



**Moonraker Minerals Pty Ltd**  
**(a wholly owned subsidiary of RMG Ltd)**

**2012 Exploration Activity Report**

**McLean's Creek**  
**EL 17/2003 and 20M/2001**

**July 2012**

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## **1 Location Access and Tenements**

EL 17/2003 is located (approx -41.9038 lat, 145.313 long) approximately three kilometres southwest of the west coast mining township of Zeehan. Access to the initial prospects of interest is from the northeast via the Spray Tunnel and tramway, or from the north, via the Comstock mine site and thence via the Britannia or Swansea Tramways. The tramways have a generally well-compacted surface suitable for 4WD during the wet winter months or two-wheel drive during drier periods. 20M/2001 (Sunshine) is located within EL17/2003.

The topography provides varied foot access, ranging from gently to moderately sloping, fairly open, button grass covered ground to, heavily forested gullies and incised steep hill slopes (inaccessible by foot) with relief of three to five hundred metres. The annual rainfall in the area is usually heavy – up to 2.5m, with most falling in the winter months. Outcrop over both open ground and hill slopes is generally sparse; however tramway cuttings provide excellent rock exposures.

All map co-ordinates in this report are relative to the GDA94 datum and located in UTM Zone 55 and use MGA94 co-ordinates.

## **2 Regional Geology**

The main features of the regional geology are a large granite dome which intruded a sequence of Proterozoic and Cambrian sedimentary rocks during Late Devonian times. The granite is known as the Mt Heemskirk Granite. Mt Agnew, a significant topographic feature within the Heemskirk Granite, rises to 848m, and lies 9km due west of the township of Zeehan.

The granite is a coarse grained tourmaline rich muscovite granite. Its outcrop is roughly oval in shape, elongated E-W, with the western portions extending to the west under the sea. The outcrop is 10km north to south and the granite is not homogeneous with several different variations able to be mapped. The intrusion shows chilled margins within 2m to 3m of the contact where it is a fine grained, white, aplitic granite. The main body of the intrusion is formed of a red granite but in some areas a white granite is present and tin mineralisation may be associated with the leuco-granite.

The Proterozoic rocks are mainly quartzite, micaceous quartzite, dolomites and black shale of the Oonah Formation. These rocks have undergone medium grade regional metamorphism and may also have been subjected to contact metamorphic effects close to the Heemskirk granite. In the south east and the south, rocks of Cambrian age are present. These are mostly sedimentary but also include some ultramafic bodies which are attracting attention as part of a new geological model for economic nickel deposits such as that being currently developed at Avebury to the west.

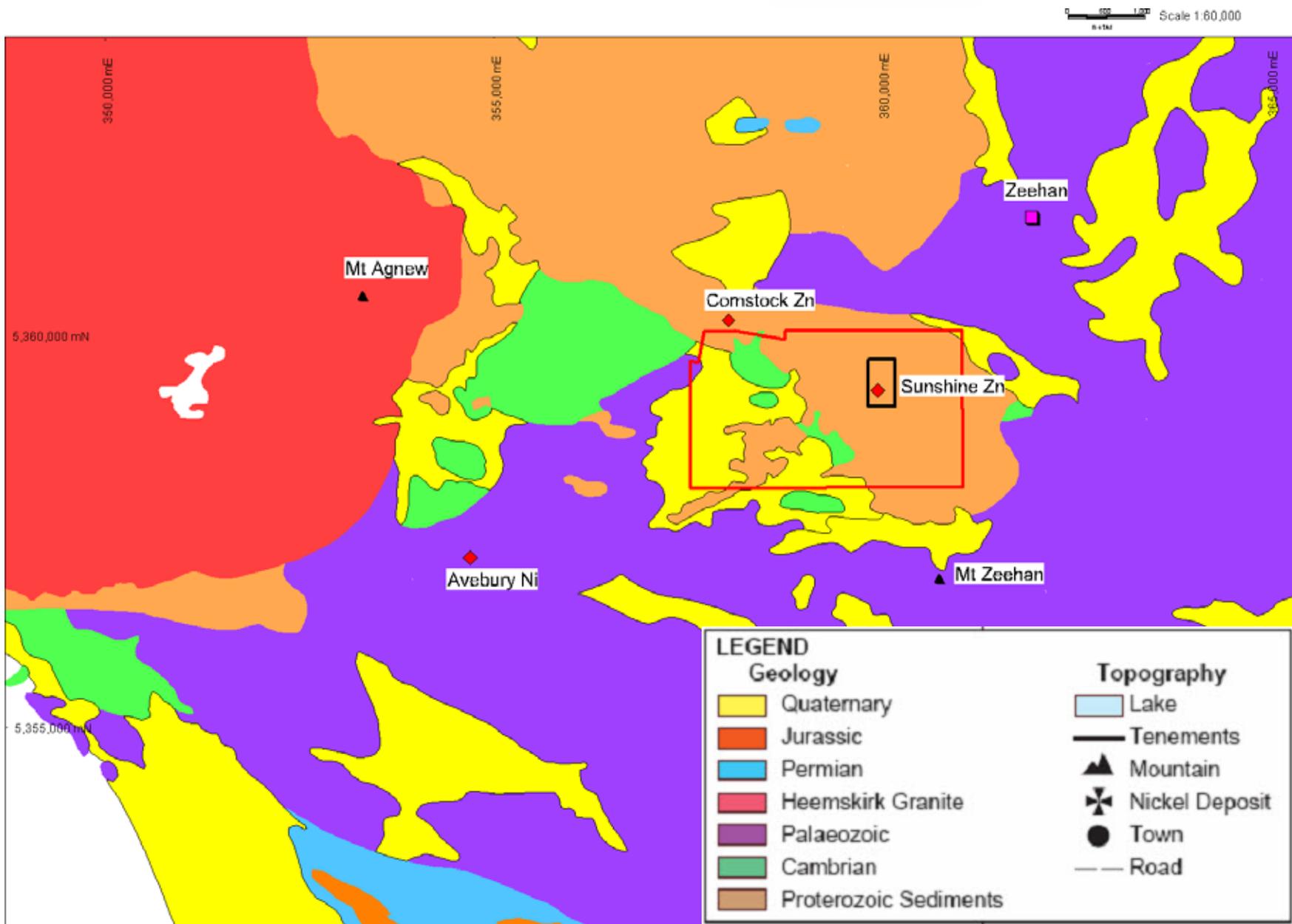


Figure 1 Regional geology and location of Licences



### **3 Local Geology**

The geology of the region covering the tenement is complex and is comprised principally of the Oonah and the Crimson Creek Formations. The Proterozoic Oonah Formation comprises quartzites, micaceous quartzites, siltstones, shales, graphitic shales and dolomitic units, and has been thrust over the younger Cambrian sediments of the Crimson Creek Formation (interbedded volcanoclastics, basalts, mudstones and shales) by the low angle Tenth Legion Thrust. Five sets of folds have been identified in the area (Upton 1996). The axes of the folds trend north-west with an inferred wavelength of approximately 2km. North trending and east trending faults transect the tenement, crenulation cleavage, with variable orientation, is visible in outcrops of phyllite and slate along several of the track cuttings. Fault trends (Devonian?) are generally west-northwest and north-northwest to north-northeast. The Devonian age Heemskirk Granite lies about 3 to 4km to the northwest of the EL and is gravity-inferred to underlie the project area at a depth of 1 to 2km.

### **4 Previous Exploration**

#### **4.1 Historical**

EL 17/2003 is located within the historical South Heemskirk Mineral Field. The general area has been the subject of exploration activity since the 1870s. It contains numerous old silver-lead-zinc fissure-load prospects most of which were worked in the period 1882-1910. The field was left largely untouched from 1919 until 1946 except for occasional, sporadic, relatively low-intensity exploration activity. During the 1980's and 1990s the Stonehenge area was targeted for stanniferous sulphide-rich carbonate replacement (Renison-Bell style) mineralisation by RGC and for Proterozoic shale-hosted zinc deposits by CRAE. CRAE entered a joint venture arrangement with Allegiance Mining NL during the 1990s; this work resulted in the discovery of the Avebury nickel deposit to the southwest. When CRA withdrew from the JV (and the State) in 1996, Allegiance gained title to the entire EL. Allegiance relinquished the eastern half of EL 28/88 and 7km<sup>2</sup> of it was taken up by the McDermott brothers, as EL 17/2003. McDermotts also applied for, and were granted, a Mining Lease over the Sunshine workings (ML20/2001). These holdings were subsequently sold to Stonehenge Metals Limited – in December 2006. Stonehenge Metals sold both licences to Moonraker Minerals Pty Ltd, a wholly owned subsidiary of RMG Ltd, in March 2012.

This Exploration Licence (EL17/2003) contains the Mining Lease (20M/2001) wholly within its boundaries so in describing the 33 prospects in this area those within the Mining Lease will not be identified separately and all will be described as being located within the Exploration Licence. The locations of the prospects are presented in Figure 2. The location information has been obtained from Mineral Resources Tasmania however the accuracy of the location information can be low.

The prospects and old mines have been put into two groups based on their location within the Exploration Licence. The groups are:

- TLE and Stonehenge group
- Tasmanian Mine group
- Swansea group

- Grubbs to Sunshine Line
- Sprays to Nubeena line

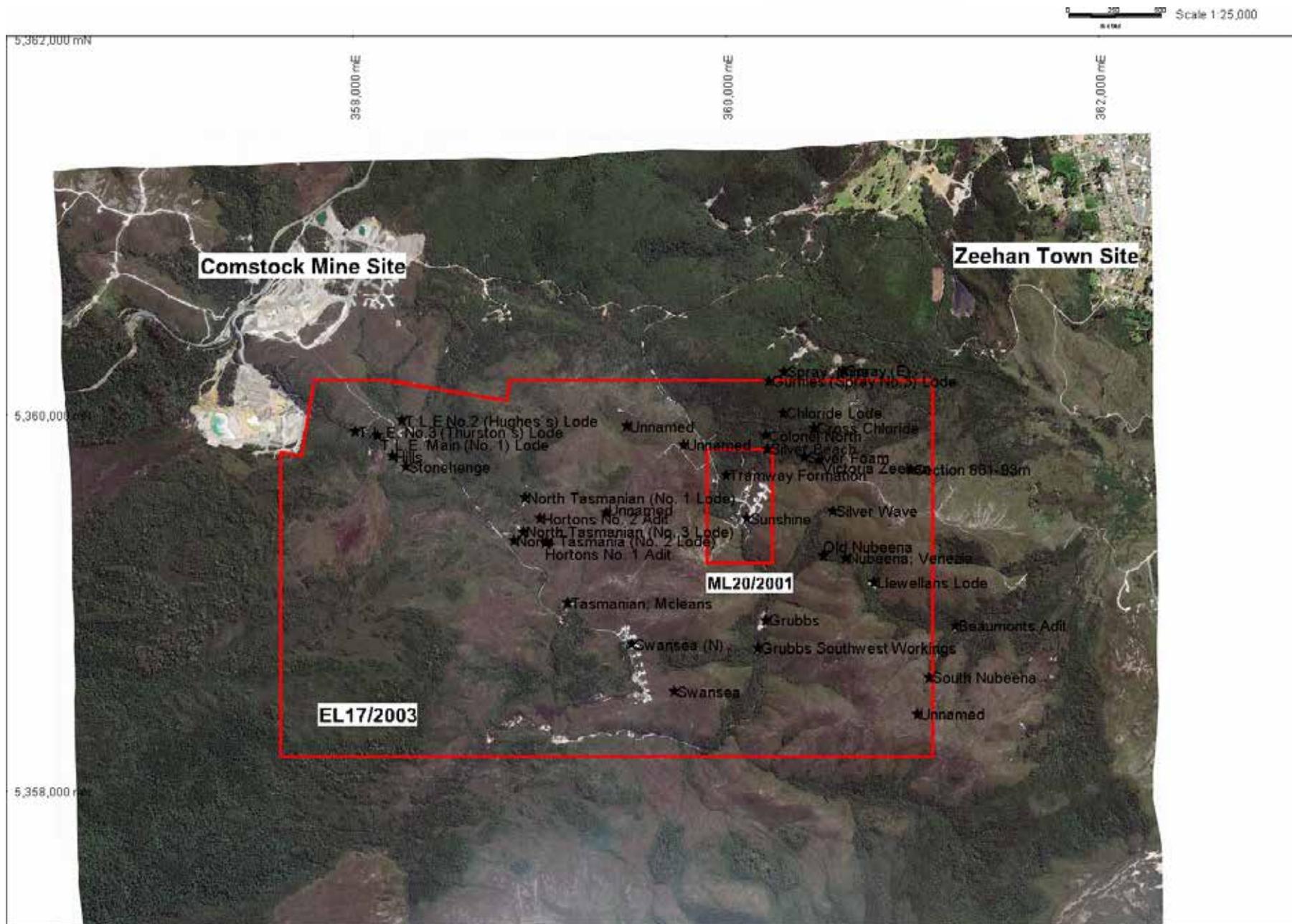


Figure 2 Historical zinc-lead prospects

These prospects were typically pegged and relinquished quite regularly, often with limited periods of production which will not be described in detail. In the early days it was the lead/silver ore that was sought after and the presence of the zinc mineral sphalerite incurred penalties. The ore had to be amenable to hand cobbing and hand sorting to produce a high grade product ready for smelting.

If the topography at a mine was suitable a drainage adit would be driven from the nearest low topographic point to remove water from the workings and enable extraction of ore above the adit. After this ore had been won it was necessary to sink a shaft below the water table and this was a problem during the 19<sup>th</sup> Century and the early days of the 20<sup>th</sup> Century. At a number of mines, shafts were sunk to 50m but efficient pumping equipment and the means of powering it were lacking and expensive so it was impossible or uneconomical for many to go deeper.

Exposure within the licence area is poor and selective. The limestones and shales, which drilling indicates are a major proportion of the stratigraphy, are rarely seen in outcrop. One of the features of the area is the presence of numerous outcrops of Precambrian Oonah Formation. Work during the 1990s has confirmed that these areas of Oonah rocks are bounded by sections of the 10<sup>th</sup> Legion Fault which is present as a low angle thrust. The older Precambrian rocks have been thrust over the younger rocks and subsequent weathering and erosion has removed much rock leaving isolated patches of Proterozoic rock resting on the Cambrian and Post-Cambrian succession in some places. These are known as klippe and these klippen rest on the fragmented thrust plane. Some of the larger klippe of Oonah Formation are reported to be up to 300m thick.

## **The TLE and Stonehenge group**

### **The T.L.E. Prospect**

This prospect (Tasmanian Land Exploration) is located on the northwest end of the line of lode in the northwest corner of the licence. The first lease on the property was taken out in 1888. The Main Lode (No.1.) strikes at 36° and dips 75° W with a shaft to about 34m. The No.2. Lode (67m east of No.1.) strikes at 34° and was found soon after and subsequently the No.3. Lode was found to the west of No.1. Lode striking at 356°. In 1913 a government prospecting party cut 830m of trenches near the T.L.E. without success. Some ore was raised in 1925 and the ground held from 1951-1959. The Mines Dept. attempted to drill the lode in 1957 but the hole was abandoned at 7m.

The country rocks are Cambrian conglomerate, greywacke, and shale. The Tenth Legion Fault Zone lies a short distance to the north bringing Proterozoic quartzite and slate over the Cambrian rocks. The ore is described as massive pale yellow to mid brown sphalerite with minor galena and quartz gangue but galena rich patches and shoots occur with good silver grades.

Up until 1911 at least 300t of galena was produced containing 200t of lead and 30,000oz of silver. In 1954 5.52t of ore were raised containing 2.85t of lead, 0.76t zinc, and 31oz silver.

### **Mr Hill's Prospect**

The location of the prospect is given on the MRT database. In fact Mr R.B. Hill was a very active prospector in this area in the 1950s and held the T.L.E., Stonehenge, and Tasmanian

prospects. The prospect named after him is a small copper show located about 120m west of Stonehenge. The outcrop showed copper mineralisation grading 15% copper. A shaft put down 6m failed to find any sign of a lode or vein.

### **The Stonehenge Prospect**

Located 200m southeast of the T.L.E. Main Shaft this was first pegged in 1888. In 1893 the Stonehenge Silver Mining Co. NL was formed to work the property. The company ceased work in 1894. Approximately 45t of ore was raised containing some 30t of lead and 2,700oz silver.

Three lodes were present striking NNE but only one was exploited. This lode strikes at a bearing of 25° and had a very steep SE dip in the upper workings changing to NW in the lower. The mineralisation was present in a vein of sulphides 150mm wide within quartz siderite gangue 0.5m wide. The sulphides consisted of pyrite and sphalerite with some chalcopyrite with galena as bands and blebs.

In the 1990s CRA mounted an exploration programme for skarn style mineralisation in calc-silicate hosts and Irish style base metal model mineralisation in limestones and shales. One of the areas identified as prospective was that secured by Stonehenge Metals current tenement. This area was covered by a large grid which had its origin just west of the Stonehenge Mine and also near Stonehenge Creek and was named the Stonehenge Grid. Work by CRA was followed by Renison/Goldfields and then by Allegiance Mining NL.

## **Tasmanian Mine group**

### **North Tasmanian (No.1) and Tasmanian No. 2 and No.3.**

These mines are located about 700m southeast of Stonehenge and were part of a group of mines acquired by the Tasmanian Silver Mining Co. Ltd between the T.L.E. Mine in the northwest and McLeans Creek in the southeast.

At the North Tasmanian Mine there are two lodes. The No.1 Lode strikes at 20° and dips NE. There was a shallow adit drive for about 60m and stopping to surface. A shaft was sunk to 58m with a level at 30m and a good shoot of galena and sphalerite was taken out up to surface. About 65m to the west of the shaft, the No.2 Lode was discovered striking at 10° and dipping 80° W. This was worked from adit stopes to surface for about 50m.

The Tasmanian No.3 Lode may be a faulted continuation of the No.2 Lode. It was discovered by a tributor named Riley and is also referred to as Riley's Workings. The lode strikes at 322° with a vertical dip. The ore was not of high grade at 20% lead and 40% zinc and a 16t parcel failed to cover cartage costs due to penalties for the zinc content so mining was halted.

These workings are in Proterozoic Oonah Formation and also Cambrian Dundas Group basalts, shales and greywackes. The host rock for the No.1 Lode is hydrothermally altered soft pale shale of the Oonah Formation. The vein consists of pyrite, siderite, and sphalerite, being replaced by galena and arsenopyrite with the galena containing minor copper mineralisation.

Production figures for these mines are not quoted but the production is included in the figures for the Tasmanian Mine.

A government prospecting trench 350m long was put in about 70m north of Main Shaft in 1913 on a bearing of 70°. No mineralisation was found. In 1957 three boreholes were drilled by the Mines Department under the No.3 Lode for 29.6m, 29.9m, and 31.4m depressed at 55°. A few veinlets of galena, sphalerite, and pyritized shale were cut and the results discouraged further exploration.

### **Tasmanian Mine**

The Tasman Mine is also known as Tasmanian; McLeans. The Main Shaft is situated 640m SE of the North Tasmanian shaft. The mineralized zone was traced NNW from the Swansea Mine about 750m to the SSE in 1888 passing through Swansea North.

An adit was driven on the lode and its bearing for 64m but no mineralisation was found after 36m. The ground was described as “broken and the lode was found not to rise into it.” The northern part of the workings lie within sheared and shattered Proterozoic quartzite, siltstone, and shale which are faulted to the south against Cambrian chert-conglomerate and siltstone. The lode strikes at 327° and generally varies from 0.5m to 1m but may be up to 1.5m. The ore is sphalerite – pyrite associated with quartz.

The main shaft was sunk to 22m. Stoping was carried out up to the adit level. Sulphide mineralisation ranged from 100mm up to 1.2m wide but was patchy and contained much sphalerite. Little production occurred until 1933 when it was acquired by J.Hill and there was steady production to 1941. From 1942 until 1961 the lease was held by J. J. Hill and small quantities of ore were produced spasmodically.

Total production for the Tasmanian Mines was 1,200t for 730t of lead, 41,299oz silver, and 8t of zinc.

## **Swansea group**

### **The Swansea North Shaft**

This shaft is located about 300m NNE of the Swansea Mine and is on the extension of the lode from the Swansea Mine and is really part of that mine. The workings can be followed to within 30m of an E – W cross-cutting fault about 50m north of the shaft.

### **The Swansea Mine**

The mine is located 200m north of McLeans Creek. The lode channel strikes at 335° and dips shallowly at about 45° and is 9.9m wide. The sulphides occur in shoots striking obliquely across the channel at 319°. These shoots tend to anastomose within the lode and extend along strike to the NNW for 320m just past the Swansea North Shaft. Host rocks are considered to be Cambrian (Dundas Group) sediments.

The lode was worked to the No.4 Level at 46m but the lowest level was only just being developed when the mine closed. There were three main ore shoots in the upper levels with two of them merging at the No.2 Level (24m) and it was thought that development on the No.4 Level (46m) would find that they had merged into one shoot at this depth.

In 1922 A. M. Reid reported the presence of a narrow pyroxenite dyke at Swansea striking NW and bearing small quantities of various nickel sulphides. This dyke therefore lies roughly along the axis of the large magnetic anomaly on this tenement. The occurrence of nickel sulphides within the magnetically anomalous area does not confirm the presence of prospective nickeliferous ultramafic rocks at depth but is certainly a very positive feature.

Production to 1929 was 2,260t of galena ore and 1,240t of sphalerite ore containing 1,340t of lead, 35,630oz silver, 579t zinc, and 41t cadmium.

### **The Silver Wave**

This mine is located about 700m east of the North Tasmanian Mine and worked two main lodes consisting of fracture zones containing veins of galena bearing at 30° and dipping NE at 80°. It had a shaft to 12m and operated during the early years of the field. Production took place under the ownership of the Nubeena and also the Victoria Zeehan mining companies and was not reported separately.

## **The Grubbs Mine to Sunshine Line**

### **The Grubbs Mine**

This mine is located just south of the centre of the eastern half of EL17/2003 on the eastern side of McLeans Creek. From 1888 to 1903 the mine was worked by W.C.Grubbs when it was taken over by Colonel North Mines and Railway Co. NL.

This was one of the more substantial mines with the main shaft finally sunk to 98m with five levels developed. The mine closed due to lack of ore but the reason is not clearly explained. The lode may have been faulted out between the No.4 and No.5 Levels, where a fault is shown on a section of the mine. While this might be the case the mineralisation was reported to be weakening with depth and below the No.3 Level there was sphalerite veining reported but little galena. The proportion of recovered silver to lead at close down had fallen to half that at the start of mining and together with the galena ore becoming less abundant with depth mining may have become uneconomic.

The Beauments Prospect is located just east of Grubbs Mine but no data is available.

### **The Sunshine Prospect**

This prospect is located south of the Colonel North mine.

The strike here is NE and roughly parallel to the strike of the Grubbs lode but is off line to the east. Mineralisation and gangue material along the lode may be present in the wall of the current shallow pit but is difficult to interpret. A 22m long adit was driven by the old miners along the structure.

There is no lode structure visible in the main area of the shallow pit that has been excavated by McDermott Mining P/L (MDM). Prior to mining by MDM there was a small hill about 30m high on this site. The pit is in a broad zone of pyritic material which looks like a loose fine black sand containing rock fragments that are hard to see or pick out until the material is washed when the fragments can be separated. These appear to be fragments of slate that

are bleached and contain mostly sphalerite with some galena. This material is believed to be an eluvial deposit formed by the near surface enrichment of sulphides by the solution of the carbonates forming a calc-silicate. This process has left a layer of black sulphidic sand sitting on what is surmised to be limestone underneath. The chemistry of this process has not been established but it is possible that a low pH in the swampy peaty conditions combined with the acidic products of the weathering of pyrite has led to solution of the calc-silicate leaving the minerals that were dispersed within it to accumulate. The black sand is reported to be commonly found on calc-silicate units. The zinc grade of these deposits is considered to be related to the presence of stratiform mineralisation in the limestone and is very likely to form ore bodies.

No production reported to MRT.

### **The Tramway Formation**

This is located on McLeans Creek just east of Grubbs Tramway about 300m SW of the Colonel North Shaft.

The lode is 1.2m wide containing a sulphide vein 450mm wide. The gangue is porous quartz and pyrite with galena and sphalerite veining. The lode is exposed in two holes but trenching north and south has failed to pick it up.

### **Sprays to Nubeena Line**

#### **Silver Foam Adit and Shaft**

In 1901 the Silver Foam Tributing Co. drove an adit 183m NE from a point near the tramway 60m west of the later Victoria-Zeehan Shaft. The target was the southern extension of the Spray No.1 Lode from the Spray Mine to the north. Records are not consistent but it seems probable that the intersection with the lode was made at 127m. It was then driven for 25m to the north but only a little pyrite was found. Some patches of galena were found in a winze sunk 18m. Only traces of galena occurred on the hanging wall in a shaft sunk 30m from the adit. At the 15m level in the shaft the Victoria-Zeehan Co. later found a small vein of jamesonite and galena which was followed for 8m.

#### **Colonel North**

The shaft here was sunk by Grubbs Silver Mining Co. NL in 1890. The operation was suspended in 1896 due to financial difficulties and was sold to Colonel North Mines and Railway Co. NL in 1903. This company bought up a number of properties in this area and had mining operations on several of them at different times. The shaft was sunk to a final depth of 61m. A crosscut was then driven northeast from the bottom level but not completed. Further work on this crosscut was carried out by Silver Beach tributors and then the Victoria Zeehan Co. with it being driven a total length of 137m. The end of the crosscut intersected two barren quartz siderite lodes. No Further work was reported.

The mineralisation was in two lodes dipping to the east. The sulphides were in siderite quartz gangue.

### **The Victoria-Zeehan Mine**

This is located ESE of the Colonel North Shaft. In 1907 a shaft was sunk by the Colonel North Mines and Railway Co. NL to a depth of 95m. A crosscut was driven east for 66m with the Spray No.1 lode being intersected at 56m. The lode was 1.8m wide and was driven on for 47m where a thin vein of galena was found. Further driving was prevented by an inrush of water which flooded the lower part of the mine. More powerful pumping equipment was installed in 1909 but failed to drain the shaft.

In 1908 recorded production of 28.5t of ore (including ore from the Foam Adit.

### **Office Adit**

From about 60m due south of the Colonel North Shaft the Silver Beach Tribute Party drove an adit 183m to the NE. Three siliceous gossans were intersected within the decomposed slate but no mineralisation of significance was found.

### **Chloride and Cross Chloride Lodes**

The Chloride Lode lies 150m N of the Silver Beach Adit and the Cross Chloride 200m ENE. The lode contains bands and nodules of hematite and limonite bearing silver chloride and native silver which were worked by tributors around 1900. Small patches of ore are reputed to have graded 1,000 oz/t but average stoped ore graded 40 oz/t.

### **Silver Wave Workings**

These consist of a shaft and several adits and are found about 400m due east of the Sunshine Mine. The Silver Wave Tributing Party explored at least one ore body striking NNW and dipping east prior to 1900. Further investigation by later parties also found small sphalerite veins with galena that were rapidly worked out.

### **The Nubeena Workings**

These workings extend SSE in a line from the Silver Wave Workings. The Old Nubeena workings are located about 100m to the W of Nubeena; Venezia and were on a galena-pyrite lode striking at 17° and dipping east. The mineralisation was first discovered in 1889. The vein was reported to be up to 120mm wide. The vein was subsequently driven on for 40m and the lode drive was accessed from a crosscut adit. Production was small and intermittent and the property changed hands frequently over the following years with another lode drive being driven above the original one.

In 1904 at the Nubeena Venezia an E-W adit was driven and intersected three lodes – Jaeger's, No.1, and Barnett's. Jaeger's Lode was up to 1.5m wide with 150mm vein of galena but limited stoping revealed the mineralisation was irregular. The No.1 Lode contained only minor veining and was not exploited. Barnett's Lode was intersected 60m east of Jaeger's and was a quartz lode in slate with patches of ore and a 150mm vein near the footwall. It was driven on for over 50m and stoped to a height of 30m over a strike of 45m.

About 100m ESE of Venezia adits were driven in 1904 that found Llewellyn's lode. Two lode drives were driven one 12m above the other. The mineralisation was patchy but a shoot about 12m long and up to 0.5m thick was found in the upper lode drive.

The country rock in the Nubeena locality appears to have suffered greater stress than the surrounding areas and the rocks are highly fissured and faulted. The mineralisation that is present is more variable than that typically found in the Zeehan field which makes it difficult to assess and mine.

It has been estimated that about 500t of concentrates were produced from the Nubeena Mine containing around 325t of lead and 42,000oz of silver.

## **South Nubeena**

This lode was considered to be like Llewellyn's Lode. The galena veins were only up to 50mm wide but assayed at 70% lead and 100 oz/t silver. About 78t of ore were produced containing 50t of lead and 7,000oz silver.

About 220m and 530m south of South Nubeena prospecting has been conducted but these areas are not named and there is no information on them.

## **4.2 Previous Exploration**

### **4.2.1 North Broken Hill**

Between 1946 and 1960 Zeehan Explorations Pty Ltd (a joint venture between North Broken Hill and Broken Hill South) carried out ground surveys to determine the continuity of the Spray – Nubeena lode zone and initiated the BMR managed magnetic, gravity, and electrical, surveys.

### **4.2.2 Placer Prospecting and Minops**

From 1966-1970 Placer Prospecting Pty Ltd focussed their attention on the Spray Mine conducting a TURAM EM survey over the main lode. Minops Pty Ltd farmed into the project and drilled several holes. This work was largely to the north of EL17/2003.

### **4.2.3 Tenneco**

From 1970-1972 Tenneco Pty Ltd dewatered, sampled, and drilled the Spray Lodes. They cut a jamesonite lode (0.2m at 16.8% Pb, 0.08% Zn, 8.8% Sb, 1.4% Cu, and 271 oz/t Ag.) but it was of very limited extent. A TURAIR airborne EM survey covered much of the Gordon Limestone outcrop. Follow up gravity, Turam ground EM, and SP surveys, produced mixed results. Again this work concentrated mainly to the north of EL17/2003.

### **4.2.4 Renison Goldfields**

From 1974 Mt Lyell Mining and Railway Co. Ltd (SPL129) and Renison Ltd (EL11/1976) commenced an extensive programme of exploration on the area between the coast and Zeehan. Prior to this, most exploration had consisted of further investigation of known deposits. The eastern region of SPL129 included the ground within EL17/2003. Gold Fields Exploration Pty Ltd (backed by RGC Ltd) joined Mt Lyell and Renison and became operator of the JV which continued until 1986.

In 1974-75 the Barringer Input Airborne EM System was trialed and obtained a number of conductive anomalies with associated magnetic anomalies. In 1981-82 the Turair and Dighem airborne EM systems were compared. The Dighem was considered to be more sensitive and gave similar responses to the Input system. In 1982-83 the ground based VLF EM was used as follow up and identified weaker anomalies than Dighem.

In 1982 the Stonehenge Grid was put in over the north eastern area of the SPL. It seems it was named Stonehenge because the origin of the grid lies to the NW of the prospect of that name and also the creek of that name. This grid covered most of the prospective area now within EL17/2003. R.Poltock, for Renison Ltd, mapped the eastern end of SPL129 in detail during May-June 1981 however exposure is generally poor in the area. In 1983 a DIGHEM survey was carried out over the grid and a report on the results of geophysical surveys was made. SPL129 was amalgamated into EL11/1976 in 1984. The Gold Fields group drilled six diamond core holes within the area of EL17/2003 (TH12-17) completing the programme in 1985-86. With no further work recommended the licence was surrendered in 1987.

Hole_ID	Hole_Type	Max_Depth	Grid_ID	East MGA	North MGA	Orig_RL	Azimuth MGA	Dip
TH12	DDH	401.5	MGA94_55	359911.7	5359567.5	257.6	199.0	-55.0
TH13	DDH	431.2	MGA94_55	360261.4	5359613.5	263.5	21.0	-46.0
TH14	DDH	170	MGA94_55	359429.9	5360023.8	325.4	202.0	-55.0
TH15	DDH	599	MGA94_55	360361.0	5359878.0	308.5	201.0	-59.6
TH16	DDH	450	MGA94_55	360602.0	5360185.0	252.3	237.6	-50.0
TH17	DDH	308.3	MGA94_55	360002.1	5359802.0	262.3	276.7	-63.2

Table 1 Location of Renison drill holes

**TH12** was drilled in an attempt to test the broad VLF EM anomaly at depth. The hole intersected dolomites and shales.

Two significant base metal rich fault zones were intersected which also contained high values of arsenic and antimony.

32.0–41.0m (9m) 1.0% Pb, 2.49% Zn, 32 g/t Ag

79.0-82.0m (3m): 1.5% Pb, 10.0% Zn, 261 g/t Ag

Note well, less than 30% core recovery for samples to 79m depth and 55% core recovery for samples to 82m depth

**Hole TH13** was drilled to test the southern extension of the Spray No.3. Lode within black shales and dolomites. The significant intersections are;

67.0-80.0 (13m): 0.16% Pb, 0.44% Zn, 5 g/t Ag [20-60% core recovery]

87.0-148.0 (61m): 0.82% Pb, 0.51% Zn, 24.8 g/t Ag [3 – 80% core recovery]

Within this wider interval is a very high-grade vein

105.0 to 105.8m (0.8m) 41%Pb, 0.1%Zn, 1540g/t Ag

**Hole TH14** was designed to test a brecciated sandstone with a combined geochemical and VLF EM anomaly. Core recovery was reasonable, there are no significant intersections, with weak lead mineralisation occurring at;

37.8-48.5m, (10.3m) 0.12%Pb, 2g/t Ag

55.1-58.7m (3.6m) 0.12%Pb, 1g/tAg

143.1 to 147m (3.9m) 0.02%Pb, 7g/tAg

**Hole TH15** was also designed to test the southern extension of the Spray Lodes.

#### Assay Summary

61.4-100.5 (39.1m)	0.25% Pb, 0.22% Zn, 3 g/t Ag.	[core recovery <30%]
167.0-191.0 (24m)	0.27% Pb, 0.54% Zn, 1 g/t Ag	[core recovery <43%]
557.8-563.75 (5.95m)	0.22% Pb, 0.12% Zn, 35 g/t Ag	

This hole intersected a different sequence from that in hole TH13 which it scissored and also intersected zones of low grade mineralisation.

**Hole TH16** was drilled in a further attempt to locate extensions of the Spray mineralisation to the north. This hole was just outside the northern boundary of EL17/2003 and intersected the Spray No.1.Lode in shale and sandstone and not dolomite as planned. It was only weakly mineralised.

**Hole TH17** was designed to investigate a subtle combined magnetic and EM anomaly located in what is now the north east corner of EL17/2003. The anomaly was considered to be due to graphitic black shales and limited assaying was carried out.

The location of the drill hole collars is shown in Figure 3. The underlying geology plan is compiled by Allegiance Mining for EL28/88 and reported in Report 98-4184. It is at a scale of 1:10,000.

Figure 4 shows the Stonehenge soil grid completed by Renison Goldfields and results for Zn+Pb.





#### 4.2.5 Allegiance and CRA

The Exploration Licence EL28/1988 was granted to the Duke of Avram in 1988. In May 1989 it was acquired by Major Mining Ltd (subsequently renamed Allegiance Mining Ltd). This was a large licence with the main body of the tenement extending 17km from the coast in the west, to east of Zeehan in the east, and 9km north to south. EL17/2003 was located within this licence on its north eastern boundary.

Major Mining formed a joint venture partnership with CRA (Rio Tinto Exploration Pty Ltd) in 1991. CRA considered the Zeehan area showed fundamental similarities with Lawn Hill in NW Queensland and was prospective for shale hosted stratabound Zn-Pb deposits.

In 1992 CRA conducted geochemical testing of IP targets near the Sunshine workings which were encouraging with IP suggesting a possible strike of 1,000m. The valley running west of Sunshine and the swamp near the workings were anomalous. The Stonehenge Mine was also identified as a target area within the TLE to Swansea trend.

Three diamond core holes were drilled near Sunshine with S1 and S2, 100m apart, investigating mineralisation in the Grubbs Shear NW of Sunshine. S3 was collared about 200m west of S1 to test the potential for stratiform mineralisation in the black shale. The area of the S3 drill hole is referred to as the CRA Zinc Zone.

Refer to Figure 5 for the drill hole locations plotted on CRA mapping.

Hole_ID	Company	Hole_Type	Max Depth	Grid_ID	East_Z55	North_Z55	Orig_RL	Azimuth MGA	Dip
DD92ZS1	CRA	DDH	251	MGA94_55	359912.0	5359483.0	251.0	61.0	-50.0
DD92ZS2	CRA	DDH	250	MGA94_55	359912.0	5359568.0	257.5	61.0	-45.0
DD92ZS3	CRA	DDH	231	MGA94_55	359730.0	5359663.0	265.0	201.0	-45.0
DD95ZS31	CRA	DDH	209.5	MGA94_55	359834.0	5359646.0	260.0	200.0	-50.0
S33	Allegiance	DDH	250.5	MGA94_55	359847.4	5359727.6	267.0	192.0	-50.0
S34	Allegiance	DDH	245	MGA94_55	359679.0	5359796.0	271.0	191.0	-50.0

Table 2 Location of CRA drill holes



Figure 5 Plan of CRA and Renison drill holes

Intersections better than 1% Zn were :-

DD92ZS1 - 119.2-121.35m - 2.15m at 7.8% Zn, 10.1% Pb, 191 g/t Ag.

- 150.5-162.35m - 12.35m at 2.1% Zn, 0.4% pb.

- 223.8-232.65m - 8.85m at 1.5% Zn, 0.4% Pb.

DD92ZS2 - 100.5-112.0m - 11.5m 4.1% Zn, 1.1% Pb, 10 g/t Ag.

- 124.0-136.0m - 12.0m at 1.8% Zn, 0.4% Pb, 19.5 g/t Ag.

- 190.25-190.5m - 0.25m at 20.0% Zn, 12.3% Pb, 415 g/t Ag, 2.9% Cu, 2.2% Sb.

DD92ZS3 – 159.5-160.6m – 1.1m at 3.5% Zn, 0.1% Pb, 19 g/t Ag

The drilling of S1 and S2 on the Sunshine black shale in 1992 showed the mineralisation is dominated by shear controlled ankerite-sulphide veins of limited tonnage potential. No stratiform base metal sulphides were intersected.

