

CLASSIC MINERALS LTD (CLZ)

Early Stage Discoveries Put Classic Ahead of the Pack

SPECULATIVE

7 April 2014

Share Trading Info	
ASX Code	CLZ
Sector	Materials
Current Share Price (cps)	5.0
Trading Low/High (Rolling Year) (cps)	5.0 - 20.5
Ordinary Shares on Issue* (m)	236.2
Listed Options (m) (ASX: CLZO)	101.1
Mkt Capitalisation (undiluted) (\$m)	11.8
Cash as at 31 December 2013 (\$m)	0.37
Funds Raised from Feb'14 Placement (\$m)	1.50
* Includes 75 6m restricted ordinary shares	

Board of Directors		
Justin Doutch	Mana	ging Director
Stanislaw Procak	Non Exec	utive Director
Kent Hunter	Non Exec Dir & (Co. Secretary
Major Shareholder	6	
Sheldon Coates and Harvery Coates 6.8%		6.8%
Gurindji P/L 5.9		5.9%
Murano Holdings P/I 4 8%		4 8%

Wurano Holdings P/L	4.8%
Viking Equities P/L	4.2%
- -	

Important Disclosure

Investors should be aware that Classic Minerals Ltd is a corporate client of Alpha and that Alpha will receive a consultancy fee from Classic Minerals Ltd for compiling this research report



EXECUTIVE SUMMARY

Since listing on the ASX in May 2013, Classic Minerals Ltd ('CLZ' or 'Company') has rapidly advanced exploration at its flagship Fraser Range Nickel-Copper Project in WA identifying 19 conductor targets and making two early stage discoveries.

The Company is currently focussed on a number of highpriority targets in a 6km 'conductive hot zone' at the northern end of its Fraser Range tenement in order to understand the extent of the mineralisation. Within this zone, CLZ has already discovered Mammoth, a new target style of magmatic nickel-copper mineralisation on the Fraser Range and the Alpha Copper Deposit.

Targeting Nova-Bollinger Style Deposit

The style of the nickel sulphide deposit being targeted by CLZ is similar to SIR's Nova-Bollinger deposit (40 kilometres SW of CLZ's Fraser Range Project), which is broadly analogous to very large Canadian deposits - including Thompson (Vale), Raglan (Xstrata) and Voisey Bay (Vale), and Norilsk nickel-copper deposits in USSR - and prior to the Nova-Bollinger discovery had not been previously recognised in Australia.

The drill results recorded at Mammoth to date confirm that CLZ's targets have the right type of mineralisation in its ore that will increase the potential for successful nickel exploration.

The Significance in the Presence of Garnet in Nickel Ore

Petrology analysis undertaken by Consulting Mineralogist Roger Townend on core and rock chip samples from the Mammoth nickelcopper discovery confirm that Mammoth has similar rock types and sulphide mineralisation to the Nova nickel-copper deposit.

Mr Townend noted that "The garnet-bearing granulite with its pyrrhotite pentlandite chalcopyrite mineralisation spears similar to the principal mineralised host rock (PSG pyroxene garnet gneiss) described at the Nova deposit at the Fraser Range".

The presence of garnet in nickel sulphides distinguishes this type of nickel ore body from the nickel ore types typically found in Canada, as the garnets at Mammoth are red almandine garnet.





Why target Nickel Sulphides?

Nickel sulphides are simpler and more cost effective to process. Nickel deposits are typically divided between nickel sulphide (such as Nova-Bollinger) and nickel (oxide) laterite deposits.

Historically, production has favoured sulphide ore as they are easier to process via conventional mining, smelting and refining methods. Laterite ores, on the other hand, typically require capital intensive hydrometallurgical processing (such as high pressure, high temperature acid leaching). This means that laterite ores tend to require substantially more energy and chemicals (significantly increasing costs) than sulphide nickel deposits.

A review of magmatic sulphide-rich nickel-copper deposits by the US Geological Survey concluded that these deposits typically occur in clusters and many contain multiple mineralised zones.

Key Areas of Focus at Fraser Range Project

Results from the latest RC drilling program at the Mammoth target show the continuity of mineralisation along strike and at depth, with all six holes from this latest round of drilling continuing to intersect sulphides and thus confirming that Mammoth nickel-copper mineralisation extends for at least 240 metres along strike.

