

**Corona Minerals**

**Annual Report  
EL51/2008  
For Period  
16 December 2013 to  
15 December 2014**

**08/12/2014**

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## **List of Digital Files Accompanying this Report**

**EL512008\_20141208\_01 Text**

**EL512008\_20141208\_01 Appendix 1**

**EL512008\_20141208\_02 Appendix 2**

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## **1.0 INTRODUCTION**

EL51/2008 is located due south of Queenstown on the West Coast of Tasmania. The Eastern boundary abuts the Gordon Franklin National Park.

Corona Minerals Ltd (“Corona”) entered into a Joint Venture agreement (JV) with Pacifico Minerals Ltd (“Pacifico”) in July 2010 to explore EL51/2008, Corona has since earned 80% of the tenement and is the operator of the tenement. Pacifico has this year declined to commit funds to exploration and as such Corona is now increasing its interest in the tenement.

Significant Cu-Au-REE-magnetite (Ag-W-Mo) mineralisation was discovered at the South Darwin Prospect over the previous few years, but this has failed to generate enough investor interest to help Corona raise funds. As such Corona changed its principle exploration target this year to test the Garfield copper-gold mineralisation with some proof of concept drilling to test the potential for a near surface resource. Although assays have not been received from the drilling, as the holes have just been completed at the time of writing, visual inspection is promising and mineralisation was extended 100m to the north of GAR003 and 140m down dip of GAR003, indicating a mineralised package of at least 370m long by 300m deep by 30m wide (at a nominal cut off of 0.4% Cu) for roughly 0.8% CuEq.

## **2.0 TENURE**

EL51/2008 encompasses 130km<sup>2</sup>. Tenure is composed of Crown Land, State Forrest, Regional Reserve, Hydro Tasmania Land.

