Borroloola West Project, N.T.

Diamond Drilling Program
Coppermine Creek, Mariner, and Berjaya, Prospects
September to October 2017

Final report

David Pascoe

October 2017

Contents

Work completed

Heritage clearances to avoid sites of cultural significance, an MMP, consent from the landholders and managers of land (Parks and Wildlife, and McArthur River Station) affected by the planned diamond drill program, and cultural site clearances, were obtained.

A diamond drill program of 5 holes for 1403.2m was completed.

Drill Hole ID	Prospect	Type	Easting	Northing	Elevation	Total depth	Dip	Azimuth
CCD09	Coppermine	DD	557443	8234668	99	252.5	-80	225
CCD10	Coppermine	DD	556602	8235441	87	300.6	-80	000
MND05	Mariner	DD	559709	8227434	106	249.6	-70	090
MND06	Mariner	DD	559167	8225460	123	300.3	-70	090
BJD04	Berjaya	DD	588722	8185966	108	300.2	-80	225

Table 1: Diamond drill program September to October 2017

The holes were systematically surveyed downhole. Orientation marks were attempted at every drill run (3m). All the holes were geologically and structurally logged and a pXRF reading taken for each meter interval. Selected intervals were halved with a core saw and sent to ALS Townsville for ICP-MS multi-element analysis. Samples containing >1% Cu, Zn or Pb were automatically re-analysed with an ore grade analysis using an ICP-AES finish.

Summary of Results to date

Diamond drilling was completed at Mariner, Berjaya and Coppermine Creek Prospects, which was designed to test for major primary copper and zinc-lead mineralisation.

At **Coppermine Creek** two diamond holes were drilled (CCD09 and CCD10). The model of an extensive, relatively shallow, copper mineralised zone at Coppermine Creek was confirmed, within which there is potential for the development of a copper orebody with economic parameters.

At **Mariner** two diamond holes were drilled (MND05 and MND06). A previously unknown package containing pyritic black carbonaceous shales was intersected at Mariner. The close association with observed lead and zinc mineralisation confirms potential for sediment hosted zinc-lead mineralisation. It is reasonable stratigraphically that the pyritic black shales intersected by MND06 are part of the Barney Creek package. The shales are anomalous in copper (100's of ppm Cu) indicating that the hole may be peripheral to significant base metal mineralisation.

At **Berjaya** BJD04 was drilled but the Barney Creek Formation was not intersected. No significant base metal values were obtained. The hole was still in the hanging wall Hot Springs Formation sediments at 300.2m.

The Mariner - Coppermine Creek - Lorella District (figure 2) appears to be a well mineralised area (significant prospects Pb, Zn, Ba or Cu prospects, major faults, widespread dolomite alteration) with potential for a major base metal deposit(s).

