped in detail. Two diamond drill holes were completed at Princess Royal in 1965 (260m and 130m depth). The first hole straddled an IP anomaly and intersected a 60cm thick quartz-carbonate+chalcopyrite vein that assayed at 2.7% Cu. Both holes bottomed in graphitic or chloritic fault gouge that was considered responsible for the IP anomaly. No further work was undertaken

1970 – Burra Ridge Pty Ltd

- Drilled ten percussion holes along the main line of the lode – no results
- Southern Cross took over the mining lease in 1971
- Drilled 4 holes to 150m, the best result was only 1.5m at 0.26% Cu.
- Twenty channel samples were taken along the gossanous zone and these averages nearly 7% Cu.
- Strong IP anomaly that runs for 1.3km
- Very high stream sediment geochemical anomalies to the east of the workings, but are almost certainly run off from the workings.

Southern Cross Exploration completed an extensive stream sediment survey in 1970 and located several copper anomalies to the east of St Elmo, Edelweiss and Princess Royal Mines. A distinct trend was also determined along strike of the ridges from Princess Royal in the north to Burra Creek in the south and five adjoining anomalies along Burra Creek. Twenty channel samples were taken along strike of the brecciated zone at Princess Royal. These ranged from 0.4 – 40% Cu, averaging 6.95% Cu. Five percussion holes were drilled at Princess Royal and two at Edelweiss which showed uneconomic mineralisation. Their exploration was largely focussed on structural criteria.

1972 - 1973 Gold Copper Exploration Ltd and Australian Aquitane Petroleum

- Targeted near-surface secondary copper
- Drilled 44 shallow holes that established strike continuity over 340m (location unknown)
- Maximum hole depth was 18m (inclined) and some holes were terminated in mineralisation.
- A “main lode” was established, which was a copper-bearing vein of 1-2% Cu over 450m strike length with some lower grade mineralisation in the wall rock.

Australian Aquitane Petroleum held a Special Mining Lease over the Burra area between 1972 and 1973 with the intention of discovering stratiform copper and “rhombohedral box works with lead” in silicified dolomite south of St Elmo, and Burra Mine-type disseminated copper in association with a magmatic influence and possible intrusion with porphyritic characteristics. They considered the areas of main interest to lie along anticlinal structures, focussing on the Burra Ridge and undertook a stream sediment sampling survey of this area that picked up anomalies from streams draining the old mine workings at Burra, Princess Royal and Utica. A new aerial photography survey was also undertaken, but planned photo-geological and structural maps were not drawn due to a change in company policy leading to the relinquishment of the SML.

1978 - 1982 Adelaide & Wallaroo Fertilizers

- Targeted vein mineralisation
- Drill tested the northern extension of the mineralised zone and depth extensions below the water table at 45m.
- Drill tested the original Princess Royal Shaft to the west of the main ore zone.
- Total 111 rotary percussion holes were drilled and drilling was terminated at or before the water table. Many holes were abandoned prior to target depth due to lack of sample return in soft earthy material [fault/shear zone?] below hard dolomites at approximately 23m depth.
- Six costeans were also dug, orientated E-W at 100m intervals, 25m length to a depth of 7m. These were mapped and channel sampled along their entire length.

Adelaide and Wallaroo Fertilizers undertook exploration for copper at Burra, focussing on the following parameters: faults and lineaments, particularly intersections, small to medium intrusive bodies (including kimberlites), zones of alteration and breccia zones. Regional geological and structural mapping was undertaken and the valley running north from the Burra Mine to Mt Bryan was selected for further exploration. The valley was considered to contain a north-striking fault zone, a continuation of the Koorunga-Kingston Fault. They hoped that this feature would be the locus of any intrusives, breccia or alteration zones. High water flows meant that most reconnaissance drill holes failed to intersect their targets. All holes were radiometrically logged with results corresponding well to the lithological logs. A resistivity survey was also conducted in the valley which showed the depth of cover and the likely position of the continuation of the fault.

Adelaide and Wallaroo Fertilizers undertook exploration at the Princess Royal Deposit to the south of the Burra Mine, targeting oxide copper. Six costeans were dug and channel sampled and 176 percussion holes were drilled in the vicinity of the old workings. The target depth was 25m and the deepest hole reached 50m. Holes were terminated at or near the water table and many holes were abandoned before the target depth due to caving of unconsolidated materials or lack of sample recovery. Each drill hole was sampled over the entire length, at 1m intervals. An ore reserve of 86 700t @ 1.16% Cu was estimated, at a cut-off grade of 0.5%, but these figures were considered preliminary, as drilling of the mineralised zone at 5m spacing was expected to indicate continuation of a narrow steeply dipping higher grade vein to greater depth. However, no further drilling was subsequently undertaken.

Two percussion holes were drilled into the Edelweiss prospect, angled at 62 degrees east and west away from a Southern Cross borehole as it was considered that Southern Cross (which held a SML

over the mine in 1970) would not have adequately tested interpreted vertically dipping mineralisation. Maximum values were 243 ppm Cu and 160 ppm V over 1m.

1996 - 2003 Redfire Resources

- Targeted epithermal system adjacent and along strike of the Koorunga fault
- Considered IP anomalies a result of an epithermal vein system
- Magnetic and radiometric data identified regional lithological and structural trends
- Carried out MMI sampling and percussion drilling over Burra North and Grove prospects

Redfire Resources explored the area between 1996 and 2003. Their geological concept was based on a porphyry copper-gold model for the Burra Deposit. They hypothesised that while an epithermal system associated with the intrusive had probably been eroded off the top of the Burra deposit, it may still exist adjacent to it and suggested that these veins may be responsible for some of the IP anomalies along trend of the Burra mineralisation. They considered crosscutting faults and faults parallel to the main trend to be particularly prospective for gold exploration. Exploration for copper targeted the northern extension of the Koorunga/Kingston Fault – two prospect areas were established, the North Burra and Grove prospects. MMI sampling was undertaken on these prospects. Redfire also did some ground magnetics over another identified prospect called Mullaby, followed by 12 percussion drill holes at Grove and North Burra.

2006 – 2009 Copper Range Limited

Date	Activity	Source	Details	Results
Oct-06	review of historic mining	PIRSA mining reviews	ca. 700 tons @ 25% Cu as malachite	Cu as malachite in quartz beccia veins in hangingwall
Oct-06	review Stream sampling	Burra Ridge 1970	20x20km area south of Burra, method unknown	drainages from PR are regionally highly anomalous in Cu and Zn
Oct-06	review Trenching	A.&W.F. 1980	6 short, shallow costeans	surficial supergene Cu blanket
Nov-06	Soil sampling	Copper Range	394 ME-ICP41s samples for base metals, 50 samples AuAA21 for Au	2000x300m anomaly 500+ppm Cu and associated Au; Zn anomaly in south
Dec-06	Mapping	Copper Range	alteration, stratigraphy, structural	2000x300m zone of intense alteration: hydrothermal, silicification, chlorite, albite
Dec-06	Rock chip sampling	Copper Range	111 rock chip samples ME-MS61	supergene Cu spatially related to silicification, hydrothermal quartz veining and fault breccia
Jan-07	Petrology	Pontifex Jan 2007	15 of above samples by Pontifex	low-T hydrothermal alteration, intense leaching of sulphides local supergene mineralisation, albite alteration
Feb-07	Aster satellite	GeolImage Pty Ltd	composite channel RBD image of Aster and 456 of Landsat LSFIT Crippen's Ratio	leached outcrop by chlorite alteration from Burra to PR
Feb-07	Radiometrics	PIRSA	State-wide airborne radiometric data	sodium enrichment zone at Koorunga Fault and around PR, north of Utica
Mar-07	review Magnetism	AWF 1980	AWF map	shows similar pattern as soils, ie. surface Cu
Apr-07	review and remodel IP	Australian Geophysical 1966	10 lines, 1km long, 50m dipole, remodeled by Steve Collins	anomaly along PR Fault, graphite in PR Fault impedes sulphide detection
Jun-07	RC Drilling	Copper Range	12 holes, total 932m, max depth	PR-RC008: 11m@ 1.0% Cu at 50m deep redox boundary PR-RC006: 4m@0.81ppm Au; other holes: surficial Cu, no Au, Zn; redox boundary not tested/reached in any other drill hole
Aug-07	review of diamond Drilling	Australian Geophysical 1966	2 holes 130m and 260m	chalcopryite veining in footwall; more prospective hanging wall not tested; graphite in fault cause of IP anomaly
Sep-07	Mapping	Copper Range	detailed stratigraphy and structural mapping	sandy dolomite-shale redox boundary within Skillogalee D. overturned, faulted anticline, intersected in PR-RC008
Mar 08		Copper Range	RC Drilling	5 RC Holes were drilled to a total depth of 332m near the Utica mine.