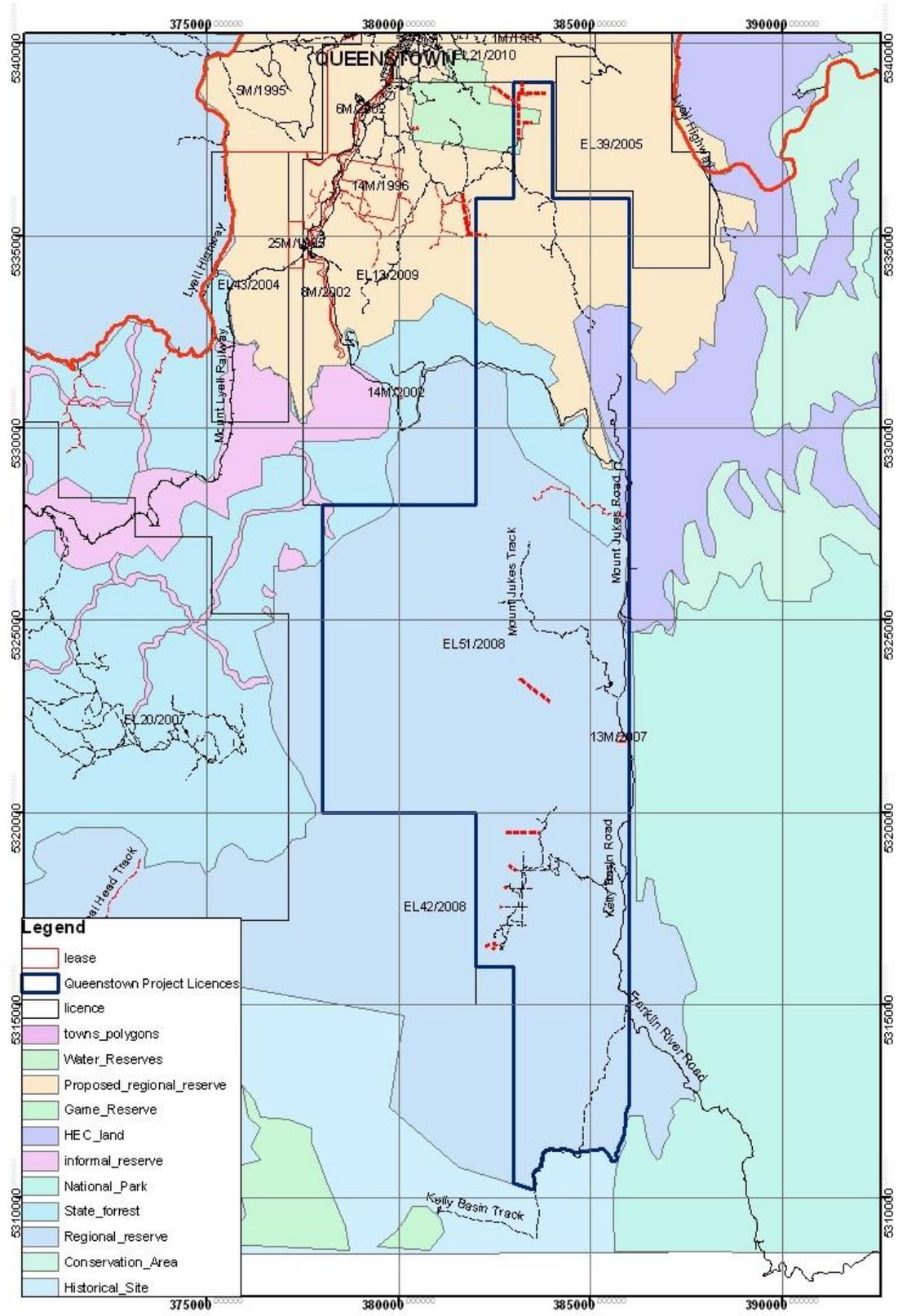


FIGURE 1: TENURE

### **3.0 ACCESS**

Access within the tenement is good. Main access is roughly North-South bituminised Lynchford Road heading out of South Queenstown with numerous gravel tracks running east into the tenement, and a bituminised Hydro Tasmania road that runs south throughout the tenement. Corona has recently upgraded the South Darwin plateau track for access into the South Darwin Prospect. Access into the Garfield Prospect is either by helicopter or by a rough walking track for approximately 8km.

### **4.0 GEOLOGY**

The oldest rocks on the tenement are the Miners Ridge basalt and the Miners Ridge Sandstone, reputed to be of late Proterozoic or early Cambrian age, and are exposed in the core of a major anticline.

The mid-late Cambrian Mount Read Volcanics (MRV) dominate the tenement. The volcanic succession is composed of Central Volcanic Complex (CVC) rhyolites, Western Volcano Sedimentary (WVS) volcanoclastic and epiclastic sequences, and Tyndal group volcanoclastic sequences. The WVS sequence is host to several andesite-basalt units which appear to be contemporaneous with mineralisation throughout the MRV.

Ordovician aged Owen group siliciclastic conglomerates and sandstones are found throughout the tenement, and a thin unit of Gordon Limestone is found in the east.

Silurian aged Eldon group shales sandstones and minor conglomerates are found in the east of the tenement. A more comprehensive geological overview can be located amongst other places in Hughes (2009).

### **5.0 MINERALISATION**

Ninety four historical prospects are known within the tenement, the majority are copper-gold workings within the MRV, spatially associated with the CVC-Tyndal contact. Several styles of mineralisation are thought to be present, including Prince Lyell analogues at the Garfield Prospect, structurally controlled gold mineralisation at the Norms Load prospect, carbonate or black shale hosted strataform zinc mineralisation at the Pearls Find prospect, including others. Mineralisation within the South Darwin Prospect is associated with magnetite breccias, the provenance of which appears to be related to the emplacement of the Cambrian aged Darwin Granite suite, with similarities between this and Prince Lyell/ Garfield.