In 1995 geochemical sampling by 27 aircore holes (S4 to S30) spaced at 25m was undertaken. Holes were shallow and drilled to sample fresh bedrock under the swampy button-grass valley. Sampling was over 3m intervals and analysed for Ag, Fe, Mn, Cu, Pb, and Zn.

The bedrock aircore sampling indicated a 400m strike length for the zinc mineralisation with peak values of 3.3%Pb, 3.5%Zn and 22g/t Ag in holes S04 and S05.

A follow up diamond core hole DD95ZS31 (S31) was drilled on the geochemical anomaly revealed by the AC programme. S31 yielded an intersection of 6.5m at 6.3% Zn, 2.9% Pb, 41 g/t Ag, from 34m with several lower grade intervals deeper down. Recoveries in the shale were poor reducing confidence in the grade estimates. The sphalerite/galena mineralisation is hosted in black shales at the contact with an underlying mixed siltstone-dolomitic limestone-sandstone sequence.

Two phases of sulphide mineralisation were recognised. The first pre-cambrian stratiform pyrite in black shale and the second Heemskirk granite related veins (and one skarn) of Devonian age.

CRA withdrew from the Joint Venture in in 1997 and Allegiance Mining resumed exploration management. In 2000 Allegiance Mining drilled two diamond core holes S33 and S34.

S33 was designed cover the same geology as S31 at a deeper level and S34 to test the mineralisation 200m to the west. Core recoveries in the black shale were extremely poor with no core from 87.0 to 102.0 in S33 which interval appears to correlate with the high grade interval in S31. Poor recoveries were experienced in the black shale and particularly where it was mineralized.

Allegiance then decided to concentrate all their attention on the Avebury nickel sulphide deposit about 10km WSW of Sunshine and therefore in October 2002 they relinquished the eastern portion of EL28/1988 containing the Stonehenge grid.

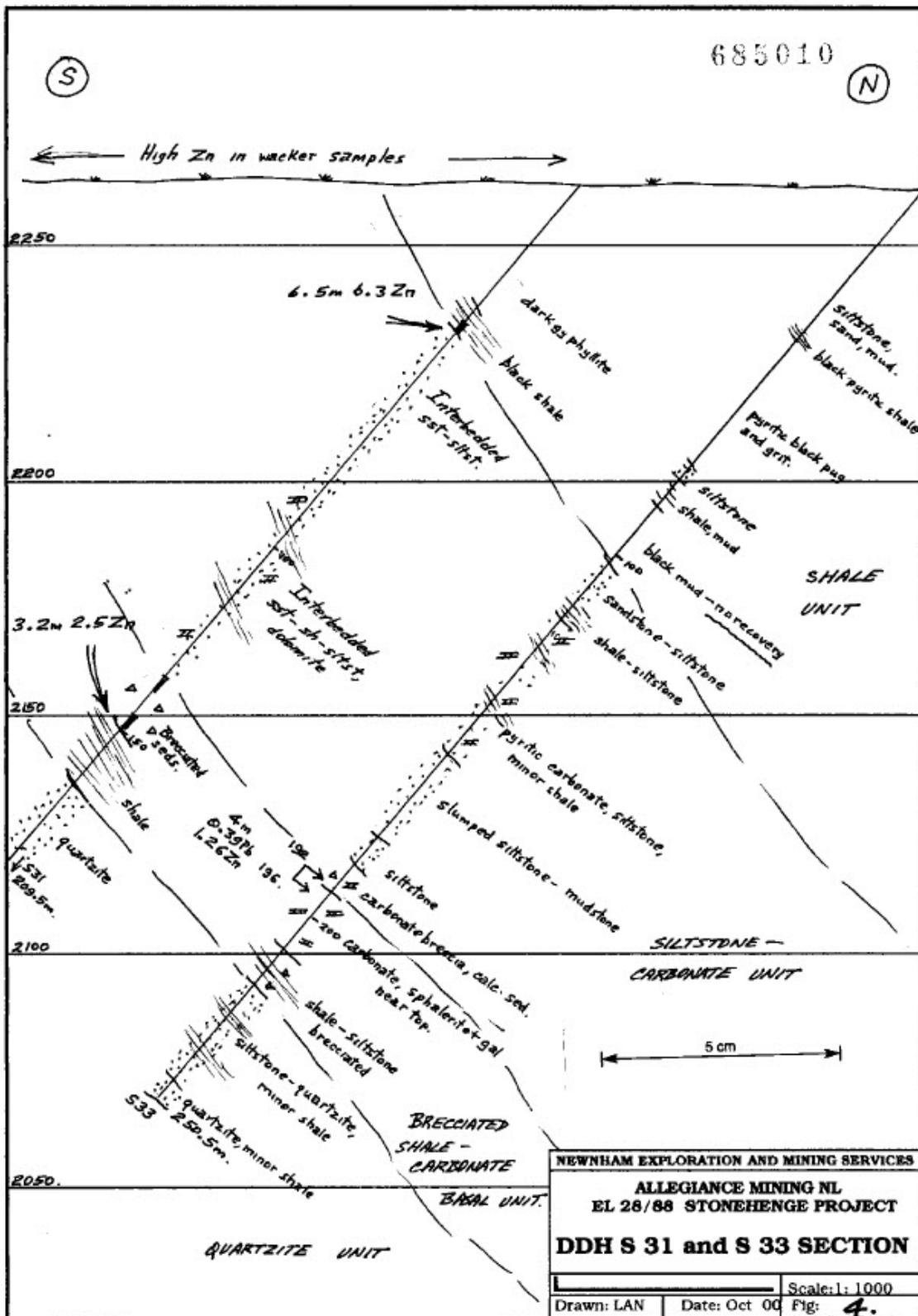


Figure 6 Drill cross-section through CRA zinc zone

#### 4.2.6 Stonehenge Metals

Stonehenge Metals acquired EL17/2003 and undertook a diamond and RC drilling programme along the Sunshine and Swansea mine workings.

##### Nickel Target

Stonehenge also drilled 2 diamond holes to test a deep magnetic target postulated to be similar to the Avebury nickel bearing intrusion. These holes (SDD01 and SDD02) both failed to intersect any nickeliferous alteration or mineralisation.

SDD02 did intersect a weak zinc mineralised zone within a dolomite at the contact of the dolomites and a sedimentary breccia.

151.6 to 156.8 (5.2m) 0.4%Pb, 0.1%Zn, 27g/t Ag

Including 0.5m @ 1%Pb, 0.3%Zn, 198g/t Ag

##### Sunshine Drilling

Stonehenge drilled a total of 18 diamond drill holes and 7 RC percussion holes along the Sunshine zinc lode.

The drilling was characterised by very poor core recovery through the mineralised shales, and by very wet drilling conditions when RC percussion drilling (most likely poor RC sample recovery as well, but this is not recorded).

The Stonehenge drilling intersected a number of very high grade intercepts;

Hole ID	From	To	Type	Width metres	Ag g/t	Pb%	Zn%	m%
SUN027	11	26	RC	15	94	3.4	7.1	157.5
SUN002	4.95	19.7	DDH	14.75	28	1.5	7.9	138.65
SUN001	0	4.4	DDH	4.4	67	2.9	25.5	124.96
SUN003	10.4	26.8	DDH	16.4	18	0.9	6.4	119.72
SUN013	21	30	RC	9	18	1.3	10.7	108

Table 3 Sunshine 100m% intercepts

At the conclusion of the drilling Stonehenge reported an Inferred resource from surface to a depth of 60 metres below surface of;

287,600 tonnes @ 2.8%Zn, 1.5%Pb, 31g/t Ag at a 0.5%Zn cutoff grade.

HoleId	Type	Depth	Grid	East_Z55	North_Z55	Elevation	Azimuth	Dip
SDD001	DDH	603.6	MGA94_55	359451.0	5358861.0	242.0	45.0	-70.0
SDD002	DDH	420	MGA94_55	358675.0	5359500.0	225.0	45.0	-60.0
SUN001	DDH	20	MGA94_55	360099.0	5359451.0	252.8	134.0	-70.0
SUN002	DDH	60	MGA94_55	360102.0	5359449.0	252.7	134.0	-45.0
SUN003	DDH	29	MGA94_55	360126.0	5359464.0	255.2	193.0	-60.0
SUN005	DDH	81.95	MGA94_55	360128.7	5359513.0	252.8	130.0	-45.0
SUN007	DDH	104	MGA94_55	360112.6	5359443.2	254.3	293.0	-50.0
SUN008	DDH	28.5	MGA94_55	360174.7	5359520.4	255.4	124.0	-45.0
SUN009	DDH	29	MGA94_55	360149.9	5359475.0	255.2	130.0	-45.0
SUN010	RC	61	MGA94_55	360095.0	5359436.4	252.3	0.0	-90.0
SUN011	DDH	81	MGA94_55	360063.0	5359474.3	251.7	127.0	-52.6
SUN012	DDH	69	MGA94_55	360063.3	5359476.3	251.7	132.0	-70.0
SUN013	RC	41	MGA94_55	360095.0	5359453.8	252.5	0.0	-90.0
SUN014	DDH	93	MGA94_55	360062.8	5359474.5	251.7	131.8	-64.0
SUN015	RC	41	MGA94_55	360132.1	5359478.3	252.8	0.0	-90.0
SUN016	DDH	59	MGA94_55	360104.4	5359535.7	253.0	159.7	-42.0
SUN017	RC	38	MGA94_55	360169.1	5359521.9	255.5	0.0	-90.0
SUN018	DDH	82.5	MGA94_55	360123.5	5359515.7	252.5	139.9	-66.7
SUN019	RC	31	MGA94_55	360145.6	5359507.1	253.0	131.0	-50.0
SUN020	DDH	54	MGA94_55	360152.6	5359552.5	254.5	126.9	-49.4
SUN021	DDH	45	MGA94_55	360203.5	5359562.4	261.6	130.0	-48.3
SUN022	DDH	66	MGA94_55	360178.0	5359585.0	260.0	126.4	-50.0
SUN026	RC	60	MGA94_55	360116.0	5359441.4	254.5	127.3	-59.7
SUN027	RC	26	MGA94_55	360119.8	5359466.3	253.0	0.0	-90.0
SUN028	DDH	60	MGA94_55	360097.8	5359422.9	252.2	142.7	-60.2
SWAN001	DDH	25	MGA94_55	359564.0	5358477.0	242.0	257.0	-60.0
SWAN002	DDH	22	MGA94_55	359589.0	5358482.0	245.0	257.0	-60.0
SWAN003	DDH	25.5	MGA94_55	359554.0	5358525.0	238.0	257.0	-60.0
SWAN004	DDH	52.5	MGA94_55	359578.0	5358531.0	239.0	257.0	-60.0
SWAN005	DDH	25.5	MGA94_55	359542.0	5358574.0	238.0	257.0	-60.0
SWAN006	DDH	36	MGA94_55	359566.0	5358580.0	239.0	257.0	-60.0
SWAN007	DDH	30	MGA94_55	359531.0	5358623.0	239.0	257.0	-60.0
SWAN008	DDH	50	MGA94_55	359555.0	5358628.0	240.0	257.0	-60.0
SWAN010	DDH	50	MGA94_55	359544.0	5358677.0	240.0	257.0	-60.0

Table 4 Location of all Stonehenge drill holes

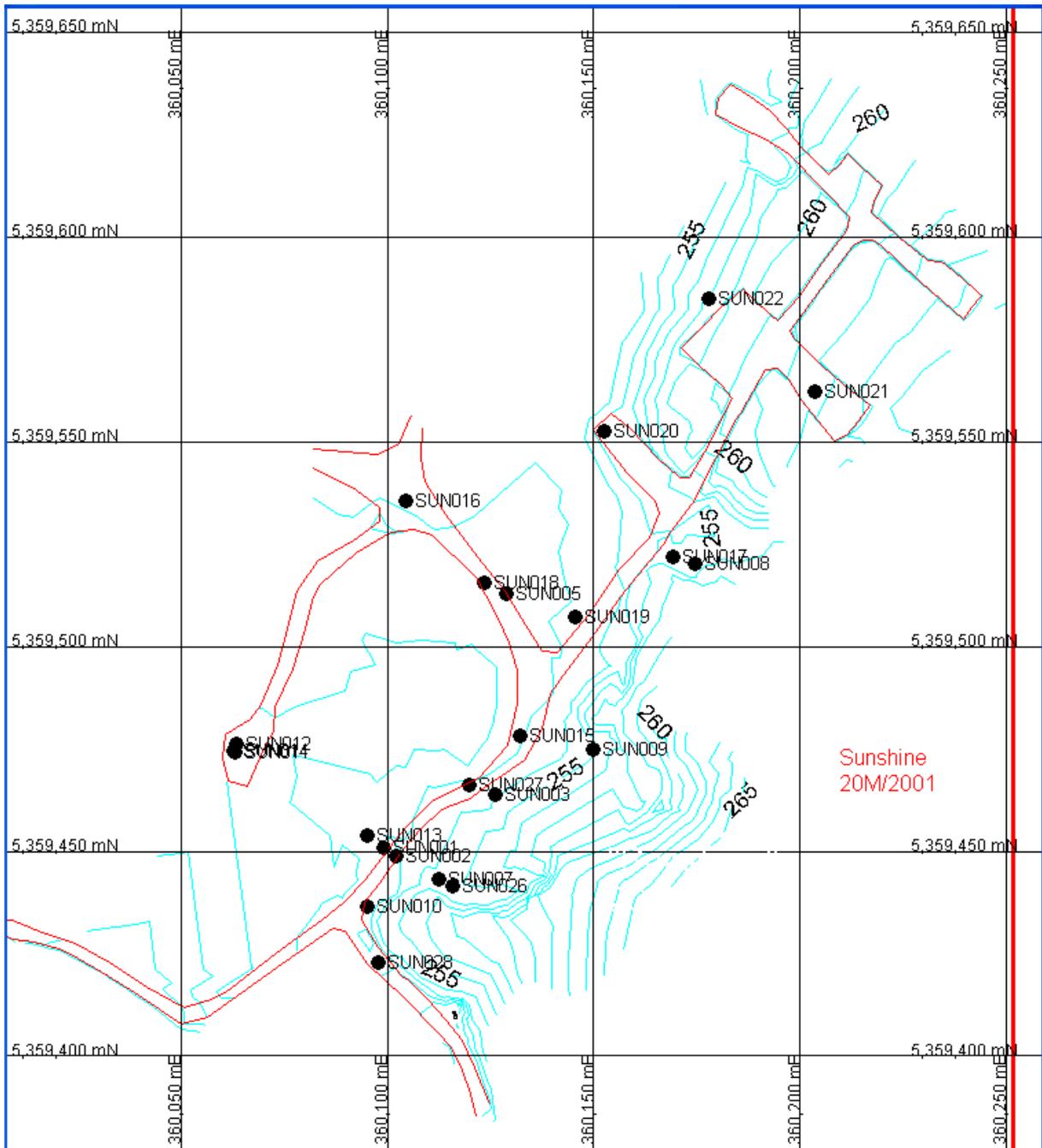


Figure 7 Plan of Stonehenge Sunshine drill holes

## Swansea Drilling

Stonehenge drilled 9 diamond holes for 346m's along the Swansea line of lode. There were no significant intersections. A review of the drill holes by RMG indicates that most holes failed to reach the target lode as defined by the historical workings.



Figure 8 Plan of Stonehenge Swansea drill holes

## **5 Exploration Activities this Period**

### **5.1 Introduction**

RMG Ltd has conducted the following work on EL17/2003 and 20M/2001.

- Diamond drilling of the Sunshine Prospect
- Diamond drilling of the CRA Zinc Zone.
- Compilation of historical, geological, geochemical, geophysical and topographic data into a GIS (MapInfo) database.
- Acquisition of high resolution GeoEye-1 and World View 2 imagery.
- Acquisition of VTEM heli-borne EM data covering the EL from a competitor
- Rehabilitation of the Stonehenge's Swansea drill sites
- Rehabilitation of RMG drill sites

RMG Ltd completed its diamond drilling program in mid-June, 2012. A total of 3 diamond drill holes have been drilled on ML20/2001 at Sunshine and 3 diamond holes on EL17/2003 on the CRA Zinc Zone, for a total of 590m.

### **5.2 Regional Activity**

#### **GeoEye-1**

New capture Stereo GeoEye-1 was captured 6/04/2012, which included 100 sq km of 2m resolution 4-band multispectral imagery. 1m gridded Digital Surface model (DSM) was created from the imagery.

#### **WorldView-2**

25 sq km of 50cm resolution Archived WorldView-2 was purchased and orthorectified. The archived imagery was captured 31/12/2011.

#### **SkyTEM Survey**

SkyTEM is a helicopter-borne time-domain electromagnetic system. The system acquisition parameters are summarized below. The data covering EL17/2003 was flown by Zeehan Zinc (now Creat Resources Ltd) and purchased from Creat by RMG.

Survey Company Geoforce Pty Ltd  
 Dates Flown 20 – 31 January 2008  
 Terrain Clearance 30 metres (nominal)  
 EM System SkyTEM (High moment and low moment)  
 Sample Rate EM 4 Hz (~4-10m)  
 Magnetometer Scintrex CS-2 Cesium vapour  
 Sample Rate mag 10 Hz  
 Peak transmitter moment 119,320 A.turns.m<sup>2</sup>  
 Delay times 59.8 µs (SkyTEM channel 8) – 8.8 ms (SkyTEM channel 32)  
 Traverse Line Spacing 100 metres  
 Traverse Line Direction E – W  
 Tie Line Spacing 1000 metres (required to level magnetics data)

Tie Line Direction N – S  
Datum MGA55/GDA94

Figure below, shows Channel 15 of the EM data with the soil geochemistry of Renison overlaid. The geochemical data is Zn+Pb and the thresholds are blue = 160ppm to 750ppm; green = 750ppm to 2,770ppm; red = 2,770 to 23,870ppm.

The soil geochemistry is generally elevated along the southern contact of the elevated EM region. Assuming the elevated EM is a result of the carbonaceous shales within the Onah Formation (see mapping in previous figure) then the geochemical anomaly is located along the contact of the shale member and a sandstone-dolomite member.

It also appears that the Sunshine prospect is located at the south-east fold closure of the shale member.

Further work to re-interpret the EM data and integrate it with the geochemical and drill hole data is in progress.

### 5.3 Sunshine Prospect

#### Drilling

During 2012 3 diamond drill holes, total of 169.8m at Sunshine (20M/2001) was completed. The drilling was planned to confirm the zinc-lead-silver black shale unit previously intercepted by Stonehenge Metals.

Table Below Sunshine drill hole details completed by RMG Ltd.

HoleID	Type	Azi(True)	Dip	TD m	E GDA94z55	N GDA94z55	RL	Company	Method	Date Started	Date Completed
MCL01	Diamond HQ	300	-70	53.8	360128	5359474	258	Van Dieman	GPS	3/05/2012	4/05/2012
MCL02	Diamond HQ	120	-60	61.2	360132	5359474	258	Van Dieman	GPS	24/04/2012	3/05/2012
MCL03	Diamond HQ	120	-70	54.8	360171	5359523	256	Van Dieman	GPS	17/04/2012	24/04/2012

Table 5 Location of RMG Sunshine drill holes

Figure below shows the location of the 3 Sunshine drill holes drilled by RMG.

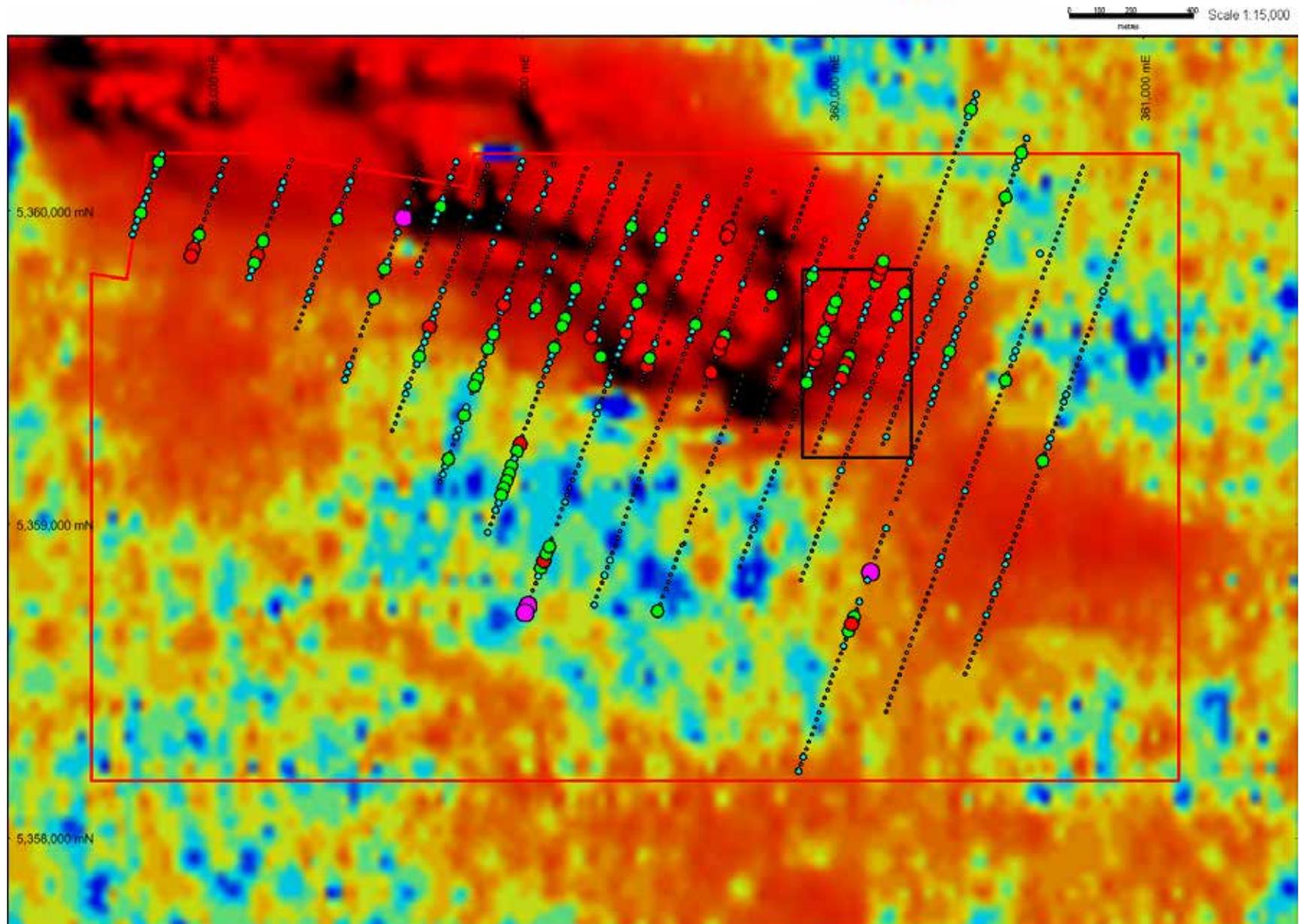


Figure 9 Plan of AEM anomaly and Renison soil geochemistry

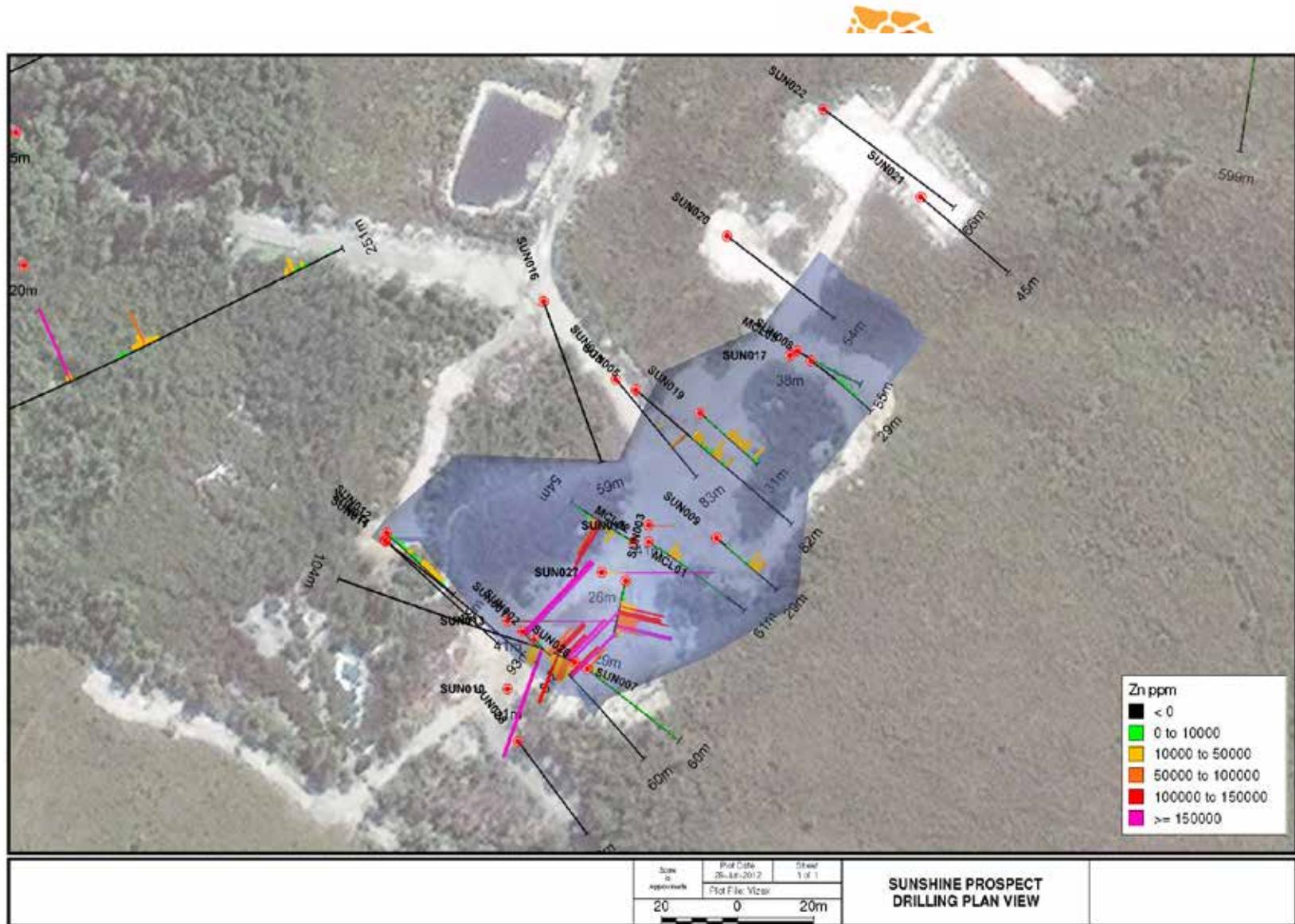


Figure 10 Plan of RMG Sunshine drill holes

## **Drilling Results**

### **MCL01**

MCL01 was drilled to a total depth of 53.8m and intercepted the expected mineralized black shale pug unit (15.1m wide) between 16.3m and 31.4m. Drilling conditions were difficult with zones of poor core recovery experienced. Large voids, possibly old workings were encountered with no core return.

46 samples were assayed at 1m intervals, total of 46m sampled. Significant results included a 4m zone between 27m - 31m @ 8.5% Zn.

### **MCL02**

MCL02 was drilled to a total depth of 61.2m and intercepted the expected mineralized black shale pug unit (9.2m wide) between 11.3m and 20.5m.

50 samples were assayed at 1m intervals, total of 50m sampled. Significant results included a 7m zone between 12m – 18m @ 2.5% Zn. 9m zone between 11m - @ 14 g/t Ag.

### **MCL03**

MCL03 was drilled to a total depth of 54.8m and intercepted the mineralized black shale pug unit (7.3m wide) between 25.8m and 33.1m.

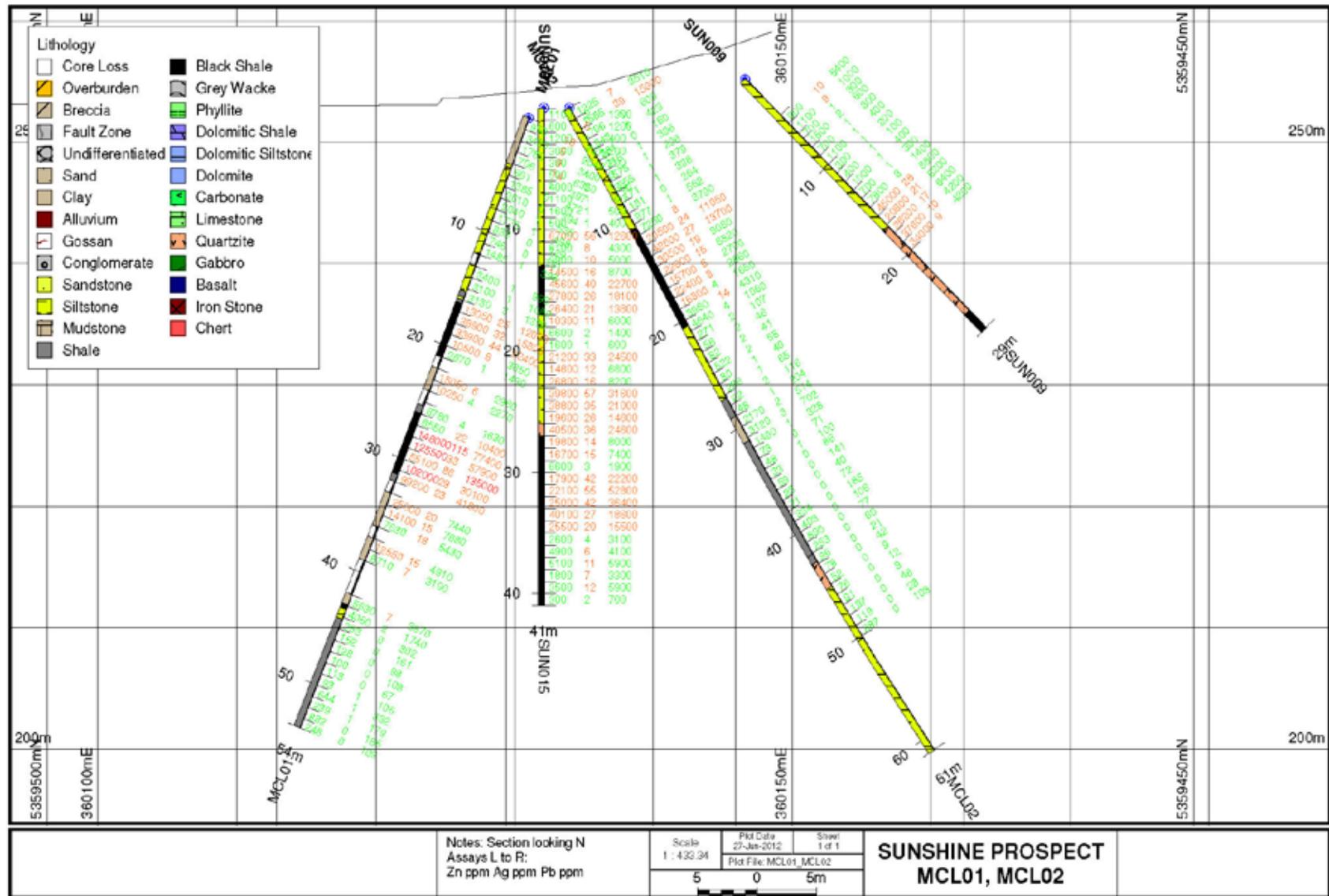
36 samples were assayed at 1m intervals, total of 36m sampled. Minor traces of Zinc were intercepted ~0.69% Zn. A rich 8m Pb Ag zone was intercepted between 25.8m – 34m, 19.75 g/t Ag and 3.4% Pb.

## **Summary**

The 3 diamond holes by RMG have not affirmed the RC drill results of Stonehenge in SUN017 and SUN015. The diamond holes appear to indicate that the samples from the Stonehenge drilling have been contaminated and upgraded.

The diamond drilling confirms the association of the zinc-lead mineralisation with a particular black shale unit that is strongly pyritic.

The diamond drilling also confirms significant structural complexity in the continuity of the black shale horizon.



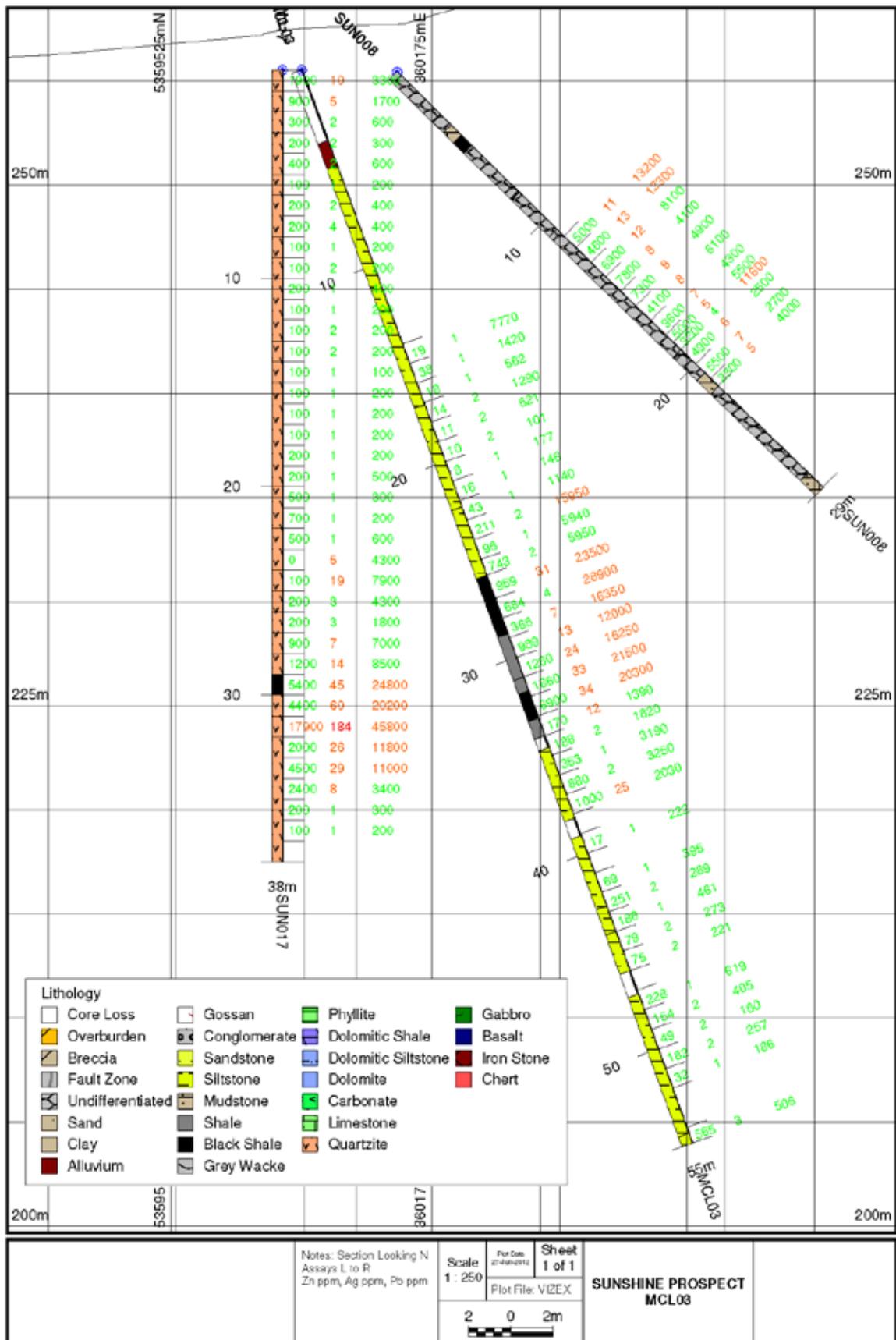


Figure 12 Cross section Sunshine MCL03

### **Kim McDermott - Sunshine Interpretation**

A meeting was held with Kim McDermott from McDermott Mining. Kim, originally a prospector previously held 20M/2001 and extracted small amounts of ore from the Sunshine deposit.

The locations of all costeans and workings at Sunshine were established.

McDermott interpreted the ore body to extend along strike to the SW and to the NE. The presence of the Grubbs Shear indicates the body could be shifted along the Grubbs shear to the NW. Anomalous soils and wacker results (Zn ~ 6210 ppm) in the SW is evidence to support this interpretation. McDermott's interpretation and summary of features at Sunshine is summarised in the below plan (Figure 13).



## 5.4 CRA Zinc Zone

### Drilling

During 2012 3 diamond drill holes, total of 420.2m was drilled at the CRA Zinc zone prospect (EL17/2003). Due to environmental constraints on the low lying button grass, the drilling was moved to a higher less favourable position than initially planned.

The drilling was planned to intercept the mineralized black shale unit that contained 6m @ 6% Zn that was intercepted in S31 by CRA.

Allegiance had previously followed up the zinc intercept in CRA's drilling with drill holes S33 and S34, however very poor core recovery did not enable any assessment of the zone.

RMG drilled with HQ3 to try and maximise core recovery, again recoveries were poor and ground was extremely weathered.

Table below lists CRA Zinc Zone drill hole details completed by RMG Ltd.