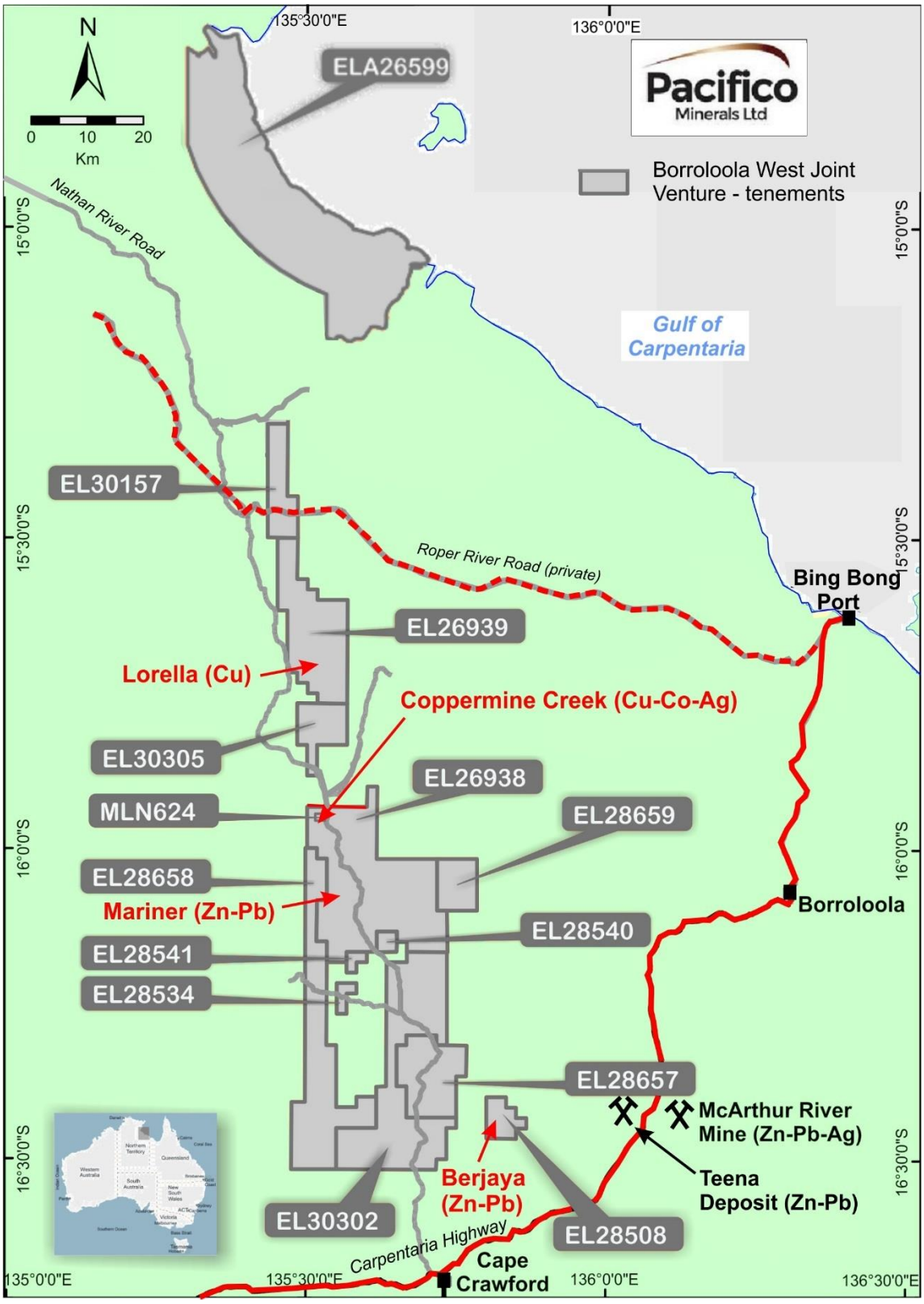

Figure 1: Borroloola West Project Tenements and Location of prospects

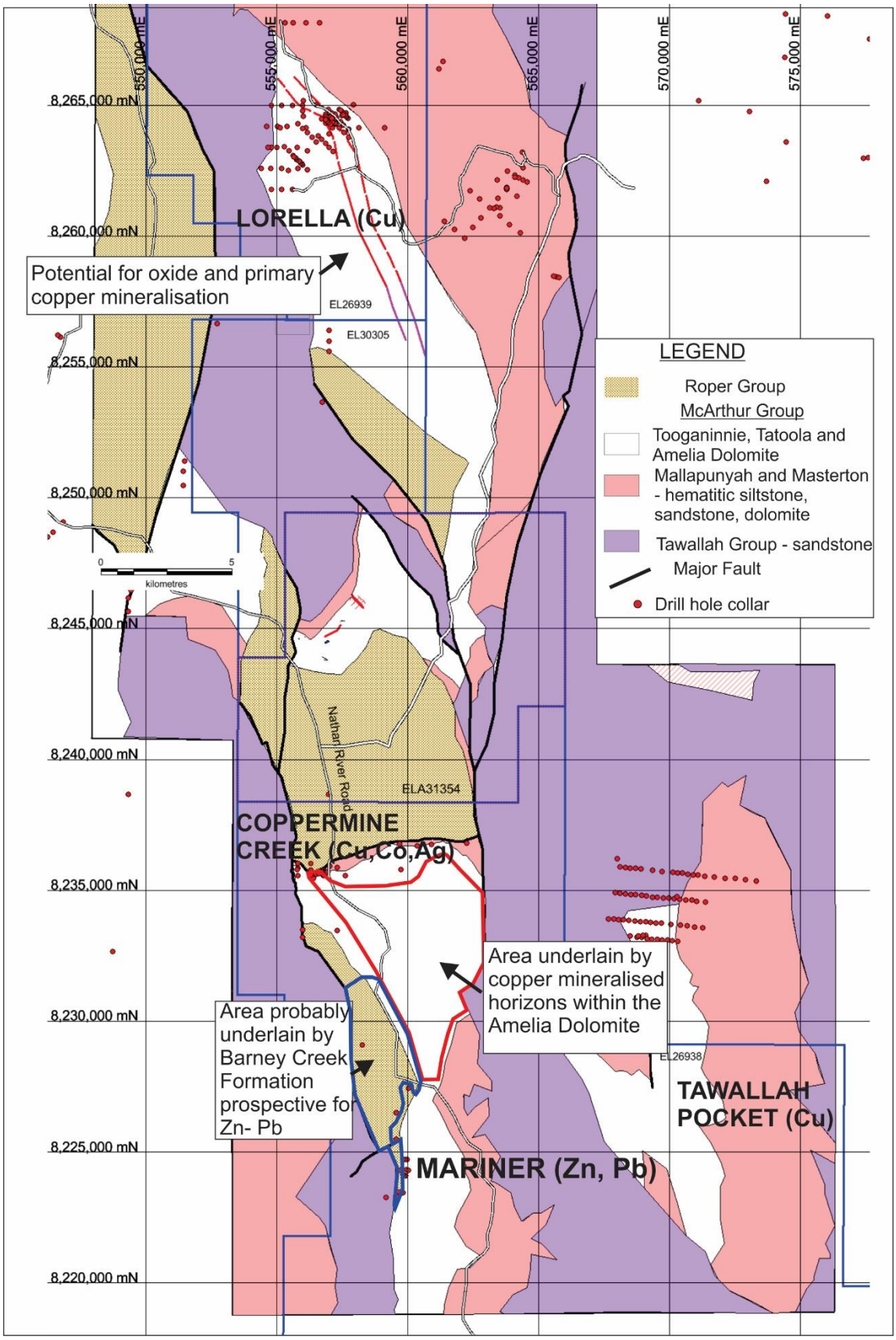

Figure 2: The Mariner to Lorella mineralised district

Native Title and Ground Access

Limmen National Park (southern portion) , formerly Billengarrah Station & McArthur River Station

Site inspections were carried out with TO Timothy Lansen over the areas of planned diamond drill sites and access tracks, and it was agreed that no sites of cultural significance were to be affected by the program. David Pascoe was the Pacifico representative.

Agreement was made with Parks and Wildlife to rehabilitate all access roads and drill sites according to the provisions of the MMP within the Limmen National Park.

A land access agreement was made with Glencore for work on the McArthur River Station at Berjaya.

An MMP for the drill program was approved by the Department of Minerals and Energy, NT.

Coppermine Creek (copper-cobalt-silver)

Two holes were drilled at Coppermine Creek, CCD09 and CCD10, and both intersected visible copper mineralisation over significant widths (Figures 3 and 4).

CCD09 intersected approximately 13m of copper mineralisation from 123m depth. The hole was drilled 1.4km south of the Coppermine Creek Fault and confirms Pacifico's mineralisation model, developed from previous exploration drilling and ground EM survey conductivity profiles, that the copper mineralisation is stratabound, gently dipping and that there are large areas where the depths of this layer are at only 100m to 250m depth.

CCD10 intersected a broad zone of approximately 48m of copper mineralisation from 170m.

	0.1%Cu cut off				
Hole No	**From (m)**	**To (m)**	**Length (m)**	**% Cu**	
CCD09	55 132	58 135	3 3	0.4 0.2	Includes 1m @ 0.7% Cu from 55m
CCD10	174 237	192 240	18 3	0.2 0.2	Includes 2m @ 0.4% Cu from 190m

Table 1: Summary of recent diamond drill results at Coppermine Creek

All the copper mineralisation is hosted by the Amelia Dolomite which consists typically of finely bedded dolomite with carbonaceous laminae. It is concentrated within the evaporite rich (now dolomitised) part of the sequence, consisting of ex-anhydrite nodules and masses of ex-gypsum crystals, now dolomitised, and often with zones of abundant carbonaceous laminae or crenulated carbonaceous algal mats. The copper mineralisation is present as chalcopyrite and minor bornite which forms disseminations, blebs and lenses throughout the mineralised zones.

There still remains major potential in the undrilled extension towards the south and east (30km2) of the copper mineralisation (Figure 3). Targets for large economic concentrations of copper mineralisation could be defined adjacent to major north-south or north-westerly trending faults that run through the area.

It is planned to carry out detailed mapping and rock chip geochemistry over the prospective area to define these structures that could be a potential focus for significant copper mineralisation.