### **6.0 STRUCTURE**

Predominant structure has a north west orientation. Several phases of folding starting in the late Cambrian, throughout the Ordovician and during the Devonian Tabberaberan orogeny have created complex structural relationships. It is thought a major NNE structure which Corona have termed the "Darwin Fault" runs through the South Darwin Prospect, and into the East Darwin Prospect. A series of NE-NNE trending "arc normal" faults are evident throughout the tenement, including at the Garfield Prospect and are possibly important for mineralisation.

### **7.0 EXPLORATION PHILOSOPHY**

EL51/2008 was targeted for VHMS and related mineralisation, with a focus on copper-gold mineralisation analogous to the Mt Lyell field.

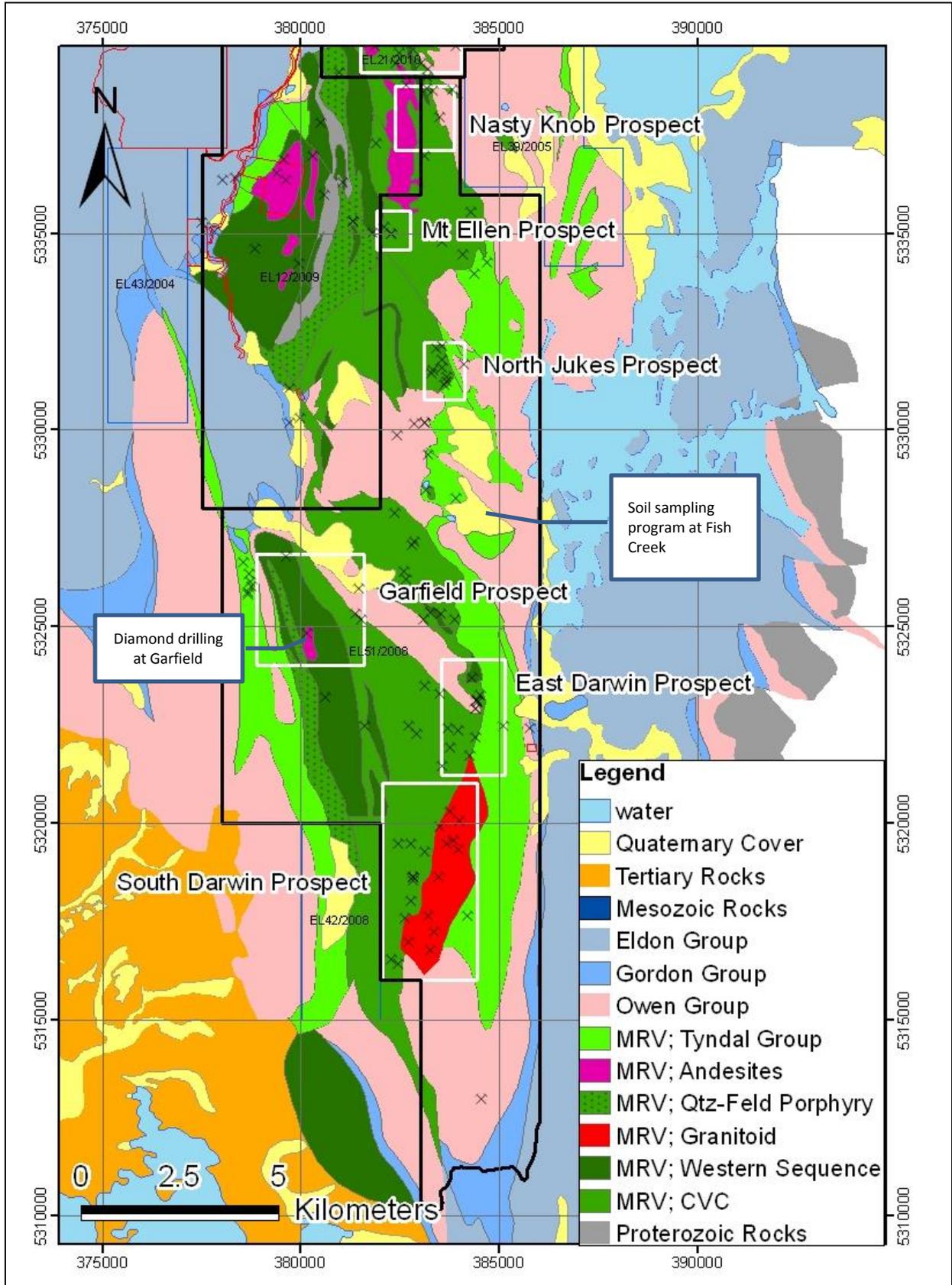


FIGURE 2: 1:250,000 GEOLOGY OF THE QUEENSTOWN PROJECT

## 8.0 EXPLORATION HISTORY.

For a comprehensive summary of past exploration prior to Coronas involvement, visit Hughes (2009).

## 9.0 WORK COMPLETED BY CORONA MINERALS

The principle exploration activity within EL51/2008 has been a helicopter supported diamond drilling program at the Garfield Prospect. A report on this work is detailed in section 9.2. In addition to this a soil survey was completed at the Fish Creek Prospect (East of Mt Jukes) targeting a subtle coincident VTEM signature and magnetic bullseye (detailed in section 9.3).

### 9.1 Summary of work done by Corona up to the reporting period

**Table 1: Summary of work done by Corona up to the reporting period**

Period	Relevant Report	Major Activities	Results Summary
2009-2010	Hughes, CED. 2010	VTEM/mag Survey	Series of VTEM anomalies in Linda Valley/Comstock Valley. Strong magnetic bodies identified on South Darwin Plateau.
2010-2011	Hughes, CED. 2011	VTEM/mag modeling, preparing ground access to South Darwin Prospect, establish camp, begin helicopter drilling Prince Darwin Zone.	Large mag body associated with historical Prince Darwin adit, termed Prince Darwin Zone. Helicopter drilling intersects large zone of copper-pyrite-magnetite mineralization in SDD001.