HoleID	Type	Azi(True)	Dip	TD m	E GDA94z55	N GDA94z55	RL	Company	Method	Date Started	Date Completed
MCL04	Diamond HQ	192	-50	105.9	359841	5359727	267	Van Dieman	GPS	9/05/2012	18/05/2012
MCL05	Diamond HQ	192	-80	175.6	359841	5359727	267	Van Dieman	GPS	21/05/2012	1/06/2012
MCL05A	Diamond HQ	192	-60	138.7	359813	5359727	265	Van Dieman	GPS	4/06/2012	13/06/2012

Table 6 Location of RMG drill holes at CRA Zinc zone



Figure 14 Plan of RMG drill holes at CRA Zinc zone

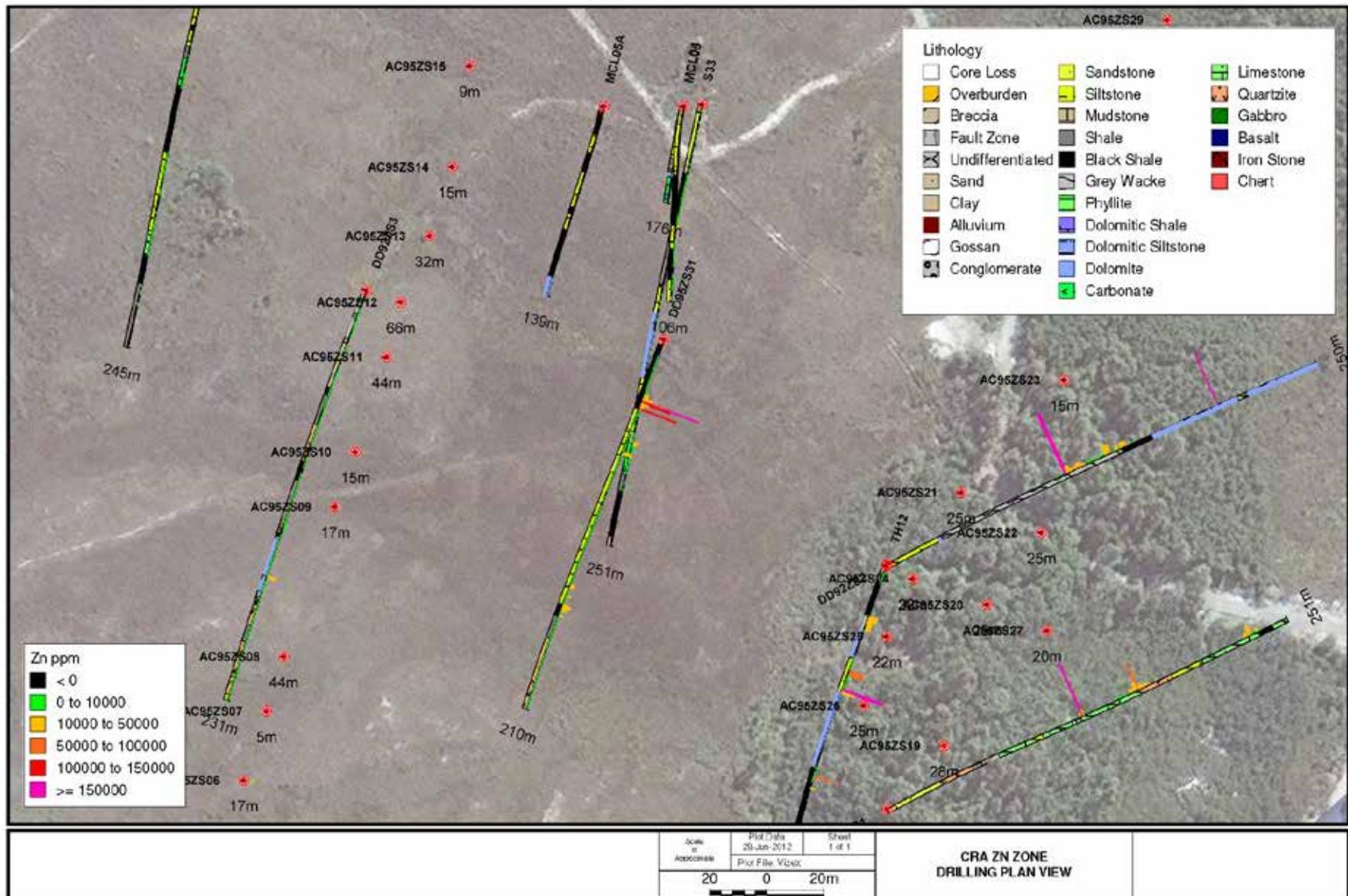


Figure 15 Plan of all holes at CRA zinc zone

#### **MCL04**

MCL04 was designed to primarily test the zone from 80-100m in Allegiance drill hole S33 which suffered ~ 100% core loss. This zone was thought to represent the down dip extension of a shallow (15-40m) black shale zone in CRAE drill hole S31. Whilst better recovery was experienced in hole MCL04, drilling conditions were extremely poor and the hole was eventually abandoned before the design depth of 120m was reached.

The presence of a large pyrite-sphalerite-quartz fragments and the generally elevated zinc values (0.3 – 0.5% Zn) in the lower MCL04 black shale indicates the mineralised zone was intercepted.

There were no significant intersections (2m > 1%Zn+Pb) but two strongly anomalous zones

46 – 66m 20m @ 0.3%Zn, 0.06%Pb  
82 – 95m 13m @ 0.2%Zn, 0.1%Pb

#### **MCL05**

MCL05 was drilled to intercept the highly weathered zinc zone in MCL04 at greater depth in an attempt to achieve better core recoveries.

Drilling consisted of HQ3 to 133.20m where it was switched to NQ for the remainder of the hole. Two separate mineralised shale units were intercepted. The first zone at 22.5m - 38.5m contained disseminated pyrite, whilst the second zone from 118.2m - 125.8m contained disseminated pyrite, galena and sphalerite.

Significant intersections (>2m > 1%Zn+Pb) are;

53 – 55m 2m @ 0.27%Zn, 5.85%Pb, 174 g/t Ag  
122 – 124m 2m @ 0.6%Zn, 1.33%Pb, 12.5g/t Ag within a broad mineralised envelope of  
117 – 162m 45m @ 0.2%Zn, 0.12%Pb

#### **MCL05A**

MCL05A was designed to intercept the Black shale carbonate contact that contained 6m @ 6% Zn in S31. Four zones of black shale were encountered 5.6m -19.9m, 33.7-47.2m, 73-78m, 90.2 -125m. None of these zones contained significant sphalerite mineralisation. Disseminated pyrite was present in all black shale units.

Drilling conditions were very poor with low core recoveries from 90 - 125m. Flowing sands were encountered at 130m and with the risk of bogging rods it was decided to end the hole.

One significant intersection of;

45 – 47m 2m @ 1.4%Zn, 2%Pb, 34.5g/t Ag within a broad mineralised envelope of  
45 – 138.7m 93.7m @ 0.4%Zn, 0.14%Pb

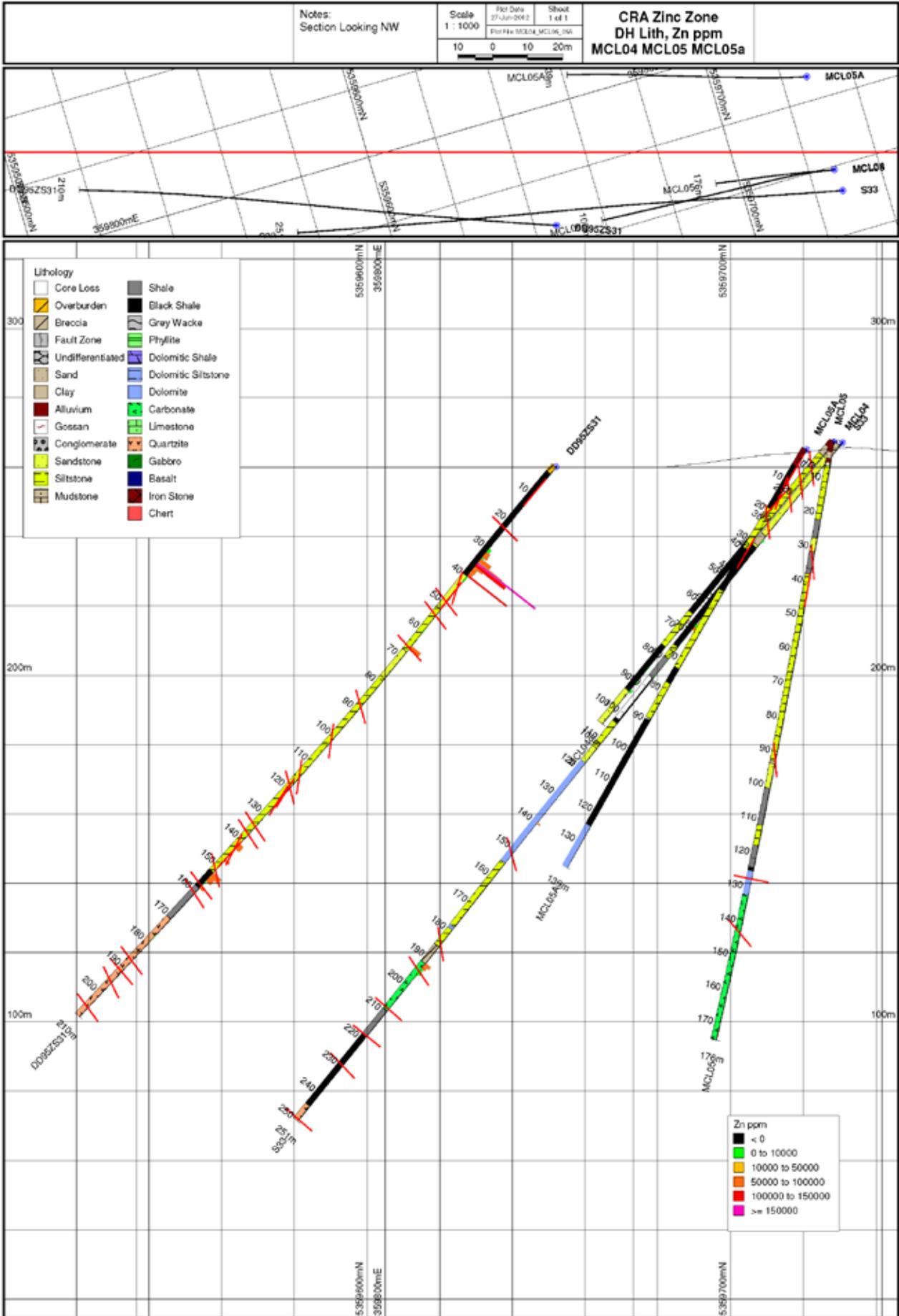


Figure 16 Cross section of drill holes at CRA zinc zone

## **6 Conclusion**

RMG has completed the diamond drilling of 6 holes on 2 prospects within EL17/2003 and ML20/2001. The drilling was to achieve 2 purposes

1. To validate the higher grade zinc zones at the Sunshine prospect
2. To achieve higher core recoveries at the CRA zinc zone and possibly better continuity to the mineralisation.

The drill results did not confirm the higher grade zones at the Sunshine zinc prospect. The Stonehenge drill results are believed to be affected by excessive water ingress and poor sample recovery.

RMG drilling at the CRA Zinc zone whilst achieving better core recovery compared to CRA and Allegiance Mining (albeit, still very poor), has still not resulted in better mineralisation continuity.

Further compilation of the drilling results is in progress, in conjunction with modelling the AEM data now acquired.

## **7 Environment**

See the attached Appendix One for a discussion of the site preparation and rehabilitation activities.

## **8 Key Words**

Zinc, lead, silver, Oonah Formation, dolomite, Zeehan, Comstock, Sunshine Prospect



**Moonraker Minerals Pty Ltd**  
**(a wholly owned subsidiary of RMG Ltd)**

**2012 Exploration Activity Report**  
**Appendix One**  
**Rehab Report**

**McLean's Creek**  
**EL 17/2003 and 20M/2001**

**July 2012**

**B. Lang**

**P. Rolley**





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## 1 Location Access and Tenements

EL 17/2003 is located (approx -41.9038 lat, 145.313 long) approximately three kilometres southwest of the west coast mining township of Zeehan. Access to the initial prospects of interest is from the northeast via the Spray Tunnel and tramway, or from the north, southwards from the Comstock mine site and thence via the Britannia or Swansea Tramways. The tramways have a generally well-compacted surface suitable for 4WD during the wet winter months or two-wheel drive during drier periods. 20M/2001 (Sunshine) is located within EL17/2003.

The topography provides varied foot access, ranging from gently to moderately sloping, fairly open, button grass covered ground to, heavily forested gullies and incised steep hill slopes (inaccessible by foot) with relief of three to five hundred metres. The annual rainfall in the area is usually heavy – up to 2.5m, with most falling in the winter months. Outcrop over both open ground and hill slopes is generally sparse; however tramway cuttings provide excellent rock exposures.

All map co-ordinates in this report are relative to the GDA94 datum and located in UTM Zone 55 and use MGA94 co-ordinates.

## 2 Exploration Activities

RMG Ltd has conducted the following work on EL17/2003, 20M/2001.

- Diamond drilling of the Sunshine Prospect and CRA Zinc Zone.
- Rehabilitation of Swansea and CRA Zinc Zone.

RMG Ltd completed its diamond drilling program in mid-June, 2012. A total of 3 diamond drill holes have been drilled on ML20/2001 at Sunshine and 3 diamond holes on EL17/2003 on the CRA Zinc Zone for a total of 590m.

### 2.1 Drilling at Sunshine

During 2012 3 diamond drill holes, total of 169.8m at Sunshine (20M/2001) was completed. The drilling was planned to confirm the zinc-lead-silver black shale unit previously intercepted by Stonehenge Metals.

Table Below Sunshine drill hole details completed by RMG Ltd.

HoleID	Type	Azi(True)	Dip	TD m	E GDA94z55	N GDA94z55	RL	Company	Method	Date Started	Date Completed
MCL01	Diamond HQ	300	-70	53.8	360128	5359474	258	Van Dieman	GPS	3/05/2012	4/05/2012
MCL02	Diamond HQ	120	-60	61.2	360132	5359474	258	Van Dieman	GPS	24/04/2012	3/05/2012
MCL03	Diamond HQ	120	-70	54.8	360171	5359523	256	Van Dieman	GPS	17/04/2012	24/04/2012



**Activity map of Sunshine Prospect showing historical and RMG drill holes**

## 2.2 Drilling on CRA Zinc Zone

During 2012, 3 diamond drill holes, total of 420.2m was drilled at the CRA Zinc zone prospect (EL17/2003).

Due to environmental constraints on the low lying button grass, the drilling was moved to a higher less favourable position than initially planned.

Table below lists CRA Zinc Zone drill hole details completed by RMG Ltd.

HoleID	Type	Azi(True)	Dip	TD m	E GDA94z55	N GDA94z55	RL	Company	Method	Date Started	Date Completed
MCL04	Diamond HQ	192	-50	105.9	359841	5359727	267	Van Dieman	GPS	9/05/2012	18/05/2012
MCL05	Diamond HQ	192	-80	175.6	359841	5359727	267	Van Dieman	GPS	21/05/2012	1/06/2012
MCL05A	Diamond HQ	192	-60	138.7	359813	5359727	265	Van Dieman	GPS	4/06/2012	13/06/2012

0 5 10 20 metres Scale 1:1,000



### 3 Environmental

#### 3.1 Swansea

Rehabilitation of the Swansea area was undertaken by capping existing holes, refilling and recontouring drill sites and tracks previously cleared by Stonehenge Metals.

##### Swansea Pad 6 - Disturbed



##### Swansea Pad 6 - Rehabilitated



### 3.2 CRA Zinc Zone

An access track was cleared to sites MCL04, 05, 05A and sumps established. Upon completion of drilling all sumps have been filled, collars capped with PVC and topsoil and vegetation re-establish over all drill sites.

**Main Access Track – Disturbed**



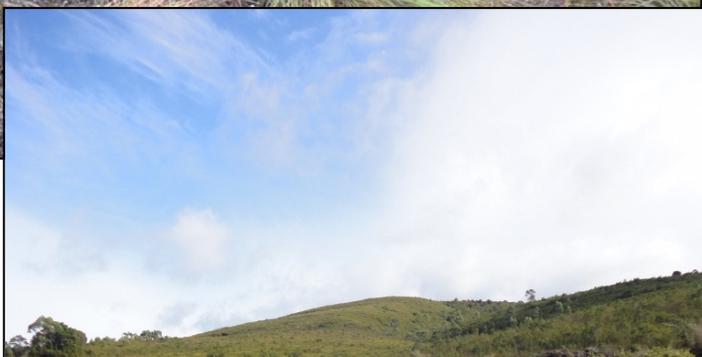
**Main Access Track - Rehabilitated**



**MCL04, MCL05 - Pad Disturbed**



**MCL04, MCL05 – Pad Rehabilitated**



**MCL05A - Track Disturbed**

**MCL05A – Track Rehabilitated**



**MCL05A – Pad Disturbed**



**MCL05A – Pad Rehabilitated**



### 3.3 Sunshine

Existing cleared pads were used for drilling MCL01, 02, 03. Sumps were established for drilling and upon completion of drilling all sumps have been filled in. All drill holes have been capped with cement, and rubbish and sample bags have been removed. Pads have not been recontoured or revegetated.

**MCL01 – Hole Capped**



**MCL02 – Hole Capped**



**MCL03- Hole Capped**



Lith_Facie		Description	
BX		Breccia	
Ch		Chert	
Dm		Dolomite	
DSb		Dolomitic sedimentary breccia	
FD		Dacite	
FH		Rhyolite	
FZ		Fault zone	
GA		Aplite	
GG		Granite	
GP		Pegmatite	
GYK		Grey Wacke	
IA		Andesite	
II		Intermediate Intrusives	
LI		Limonite	
LIM		Limestone	
MB		Basalt	
MD		Dolerite	
MG		Gabbro	
QTZ		Quartzite	
SD		Sandstone	
SDH		Dolomitic shale	
SDL		Dolomitic siltstone	
SDR		Stromatolitic dolomite	
SDS		Dolomitic sandstone	
SH		Shale	
SHB		Blackshale	
SL		Siltstone	
SM		Mudstone	
SN		Conglomerate	
SSb		Sandy sedimentary breccia	
SSe		Sandstone evaporitic	
SSg		Siltstone-Shale graded units	
Ucb		Upper clast supported breccia	
UN		Undifferentiated	
WA		Sand	
WC		Calcrete	
WG		Gossan	
WL		Laterite	
WO		Soil	
WS		Silcrete	
WV		Alluvium	
WY		Clay	
XM		Massive Sulphide	
XSM		Semi-Massive Sulphides	
CL		Coreloss	
CAR		Carbonate	
Colour		Description	
Grey	Gy	Grey	
	Pgy	Pale grey	
	Dgy	Dark grey	
	Gybr	Grey brown	
	Gyrd	Grey red	
	Gypl	Grey purple	
	Gygr	Grey green	
	Gyor	Grey orange	
	Gyyl	Grey yellow	
	Brown	Br	Brown
Pbr		Pale brown	
Dbr		Dark brown	
Brrd		Brown red	
Brpl		Brown purple	
Brgn		Brown green	
Bror		Brown orange	
Bryl		Brown yellow	
Red		Rd	Red
		Prd	Pale red
	Drd	Dark red	
	Rdpl	Red purple	
Purple	Pl	Purple	
	Ppl	Pale purple	
	Dpl	Dark purple	
White	Wh	White	
	Crm	Cream	
Black	Bk	Black	

Textures	Description
Bd	Bedding
Gbd	Graded bedding
Ibd	Interbedded
Vfg	Very fine grained
Fg	Fine grained
Mg	Medium grained
Cg	Coarse grained
Vcg	Very coarse grained
Con	Conglomeritic
Xx	Breccia
Sbx	Sedimentary breccia
Mb	Milled breccia
Vu	Vuggy
Lm	Laminae

Vein Style	Description
VB	Breccia veins
VK	Stockwork veins
VL	Ladder veins
VN	Veins
VS	Sheeted veins
VU	Vuggy veins

Alteration	Description
Cal	Calcite
Car	Carbonate
Dol	Dolomite
Hae	Haematite
Si	Silica
Sul	Sulfide

Alt Intensity	Description
1	None - Weak
2	Weak - Moderate
3	Moderate - Strong
4	Strong - Intense
5	Intense - Complete

Alt Style	Description
VR	Vein related
Pt	Patchy
Dis	Distal
Pr	Pervasive
Dsm	Disseminated
Bx	Brecciated

Weath	Description
fr	fresh
mw	moderately weathered
sw	strongly weathered
ww	weakly weathered

Oxidation	Description
fr	Fresh rock
ox	oxidised rock
NR	Not Recorded
rd	Reduced rock

Hole_ID	mFrom	mTo	Lith_Plot	Lith1_Code	Lith1_Text	Colour	Oxidation	Alt1_Code	Alt1_Int	Alt1_Style	Min1_Cod	Min1_Pct	Min1_Style	Min2_Cod	Min2_Pct	Min3_Cod	Min3_Pct	Min4_Cod	Min4_Pct	Vein1_Conf	Vein1_Styl	Vein1_Pct	Vein2_Conf	Vein2_Styl	Vein2_Pct	Comments
MCL01	0	4.1		WY	Fg	Dbr	fr																		Overburden/Fill from existing workings. Mix Qtz chips shales/clays.	
MCL01	4.1	4.4		SL	Fg	Dgy	fr																		Laminated siltstone, shales with small Qtz chips.	
MCL01	4.4	4.5		QTZ	Fg	Pgy	fr																		Narrow band medium sized Qtz chips upto 4cm in size.	
MCL01	4.5	8		SL	Fg	Pgy	fr																		Plae siltstone, not laminated small Qtz chips present but decreasing towards end of	
MCL01	8	9		SL	Fg	Pgy	fr																		Gravel/Sand/Siltstone mix composed of small chips, phyllite?	
MCL01	9	10.2		SL	Fg	Pgy	fr																		Very fine siltstone with uniform texture, and colour. No evidence of shales.	
MCL01	10.2	10.3		SL	Fg	Dgy	Fr																		Loose siltstone mix Qtz chips/gravels.	
MCL01	10.3	12		SL	Fg	Pgy	Fr																		Siltstone/ sands	
MCL01	12	13		CL																						
MCL01	13	15.3		SL	Fg	Gy	Fr																			Mottled Clay/siltstone fine grain no chips, harber material mixed with brown clays
MCL01	15.3	15.77		SH	Fg	Gy	Fr																			Shale units/siltstone/ carbonaceous in places.
MCL01	15.8	16		SD	Fg	Pgy	Fr																			Small band of silicified sandstone
MCL01	16	16.3		SH		Dgy	Fr																			Shale puggy
MCL01	16.3	21		SHB	Fg	Bk	fr	Sul		3 Dsm	py	1	sph	0.5	gal		1									Black Shale, interbound with pale shale/siltstone.16.17 - 17.0m Lighter shale unit small gravels/QTZ chips. Disseminated pyrite throughout unit with an abundance
MCL01	21	22		CL			fr																			
MCL01	22	24		WA	Cg	BK	fr	Sul		2 Dsm	py	0.5			gal		0.1									Sand/gravel mixture well sorted small Qtz chips. Disseminated pyrite throughout unit. Decrease in Galena, no evidence of sphalerite.
MCL01	24	25.3		CL																						
MCL01	25.3	26		SH	Fg		fr																			Shale unit/ wood chips? Workings? Laminated shale/phyllite chips. No sulphides
MCL01	26	31.37		SHB	Fg	BK	fr	Sul		3 Dsm	py	1			gal		1									Black shale unit. Mineralized throughout, uniform texture and grain size, pyrites and Galena disseminated. Increase in galean is associated with presence of QTZ chips.
MCL01	31.37	32		SH	Fg	Dgy	fr																			Lighter shale unit no mineralization or sulphides. Waterlogged clay material
MCL01	32	33		CL																						
MCL01	33	36		WY	Vfg	Bryl	fr																			Clays, brown waterlogged, poor recovery workings? Uniform texture
MCL01	36	37		CL																						
MCL01	37	39		WY	Fg	Bryl	fr																			Brown clays
MCL01	39	42		CL																						
MCL01	42	42.9		WY	Fg	Bryl	fr																			
MCL01	42.9	43.3		SHB	Fg	Bk	fr	sul		2 Dsm	py	0.5			gal		0.5									Black Shale Fine grained, traces of disseminated pyrite and galena. Small QTZ fragments indicate mineralization is associated with QTZ veins.
MCL01	43.3	44.2		SL	Fg	Dgy	fr																			Siliceous hard siltstone at contact with small thin Qtz, calcite veins upto 2cm in
MCL01	44.2	53.8		SH	Fg	Dgy	fr																			Graphitic black carbonaceous shale. Very well laminated evidence of shear. QTZ veins throughout unit. No evidence of black pug or mineralization as with black
MCL02	0	1		SL	FG	PGY	FR																			Siltstone with intermixed gravels, Qtz Chips
MCL02	1	6.5		SL	FG	PGY	FR																			Fine Grained chips, possible phyllite chips? 9.8m - 10 band of sandstone quartzite
MCL02	6.5	11.3		SL	FG	PGY	FR																			Siltstone/shales
MCL02	11.3	12		SHB	FG	DGY	FR																			Distinct sharp contact, traces of pyrite. Hard sandstone/quartzite present at contact
MCL02	12	15		SHB	FG	DGY	FR				py	0.5	sph	0.1	gal		0.5									Dark carbonaceous shale, disseminated pyrite signs of galena and traces of sphalerite at 13.6m. Minor traces of well defined euhedral Qtz crystals.
MCL02	15	17.7		SHB	FG	DGY	FR				py	1	sph	0.5	gal		1									Mottled black clay/shale with interbound light pale grey siltstone. Disseminated pyrite. Harder quartzite/sandstone band 6.10m - 6.20m
MCL02	17.7	20.5		SHB	FG	DGY	FR				py	0.1	sph	0.1	gal		0.1									Same as interval described above much more pale with less carbonaceous material. Increase in siltstone/ mottled clays. Decrease in sulphides. Small Qtz chips/Phyllite
MCL02	20.5	27.3		SL	FG	DGY	FR																			Lighter siltstone, Qtz chips. Siliceous siltstone, Qtz veins throughout. Presence of carbonates? Poor recovery zone. Workings?
MCL02	27.3	29		SH	FG	BK	FR																			Graphitic carbonaceous shale with distinct shearing.
MCL02	29	31.3		WY	CG	DGY	FR																			Well sorted Sand/broken uni, Qtz grains and pyrite throughout unit.
MCL02	31.3	42.1		SH	FG	DGY	FR														QTZ	VN				Small traces pyrite black shale/slate/graphitic. Evidence of shearing, QTZ veins.
MCL02	42.1	42.8		SH	FG	DGY	FR														QTZ	VN				Large QTZ veins present, minor pyrite hard foliated shales.
MCL02	42.8	45.2		QTZ	FG	PGY	FR														QTZ	VN	CAL	VN		Minor traces of pyrite, throughout unit. Cerrusite quartzite unit.
MCL02	45.2	50.2		SL	FG	BK	FR				py	0.1									QTZ	VN	CAL	VN		Carbonaceous silicified siltstone unit. Thin calcite veins finely laminated.
MCL02	50.2	61.2		SL	FG	GY	FR														QTZ	VN	CAL	VN		Carbonaceous silicified siltstone laminated with minor thin calcite/Qtz veins. Large coarse Qtz veins towards end of the unit. Evidence of graphitic schist. Yellow/Brown Fe staining through thin Qtz veins. Large Qtz veins associated with the occurrence of
MCL03	0	3.6		CL																						Core Loss
MCL03	3.6	4.9		WV	Mg	Pgy	fr																			Rubble Alluvium
MCL03	4.9	17.1		SL	Vfg	Pgy	fr																			Laminated Siltstone, Interbedded sands, phyllites
MCL03	17.1	22.3		SL	Fg	Pgy	fr																			Coarse, mixture of sands
MCL03	22.33	25.8		SL	Vfg	Pgy	fr																			Very fine grain siltstone, Qtz sands/chips present gradation into black shale
MCL03	25.8	27		SHB	Fg	BK	fr				py	1	gl	1												Fine disseminated pyrite and traces of galena, black shales with lighter mixed shales
MCL03	27	28.8		SHB	Fg	BK	fr				py	1	gl	1												Very Dark shale, fine grained galena.
MCL03	28.8	31		SH	Fg	Dgy	fr				py	1	gl	2												Dark/light shales interbedded indicating deformation
MCL03	31	31.7		SH	Fg	Dgy	fr				py	2	gl	2												Coarser shale unit containing Qtz Chips, mottled clay? Siltstone? Fine grained
MCL03	31.7	32.6		SHB	Fg	BK	fr				py	3	gl	1												Sulphides increasing, Dark shale, increasing pyrite towards end of interval
MCL03	32.6	33.1		SHB	Fg	BK	fr				py	8	gl	1												Fine grained black shale increase in pyrite
MCL03	33.1	34		SH	Fg	Gy	fr																			Lighter shale unit.
MCL03	34	34.6		CL			fr																			
MCL03	34.6	38.2		SL	Fg	Bryl	fr																			Light siltstone, foliated shales coarse grained Qtz Chips
MCL03	38.2	39.1		CL			fr																			
MCL03	39.1	42.7		SL	Fg	Dgy	fr																			Siltstone/shales, strong foliation
MCL03	42.7	44		SL	Vfg	Pgy	fr																			Siltstone/shales, strong foliation
MCL03	44	46		SL	Fg	Gy	fr																			Quartz vein 45.65. Deformation in unit with Fe Stone.
MCL03	46	47.2		CL			fr																			Core Loss
MCL03	47.2	54.3		SL	Mg	Pbr	fr																			Laminated shale/siltstone, with Fe Stone present. Deformation and shearing
MCL03	54.3	54.8		SL	Cg	Bryl	fr																			Coarse grained with small amounts of pyrite. Maybe sign of workings due to sudden
MCL04	0	2		WV		PGY	fr																			Tertiary gravel cover

Hole_ID	mFrom	mTo	Lith_Plot	Lith1_Code	Lith1_Text	Colour	Oxidation	Alt1_Code	Alt1_Int	Alt1_Style	Min1_Code	Min1_Pct	Min1_Style	Min2_Code	Min2_Pct	Min3_Code	Min3_Pct	Min4_Code	Min4_Pct	Vein1_Conf	Vein1_Styl	Vein1_Pct	Vein2_Conf	Vein2_Styl	Vein2_Pct	Comments			
MCL04		2	5	WY	VFG	GYBR	fr																			Light grey to brown clay after phyllite, containing remnant fragments and grit			
MCL04		5	8.4	SL		BR	fr																			Dark brown fawn coloured siltstone and claye interbeds. Siltstone highly decomposed to a gravel or rubble. Ferruginous staining responsible for colour. Poor			
MCL04		8.4	10	WA	MG	DBR	fr																			Dark brown to white medium to coarse-grained sand probably derived from enclosing units. Large quartz pebbles likely to have fallen from collar of hole			
MCL04		10	32.5	SL	LM	BR	fr																			Medium brown to fawn coloured siltstone/phyllite. Highly decomposed and ferruginous. Fine laminations visible in places @ 40 degrees to L.C.A. Remnant quartz fragments representing fractured quartz veining in places. Increase in			
MCL04		32.5	37.3	SL	IBD	BR	fr																			Transition zone of moderately carbonaceous siltstone with black shale interbeds. Siltstone vuggy in places, probably indicating leached pyrite cavities. Narrow 1-2cm black shale bands are associated with increase in fine grained disseminated pyrite			
MCL04		37.3	64.5	SHB	FG	BK	fr																			Black Pug and Grits. Interval composed of black shale fragments, quartz fragments and black clay. Fine-grained disseminated pyrite throughout. Coarse-grained drusy			
MCL04		64.5	77	SL	LM	CRM	fr																			Siltstone Clay. Cream to buff-coloured siltstone strongly weathered and disaggregated to pug. Unit becoming fresher towards the lower contact. Fine-			
MCL04		77	93.7	SHB	VFG	BK	fr																			Black Shale and Mud. Decomposed black shale unit representing a strongly deformed and shattered, quartz veined and pyritic, graphitic shale. Unit becomes more graphitic towards the lower contact. 4-5cm pyrite-sphalerite-quartz vein			
MCL04		93.7	105.9	SD	MG	PGY	fr																			Sandstone siltstone. Light grey to fawn-coloured siltstone and sandstone. Strongly weathered and decomposed with minor graphitic shaley narrow interbeds. Very poor recovery. Very fine-grained disseminated pyrite particularly in graphite			
MCL05		0	2.6	WV	FG	Wh	FR																			Qtz gravel fragments upto 7cm in size			
MCL05		2.6	4.7	WY	FG	DBr	FR																			Brown clay with intertwined black clay shale, small gravels and grit			
MCL05		4.7	5.7	WV	FG	DBr	FR																			Alluvium containing phyllite gravel pieces			
MCL05		5.7	6.7	CL																						Core Loss			
MCL05		6.7	13.1	SL	MG	DBr	FR																			Siltstone highly weatherd with clays/sands, gravels towards end of unit.			
MCL05		13.1	22.5	SL	FG	Br	FR	SUL		1 DSM	py		0.1													Brokendn Fawned siltstone weathered with mudstone? Well laminated in places, Siltstone - Shale unit silicified small QTZ veining present with associated			
MCL05		22.5	28	SH	FG	Gy	FR	SUL		1 DSM	py		2							QTZ	VN		10	VN	10	disseminated pyrite throughout carbonaceous shale.			
MCL05		28	31.9	SD	FG	Gy	FR	SUL		1 DSM	py		1													Sandstone unit uniform in texture and formation, fine disseminated pyrite present			
MCL05		31.9	36.9	SH	FG	Bk	FR																			Graphitic carbonaceous shell unit well laminated. No mineralization or QTZ veining.			
MCL05		36.9	38.5	SH	FG	Dgy	FR	SUL		1 DSM	py		2							QTZ	VN		10	VN	10	Shale, QTZ veins present and silicified Siltstone. QTZ upto 2cm wide associated with disseminated pyrite increasing towards end of unit (siltstone contact).			
MCL05		38.5	41	SL	MG	DBr	FR																			Loose sandstone/siltstone gravel, broken unit at contact, Fe staining associated with pyrite in previous unit. Fabric/bedding same orientation to core.			
MCL05		41	53.4	SL	FG	Pgy	FR	SUL		1	py		0.1													Broken loose sandstone/siltstone small QTZ chips. Fine sand between 48-53.2. Traces of very fine disseminated Pyrite 47.4m			
MCL05		53.4	58.3	SL	Vfg	Pgy	FR	SUL		1 DSM										gal	2					Siltstone, Fine Grain. Traces of Galena throughout upto 2cm in size. Large Galena at			
MCL05		58.3	86.2	SL	FG	Pgy	FR																			Siltstone very fine grained unit unit th Grain size and colour.			
MCL05		86.2	93.4	SL	FG	Pgy	FR	SUL		1 DSM	py		0.1							QTZ	VN		5	VN	5	Siltstone strongly laminated siliceous small QTZ veins upto 2cm thick.			
MCL05		93.4	94.2	WA	Vfg	Pgy	FR																			Siltstone, sand, hole caved in			
MCL05		94.2	101.3	SD	Vfg	Gy	FR																			Sandstone/siltstone, massive sandstone.			
MCL05		101.3	112.2	SH	FG	Gy	FR	SUL		1 DSM	py		2							CAL	VB		20	QTZ	VB	20	Carbonaceous black shale at contact with unit above. Evidence of shearing, containing carbonates? Calcite/QTZ veins brecciated through unit with siltstone,		
MCL05		112.2	118.2	SL	Vfg	CRM	FR																			Pale uniform, alteration zone? Similar to 94.2-101.3m, except highly weathered.			
MCL05		118.2	122	SH	FG	Dgy	FR	SUL		1 DSM	py		1							CAL	VB		10	QTZ	VB	10	Broken shale unit, brecciated, carbonaceous shale with thin calcite veining, carbonate material. Thin QTZ veining also present. Shale becomes puggy between 119.5-122m. Unit un differentiated between shale/carbonate dolomite? Minimal		
MCL05		122	124.7	SH	FG	PGy	FR	SUL		2 DSM	py		1							gal	2	CAL	VB		15	QTZ	VB	15	Undifferentiated shale/carbonate not carbonaceous like above unit. Strong Breccia, calcite veins. Thin Gale traces veins, replaced calcite veins.
MCL05		124.7	125.8	SHB	FG		FR																			Black carbonaceous shale band. No pyrite or veining present.			
MCL05		125.8	132.8	DM	FG	Dgy	FR	SUL		DSM	py		2	cpy		2	spha			2	CAL	VB		10	QTZ	VB	10	Dolomitic unit breccia common 125.8 - 127.9m. Thin carbonaceous unit 127.90 - 128.5m. Massive, uniform dolomite. Thin trace Galena, sphalerite, chalcopyrite.	
MCL05A		0	5.6	WV	Cg	Br	Fr																			Alluvium gravel consisting of QTZ chips, gravels mixed with fine graphitic black shale			
MCL05A		5.6	19.9	SHB	LM	Dgy	Fr	SUL		2 DSM	PY		1							QTZ	VU		5			Graphitic Black shale unit. Laminated shear planes, Bedding angle to Core axis sub parallel. Disseminated pyrite throughout, small thin etched out QTZ veins present. Unit highly black, carbonaceous between 16-16.9m. Pyrite also present in narrow			
MCL05A		19.9	33.37	SL	FG	DBr	Fr	SUL		1 DSM	PY		1													Fawny siltstone brown laminated with a distinct sheen, possibly a phyllite at 29.6m? Very fine disseminated pyrite throughout unit increasing at contact with unit below.			
MCL05A		33.4	47.2	SHB	FG	BK	Fr	SUL		1 DSM	PY		1	GA		1										Black shale unit similar to 5.6-19.9. Qtz veining 100 degrees to core axis, upto 4cm in width, vuggy. Clear cut contact with unit above. Bedding parallel to bedding. Unit becoming weathered towards contact with unit below. Upto 0.5% Zn with pXRF			
MCL05A		47.2	73	SL	VFG	CRM	Fr																			Pale siltstone unit, strongly weathered. No mineralisation, uniform in texture and			
MCL05A		73	78	SHB	MG	BK	Fr																			Strongly weathered black shale pug. Consists of fine shale gravel/sands with qtz chips upto 4cm in size. No pyrite or mineralisation present.			
MCL05A		78	89.5	SL	VFG	CRM	Fr																			Pale grey/ white siltstone unit uniform in texture and colour. Strongly weathered no			
MCL05A		89.5	90.2	CL																									
MCL05A		90.2	125	SHB	Fg	BK	fr	Sul		2 DSM	PY		2	GA		1	SPA									Black shale unit with very poor recovery. Puggy carbonaceous containing QTZ chips, massive pyrite mineralisation. Weak Galena and sphalerite present. Very broken contact with unit below, gravels, carbonate dolomites at contact. Sharp distinct			
MCL05A		125	138.7	DM	Fg	Dgy	Fr	Sul		2 DSM	PY		2	GA		1	SPA			QTZ	VN		5						