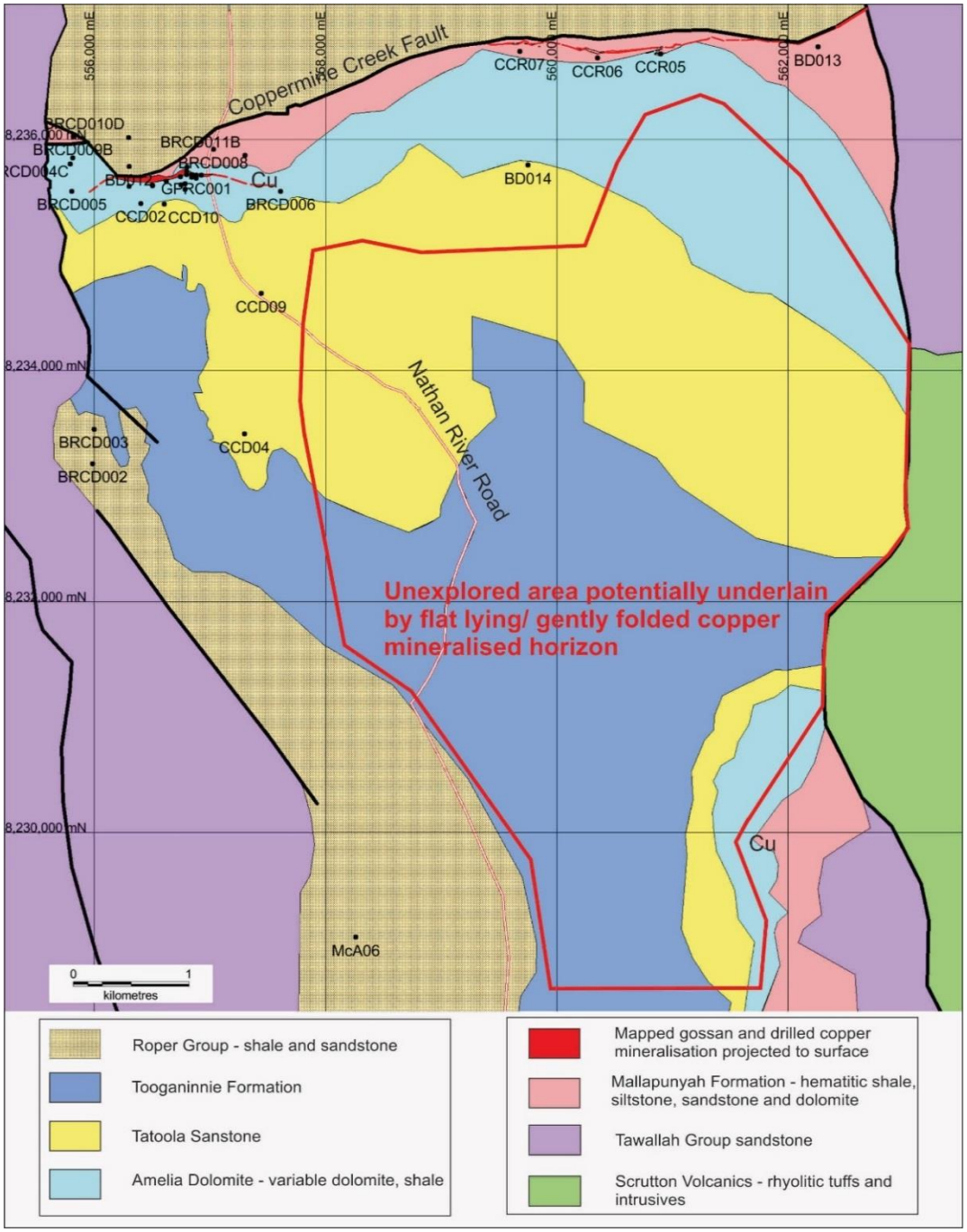

Figure 3: Geology and drilling, including location of recently drilled diamond holes CCD09 and CCD10 at Coppermine Creek, also showing huge area potentially underlain by gently dipping mineralised horizon.

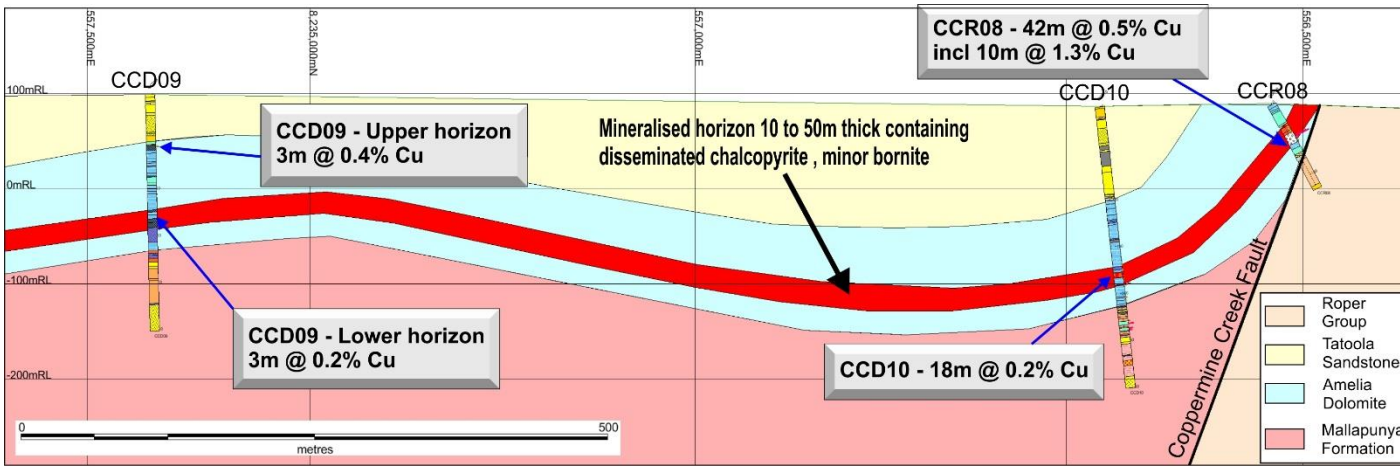

Figure 4: Section through diamond holes CCD09 and CCD10 at Coppermine Creek

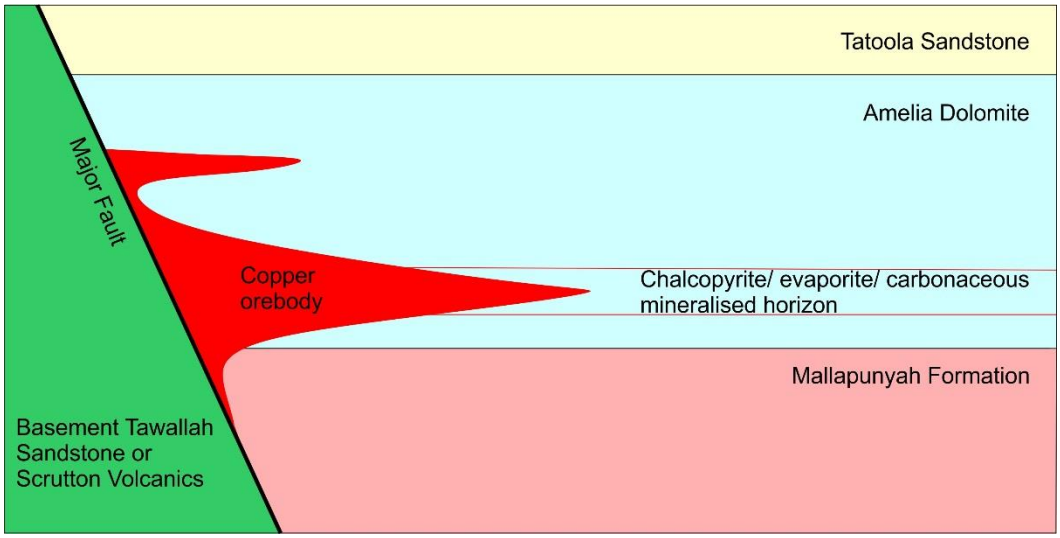

Figure 5: Schematic section showing geological exploration model for copper mineralisation