2011-2012	Hughes, CED. 2012	Diamond Drilling at the South Darwin Prospect, Aircore Drilling at the Pearls Find Prospect.	Discovery of significant copper-gold mineralization associated with a magnetite breccia, minor BMS intersected within black shales/clays and sandstones
2012-2013	Hughes, CED. 2013	Diamond Drilling at the South Darwin Prospect, with prospect wide mapping and sampling.	Higher grade copper-gold mineralization (13m @ 1.2% Cu, 0.5 g/t Au) intercepted and also significant TREO mineralization intercepted, along with tungsten and molybdenum. Mapping, lithochem and REE work points to the Darwin Granodiorite as a potential source for mineralising fluids. It is unclear where the high levels of REE have come from (17% in a rockchip), as it seems unlikely they would be generated from a high K calc alkaline granitoid.

### 9.1 Diamond Drilling Program at Garfield Prospect

Plans and sections are presented in Appendices 1 and 2 respectively, drillhole data are recorded in appendices 3, 4 and 5.

The Garfield Prospect area was originally targeted for VHMS and associated mineralisation by BHP in the late 1980's and the discovery of mineralisation was made by RGC in 1994 (Halley et al. 1994) upon discovering outcropping disseminated and vein pyrite chalcopyrite in an andesite unit and subsequently drilling this. RGC conducted several phases of exploration including ground based

geophysics, extensive and comprehensive soil geochemistry and 3 helicopter supported diamond drilling programs which resulted in the definition of a broad area of low tenor copper gold mineralisation. Sulphur, Oxygen, Carbonate and Neodymium Isotope work by Halley in 1996 (Halley et al. 1996) showed a strong similarity between the mineralisation style at Garfield and that seen within the Prince Lyell deposit on the Mt Lyell field. Newcrest drilled a deep hole in 2006 roughly 250m south of the southernmost extent of known mineralisation (GAR002) which intercepted the potential horizon at about 400m below surface with little alteration and an absence of the andesite package. Corona logged all Garfield core using an ASD machine to generate hyperspectral data in 2013 which has showed a white mica and chlorite zonation identical to that seen at Prince Lyell (Hughes, 2013).