DataSet	Hole_ID	Depth	DHSurvey_Dip	Orig_Grid_Orig_Azimu
McLeans C	MCL01	0	-70	300
McLeans C	MCL01	53	-68	303.3
McLeans C	MCL02	0	-60	120
McLeans C	MCL02	25	-62	126.3
McLeans C	MCL02	61	-56	125.3
McLeans C	MCL03	0	-70	120
McLeans C	MCL03	25	-70	117.3
McLeans C	MCL03	54.8	-70	114.3
McLeans C	MCL04	0	-50	192
McLeans C	MCL04	25	-50	182.3
McLeans C	MCL04	80	-50	183.3
McLeans C	MCL05	0	-80	192
McLeans C	MCL05	25	-80	191.3
McLeans C	MCL05	140	-78	188.3
McLeans C	MCL05	173	-77	189.3
McLeans C	MCL05A	0	-60	192
McLeans C	MCL05A	25	-59.5	197.3
McLeans C	MCL05A	100	-61	198.3
McLeans C	MCL05A	138	-60.5	194.3
McLeans C	MCL06	0	-60	200
McLeans C	MCL06A	0	-60	192
McLeans C	MCL07	0	-60	257
McLeans C	MCL08	0	-60	45
McLeans C	MCL09	0	-60	60

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm
115092	MCL01	0	1	17.6	112	1	0.02	4.7		4	22	68	1.57	1.23	0.16	99	1	0.04	2.5	15	90	7270	437	33	0.14	35	10	950
115093	MCL01	1	2	5.2	85	1	0.02	13.2		7	32	454	1.33	1.77	0.2	79	3	0.05	6	20	80	2540	157	26	0.19	48	10	3420
115094	MCL01	2	3	8.6	135	1	0.02	11.4		9	19	56	1.54	0.82	0.12	98	1	0.03	2.5	19	70	3400	157	20	0.11	22	10	1780
115095	MCL01	3	4	14.4	93	1	0.02	3.8		3	13	38	0.87	0.69	0.1	115	0.5	0.03	2.5	14	60	6350	260	25	0.09	18	-10	706
115096	MCL01	4	5	0.7	203	1	0.01	2		31	25	31	3.67	1.87	0.19	37	1	0.06	6	65	80	397	23	26	0.21	45	10	661
115097	MCL01	5	6	0.025	23	1	0.005	2.7		12	36	10	1.08	3.01	0.29	22	1	0.1	10	29	110	472	21	40	0.36	71	20	1385
115098	MCL01	6	7	0.025	103	1	0.01	2.1		19	36	33	1.87	2.69	0.27	24	2	0.09	10	46	110	394	22	35	0.34	63	20	2610
115099	MCL01	7	8	0.7	160	1	0.01	4.7		9	30	50	2.29	2.21	0.23	58	1	0.07	8	37	100	535	23	32	0.28	52	20	2040
115100	MCL01	8	9	0.6	354	1	0.01	2.7		25	17	54	5.65	1.16	0.12	34	1	0.05	2.5	85	60	498	29	20	0.15	27	10	1775
115101	MCL01	9	10	0.025	22	1	0.01	3.3		5	21	23	0.84	1.46	0.15	33	1	0.07	6	20	90	129	10	28	0.2	37	10	833
115102	MCL01	10	11	0.025	130	1	0.01	2.7		24	24	10	2.44	1.84	0.2	45	1	0.06	6	72	90	151	11	23	0.2	41	10	746
115103	MCL01	11	12	0.8	213	1	0.01	5.4		15	23	22	3.2	1.75	0.19	55	1	0.06	5	46	70	398	22	23	0.18	41	10	1485
115105	MCL01	13	14	0.7	34	1	0.01	14.8		9	40	67	1.31	3.02	0.33	90	1	0.11	10	29	120	993	43	34	0.33	79	20	3400
115107	MCL01	14	15	1	50	1	0.01	18.4		15	33	65	3.31	2.54	0.28	79	1	0.09	7	41	110	1080	45	32	0.27	67	20	3100
115108	MCL01	15	16	2.6	22	1	0.01	18.9		11	29	156	1.16	2.09	0.29	780	2	0.06	6	22	90	1390	95	29	0.22	59	10	3130
115109	MCL01	16	17	24.7	100	3	0.01	75.9		19	35	178	1.98	2.42	0.33	150	1	0.07	6	35	120	12000	342	37	0.23	76	20	13050
115110	MCL01	17	18	32	167	1	0.03	186		86	29	209	8.26	1.27	0.24	316	1	0.04	2.5	158	100	15800	286	30	0.12	60	20	38900
115111	MCL01	18	19	43.7	128	1	0.03	168		65	34	236	5.12	1.37	0.25	384	0.5	0.04	2.5	135	110	22400	320	33	0.14	69	20	33900
115112	MCL01	19	20	8.4	342	1	0.02	53.7		27	34	135	4.52	2.23	0.29	177	2	0.06	7	55	120	3650	85	34	0.21	75	20	10500
115113	MCL01	20	21	1.4	66	1	0.01	23.6		8	36	132	1.75	2.89	0.32	86	3	0.09	8	19	150	1490	64	49	0.28	73	20	2670
115115	MCL01	22	23	6.3	240	1	0.03	86.1		16	22	138	5.52	1.28	0.16	129	1	0.05	2.5	42	50	2960	97	18	0.12	32	10	15050
115116	MCL01	23	24	4.3	181	1	0.02	54.5		15	23	154	4.07	1.41	0.17	107	2	0.05	2.5	35	60	2270	87	21	0.15	36	10	10250
115118	MCL01	25	26	3.7	184	1	0.01	18.2		29	35	135	1.16	2.1	0.24	58	1	0.07	2.5	57	110	1630	135	30	0.29	63	10	6780
115119	MCL01	26	27	22	365	1	0.01	34.7		16	26	109	2.3	1.11	0.13	108	0.5	0.04	2.5	24	120	10400	353	20	0.18	37	20	8550
115120	MCL01	27	28	115	6000	1	0.02	1030		51	13	604	5.71	0.25	0.06	200	0.5	0.01	2.5	94	100	77400	1745	15	0.04	25	20	146000
115122	MCL01	28	29	32.5	2530	2	0.04	2020		96	24	159	7.74	0.46	0.12	232	0.5	0.02	2.5	176	80	57900	1765	23	0.07	53	30	125500
115123	MCL01	29	30	85.8	5310	1	0.04	825		58	19	297	6.75	0.3	0.09	197	0.5	0.02	2.5	128	130	135000	1440	16	0.04	30	20	55100
115124	MCL01	30	31	29.4	1180	1	0.04	706		100	21	148	12	0.27	0.09	289	0.5	0.01	2.5	174	310	30100	1395	12	0.03	58	30	102000
115125	MCL01	31	32	23.2	18750	1	0.04	1070		86	18	144	8.19	0.28	0.13	219	0.5	0.02	2.5	177	180	41800	1285	15	0.04	41	20	99200
115127	MCL01	33	34	19.8	1230	1	0.02	136		10	18	115	13	0.58	0.12	184	1	0.03	2.5	67	690	7440	650	19	0.07	49	20	25000
115128	MCL01	34	35	15	1495	1	0.02	103.5		7	18	105	2.17	0.86	0.18	119	1	0.03	2.5	77	180	7680	571	29	0.13	32	10	14100
115129	MCL01	35	36	18.1	1920	1	0.02	50.6		6	20	94	2.11	1.05	0.17	89	1	0.04	2.5	64	260	5430	509	53	0.17	37	10	7630
115131	MCL01	37	38	14.6	1970	1	0.02	55.6		7	18	84	1.22	0.86	0.19	87	1	0.04	2.5	72	310	4910	727	89	0.14	30	10	12550
115132	MCL01	38	39	6.9	1580	1	0.03	32.5		9	18	62	1.58	0.77	0.22	172	1	0.04	2.5	99	490	3190	727	170	0.11	33	10	8710
115137	MCL01	42	43	7.2	166	1	0.02	54.3		12	13	27	9.37	0.39	0.1	175	0.5	0.02	2.5	38	440	3870	225	17	0.05	47	20	5630
115138	MCL01	43	44	1.6	77	1	0.01	21		10	20	39	1.45	1.28	0.18	48	0.5	0.03	5	22	90	1740	97	20	0.17	31	10	4060
115139	MCL01	44	45	0.025	25	1	0.01	1.4		12	19	12	0.5	1.58	0.2	30	0.5	0.03	6	24	60	302	21	15	0.19	31	10	253
115140	MCL01	45	46	0.025	28	1	0.005	1		11	25	6	0.98	1.9	0.23	40	0.5	0.04	8	17	60	161	12	17	0.22	40	10	152
115141	MCL01	46	47	0.025	23	3	0.01	0.25		12	31	7	1.03	2.02	0.24	40	1	0.04	8	20	90	98	13	24	0.23	47	10	128
115142	MCL01	47	48	0.025	23	3	0.01	0.25		11	40	21	0.79	3.07	0.34	33	1	0.06	10	17	140	108	25	37	0.33	65	20	100
115143	MCL01	48	49	0.025	24	1	0.01	0.25		13	30	19	0.82	2.32	0.27	36	1	0.04	8	20	100	67	21	27	0.25	48	20	113
115144	MCL01	49	50	1.2	14	1	0.01	0.9		5	27	36	0.55	2.22	0.24	34	1	0.04	7	8	90	106	39	22	0.23	46	10	93
115145	MCL01	50	51	1.2	39	1	0.01	3.4		9	30	19	0.77	2.38	0.26	28	0.5	0.05	8	12	100	332	31	27	0.25	50	10	644
115146	MCL01	51	52	0.5	33	1	0.01	0.9		13	43	15	1.01	3.29	0.36	31	1	0.06	9	19	130	179	23	37	0.3	80	10	239
115147	MCL01	52	53	0.025	20	1	0.01	3.9		4	18	10	0.55	1.53	0.16	39	0.5	0.03	5	6	70	185	21	20	0.18	32	10	882
115148	MCL01	53	53.8	0.025	8	1	0.01	1.9		3	17	7	0.58	1.22	0.12	53	0.5	0.03	5	22	50	109	19	16	0.16	25	10	248
115039	MCL02	0	1	7	58	1	0.01	5.8		3	33	42	1.4	2.38	0.29	75	1	0.07	7	9	120	3510	166	37	0.23	58	10	1225
115040	MCL02	1	2	39	62	1	0.01	6.3		3	18	57	0.55	1.34	0.15	51	1	0.03	5	7	90	15900	782	20	0.15	33	10	1585
115041	MCL02	2	3	1.3	9	1	0.01	1.7		10	40	26	0.68	3.42	0.4	84	1	0.07	9	14	130	609	30	34	0.3	74	10	706
115042	MCL02	3	4	1.2	10	1	0.005	1.8		10	42	35	0.59	3.46	0.35	32	1	0.08	10	16	140	423	46	37	0.33	79	10	943
115043	MCL02	4	5	0.025	11	1	0.005	0.25		7	44	27	0.6	3.57	0.36	21	1	0.08	11	16	140	160	13	43	0.35	81	10	381
115044	MCL02	5	6	0.7	2.5	1	0.005	0.25		6	42	21	0.63	3.32	0.34	36	1	0.07	9	10	120	396	15	35	0.3	73	10	315
115045	MCL02	6	7	0.7	2.5	1	0.01	0.25		4	43	45	0.52	3.48	0.35	24	2	0.09	11	18	160	296	11	43	0.34	77	10	

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm
115061	MCL02	21	22	2.3	5	1	0.005	0.7		1	29	16	0.39	1.89	0.2	26	1	0.03	7	5	110	107	27	28	0.21	42	10	271
115062	MCL02	22	23	2.2	2.5	1	0.005	0.25		0.5	20	5	0.4	1.52	0.16	30	1	0.03	7	2	80	46	9	24	0.2	34	10	56
115063	MCL02	23	24	1.7	2.5	1	0.005	0.25		0.5	28	6	0.76	1.87	0.19	65	1	0.03	7	4	80	41	12	27	0.22	41	10	82
115064	MCL02	24	25	1.5	11	1	0.005	0.25		1	50	35	0.41	3.67	0.38	20	1	0.06	12	5	170	58	40	50	0.37	84	20	522
115065	MCL02	25	26	1.3	2.5	1	0.005	0.25		0.5	36	14	0.33	2.6	0.27	17	1	0.04	10	1	110	49	26	30	0.3	56	10	80
115066	MCL02	26	27	0.8	7	1	0.005	0.25		0.5	25	32	0.38	1.84	0.2	28	0.5	0.02	9	1	110	65	24	31	0.27	43	10	226
115067	MCL02	27	28	1.5	17	1	0.005	0.25		5	43	69	0.8	3.11	0.33	39	1	0.05	12	8	130	116	33	34	0.34	66	20	92
115069	MCL02	28	29	1.2	27	1	0.005	0.25		15	56	59	1.23	3.56	0.36	79	1	0.06	11	20	130	204	27	36	0.33	88	10	48
115070	MCL02	29	30	1.7	26	2	0.01	10.1		16	38	100	0.98	2.59	0.27	59	2	0.05	8	14	100	514	26	29	0.26	61	10	2170
115071	MCL02	30	31	2.5	31	1	0.01	14		20	37	83	1.16	2.26	0.25	68	1	0.05	7	11	80	702	28	26	0.22	54	10	3120
115072	MCL02	31	32	1.3	33	1	0.01	6.9		11	32	97	0.87	2.1	0.22	47	1	0.04	7	9	80	328	17	24	0.23	48	10	1490
115073	MCL02	32	33	0.025	16	2	0.005	0.25		5	19	47	0.42	1.47	0.14	24	0.5	0.03	7	4	70	71	9	24	0.21	34	10	73
115074	MCL02	33	34	0.6	15	2	0.005	1.8		13	42	24	0.83	3.56	0.37	22	1	0.06	10	11	120	100	16	33	0.35	82	20	48
115075	MCL02	34	35	0.025	24	3	0.005	0.9		20	46	12	1.24	3.73	0.42	57	0.5	0.06	11	20	140	86	11	36	0.35	81	30	33
115076	MCL02	35	36	0.025	34	1	0.005	6.2		25	47	15	1.46	3.91	0.42	80	1	0.06	11	23	130	141	19	32	0.36	84	20	59
115077	MCL02	36	37	0.025	24	1	0.005	0.25		33	40	13	1.97	3.33	0.42	34	1	0.05	10	24	100	40	11	25	0.33	73	20	25
115078	MCL02	37	38	0.025	20	2	0.005	1.7		21	34	16	1.41	2.51	0.3	54	1	0.06	7	16	90	72	11	30	0.26	63	10	71
115079	MCL02	38	39	0.025	21	2	0.005	4		19	51	8	1.15	4.08	0.38	25	0.5	0.07	12	19	160	185	17	42	0.41	97	20	334
115080	MCL02	39	40	0.025	18	1	0.005	2.2		13	41	8	0.89	3.26	0.35	49	0.5	0.05	10	14	150	106	15	36	0.34	74	20	403
115081	MCL02	40	41	0.025	16	2	0.005	2.8		7	35	3	0.85	2.54	0.27	45	0.5	0.04	9	8	110	77	18	29	0.29	56	20	890
115083	MCL02	41	42	0.025	15	1	0.01	0.5		17	30	8	1.6	2.12	0.26	31	0.5	0.04	8	21	100	60	9	26	0.24	51	10	253
115084	MCL02	42	43	0.025	10	1	0.01	0.25		8	23	4	1.1	1.75	0.25	50	1	0.06	6	10	90	21	6	19	0.19	41	10	96
115085	MCL02	43	44	0.025	15	3	0.01	0.25		13	38	4	1.4	3.27	0.41	32	1	0.05	9	17	130	42	6	26	0.31	75	20	78
115086	MCL02	44	45	0.025	5	1	0.01	0.25		12	28	1	1.13	2.42	0.3	24	1	0.03	8	13	90	9	2.5	20	0.26	49	10	52
115087	MCL02	45	46	0.025	17	2	0.01	0.25		14	44	7	1.13	4.05	0.46	71	0.5	0.06	11	18	120	12	6	27	0.37	87	20	76
115088	MCL02	46	47	0.025	6	1	0.005	0.25		8	44	3	0.76	4.08	0.46	35	0.5	0.06	12	10	120	9	2.5	26	0.4	86	20	91
115089	MCL02	47	48	0.025	15	1	0.02	0.25		11	45	4	0.9	4.25	0.5	25	1	0.06	11	15	190	46	7	25	0.36	88	30	197
115090	MCL02	48	49	0.025	7	1	0.09	0.25		6	43	3	2.86	3.84	1.3	1440	0.5	0.06	10	15	380	28	6	30	0.35	80	20	119
115091	MCL02	49	50	0.025	13	3	0.04	1.3		11	41	4	0.88	3.45	0.37	40	1	0.07	10	11	270	103	8	36	0.35	79	20	287
115001	MCL03	14	15	1.1	25	5	0.04	0.25		0.5	49	20	0.28	0.86	0.24	20	8	0.02	2.5	43	2590	7770	118	178	0.12	109	20	19
115002	MCL03	15	16	1.1	8	4	0.03	0.25		0.5	28	10	0.38	1.41	0.38	28	2	0.05	5	17	610	1420	42	79	0.17	55	10	38
115003	MCL03	16	17	1	2.5	3	0.03	0.25		1	25	13	0.24	0.99	0.35	15	1	0.07	5	21	460	562	22	98	0.18	46	10	18
115004	MCL03	17	18	1.8	6	1	0.04	0.25		0.5	19	12	0.27	0.74	0.23	21	2	0.04	2.5	16	610	1290	28	75	0.13	30	10	14
115005	MCL03	18	19	1.9	2.5	1	0.02	0.25		0.5	35	8	0.49	2.35	0.41	30	2	0.09	9	2	280	621	18	56	0.28	80	10	11
115006	MCL03	19	20	1.8	2.5	1	0.01	0.25		0.5	32	5	0.55	2.55	0.35	30	0.5	0.08	8	3	150	101	17	52	0.28	65	10	10
115007	MCL03	20	21	1.3	2.5	3	0.02	0.25		1	24	8	0.4	1.72	0.4	22	1	0.07	7	3	170	177	17	56	0.22	46	10	8
115008	MCL03	21	22	0.9	2.5	3	0.01	0.25		0.5	53	6	0.51	3.51	0.54	23	0.5	0.07	9	4	180	146	27	49	0.32	229	20	16
115009	MCL03	22	23	1.4	5	3	0.02	0.25		2	46	44	0.41	2.07	0.37	46	5	0.07	7	29	610	1140	57	64	0.23	146	10	43
115010	MCL03	23	24	1.7	58	1	0.02	0.5		2	44	125	0.74	0.77	0.24	123	6	0.04	2.5	47	3550	15950	167	218	0.1	56	20	211
115011	MCL03	24	25	1.2	20	2	0.01	0.25		7	34	163	0.29	0.61	0.13	79	14	0.03	2.5	60	1810	5940	137	57	0.09	57	10	96
115012	MCL03	25	25.8	2.3	29	2	0.01	1.1		2	35	179	0.59	0.53	0.18	113	10	0.04	2.5	66	1640	5950	166	53	0.07	54	10	743
115013	MCL03	25.8	27	31.1	174	1	0.02	9.1		23	57	2880	9.05	0.21	0.18	279	17	0.02	2.5	92	710	23500	460	28	0.02	153	10	959
115014	MCL03	27	28	3.7	68	1	0.03	13.9		12	23	210	3.59	0.07	0.19	210	6	0.01	2.5	31	310	28900	200	12	0.01	31	5	684
115016	MCL03	28	29	6.8	27	2	0.02	3.5		10	60	245	7.32	1.72	0.28	426	7	0.05	2.5	44	1190	16350	162	32	0.13	131	20	366
115017	MCL03	29	30	12.9	101	4	0.02	3.8		21	45	621	13.35	1.4	0.26	613	7	0.04	2.5	59	1850	12000	200	40	0.09	143	30	989
115018	MCL03	30	31	23.9	224	1	0.01	10.6		12	38	154	5.51	2.52	0.35	144	1	0.08	6	38	230	16250	130	44	0.21	75	20	1260
115019	MCL03	31	32	32.7	372	2	0.02	14.8		35	37	206	37.2	1.67	0.28	172	1	0.05	2.5	88	300	21500	214	43	0.14	104	30	1860
115020	MCL03	32	33	33.5	970	5	0.02	33.7		13	27	178	15.6	0.81	0.21	254	1	0.03	2.5	54	170	20300	195	34	0.07	106	10	6900
115021	MCL03	33	34	12.3	321	2	0.02	0.8		3	29	230	5.86	1.27	0.22	146	12	0.03	2.5	43	420	1390	173	65	0.13	58	10	170
115022	MCL03	34	35	1.5	36	3	0.01	0.9		1	48	46	1.13	3.64	0.46	47	3	0.06	9	32	510	1820	90	43	0.32	87	20	188
115023	MCL03	35	36	1.1	16	1	0.01	0.25		1	42	32	0.73	3.24	0.39	35	1	0.06	9	64	890	3190	78	47	0.32	85	20	353
115024	MCL03	36	37	1.7	30	2	0.01	0.5		2	42	103	7.38	1.74	0.27	535	2	0.03	2.5	53	1130	3250	277	45	0.13	240	10	880
115025	MCL03	37	38	24.8	88	1	0.01	0.25		2	40	234	9.6	0.83	0.16	479	2	0.02	2.5	36	1070	2030	449	48	0.05	204	10	1000
115026	MCL03	39	40	1.2	2.5	3	0.005	0.25</																				

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm
115151	MCL04	74	75	0.25	15	1	0.16	3.9		32	26	20	12	1.93	4.77	13750	0.5	0.04	10	38	310	61	2.5	40	0.22	69	20	1275
115152	MCL04	75	76	0.25	10	1	0.14	3.1		22	26	17	9	1.98	5.81	9090	0.5	0.05	11	27	320	60	9	38	0.24	68	20	937
115153	MCL04	76	77	0.5	11	1	0.14	2.5		302	32	875	8.4	1.97	6.28	7570	0.5	0.05	12	220	370	78	12	46	0.24	73	20	1475
115154	MCL04	77	78	0.9	31	1	0.18	1.4		133	51	397	12.2	2.33	1.1	11300	1	0.05	8	127	450	193	11	50	0.25	123	20	1340
115155	MCL04	78	79	0.25	25	1	0.12	1.8		60	33	91	7.46	1.73	1.27	6040	0.5	0.04	7	46	320	174	13	21	0.19	64	10	738
115156	MCL04	79	80	0.25	18	1	0.11	4.1		19	51	43	3.43	2.84	0.67	185	0.5	0.05	10	40	500	99	8	23	0.32	69	20	924
115157	MCL04	80	81	0.25	18	1	0.17	2.4		25	36	73	4.82	1.62	0.85	2720	0.5	0.04	6	35	580	149	14	28	0.19	62	10	644
115158	MCL04	81	82	0.5	20	1	0.14	2		38	29	90	5.07	1.42	0.88	3660	0.5	0.03	5	38	420	188	9	22	0.17	54	10	727
115159	MCL04	82	83	0.25	16	1	0.15	2.3		8	13	16	1.38	0.55	0.17	247	0.5	0.03	2.5	11	500	231	8	13	0.07	19	5	1220
115160	MCL04	83	84	0.25	6	1	0.09	1.7		5	10	8	1.18	0.38	0.11	257	0.5	0.02	2.5	9	300	114	2.5	10	0.05	13	5	1030
115161	MCL04	84	85	0.25	18	1	0.09	3.2		16	13	16	1.32	0.47	0.18	361	0.5	0.02	2.5	24	270	225	8	16	0.06	18	5	1645
115162	MCL04	85	86	0.25	86	1	0.05	6.6		55	19	48	4.18	0.87	0.3	536	1	0.03	2.5	93	160	555	20	26	0.1	58	10	2410
115164	MCL04	86	87	6.3	83	1	0.1	7.1		36	69	291	3.51	2.45	0.45	115	10	0.03	8	98	480	1795	118	44	0.25	385	20	906
115168	MCL04	90	91	3.1	64	1	0.06	28		19	57	99	2.88	2.22	0.38	205	10	0.03	8	60	250	1965	46	22	0.24	209	20	5170
115169	MCL04	91	92	2.6	85	1	0.06	1.7		24	83	77	3.73	2.93	0.56	217	19	0.03	8	81	320	717	50	32	0.29	451	30	467
115170	MCL04	92	93	5.7	86	1	0.08	6.3		26	71	160	3.57	2.82	0.44	147	17	0.03	10	95	370	1305	67	36	0.3	285	30	1310
115171	MCL04	93	94	2.7	226	1	0.05	39.1		21	42	42	10.6	2.34	0.75	6680	2	0.04	8	39	140	4890	21	25	0.26	126	20	7800
115172	MCL04	94	95	0.6	23	1	0.11	0.25		27	39	36	16.45	2.18	1.02	16600	0.5	0.03	7	38	210	58	8	35	0.24	101	20	1180
115174	MCL04	96	97	0.7	24	1	0.13	0.25		24	38	22	14.15	2.11	1.78	13950	0.5	0.04	9	36	210	21	8	25	0.24	89	20	676
115175	MCL04	97	98	0.6	24	1	0.12	0.25		28	44	55	15.45	2.41	1.75	13550	0.5	0.04	10	40	220	28	5	32	0.28	105	20	727
115176	MCL04	98	99	0.25	30	1	0.14	0.25		28	42	42	14.95	2.37	1.91	13200	0.5	0.04	10	44	220	28	2.5	33	0.26	102	20	738
115177	MCL04	99	100	2.2	53	1	0.12	0.25		33	53	55	8.91	2.71	1.01	7030	0.5	0.05	11	47	230	55	20	39	0.35	122	20	461
115182	MCL04	103	104	0.25	34	1	0.23	0.25		15	7	15	11.75	0.07	2.35	10700	0.5	0.01	2.5	27	120	47	7	10	0.01	26	5	337
115183	MCL04	104	105	0.25	18	1	0.25	0.25		18	6	21	13.85	0.05	1.97	12150	0.5	0.01	2.5	46	150	37	5	12	0.01	28	5	405
115184	MCL04	37	38	1.3	57	<2	0.02	1.1	80	34	80	62	2.8	3.05	0.82	54	5	0.09	10	87	250	714	21	85	0.38	244	20	662
115185	MCL04	38	39	0.8	79	<2	0.01	<0.5	60	58	87	65	4.35	2.8	0.64	73	4	0.05	11	139	190	221	21	42	0.34	167	20	296
115186	MCL04	39	40	<0.5	69	3	0.02	<0.5	70	41	79	74	3.74	2.38	0.52	43	5	0.04	9	115	200	216	14	50	0.29	141	20	284
115187	MCL04	40	41	<0.5	28	<2	0.02	0.5	60	23	54	29	2.66	1.78	0.44	72	2	0.04	7	51	190	357	12	48	0.23	75	10	620
115188	MCL04	41	42	<0.5	39	<2	0.01	2	90	45	63	32	3.85	3.12	0.98	58	1	0.05	11	76	360	458	13	101	0.34	119	10	897
115189	MCL04	42	43	<0.5	24	<2	0.01	5.3	60	29	58	23	2.18	3.08	0.84	69	<1	0.05	13	44	190	485	11	64	0.4	101	10	1015
115190	MCL04	43	44	<0.5	25	2	0.01	4.8	60	29	57	27	1.48	3.17	0.83	63	<1	0.06	12	43	140	317	15	50	0.4	104	10	783
115191	MCL04	44	45	<0.5	30	2	0.01	7.2	60	30	59	28	1.61	3.23	0.77	58	1	0.06	11	48	150	303	16	59	0.41	112	10	1005
115192	MCL04	45	46	<0.5	35	<2	0.01	6.6	60	37	57	30	1.99	2.91	0.8	60	1	0.06	12	69	150	214	17	57	0.36	114	10	906
115193	MCL04	46	47	<0.5	35	2	0.02	4	<50	39	36	40	2.09	1.81	0.65	56	4	0.04	7	64	140	219	17	59	0.24	117	10	2410
115194	MCL04	47	48	<0.5	25	<2	0.03	6.7	<50	19	14	13	1.23	0.53	0.2	63	3	0.03	<5	29	80	741	12	37	0.07	32	<10	4360
115195	MCL04	48	49	<0.5	193	<2	0.02	5.4	<50	108	22	20	5.97	0.47	0.17	191	1	0.04	<5	217	60	274	9	23	0.06	23	<10	1205
115196	MCL04	49	50	<0.5	42	<2	0.03	18.8	<50	48	30	27	2.16	1.27	0.52	60	3	0.05	5	73	210	1310	15	81	0.18	68	10	3200
115197	MCL04	50	51	<0.5	95	<2	0.03	13.8	<50	81	12	8	3.53	0.35	0.17	99	2	0.03	<5	150	60	1140	11	34	0.05	18	<10	3520
115199	MCL04	51	52	<0.5	29	<2	0.02	10.7	<50	30	9	13	1.23	0.21	0.13	48	1	0.02	<5	47	80	1130	10	33	0.04	10	<10	2680
115200	MCL04	52	53	<0.5	54	<2	0.02	12.1	<50	68	10	12	1.86	0.15	0.12	70	1	0.01	<5	125	120	1350	18	51	0.03	9	<10	4260
115201	MCL04	54	55	<0.5	23	<2	0.02	11.4	<50	31	16	5	3.06	0.07	0.14	262	1	0.01	<5	48	100	642	13	37	0.02	7	<10	4480
115202	MCL04	55	56	<0.5	12	<2	0.02	10.5	<50	22	18	6	0.97	0.05	0.15	59	<1	0.01	<5	31	100	512	10	41	0.02	6	<10	3580
115203	MCL04	56	57	<0.5	28	2	0.03	6.2	<50	28	12	40	1.24	0.25	0.31	41	<1	0.01	<5	39	100	255	22	43	0.07	14	<10	3020
115204	MCL04	60	61	0.7	163	<2	0.03	7.7	<50	57	9	252	3.73	0.06	0.07	154	<1	0.02	<5	83	20	331	20	13	0.01	3	<10	5160
115205	MCL04	61	62	<0.5	58	<2	0.04	13.2	<50	29	6	97	1.25	0.06	0.08	58	<1	0.02	<5	38	20	546	20	15	0.01	3	<10	5100
115206	MCL04	62	63	<0.5	49	<2	0.03	8.7	<50	25	5	68	1.09	0.07	0.08	57	<1	0.02	<5	34	20	363	16	13	0.01	3	<10	3990
115207	MCL04	64	65	<0.5	33	<2	0.03	1.5	50	30	33	59	0.97	2.41	0.88	38	<1	0.04	8	47	150	84	13	68	0.29	72	10	1765
115208	MCL04	65	66	<0.5	23	<2	0.02	1.8	50	36	34	46	1.01	2.41	0.92	27	1	0.04	8	53	160	95	10	68	0.29	71	10	1470
115209	MCL05	18	19	<0.5	34	<2	0.02	0.6	70	20	59	5	2.93	1.46	1.41	35	<1	0.43	9	48	390	146	10	109	0.32	123	20	1135
115210	MCL05	19	20	<0.5	27	2	0.01	3.1	80	21	45	5	0.97	2.27	0.67	32	1	0.08	7	32	560	452	18	46	0.28	90	20	1240
115211	MCL05	20	21	<0.5	36	<2	0.01	1.7	80	27	46	3	1.34	2.45	0.65	34	1	0.08	6	39	610	286	15	97	0.26	91	20	1700
115212	MCL05	21	22	<0.5	41	<2	0.01	0.8	100	31	50	3	1.5	2.72	0.74	27	2	0.09	8	47	680	136	17	73	0.3	95	20	2060
115213	MCL																											

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm	
115229	MCL05	37	38	<0.5	28	<2	<0.01	0.01	0.5	70	13	54	15	1.98	3.83	0.48	77	<1	0.13	9	27	150	82	14	22	0.25	91	10	141
115230	MCL05	38	39	<0.5	23	<2	0.01	0.5	70	17	43	3	1.9	2.72	0.45	28	<1	0.08	8	30	190	51	9	31	0.2	77	10	527	
115231	MCL05	39	40	<0.5	30	<2	0.01	<0.5	50	18	36	2	1.42	1.43	0.44	68	1	0.07	8	45	430	32	10	24	0.27	77	10	1910	
115232	MCL05	40	41	<0.5	28	<2	0.01	<0.5	50	23	39	2	1.8	2.05	0.79	29	1	0.09	6	39	410	21	6	37	0.25	83	10	1000	
115233	MCL05	41	42	<0.5	46	3	0.01	<0.5	60	51	52	7	2.14	2.85	1.03	21	1	0.08	8	62	200	10	5	49	0.3	102	10	819	
115234	MCL05	42	43	<0.5	26	<2	0.02	<0.5	60	40	45	15	1.85	2.78	1.1	34	<1	0.05	8	49	240	8	7	49	0.31	98	10	775	
115235	MCL05	43	44	<0.5	39	<2	0.01	<0.5	70	37	43	2	1.43	3.18	1.05	19	1	0.06	8	55	240	5	5	60	0.3	103	20	669	
115236	MCL05	44	45	<0.5	21	<2	0.01	<0.5	60	30	49	2	1.47	3.23	1.21	20	1	0.09	7	39	130	6	<5	58	0.29	102	20	399	
115237	MCL05	45	46	<0.5	13	<2	0.02	<0.5	60	23	41	3	1.57	2.57	1.1	31	<1	0.11	8	31	120	10	6	61	0.3	94	20	447	
115239	MCL05	46	47	<0.5	20	<2	0.02	1.2	80	29	53	5	1.68	2.2	0.94	36	1	0.11	8	45	140	156	12	67	0.33	151	20	915	
115240	MCL05	47	48	<0.5	83	3	0.02	<0.5	70	54	48	29	2.82	2.37	0.99	36	1	0.1	7	95	110	21	12	54	0.28	111	20	376	
115241	MCL05	48	49	<0.5	44	<2	0.02	<0.5	70	33	47	12	2.29	2.54	1.07	35	1	0.08	8	59	100	15	12	48	0.27	102	20	212	
115242	MCL05	49	50	<0.5	95	<2	0.02	<0.5	60	26	37	3	2.81	2.35	0.84	25	2	0.05	6	52	130	25	12	54	0.22	90	10	245	
115243	MCL05	50	51	<0.5	28	2	0.04	<0.5	70	31	44	4	2.06	2.52	0.9	27	2	0.06	7	51	190	32	8	52	0.27	104	10	294	
115244	MCL05	51	52	<0.5	68	3	0.05	<0.5	60	29	41	6	2.59	2.38	0.85	35	2	0.07	6	51	240	69	16	45	0.22	98	10	377	
115245	MCL05	52	53	0.7	26	2	0.1	<0.5	60	24	43	6	2.11	2.38	0.82	38	2	0.06	7	38	420	73	14	43	0.26	102	20	321	
115246	MCL05	53	54	91	60	2	0.07	9.6	60	27	37	32	2.2	2.26	0.85	41	1	0.11	5	46	340	30600	127	70	0.2	95	20	2610	
115247	MCL05	54	55	258	39	<2	0.08	11.1	50	25	39	80	1.79	2.04	0.83	53	<1	0.11	5	40	360	86400	326	62	0.19	88	20	2710	
115248	MCL05	55	56	7.8	44	<2	0.13	<0.5	70	27	49	6	2.26	1.2	0.91	353	1	0.13	8	43	560	2550	23	115	0.28	115	20	296	
115249	MCL05	56	57	7.2	75	<2	0.11	0.5	60	26	44	8	2.08	1.29	0.83	107	<1	0.13	7	51	470	2380	23	94	0.26	97	20	204	
115250	MCL05	57	58	62.9	41	<2	0.13	2.3	70	29	45	15	2.12	1.5	0.92	263	1	0.11	6	41	550	24000	74	135	0.23	108	20	707	
115251	MCL05	58	59	22.7	28	<2	0.12	0.7	50	22	39	16	2.62	1.9	1.34	535	1	0.12	7	41	510	7470	41	160	0.22	87	20	266	
115252	MCL05	59	60	0.6	29	<2	0.1	<0.5	50	19	32	9	4.18	2.29	2.35	948	2	0.05	8	44	530	179	7	409	0.22	82	10	74	
115254	MCL05	60	61	5.1	21	<2	0.12	0.5	50	18	33	9	4.74	2.06	2.58	1400	2	0.07	7	37	510	1820	18	303	0.18	81	10	131	
115255	MCL05	61	62	1.9	18	<2	0.47	<0.5	<50	14	30	8	7.39	1.75	4.72	2640	2	0.06	10	30	440	573	15	326	0.2	78	10	47	
115256	MCL05	62	63	3.2	11	<2	1.1	<0.5	<50	14	24	15	8.44	1.47	6.14	2720	1	0.08	6	32	390	869	12	366	0.07	67	10	56	
115257	MCL05	63	64	11.6	16	<2	2.95	<0.5	<50	14	31	9	6.43	1.63	5.15	2110	2	0.13	9	29	410	3490	24	189	0.18	82	20	58	
115258	MCL05	64	65	2.2	10	<2	5.36	<0.5	<50	12	26	5	5.7	1.27	6.65	1800	2	0.19	9	24	350	649	8	381	0.16	72	20	38	
115259	MCL05	65	66	<0.5	12	<2	4.8	<0.5	<50	11	25	3	6.16	1.35	6.62	2430	<1	0.17	9	18	350	75	8	224	0.16	68	20	38	
115260	MCL05	66	67	1.8	5	<2	4.47	<0.5	<50	4	21	6	8.35	0.47	6.88	2670	<1	0.59	9	14	290	445	8	1290	0.12	55	20	25	
115261	MCL05	67	68	1	5	<2	5.09	<0.5	<50	11	28	7	6.72	0.43	6.41	2220	<1	0.75	10	20	300	222	6	1630	0.17	75	20	24	
115262	MCL05	68	69	1.6	15	3	4.57	<0.5	<50	50	17	35	7	7.77	1.32	7.32	2800	1	0.33	10	29	450	265	8	615	0.2	88	20	31
115263	MCL05	69	70	<0.5	13	<2	0.27	<0.5	60	14	44	3	5.03	2.43	3.93	2100	<1	0.1	12	26	510	14	8	417	0.31	100	20	31	
115264	MCL05	96	97	<0.5	<5	<2	1.06	2.5	<50	25	29	1	11.75	1.94	2.74	13750	1	0.05	6	34	870	87	13	90	0.16	80	20	1060	
115265	MCL05	97	98	<0.5	11	<2	1.27	0.8	<50	20	27	1	9.81	1.53	3.65	8320	<1	0.07	6	31	460	35	10	125	0.13	71	20	516	
115266	MCL05	98	99	0.7	5	<2	2.26	3.5	<50	7	27	6	6.06	1.75	4.22	3390	<1	0.05	9	18	550	83	9	69	0.2	60	10	222	
115267	MCL05	99	100	<0.5	<5	<2	3.19	2.6	<50	4	20	4	6.24	1.46	4.68	2940	<1	0.04	8	13	450	59	6	71	0.16	50	10	226	
115269	MCL05	100	101	<0.5	<5	<2	3.8	<0.5	<50	5	27	<1	5.72	2.11	4.2	3070	<1	0.04	8	13	340	6	9	64	0.22	63	20	100	
115270	MCL05	101	102	<0.5	5	<2	1.36	<0.5	<50	16	24	1	14.25	1.66	4.16	14300	<1	0.05	8	29	240	13	8	51	0.17	62	20	843	
115271	MCL05	102	103	2.1	42	3	4.39	2.3	<50	20	55	95	5.2	2.04	2.92	2360	3	0.04	9	59	520	210	21	75	0.23	134	20	549	
115272	MCL05	103	104	0.7	18	<2	4.83	<0.5	50	11	47	35	3.13	2.71	3.21	776	1	0.03	11	38	440	38	19	183	0.27	70	20	49	
115273	MCL05	104	105	0.6	17	<2	3.59	<0.5	60	12	45	45	39	2.91	2.8	2.6	388	<1	0.03	11	35	480	30	11	116	0.28	61	20	52
115274	MCL05	105	106	<0.5	8	4	11.95	<0.5	<50	6	18	12	1.96	1.02	7.41	756	<1	0.03	9	16	400	46	5	195	0.1	29	10	45	
115275	MCL05	106	107	0.7	<5	<2	14.8	<0.5	<50	2	6	5	1.53	0.27	8.33	971	<1	0.03	7	4	170	10	7	234	0.02	12	10	27	
115276	MCL05	107	108	<0.5	9	<2	9.65	<0.5	<50	5	18	10	2.4	0.96	5.91	1080	<1	0.03	8	17	200	18	8	253	0.11	30	10	32	
115277	MCL05	108	109	<0.5	<5	7	12.75	<0.5	<50	1	3	2	1.15	0.07	7.86	767	<1	0.02	7	2	80	53	<5	429	0.01	9	<10	18	
115278	MCL05	109	110	0.9	<5	<2	10.7	<0.5	<50	3	3	3	1.9	0.04	7.27	2960	<1	0.02	6	4	50	154	7	491	0.01	12	<10	81	
115279	MCL05	110	111	<0.5	<5	3	12.15	<0.5	<50	3	3	1	1.64	0.05	7.88	1625	<1	0.02	6	4	70	11	<5	508	0.01	8	<10	73	
115280	MCL05	111	112	6.7	41	3	9.78	0.7	<50	9	15	34	3.93	0.73	6.39	3580	<1	0.02	8	15	620	75	33	399	0.09	30	10	347	
115281	MCL05	112	113	0.9	13	<2	1.5	<0.5	<50	15	31	9	12.45	2.19	2.91	12700	1	0.04	8	26	450	26	10	102	0.21	82	20	226	
115282	MCL05	113	114	<0.5	13	<2	0.26	<0.5	50	11	32	4	9.08	2.64	6.23	8640	<1	0.04	12	23	520	9	7	69	0.29	75	20	195	
115284	MCL05	114	115	<0.5	11	<2	0.15	<0.5	<50	9	25	1	5.51	2.25	9.03	5950	<1	0.03	12	17	300	7</							