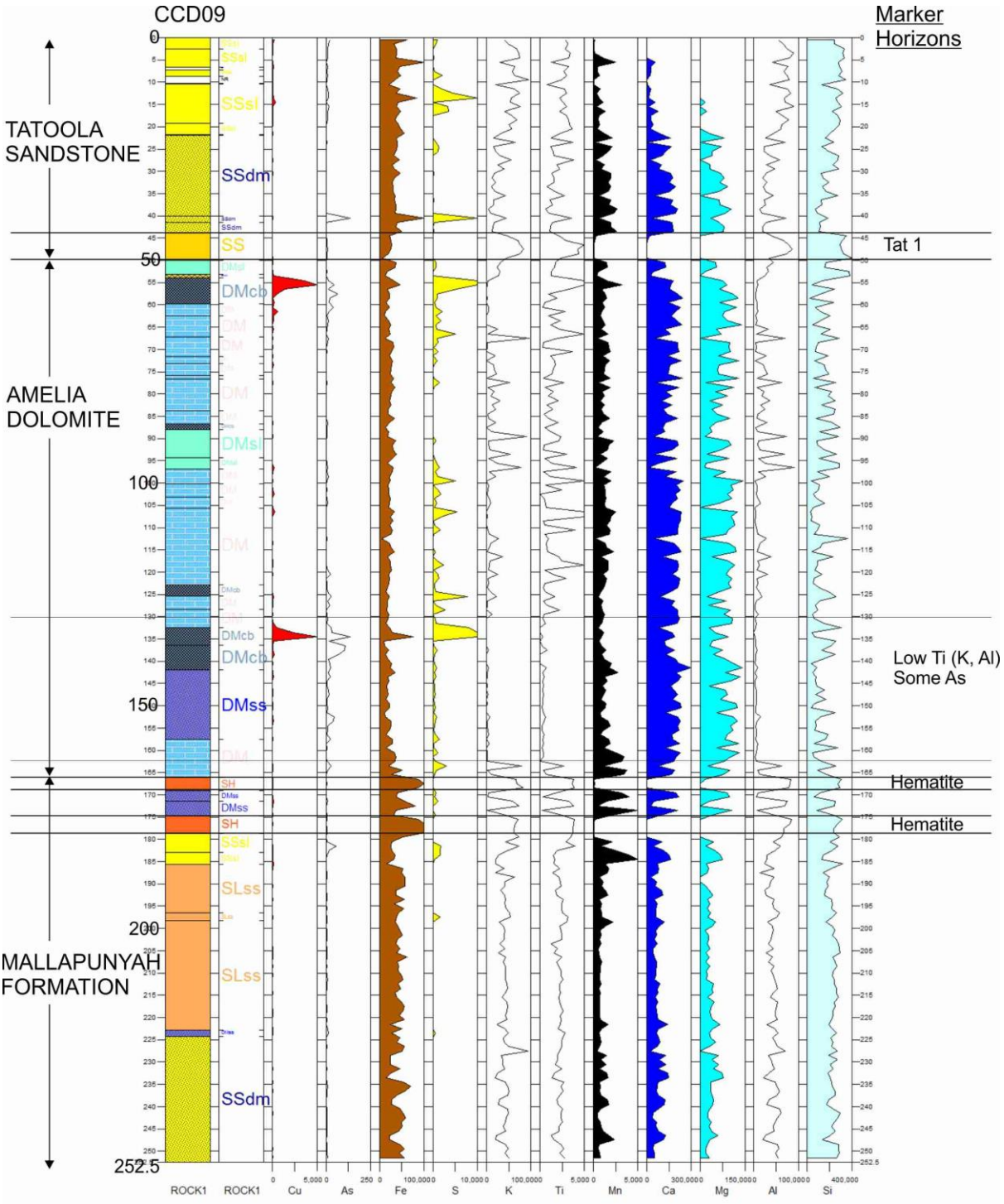

Figure 6: Coppermine Creek Prospect – Summary log and pXRF geochemistry CCD09

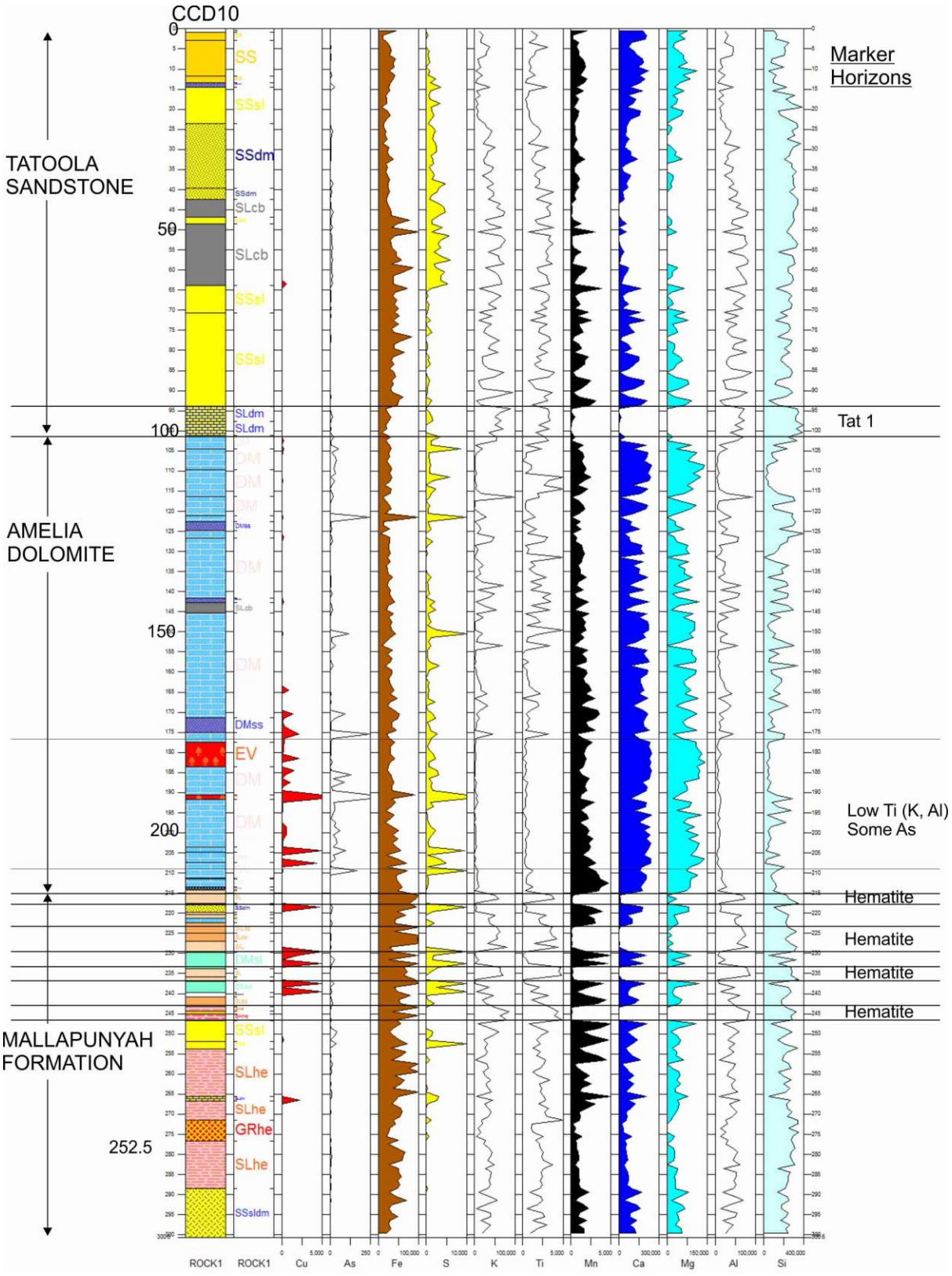

Figure 7: Coppermine Creek Prospect – Summary log and pXRF geochemistry CCD10

Mariner (zinc-lead-silver)

Mariner

Two diamond drill holes, MND05 and MND06, were completed at the Mariner prospect.

MND05 passed from Roper Group sediments, through a fault breccia zone, and into moderately fractured dolomite interpreted as being part of the Mara Formation. The fractures were often oxidised and contained limonite and cerussite (lead carbonate).

MND06 drilled through a sequence of black carbonaceous, very pyritic shale and dolomite to 204m depth where the hole passed into coarse sandstone and grits. The carbonaceous black shales in MND06 fit stratigraphically to be part of the Barney Creek Formation, lying beneath the Roper Group sediments, and above a dolomite that could be regarded as the Mara or Teena Dolomite.

The combination lead mineralisation in MND05, and the Barney Creek Formation carbonaceous pyritic shale host rock in MND06 are strong indications of potential for significant zinc mineralisation in the Mariner prospect area.