Corona applied the exploration philosophy that a higher grade core to the Garfield mineralisation exists (roughly 30m thick grading 0.8% CuEq), that the mineralisation is near surface and outcrops in places which means there is possibly significant tonnage available in the already defined mineralised area, that the host andesite unit is mapped a further 1.5km to the north of previous drilling and associated with IP anomalism and recorded chlorite-sericite-pyrite alteration, that there is a sealed road and a powerstation within 10km of the prospect and a mill designed to treat this style of ore within 20km.

As such Edrill Pty Ltd was contracted to carry out two helicopter supported diamond drill holes utilising an LF70 at the Garfield Prospect for a total of 532m, which commenced and mobilised on the 5<sup>th</sup> of November and finished and demobilised on the 30<sup>th</sup> of November. Corona flew a camp from Darwin to Garfield to service the program, breaking down the existing Garfield camp (which was in an unusable state) and utilising the same area. Corona reused the old GAR003 drillpad for the drilling to reduce the environmental footprint. The objective of the "Proof of Concept" program was to extend potentially economic mineralisation to the north of GAR003 and at depth below GAR003, with a view to proving the potential to host near surface mineralisation that might be amenable to open cut mining methods and to provide material upon which to conduct metallurgical testwork.

Drillcore is still being processed and will be dispatched to Genalysis Adelaide upon completion, for analysis of Cu and Au by three acid digest with an ICP/OES finish.

Visual observations of core indicate mineralisation has been extended 100m north of hole GAR003 and 140m below it, which has resulted in an area of ~370m long by ~300m deep by ~30m wide being defined as containing potentially economic mineralisation. Extensions of this body to the north, to the south and at depth are still possible.

Alteration and lithologies are similar to that reported by Halley (1996), whereby disseminations, veins and stockworks of pyrite-chalcopyrite mineralisation is hosted within a package of quartz phytic volcanoclastic and coherent rhyolites and feldspar and hornblende phytic coherent andesite with possible minor volcanoclastic units that dip to the west. Alteration is partially controlled by lithology, but strong pervasive chlorite alteration accompanies mineralisation in the andesite with moderate carbonate veining, where by calcite veining accompanies the better grade mineralisation and ankerite-siderite is found in the footwall and hangingwall of the alteration. Pervasive strong sil-ser-pyr alteration is seen in the footwall and the hangingwall of the mineralisation. Veins of fluorite-apatite are seen accompanying the mineralisation and magnetite hematite is also seen associated with mineralisation, although there isn't enough drilling to determine if there is a mag-hem zonation yet. Tourmaline has potentially been identified as an alteration phase in the hangingwall of the mineralisation, but need petrology to corroborate this observation. Various species of white mica are visually evident within the core. Contrary to RGC's interpretation lithology appears to be dipping at roughly 45 degrees to the WSW in the vicinity of the Corona drilling, with foliation at 60 deg to the

WSW sulphides appear to be aligned with foliation but trending with lithology, i.e. dipping at 45 degrees. This needs further work to be proven but if accurate could have a significant positive impact on open cut potential. The mineralised package appears to be 50% thicker in hole GPD002 than in GAR003 which is encouraging. The presence of a small massive sulphide zone in the stratigraphic hangingwall is encouraging, petrology is needed to ascertain whether this is related to VHMS mineralisation.