Drilling is currently focussed on eight other high-priority targets along the 6km 'conductive hot zone' that have been identified extend SW from the Mammoth target. Figure A highlights the multiple targets within this 6km zone that CLZ is now drill testing.

A new geochemistry program has commenced and a new aeromagnetic survey on a 50-metre line spacing is expected to commence during April 2014. This is expected to be followed by ground EM with the Company expected to begin drilling of all new targets in the June 2014 quarter.



Figure A: VTEM Image of key priority targets from the 6km 'Conductive Hot Zone' (Reproduced and discussed in further detail in Section 2.4)

Source: CLZ ASX Announcement 12 March 2014

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1. COMPANY OVERVIEW

1.1 Background

Incorporated on 1 May 2006, Classic Minerals Ltd listed on the ASX on 24 May 2013, after raising \$3.625 million via a prospectus offer of 18,128,500 shares at 20 cents each.

At the time of its listing, CLZ had acquired, or had the rights to acquire an interest in five tenements over four projects totalling 380km² in areas/regions that are considered prospective for gold, nickel, copper, cobalt, manganese, base metals and uranium mineralisation. All of the projects are located in the eastern Goldfields, Murchison and Fraser Range districts of WA and are in relatively close proximity to infrastructure and the nearby towns of Kalgoorlie and Meekatharra.

Shortly after listing, CLZ moved to 100% ownership of all projects after entering into an agreement with the previous owners of the Doherty's Gold Project (Golden West Resources Ltd (ASX: GWR)) to exercise its option agreement to acquire the latter project. Table 1 provides a summary of CLZ's projects, which are all 100% owned by CLZ.

Figure 1: Location Map of CLZ's WA Projects Showing Proximity to Nearby Towns (Source: CLZ Prospectus)



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Table 1: CLZ Project Summary

Project/ Commodity	Tenement/s	Area (km²)	Comments
Fraser Range (Ni-Cu)	E28/1904	82.59	Flagship Project. Focusing on exploration at the northern end of the 'conductive hot zone'. And will commence drilling of all new targets in June 2014 Qtr
Cowarna Rocks (Fe)	E28/2238	94.38	110 aircore hole drilling program commenced
Doherty's (Au)	M57/619	1.74	Plan to have previously-drilled holes accurately surveyed in 1H 2014. CLZ also plan to undertake a topographic survey.
Mt Maitland (U)	E51/1267 E51/1485	156.8 44.27	Reconnaissance mapping and sampling was undertaken, with a review of the regulations for uranium mines. These hurdles are significant and it was decided to relinquish both exploration licenses to concentrate on the other projects.

1.2 Funding

The cash balance as at 31 December 2013 was \sim \$0.37 million, which has since been boosted by the completion of a \$1.5 million equity raising in February 2014 in order to advance drilling at the Fraser Range Project and support working capital requirements¹. There is minimal debt on the balance sheet, of \sim \$23,000 as at 31 December 2013 and the total Hire Purchase liability as at 31 December 2013 was \sim \$140,000.

In addition, the Company holds as an investment 17.67 million ordinary shares in ASX-listed company Fairstar Resources Ltd (ASX: FAS) worth \sim \$141,000, based on the current share price for FAS of 0.8 cents per share.

1.3 Capital Structure

There are 236.2 million ordinary shares on issue, of which 75.8 million are restricted. In addition, there are ~101.1 million out-the-money listed options (ASX: CLZO) with an exercise price of 20 cents and an expiry date of 30 June 2015. The share register is tightly held, with the top 20 shareholders (including Directors' interests) accounting for ~47% of the total shares on issue.

¹ The equity raising comprised the issue of 25 million ordinary shares at 6 cents each, with one free attaching option issued for every two 6-cent ordinary shares subscribed for and exercisable at 10 cents per share before 31 December 2015.



2. FRASER RANGE PROJECT

2.1 Overview and Background

The Fraser Range Project is located 160 kilometres E-SE of Kambalda in the Fraser-Albany Mobile Belt (or the 'Fraser Range Belt'). Access to the project is via the Trans Australian railway access road to Zanthus, and the around 50 kilometres south along station tracks to the project area. CLZ holds a 28 kilometre strike across the 84km² tenement area.