Table 2: Summary of all activities conducted by Copper Range on EL 3549.

5. EXPLORATION DURING THE PERIOD

6.1 ACCESS NEGOTIATIONS

The Princess Royal prospect is situated on both the Princess Royal and Dutton's Trough properties. The landowners have informed of Phoenix Copper's geochemical exploration activities and NOE's have been issued to the large landholders of Princess Royal. In addition NOE's have been completed with G.Whetstone and the Gap Pastoral Co Pty Ltd.

6.2 GEOLOGY

Work undertaken by Phoenix Copper Limited has included a complete geological review of all historical data, specifically the recent data collected and collated by Copper Range Limited.

Previous geological mapping by Copper Range has established surficial supergene copper carbonate mineralisation both spatially and petrologically related to silicification and (low-temperature) hydrothermal quartz breccia. More supergene copper mineralisation may exist just below silica caps which have not been drilled yet. Chlorite and albite alteration and intensely leached dolomite rocks surround the copper carbonate zone.

More detailed stratigraphic and structural mapping has established the location of the Laminated Sandy Dolomitic Carbonaceous Siltstone Horizon within the Skillogalee Dolomite (LSDCaSH) east of the Princess Royal anticline. LSDCaSH has been inferred to be the same unit that hosts the Burra Deposit and was intersected at drill hole PR-RC008 at Utica. LSDCaSH in the crest of the anticline is viewed by Copper Range geologists as a very prospective exploration target.

Data Collection: 505 geochemical samples taken by previous workers were geo-referenced and added to the existing database as were 190 historical drill holes.

Data Entry: Data was entered into MS Excel and MS Access. This information was then loaded into MapInfo for GIS referencing and Vulcan for geological modelling.

6.2.1 Drilling – from previous years drill holes

- o Copper Range submitted an EWA for drilling near Utica Mine.
- o Track-mounted drill rigs which had been the preferred drilling equipment for Princess Royal could not be obtained. Drilling program modified to suite conventional RC drill rig.
- o Five RC holes, for a total of 332m, were completed at the Utica Prospect, 0.5km south of the Princess Royal Mine
- o Three drill holes targeted lateral and vertical extensions of the best intersection (11m at 1.0%Cu) from 2007 drill program.
- o UT-RC001, intersected 3m of copper assaying 0.7% from 20m and 7m assaying 0.4% from 62m. Mineralisation was attributed to copper carbonates associated with brecciated quartz veins within a deeply weathered fault zone
- o Two drill holes targeted nearby copper bearing barite veins.
- o Both drill holes intersected mineralised barite veins 0.24% copper over 2m and 0.7% copper over 9m including 1.8% copper over 2m. Mineralisation is mainly chalcocite,

replacing chalcopyrite, within the barite veins which appear to be numerous but of limited lateral extent.

Collars locations for the 5 RC drill holes are found in Appendix1.

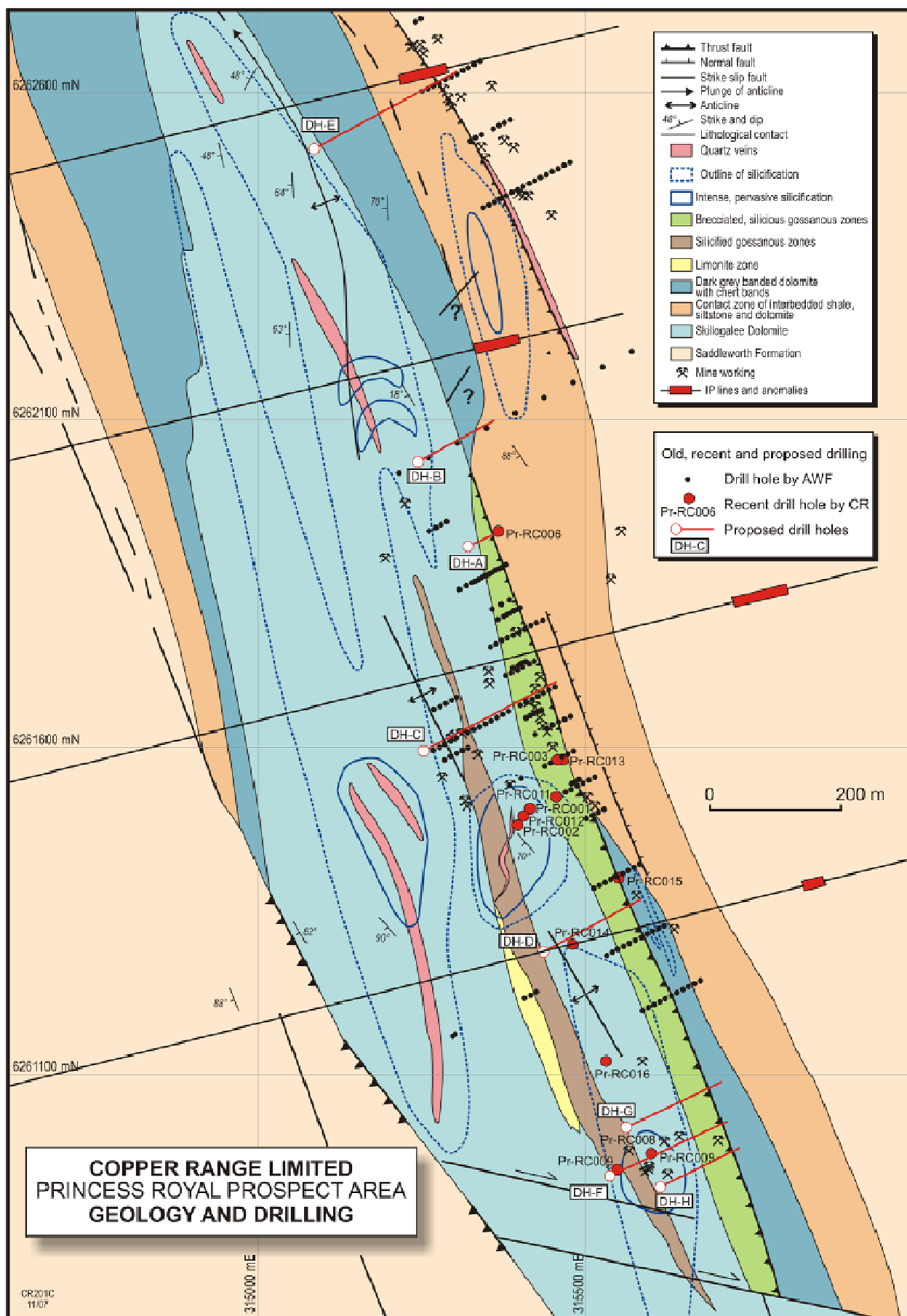


Figure 4: Detailed geological map of the Princess Royal anticline.

6.3 GEOCHEMISTRY

Geochemical Sampling: 505 historical geochemical samples taken by previous workers were geo-referenced and added to the existing database. The methodology for these samples is outlined below.

6.3.1 Rock Chip Sampling

All rock chip samples were submitted to ALS (Brisbane) for their ME-MS61 technique, a four acid near-total digestion technique that gives 47 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) by HF-HNO₃-HClO₄ acid digestion, HCl leach and combination of ICPMS and ICPAES.

6.3.2 Soil Sampling

Samples were collected by shovel and sieved of detritus then dried to a core temperature of approximately 100°C. The total sample was jaw crushed and then milled in a LM5 pulveriser to 90% passing 106 µm. An analytical pulp of 250 g will be taken from the bulk and the residue retained, where practical, in the original bag.