Hole No	From (m)	To (m)	Length (m)	Anomalous geochemistry	
MND05	106	112	6	502ppm Pb	Thin fractures in dolomite mineralised with cerussite
MND06	190	196	6	312ppm Cu	Pyritic black shale with minor chalcopyrite veinlets

Table 2: Summary of analyses of anomalous geochemistry from diamond drill holes MND05 and MND06 at Coppermine Creek

BHP Exploration Ltd previously had the similar concept of Barney Creek Formation concealed by the Roper Group and drilled diamond holes at Mariner North - McA06, and beneath the Roper Group north of Coppermine Creek – McA15. Both drill holes were abandoned and did not get through the Roper Formation.

The Barney Creek Formation is host to the world class McArthur River zinc-lead deposit and therefore of potential for the discovery of further zinc-lead deposits. It has never been previously recognised or mapped in the Mariner prospect area. A growth fault is indicated by the coarse sandstone unit which is only developed on the western side of the fault intersected in MND05 (figures 9 and 10). Also the observed lead mineralisation in MND05, supported by the geochemistry in Table 2, supports the prospectivity of this Barney Creek Formation sub-basin, that could extend to the north of the Mariner Prospect beneath the younger Roper Formation.

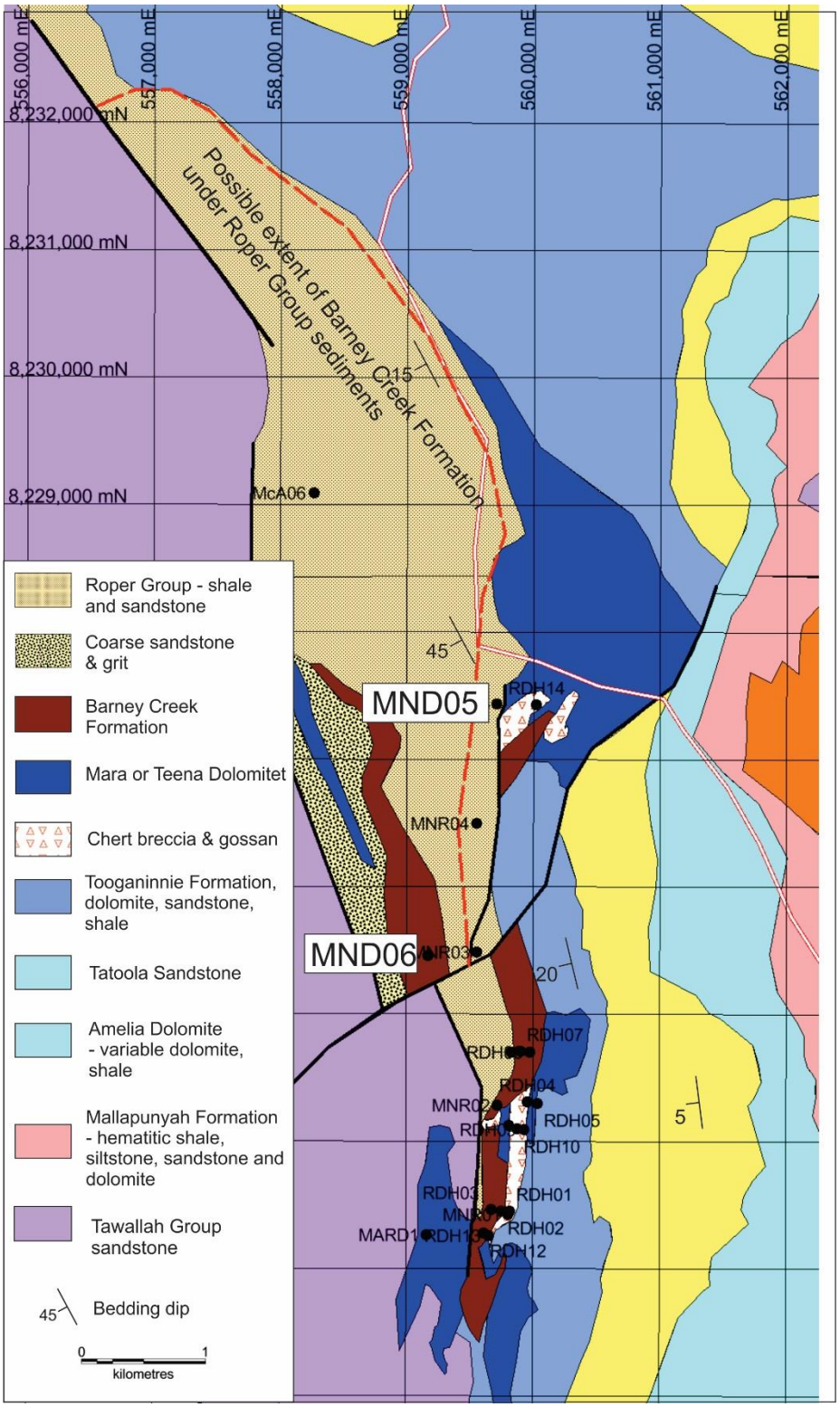

Figure 8: Mariner Prospect –interpreted geological plan showing diamond hole collars MND05 and MND06

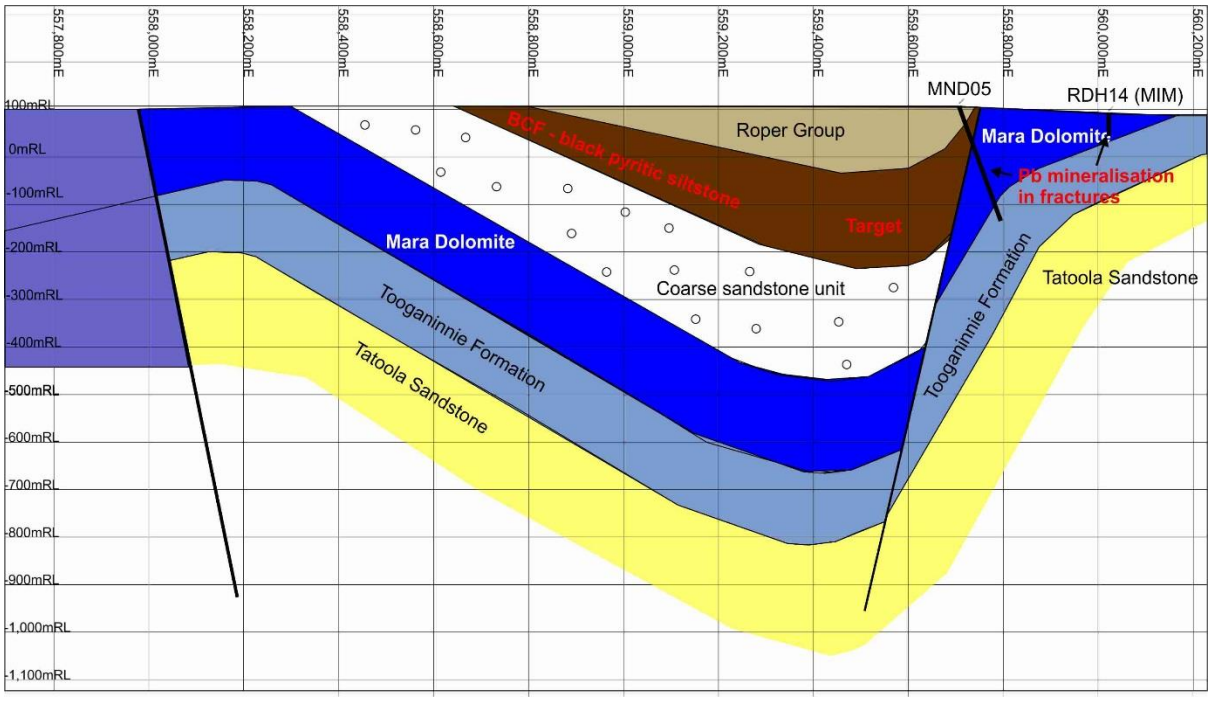

Figure 9: Section through diamond hole MND05 at Coppermine Creek, BCF = Barney Creek Formation