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm
115301	MCL05	130	131	2.1	16	2	15.9	0.5	<50	2	2	47	2.27	0.05	8.82	1810	<1	0.02	5	4	80	76	14	199	0.01	29	<10	144
115302	MCL05	131	132	1	11	4	16.2	9.9	<50	3	1	9	2.14	0.01	9.08	1705	<1	0.02	6	5	10	565	6	190	<0.01	20	<10	2610
115303	MCL05	132	133	1.3	31	3	17.3	5.4	<50	3	5	39	1.97	0.13	9.69	2120	1	0.01	6	6	380	278	9	274	0.02	52	<10	1405
115304	MCL05	133	134	0.8	18	3	17.8	5	<50	2	5	32	2.28	0.11	10.45	3250	<1	0.03	7	6	650	95	7	218	0.02	38	<10	1230
115305	MCL05	134	135	1.6	37	<2	13.35	15.5	<50	2	4	26	2.01	0.11	7.97	1935	<1	0.01	6	5	400	641	16	319	0.01	64	<10	3690
115306	MCL05	135	136	<0.5	13	3	18.2	<0.5	<50	3	4	5	1.61	0.19	10.5	1270	3	0.02	6	6	500	46	<5	307	0.02	86	<10	73
115307	MCL05	136	137	2.1	6	3	18.4	0.6	<50	2	2	91	1.73	0.06	10.6	1205	8	0.02	6	5	110	38	61	306	0.01	49	<10	116
115308	MCL05	137	138	1.2	36	4	15.4	2.8	<50	8	4	46	4.47	0.21	8.66	3720	1	0.02	7	13	130	195	20	217	0.03	31	<10	804
115309	MCL05	138	139	0.7	61	2	17.9	1.1	<50	1	2	20	1.77	0.08	10.35	1575	<1	0.02	6	3	80	123	14	270	0.01	38	<10	290
115310	MCL05	139	140	1.2	85	<2	19.1	5.6	<50	2	2	45	1.63	0.08	11.1	1095	<1	0.02	7	6	110	466	28	377	0.01	23	<10	1600
115311	MCL05	140	141	2.9	61	<2	11.15	1.1	<50	10	6	146	7.15	0.2	7.11	7510	<1	0.02	6	17	130	121	22	498	0.02	38	10	600
115312	MCL05	141	142	<0.5	23	<2	11.9	<0.5	<50	4	3	4	5.31	0.07	8.23	4160	<1	0.02	6	8	50	18	<5	487	0.01	14	<10	166
115314	MCL05	142	143	<0.5	8	<2	16.2	<0.5	<50	5	4	13	3.23	0.17	9.48	2760	<1	0.02	7	7	50	38	7	602	0.02	7	<10	125
115315	MCL05	143	144	0.7	135	<2	12.35	0.6	<50	6	13	19	3.39	0.79	7.99	3560	<1	0.02	8	13	170	185	7	382	0.08	38	10	131
115316	MCL05	144	145	2.6	90	<2	12.3	6.4	<50	6	17	15	2.2	1.03	7.76	1665	<1	0.03	8	11	160	1460	10	420	0.08	41	10	1500
115317	MCL05	145	146	0.7	44	4	14.4	1	<50	5	7	4	2.75	0.4	8.76	2690	<1	0.02	7	9	240	108	<5	386	0.04	28	<10	325
115318	MCL05	146	147	2.3	39	3	16.5	1.5	<50	3	4	7	1.73	0.22	9.41	1400	<1	0.02	7	3	150	1020	<5	361	0.01	19	<10	364
115319	MCL05	147	148	0.5	10	2	13.25	0.6	<50	3	14	3	2.02	0.34	7.99	1235	<1	0.02	7	7	230	20	<5	330	0.03	21	<10	109
115320	MCL05	148	149	0.6	12	<2	12.5	<0.5	<50	5	6	13	3.42	0.3	7.81	3310	<1	0.02	7	9	230	41	<5	389	0.03	22	<10	226
115321	MCL05	149	150	1.2	<5	4	0.68	0.8	<50	26	<1	2	26.1	0.03	6.32	27600	<1	0.01	6	34	100	29	<5	18	<0.01	21	10	1210
115322	MCL05	150	151	3	286	3	0.76	15.6	<50	19	<1	17	22.8	0.03	4.89	36300	<1	0.01	5	25	90	1610	17	15	<0.01	22	10	5090
115323	MCL05	152	153	1.7	126	5	0.49	11.6	<50	19	1	5	2.5	0.03	4.97	29700	<1	0.01	5	37	120	1210	12	8	<0.01	14	10	4080
115324	MCL05	154	155	2.4	607	6	6.06	67.6	<50	19	1	25	14.45	0.04	5.02	16600	<1	0.01	6	32	110	1850	20	100	<0.01	14	10	15950
115325	MCL05	155	156	2.6	79	2	10.95	38.5	<50	1	2	16	2.53	0.03	6.92	1965	<1	0.03	6	3	70	3580	26	247	<0.01	9	<10	7510
115326	MCL05	158	159	2.3	29	4	3.29	2.4	<50	11	3	55	11	0.02	5.87	12650	<1	0.01	6	17	60	99	34	89	<0.01	12	10	1085
115327	MCL05	160	161	<0.5	14	2	11.15	1.3	<50	5	5	3	3.53	0.07	8.11	5820	<1	0.02	6	8	100	46	6	385	0.03	14	<10	536
115329	MCL05	161	162	3	1010	<2	6.75	15.9	<50	49	19	627	9.89	0.21	7.99	9880	1	0.02	8	22	190	1420	28	219	0.06	24	10	4270
115330	MCL05	162	163	<0.5	463	2	14.8	<0.5	<50	1	2	4	1.2	0.03	10.95	1380	<1	0.03	7	4	20	13	10	352	0.01	3	<10	68
115332	MCL05	164	165	<0.5	<5	<2	18.4	<0.5	<50	2	1	3	0.75	0.02	11.3	728	<1	0.03	7	2	20	7	<5	378	<0.01	1	<10	52
115333	MCL05	166	167	0.7	66	<2	16.5	5	<50	5	2	8	5.68	0.04	10.95	6150	<1	0.03	6	9	70	202	<5	312	<0.01	3	<10	1485
115334	MCL05	167	168	0.5	10	<2	18.4	0.6	<50	3	1	1	1.87	0.01	11.7	2520	<1	0.03	8	2	80	43	<5	373	<0.01	1	<10	231
115335	MCL05	168	169	<0.5	<5	3	21.1	<0.5	<50	1	<1	0.3	0.01	13.4	381	<1	0.03	7	2	70	5	5	5	412	<0.01	<1	<10	14
115336	MCL05	169	170	<0.5	<5	3	18.7	<0.5	<50	1	1	<1	0.44	0.01	12.2	440	<1	0.03	7	<1	110	6	<5	379	<0.01	<1	<10	21
115337	MCL05	170	171	<0.5	<5	<2	16	<0.5	<50	1	2	1	0.43	0.04	13.15	373	<1	0.02	7	1	10	22	<5	331	0.01	1	<10	20
115338	MCL05	171	172	<0.5	<5	<2	13.45	<0.5	<50	2	2	1	0.26	0.1	15.5	259	<1	0.03	8	1	20	22	5	289	0.01	2	<10	22
115339	MCL05	172	173	<0.5	<5	2	11.15	<0.5	<50	1	3	<1	0.48	0.1	15.3	230	<1	0.03	8	1	20	25	<5	233	0.01	3	<10	20
115340	MCL05	173	174	<0.5	<5	3	10.65	<0.5	<50	1	1	1	0.24	0.08	17.55	265	<1	0.02	8	1	20	15	<5	240	0.01	3	<10	17
115341	MCL05	174	175	<0.5	<5	4	11.1	<0.5	<50	1	1	1	0.33	0.03	15.9	463	<1	0.02	7	1	20	6	<5	248	<0.01	4	<10	22
115342	MCL05	175	175.6	<0.5	<5	2	10.45	<0.5	<50	1	2	<1	0.34	0.02	15.85	359	<1	0.02	7	2	20	10	<5	216	<0.01	3	<10	14
115343	MCL05A	6	7	<0.5	10	<2	<0.01	<0.5	70	7	56	13	1.27	3.15	0.33	23	1	0.19	10	6	80	63	<5	37	0.31	78	10	13
115344	MCL05A	7	8	<0.5	24	2	<0.01	<0.5	90	15	61	17	2.68	3.28	0.35	30	1	0.21	9	22	90	53	20	43	0.29	83	10	26
115345	MCL05A	8	9	<0.5	25	2	<0.01	<0.5	80	18	56	13	2.16	3.18	0.34	24	<1	0.19	9	27	120	75	19	44	0.29	82	10	40
115346	MCL05A	9	10	<0.5	21	2	<0.01	<0.5	80	14	46	10	2.05	2.72	0.3	28	1	0.17	8	20	100	54	8	39	0.25	66	10	41
115347	MCL05A	10	11	<0.5	31	4	<0.01	<0.5	80	21	43	12	2.46	2.44	0.26	35	<1	0.15	7	30	100	79	7	34	0.23	58	10	55
115348	MCL05A	11	12	<0.5	46	4	<0.01	<0.5	90	31	55	20	3.91	3.16	0.33	34	1	0.2	8	52	120	64	15	42	0.27	81	10	32
115349	MCL05A	12	13	<0.5	18	2	0.01	<0.5	70	12	41	9	1.41	2.62	0.27	29	<1	0.16	10	17	90	45	8	36	0.26	65	10	47
115350	MCL05A	13	14	<0.5	13	2	<0.01	<0.5	70	10	48	5	0.92	3.14	0.31	17	<1	0.19	12	10	110	47	<5	38	0.3	79	10	57
115351	MCL05A	14	15	<0.5	13	2	<0.01	<0.5	80	13	50	8	0.99	3.28	0.32	13	<1	0.2	13	12	100	24	<5	35	0.32	86	10	56
115352	MCL05A	15	16	<0.5	13	6	<0.01	<0.5	60	9	35	6	0.92	2.17	0.23	14	<1	0.12	9	9	80	37	5	34	0.24	54	10	58
115353	MCL05A	16	17	<0.5	23	6	<0.01	0.5	70	19	44	13	1.73	2.39	0.26	33	<1	0.13	8	23	100	194	7	40	0.23	65	10	105
115354	MCL05A	17	18	0.5	31	5	<0.01	<0.5	90	22	65	17	2.43	3.29	0.36	28	1	0.21	10	30	110	30	7	49	0.3	92	10	35
115355	MCL05A	18	19	0.5	22	2	<0.01	<0.5</																				

SampleID	Hole_ID	mFrom	mTo	Ag_ppm	As_ppm	Bi_ppm	Ca_pct	Cd_ppm	Ce_ppb	Co_ppm	Cr_ppm	Cu_ppm	Fe_pct	K_pct	Mg_pct	Mn_ppm	Mo_ppm	Na_pct	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sr_ppm	Ti_pct	V_ppm	Y_ppm	Zn_ppm
115373	MCL05A	46	47	15.7	43	<2	0.01	38.6	80	31	49	39	2.28	3.46	0.5	38	<1	0.12	12	45	130	6550	47	45	0.23	82	20	9030
115374	MCL05A	47	48	1	37	<2	0.02	9.7	70	44	34	3	1.51	1.83	0.37	63	2	0.05	7	52	170	880	19	81	0.23	55	10	4930
115375	MCL05A	72	73	<0.5	30	<2	0.02	0.8	60	37	46	9	1.76	3.1	0.89	62	<1	0.08	11	41	230	70	14	34	0.33	98	10	1990
115376	MCL05A	73	74	0.8	58	<2	0.04	1.6	<50	38	16	31	1.72	0.44	0.13	82	1	0.02	<5	50	170	70	22	35	0.06	42	<10	2690
115377	MCL05A	74	75	1	50	<2	0.03	0.7	<50	41	52	60	2.68	1.56	0.44	110	6	0.03	9	71	140	88	28	40	0.19	258	10	1510
115378	MCL05A	75	76	0.7	37	<2	0.02	0.6	<50	36	51	48	2.41	2.17	0.57	82	4	0.05	10	60	110	86	20	35	0.25	167	20	908
115379	MCL05A	76	77	1.1	144	<2	0.04	2.9	<50	28	27	21	2.22	1.02	0.31	79	1	0.02	5	50	50	195	13	22	0.13	48	10	2460
115380	MCL05A	77	78	0.8	55	<2	0.04	1.1	50	34	42	26	1.92	1.88	0.66	77	<1	0.04	10	50	120	315	9	42	0.31	77	10	1800
115381	MCL05A	78	79	<0.5	22	<2	0.04	0.7	70	27	43	46	0.78	2.33	1.36	42	<1	0.03	13	39	100	48	<5	30	0.39	85	10	1360
115382	MCL05A	89	90	<0.5	101	<2	0.02	19.1	60	146	44	26	1.65	2.94	0.87	28	<1	0.05	10	155	270	401	14	91	0.34	100	20	9950
115383	MCL05A	90	91	0.7	38	<2	0.03	6.3	70	34	55	35	2.41	3.18	0.76	101	<1	0.05	13	49	220	312	24	45	0.36	112	20	2190
115384	MCL05A	91	92	<0.5	36	<2	0.01	9.1	70	26	58	24	1.74	3.08	0.67	75	<1	0.05	12	43	120	438	15	38	0.37	119	10	3150
115385	MCL05A	92	93	1.8	47	<2	0.03	6.6	60	43	55	74	2.02	2.55	0.63	72	<1	0.04	10	69	130	425	27	36	0.29	112	20	3110
115386	MCL05A	93	94	0.9	47	<2	0.02	3.1	50	32	51	37	2.32	1.95	0.45	68	3	0.03	9	69	160	338	21	35	0.23	227	10	1355
115388	MCL05A	94	95	1.9	40	<2	0.02	0.6	<50	27	44	56	2.42	1.33	0.3	82	5	0.03	6	77	110	159	24	21	0.15	213	10	406
115389	MCL05A	95	96	8.2	130	<2	0.02	1.6	<50	21	34	173	2.13	1.26	0.24	90	5	0.02	6	56	110	874	81	25	0.16	173	10	1295
115390	MCL05A	96	97	4.2	51	<2	0.02	1.4	<50	17	29	74	1.8	1.09	0.2	61	4	0.02	5	35	170	912	70	33	0.14	125	10	1140
115391	MCL05A	97	98	1.1	110	<2	0.03	10	<50	18	19	15	2.46	0.8	0.18	75	2	0.02	<5	29	120	435	28	31	0.1	57	<10	2080
115392	MCL05A	99	100	0.7	74	<2	0.01	10.7	<50	4	5	2	1.57	0.02	0.01	94	<1	0.01	<5	7	30	501	9	4	<0.01	2	<10	2950
115393	MCL05A	100	101	1.7	116	<2	0.01	26.4	<50	8	7	14	1.23	0.16	0.04	56	<1	0.01	<5	14	30	654	15	5	0.02	10	<10	6570
115394	MCL05A	101	102	3.2	214	<2	0.02	23.9	<50	13	12	53	1.55	0.39	0.08	82	<1	0.01	<5	24	50	1455	28	11	0.04	26	<10	5760
115395	MCL05A	102	103	3.7	1445	<2	0.03	47.3	<50	14	8	46	2.54	0.15	0.04	133	<1	0.01	<5	19	60	2070	26	9	0.02	11	<10	11050
115396	MCL05A	104	105	3.3	3100	<2	0.02	26.3	<50	16	8	60	2.32	0.13	0.04	115	<1	0.01	<5	23	70	2030	33	11	0.01	12	<10	7040
115397	MCL05A	106	107	6.3	97	3	0.05	6.9	<50	8	13	97	1.45	0.28	0.07	103	2	0.01	<5	14	150	480	24	13	0.04	39	<10	1865
115398	MCL05A	110	111	1.3	158	<2	0.12	43.2	<50	12	12	33	1.67	0.35	0.09	141	2	0.01	<5	17	520	296	10	38	0.05	32	10	11250
115399	MCL05A	111	112	4.7	436	<2	0.09	51.9	<50	26	15	63	3.55	0.39	0.08	134	4	0.01	<5	36	390	2660	20	37	0.05	46	30	14050
115400	MCL05A	113	114	3.9	1225	3	0.27	37.6	60	25	31	58	3.78	1.3	0.27	106	5	0.02	6	41	2180	3350	43	151	0.16	137	20	3750
115401	MCL05A	114	115	2.9	296	<2	0.2	13.7	80	24	44	70	2.81	2.26	0.39	98	2	0.03	9	42	1390	1480	39	113	0.31	132	20	1755
115403	MCL05A	115	116	4	2330	<2	0.28	15.7	50	20	34	43	3.62	1.32	0.23	160	4	0.02	6	39	1410	1705	33	86	0.16	129	20	3720
115404	MCL05A	116	117	3.5	1405	<2	0.25	13	60	30	60	74	3.76	2.05	0.38	108	7	0.03	8	79	1320	1635	42	95	0.25	262	20	2800
115405	MCL05A	117	118	1.8	257	<2	0.18	7.8	<50	14	31	28	1.88	1.49	0.36	98	5	0.02	6	22	730	1480	17	33	0.17	82	10	1695
115406	MCL05A	119	120	<0.5	14	3	0.14	1.3	<50	22	11	5	10.45	0.32	0.14	13500	1	0.01	<5	21	180	48	6	5	0.03	23	10	2100
115407	MCL05A	120	121	0.5	64	5	0.33	22.6	<50	29	25	16	16.95	1.41	0.2	35900	1	0.02	7	27	320	687	13	33	0.12	95	20	3800
115408	MCL05A	121	122	<0.5	30	<2	0.31	14.8	<50	19	18	8	20.6	0.98	2.76	56200	<1	0.02	7	18	140	510	14	16	0.08	77	10	2450
115409	MCL05A	122	123	1.9	6	7	0.77	36.2	<50	3	1	21	19.75	0.34	4.2	62000	<1	0.01	8	5	140	2290	12	4	0.02	23	10	9570
115410	MCL05A	123	124	<0.5	25	<2	0.18	3.6	70	26	54	33	5.63	3.06	0.77	5200	1	0.06	10	33	640	52	14	35	0.35	118	20	883
115411	MCL05A	124	125	1.9	151	<2	0.13	14.6	<50	38	34	38	7.18	1.8	0.77	8350	2	0.04	5	46	290	750	17	34	0.18	76	10	5580
115412	MCL05A	125	126	<0.5	100	4	0.28	2.4	<50	36	9	9	16.9	0.49	0.38	22900	<1	0.01	<5	35	140	47	9	5	0.04	29	10	2150
115413	MCL05A	126	127	<0.5	39	<2	0.38	0.5	<50	37	3	5	29.1	0.24	5.36	30100	<1	0.01	9	40	180	20	11	7	0.03	49	10	2050
115414	MCL05A	127	128	<0.5	106	<2	0.38	6.2	<50	33	2	9	19.3	0.12	8.12	25100	<1	0.01	10	35	190	52	10	9	0.02	49	10	3150
115415	MCL05A	128	129	<0.5	17	<2	0.32	9.8	<50	1635	16	2840	14	0.04	13.85	18600	<1	0.01	13	635	140	133	14	6	0.01	41	10	4420
115416	MCL05	129	130	<0.5	6	<2	0.25	2.9	<50	9	1	1	3.71	0.02	23.1	4790	<1	0.01	12	11	110	27	<5	14	0.01	25	<10	569
115418	MCL05	130	131	<0.5	<5	<2	0.22	4.7	<50	13	5	14	3.02	0.15	20	3670	<1	0.01	13	14	140	44	6	22	0.02	25	<10	619
115419	MCL05	131	132	<0.5	11	<2	0.26	2.4	<50	14	4	10	3.55	0.22	20.8	4460	<1	0.02	12	13	170	34	10	25	0.03	28	<10	644
115420	MCL05	132	133	0.7	107	<2	0.25	7.5	<50	25	6	23	14.5	0.28	2.4	20500	<1	0.01	6	24	130	674	17	14	0.04	32	10	3780
115421	MCL05	133	134	10.3	413	2	0.4	3.7	<50	41	9	231	25.7	0.77	1.35	43400	<1	0.03	<5	32	230	442	119	15	0.06	38	10	3050
115422	MCL05	134	135	0.9	271	10	0.54	2.2	<50	4	<1	12	20.4	0.11	3.79	58100	<1	0.01	7	5	60	915	18	6	0.01	7	<10	970
115423	MCL05	135	136	0.9	93	<2	0.37	9.4	<50	20	<1	24	27.6	0.09	5.37	35800	<1	0.01	9	30	120	480	21	3	0.01	40	10	3300
115424	MCL05	136	137	<0.5	24	<2	0.33	3.6	<50	23	<1	5	27.3	0.05	6.83	29500	<1	0.01	9	31	110	55	11	1	0.01	27	10	2070
115425	MCL05	137	138	<0.5	162	<2	0.35	2.9	<50	6	<1	4	23.9	0.05	3.9	62900	<1	0.01	7	10	100	184	15	6	<0.01	5	<10	1050
115426	MCL05	138	138.70	1.7	2410	3	0.56	25.1	<50	6	<1	39	28.2	0.04	3.88	73800	<1	0.01	7	7	60	1200	28	1	<0.01			