A subsample of 10 g is digested using a mixture of nitric and hydrochloric acid. The resultant solution is bulked to volume with water and quantified using ICPMS. Please note that upper limits are applicable to the elements listed below. Note that the values reported are digestible values only.

Au (1 ppb) Ag (0.05 ppm) As (0.5 ppm) Bi (0.1 ppm) Cd (0.1 ppm) Ce (0.2 ppm) Co (0.2 ppm) La (0.2 ppm) Mo (0.1 ppm) Nb (0.1 ppm) Sb (0.1 ppm) Sr (1 ppm) Th (0.05 ppm) Tl (0.1 ppm) U (0.05 ppm) Y (0.05 ppm)

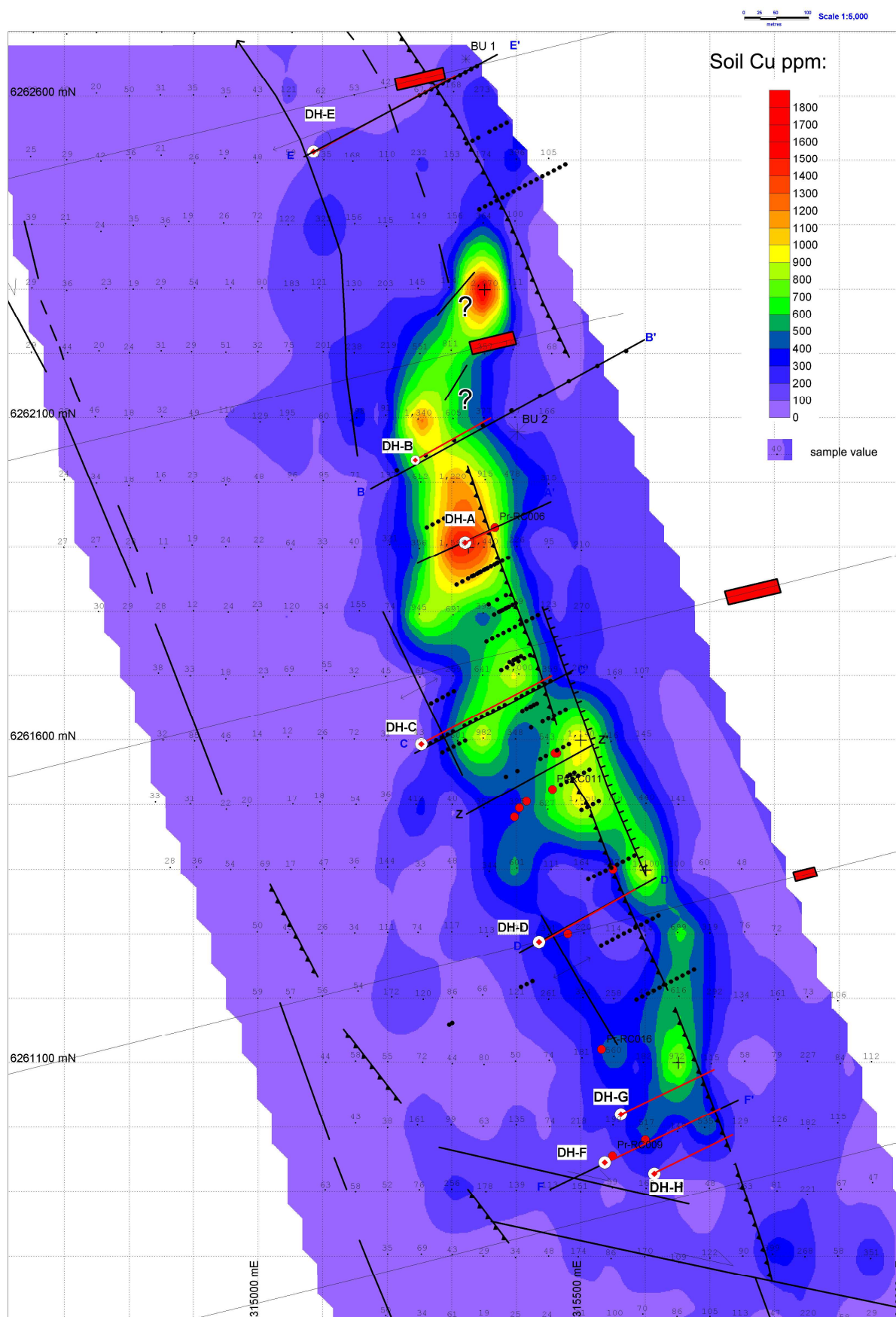