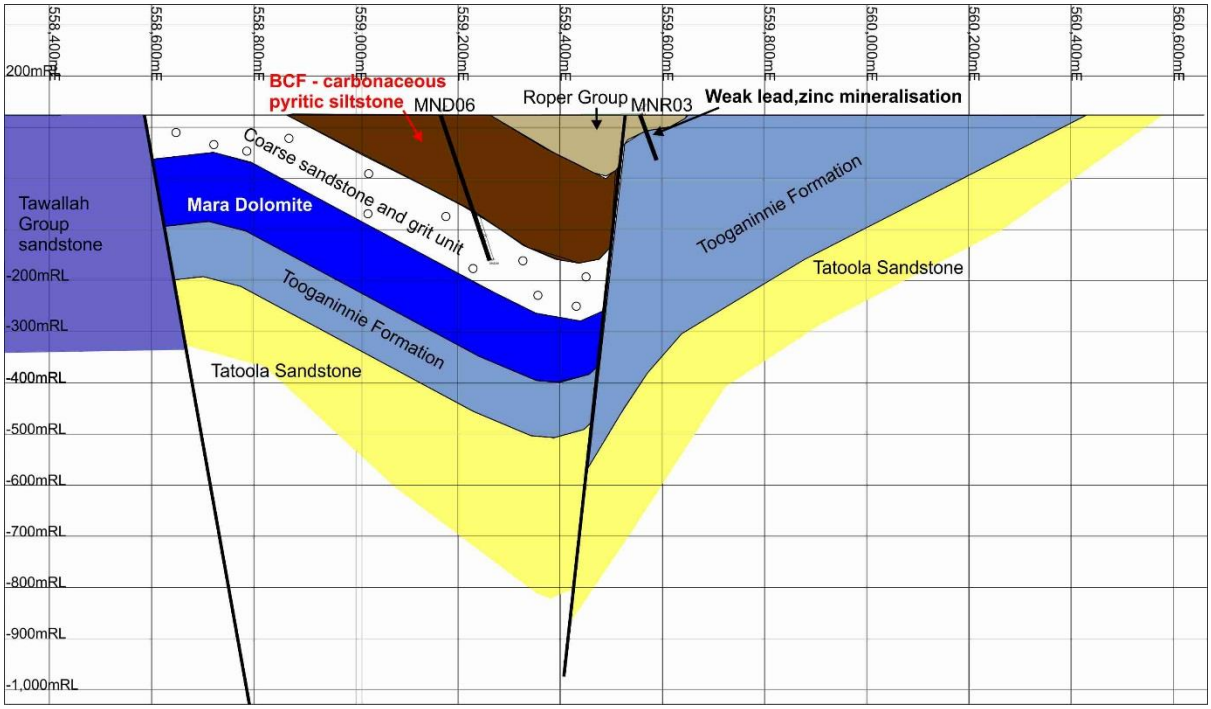

Figure 10: Section through diamond hole MND06 at Coppermine Creek, BCF = Barney Creek Formation