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL01	0	1	1	1.00	100.00			HQ3
McLeans Creek	MCL01	1	2	1	0.90	90.00			HQ3
McLeans Creek	MCL01	2	3	1	0.30	30.00			HQ3
McLeans Creek	MCL01	3	4	1	0.56	56.00			HQ3
McLeans Creek	MCL01	4	5	1	0.80	80.00			HQ3
McLeans Creek	MCL01	5	6	1	0.45	45.00			HQ3
McLeans Creek	MCL01	6	7	1	0.70	70.00			HQ3
McLeans Creek	MCL01	7	8	1	0.20	20.00			HQ3
McLeans Creek	MCL01	8	9	1	0.40	40.00			HQ3
McLeans Creek	MCL01	9	10	1	0.28	28.00			HQ3
McLeans Creek	MCL01	10	11	1	0.37	37.00			HQ3
McLeans Creek	MCL01	11	12	1	0.30	30.00			HQ3
McLeans Creek	MCL01	12	13	1	0.00	0.00			HQ3
McLeans Creek	MCL01	13	14	1	0.40	40.00			HQ3
McLeans Creek	MCL01	14	15	1	0.40	40.00			HQ3
McLeans Creek	MCL01	15	16	1	1.00	100.00			HQ3
McLeans Creek	MCL01	16	17	1	0.94	94.00			HQ3
McLeans Creek	MCL01	17	18	1	0.93	93.00			HQ3
McLeans Creek	MCL01	18	19	1	0.90	90.00			HQ3
McLeans Creek	MCL01	19	20	1	0.16	16.00			HQ3
McLeans Creek	MCL01	20	21	1	0.20	20.00			HQ3
McLeans Creek	MCL01	21	22	1	0.00	0.00			HQ3
McLeans Creek	MCL01	22	23	1	0.56	56.00			HQ3
McLeans Creek	MCL01	23	24	1	0.50	50.00			HQ3
McLeans Creek	MCL01	24	25	1	0.00	0.00			HQ3
McLeans Creek	MCL01	25	26	1	0.50	50.00			HQ3
McLeans Creek	MCL01	26	27	1	0.25	25.00			HQ3
McLeans Creek	MCL01	27	28	1	0.66	66.00			HQ3
McLeans Creek	MCL01	28	29	1	0.80	80.00			HQ3
McLeans Creek	MCL01	29	30	1	0.19	19.00			HQ3
McLeans Creek	MCL01	30	31	1	0.80	80.00			HQ3
McLeans Creek	MCL01	31	32	1	0.60	60.00			HQ3
McLeans Creek	MCL01	32	33	1	0.00	0.00			HQ3
McLeans Creek	MCL01	33	34	1	0.10	10.00			HQ3
McLeans Creek	MCL01	34	35	1	0.20	20.00			HQ3
McLeans Creek	MCL01	35	36	1	0.17	17.00			HQ3
McLeans Creek	MCL01	36	37	1	0.00	0.00			HQ3
McLeans Creek	MCL01	37	38	1	0.50	50.00			HQ3
McLeans Creek	MCL01	38	39	1	0.56	56.00			HQ3
McLeans Creek	MCL01	39	40	1	0.00	0.00			HQ3
McLeans Creek	MCL01	40	41	1	0.00	0.00			HQ3
McLeans Creek	MCL01	41	42	1	0.00	0.00			HQ3
McLeans Creek	MCL01	42	43	1	0.34	34.00			HQ3
McLeans Creek	MCL01	43	44	1	0.95	95.00			HQ3
McLeans Creek	MCL01	44	45	1	0.80	80.00			HQ3
McLeans Creek	MCL01	45	46	1	0.10	10.00			HQ3
McLeans Creek	MCL01	46	47	1	0.25	25.00			HQ3
McLeans Creek	MCL01	47	48	1	0.60	60.00			HQ3
McLeans Creek	MCL01	48	49	1	0.30	30.00			HQ3
McLeans Creek	MCL01	49	50	1	0.40	40.00			HQ3
McLeans Creek	MCL01	50	51	1	0.90	90.00			HQ3
McLeans Creek	MCL01	51	52	1	0.50	50.00			HQ3
McLeans Creek	MCL01	52	53	1	0.40	40.00			HQ3
McLeans Creek	MCL01	53	53.8	0.8	0.30	30.00			HQ3
McLeans Creek	MCL02	0	1	1	0.30	30.00			HQ3
McLeans Creek	MCL02	1	2	1	0.80	80.00			HQ3
McLeans Creek	MCL02	2	3	1	0.20	20.00			HQ3
McLeans Creek	MCL02	3	4	1	0.30	30.00			HQ3
McLeans Creek	MCL02	4	5	1	0.10	10.00			HQ3
McLeans Creek	MCL02	5	6	1	0.10	10.00			HQ3
McLeans Creek	MCL02	6	7	1	0.50	50.00			HQ3
McLeans Creek	MCL02	7	8	1	0.60	60.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL02	8	9	1	0.90	90.00			HQ3
McLeans Creek	MCL02	9	10	1	0.15	15.00			HQ3
McLeans Creek	MCL02	10	11	1	0.80	80.00			HQ3
McLeans Creek	MCL02	11	12	1	0.55	55.00			HQ3
McLeans Creek	MCL02	12	13	1	0.80	80.00			HQ3
McLeans Creek	MCL02	13	14	1	0.95	95.00			HQ3
McLeans Creek	MCL02	14	15	1	1.00	100.00			HQ3
McLeans Creek	MCL02	15	16	1	0.95	95.00			HQ3
McLeans Creek	MCL02	16	17	1	0.90	90.00			HQ3
McLeans Creek	MCL02	17	18	1	0.60	60.00			HQ3
McLeans Creek	MCL02	18	19	1	0.15	15.00			HQ3
McLeans Creek	MCL02	19	20	1	0.40	40.00			HQ3
McLeans Creek	MCL02	20	21	1	0.30	30.00			HQ3
McLeans Creek	MCL02	21	22	1	0.20	20.00			HQ3
McLeans Creek	MCL02	22	23	1	0.30	30.00			HQ3
McLeans Creek	MCL02	23	24	1	0.10	10.00			HQ3
McLeans Creek	MCL02	24	25	1	0.10	10.00			HQ3
McLeans Creek	MCL02	25	26	1	0.50	50.00			HQ3
McLeans Creek	MCL02	26	27	1	0.15	15.00			HQ3
McLeans Creek	MCL02	27	28	1	0.10	10.00			HQ3
McLeans Creek	MCL02	28	29	1	0.30	30.00			HQ3
McLeans Creek	MCL02	29	30	1	0.35	35.00			HQ3
McLeans Creek	MCL02	30	31	1	0.56	56.00			HQ3
McLeans Creek	MCL02	31	32	1	0.75	75.00			HQ3
McLeans Creek	MCL02	32	33	1	0.45	45.00			HQ3
McLeans Creek	MCL02	33	34	1	0.90	90.00			HQ3
McLeans Creek	MCL02	34	35	1	0.95	95.00			HQ3
McLeans Creek	MCL02	35	36	1	0.30	30.00			HQ3
McLeans Creek	MCL02	36	37	1	0.15	15.00			HQ3
McLeans Creek	MCL02	37	38	1	0.25	25.00			HQ3
McLeans Creek	MCL02	38	39	1	0.55	55.00			HQ3
McLeans Creek	MCL02	39	40	1	0.95	95.00			HQ3
McLeans Creek	MCL02	40	41	1	0.40	40.00			HQ3
McLeans Creek	MCL02	41	42	1	0.50	50.00			HQ3
McLeans Creek	MCL02	42	43	1	0.70	70.00			HQ3
McLeans Creek	MCL02	43	44	1	0.70	70.00			HQ3
McLeans Creek	MCL02	44	45	1	0.40	40.00			HQ3
McLeans Creek	MCL02	45	46	1	0.80	80.00			HQ3
McLeans Creek	MCL02	46	47	1	0.90	90.00			HQ3
McLeans Creek	MCL02	47	48	1	1.00	100.00			HQ3
McLeans Creek	MCL02	48	49	1	0.68	68.00			HQ3
McLeans Creek	MCL02	49	50	1	0.90	90.00			HQ3
McLeans Creek	MCL02	50	51	1	0.90	90.00			HQ3
McLeans Creek	MCL02	51	52	1	1.00	100.00			HQ3
McLeans Creek	MCL02	52	53	1	1.00	100.00			HQ3
McLeans Creek	MCL02	53	54	1	1.00	100.00			HQ3
McLeans Creek	MCL02	54	55	1	1.00	100.00			HQ3
McLeans Creek	MCL02	55	56	1	1.00	100.00			HQ3
McLeans Creek	MCL02	56	57	1	1.00	100.00			HQ3
McLeans Creek	MCL02	57	58	1	1.00	100.00			HQ3
McLeans Creek	MCL02	58	59	1	1.00	100.00			HQ3
McLeans Creek	MCL02	59	60	1	1.00	100.00			HQ3
McLeans Creek	MCL02	60	61	1	1.00	100.00			HQ3
McLeans Creek	MCL02	61	61.2	0.2	0.20	100.00			HQ3
McLeans Creek	MCL03	0	1	1	0.00	0.00			HQ3
McLeans Creek	MCL03	1	2	1	0.00	0.00			HQ3
McLeans Creek	MCL03	2	3	1	0.00	0.00			HQ3
McLeans Creek	MCL03	3	4	1	0.20	20.00			HQ3
McLeans Creek	MCL03	4	5	1	0.25	25.00			HQ3
McLeans Creek	MCL03	5	6	1	0.35	35.00			HQ3
McLeans Creek	MCL03	6	7	1	0.18	18.00			HQ3
McLeans Creek	MCL03	7	8	1	0.29	29.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL03	8	9	1	0.00	0.00			HQ3
McLeans Creek	MCL03	9	10	1	0.00	0.00			HQ3
McLeans Creek	MCL03	10	11	1	0.10	10.00			HQ3
McLeans Creek	MCL03	11	12	1	0.10	10.00			HQ3
McLeans Creek	MCL03	12	13	1	0.56	56.00			HQ3
McLeans Creek	MCL03	13	14	1	0.59	59.00			HQ3
McLeans Creek	MCL03	14	15	1	0.25	25.00			HQ3
McLeans Creek	MCL03	15	16	1	0.60	60.00			HQ3
McLeans Creek	MCL03	16	17	1	0.40	40.00			HQ3
McLeans Creek	MCL03	17	18	1	0.82	82.00			HQ3
McLeans Creek	MCL03	18	19	1	0.22	22.00			HQ3
McLeans Creek	MCL03	19	20	1	0.60	60.00			HQ3
McLeans Creek	MCL03	20	21	1	0.25	25.00			HQ3
McLeans Creek	MCL03	21	22	1	0.35	35.00			HQ3
McLeans Creek	MCL03	22	23	1	0.31	31.00			HQ3
McLeans Creek	MCL03	23	24	1	0.00	0.00			HQ3
McLeans Creek	MCL03	24	25	1	0.45	45.00			HQ3
McLeans Creek	MCL03	25	26	1	0.53	53.00			HQ3
McLeans Creek	MCL03	26	27	1	0.44	44.00			HQ3
McLeans Creek	MCL03	27	28	1	0.78	78.00			HQ3
McLeans Creek	MCL03	28	29	1	0.78	78.00			HQ3
McLeans Creek	MCL03	29	30	1	1.00	100.00			HQ3
McLeans Creek	MCL03	30	31	1	0.93	93.00			HQ3
McLeans Creek	MCL03	31	32	1	1.00	100.00			HQ3
McLeans Creek	MCL03	32	33	1	0.90	90.00			HQ3
McLeans Creek	MCL03	33	34	1	0.40	40.00			HQ3
McLeans Creek	MCL03	34	35	1	0.20	20.00			HQ3
McLeans Creek	MCL03	35	36	1	0.41	41.00			HQ3
McLeans Creek	MCL03	36	37	1	0.43	43.00			HQ3
McLeans Creek	MCL03	37	38	1	0.40	40.00			HQ3
McLeans Creek	MCL03	38	39	1	0.00	0.00			HQ3
McLeans Creek	MCL03	39	40	1	0.50	50.00			HQ3
McLeans Creek	MCL03	40	41	1	0.00	0.00			HQ3
McLeans Creek	MCL03	41	42	1	0.65	65.00			HQ3
McLeans Creek	MCL03	42	43	1	0.36	36.00			HQ3
McLeans Creek	MCL03	43	44	1	0.10	10.00			HQ3
McLeans Creek	MCL03	44	45	1	0.05	5.00			HQ3
McLeans Creek	MCL03	45	46	1	0.55	55.00			HQ3
McLeans Creek	MCL03	46	47	1	0.00	0.00			HQ3
McLeans Creek	MCL03	47	48	1	0.20	20.00			HQ3
McLeans Creek	MCL03	48	49	1	0.75	75.00			HQ3
McLeans Creek	MCL03	49	50	1	0.10	10.00			HQ3
McLeans Creek	MCL03	50	51	1	0.10	10.00			HQ3
McLeans Creek	MCL03	51	52	1	0.25	25.00			HQ3
McLeans Creek	MCL03	52	53	1	0.03	3.00			HQ3
McLeans Creek	MCL03	53	54	1	0.00	0.00			HQ3
McLeans Creek	MCL03	54	54.8	0.8	0.55	69.00			HQ3
McLeans Creek	MCL04	0	1	1	0.15	15.00			HQ3
McLeans Creek	MCL04	1	2	1	0.20	20.00			HQ3
McLeans Creek	MCL04	2	3	1	0.15	15.00			HQ3
McLeans Creek	MCL04	3	4	1	0.40	40.00			HQ3
McLeans Creek	MCL04	4	5	1	0.70	70.00			HQ3
McLeans Creek	MCL04	5	6	1	0.60	60.00			HQ3
McLeans Creek	MCL04	6	7	1	0.33	33.00			HQ3
McLeans Creek	MCL04	7	8	1	0.00	0.00			HQ3
McLeans Creek	MCL04	8	9	1	0.50	50.00			HQ3
McLeans Creek	MCL04	9	10	1	0.90	90.00			HQ3
McLeans Creek	MCL04	10	11	1	0.90	90.00			HQ3
McLeans Creek	MCL04	11	12	1	0.90	90.00			HQ3
McLeans Creek	MCL04	12	13	1	0.95	95.00			HQ3
McLeans Creek	MCL04	13	14	1	1.00	100.00			HQ3
McLeans Creek	MCL04	14	15	1	0.00	0.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL04	15	16	1	0.50	50.00			HQ3
McLeans Creek	MCL04	16	17	1	0.50	50.00			HQ3
McLeans Creek	MCL04	17	18	1	0.70	70.00			HQ3
McLeans Creek	MCL04	18	19	1	0.60	60.00			HQ3
McLeans Creek	MCL04	19	20	1	0.60	60.00			HQ3
McLeans Creek	MCL04	20	21	1	0.60	60.00			HQ3
McLeans Creek	MCL04	21	22	1	0.40	40.00			HQ3
McLeans Creek	MCL04	22	23	1	0.90	90.00			HQ3
McLeans Creek	MCL04	23	24	1	0.90	90.00			HQ3
McLeans Creek	MCL04	24	25	1	1.00	100.00			HQ3
McLeans Creek	MCL04	25	26	1	0.60	60.00			HQ3
McLeans Creek	MCL04	26	27	1	0.80	80.00			HQ3
McLeans Creek	MCL04	27	28	1	1.00	100.00			HQ3
McLeans Creek	MCL04	28	29	1	1.00	100.00			HQ3
McLeans Creek	MCL04	29	30	1	1.00	100.00			HQ3
McLeans Creek	MCL04	30	31	1	1.00	100.00			HQ3
McLeans Creek	MCL04	31	32	1	1.00	100.00			HQ3
McLeans Creek	MCL04	32	33	1	0.90	90.00			HQ3
McLeans Creek	MCL04	33	34	1	1.00	100.00			HQ3
McLeans Creek	MCL04	34	35	1	1.00	100.00			HQ3
McLeans Creek	MCL04	35	36	1	0.90	90.00			HQ3
McLeans Creek	MCL04	36	37	1	0.60	60.00			HQ3
McLeans Creek	MCL04	37	38	1	0.90	90.00			HQ3
McLeans Creek	MCL04	38	39	1	0.90	90.00			HQ3
McLeans Creek	MCL04	39	40	1	1.00	100.00			HQ3
McLeans Creek	MCL04	40	41	1	0.50	50.00			HQ3
McLeans Creek	MCL04	41	42	1	0.70	70.00			HQ3
McLeans Creek	MCL04	42	43	1	0.80	80.00			HQ3
McLeans Creek	MCL04	43	44	1	1.00	100.00			HQ3
McLeans Creek	MCL04	44	45	1	1.00	100.00			HQ3
McLeans Creek	MCL04	45	46	1	1.00	100.00			HQ3
McLeans Creek	MCL04	46	47	1	0.90	90.00			HQ3
McLeans Creek	MCL04	47	48	1	0.80	80.00			HQ3
McLeans Creek	MCL04	48	49	1	0.10	10.00			HQ3
McLeans Creek	MCL04	49	50	1	0.80	80.00			HQ3
McLeans Creek	MCL04	50	51	1	0.45	45.00			HQ3
McLeans Creek	MCL04	51	52	1	0.80	80.00			HQ3
McLeans Creek	MCL04	52	53	1	1.00	100.00			HQ3
McLeans Creek	MCL04	53	54	1	0.00	0.00			HQ3
McLeans Creek	MCL04	54	55	1	0.15	15.00			HQ3
McLeans Creek	MCL04	55	56	1	0.90	90.00			HQ3
McLeans Creek	MCL04	56	57	1	1.00	100.00			HQ3
McLeans Creek	MCL04	57	58	1	0.00	0.00			HQ3
McLeans Creek	MCL04	58	59	1	0.00	0.00			HQ3
McLeans Creek	MCL04	59	60	1	0.00	0.00			HQ3
McLeans Creek	MCL04	60	61	1	0.12	12.00			HQ3
McLeans Creek	MCL04	61	62	1	0.60	60.00			HQ3
McLeans Creek	MCL04	62	63	1	0.90	90.00			HQ3
McLeans Creek	MCL04	63	64	1	0.00	0.00			HQ3
McLeans Creek	MCL04	64	65	1	1.00	100.00			HQ3
McLeans Creek	MCL04	65	66	1	1.00	100.00			HQ3
McLeans Creek	MCL04	66	67	1	1.00	100.00			HQ3
McLeans Creek	MCL04	67	68	1	1.00	100.00			HQ3
McLeans Creek	MCL04	68	69	1	1.00	100.00			HQ3
McLeans Creek	MCL04	69	70	1	0.54	54.00			HQ3
McLeans Creek	MCL04	70	71	1	1.00	100.00			HQ3
McLeans Creek	MCL04	71	72	1	1.00	100.00			HQ3
McLeans Creek	MCL04	72	73	1	0.90	90.00			HQ3
McLeans Creek	MCL04	73	74	1	0.70	70.00			HQ3
McLeans Creek	MCL04	74	75	1	1.00	100.00			HQ3
McLeans Creek	MCL04	75	76	1	1.00	100.00			HQ3
McLeans Creek	MCL04	76	77	1	0.50	50.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL04	77	78	1	0.90	90.00			HQ3
McLeans Creek	MCL04	78	79	1	1.00	100.00			HQ3
McLeans Creek	MCL04	79	80	1	0.20	20.00			HQ3
McLeans Creek	MCL04	80	81	1	0.10	10.00			HQ3
McLeans Creek	MCL04	81	82	1	1.00	100.00			HQ3
McLeans Creek	MCL04	82	83	1	0.30	30.00			HQ3
McLeans Creek	MCL04	83	84	1	0.80	80.00			HQ3
McLeans Creek	MCL04	84	85	1	0.86	86.00			HQ3
McLeans Creek	MCL04	85	86	1	1.00	100.00			HQ3
McLeans Creek	MCL04	86	87	1	0.40	40.00			HQ3
McLeans Creek	MCL04	87	88	1	0.00	0.00			HQ3
McLeans Creek	MCL04	88	89	1	0.00	0.00			HQ3
McLeans Creek	MCL04	89	90	1	0.10	10.00			HQ3
McLeans Creek	MCL04	90	91	1	0.80	80.00			HQ3
McLeans Creek	MCL04	91	92	1	0.70	70.00			HQ3
McLeans Creek	MCL04	92	93	1	1.00	100.00			HQ3
McLeans Creek	MCL04	93	94	1	0.40	40.00			HQ3
McLeans Creek	MCL04	94	95	1	0.84	84.00			HQ3
McLeans Creek	MCL04	95	96	1	0.00	0.00			HQ3
McLeans Creek	MCL04	96	97	1	0.10	10.00			HQ3
McLeans Creek	MCL04	97	98	1	0.65	65.00			HQ3
McLeans Creek	MCL04	98	99	1	0.70	70.00			HQ3
McLeans Creek	MCL04	99	100	1	0.20	20.00			HQ3
McLeans Creek	MCL04	100	101	1	0.03	3.00			HQ3
McLeans Creek	MCL04	101	102	1	0.00	0.00			HQ3
McLeans Creek	MCL04	102	103	1	0.00	0.00			HQ3
McLeans Creek	MCL04	103	104	1	0.13	13.00			HQ3
McLeans Creek	MCL04	104	105	1	0.40	40.00			HQ3
McLeans Creek	MCL04	105	106	0.9	0.00	0.00			HQ3
McLeans Creek	MCL05	0	1	1	0.10	10.00			HQ3
McLeans Creek	MCL05	1	2	1	0.10	10.00			HQ3
McLeans Creek	MCL05	2	3	1	0.40	40.00			HQ3
McLeans Creek	MCL05	3	4	1	0.20	20.00			HQ3
McLeans Creek	MCL05	4	5	1	1.00	100.00			HQ3
McLeans Creek	MCL05	5	6	1	0.25	25.00			HQ3
McLeans Creek	MCL05	6	7	1	0.30	30.00			HQ3
McLeans Creek	MCL05	7	8	1	0.86	86.00			HQ3
McLeans Creek	MCL05	8	9	1	0.36	36.00			HQ3
McLeans Creek	MCL05	9	10	1	0.70	70.00			HQ3
McLeans Creek	MCL05	10	11	1	0.20	20.00			HQ3
McLeans Creek	MCL05	11	12	1	0.70	70.00			HQ3
McLeans Creek	MCL05	12	13	1	0.90	90.00			HQ3
McLeans Creek	MCL05	13	14	1	0.50	50.00			HQ3
McLeans Creek	MCL05	14	15	1	0.40	40.00			HQ3
McLeans Creek	MCL05	15	16	1	1.00	100.00			HQ3
McLeans Creek	MCL05	16	17	1	1.00	100.00			HQ3
McLeans Creek	MCL05	17	18	1	0.40	40.00			HQ3
McLeans Creek	MCL05	18	19	1	1.00	100.00			HQ3
McLeans Creek	MCL05	19	20	1	0.95	95.00			HQ3
McLeans Creek	MCL05	20	21	1	1.00	100.00			HQ3
McLeans Creek	MCL05	21	22	1	1.00	100.00			HQ3
McLeans Creek	MCL05	22	23	1	1.00	100.00			HQ3
McLeans Creek	MCL05	23	24	1	1.00	100.00			HQ3
McLeans Creek	MCL05	24	25	1	1.00	100.00			HQ3
McLeans Creek	MCL05	25	26	1	1.00	100.00			HQ3
McLeans Creek	MCL05	26	27	1	1.00	100.00			HQ3
McLeans Creek	MCL05	27	28	1	1.00	100.00			HQ3
McLeans Creek	MCL05	28	29	1	0.95	95.00			HQ3
McLeans Creek	MCL05	29	30	1	1.00	100.00			HQ3
McLeans Creek	MCL05	30	31	1	1.00	100.00			HQ3
McLeans Creek	MCL05	31	32	1	0.90	90.00			HQ3
McLeans Creek	MCL05	32	33	1	1.00	100.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL05	33	34	1	0.80	80.00			HQ3
McLeans Creek	MCL05	34	35	1	1.00	100.00			HQ3
McLeans Creek	MCL05	35	36	1	1.00	100.00			HQ3
McLeans Creek	MCL05	36	37	1	0.80	80.00			HQ3
McLeans Creek	MCL05	37	38	1	0.90	90.00			HQ3
McLeans Creek	MCL05	38	39	1	0.80	80.00			HQ3
McLeans Creek	MCL05	39	40	1	0.20	20.00			HQ3
McLeans Creek	MCL05	40	41	1	0.80	80.00			HQ3
McLeans Creek	MCL05	41	42	1	1.00	100.00			HQ3
McLeans Creek	MCL05	42	43	1	0.30	30.00			HQ3
McLeans Creek	MCL05	43	44	1	1.00	100.00			HQ3
McLeans Creek	MCL05	44	45	1	0.60	60.00			HQ3
McLeans Creek	MCL05	45	46	1	0.50	50.00			HQ3
McLeans Creek	MCL05	46	47	1	1.00	100.00			HQ3
McLeans Creek	MCL05	47	48	1	0.60	60.00			HQ3
McLeans Creek	MCL05	48	49	1	0.80	80.00			HQ3
McLeans Creek	MCL05	49	50	1	0.80	80.00			HQ3
McLeans Creek	MCL05	50	51	1	0.85	85.00			HQ3
McLeans Creek	MCL05	51	52	1	0.70	70.00			HQ3
McLeans Creek	MCL05	52	53	1	0.20	20.00			HQ3
McLeans Creek	MCL05	53	54	1	0.70	70.00			HQ3
McLeans Creek	MCL05	54	55	1	1.00	100.00			HQ3
McLeans Creek	MCL05	55	56	1	1.00	100.00			HQ3
McLeans Creek	MCL05	56	57	1	0.94	94.00			HQ3
McLeans Creek	MCL05	57	58	1	0.40	40.00			HQ3
McLeans Creek	MCL05	58	59	1	1.00	100.00			HQ3
McLeans Creek	MCL05	59	60	1	1.00	100.00			HQ3
McLeans Creek	MCL05	60	61	1	0.90	90.00			HQ3
McLeans Creek	MCL05	61	62	1	0.80	80.00			HQ3
McLeans Creek	MCL05	62	63	1	1.00	100.00			HQ3
McLeans Creek	MCL05	63	64	1	0.80	80.00			HQ3
McLeans Creek	MCL05	64	65	1	0.80	80.00			HQ3
McLeans Creek	MCL05	65	66	1	0.60	60.00			HQ3
McLeans Creek	MCL05	66	67	1	0.30	30.00			HQ3
McLeans Creek	MCL05	67	68	1	0.67	67.00			HQ3
McLeans Creek	MCL05	68	69	1	0.80	80.00			HQ3
McLeans Creek	MCL05	69	70	1	0.80	80.00			HQ3
McLeans Creek	MCL05	70	71	1	0.70	70.00			HQ3
McLeans Creek	MCL05	71	72	1	0.50	50.00			HQ3
McLeans Creek	MCL05	72	73	1	0.90	90.00			HQ3
McLeans Creek	MCL05	73	74	1	1.00	100.00			HQ3
McLeans Creek	MCL05	74	75	1	0.80	80.00			HQ3
McLeans Creek	MCL05	75	76	1	0.86	86.00			HQ3
McLeans Creek	MCL05	76	77	1	0.50	50.00			HQ3
McLeans Creek	MCL05	77	78	1	0.90	90.00			HQ3
McLeans Creek	MCL05	78	79	1	1.00	100.00			HQ3
McLeans Creek	MCL05	79	80	1	0.80	80.00			HQ3
McLeans Creek	MCL05	80	81	1	1.00	100.00			HQ3
McLeans Creek	MCL05	81	82	1	1.00	100.00			HQ3
McLeans Creek	MCL05	82	83	1	0.30	30.00			HQ3
McLeans Creek	MCL05	83	84	1	0.80	80.00			HQ3
McLeans Creek	MCL05	84	85	1	1.00	100.00			HQ3
McLeans Creek	MCL05	85	86	1	0.85	85.00			HQ3
McLeans Creek	MCL05	86	87	1	0.50	50.00			HQ3
McLeans Creek	MCL05	87	88	1	0.58	58.00			HQ3
McLeans Creek	MCL05	88	89	1	0.45	45.00			HQ3
McLeans Creek	MCL05	89	90	1	1.00	100.00			HQ3
McLeans Creek	MCL05	90	91	1	1.00	100.00			HQ3
McLeans Creek	MCL05	91	92	1	0.35	35.00			HQ3
McLeans Creek	MCL05	92	93	1	0.47	47.00			HQ3
McLeans Creek	MCL05	93	94	1	0.80	80.00			HQ3
McLeans Creek	MCL05	94	95	1	1.00	100.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL05	95	96	1	1.00	100.00			HQ3
McLeans Creek	MCL05	96	97	1	0.90	90.00			HQ3
McLeans Creek	MCL05	97	98	1	0.95	95.00			HQ3
McLeans Creek	MCL05	98	99	1	0.55	55.00			HQ3
McLeans Creek	MCL05	99	100	1	1.00	100.00			HQ3
McLeans Creek	MCL05	100	101	1	0.97	97.00			HQ3
McLeans Creek	MCL05	101	102	1	0.55	55.00			HQ3
McLeans Creek	MCL05	102	103	1	1.00	100.00			HQ3
McLeans Creek	MCL05	103	104	1	1.00	100.00			HQ3
McLeans Creek	MCL05	104	105	1	1.00	100.00			HQ3
McLeans Creek	MCL05	105	106	1	0.96	96.00			HQ3
McLeans Creek	MCL05	106	107	1	1.00	100.00			HQ3
McLeans Creek	MCL05	107	108	1	1.00	100.00			HQ3
McLeans Creek	MCL05	108	109	1	1.00	100.00			HQ3
McLeans Creek	MCL05	109	110	1	0.87	87.00			HQ3
McLeans Creek	MCL05	110	111	1	1.00	100.00			HQ3
McLeans Creek	MCL05	111	112	1	0.55	55.00			HQ3
McLeans Creek	MCL05	112	113	1	1.00	100.00			HQ3
McLeans Creek	MCL05	113	114	1	1.00	100.00			HQ3
McLeans Creek	MCL05	114	115	1	1.00	100.00			HQ3
McLeans Creek	MCL05	115	116	1	0.95	95.00			HQ3
McLeans Creek	MCL05	116	117	1	1.00	100.00			HQ3
McLeans Creek	MCL05	117	118	1	0.52	52.00			HQ3
McLeans Creek	MCL05	118	119	1	0.88	88.00			HQ3
McLeans Creek	MCL05	119	120	1	0.75	75.00			HQ3
McLeans Creek	MCL05	120	121	1	0.70	70.00			HQ3
McLeans Creek	MCL05	121	122	1	0.50	50.00			HQ3
McLeans Creek	MCL05	122	123	1	0.95	95.00			HQ3
McLeans Creek	MCL05	123	124	1	0.95	95.00			HQ3
McLeans Creek	MCL05	124	125	1	0.90	90.00			HQ3
McLeans Creek	MCL05	125	126	1	0.93	93.00			HQ3
McLeans Creek	MCL05	126	127	1	1.00	100.00			HQ3
McLeans Creek	MCL05	127	128	1	1.00	100.00			HQ3
McLeans Creek	MCL05	128	129	1	0.90	90.00			HQ3
McLeans Creek	MCL05	129	130	1	1.00	100.00			HQ3
McLeans Creek	MCL05	130	131	1	0.91	91.00			HQ3
McLeans Creek	MCL05	131	132	1	1.00	100.00			HQ3
McLeans Creek	MCL05	132	133	1	1.00	100.00			HQ3
McLeans Creek	MCL05	133	134	1	0.95	95.00			HQ3
McLeans Creek	MCL05	134	135	1	1.00	100.00			HQ3
McLeans Creek	MCL05	135	136	1	1.00	100.00			HQ3
McLeans Creek	MCL05	136	137	1	1.00	100.00			HQ3
McLeans Creek	MCL05	137	138	1	1.00	100.00			HQ3
McLeans Creek	MCL05	138	139	1	1.00	100.00			HQ3
McLeans Creek	MCL05	139	140	1	0.78	78.00			HQ3
McLeans Creek	MCL05	140	141	1	0.20	20.00			HQ3
McLeans Creek	MCL05	141	142	1	0.45	45.00			HQ3
McLeans Creek	MCL05	142	143	1	0.68	68.00			HQ3
McLeans Creek	MCL05	143	144	1	1.00	100.00			HQ3
McLeans Creek	MCL05	144	145	1	0.95	95.00			HQ3
McLeans Creek	MCL05	145	146	1	0.98	98.00			HQ3
McLeans Creek	MCL05	146	147	1	0.52	52.00			HQ3
McLeans Creek	MCL05	147	148	1	0.40	40.00			HQ3
McLeans Creek	MCL05	148	149	1	0.45	45.00			HQ3
McLeans Creek	MCL05	149	150	1	0.25	25.00			HQ3
McLeans Creek	MCL05	150	151	1	0.25	25.00			HQ3
McLeans Creek	MCL05	151	152	1	0.00	0.00			HQ3
McLeans Creek	MCL05	152	153	1	0.25	25.00			HQ3
McLeans Creek	MCL05	153	154	1	0.00	0.00			HQ3
McLeans Creek	MCL05	154	155	1	0.12	11.80			HQ3
McLeans Creek	MCL05	155	156	1	0.50	50.00			HQ3
McLeans Creek	MCL05	156	157	1	0.00	0.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL05	157	158	1	0.00	0.00			HQ3
McLeans Creek	MCL05	158	159	1	0.30	30.00			HQ3
McLeans Creek	MCL05	159	160	1	0.00	0.00			HQ3
McLeans Creek	MCL05	160	161	1	0.58	58.00			HQ3
McLeans Creek	MCL05	161	162	1	0.70	70.00			HQ3
McLeans Creek	MCL05	162	163	1	0.23	23.00			HQ3
McLeans Creek	MCL05	163	164	1	0.50	50.00			HQ3
McLeans Creek	MCL05	164	165	1	0.20	20.00			HQ3
McLeans Creek	MCL05	165	166	1	0.10	10.00			HQ3
McLeans Creek	MCL05	166	167	1	0.60	60.00			HQ3
McLeans Creek	MCL05	167	168	1	0.28	28.00			HQ3
McLeans Creek	MCL05	168	169	1	1.00	100.00			HQ3
McLeans Creek	MCL05	169	170	1	1.00	100.00			HQ3
McLeans Creek	MCL05	170	171	1	1.00	100.00			HQ3
McLeans Creek	MCL05	171	172	1	1.00	100.00			HQ3
McLeans Creek	MCL05	172	173	1	1.00	100.00			HQ3
McLeans Creek	MCL05	173	174	1	1.00	100.00			HQ3
McLeans Creek	MCL05	174	175	1	1.00	100.00			HQ3
McLeans Creek	MCL05	175	175.6	0.6	0.60	100.00			HQ3
McLeans Creek	MCL05A	0	1	1	0.15	15.00			HQ3
McLeans Creek	MCL05A	1	2	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	2	3	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	3	4	1	0.10	10.00			HQ3
McLeans Creek	MCL05A	4	5	1	0.25	25.00			HQ3
McLeans Creek	MCL05A	5	6	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	6	7	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	7	8	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	8	9	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	9	10	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	10	11	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	11	12	1	0.95	95.00			HQ3
McLeans Creek	MCL05A	12	13	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	13	14	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	14	15	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	15	16	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	16	17	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	17	18	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	18	19	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	19	20	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	20	21	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	21	22	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	22	23	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	23	24	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	24	25	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	25	26	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	26	27	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	27	28	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	28	29	1	0.45	45.00			HQ3
McLeans Creek	MCL05A	29	30	1	0.65	65.00			HQ3
McLeans Creek	MCL05A	30	31	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	31	32	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	32	33	1	0.95	95.00			HQ3
McLeans Creek	MCL05A	33	34	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	34	35	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	35	36	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	36	37	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	37	38	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	38	39	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	39	40	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	40	41	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	41	42	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	42	43	1	0.70	70.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL05A	43	44	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	44	45	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	45	46	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	46	47	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	47	48	1	0.75	75.00			HQ3
McLeans Creek	MCL05A	48	49	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	49	50	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	50	51	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	51	52	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	52	53	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	53	54	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	54	55	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	55	56	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	56	57	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	57	58	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	58	59	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	59	60	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	60	61	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	61	62	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	62	63	1	0.68	68.00			HQ3
McLeans Creek	MCL05A	63	64	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	64	65	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	65	66	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	66	67	1	0.45	45.00			HQ3
McLeans Creek	MCL05A	67	68	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	68	69	1	0.65	65.00			HQ3
McLeans Creek	MCL05A	69	70	1	0.75	75.00			HQ3
McLeans Creek	MCL05A	70	71	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	71	72	1	0.48	48.00			HQ3
McLeans Creek	MCL05A	72	73	1	0.25	25.00			HQ3
McLeans Creek	MCL05A	73	74	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	74	75	1	0.85	85.00			HQ3
McLeans Creek	MCL05A	75	76	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	76	77	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	77	78	1	0.65	65.00			HQ3
McLeans Creek	MCL05A	78	79	1	0.97	97.00			HQ3
McLeans Creek	MCL05A	79	80	1	0.85	85.00			HQ3
McLeans Creek	MCL05A	80	81	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	81	82	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	82	83	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	83	84	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	84	85	1	0.93	93.00			HQ3
McLeans Creek	MCL05A	85	86	1	0.98	98.00			HQ3
McLeans Creek	MCL05A	86	87	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	87	88	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	88	89	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	89	90	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	90	91	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	91	92	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	92	93	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	93	94	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	94	95	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	95	96	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	96	97	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	97	98	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	98	99	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	99	100	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	100	101	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	101	102	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	102	103	1	0.65	65.00			HQ3
McLeans Creek	MCL05A	103	104	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	104	105	1	0.60	60.00			HQ3

DataSet	Hole_ID	mFrom	mTo	Interval_Le	Recovery_m	Recovery_Pct	RQD_m	RQD_Pct	Core_Diam
McLeans Creek	MCL05A	105	106	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	106	107	1	0.25	25.00			HQ3
McLeans Creek	MCL05A	107	108	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	108	109	1	0.10	10.00			HQ3
McLeans Creek	MCL05A	109	110	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	110	111	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	111	112	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	112	113	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	113	114	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	114	115	1	0.60	60.00			HQ3
McLeans Creek	MCL05A	115	116	1	0.90	90.00			HQ3
McLeans Creek	MCL05A	116	117	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	117	118	1	0.70	70.00			HQ3
McLeans Creek	MCL05A	118	119	1	0.00	0.00			HQ3
McLeans Creek	MCL05A	119	120	1	0.20	20.00			HQ3
McLeans Creek	MCL05A	120	121	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	121	122	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	122	123	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	123	124	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	124	125	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	125	126	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	126	127	1	0.40	40.00			HQ3
McLeans Creek	MCL05A	127	128	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	128	129	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	129	130	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	130	131	1	0.80	80.00			HQ3
McLeans Creek	MCL05A	131	132	1	0.17	17.00			HQ3
McLeans Creek	MCL05A	132	133	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	133	134	1	0.55	55.00			HQ3
McLeans Creek	MCL05A	134	135	1	0.30	30.00			HQ3
McLeans Creek	MCL05A	135	136	1	1.00	100.00			HQ3
McLeans Creek	MCL05A	136	137	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	137	138	1	0.50	50.00			HQ3
McLeans Creek	MCL05A	138	138.7	0.7	0.20	20.00			HQ3



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**CERTIFICATE BU12091184**

Project: Moonmin Zeehan  
 P.O. No.: 26- 04- 12  
 This report is for 38 Drill Core samples submitted to our lab in Burnie, TAS, Australia  
 on 27- APR- 2012.

The following have access to data associated with this certificate:

DAMON ELDER  
 PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
STO- 23	Monthly storage charge for pulp
PUL- 23	Pulv Sample - Split/Retain

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: **MOONRAKER MINERALS PTY LTD**  
**ATTN: PETER ROLLEY**  
**UNIT 1**  
**245 CHURCHILL AVENUE**  
**SUBIACO WA 6008**

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager



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 Finalized Date: 14- MAY-2012  
 Account: MOONMIN

Project: Moonmin Zeehan

**CERTIFICATE OF ANALYSIS BU12091184**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICRP61 Ag ppm	ME-ICRP61 AS ppm	ME-ICRP61 Bi ppm	ME-ICRP61 Ca %	ME-ICRP61 Cd ppm	ME-ICRP61 Co ppm	ME-ICRP61 Cr ppm	ME-ICRP61 Cu ppm	ME-ICRP61 Fe %	ME-ICRP61 K %	ME-ICRP61 Mg %	ME-ICRP61 Mn ppm	ME-ICRP61 Mo ppm	ME-ICRP61 Na %
115001	0.73	1.1	25	5	0.04	<0.5	<1	49	20	0.28	0.86	0.24	20	8	0.02
115002	1.46	1.1	8	4	0.03	<0.5	<1	28	10	0.38	1.41	0.38	28	2	0.05
115003	1.15	1.0	<5	3	0.03	<0.5	1	25	13	0.24	0.99	0.35	15	1	0.07
115004	2.54	1.8	6	19	0.04	<0.5	<1	19	12	0.27	0.74	0.23	21	2	0.04
115005	0.90	1.9	<5	<2	0.02	<0.5	<1	35	8	0.49	2.35	0.41	30	2	0.09
115006	1.98	1.8	<5	<2	0.01	<0.5	<1	32	5	0.55	2.55	0.35	30	<1	0.08
115007	0.92	1.3	<5	3	0.02	<0.5	1	24	8	0.40	1.72	0.40	22	1	0.07
115008	1.26	0.9	<5	3	0.01	<0.5	<1	53	6	0.51	3.51	0.54	23	<1	0.07
115009	0.96	1.4	5	3	0.02	<0.5	2	46	44	0.41	2.07	0.37	46	5	0.07
115010	0.20	1.7	58	<2	0.02	0.5	2	44	125	0.74	0.77	0.24	123	6	0.04
115011	1.56	1.2	20	2	0.01	<0.5	7	34	163	0.29	0.61	0.13	79	14	0.03
115012	1.39	2.3	29	2	0.01	1.1	2	35	179	0.59	0.53	0.18	113	10	0.04
115013	1.09	31.1	174	<2	0.02	9.1	23	57	2880	9.05	0.21	0.18	279	17	0.02
115014	0.45	3.7	68	<2	0.03	13.9	12	23	210	3.59	0.07	0.19	210	6	0.01
115015	0.06	19.7	452	22	0.19	157.5	16	42	1305	12.65	1.81	1.11	1505	4	0.04
115016	2.01	6.8	27	2	0.02	3.5	10	60	245	7.32	1.72	0.28	426	7	0.05
115017	2.70	12.9	101	4	0.02	3.8	21	45	621	13.35	1.40	0.26	613	7	0.04
115018	2.88	23.9	224	<2	0.01	10.6	12	38	154	5.51	2.52	0.35	144	1	0.08
115019	3.05	32.7	372	2	0.02	14.8	35	37	206	10.60	1.67	0.28	172	1	0.05
115020	3.05	33.5	970	5	0.02	33.7	13	27	178	15.60	0.81	0.21	254	1	0.03
115021	1.15	12.3	321	2	0.02	0.8	3	29	230	5.86	1.27	0.22	146	12	0.03
115022	0.53	1.5	36	3	0.01	0.9	1	48	46	1.13	3.64	0.46	47	3	0.06
115023	1.01	1.1	16	<2	0.01	<0.5	1	42	32	0.73	3.24	0.39	36	1	0.06
115024	0.98	1.7	30	2	0.01	0.5	2	42	103	7.38	1.74	0.27	535	2	0.03
115025	1.27	24.8	88	<2	0.01	<0.5	2	40	234	9.60	0.83	0.16	479	2	0.02
115026	1.63	1.2	<5	3	<0.01	<0.5	<1	53	8	0.59	4.18	0.52	19	<1	0.09
115027	1.58	1.3	<5	3	<0.01	<0.5	1	42	12	0.60	3.46	0.42	24	1	0.08
115028	0.97	1.6	<5	47	0.01	<0.5	<1	42	8	0.52	2.88	0.35	27	1	0.07
115029	0.48	1.2	<5	<2	0.01	<0.5	1	50	22	0.75	3.72	0.46	39	2	0.08
115030	0.63	<0.5	<5	3	0.02	<0.5	<1	14	2	0.42	0.05	0.01	49	<1	<0.01
115031	0.54	1.9	16	<2	<0.01	<0.5	1	47	28	2.00	2.82	0.34	49	1	0.07
115032	1.65	2.0	13	3	<0.01	<0.5	1	38	30	1.95	2.43	0.29	45	2	0.06
115033	0.89	1.4	27	<2	<0.01	<0.5	1	43	38	3.44	3.00	0.36	59	1	0.07
115034	2.37	1.5	30	3	<0.01	<0.5	1	41	60	3.08	2.80	0.32	46	1	0.06
115035	0.67	1.8	7	3	<0.01	<0.5	<1	23	31	1.40	1.66	0.19	39	<1	0.04
115036	0.41	1.7	27	<2	<0.01	<0.5	2	25	43	2.93	1.80	0.21	54	1	0.05
115037	0.71	1.3	5	<2	<0.01	<0.5	<1	34	11	1.17	2.54	0.27	34	<1	0.06
115038	1.61	3.0	208	3	0.01	1.8	4	65	46	4.78	1.80	0.20	66	10	0.04



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 Finalized Date: 14- MAY-2012  
 Account: MOONMIN

Project: Moonmin Zeehan

**Minerals**

**CERTIFICATE OF ANALYSIS BU12091184**

Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115001		43	2590	7770	118	178	0.12	109	19	0.001	0.001	140	<5	20
115002		17	610	1420	42	79	0.17	55	38			50	5	10
115003		21	460	562	22	98	0.18	46	18			<50	5	10
115004		16	610	1290	28	75	0.13	30	14			<50	<5	10
115005		2	280	621	18	56	0.28	80	11			70	9	10
115006		3	150	101	17	52	0.28	65	10			60	8	10
115007		3	170	177	17	56	0.22	46	8			<50	7	10
115008		4	180	146	27	49	0.32	229	16			70	9	20
115009		29	610	1140	57	64	0.23	146	43			60	7	10
115010		47	3550	>10000	167	218	0.10	56	211	1.595		140	<5	20
115011		60	1810	5940	137	57	0.09	57	96			50	<5	10
115012		66	1640	5950	166	53	0.07	54	743			50	<5	10
115013		92	710	>10000	460	28	0.02	153	959	2.35		<50	<5	10
115014		31	310	>10000	200	12	0.01	31	684	2.89		<50	<5	<10
115015		15	400	>10000	98	12	0.15	55	>10000	3.95		<50	<5	10
115016		44	1190	>10000	162	32	0.13	131	366			70	<5	20
115017		59	1850	>10000	200	40	0.09	143	989			90	<5	30
115018		38	230	>10000	130	44	0.21	75	1260	1.625		70	6	20
115019		88	300	>10000	214	43	0.14	104	1860	2.15		60	<5	30
115020		54	170	>10000	195	34	0.07	106	6900	2.03		<50	<5	10
115021		43	420	1390	173	65	0.13	58	170			50	<5	10
115022		32	510	1820	90	43	0.32	87	188			90	9	20
115023		64	890	3190	78	47	0.32	85	353			90	9	20
115024		53	1130	3250	277	45	0.13	240	880			80	<5	10
115025		36	1070	2030	449	48	0.05	204	1000			50	<5	10
115026		7	190	222	15	32	0.37	100	17			70	11	20
115027		6	210	395	33	31	0.33	77	69			90	11	20
115028		4	180	289	16	31	0.30	92	251			80	10	20
115029		5	250	461	33	34	0.34	89	186			90	10	20
115030		3	10	8	<5	4	0.10	2	9			<50	<5	<10
115031		2	250	273	26	31	0.27	89	79			80	9	20
115032		2	210	221	31	29	0.23	75	75			70	7	20
115033		5	410	619	16	32	0.27	74	228			90	8	20
115034		3	320	405	17	33	0.26	72	154			90	9	20
115035		2	150	160	10	24	0.18	39	49			50	6	20
115036		3	220	257	10	20	0.19	44	182			60	7	20
115037		2	230	186	5	36	0.28	62	32			80	10	20
115038		9	120	506	21	20	0.17	44	565			50	6	10



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**CERTIFICATE BU12099587**

Project: McLeans

P.O. No.:

This report is for 53 Drill Core samples submitted to our lab in Burnie, TAS, Australia on 7- MAY- 2012.