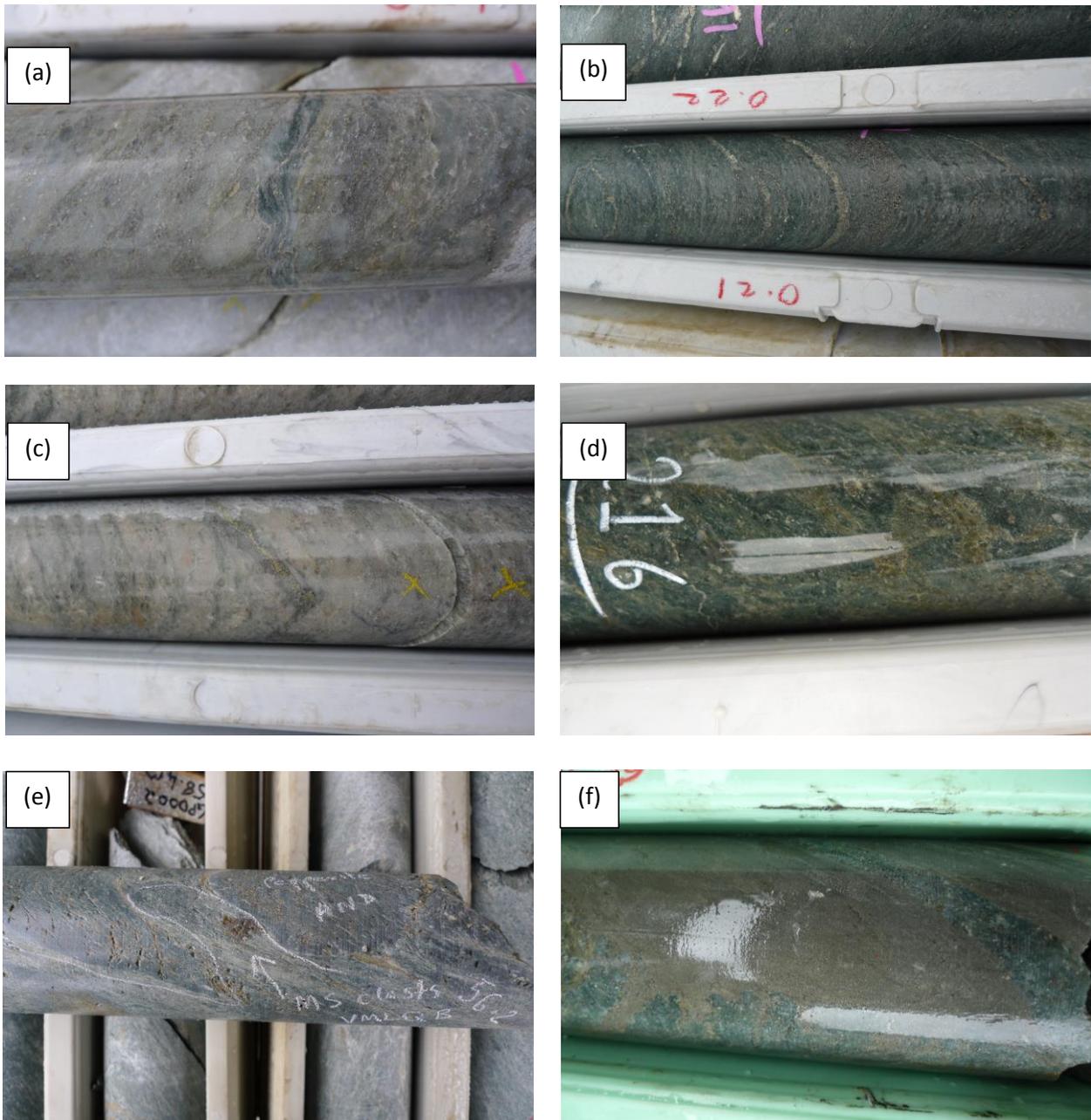


Plate 1: Examples of Lithologies intersected in drilling at Garfield by Corona

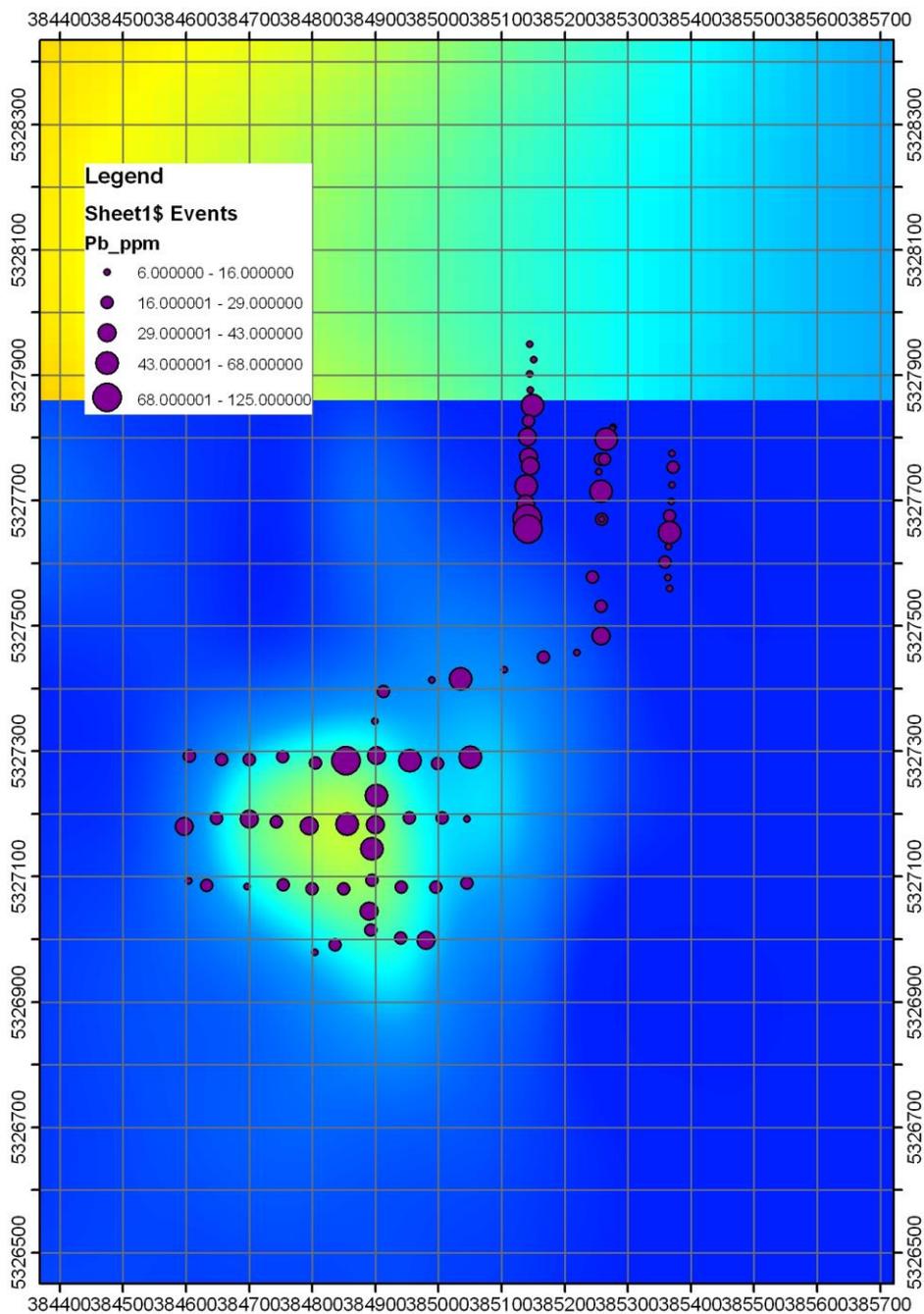
Clockwise from top left (a): GPD001-85m, hangingwall silica sericite pyrite alteration, (b): GPD001-160m, main host unit Mineralised andesite, (c):GPD001-183m, footwall silica sericite pyrite alteration, (d) GPD001- 216m, footwall unit mildly altered non sulphidic quartz-?biotite porphyry (possible clastic texture), (e) GPD002-56m, sulphide ?clasts in quartz-feldspar lithic volcanoclastic breccia with possible pepperitic textures, (f): GPD002-121, minor massive sulphide zone in intensely chloritised quartz rich ?volcanoclastic sandstone