The geology of the area is characterised by gneisses and mafic intrusions of the Fraser Complex which is known to be prospective for nickel, copper and gold deposits.

The prospectivity of the area has been improved following the recent discovery of the Nova nickel-copper sulphide deposit by ASX-listed company Sirius Resources NL (ASX: SIR)², which was followed by SIR's more recent Bollinger discovery, which is located to the east of the Nova deposit and connected to the Nova deposit by an interpreted feeder zone. Both the Nova and Bollinger discoveries are located 40 kilometres SW of CLZ's Fraser Range Project.

The Fraser Range belt had been known to be prospective following the discovery of the Trilogy base metal deposit (copper and gold) in the 1990s near Ravensthorpe to the SW. Subsequent exploration programs by a number of major companies has subsequently highlighted the prospectivity of this belt of rocks, particularly with the discovery of the 6.4Moz Havana and Tropicana gold deposits further to the north.

Until the Nova discovery, no nickel sulphide deposits had been found in the Albany-Fraser Orogenic belt, although conceptually, potential for these types of deposits had been recognised by the Geological Survey WA (GSWA) as recently as 2011.

The earliest reported exploration dates back to the mid-1960s. An aeromagnetic survey, limited geological mapping and sample analysis as well as follow-up exploration carried out by Newmont led to the drill testing of a number of prospects with limited success.

Follow up exploration by other companies similarly yielded little success in reporting anomalies. However, during the 1990's, there was a steady increase in exploration in the Fraser Range area. Several companies reported strong grass roots programs including: Gutnick Resources (nickel-copper), Helix Resources and BHP (nickel-copper), and Gold Partners (gold). Prior to Geographe Resources commencing a regional calcrete survey there was little of modern gold exploration completed in the project area.

 $^{^2}$ In March 2013 SIR announced a maiden JORC compliant mineral resource estimate at Nova of 10.2Mt at 2.4% Ni, 1.0% Cu and 0.08% Co for 242,000t of nickel, 100,000t of copper and 7,700t of cobalt. This was later upgraded to a JORC Resource of 14.6Mt @ 2.2% Ni, 0.9% Cu and 0.08% Co (implying a 2.5% nickel equivalent grade) to include the adjoining Bollinger deposit.





Figure 2: Regional Geology Map of the Fraser Range (Source: CLZ Prospectus)

2.2 Geological Structure of the Fraser Range

According to the GSWA, the Fraser-Albany Mobile Belt has four main geological units that are distinguishable by their geophysical signatures (magnetics and gravity).

The most western unit is known as the northern Foreland and is composed principally of highly sheared and strained metamorphic granitic rocks of probable Archaean age. The next major unit to the east is the Biranup Zone, which is dominated by younger granitic rocks with distinct magnetic signatures. The high grade, Southdown magnetite ironore deposit is interpreted to lie within this zone.

Further to the east lies the Fraser Zone, the host units of the Nova discovery that contain metamafic rocks, as well as interlayed lenses of metagranite and metasedimentary units, often as gneiss. The Fraser Zone is dominated by high grade mafic and gabbroic rocks that have a strong distinct geophysical signature in both aeromagnetic and gravity data.

Most of the northern part of the Fraser Zone is obscured by younger rocks of the Eucla Basin, but the geophysical data show that it is an approximately 425 kilometres long, NE trending, fault bounded unit that is up to 50 kilometres wide and is now subject to increased exploration, following the discovery of the Nova deposit by SIR.

The fourth major unit of the Albany-Fraser Orogen is the Nornalup Zone, the most eastern belt of rocks, which is principally composed of granites and gneisses. A number of the gneisses have been recognised as metasedimentary rocks which have undergone systematic metamorphism and deformation.



2.3 Work Carried out By Classic Minerals Ltd

Following the discovery of the Nova deposit, CLZ undertook rock chip sampling in areas of outcrop and delineated two geochemical anomalies, one 600m long with highly elevated Zn, Cu, Pb and Ag on the NE edge of the Eye structure.