The following have access to data associated with this certificate:

DAMON ELDER

PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
STO- 23	Monthly storage charge for pulp
PUL- 23	Pulv Sample - Split/Retain
BAG- 01	Bulk Master for Storage
SPL- 21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: **MOONRAKER MINERALS PTY LTD**  
**ATTN: PETER ROLLEY**  
**UNIT 1**  
**245 CHURCHILL AVENUE**  
**SUBIACO WA 6008**

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager

Project: McLeans



**CERTIFICATE OF ANALYSIS BU12099587**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
	0.88	7.0	58	<2	0.01	5.8	3	33	42	1.40	2.38	0.29	75	1	0.07
	4.18	39.0	62	<2	0.01	6.3	3	18	57	0.55	1.34	0.15	51	1	0.03
	0.85	1.3	9	<2	0.01	1.7	10	40	26	0.68	3.42	0.40	84	1	0.07
	1.54	1.2	10	<2	<0.01	1.8	7	42	35	0.59	3.46	0.35	32	1	0.08
	0.56	<0.5	11	<2	<0.01	<0.5	7	44	27	0.60	3.57	0.36	21	1	0.08
	0.42	0.7	<5	<2	<0.01	<0.5	6	42	21	0.63	3.32	0.34	36	1	0.07
	1.79	0.7	<5	<2	0.01	<0.5	4	43	45	0.52	3.48	0.35	24	2	0.09
	2.21	0.8	7	<2	<0.01	<0.5	5	44	14	0.63	3.15	0.34	37	1	0.07
	3.27	0.7	<5	<2	<0.01	<0.5	5	37	30	0.46	3.00	0.32	19	1	0.07
	0.56	<0.5	<5	<2	<0.01	<0.5	5	31	19	0.48	2.66	0.30	26	1	0.06
	2.96	1.4	7	<2	<0.01	3.9	6	40	33	0.57	2.89	0.34	28	1	0.07
	1.66	8.1	56	<2	0.01	44.3	27	40	85	1.87	2.39	0.29	55	1	0.07
	2.38	23.6	154	<2	0.02	128.5	54	38	194	4.67	1.80	0.29	116	1	0.05
	3.14	27.4	302	<2	0.03	212	104	26	216	7.45	0.86	0.20	142	1	0.02
	0.05	18.6	463	<2	0.18	154.5	15	41	1310	12.40	1.75	1.10	1455	4	0.04
	3.67	18.7	285	<2	0.03	162.5	99	27	215	6.75	0.80	0.18	187	2	0.02
	2.95	15.3	143	<2	0.02	121.0	41	39	160	3.89	1.92	0.27	103	1	0.05
	2.92	6.4	173	<2	0.01	41.8	111	29	167	7.36	1.32	0.20	71	2	0.04
	2.59	7.5	214	<2	0.02	83.1	78	40	115	3.76	2.32	0.26	80	1	0.04
	0.60	3.6	124	<2	0.01	37.8	49	40	55	2.28	2.28	0.26	52	2	0.03
	1.47	14.4	107	<2	0.03	25.5	20	41	453	1.82	2.23	0.29	57	2	0.04
	1.20	3.8	58	<2	0.01	18.7	10	35	46	1.15	2.29	0.25	46	1	0.04
	0.93	2.3	5	<2	<0.01	0.7	1	29	16	0.39	1.89	0.20	26	1	0.03
	0.89	2.2	<5	<2	<0.01	<0.5	<1	20	5	0.40	1.52	0.16	30	1	0.03
	0.33	1.7	<5	<2	<0.01	<0.5	<1	28	6	0.76	1.87	0.19	65	1	0.03
	0.33	1.5	11	<2	<0.01	<0.5	1	50	35	0.41	3.67	0.38	20	1	0.06
	1.38	1.3	<5	<2	<0.01	<0.5	<1	36	14	0.33	2.60	0.27	17	1	0.04
	0.45	0.8	7	<2	<0.01	<0.5	20	25	32	0.38	1.84	0.20	28	<1	0.02
	0.40	1.5	17	<2	<0.01	<0.5	5	43	69	0.80	3.11	0.33	39	1	0.05
	0.73	<0.5	<5	<2	0.01	<0.5	<1	15	1	0.36	0.06	0.01	39	<1	<0.01
	0.87	1.2	27	<2	<0.01	<0.5	15	56	59	1.23	3.56	0.36	79	1	0.06
	1.22	1.7	26	<2	0.01	10.1	16	38	100	0.98	2.59	0.27	59	2	0.05
	1.99	2.5	31	<2	0.01	14.0	20	37	83	2.26	2.26	0.25	68	1	0.05
	2.10	1.3	33	<2	0.01	6.9	11	32	97	0.87	2.10	0.22	47	1	0.04
	1.68	<0.5	16	2	<0.01	<0.5	5	19	47	0.42	1.47	0.14	24	<1	0.03
	1.95	0.6	15	2	<0.01	1.8	13	42	24	0.83	3.56	0.37	22	1	0.06
	3.12	<0.5	24	3	<0.01	0.9	20	46	12	1.24	3.73	0.42	57	<1	0.06
	0.87	<0.5	34	<2	<0.01	6.2	25	47	15	1.46	3.91	0.42	80	1	0.06
	0.39	<0.5	24	<2	<0.01	<0.5	33	40	13	1.97	3.33	0.42	34	1	0.05
	1.07	<0.5	20	2	<0.01	1.7	21	34	16	1.41	2.51	0.30	54	1	0.06



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Project: McLeans

**Minerals**

**CERTIFICATE OF ANALYSIS BU12099587**

Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115039	9	120	3510	166	37	0.23	58	1225			50	7	10
115040	7	90	>10000	782	20	0.15	33	1585		1.590	<50	5	10
115041	14	130	609	30	34	0.30	74	706			60	9	10
115042	16	140	423	46	37	0.33	79	943			60	10	10
115043	16	140	160	13	43	0.35	81	381			70	11	10
115044	10	120	396	15	35	0.30	73	315			60	9	10
115045	18	160	296	11	43	0.34	77	575			60	11	10
115046	8	100	379	13	33	0.29	70	255			60	9	10
115047	7	120	338	10	36	0.30	76	171			60	9	10
115048	7	120	264	11	29	0.28	68	181			60	10	10
115049	13	120	562	18	37	0.28	78	977			70	9	10
115050	48	130	3790	112	41	0.25	72	7250			70	8	20
115051	91	140	>10000	213	37	0.17	77	>10000	2.05	1.105	60	5	20
115052	163	120	>10000	353	33	0.09	68	>10000	4.26	1.370	50	<5	20
115053	15	390	>10000	95	7	0.15	55	>10000	3.99	1.360	<50	<5	10
115054	159	110	9060	271	32	0.07	56	>10000	3.05	<50	<50	<5	20
115055	69	120	6820	177	37	0.19	62	>10000	2.28		50	5	10
115056	157	120	2700	152	37	0.13	60	>10000	1.570		50	5	10
115057	117	130	2860	106	33	0.26	68	>10000	2.24		60	9	10
115058	93	130	1650	76	32	0.27	64	>10000	1.680		70	10	10
115059	38	200	4310	101	57	0.25	67	3960			70	8	10
115060	20	120	1060	40	28	0.24	53	4640			60	8	10
115061	5	110	107	27	28	0.21	42	271			50	7	10
115062	2	80	46	9	24	0.20	34	56			50	7	10
115063	4	80	41	12	27	0.22	41	82			50	7	10
115064	5	170	58	40	50	0.37	84	522			90	12	20
115065	1	110	49	26	30	0.30	56	80			70	10	10
115066	1	110	65	24	31	0.27	43	226			70	9	10
115067	8	130	116	33	34	0.34	66	92			80	12	20
115068	1	10	6	<5	1	0.11	3	14			<50	<5	<10
115069	20	130	204	27	36	0.33	88	48			60	11	10
115070	14	100	514	26	29	0.26	61	2170			60	8	10
115071	11	80	702	28	26	0.22	54	3120			50	7	10
115072	9	80	328	17	24	0.23	48	1490			50	7	10
115073	4	70	71	9	24	0.21	34	73			50	7	10
115074	11	120	100	16	33	0.35	82	48			70	10	20
115075	20	140	86	11	36	0.35	81	33			90	11	30
115076	23	130	141	19	32	0.36	84	59			80	11	20
115077	24	100	40	11	25	0.33	73	25			80	10	20
115078	16	90	72	11	30	0.26	63	71			60	7	10

Project: McLeans



**CERTIFICATE OF ANALYSIS BU12099587**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
115079		1.72	<0.5	21	2	<0.01	4.0	19	51	8	1.15	4.08	0.38	25	<1	0.07
115080		3.23	<0.5	18	<2	<0.01	2.2	13	41	8	0.89	3.26	0.35	49	<1	0.05
115081		1.21	<0.5	16	2	<0.01	2.8	7	35	3	0.85	2.54	0.27	45	<1	0.04
115082		0.05	19.4	454	25	0.18	153.5	16	43	1285	12.25	1.73	1.07	1410	4	0.04
115083		1.98	<0.5	15	<2	0.01	0.5	17	30	8	1.60	2.12	0.26	31	<1	0.04
115084		1.24	<0.5	10	<2	0.01	<0.5	8	23	4	1.10	1.75	0.25	50	1	0.06
115085		2.81	<0.5	15	3	0.01	<0.5	13	38	4	1.40	3.27	0.41	32	1	0.05
115086		1.01	<0.5	5	<2	0.01	<0.5	12	28	1	1.13	2.42	0.30	24	1	0.03
115087		3.28	<0.5	17	2	0.01	<0.5	14	44	7	1.13	4.05	0.46	71	<1	0.06
115088		2.73	<0.5	6	<2	<0.01	<0.5	8	44	3	0.76	4.08	0.46	35	<1	0.06
115089		2.87	<0.5	15	<2	0.02	<0.5	11	45	4	0.90	4.25	0.50	25	1	0.06
115090		2.52	<0.5	7	<2	0.09	<0.5	6	43	3	2.86	3.84	1.30	1440	<1	0.06
115091		2.56	<0.5	13	3	0.04	1.3	11	41	4	0.88	3.45	0.37	40	1	0.07



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Project: McLeans

**Minerals**

**CERTIFICATE OF ANALYSIS BU12099587**

Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115079		19	160	185	17	42	0.41	97	334			90	12	20
115080		14	150	106	15	36	0.34	74	403			90	10	20
115081		8	110	77	18	29	0.29	56	890			70	9	20
115082		18	390	>100000	96	10	0.16	54	>100000	3.85	1.360	<50	<5	10
115083		21	100	60	9	26	0.24	51	253			70	8	10
115084		10	90	21	6	19	0.19	41	96			50	6	10
115085		17	130	42	6	26	0.31	75	78			80	9	20
115086		13	90	9	<5	20	0.26	49	52			60	8	10
115087		18	120	12	6	27	0.37	87	76			90	11	20
115088		10	120	9	<5	26	0.40	86	91			80	12	20
115089		15	190	46	7	25	0.36	88	197			80	11	30
115090		15	380	28	6	30	0.35	80	119			80	10	20
115091		11	270	103	8	36	0.35	79	287			80	10	20



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**CERTIFICATE BU12105681**

Project: McLeans  
P.O. No.: 003

This report is for 49 Drill Core samples submitted to our lab in Burnie, TAS, Australia on 11- MAY- 2012.

The following have access to data associated with this certificate:

DAMON ELDER

PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
STO- 23	Monthly storage charge for pulp
PUL- 23	Pulv Sample - Split/Retain

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Ag- OG62	Ore Grade Ag - Four Acid	VARIABLE
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: MOONRAKER MINERALS PTY LTD  
ATTN: DAMON ELDER  
UNIT 1  
245 CHURCHILL AVENUE  
SUBIACO WA 6008

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager



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Project: McLeans

**CERTIFICATE OF ANALYSIS BU12105681**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICRP61 Ag ppm	ME-ICRP61 AS ppm	ME-ICRP61 Bi ppm	ME-ICRP61 Ca %	ME-ICRP61 Cd ppm	ME-ICRP61 Co ppm	ME-ICRP61 Cr ppm	ME-ICRP61 Cu ppm	ME-ICRP61 Fe %	ME-ICRP61 K %	ME-ICRP61 Mg %	ME-ICRP61 Mn ppm	ME-ICRP61 Mo ppm	ME-ICRP61 Na %
115092	2.33	17.6	112	<2	0.02	4.7	4	22	68	1.57	1.23	0.16	99	1	0.04
115093	2.96	5.2	85	<2	0.02	13.2	7	32	454	1.33	1.77	0.20	79	3	0.05
115094	0.71	8.6	135	<2	0.02	11.4	9	19	56	1.54	0.82	0.12	98	1	0.03
115095	1.58	14.4	93	<2	0.02	3.8	3	13	38	0.87	0.69	0.10	115	<1	0.03
115096	2.13	0.7	203	<2	0.01	2.0	31	25	31	3.67	1.87	0.19	37	1	0.06
115097	1.32	<0.5	23	<2	<0.01	2.7	12	36	10	1.08	3.01	0.29	22	1	0.10
115098	1.75	<0.5	103	<2	0.01	2.1	19	36	33	1.87	2.69	0.27	24	2	0.09
115099	0.57	0.7	160	<2	0.01	4.7	9	30	50	2.29	2.21	0.23	58	1	0.07
115100	1.18	0.6	354	<2	0.01	2.7	25	17	54	5.65	1.16	0.12	34	1	0.05
115101	0.94	<0.5	22	<2	0.01	3.3	5	21	23	0.84	1.46	0.15	33	1	0.07
115102	0.96	<0.5	130	<2	0.01	2.7	24	24	10	2.44	1.84	0.20	45	1	0.06
115103	0.72	0.8	213	<2	0.01	5.4	15	23	22	3.20	1.75	0.19	55	1	0.06
115105	1.05	0.7	34	2	0.01	14.8	9	40	67	1.31	3.02	0.33	90	1	0.11
115106	0.05	18.1	450	20	0.17	145.0	15	38	1300	11.95	1.70	1.05	1380	3	0.04
115107	1.36	1.0	50	<2	0.01	18.4	15	33	65	3.31	2.54	0.28	79	1	0.09
115108	2.87	2.6	22	<2	0.01	18.9	11	29	156	1.16	2.09	0.29	780	2	0.06
115109	2.68	24.7	100	3	0.01	75.9	19	35	178	1.98	2.42	0.33	150	1	0.07
115110	3.00	32.0	167	<2	0.03	186.0	86	29	209	8.26	1.27	0.24	316	1	0.04
115111	3.04	43.7	128	<2	0.03	168.0	65	34	236	5.12	1.37	0.25	384	<1	0.04
115112	0.31	8.4	342	<2	0.02	53.7	27	34	135	4.52	2.23	0.29	177	2	0.06
115113	0.57	1.4	66	<2	0.01	23.6	8	36	132	1.75	2.89	0.32	86	3	0.09
115115	1.28	6.3	240	<2	0.02	86.1	16	22	138	5.52	1.28	0.16	129	1	0.05
115116	1.61	4.3	181	<2	0.03	54.5	15	23	154	4.07	1.41	0.17	107	2	0.05
115118	1.27	3.7	184	<2	0.01	18.2	29	35	135	1.16	2.10	0.24	58	1	0.07
115119	0.67	22.0	365	<2	0.01	34.7	16	26	109	2.30	1.11	0.13	108	<1	0.04
115120	2.30	>100	6000	<2	0.02	1030	51	13	604	5.71	0.25	0.06	200	<1	0.01
115121	0.76	1.6	78	<2	0.01	7.7	1	12	9	0.55	0.05	0.01	49	<1	<0.01
115122	2.63	32.5	2630	2	0.04	2020	96	24	159	7.74	0.46	0.12	232	<1	0.02
115123	0.62	85.8	5310	<2	0.04	825	58	19	297	6.75	0.30	0.09	197	<1	0.02
115124	2.55	29.4	1180	<2	0.04	706	100	21	148	12.00	0.27	0.09	289	<1	0.01
115125	1.89	23.2	18750	<2	0.04	1070	86	18	144	8.19	0.28	0.13	219	<1	0.02
115127	0.35	19.8	1230	<2	0.02	136.0	10	18	115	13.00	0.58	0.12	184	1	0.03
115128	0.37	15.0	1495	<2	0.02	103.5	7	18	105	2.17	0.86	0.18	119	1	0.03
115129	0.39	18.1	1920	<2	0.02	50.6	6	20	89	2.11	1.05	0.17	89	1	0.04
115131	1.11	14.6	1970	<2	0.02	55.6	7	18	84	1.22	0.86	0.19	87	1	0.04
115132	1.35	6.9	1680	<2	0.03	32.5	9	18	62	1.58	0.77	0.22	172	1	0.04
115135	0.05	17.9	417	18	0.17	143.5	15	39	1270	11.65	1.66	1.02	1350	4	0.04
115137	0.82	7.2	166	<2	0.02	54.3	12	13	27	9.37	0.39	0.10	175	<1	0.02
115138	2.60	1.6	77	20	0.01	21.0	10	20	39	1.45	1.28	0.18	48	<1	0.03
115139	1.99	<0.5	25	<2	0.01	1.4	12	19	12	0.50	1.58	0.20	30	<1	0.03

Project: McLeans



**CERTIFICATE OF ANALYSIS BU12105681**

Method Analyte Units LOR	ME-ICRP61 Ni ppm	ME-ICRP61 P ppm	ME-ICRP61 Pb ppm	ME-ICRP61 Sb ppm	ME-ICRP61 Sr ppm	ME-ICRP61 Ti %	ME-ICRP61 V ppm	ME-ICRP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICRP61 Ce ppm	ME-ICRP61 Nb ppm	ME-ICRP61 Y ppm	PUL-QC Pass75um %
115092	15	90	7270	437	33	0.14	35	950		0.001	0.001	<50	<5	10	10
115093	20	80	2540	157	26	0.19	48	3420				50	6	10	10
115094	19	70	3400	157	22	0.11	22	1780				<50	<5	10	<10
115095	14	60	6350	260	25	0.09	18	706				<50	<5	10	10
115096	65	80	397	23	26	0.21	45	661				50	6	10	10
115097	29	110	472	21	40	0.36	71	1385				70	10	20	20
115098	46	110	394	22	35	0.34	63	2610				80	10	20	20
115099	37	100	535	23	32	0.28	52	2040				70	8	20	20
115100	85	60	498	29	20	0.15	27	1775				<50	<5	10	10
115101	20	90	129	10	28	0.20	37	833				60	6	10	10
115102	72	90	151	11	23	0.20	41	746				60	6	10	10
115103	46	70	398	22	23	0.18	41	1485				50	5	10	10
115105	29	120	993	43	34	0.33	79	3400				70	10	20	20
115106	14	360	>10000	92	9	0.14	52	>10000	1.310	3.89		<50	<5	10	10
115107	41	110	1080	45	32	0.27	67	3100				70	7	20	20
115108	22	90	1390	95	29	0.22	59	3130				60	6	10	10
115109	35	120	>10000	342	37	0.23	76	>10000	1.200	1.305	1.200	60	6	20	20
115110	158	100	>10000	286	30	0.12	60	>10000	1.580	3.89	1.580	50	<5	20	20
115111	135	110	>10000	320	33	0.14	69	>10000	2.24	3.39	2.24	50	<5	20	20
115112	55	120	3650	85	34	0.21	75	>10000		1.050		60	7	20	93.5
115113	19	150	1490	64	49	0.28	73	2670				80	8	20	20
115115	42	50	2960	97	18	0.12	32	>10000		1.505		<50	<5	10	10
115116	35	60	2270	87	21	0.15	36	>10000		1.025		<50	<5	10	10
115118	57	110	1630	135	30	0.29	63	6780				70	9	10	10
115119	24	120	>10000	353	20	0.18	37	8550	1.040			<50	5	20	20
115120	94	100	>10000	1745	15	0.04	25	>10000	115	14.60	7.74	<50	<5	20	20
115121	3	20	944	29	3	0.10	3	1050				<50	<5	<10	<10
115122	176	80	>10000	1765	23	0.07	53	>10000		12.55	5.79	<50	<5	30	30
115123	128	130	>10000	1440	16	0.04	30	>10000		5.51	13.50	<50	<5	20	20
115124	174	310	>10000	1395	12	0.03	58	>10000		10.20	3.01	<50	<5	30	30
115125	177	180	>10000	1285	15	0.04	41	>10000		9.92	4.18	<50	<5	20	20
115127	67	690	7440	650	19	0.07	49	>10000		2.50		<50	<5	20	20
115128	77	180	7680	571	29	0.13	32	>10000		1.410		<50	<5	10	10
115129	64	260	5430	509	53	0.17	37	7630				<50	5	10	10
115131	72	310	4910	727	89	0.14	30	>10000		1.255		<50	<5	10	10
115132	99	490	3190	727	170	0.11	33	8710				50	<5	10	10
115135	15	350	>10000	87	9	0.14	51	>10000		3.83	1.260	<50	<5	10	10
115137	38	440	3870	225	17	0.05	47	5630				<50	<5	20	20
115138	22	90	1740	97	20	0.17	31	4060				<50	5	10	10
115139	24	60	302	21	15	0.19	31	253				<50	6	10	87.4



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 Account: MOONMIN

Project: McLeans

**Minerals**

**CERTIFICATE OF ANALYSIS BU12105681**

Method Analyte Units LOR	Sample Description	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
	115140	0.57	<0.5	28	<2	<0.01	1.0	11	25	6	0.98	1.90	0.23	40	<1	0.04
	115141	0.67	<0.5	23	3	0.01	<0.5	12	31	7	1.03	2.02	0.24	40	1	0.04
	115142	1.40	<0.5	23	3	0.01	<0.5	11	40	21	0.79	3.07	0.34	33	1	0.06
	115143	0.88	<0.5	24	<2	0.01	<0.5	13	30	19	0.82	2.32	0.27	36	1	0.04
	115144	0.76	1.2	14	<2	0.01	0.9	5	27	36	0.55	2.22	0.24	34	1	0.04
	115145	2.60	1.2	39	<2	0.01	3.4	9	30	19	0.77	2.38	0.26	28	<1	0.05
	115146	1.66	0.5	33	<2	0.01	0.9	13	43	15	1.01	3.29	0.36	31	1	0.06
	115147	1.24	<0.5	20	<2	0.01	3.9	4	18	10	0.55	1.53	0.16	39	<1	0.03
	115148	0.82	<0.5	8	<2	0.01	1.9	3	17	7	0.58	1.22	0.12	53	<1	0.03



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Project: McLeans

**Minerals**

**CERTIFICATE OF ANALYSIS BU12105681**

Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm	PUL-QC Pass75um %
115140		17	60	161	12	17	0.22	40	152		0.001	0.001	50	8	10	0.01
115141		20	90	98	13	24	0.23	47	128				60	8	10	
115142		17	140	108	25	37	0.33	65	100				80	10	20	
115143		20	100	67	21	27	0.25	48	113				60	8	20	
115144		8	90	106	39	22	0.23	46	93				60	7	10	
115145		12	100	332	31	27	0.25	50	644				60	8	10	
115146		19	130	179	23	37	0.30	80	239				60	9	10	
115147		6	70	185	21	20	0.18	32	882				<50	5	10	
115148		22	50	109	19	16	0.16	25	248				<50	5	10	



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## CERTIFICATE BU12114220

Project: McLeans  
P.O. No.: 004

This report is for 29 Drill Core samples submitted to our lab in Burnie, TAS, Australia on 23- MAY- 2012.

The following have access to data associated with this certificate:

DAMON ELDER  
PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
STO- 23	Monthly storage charge for pulp
PUL- 23	Pulv Sample - Split/Retain
BAG- 01	Bulk Master for Storage
SPL- 21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: MOONRAKER MINERALS PTY LTD  
ATTN: PETER ROLLEY  
UNIT 1  
245 CHURCHILL AVENUE  
SUBIACO WA 6008

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Shaun Kenny, Brisbane Laboratory Manager



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Project: McLeans

**Minerals**

**CERTIFICATE OF ANALYSIS BU12114220**

Method Analyte Units LOR	Sample Description	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
	115149	1.73	<0.5	15	<2	0.02	<0.5	13	42	50	0.59	3.23	1.00	22	<1	0.06
	115150	2.03	<0.5	13	<2	0.11	1.9	25	37	30	4.65	2.79	1.37	5160	<1	0.05
	115151	2.87	<0.5	15	<2	0.16	3.9	32	26	20	12.00	1.93	4.77	13750	<1	0.04
	115152	4.07	<0.5	10	<2	0.14	3.1	22	26	17	9.00	1.98	5.81	9090	<1	0.05
	115153	1.15	0.5	11	<2	0.14	2.5	302	32	875	8.40	1.97	6.28	7570	<1	0.05
	115154	3.03	0.9	31	<2	0.18	1.4	133	51	397	12.20	2.33	1.10	11300	1	0.05
	115155	3.25	<0.5	25	<2	0.12	1.8	60	33	91	7.46	1.73	1.27	6040	<1	0.04
	115156	0.61	<0.5	18	<2	0.11	4.1	19	51	43	3.43	2.84	0.67	185	<1	0.05
	115157	0.40	<0.5	18	<2	0.17	2.4	25	36	21	7.3	1.62	0.85	2720	<1	0.04
	115158	2.67	0.5	20	<2	0.14	2.0	38	29	90	5.07	1.42	0.88	3660	<1	0.03
	115159	0.76	<0.5	16	<2	0.15	2.3	8	13	16	1.38	0.55	0.17	247	<1	0.03
	115160	1.39	<0.5	6	<2	0.09	1.7	5	10	8	1.18	0.38	0.11	257	<1	0.02
	115161	1.32	<0.5	18	<2	0.09	3.2	16	13	16	1.32	0.47	0.18	361	<1	0.02
	115162	2.49	<0.5	86	<2	0.05	6.6	55	19	48	4.18	0.87	0.30	536	1	0.03
	115163	0.77	<0.5	<5	<2	0.01	<0.5	<1	13	1	0.43	0.04	0.01	47	<1	<0.01
	115164	1.00	6.3	83	<2	0.10	7.1	36	69	291	3.51	2.45	0.45	115	10	0.03
	115168	1.56	3.1	64	<2	0.06	28.0	19	57	99	2.88	2.22	0.38	205	10	0.03
	115169	1.72	2.6	85	<2	0.06	1.7	24	83	77	3.73	2.93	0.56	217	19	0.03
	115170	2.75	5.7	86	<2	0.08	6.3	26	71	160	3.57	2.82	0.44	147	17	0.03
	115171	1.06	2.7	226	<2	0.05	39.1	21	42	42	10.60	2.34	0.75	6680	2	0.04
	115172	2.99	0.6	23	<2	0.11	<0.5	27	39	36	16.45	2.18	1.02	16600	<1	0.03
	115173	Not Recvd														
	115174	0.48	0.7	24	<2	0.13	<0.5	24	38	22	14.15	2.11	1.78	13950	<1	0.04
	115175	1.87	0.6	24	<2	0.12	<0.5	28	44	55	15.45	2.41	1.75	13550	<1	0.04
	115176	1.89	<0.5	30	<2	0.14	<0.5	28	42	42	14.95	2.37	1.91	13200	<1	0.04
	115177	0.79	2.2	53	<2	0.12	<0.5	33	53	55	8.91	2.71	1.01	7030	<1	0.05
	115178	0.15	18.9	458	20	0.18	157.0	15	43	1425	13.10	1.80	1.15	1515	4	0.05
	115182	0.54	<0.5	34	<2	0.23	<0.5	15	7	15	11.75	0.07	2.35	10700	<1	0.01
	115183	0.72	<0.5	18	<2	0.25	<0.5	18	6	21	13.95	0.05	1.97	12150	<1	0.01





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**CERTIFICATE BU12132911**

Project: MCL04, MCL05  
P.O. No.: 005

This report is for 158 Drill Core samples submitted to our lab in Burnie, TAS, Australia on 13-JUN-2012.

The following have access to data associated with this certificate:

DAMON ELDER

PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
CRU-21	Crush entire sample > 70% - 6 mm
STO-23	Monthly storage charge for pulp
PUL-23	Pulv Sample - Split/Retain
BAG-01	Bulk Master for Storage
SPL-21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Ag-OG62	Ore Grade Ag - Four Acid	VARIABLE
ME-OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn-OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb-OG62	Ore Grade Pb - Four Acid	VARIABLE
ME-ICP61	33 element four acid ICP- AES	ICP- AES

To: MOONRAKER MINERALS PTY LTD  
ATTN: PETER ROLLEY  
UNIT 1  
245 CHURCHILL AVENUE  
SUBIACO WA 6008

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager



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 Account: MOONMIN

Project: MCL04, MCL05

**CERTIFICATE OF ANALYSIS BU12132911**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICRP61 Ag ppm	ME-ICRP61 AS ppm	ME-ICRP61 Bi ppm	ME-ICRP61 Ca %	ME-ICRP61 Cd ppm	ME-ICRP61 Co ppm	ME-ICRP61 Cr ppm	ME-ICRP61 Cu ppm	ME-ICRP61 Fe %	ME-ICRP61 K %	ME-ICRP61 Mg %	ME-ICRP61 Mn ppm	ME-ICRP61 Mo ppm	ME-ICRP61 Na %
115184	1.95	<0.5	57	<2	0.02	1.1	34	80	62	2.80	3.05	0.82	54	5	0.09
115185	2.45	0.8	79	<2	0.01	<0.5	58	87	65	4.35	2.80	0.64	73	4	0.05
115186	2.57	<0.5	69	3	0.02	<0.5	41	79	74	3.74	2.38	0.52	43	5	0.04
115187	0.84	<0.5	28	<2	0.02	0.5	23	54	29	2.66	1.78	0.44	72	2	0.04
115188	1.35	<0.5	39	<2	0.01	2.0	45	63	32	3.85	3.12	0.98	58	1	0.05
115189	2.25	<0.5	24	<2	0.01	5.3	29	58	23	2.18	3.08	0.84	69	<1	0.05
115190	2.67	<0.5	25	2	0.01	4.8	29	57	27	1.48	3.17	0.83	63	<1	0.06
115191	2.50	<0.5	30	2	0.01	7.2	30	59	28	1.61	3.23	0.77	58	1	0.06
115192	2.83	<0.5	35	<2	0.01	6.6	37	57	30	1.99	2.91	0.80	60	1	0.06
115193	2.44	<0.5	35	2	0.02	4.0	39	36	40	2.09	1.81	0.65	56	4	0.04
115194	1.76	<0.5	25	<2	0.03	6.7	19	14	13	1.23	0.53	0.20	63	3	0.03
115195	0.32	<0.5	193	<2	0.02	5.4	108	22	20	5.97	0.47	0.17	191	1	0.04
115196	1.95	<0.5	42	<2	0.03	18.8	48	30	27	2.16	1.27	0.52	60	3	0.05
115197	1.01	<0.5	95	<2	0.03	13.8	81	12	8	3.53	0.35	0.17	99	2	0.03
115198	0.05	19.1	445	23	0.17	153.0	15	42	1290	12.20	1.74	1.09	1465	3	0.04
115199	1.97	<0.5	29	<2	0.02	10.7	30	9	13	1.23	0.21	0.13	48	1	0.02
115200	2.60	<0.5	54	<2	0.02	12.1	68	10	12	1.86	0.15	0.12	70	1	0.01
115201	0.31	<0.5	23	<2	0.02	11.4	31	16	5	3.06	0.07	0.14	262	1	0.01
115202	1.69	<0.5	12	<2	0.02	10.5	22	18	6	0.97	0.05	0.15	59	<1	0.01
115203	3.48	<0.5	28	2	0.03	6.2	28	12	40	1.24	0.25	0.31	41	<1	0.01
115204	0.46	0.7	163	<2	0.03	7.7	57	9	252	3.73	0.06	0.07	154	<1	0.02
115205	1.51	<0.5	58	<2	0.04	13.2	29	6	97	1.25	0.06	0.08	58	<1	0.02
115206	1.89	<0.5	49	<2	0.03	8.7	25	5	68	1.09	0.07	0.08	57	<1	0.02
115207	2.68	<0.5	33	<2	0.03	1.5	30	33	59	0.97	2.41	0.88	38	<1	0.04
115208	4.59	<0.5	23	<2	0.02	1.8	36	34	46	1.01	2.41	0.92	27	1	0.04
115209	1.09	<0.5	34	<2	0.02	0.6	20	59	5	2.93	1.46	1.41	35	<1	0.43
115210	2.51	<0.5	27	2	0.01	3.1	21	45	5	0.97	2.27	0.67	32	1	0.08
115211	2.51	<0.5	36	<2	0.01	1.7	27	46	3	1.34	2.45	0.65	34	1	0.08
115212	2.15	<0.5	41	<2	0.01	0.8	31	50	3	1.50	2.72	0.74	27	2	0.09
115213	3.03	<0.5	21	<2	0.01	1.4	22	49	7	2.41	2.48	0.63	34	1	0.14
115214	3.21	<0.5	16	<2	0.02	<0.5	17	63	10	3.25	3.95	0.52	22	<1	0.15
115215	3.23	<0.5	23	5	0.02	<0.5	20	60	13	3.44	3.73	0.45	27	1	0.14
115216	3.84	<0.5	21	2	0.01	2.89	16	56	13	2.89	3.53	0.39	27	1	0.13
115217	3.72	<0.5	20	<2	0.02	<0.5	12	54	17	2.11	3.58	0.41	25	<1	0.14
115218	3.27	<0.5	12	<2	0.03	<0.5	11	51	12	1.65	3.51	0.38	18	<1	0.14
115219	1.95	<0.5	24	<2	0.02	1.2	14	48	7	1.59	3.25	0.42	30	<1	0.12
115220	2.61	0.5	18	<2	0.01	<0.5	12	43	10	1.56	2.90	0.34	24	<1	0.11
115221	3.75	0.5	57	<2	<0.01	<0.5	23	54	21	3.22	3.86	0.42	23	2	0.15
115222	3.81	<0.5	20	2	0.01	<0.5	11	51	15	1.79	3.92	0.40	23	1	0.15
115223	0.63	<0.5	<5	<2	0.01	<0.5	<1	16	1	0.67	0.05	0.01	68	<1	0.01



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Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115184	87	250	714	21	85	0.38	244	662		0.001	0.001	80	10	20
115185	139	190	221	21	42	0.34	167	296				60	11	20
115186	115	200	216	14	50	0.29	141	284				70	9	20
115187	51	190	357	12	48	0.23	75	620				60	7	10
115188	76	360	458	13	101	0.34	119	897				90	11	10
115189	44	190	485	11	64	0.40	101	1015				60	13	10
115190	43	140	317	15	50	0.40	104	783				60	12	10
115191	48	150	303	16	59	0.41	112	1005				60	11	10
115192	69	150	214	17	57	0.36	114	906				60	12	10
115193	64	140	219	17	59	0.24	117	2410				<50	7	10
115194	29	80	741	12	37	0.07	32	4360				<50	<5	<10
115195	217	60	274	9	23	0.06	23	1205				<50	<5	<10
115196	73	210	1310	15	81	0.18	68	3200				<50	5	10
115197	150	60	1140	11	34	0.05	18	3520				<50	<5	<10
115198	15	390	>10000	98	6	0.16	56	>10000		3.78	1.340	<50	<5	10
115199	47	80	1130	10	33	0.04	10	2680				<50	<5	<10
115200	125	120	1350	18	51	0.03	9	4260				<50	<5	<10
115201	48	100	642	13	37	0.02	7	4480				<50	<5	<10
115202	31	100	512	10	41	0.02	6	3580				<50	<5	<10
115203	39	100	255	22	43	0.07	14	3020				<50	<5	<10
115204	83	20	331	20	13	0.01	3	5160				<50	<5	<10
115205	38	20	546	20	15	0.01	3	5100				<50	<5	<10
115206	34	20	363	16	13	0.01	3	3990				<50	<5	<10
115207	47	150	84	13	68	0.29	72	1765				50	8	10
115208	53	160	95	10	68	0.29	71	1470				50	8	10
115209	48	390	146	10	109	0.32	123	1135				70	9	20
115210	32	560	452	18	46	0.28	90	1240				80	7	20
115211	39	610	286	15	97	0.26	91	1700				80	6	20
115212	47	680	136	17	73	0.30	95	2060				100	8	20
115213	38	480	104	8	161	0.22	84	710				80	7	20
115214	35	250	33	10	33	0.28	111	90				90	10	20
115215	45	240	38	11	40	0.26	102	70				90	10	20
115216	36	200	22	8	27	0.25	92	52				80	9	10
115217	24	210	17	10	29	0.28	84	26				90	10	20
115218	22	280	22	7	29	0.29	83	30				90	11	20
115219	31	380	164	8	37	0.24	74	265				80	10	10
115220	25	160	44	7	29	0.21	60	89				70	8	10
115221	29	160	31	10	26	0.26	86	76				90	12	20
115222	23	170	17	8	25	0.29	81	29				70	14	10
115223	1	10	<2	<5	2	0.11	3	2				<50	<5	<10



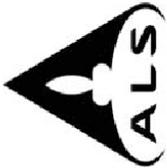
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Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 BI ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
115224	2.73	0.5	22	2	0.01	<0.5	11	55	12	1.89	4.27	0.47	26	1	0.17
115225	3.49	<0.5	22	<2	0.02	<0.5	13	53	12	1.95	3.77	0.40	22	<1	0.16
115226	3.61	<0.5	28	<2	0.01	<0.5	15	58	12	2.10	3.67	0.39	26	1	0.15
115227	2.79	<0.5	23	3	0.21	<0.5	13	49	10	1.73	3.26	0.35	27	<1	0.14
115228	3.02	1.2	41	<2	0.03	1.8	15	52	12	1.99	3.66	0.41	35	1	0.14
115229	2.26	<0.5	28	<2	<0.01	0.5	13	54	15	1.98	3.83	0.48	77	<1	0.13
115230	1.19	<0.5	23	<2	0.01	0.5	17	43	3	1.90	2.72	0.45	28	<1	0.08
115231	0.29	<0.5	30	<2	0.01	<0.5	18	36	2	1.42	1.43	0.44	68	1	0.07
115232	1.16	<0.5	28	<2	0.01	<0.5	23	39	2	1.80	2.05	0.79	29	1	0.09
115233	1.70	<0.5	46	3	0.01	<0.5	51	52	7	2.14	2.85	1.03	21	1	0.08
115234	0.32	<0.5	26	<2	0.02	<0.5	40	45	15	1.85	2.78	1.10	34	<1	0.05
115235	2.79	<0.5	39	<2	0.01	<0.5	37	43	2	1.43	3.18	1.05	19	1	0.06
115236	0.80	<0.5	21	<2	0.01	<0.5	30	49	2	1.47	3.23	1.21	20	1	0.09
115237	0.98	<0.5	13	<2	0.02	<0.5	23	41	3	1.57	2.57	1.10	31	<1	0.11
115238	0.05	19.6	474	23	0.18	155.5	15	41	1295	12.40	1.74	1.10	1475	3	0.05
115239	2.14	<0.5	20	<2	0.02	1.2	29	53	5	1.68	2.20	0.94	36	1	0.11
115240	2.71	<0.5	83	3	0.02	<0.5	54	48	29	2.82	2.37	0.99	36	1	0.10
115241	1.91	<0.5	44	<2	0.02	<0.5	33	47	12	2.29	2.54	1.07	35	1	0.08
115242	1.97	<0.5	95	<2	0.02	<0.5	26	37	3	2.81	2.35	0.84	25	2	0.05
115243	1.83	<0.5	28	2	0.04	<0.5	31	44	4	2.06	2.52	0.90	27	2	0.06
115244	2.42	<0.5	68	3	0.05	<0.5	29	41	6	2.59	2.38	0.85	35	2	0.07
115245	0.61	0.7	26	2	0.10	<0.5	24	43	6	2.11	2.38	0.82	38	2	0.06
115246	2.33	91.0	60	2	0.07	9.6	27	37	32	2.20	2.26	0.85	41	1	0.11
115247	3.24	>100	39	<2	0.08	11.1	25	39	80	1.79	2.04	0.83	53	<1	0.11
115248	2.10	7.8	44	<2	0.13	<0.5	27	49	6	2.26	1.20	0.91	353	1	0.13
115249	2.38	7.2	75	<2	0.11	0.5	26	44	8	2.08	1.29	0.83	107	<1	0.13
115250	1.14	62.9	41	<2	0.13	2.3	29	45	15	2.12	1.50	0.92	263	1	0.11
115251	2.38	22.7	48	<2	0.12	9.6	22	39	16	2.62	1.90	1.34	535	1	0.12
115252	2.99	0.6	29	<2	0.10	<0.5	19	32	9	4.18	2.29	2.35	948	2	0.05
115253	0.68	<0.5	<5	2	0.01	<0.5	<1	15	1	0.59	0.06	0.01	62	<1	0.01
115254	2.86	5.1	21	<2	0.12	0.5	18	33	9	4.74	2.06	2.58	1400	2	0.07
115255	3.28	1.9	18	<2	0.47	<0.5	14	30	8	7.39	1.75	4.72	2640	2	0.06
115256	4.99	3.2	11	<2	1.10	<0.5	14	24	15	8.44	1.47	6.14	2720	1	0.08
115257	2.16	11.6	16	<2	2.95	<0.5	14	31	9	6.43	1.63	5.15	2110	2	0.13
115258	1.79	2.2	10	<2	5.36	<0.5	12	26	5	5.70	1.27	6.65	1800	2	0.19
115259	1.93	<0.5	12	<2	4.80	<0.5	11	25	3	6.16	1.35	6.62	2430	<1	0.17
115260	1.04	1.8	5	<2	4.47	<0.5	4	21	6	8.35	0.47	6.88	2670	<1	0.59
115261	2.21	1.0	5	<2	5.09	<0.5	11	28	7	6.72	0.43	6.41	2220	<1	0.75
115262	2.16	1.6	15	3	4.57	<0.5	17	35	8	7.77	1.32	7.32	2800	1	0.33
115263	1.96	<0.5	13	<2	0.27	<0.5	14	44	3	5.03	2.43	3.93	2100	<1	0.10