**Table 2: South Darwin Prospect Summary Diamond Drill hole details**

Hole No.	Easting	Northing	Dip	GDA Azi.	Max Depth	From, m	To, m	Width, m	Grade
GPD001	380081	5324974	50	20	224.5	TBA	TBA	TBA	TBA
GPD002	380082	5324973	84	65	308.8	TBA	TBA	TBA	TBA

**9.1 Soil Sampling Program at Fish Creek**

A grid was established at Fish creek in order to take c-horizon soil samples over a coincident low tenor VTEM feature and a bullseye magnetic anomaly. The location of Fish Creek is east of the Lake Jukes mining camp and can be seen on Figure 2. Low order anomalism has been recorded at the contact between Owen Group conglomerates and a quartz rich chloritic volcanoclastic unit belonging to probable lower Tyndal group. Cu-Pb-Ca-S-P anomalism is recorded in the position and is open to the north (Appendix 5 for surface geochem data). Although interesting, the tenor of the anomalism is very low and some efforts were made to ascertain the validity of the geochem data (Appendix 7). Minor amount of rockchips were taken in other locations.



**FIGURE 3: PLAN SHOWING SOIL SAMPLING AT FISH CREEK.**

## 10.0 DISCUSSION/CONCLUSION

Although assays have not been received the visual inspection of the core at Garfield is promising. Mineralisation styles appears consistent with previous drilling although a persistent Zn-Pb horizon, remobilised MS clasts and a narrow MS interval perhaps need some attention with a view to a possible massive sulphide horizon in the near vicinity to the west of drilling.

## 11.0 ENVIRONMENT.

A pre-existing drill pad (for GAR003) was re cleared to accommodate 2 diamond drill holes. The old RGC camp which was left by previous explorers was dismantled as it was no longer in serviceable condition. The shed has been packaged up ready for helicopter transport. Corona has conducted this work at its own expense so far. The site that accommodated the RG camp has been reused by corona. Corona has gone to every effort to minimise its environmental footprint in the exploration program this year.

## 12.0 EXPENDITURE

**Table 3: Expenditure**

ITEM	Cost	
Drilling	\$120,116	Diamond drilling
Helicopter	\$53,666	In support of diamond drilling
Salaries & Wages	\$76,093	
Geophysics	\$1,315	
Geochemistry	\$1,209	
Field Expenses	\$27,509	Accommodation, vehicles, consumables, travel, etc.
Tenement Costs	\$8,409	
Freight	\$1,379	
Core storage	\$6,561	
Track Cutting	\$27,990	
<b>Sub Total</b>	<b>\$324,247</b>	
Administration 10%	\$32,424	
<b>TOTAL</b>	<b>\$356,671</b>	

## 13.0 REFERENCES

Halley, S.W, Vicary, M.J, Corlett, S.J, Wyman, B. 1996. Annual Report Tasmanian Base metals, EL's 102/87, 55/89, 12/92, Queenstown, Mt Darwin, Queenstown South. Unpublished Report for RGC Exploration Proprietary Limited, BHP Minerals Limited. (MRT Report 96-3834).

Hughes, C. E. D., 2009. Mt Jukes Project, EL51/2008. Annual report for period 16 December 2008 to 15 December 2009. Annual technical report for Pacifico Minerals Ltd.

Hughes, C. E. D., 2010. Mt Jukes Project, EL51/2008. Annual report for period 16 December 2009 to 15 December 2010. Annual technical report for Corona Minerals Ltd.

Hughes, C. E. D., 2011. Mt Jukes Project, EL51/2008. Annual report for period 16 December 2010 to 15 December 2011. Annual technical report for Pacifico Minerals Ltd.

**EL512008\_20141208\_01 Appendix 1**  
**Garfield Drilling Plan**

**EL512008\_20141208\_02 Appendix 2**  
**Garfield Cross section**

**EL512008\_20141208\_03 Appendix 3**  
**Drilling Collars**

**EL512008\_20141208\_04 Appendix 4**  
**Drilling Surveys**

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**Drilling Log**

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