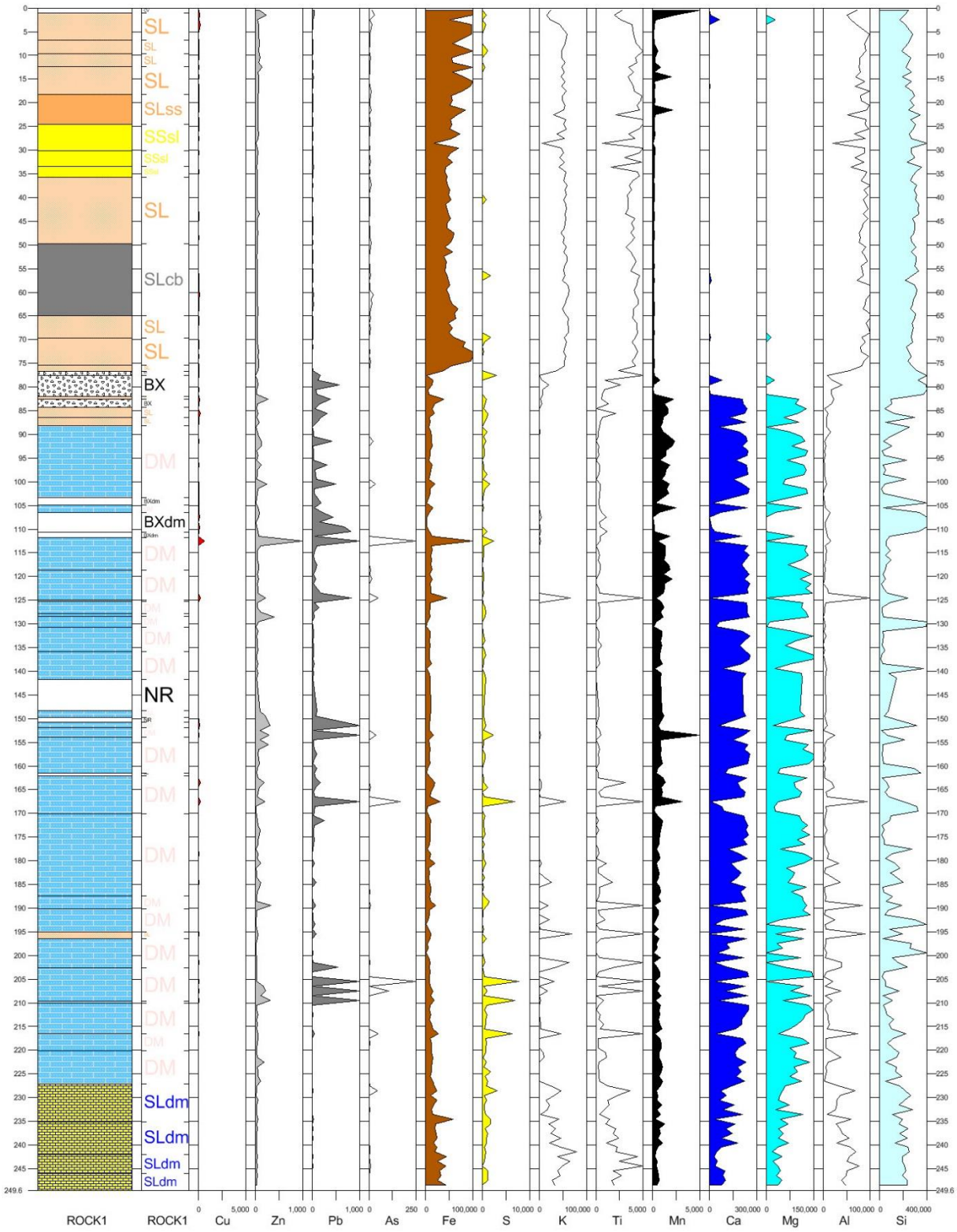

Figure 11: Mariner Prospect – Summary log and pXRF geochemistry MND05

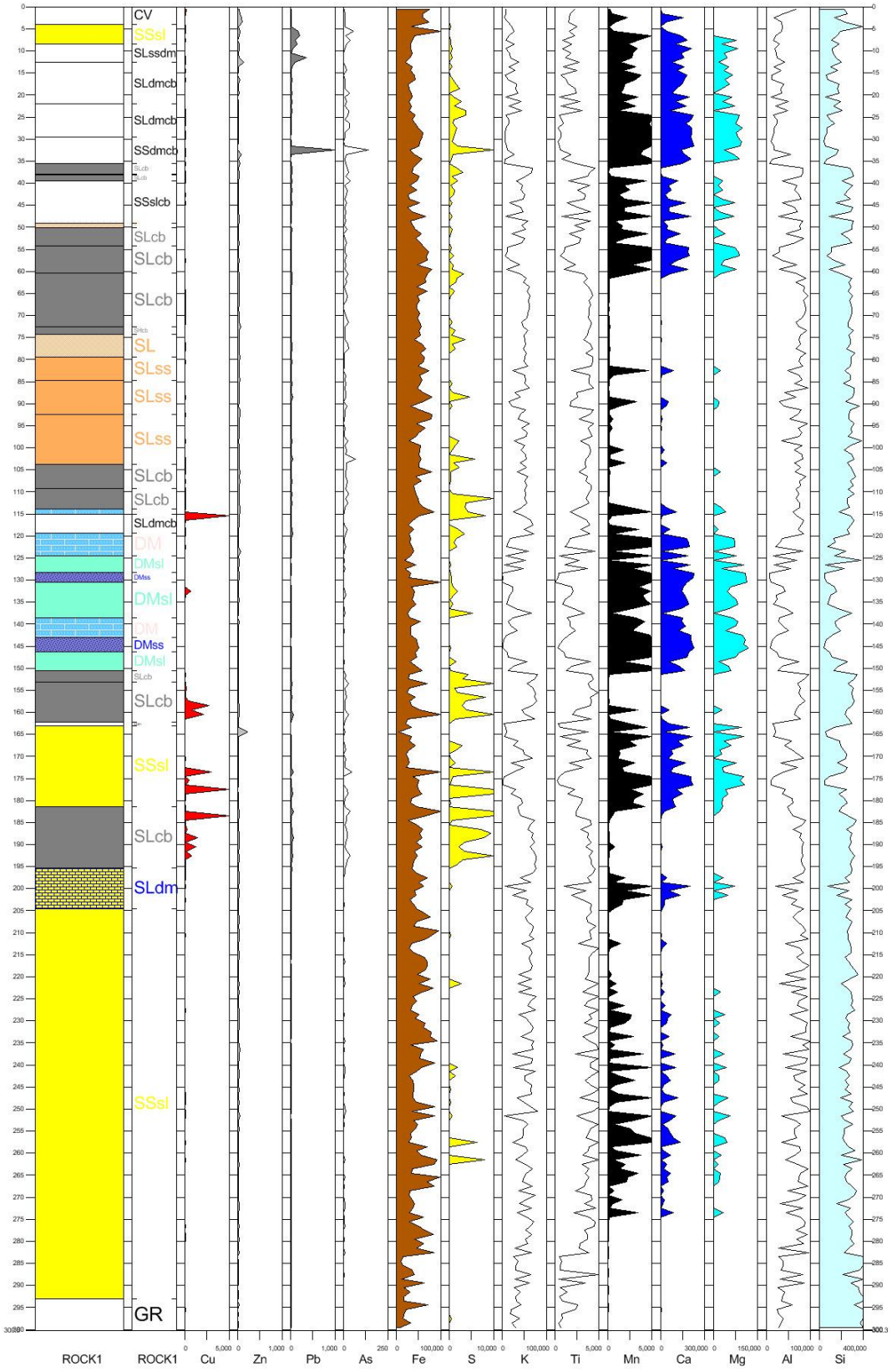

Figure 12: Mariner Prospect – Summary log and pXRF geochemistry MND06

Berjaya (zinc-lead-silver)

Berjaya lies in McArthur River Station and is covered by granted Native Title DCD2015/008 registered Native Title dated 26/11/2015. It is divided into 11 estates.

As a result of an Authority Certificate, applied for by MIM in 1993, a Restricted Works Area was put over Berjaya. The only condition on the Restricted Works Area is that we must consult with the TO before undertaking any significant work. There is a consensus that Ronnie Raggett speaks for that area. A site inspection was made with Nelson Raggett, son of Ronnie Raggett. David Pascoe was the Pacifico representative. Nelson Raggett agreed that the access tracks and drill site to be cleared did not interfere with any site of cultural significance.

An access agreement was made with the land owner Glencore with an understanding that Pacifico will rehabilitate all access roads and drill sites according to the provisions of the MMP. Discussions were held with the station manager David Daniells who advised on access and indicated that the program would not interfere with property activities.

The Berjaya Prospect lies west and northwest of the world class McArthur River zinc-lead mine and Teck's zinc-lead resource at the world class Teena deposit (Figure 4). The diamond drill hole was designed to test a Versatile Time Domain Electromagnetic ("VTEM") conductive horizon, that appears to correspond to the position of the overall gently dipping Barney Creek Formation beneath the Hot Springs Formation and therefore potentially Zn-Pb mineralised.

At 300.2m BJD04 was terminated without Pacifico's agreement by the drilling contractors Mitchell Services for commercial reasons (more lucrative contract elsewhere). The hole passed through probable Cretaceous sediments with coal fragments into the Hot Springs Formation. It was the intention to continue the hole, at least into the underlying Barney Creek Formation to provide stratigraphic control for any future drilling program. The hole however had passed through the projected VTEM conductive horizon. It is not recommended that the hole be continued.