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Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115224		25	180	22	11	26	0.33	91	42				100	16	20
115225		26	190	20	8	23	0.27	85	34				70	11	10
115226		27	190	65	9	28	0.26	92	72				70	10	10
115227		26	1060	62	8	48	0.25	79	71				90	10	20
115228		32	280	169	10	40	0.26	85	574				90	11	20
115229		27	150	82	14	22	0.25	91	141				70	9	10
115230		30	190	51	9	31	0.20	77	527				70	8	10
115231		45	430	32	10	24	0.27	77	1910				50	8	10
115232		39	410	21	6	37	0.25	83	1000				50	6	10
115233		62	200	10	5	49	0.30	102	819				60	8	10
115234		49	240	8	7	49	0.31	98	775				60	8	10
115235		55	240	5	5	60	0.30	103	669				70	8	20
115236		39	130	6	<5	58	0.29	102	399				60	7	20
115237		31	120	10	6	61	0.30	94	447				60	8	20
115238		15	390	>10000	103	9	0.15	56	>10000		4.01	1.395	<50	<5	10
115239		45	140	156	12	67	0.33	151	915				80	8	20
115240		95	110	21	12	54	0.28	111	376				70	7	20
115241		59	100	15	12	48	0.27	102	212				70	8	20
115242		52	130	25	12	54	0.22	90	245				60	6	10
115243		51	190	32	8	52	0.27	104	294				70	7	10
115244		51	240	69	16	45	0.22	98	377				60	6	10
115245		38	420	73	14	43	0.26	102	321				60	7	20
115246		46	340	>10000	127	70	0.20	95	2610			3.06	60	5	20
115247		40	360	>10000	326	62	0.19	88	2710	258		8.64	50	5	20
115248		43	560	2550	23	115	0.28	115	296				70	8	20
115249		51	470	2380	23	94	0.26	97	204				60	7	20
115250		41	550	>10000	74	135	0.23	108	707			2.40	70	6	20
115251		41	510	7470	41	160	0.22	87	266				50	7	20
115252		44	530	179	7	409	0.22	82	74				50	8	10
115253		<1	10	86	<5	4	0.11	3	14				<50	<5	<10
115254		37	510	1820	18	303	0.18	81	131				50	7	10
115255		30	440	573	15	326	0.20	78	47				<50	10	10
115256		32	390	869	12	366	0.07	67	56				<50	6	10
115257		29	410	3490	24	189	0.18	82	58				<50	9	20
115258		24	350	649	8	381	0.16	72	38				<50	9	20
115259		18	350	75	8	224	0.16	68	38				<50	9	20
115260		14	290	445	8	1290	0.12	55	25				<50	9	20
115261		20	300	222	6	1630	0.17	75	24				<50	10	20
115262		29	450	265	8	615	0.20	88	31				50	10	20
115263		26	510	14	8	417	0.31	100	31				60	12	20



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Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 Bi ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
115264	2.94	<0.5	<5	<2	1.06	2.5	25	29	1	11.75	1.94	2.74	13750	1	0.05
115265	2.41	<0.5	11	<2	1.27	0.8	20	27	1	9.81	1.53	3.65	8320	<1	0.07
115266	1.61	0.7	5	<2	2.26	3.5	7	27	6	6.06	1.75	4.22	3390	<1	0.05
115267	2.74	<0.5	<5	<2	3.19	2.6	4	20	4	6.24	1.46	4.68	2940	<1	0.04
115268	0.05	19.7	460	23	0.18	155.0	15	42	1310	12.45	1.76	1.11	1495	3	0.05
115269	2.73	<0.5	<5	<2	3.80	<0.5	5	27	<1	5.72	2.11	4.20	3070	<1	0.04
115270	1.59	<0.5	5	<2	1.36	<0.5	16	24	1	14.25	1.66	4.16	14300	<1	0.05
115271	2.01	2.1	42	3	4.39	2.3	20	55	95	5.20	2.04	2.92	2360	3	0.04
115272	4.07	18	17	<2	4.83	<0.5	11	47	35	3.13	2.71	3.21	776	1	0.03
115273	3.57	0.6	17	<2	3.59	<0.5	12	45	39	2.91	2.80	2.60	388	<1	0.03
115274	3.28	<0.5	8	4	11.95	<0.5	6	18	12	1.96	1.02	7.41	756	<1	0.03
115275	3.86	0.7	<5	<2	14.8	<0.5	2	6	5	1.53	0.27	8.33	971	<1	0.03
115276	3.97	<0.5	9	<2	9.65	<0.5	5	18	10	2.40	0.96	5.91	1080	<1	0.03
115277	3.07	<0.5	<5	7	12.75	<0.5	1	3	2	1.15	0.07	7.86	767	<1	0.02
115278	2.27	0.9	<5	<2	10.70	<0.5	3	3	3	1.90	0.04	7.27	2960	<1	0.02
115279	2.81	<0.5	<5	3	12.15	<0.5	3	3	1	1.64	0.05	7.88	1625	<1	0.02
115280	1.21	6.7	41	3	9.78	0.7	9	15	34	3.93	0.73	6.39	3580	<1	0.02
115281	2.75	0.9	13	<2	1.50	<0.5	15	31	9	12.45	2.19	2.91	12700	1	0.04
115282	3.50	<0.5	13	<2	0.26	<0.5	11	32	4	9.08	2.64	6.23	8640	<1	0.04
115283	0.71	<0.5	<5	<2	0.06	<0.5	<1	14	1	0.45	0.04	0.04	63	<1	<0.01
115284	3.42	<0.5	11	<2	0.15	<0.5	9	25	1	5.51	2.25	9.03	5950	<1	0.03
115285	3.20	<0.5	10	<2	0.16	<0.5	11	24	<1	6.51	2.11	7.86	6820	<1	0.03
115286	3.64	0.5	8	<2	0.26	<0.5	22	23	15	13.95	1.95	5.64	16650	<1	0.03
115287	1.71	0.7	5	<2	0.38	0.5	35	16	68	24.6	1.37	1.44	31500	<1	0.02
115288	2.78	<0.5	<5	<2	13.00	<0.5	2	6	2	1.71	0.14	7.86	1025	<1	0.02
115289	2.50	2.6	26	3	10.95	3.9	7	9	33	4.31	0.37	6.87	5500	1	0.02
115290	0.34	2.8	16	<2	8.69	13.3	7	10	38	4.83	0.46	5.38	6880	<1	0.02
115291	4.03	18.2	378	5	3.93	5.0	23	27	226	10.50	1.29	2.46	12500	2	0.02
115292	3.15	12.0	357	2	13.00	33.5	4	4	104	5.77	0.14	8.53	9660	<1	0.02
115293	2.72	13.0	141	3	15.9	16.2	2	1	62	2.41	0.02	8.94	4630	<1	0.01
115294	2.84	8.5	67	3	10.85	5.3	9	21	98	7.04	1.06	6.88	10800	<1	0.02
115295	3.15	13.7	89	<2	7.65	11.3	10	32	343	4.61	1.34	4.88	6480	3	0.02
115296	4.19	0.5	6	2	15.9	0.7	3	6	4	1.63	0.34	9.06	1415	<1	0.02
115297	3.75	1.8	30	5	8.98	<0.5	9	25	50	2.96	1.64	5.55	1990	1	0.03
115298	0.05	19.5	460	25	0.20	153.0	16	42	1240	12.25	1.65	1.12	1490	3	0.05
115299	3.57	1.6	25	3	14.4	<0.5	7	20	59	2.43	1.05	8.24	1140	5	0.02
115300	3.66	<0.5	<5	3	18.8	<0.5	1	1	<1	1.64	0.03	10.85	1185	<1	0.02
115301	3.34	2.1	16	3	15.9	0.5	2	2	47	2.27	0.05	8.82	1810	<1	0.02
115302	4.04	1.0	11	4	16.2	9.9	3	1	9	2.14	0.01	9.08	1705	<1	0.02
115303	3.64	1.3	31	3	17.3	5.4	3	5	39	1.97	0.13	9.69	2120	1	0.01

Project: MCL04, MCL05



**CERTIFICATE OF ANALYSIS BU12132911**

Sample Description	Method Analyte Units LOR	ME-ICRP61 Ni ppm	ME-ICRP61 P ppm	ME-ICRP61 Pb ppm	ME-ICRP61 Sb ppm	ME-ICRP61 Sr ppm	ME-ICRP61 Ti %	ME-ICRP61 V ppm	ME-ICRP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICRP61 Ce ppm	ME-ICRP61 Nb ppm	ME-ICRP61 Y ppm
115264		34	870	87	13	90	0.16	80	1060		0.001	0.001	<50	6	20
115265		31	460	35	10	125	0.13	71	516				<50	6	20
115266		18	550	83	9	69	0.20	60	222				<50	9	10
115267		13	450	59	6	71	0.16	50	226				<50	8	10
115268		18	390	>10000	98	9	0.15	56	>10000		3.98	1.385	<50	<5	10
115269		13	340	6	9	64	0.22	63	100				<50	8	20
115270		29	240	13	8	51	0.17	62	843				<50	8	20
115271		59	520	210	21	75	0.23	134	549				<50	9	20
115272		38	440	38	19	183	0.27	70	49				<50	11	20
115273		35	480	30	11	116	0.28	61	52				60	11	20
115274		16	400	46	5	195	0.10	29	45				<50	9	10
115275		4	170	10	7	234	0.02	12	27				<50	7	10
115276		17	200	18	8	253	0.11	30	32				<50	8	10
115277		2	80	53	<5	429	0.01	18	18				<50	7	<10
115278		4	50	154	7	491	0.01	12	81				<50	6	<10
115279		4	70	11	<5	508	0.01	8	73				<50	6	<10
115280		15	620	75	33	399	0.09	30	347				<50	8	10
115281		26	450	26	10	102	0.21	82	226				<50	8	20
115282		23	520	9	7	69	0.29	75	195				50	12	20
115283		1	20	2	6	3	0.11	3	3				<50	<5	<10
115284		17	300	7	6	41	0.22	66	189				<50	12	10
115285		19	320	8	5	38	0.22	60	365				<50	11	10
115286		31	310	9	6	25	0.21	58	937				<50	10	20
115287		41	270	16	9	17	0.11	61	1895				<50	<5	20
115288		5	90	11	6	312	0.02	15	83				<50	6	<10
115289		13	190	254	13	330	0.04	37	1155				<50	6	10
115290		13	230	295	16	193	0.05	31	3860				<50	6	10
115291		35	450	939	133	116	0.13	94	1660				<50	6	10
115292		10	150	>10000	64	220	0.01	24	7750			1.090	<50	7	<10
115293		3	30	>10000	37	263	<0.01	17	4170			1.570	<50	6	<10
115294		19	180	3760	54	243	0.08	75	1515				<50	8	10
115295		31	670	904	158	249	0.11	92	3140				<50	7	10
115296		6	170	177	<5	393	0.04	13	173				<50	7	<10
115297		21	420	98	23	168	0.15	54	89				<50	9	10
115298		14	400	>10000	91	6	0.15	56	>10000		3.77	1.305	<50	5	10
115299		26	270	85	24	189	0.10	102	82				<50	8	10
115300		1	40	11	<5	235	<0.01	22	33				<50	6	<10
115301		4	80	76	14	199	0.01	29	144				<50	5	<10
115302		5	10	565	6	190	<0.01	20	2610				<50	<5	<10
115303		6	380	278	9	274	0.02	52	1405				<50	6	<10



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Project: MCL04, MCL05

**CERTIFICATE OF ANALYSIS BU12132911**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICRP61 Ag ppm	ME-ICRP61 AS ppm	ME-ICRP61 BI ppm	ME-ICRP61 Ca %	ME-ICRP61 Cd ppm	ME-ICRP61 Co ppm	ME-ICRP61 Cr ppm	ME-ICRP61 Cu ppm	ME-ICRP61 Fe %	ME-ICRP61 K %	ME-ICRP61 Mg %	ME-ICRP61 Mn ppm	ME-ICRP61 Mo ppm	ME-ICRP61 Na %
115304	2.69	0.8	18	3	17.8	5.0	2	5	32	2.28	0.11	10.45	3250	<1	0.03
115305	2.30	1.6	37	<2	13.35	15.5	2	4	26	2.01	0.11	7.97	1935	<1	0.01
115306	2.44	<0.5	13	3	18.2	<0.5	3	4	5	1.61	0.19	10.50	1270	3	0.02
115307	2.59	2.1	6	3	18.4	0.6	2	2	91	1.73	0.06	10.60	1205	8	0.02
115308	2.28	1.2	36	4	15.4	2.8	8	4	46	4.47	0.21	8.66	3720	1	0.02
115309	2.15	0.7	61	2	17.9	1.1	1	2	20	1.77	0.08	10.35	1575	<1	0.02
115310	1.31	1.2	86	<2	19.1	5.6	2	2	45	1.63	0.08	11.10	1095	<1	0.02
115311	0.40	2.9	61	<2	11.15	1.1	10	6	146	7.15	0.20	7.11	7510	<1	0.02
115312	0.68	<0.5	23	<2	11.90	<0.5	4	3	4	5.31	0.07	8.23	4160	<1	0.02
115313	0.65	<0.5	<5	<2	0.39	<0.5	<1	16	1	0.62	0.03	0.20	89	<1	<0.01
115314	1.75	<0.5	8	<2	16.2	<0.5	5	4	13	3.23	0.17	9.48	2760	<1	0.02
115315	2.46	0.7	135	<2	12.35	0.6	6	13	19	3.39	0.79	7.99	3560	<1	0.02
115316	2.33	2.6	90	<2	12.30	6.4	6	17	15	2.20	1.03	7.76	1665	<1	0.03
115317	2.06	0.7	44	4	14.40	1.0	5	7	4	2.75	0.40	8.76	2690	<1	0.02
115318	1.20	2.3	39	3	16.5	1.5	3	4	7	1.73	0.22	9.41	1400	<1	0.02
115319	0.68	0.5	10	2	13.25	0.6	3	14	3	2.02	0.34	7.99	1235	<1	0.02
115320	0.99	0.6	12	<2	12.50	<0.5	5	6	13	3.42	0.30	7.81	3310	<1	0.02
115321	0.43	1.2	<5	4	0.68	0.8	26	<1	2	26.1	0.03	6.32	27600	<1	0.01
115322	0.36	3.0	286	3	0.76	15.6	19	<1	17	22.8	0.03	4.89	36300	<1	0.01
115323	0.30	1.7	126	5	0.49	11.6	19	1	5	25.0	0.03	4.97	29700	<1	0.01
115324	0.51	2.4	607	6	6.06	67.6	19	1	25	14.45	0.04	5.02	16600	<1	0.01
115325	0.79	2.6	79	2	10.95	38.5	1	2	16	2.53	0.03	6.92	1965	<1	0.03
115326	0.69	2.3	29	4	3.29	2.4	11	3	55	11.00	0.02	5.87	12650	<1	0.01
115327	0.99	<0.5	14	2	11.15	1.3	5	5	3	3.53	0.07	8.11	5820	<1	0.02
115328	0.05	19.3	459	21	0.18	152.5	14	41	1285	12.20	1.73	1.08	1460	4	0.05
115329	1.85	3.0	1010	<2	6.75	15.9	49	19	627	9.89	0.21	7.99	9880	1	0.02
115330	0.53	<0.5	463	2	14.8	<0.5	1	2	4	1.20	0.03	10.95	1380	<1	0.03
115332	0.56	<0.5	<5	<2	18.4	<0.5	2	1	3	0.75	0.02	11.30	728	<1	0.03
115333	1.05	0.7	66	<2	16.5	5.0	5	2	8	5.68	0.04	10.95	6150	<1	0.03
115334	0.91	0.5	10	<2	18.4	0.6	3	1	1	1.87	0.01	11.70	2520	<1	0.03
115335	2.26	<0.5	<5	3	21.1	<0.5	1	1	<1	0.30	0.01	13.40	381	<1	0.03
115336	2.27	<0.5	<5	3	18.7	<0.5	1	1	<1	0.44	0.01	12.20	440	<1	0.03
115337	2.52	<0.5	<5	<2	16.0	<0.5	1	2	1	0.43	0.04	13.15	373	<1	0.02
115338	2.18	<0.5	<5	<2	13.45	<0.5	2	2	1	0.26	0.10	15.50	259	<1	0.03
115339	2.11	<0.5	<5	2	11.15	<0.5	1	3	<1	0.48	0.10	15.30	230	<1	0.03
115340	2.97	<0.5	<5	3	10.65	<0.5	1	1	1	0.24	0.08	17.55	265	<1	0.02
115341	1.79	<0.5	<5	4	11.10	<0.5	1	1	1	0.33	0.03	15.90	463	<1	0.02
115342	1.04	<0.5	<5	2	10.45	<0.5	1	2	<1	0.34	0.02	15.85	359	<1	0.02



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Project: MCL04, MCL05

**Minerals**

**CERTIFICATE OF ANALYSIS BU12132911**

Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Ag-OG62 Ag ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm
115304		6	650	95	7	318	0.02	38	1230		0.001	0.001	<50	7	<10
115305		5	400	641	16	219	0.01	64	3690				<50	6	<10
115306		6	500	46	<5	307	0.02	86	73				<50	6	<10
115307		5	110	38	61	306	0.01	49	116				<50	6	<10
115308		13	130	195	20	217	0.03	31	804				<50	7	<10
115309		3	80	123	14	270	0.01	38	290				<50	6	<10
115310		6	110	466	28	377	0.01	23	1600				<50	7	<10
115311		17	130	121	22	498	0.02	38	600				<50	6	10
115312		8	50	18	<5	487	0.01	14	166				<50	6	<10
115313		1	10	11	<5	10	0.11	3	24				<50	<5	<10
115314		7	50	38	7	602	0.02	7	125				<50	7	<10
115315		13	170	185	7	382	0.08	38	131				<50	8	10
115316		11	160	1460	10	420	0.08	41	1500				<50	8	10
115317		9	240	108	<5	386	0.04	28	325				<50	7	<10
115318		3	150	1020	<5	461	0.03	19	364				<50	7	<10
115319		7	230	20	<5	330	0.03	21	109				<50	7	<10
115320		9	230	41	<5	389	0.03	22	226				<50	7	<10
115321		34	100	29	<5	18	<0.01	21	1210				<50	6	10
115322		25	90	1610	17	15	<0.01	22	5090				<50	5	10
115323		37	120	1210	12	8	<0.01	14	4080				<50	5	10
115324		32	110	1850	20	100	<0.01	14	>10000		1.595		<50	6	10
115325		3	70	3680	26	247	<0.01	9	7510				<50	6	<10
115326		17	60	99	34	89	<0.01	12	1085				<50	6	10
115327		8	100	46	6	385	0.03	14	536				<50	6	<10
115328		14	390	>10000	100	9	0.15	55	>10000		3.88	1.370	<50	5	10
115329		22	190	1420	28	219	0.06	24	4270				<50	8	10
115330		4	20	13	10	352	0.01	3	68				<50	7	<10
115332		2	20	7	<5	378	<0.01	1	52				<50	7	<10
115333		9	70	202	<5	312	<0.01	3	1485				<50	6	<10
115334		2	80	43	<5	373	<0.01	1	231				<50	8	<10
115335		2	70	5	5	412	<0.01	<1	14				<50	7	<10
115336		<1	110	6	<5	379	<0.01	<1	21				<50	7	<10
115337		1	10	22	<5	331	0.01	1	20				<50	7	<10
115338		1	20	22	5	289	0.01	2	22				<50	8	<10
115339		1	20	25	<5	233	0.01	3	20				<50	8	<10
115340		1	20	15	<5	240	0.01	3	17				<50	8	<10
115341		1	20	6	<5	248	<0.01	4	22				<50	7	<10
115342		2	20	10	<5	216	<0.01	3	14				<50	7	<10



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## CERTIFICATE BU12135141

Project: MCL05A  
P.O. No.: 006

This report is for 84 Drill Core samples submitted to our lab in Burnie, TAS, Australia on 15-JUN-2012.

The following have access to data associated with this certificate:

DAMON ELDER

PETER ROLLEY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-21	Crush entire sample > 70% - 6 mm
STO-23	Monthly storage charge for pulp
PUL-23	Pulv Sample - Split/Retain
BAG-01	Bulk Master for Storage
SPL-21	Split sample - riffle splitter

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG62	Ore Grade Elements - Four Acid	ICP- AES
Zn- OG62	Ore Grade Zn - Four Acid	VARIABLE
Pb- OG62	Ore Grade Pb - Four Acid	VARIABLE
ME- ICP61	33 element four acid ICP- AES	ICP- AES

To: MOONRAKER MINERALS PTY LTD  
ATTN: PETER ROLLEY  
UNIT 1  
245 CHURCHILL AVENUE  
SUBIACO WA 6008

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager



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Project: MCL05A

**CERTIFICATE OF ANALYSIS BU12135141**

Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICP61 Ag ppm	ME-ICP61 AS ppm	ME-ICP61 BI ppm	ME-ICP61 Ca %	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 K %	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %
115343	2.68	<0.5	10	<2	<0.01	<0.5	7	56	13	1.27	3.15	0.33	23	1	0.19
115344	3.09	<0.5	24	2	<0.01	<0.5	15	61	17	2.68	3.28	0.35	30	1	0.21
115345	3.39	<0.5	25	2	<0.01	<0.5	18	56	13	2.16	3.18	0.34	24	<1	0.19
115346	3.16	<0.5	21	2	<0.01	<0.5	14	46	10	2.05	2.72	0.30	28	1	0.17
115347	2.58	<0.5	31	4	<0.01	<0.5	21	43	12	2.46	2.44	0.26	35	<1	0.15
115348	2.42	<0.5	46	4	<0.01	<0.5	31	55	20	3.91	3.16	0.33	34	1	0.20
115349	1.88	<0.5	18	2	0.01	<0.5	12	41	9	1.41	2.62	0.27	29	<1	0.16
115350	3.35	<0.5	13	2	<0.01	<0.5	10	48	5	0.92	3.14	0.31	17	<1	0.19
115351	2.92	<0.5	13	2	<0.01	<0.5	13	50	8	0.99	3.28	0.32	13	<1	0.20
115352	1.19	<0.5	13	6	<0.01	<0.5	9	35	6	0.92	2.17	0.23	24	<1	0.12
115353	2.97	<0.5	23	6	<0.01	0.5	19	44	13	1.73	2.39	0.26	33	<1	0.13
115354	3.49	0.5	31	5	<0.01	<0.5	22	65	17	2.43	3.29	0.36	28	1	0.21
115355	3.80	0.5	22	2	<0.01	<0.5	17	52	13	1.90	3.14	0.34	30	<1	0.17
115356	0.82	<0.5	14	2	<0.01	1.5	17	51	5	1.27	2.90	0.50	29	<1	0.13
115357	0.66	<0.5	<5	<2	0.01	<0.5	2	17	<1	0.59	0.05	0.01	56	<1	0.01
115358	1.64	<0.5	42	<2	0.01	3.7	63	50	1	2.64	2.64	0.96	23	2	0.08
115359	1.65	0.6	94	3	0.01	3.2	92	47	4	3.06	2.20	0.54	35	1	0.10
115360	1.89	0.6	21	3	<0.01	<0.5	25	62	14	2.01	3.52	0.42	32	1	0.15
115361	3.72	0.5	21	<2	<0.01	<0.5	19	61	13	2.00	3.43	0.41	21	<1	0.17
115362	3.23	0.5	24	3	<0.01	<0.5	16	59	15	1.54	3.50	0.36	21	<1	0.18
115363	2.34	<0.5	40	<2	0.01	<0.5	29	61	16	3.88	3.23	0.37	59	1	0.17
115364	3.22	0.6	46	2	<0.01	0.7	24	65	13	2.59	3.32	0.38	39	1	0.17
115365	1.43	0.7	35	<2	<0.01	<0.5	23	69	13	2.74	3.61	0.40	40	<1	0.18
115366	1.04	0.7	32	2	0.01	<0.5	26	55	13	2.33	2.82	0.33	42	<1	0.13
115367	2.24	<0.5	21	3	0.01	1.6	28	51	4	1.70	2.98	0.66	35	1	0.11
115368	2.93	<0.5	16	3	<0.01	<0.5	17	46	8	1.58	2.92	0.35	25	<1	0.11
115369	3.74	<0.5	14	2	<0.01	0.8	18	46	9	1.14	3.15	0.36	20	<1	0.13
115370	1.47	0.6	9	2	<0.01	0.9	14	46	4	1.03	3.31	0.37	25	<1	0.13
115371	0.86	53.3	255	<2	0.01	145.0	66	30	152	2.70	1.20	0.26	115	<1	0.06
115372	0.06	21.1	498	26	0.19	169.5	17	46	1385	13.15	1.84	1.20	1595	3	0.05
115373	1.49	15.7	43	<2	0.01	38.6	31	49	39	2.28	3.46	0.50	38	<1	0.12
115374	2.51	1.0	37	<2	0.02	9.7	44	34	3	1.51	1.83	0.37	63	2	0.05
115375	1.18	<0.5	30	<2	0.02	0.8	37	46	9	1.76	3.10	0.89	62	<1	0.08
115376	1.95	0.8	58	<2	0.04	1.6	38	16	31	1.72	0.44	0.13	82	1	0.02
115377	1.96	1.0	50	<2	0.03	0.7	41	52	60	2.68	1.56	0.44	110	6	0.03
115378	2.37	0.7	37	<2	0.02	0.6	36	51	48	2.41	2.17	0.57	82	4	0.05
115379	1.80	1.1	144	<2	0.04	2.9	28	27	21	2.22	1.02	0.31	79	1	0.02
115380	1.67	0.8	55	<2	0.04	1.1	34	42	26	1.92	1.88	0.66	77	<1	0.04
115381	3.12	<0.5	22	<2	0.04	0.7	27	43	46	0.78	2.33	1.36	42	<1	0.03
115382	1.20	<0.5	101	<2	0.02	19.1	146	44	26	1.65	2.94	0.87	28	<1	0.05

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Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm	PUL-QC Pass75um %
115343	6	80	63	<5	37	0.31	78	13	0.001	0.001	70	10	10	10
115344	22	90	53	20	43	0.29	83	26			90	9	10	10
115345	27	120	75	19	44	0.29	82	40			80	9	10	10
115346	20	100	54	8	39	0.25	66	41			80	8	10	10
115347	30	100	79	7	34	0.23	68	55			80	7	10	10
115348	52	120	64	15	42	0.27	81	32			90	8	10	10
115349	17	90	45	8	36	0.26	65	47			70	10	10	10
115350	10	110	47	<5	38	0.30	79	57			70	12	10	10
115351	12	100	24	<5	35	0.32	86	56			80	13	10	10
115352	9	80	37	5	34	0.24	64	58			60	9	10	10
115353	23	100	194	7	40	0.23	65	105			70	8	10	10
115354	30	110	92	30	49	0.30	92	35			90	10	10	10
115355	23	100	73	11	46	0.29	84	54			90	10	10	10
115356	17	140	414	15	53	0.33	85	310			80	10	10	10
115357	1	10	<2	<5	<1	0.12	3	<2			<50	<5	<10	
115358	71	150	1430	25	56	0.30	101	1120			60	7	10	10
115359	121	500	534	15	574	0.26	80	2300			80	9	20	20
115360	38	120	85	13	46	0.31	92	125			100	15	20	20
115361	32	100	111	12	32	0.29	86	105			90	12	20	20
115362	25	110	50	11	36	0.32	90	44			70	13	10	80.6
115363	46	120	81	20	36	0.25	89	44			90	17	20	20
115364	38	90	348	19	30	0.29	90	211			90	12	20	20
115365	45	140	97	22	41	0.29	95	49			110	12	20	20
115366	41	130	62	14	63	0.23	68	19			90	9	10	10
115367	35	100	170	13	42	0.31	96	686			80	8	10	10
115368	21	90	64	9	27	0.26	71	140			90	8	10	10
115369	24	90	78	10	22	0.27	73	236			80	11	20	20
115370	19	90	198	5	19	0.29	77	258			80	12	10	10
115371	88	340	>10000	123	163	0.16	46	>10000	3.34	1.930	60	<5	10	10
115372	15	440	>10000	111	7	0.17	59	>10000	3.96	1.355	<50	6	10	10
115373	45	130	650	47	45	0.23	82	9030			80	12	20	20
115374	52	170	880	19	81	0.23	55	4930			70	7	10	10
115375	41	230	70	14	34	0.33	98	1990			60	11	10	10
115376	50	170	70	22	35	0.06	42	2690			<50	<5	<10	
115377	71	140	88	28	40	0.19	258	1510			<50	9	10	10
115378	60	110	86	20	35	0.25	167	908			<50	10	20	20
115379	50	50	195	13	22	0.13	48	2460			<50	5	10	10
115380	50	120	315	9	42	0.31	77	1800			50	10	10	10
115381	39	100	48	<5	30	0.39	85	1360			70	13	10	10
115382	155	270	401	14	91	0.34	100	9950			60	10	20	98.8



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Method Analyte Units LOR	WEI-21 Recvd Wt. <g>	ME-ICRP61 Ag ppm	ME-ICRP61 AS ppm	ME-ICRP61 Bi ppm	ME-ICRP61 Ca %	ME-ICRP61 Cd ppm	ME-ICRP61 Co ppm	ME-ICRP61 Cr ppm	ME-ICRP61 Cu ppm	ME-ICRP61 Fe %	ME-ICRP61 K %	ME-ICRP61 Mg %	ME-ICRP61 Mn ppm	ME-ICRP61 Mo ppm	ME-ICRP61 Na %
115383	1.44	0.7	38	<2	0.03	6.3	34	55	35	2.41	3.18	0.76	101	<1	0.05
115384	1.30	<0.5	36	<2	0.01	9.1	26	58	24	1.74	3.08	0.67	75	<1	0.05
115385	0.36	1.8	47	<2	0.03	6.6	43	55	74	2.02	2.55	0.63	72	<1	0.04
115386	0.63	0.9	47	<2	0.02	3.1	32	51	37	2.32	1.95	0.45	68	3	0.03
115387	0.72	<0.5	<5	<2	0.01	<0.5	<1	15	1	0.69	0.05	0.01	71	<1	0.01
115388	2.05	1.9	40	<2	0.02	0.6	27	44	56	2.42	1.33	0.30	82	5	0.03
115389	2.23	8.2	130	<2	0.02	1.6	21	34	173	2.13	1.26	0.24	90	5	0.02
115390	1.60	4.2	51	<2	0.02	1.4	17	29	74	1.80	1.09	0.20	61	4	0.02
115391	1.40	1.1	110	<2	0.03	10.0	18	19	15	2.46	0.80	0.18	75	2	0.02
115392	0.68	0.7	74	<2	0.01	10.7	4	5	2	1.57	0.02	0.01	94	<1	0.01
115393	0.37	1.7	116	<2	0.01	26.4	8	7	14	1.23	0.16	0.04	56	<1	0.01
115394	0.57	3.2	214	<2	0.02	23.9	13	12	53	1.55	0.39	0.08	82	<1	0.01
115395	1.52	3.7	1445	<2	0.03	47.3	14	8	46	2.54	0.15	0.04	133	<1	0.01
115396	1.49	3.3	3100	<2	0.02	26.3	16	8	60	2.32	0.13	0.04	115	<1	0.01
115397	0.52	6.3	97	3	0.05	6.9	8	13	97	1.45	0.28	0.07	103	2	0.01
115398	1.05	1.3	158	<2	0.12	43.2	12	12	33	1.67	0.35	0.09	141	2	0.01
115399	1.11	4.7	436	<2	0.09	51.9	26	15	63	3.55	0.39	0.08	134	4	0.01
115400	1.53	3.9	1225	3	0.27	37.6	25	31	58	3.78	1.30	0.27	106	5	0.02
115401	1.17	2.9	296	<2	0.20	13.7	24	44	70	2.81	2.26	0.39	98	2	0.03
115402	0.06	19.1	451	15	0.17	153.5	17	39	1260	11.90	1.67	1.08	1460	3	0.04
115403	1.90	4.0	2330	<2	0.28	15.7	20	34	43	3.62	1.32	0.23	160	4	0.02
115404	2.99	3.5	1405	<2	0.25	13.0	30	60	74	3.76	2.05	0.38	108	7	0.03
115405	1.75	1.8	257	<2	0.18	7.8	14	31	28	1.88	1.49	0.36	98	5	0.02
115406	0.41	<0.5	14	3	0.14	1.3	22	11	5	10.45	0.32	0.14	13500	1	0.01
115407	2.86	0.5	64	5	0.33	22.6	29	25	16	16.95	1.41	2.00	35900	1	0.02
115408	3.39	<0.5	30	<2	0.31	14.8	19	18	8	20.6	0.98	2.76	56200	<1	0.02
115409	1.00	1.9	6	7	0.77	36.2	3	1	21	19.75	0.34	4.20	62000	<1	0.01
115410	0.54	<0.5	25	<2	0.18	3.6	26	54	33	5.63	3.06	0.77	5200	1	0.06
115411	2.19	1.9	151	<2	0.13	14.6	38	34	38	7.18	1.80	0.77	8350	2	0.04
115412	0.63	<0.5	100	4	0.28	2.4	36	9	9	16.90	0.49	0.38	22900	<1	0.01
115413	1.28	<0.5	39	<2	0.38	0.5	37	3	5	29.1	0.24	5.36	30100	<1	0.01
115414	2.24	<0.5	106	<2	0.38	6.2	33	2	9	19.30	0.12	8.12	25100	<1	0.01
115415	2.43	<0.5	17	<2	0.32	9.8	1635	16	2840	14.00	0.04	13.85	18600	<1	0.01
115416	1.09	<0.5	6	<2	0.25	2.9	9	1	3.71	3.71	0.02	23.1	4790	<1	0.01
115417	0.77	<0.5	<5	<2	0.01	<0.5	1	15	2	0.60	0.04	0.03	151	<1	<0.01
115418	1.57	<0.5	<5	<2	0.22	4.7	13	5	14	3.02	0.15	20.00	3670	<1	0.01
115419	0.56	<0.5	11	<2	0.26	2.4	14	4	10	3.55	0.22	20.8	4460	<1	0.02
115420	1.07	0.7	107	<2	0.25	7.5	25	6	23	14.50	0.28	2.40	20500	<1	0.01
115421	1.39	10.3	413	2	0.40	3.7	41	9	231	25.7	0.77	1.35	43400	<1	0.03
115422	0.72	0.9	271	10	0.54	2.2	4	<1	12	20.4	0.11	3.79	58100	<1	0.01



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Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm	PUL-QC Pass75um %
115383	49	220	312	24	45	0.36	112	2190	0.001	0.001	70	13	20	0.01
115384	43	120	438	15	38	0.37	119	3150			70	12	10	
115385	69	130	425	27	36	0.29	112	3110			60	10	20	
115386	69	160	338	21	35	0.23	227	1355			50	9	10	
115387	1	10	6	<5	3	0.11	4	23			<50	<5	<10	
115388	77	110	159	24	21	0.15	213	406			<50	6	10	
115389	56	110	874	81	25	0.16	173	1295			<50	6	10	
115390	35	170	912	70	33	0.14	125	1140			<50	5	10	
115391	29	120	435	28	31	0.10	57	2080			<50	<5	<10	
115392	7	30	501	9	4	<0.01	2	2950			<50	<5	<10	
115393	14	30	554	15	5	0.02	10	6570			<50	<5	<10	
115394	24	50	1455	28	11	0.04	26	5760			<50	<5	<10	
115395	19	60	2070	26	9	0.02	11	>10000	1.105		<50	<5	<10	
115396	23	70	2030	33	11	0.01	12	7040			<50	<5	<10	
115397	14	150	480	24	13	0.04	39	1865			<50	<5	<10	
115398	17	520	296	10	38	0.05	32	>10000	1.125		<50	<5	10	
115399	36	390	2660	20	37	0.05	46	>10000	1.405		<50	<5	30	
115400	41	2180	3350	43	151	0.16	137	3750			60	6	20	
115401	42	1390	1480	39	113	0.31	132	1755			80	9	20	
115402	14	380	>10000	96	7	0.15	54	>10000	3.84	1.340	<50	5	10	
115403	39	1410	1705	33	86	0.16	129	3720			50	6	20	
115404	79	1320	1635	42	95	0.25	262	2800			60	8	20	
115405	22	730	1480	17	33	0.17	82	1695			<50	6	10	
115406	21	180	48	6	5	0.03	23	2100			<50	<5	10	
115407	27	320	687	13	33	0.12	95	3800			<50	7	20	
115408	18	140	510	14	16	0.08	77	2450			<50	7	10	
115409	5	140	2290	12	4	0.02	23	9570			<50	8	10	
115410	33	640	52	14	35	0.35	118	883			70	10	20	
115411	46	290	750	17	34	0.18	76	5580			<50	5	10	
115412	35	140	47	9	5	0.04	29	2150			<50	<5	10	
115413	40	180	20	11	7	0.03	49	2050			<50	9	10	
115414	35	190	52	10	9	0.02	49	3150			<50	10	10	
115415	635	140	133	14	6	0.01	41	4420			<50	13	10	
115416	11	110	27	<5	14	0.01	25	569			<50	12	<10	
115417	1	10	3	<5	3	0.12	2	18			<50	<5	<10	
115418	14	140	44	6	22	0.02	25	619			<50	13	<10	
115419	13	170	34	10	25	0.03	28	644			<50	12	<10	
115420	24	130	674	17	14	0.04	32	3780			<50	6	10	
115421	32	230	442	119	15	0.06	38	3050			<50	<5	10	
115422	5	60	915	18	6	0.01	7	970			<50	7	<10	99.1



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Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. <g> 0.02	ME-ICP61 Ag ppm 0.5	ME-ICP61 AS ppm 5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01	ME-ICP61 K % 0.01	ME-ICP61 Mg % 0.01	ME-ICP61 Mn ppm 5	ME-ICP61 Mo ppm 1	ME-ICP61 Na % 0.01
115423		2.81	0.9	93	<2	0.37	9.4	20	<1	24	27.6	0.09	5.37	35800	<1	0.01
115424		1.13	<0.5	24	<2	0.33	3.6	23	<1	5	27.3	0.05	6.83	29500	<1	0.01
115425		1.10	<0.5	162	<2	0.35	2.9	6	<1	4	23.9	0.05	3.90	62900	<1	0.01
115426		1.08	1.7	2410	3	0.56	25.1	6	<1	39	28.2	0.04	3.88	73800	<1	0.01



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Sample Description	Method Analyte Units LOR	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 Sb ppm	ME-ICP61 Sr ppm	ME-ICP61 Ti %	ME-ICP61 V ppm	ME-ICP61 Zn ppm	Zn-OG62 Zn %	Pb-OG62 Pb %	ME-ICP61 Ce ppm	ME-ICP61 Nb ppm	ME-ICP61 Y ppm	PUL-QC Pass75um %
115423		30	120	480	21	3	0.01	40	3300	0.001	0.001	<50	9	10	0.01
115424		31	110	55	11	1	0.01	27	2070			<50	9	10	
115425		10	100	184	15	6	<0.01	5	1050			<50	7	<10	
115426		7	60	1200	28	1	<0.01	5	5480			<50	7	<10	