Figure 5: Historical geochemical samples contoured for_Cu ppm



Figure 6: EL 3549 Historical drill holes against aerial photo

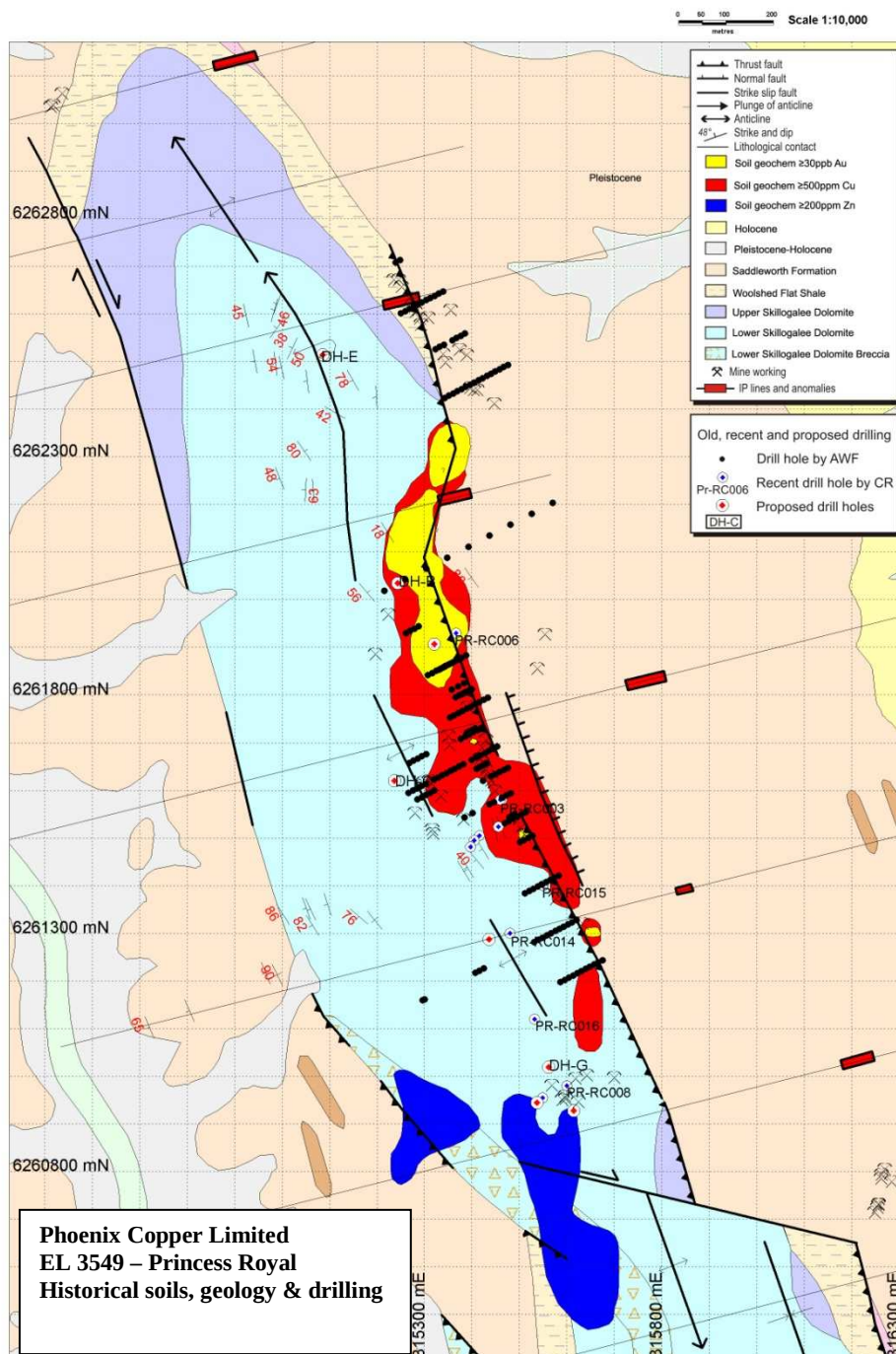


Figure 7: Historical geochemical samples & drill holes entered into database

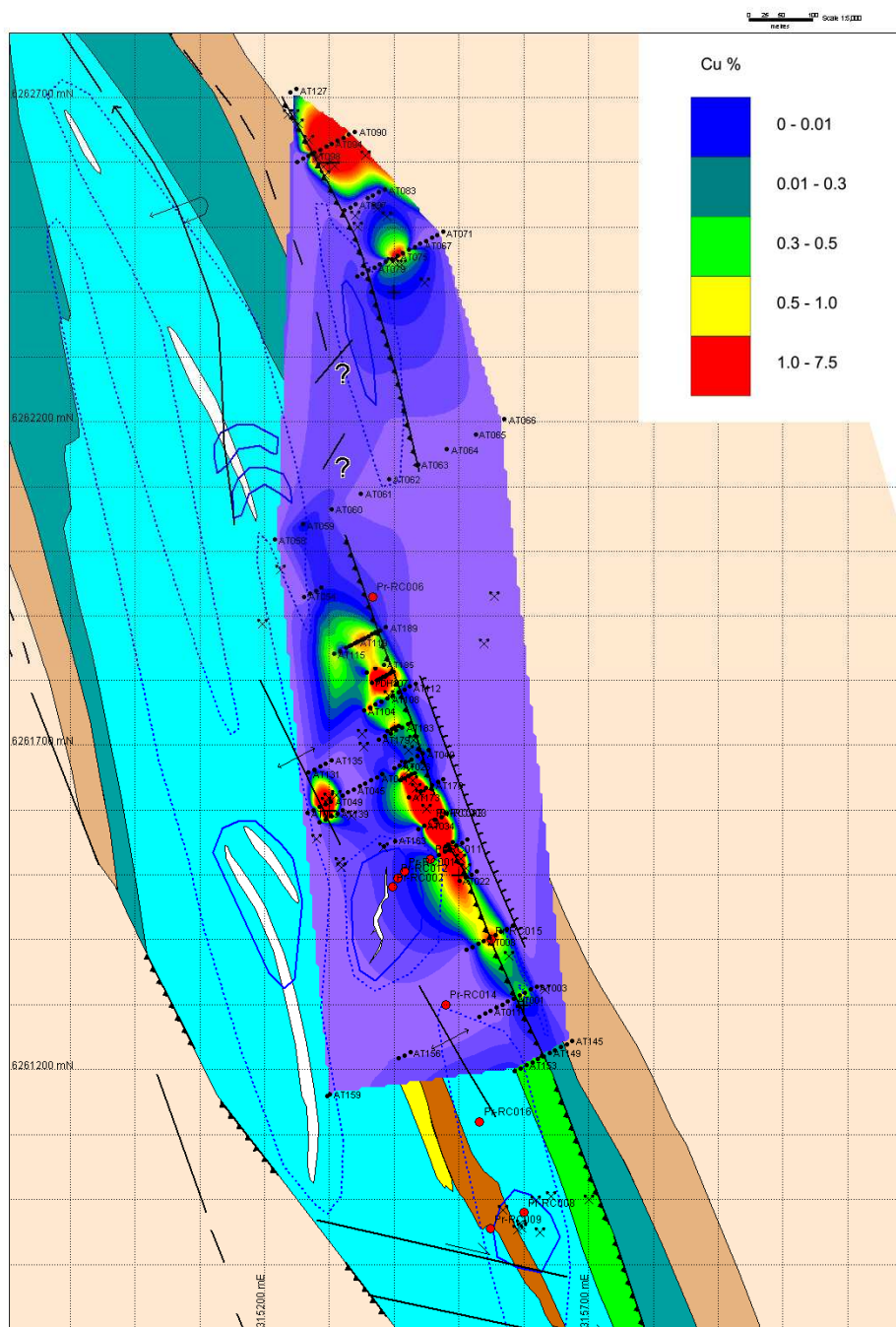


Figure 8: Historical geochemical samples entered into database, contoured for Cu against a geological backdrop.

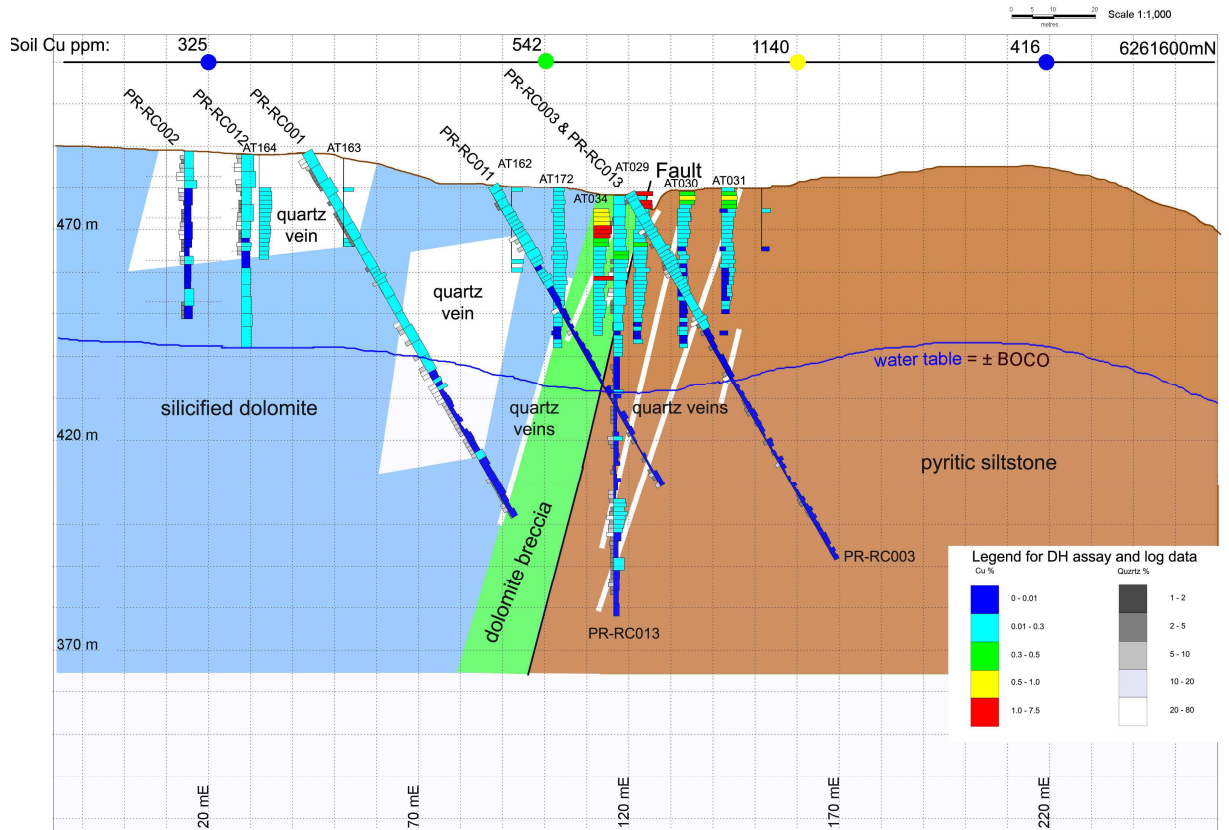


Figure 9: Cross-Section through historical holes PR-RC001, PR-RC002, PR-RC-003, PR-RC011 and PR-RC013