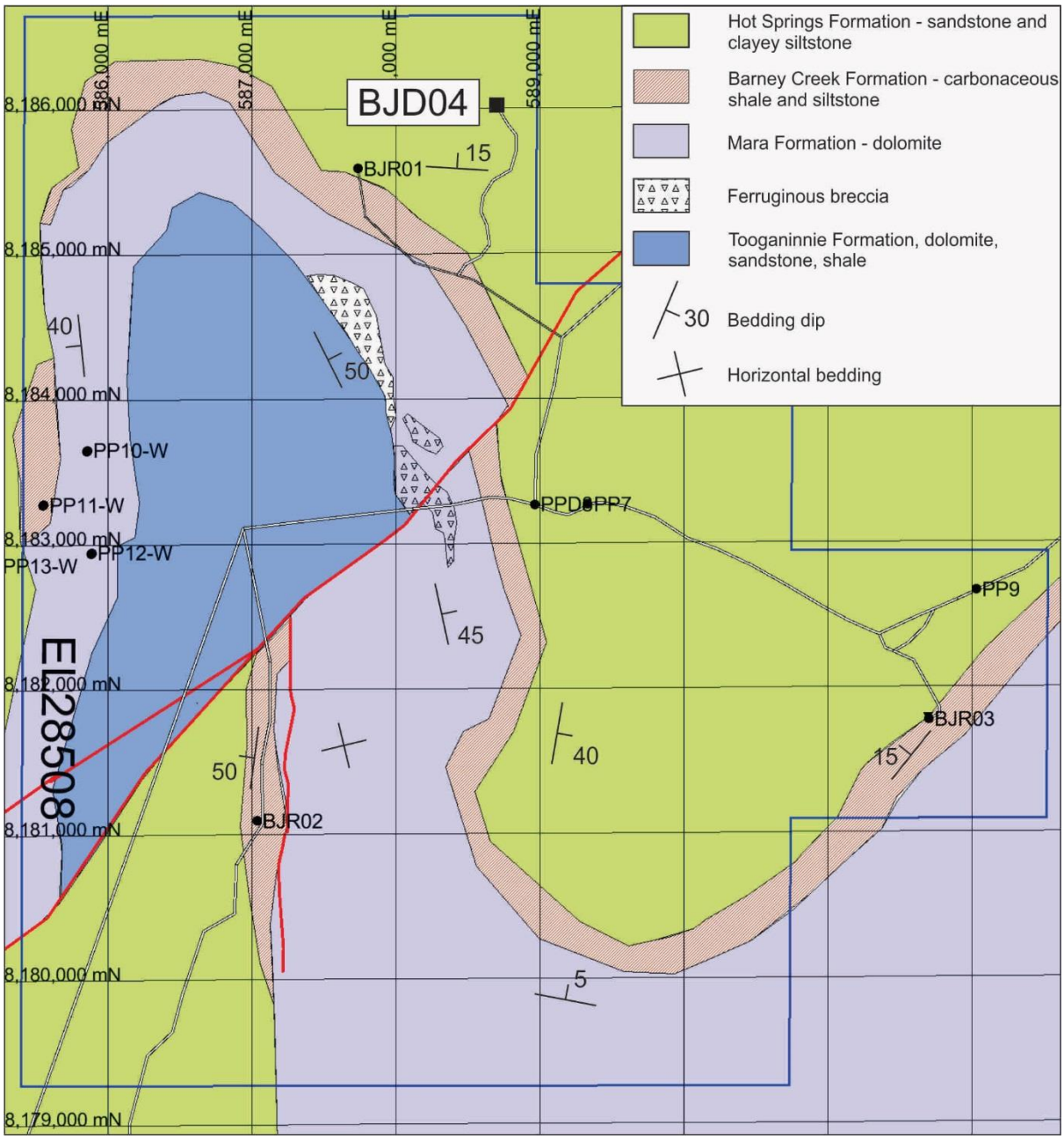

Figure 13: Berjaya EL28508 – Geology and location of diamond hole BJD04

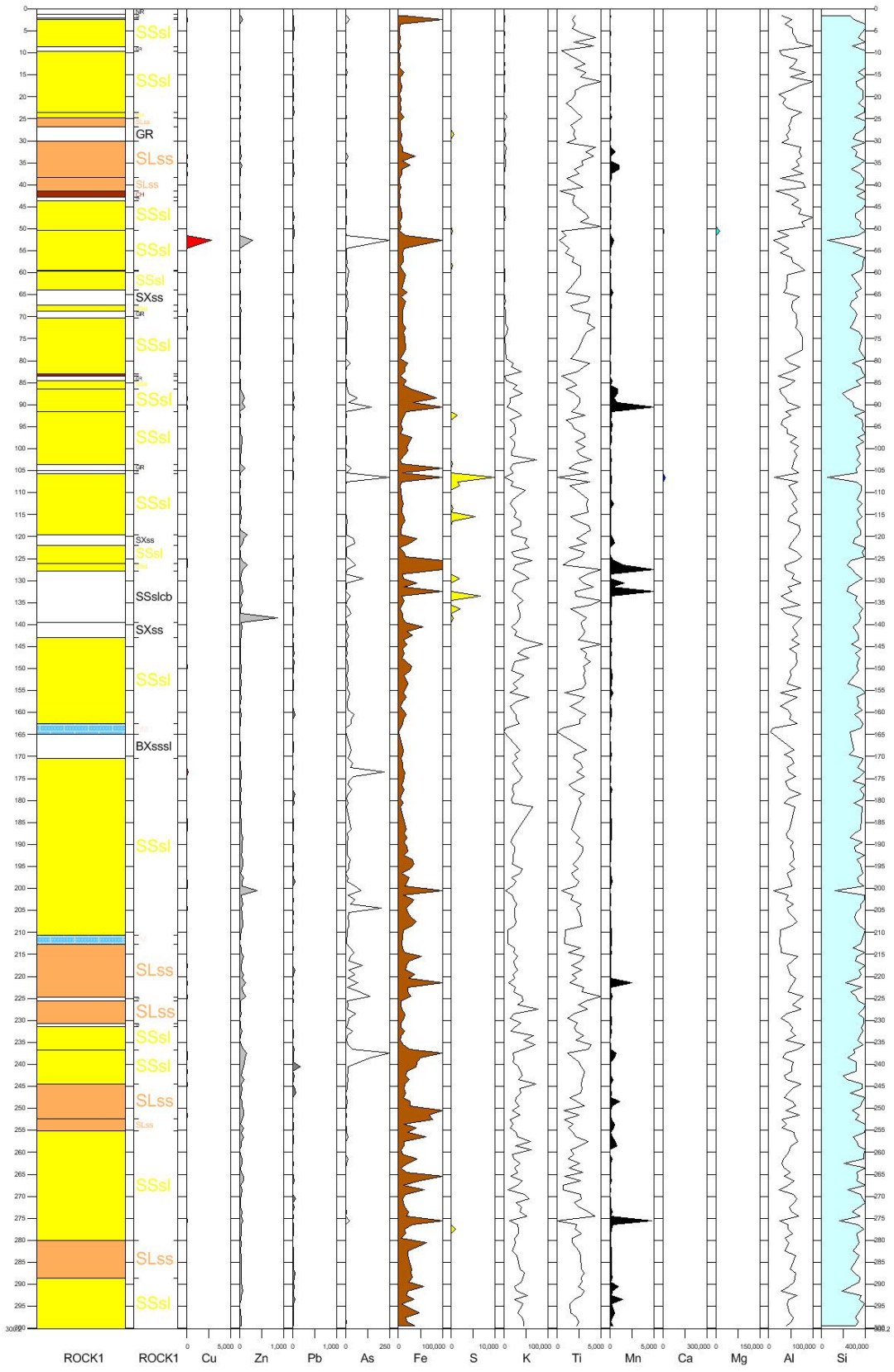

Figure 14: Berjaya Prospect – Summary log and pXRF geochemistry BJD04

Recommendations

It is regarded that the potential remains high at both Coppermine Creek and Mariner. Now that the stratigraphy defined better by the diamond drilling, there is a considerable area that can be meaningfully geologically mapped at surface, both stratigraphically and structurally. This information, together with rock chip geochemistry, should result in the development of RC and diamond drill targets.

Coppermine Creek –

- surface mapping over the prospective area of 30km2, identify structure and geochem that may lead to targets where ore grade thicknesses and grades of copper may be developed.
- Continue relogging (+pXRF) all the Sandfire core from Coppermine Creek (about 8 holes, now stored close to the project area at Leila Creek and easily accessible).
- Trial an IP survey over known mineralisation. There should be some detectable and clear response from the known copper mineralised areas of CCD09 and CCD10. IP could be then used to screen targets developed from the geological and geochemical work.

Mariner –

- surface mapping to define the potential area underlain by Barney Creek Formation pyritic black shales intersected in MND06. The Barney Creek Formation may lie beneath the Roper Group sediments which are semi-conformable and of which surface measurements should give an indication of structure and thickness. There are indications that the Tawallah Group rocks to the west, which apparently cut off the mineralisation, may be mis-mapped and that there could be extensions of the Barney Creek Formation in this direction.

For both prospects we are currently evaluating several methods, including pyrite and hydrocarbons as vectors to ore grade mineralisation. The existing geophysics will be reviewed to better understand the role of structure in controlling mineralisation and sediment thickness e.g. growth faults that may have led to thickening of key stratigraphic traps and been a focus for mineralising fluids.