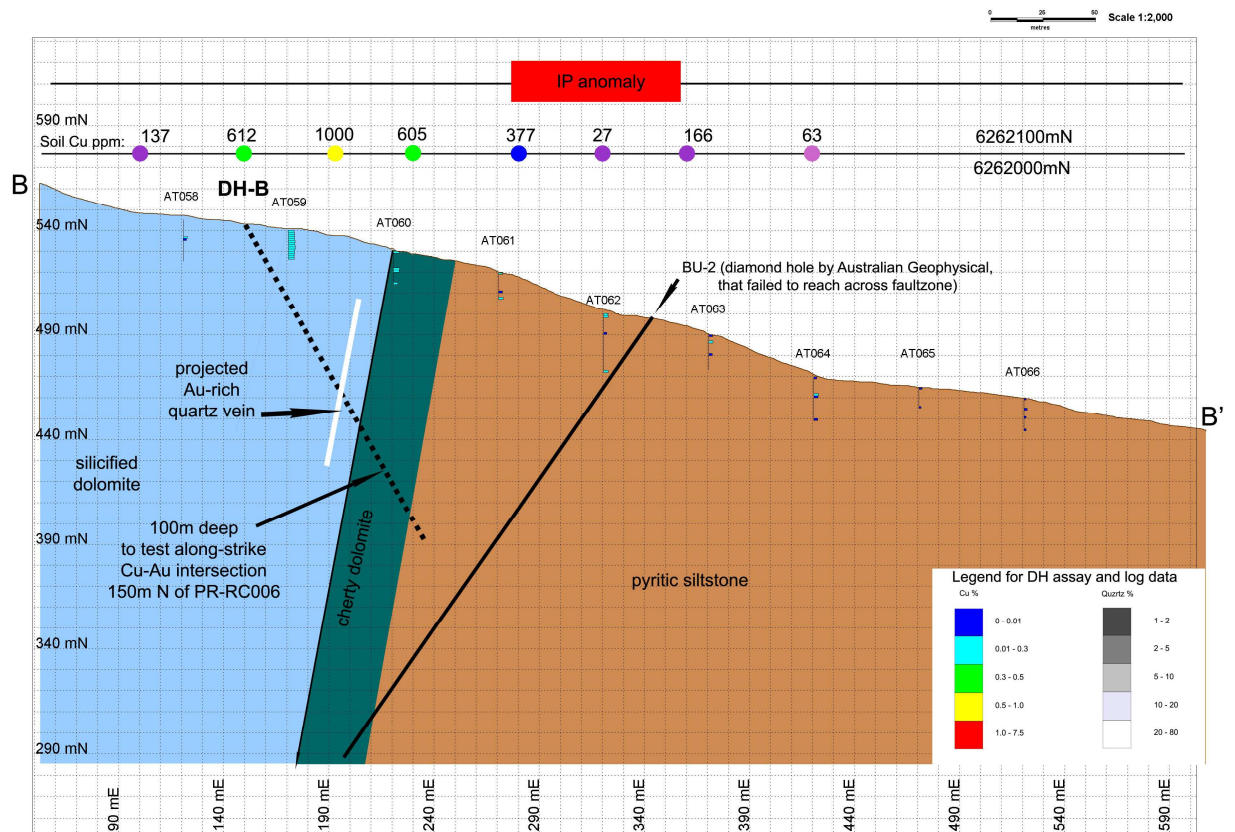


Figure 10: Cross-Section through historical hole BU-2

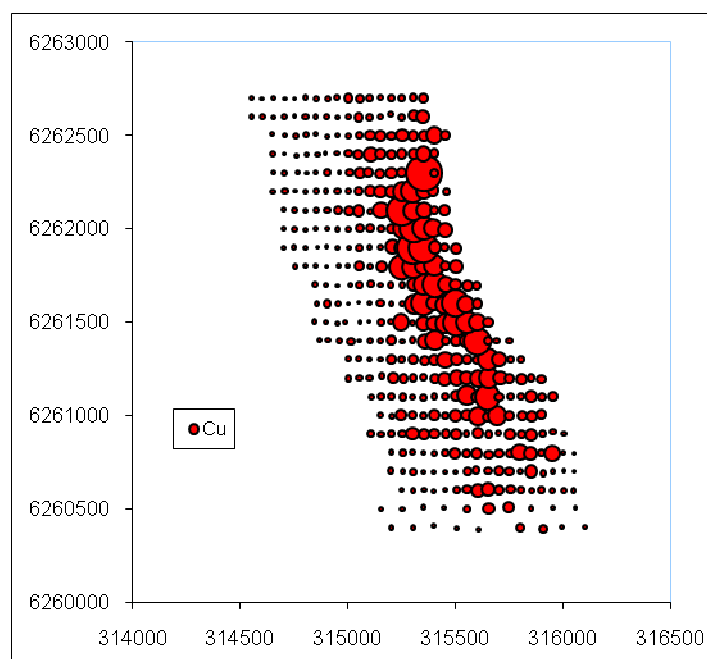


Figure 11: Historical geochemical samples contoured for Cu

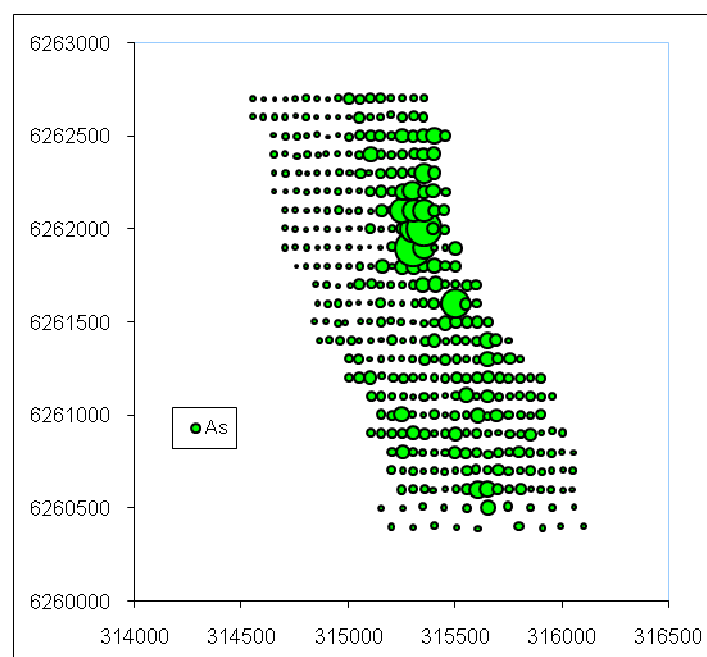


Figure 12: Historical geochemical samples contoured for _As

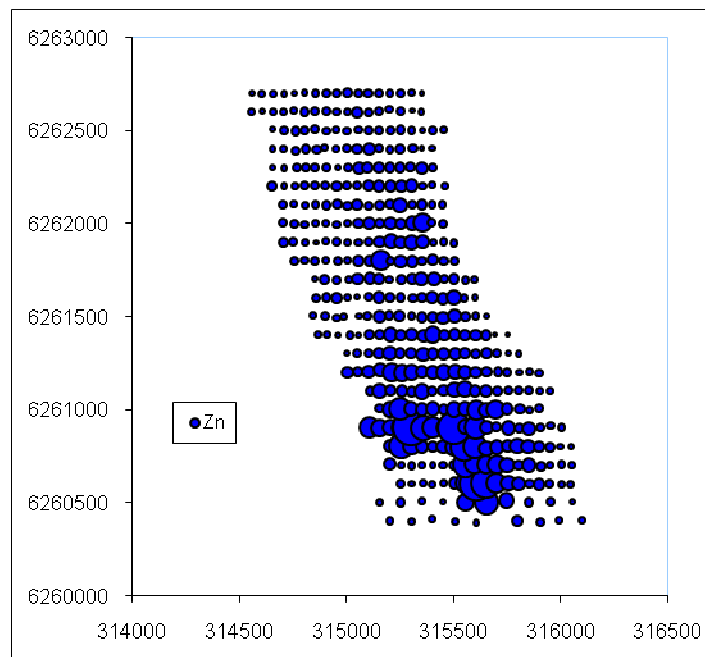


Figure 13: Historical geochemical samples contoured for_Zn

Drillhole Location Plan around Princess Royal / Utica Mine areas

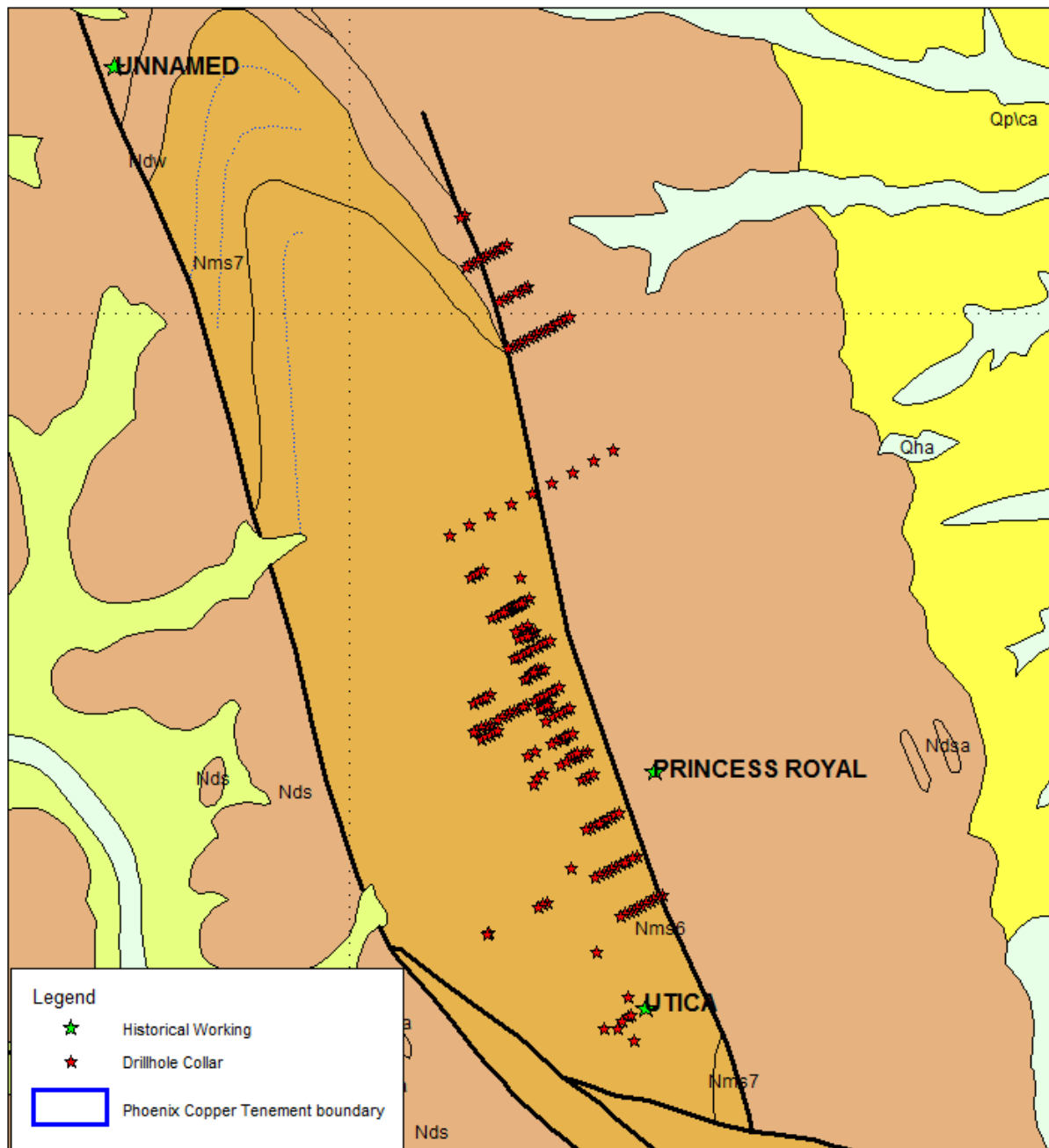


Figure 14: Historical drill hole location plan around EL 3549

6.3.3 A Study of Copper Gold Mineralisation in the Burra District

A review of Copper and Gold mineralisation in the Burra / Mongolata district was undertaken during the period. A week was spent in the field mapping and logging core in the PIRSA core farm in Glenside. This work enabled a better understanding of the structural environment and of indicators to regional mineralisation.

Although previous workers have envisioned a Zambian Copper belt synsedimentary origin for copper mineralisation at Burra enhanced and disturbed by Diapiric activity evidence was found that could support a model for a Volcanic Cu porphyry source to mineralisation in the district. If this style of mineralising event occurred then it suggests a target source at depth for the regional mineralisation and also accounts for the breccias seen at Burra and for the near surface supergene Cu deposits that are present throughout the Adelaide Geosyncline.

There were many geological observations made that could support an epithermal origin for the mineralisation found at Burra and others that could suggest otherwise.

Thus Cu and Au mineralisation in the Burra district was found to display similarities to intrusion-related low sulphidation quartz-sulphide Au ± Cu (deep) epithermal ores formed marginal to Pacific rim porphyry source rocks. The Burra rocks however have been subject to substantial supergene enrichment of the primary lower Cu and Au contents. Phoenix Copper are content to entertain all models of mineralisation until one is proven conclusively to have occurred and thus will consider Cu-Au skarns, that would exist in a carbonate rich environment intruded by porphyry, as an exploration target.

6.4 Geophysics

Copper Range undertook re-processing of regional aeromagnetic data by consultant David Inkster.

6.5 Environment and Rehabilitation

The impact of surface geochemical sampling is negligible, as minimal material is removed when the analysis is taken and no marking is used to locate the sample sites. Existing tracks were used wherever possible.

Copper Range undertook rehabilitation of their drill sites and samples were removed from site.

7. CONCLUSION & RECOMMENDATIONS

Phoenix Copper's initial targets in the Adelaide Geosyncline are primary sulphide deposits with an associated secondary near-surface oxide copper that are both stratigraphically and structurally controlled. PIRSA's recent work in the area with detailed zircon age dating work have highlighted the mineralisation is associated with the deposition of the host units and is older than initially thought around 800Ma in a region where mineralisation was thought to be post Delamerian.

Much of the previous exploration for copper in the Adelaide Fold and Thrust Belt has been based on the assumption that copper mineralisation was emplaced during or shortly after deposition of the host sedimentary rocks, i.e. syngenetic or early diagenetic deposits. Exploration has been largely confined to the stratigraphic horizons that host mineralisation at Burra (Skillogalee Dolomite of the Burra Group) and Kapunda. An alternative view is that primary sediment-hosted stratiform sulphide

bodies are epigenetic, forming in reactive strata and in dilatant sites adjacent to significant through-going structures. With this model in mind Copper Range did multispectral satellite imagery and airborne radiometric data to identify zones of alteration that indicate appropriate stratigraphic horizons and substantial fluid movement. This method has generated targets that are not related to known mineralisation and have thus not been explored in the past.

Phoenix Copper would like to take this extensive geological work carried out by Copper Range and develop it further to assist in sourcing the primary mineralisation, as this is the area that has attracted the least attention historically. Given the similarities with the Burra Mine lithology and some mineralogical comparison we can use our in depth study of the Burra Mine to enhance our application to the Princess Royal deposit and the tenement as a whole.

Geological mapping and geochemical surveys by Copper Range have identified surface elevated Cu values over a strike length of 2000m, associated with a faulted transition zone from dolomite to shale country rock in the overturned eastern limb of an anticline. Late reactivated faulting has been associated with multiple phases of hydrothermal and epithermal quartz veining, silica-alteration of the dolomite, gossans and oxide copper ore breccias.

Exploration at the Princess Royal area has outlined limited tonnages of near-surface supergene copper ore. However, a potential underlying zone of primary copper mineralisation was identified, associated with a transition from dolomite to shale country rock in the overturned eastern limb of an anticline. It has little surface expression but has been traced as an IP anomaly associated with high surface Cu values over a strike length of 2000m. This will be an initial area of interest for Phoenix Copper.

The results from Copper Range's exploration activities at the Princess Royal prospect have brought to light excellent potential for lithologically and structurally controlled primary sulphides copper and minor potential for structurally controlled oxide copper. Following these encouraging results a broad portable handheld XRF program has already begun and further mapping followed by a drilling program will follow in 2009.

8. EXPENDITURE

Phoenix Copper expenditure breakdown for EL 3549 for the reporting period 05/02/2008 – 30/04/2009

EXPLORATION EXPENDITURE 05th February 2009 to 30th April 2009	
EXPLORATION ACTIVITY	TOTAL
Project Management	10000
Geological Mapping, Data Entry, Data Display & Review	9423.13
Accounting	800
Geochemical Sampling	2615.19
Tenement Management	226.17
Consultants	1928.54
IT Support	240.75
Legal	765.91
Data, Plans, Photocopying, Printing	68.75
Travel / Accommodation	27.62
Repairs and Maintenance	602.04
Laboratory – Sample Analysis	82.31
Vehicle Operating Costs	294.53
Fuel	403.93
Entertainment	61.77
Communications	75.18
Training	528.3
Computer Hardware/ Software	163.24
Sponsorship/ Promotion/ Advertising	90
Safety Equipment	102.02
Field Equipment/Freight	956.31
Sub Total	\$29455.69
Admin / Overheads (12%)	\$3534.68
TOTAL	\$32990.37

Copper Range expenditure breakdown for EL 3549 for the reporting period 01/05/2008 – 05/02/2009

Copper Range (SA) Pty Ltd 34 Stepney Street, Stepney, SA 5069 <i>Burra EL 3549 (5005)</i> Expenditure Statement 1/05/2008 To 05/02/2009	
Job Name	
Wages/Salaries- Geo/Technical	\$22,728.94
Phone - Fax	\$126.06
Consultant - Geology	\$4,731.82
Tenement - Gov Fees, Rates, Rent	\$1,943.30
Tenement Management - Hth/Euro/Marlo	\$180.00
MV - Fuel & Maint/Parking/Toll	\$639.05
Travel - Accommodation, Meals	\$2,893.82
Travel - Airfares	\$190.91
Travel - Field Taxi, Bus	\$74.91
Assaying - Rocks/Soil	\$3,706.01
Sample Prep - Equip & process	\$328.41
Drilling - Mobilisation	\$555.00
Drilling - RAB, Auger	\$27,555.01
Drilling - RC	\$19,051.99
Field Equipment Purchases	\$90.82
Field Consumables	\$756.18
Field - Supplies Food	\$128.46
Rent	\$703.25
Total	<u>\$86,383.94</u>
Over heads @ 10%	\$10,366.07
<u>Grand Total</u>	<u>\$96,750.01</u>

Expenditure for the Period (Phoenix)	\$32,990.37
Expenditure for the Period (Copper Range)	\$96,750.01
Total Expenditure for the period	<u>\$129,740.38</u>
Total Expenditure for Licence from inception to 30 April 2009	<u>\$493,013.17</u>

9. REFERENCES

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APPENDIX 1**Copper Range****RC Drill Hole Locations Listing****Burra South / Princess Royal**

Hole_ID	AMG_N	AMG_E	Depth_m
UTRC-001	6260983.00	315607.00	92.00
UTRC-002	6260928.00	315613.00	72.00
UTRC-003	6261023.00	315600.00	108.00
UTRC-004	6260954.00	315579.00	27.00
UTRC-005	6260970.00	315590.00	30.00

APPENDIX 2**Copper Range****Soil Locations Listing****Burra South / Princess Royal**

Sample_ID	AMG_E	ANG_N	Sample_ID	ANG_E	AMG_N
B001	315199	6260399	B221	314853	6261600
B002	315301	6260398	B222	314902	6261599
B003	315398	6260409	B223	314951	6261599
B004	315506	6260399	B224	314999	6261600
B005	315604	6260390	B225	315047	6261605
B006	315797	6260402	B226	315100	6261603
B007	315906	6260393	B227	315149	6261602
B008	315993	6260402	B228	315199	6261600
B009	316100	6260404	B229	315250	6261602
B010	315151	6260501	B230	315309	6261599
B011	315251	6260500	B231	315349	6261603
B012	315349	6260508	B232	315399	6261602
B013	315446	6260503	B233	315449	6261595
B014	315553	6260499	B234	315500	6261601
B015	315652	6260503	B235	315547	6261598
B016	315746	6260509	B236	315598	6261601

B017	315851	6260502	B241	314846	6261704
B018	315953	6260504	B242	314895	6261700
B019	316055	6260506	B243	314950	6261695
B022	315249	6260600	B244	315008	6261698
B023	315302	6260600	B245	315049	6261701
B024	315353	6260602	B246	315106	6261708
B025	315396	6260595	B247	315149	6261699
B026	315451	6260602	B248	315198	6261699
B027	315502	6260604	B249	315251	6261698
B028	315551	6260604	B250	315302	6261700
B029	315603	6260600	B251	315348	6261701
B030	315650	6260605	B252	315404	6261703
B031	315699	6260604	B253	315452	6261701
B032	315754	6260604	B254	315500	6261702
B033	315803	6260600	B255	315553	6261697
B034	315853	6260600	B256	315595	6261698
B035	315897	6260599	B260	314753	6261800
B036	315946	6260599	B261	314799	6261800
B037	316003	6260598	B262	314849	6261800
B038	316045	6260599	B263	314900	6261801
B042	315198	6260706	B264	314954	6261799
B043	315254	6260702	B265	314999	6261802
B044	315300	6260698	B266	315052	6261800
B045	315350	6260700	B267	315101	6261798
B046	315399	6260699	B268	315157	6261801
B047	315449	6260698	B269	315204	6261800
B048	315499	6260700	B270	315250	6261796
B049	315553	6260702	B271	315302	6261795
B050	315596	6260708	B272	315349	6261798
B051	315649	6260704	B274	315399	6261805
B052	315700	6260704	B275	315451	6261801
B053	315748	6260700	B276	315501	6261800
B054	315801	6260700	B280	314699	6261900
B055	315851	6260701	B281	314749	6261901
B056	315907	6260693	B282	314802	6261899
B057	315950	6260702	B283	314855	6261899
B058	316002	6260703	B284	314898	6261903
B059	316050	6260700	B285	314950	6261901
B062	315201	6260803	B286	315001	6261901
B063	315253	6260803	B287	315051	6261897
B064	315301	6260802	B288	315099	6261900
B065	315349	6260800	B289	315150	6261900
B066	315399	6260798	B290	315204	6261904
B067	315450	6260800	B291	315250	6261898
B068	315496	6260799	B292	315301	6261898

B069	315547	6260796	B293	315350	6261900
B070	315599	6260799	B294	315401	6261901
B071	315652	6260790	B295	315450	6261900
B072	315700	6260797	B296	315501	6261895
B073	315751	6260800	B300	314700	6262004
B074	315797	6260803	B301	314750	6261999
B075	315847	6260799	B302	314800	6261995
B076	315898	6260800	B303	314849	6262002
B077	315949	6260796	B304	314899	6262001
B078	315997	6260800	B305	314950	6261996
B079	316049	6260799	B306	315001	6262000
B081	315104	6260903	B307	315053	6262003
B082	315151	6260900	B308	315101	6262002
B083	315201	6260903	B309	315151	6262001
B084	315250	6260903	B310	315202	6262002
B085	315300	6260904	B311	315252	6262000
B086	315353	6260900	B312	315303	6262000
B087	315400	6260902	B313	315352	6262004
B088	315453	6260902	B314	315395	6262004
B089	315500	6260900	B315	315450	6261997
B090	315549	6260906	B321	314700	6262101
B091	315601	6260905	B322	314748	6262102
B092	315652	6260901	B323	314801	6262099
B093	315699	6260905	B324	314851	6262102
B094	315754	6260899	B325	314901	6262099
B095	315804	6260901	B326	314952	6262102
B096	315851	6260895	B327	315003	6262094
B097	315903	6260904	B328	315047	6262098
B098	315952	6260914	B329	315101	6262094
B099	316002	6260904	B330	315153	6262100
B103	315151	6261006	B331	315198	6262104
B104	315201	6260999	B332	315248	6262098
B105	315247	6261003	B333	315302	6262099
B106	315299	6261003	B334	315350	6262100
B107	315349	6261001	B335	315398	6262101
B108	315400	6261003	B336	315447	6262101
B109	315452	6261000	B341	314649	6262202
B110	315498	6261000	B342	314705	6262201
B111	315550	6261003	B343	314754	6262204
B112	315603	6260997	B344	314801	6262201
B113	315650	6260993	B345	314850	6262204
B114	315692	6260999	B346	314897	6262203
B115	315748	6261001	B347	314950	6262202
B116	315808	6261002	B348	315000	6262203
B117	315852	6260997	B349	315048	6262204

B118	315898	6261006	B350	315101	6262203
B122	315105	6261100	B351	315149	6262201
B123	315151	6261102	B352	315202	6262202
B124	315201	6261101	B353	315251	6262200
B125	315255	6261100	B354	315299	6262205
B126	315301	6261098	B355	315351	6262200
B127	315350	6261097	B356	315395	6262206
B128	315399	6261102	B357	315455	6262200
B129	315451	6261103	B361	314650	6262302
B130	315502	6261107	B362	314704	6262298
B131	315551	6261109	B363	314765	6262301
B132	315597	6261100	B364	314807	6262300
B133	315649	6261100	B365	314850	6262302
B134	315702	6261098	B366	314902	6262302
B135	315754	6261102	B367	314958	6262302
B136	315802	6261103	B368	315006	6262302
B137	315851	6261102	B369	315054	6262298
B138	315902	6261098	B370	315095	6262302
B139	315950	6261101	B371	315148	6262299
B141	315000	6261200	B372	315199	6262300
B142	315050	6261201	B373	315248	6262301
B143	315100	6261203	B374	315296	6262303
B144	315155	6261211	B375	315350	6262299
B145	315207	6261202	B376	315399	6262301
B146	315256	6261198	B382	314650	6262401
B147	315301	6261201	B383	314702	6262402
B148	315348	6261205	B384	314757	6262390
B149	315401	6261201	B385	314807	6262399
B150	315450	6261198	B386	314857	6262398
B151	315503	6261201	B387	314893	6262405
B152	315551	6261199	B388	314947	6262403
B153	315602	6261200	B389	315000	6262405
B154	315652	6261203	B390	315047	6262400
B155	315707	6261202	B391	315103	6262400
B156	315750	6261196	B392	315150	6262402
B157	315805	6261198	B393	315199	6262398
B158	315851	6261202	B394	315249	6262403
B159	315898	6261196	B395	315306	6262404
B162	314999	6261303	B396	315349	6262403
B163	315046	6261302	B397	315398	6262406
B164	315099	6261301	B403	314648	6262506
B165	315150	6261301	B404	314704	6262500
B166	315201	6261302	B405	314757	6262498
B167	315248	6261302	B406	314802	6262503
B168	315300	6261303	B407	314850	6262508

B169	315355	6261296	B408	314902	6262495
B170	315400	6261300	B409	314949	6262502
B171	315450	6261299	B410	314999	6262496
B172	315505	6261301	B411	315051	6262503
B173	315551	6261300	B412	315102	6262500
B174	315600	6261298	B413	315147	6262498
B175	315650	6261302	B414	315201	6262499
B176	315700	6261301	B415	315250	6262501
B177	315754	6261303	B416	315301	6262500
B178	315803	6261299	B417	315350	6262500
B180	314864	6261403	B418	315400	6262501
B181	314905	6261404	B419	315450	6262502
B182	314958	6261400	B421	314551	6262602
B183	315012	6261400	B422	314600	6262602
B184	315051	6261400	B423	314651	6262601
B185	315103	6261401	B424	314700	6262600
B186	315150	6261403	B425	314750	6262605
B187	315201	6261404	B426	314801	6262600
B188	315251	6261399	B427	314849	6262602
B189	315300	6261404	B428	314900	6262602
B190	315358	6261397	B429	314950	6262599
B191	315401	6261402	B430	315000	6262601
B192	315502	6261401	B431	315048	6262600
B193	315549	6261401	B432	315098	6262599
B194	315600	6261399	B433	315149	6262602
B195	315649	6261399	B434	315198	6262613
B196	315691	6261401	B435	315250	6262601
B197	315749	6261401	B436	315303	6262607
B199	315454	6261400	B437	315348	6262600
B200	314841	6261504	B442	314552	6262700
B201	314895	6261501	B443	314600	6262697
B202	314951	6261493	B444	314652	6262699
B203	314984	6261498	B445	314704	6262697
B204	315054	6261501	B446	314750	6262699
B205	315096	6261504	B447	314800	6262704
B206	315152	6261500	B448	314851	6262700
B207	315198	6261506	B449	314902	6262698
B208	315245	6261500	B450	314948	6262703
B209	315301	6261500	B451	315001	6262702
B210	315350	6261495	B452	315053	6262699
B211	315400	6261496	B453	315098	6262701
B212	315449	6261493	B454	315149	6262703
B213	315502	6261500	B455	315198	6262701
B214	315553	6261500	B456	315249	6262702
B215	315601	6261502	B457	315302	6262703

B216	315651	6261500	B458	315350	6262702
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APPENDIX 3

Copper Range

Grid Rock Chip Locations Listing

Burra South / Princess Royal

Sample_ID	Easting	Northing	Sample_ID	Easting	Northing
241940	315631	6261280	40646	315390	6261439
724401	315805	6260795	40647	315390	6261439
724402	315819	6260795	40648	315477	6261321
724403	315848	6260753	40649	315452	6261255
724404	315860	6260757	40650	315448	6261221
724427	315322	6261496	40652	315448	6261221
724428	315332	6261552	40653	315551	6261163
724429	315310	6261617	40654	315632	6261276
724430	315310	6261617	40655	315392	6261539
724431	315649	6261002	40657	315392	6261539
724432	314425	6260991	40658	315391	6261488
724433	318201	6254278	40659	315391	6261488
724434	318174	6254290	40660	315345	6261461
724435	318224	6253568	40661	315316	6261441
724436	315981	6254400	40662	315289	6261418
772048	315640	6261010	40664	315211	6261331
772049	315572	6260984	40665	315252	6261259
772050	315964	6260776	40667	315252	6261259
772051	316098	6260780	40668	315252	6261259
772052	315916	6260895	40670	315280	6261186
772053	315916	6260895	40671	315233	6261202
772054	315357	6262610	40672	315233	6261202
40601	314721	6261103	40673	315302	6261100
40602	314860	6261201	40674	315342	6261303
40603	314990	6261213	40675	315370	6261341
40604	314990	6261213	40676	315370	6261341
40605	315069	6261355	40677	315370	6261341
40606	315064	6261317	40681	315545	6261573

40607	315162	6261336	40682	315578	6261658
40610	315319	6261390	40684	315509	6261749
40612	315022	6262528	40685	315477	6261864
40616	315078	6262427	40686	315341	6262123
40617	315260	6261943	40688	315243	6262224
40618	315260	6261943	40689	315243	6262224
40619	315179	6262015	40690	315243	6262224
40620	315179	6262015	40691	315325	6261882
40621	315133	6262149	40693	315323	6261505
40622	315222	6262142	40694	315325	6261554
40623	315110	6262495	40695	315325	6261554
40624	315511	6261506	40696	315300	6261616
40626	315511	6261506	40697	315296	6261625
40628	315511	6261506	40614	315296	6261625
40629	315511	6261506	40615	315362	6261715
40630	315461	6261523	40625	315362	6261715
40631	315448	6261518	40627	315470	6261540
40632	315448	6261518	40635	315422	6261655
40633	315433	6261508	40640	315440	6261694
40634	315432	6261490	40642	315420	6262446
40636	315432	6261490	40651	315248	6262673
40637	315422	6261477	40656	315394	6261530
40638	315422	6261477	40666	315314	6261560
40641	315409	6261455	40669	315326	6261585
40643	315409	6261455	40679	315259	6261611
40644	315409	6261455	40683	315337	6261455
40645	315390	6261439	40692	315539	6261306
			40698	315627	6260938