CLZ commissioned Southern Geoscience (SGC) to obtain, process and produce images of the publicly-available aeromagnetic data. These images were interpreted to give broad lithological groupings, and a series of aeromagnetic anomalies. A prominent oval 'Eye' structure, similar to the one at Nova nickel-copper deposit, was recognised in the south of the tenement.

Following its IPO in May 2013, CLZ immediately commissioned an Airborne Electro Magnetic (VTEM) survey of the whole project area and SGC delineated 18 EM conductor targets and noted that the VTEM survey was 'successful in detecting numerous anomalies'.

Following the identification and ranking of these targets, CLZ commenced a systematic program of drilling that has now reached a $4^{\rm th}$ stage.

2.3.1 Phase 1 Drilling

In August 2013, CLZ commenced the first phase of a RC drilling program, which involved the drilling (1,702 metres) of 12 RC holes into 11 electromagnetic conductor targets. Mineralisation was intersected in all of the priority holes (FRRC001-007). Key results from the first phase of drilling included:

- A2 (later renamed 'Alpha Copper Deposit') was identified by geophysicists as a 'potential basement massive sulphide target' and was the first target drilled. Visible sulphides were intersected in the first hole FRRC001 at 102 metres to 104 metres, including 1m at 1.95% copper and traces of Zn. The sulphides were mainly pyrrhotite with minor chalcopyrite and sphalerite.
- A single hole (FRRC002) drilled into the centre of target A13 (1,000 metres long) intersected minor mixed sulphides in zones from 55 metres to 107 metres, and some zones returned results as high as 0.1% zinc, 0.047% copper and 38ppm molybdenum.
- FRRC003 intersected minor sulphides at A8 (400 metres long) with highly anomalous gold values from 88 metres to 94 metres, with associated anomalous silver.
- FRRC004 intersected minor sulphides at A4 (400 metres long) from 68 metres to 100 metres downhole. Results included anomalous zinc values to 890 ppm, copper to 310ppm and gold to 33ppb.

2.3.2 Phase 2 Drilling

Phase 2 drilling was undertaken to follow up on selected promising targets from Phase 1 drilling, and focussed on five targets at the initial hole in Phase 1 drilling (FRRC001) at Alpha Copper Deposit that showed a 1m intersection of copper at 1.95%. The Alpha Copper Deposit was chosen for a pattern of five step-out holes and all five holes intersected thicker mixed sulphides up to 20% sulphides and up to 12 metres thick.



Of significance was the presence of the sulphides as mainly pyrite, with minor chalcopyrite and accessory zinc sulphide.

In total, 21 holes totalling 2,523 metres were drilled in Phase 2. Of the 375 copper and zinc values, many showed anomalous values including a significant number above 0.5% copper. Key results from Phase 2 included:

- 1m @ 1.27% copper from 36 metres in FRRC024
- 1m @ 1.04% copper from 27 metres in FRRC016
- Thicker zones for 2 metres to 8 metres of copper mineralisation from 0.2% to 0.79% copper, with copper occurring throughout the deposit.

Figure 3 shows the 3D model of the sulphide intersections at Alpha Copper Deposit from Phase 2 drilling. The Alpha Copper Deposit remains open to the north and east.



Figure 3: 3D Interpretation of Alpha Copper Deposit

Source: CLZ Presentation February 2014

2.3.3 Phase 3 Drilling

Phase 3 drilling, which commenced in late November 2013, was undertaken with the intention of finding higher grade copper values at the Alpha Copper Deposit. The Company's focus during this phase of drilling then changed following the discovery of a new large nickel-copper mineralised zone close to surface at the Mammoth target (previously the A1 target), located three kilometres NE of the Alpha Copper Deposit.



Mammoth has about 15 metres of lateritic cover and the analysis of the first RC drill holes showed nickel and copper sulphides intersections in all seven holes, with mineralisation open along strike and at depth.

Significant results were recorded from subsequent drilling close to surface, from 35 metres to 100 metres, including 2 metres (@ 1.2% copper from 106 metres (FRRC040) and 1 metre (@ 1.4% copper from 42 metres (FRRC039). Highlighting the significant width of the target horizon, the thickest intersection of disseminated sulphides to date is a 23 metres band from 60 metres to 83 metres downhole in hole FRRC041. (See Figure 4)



Figure 4: Cross Section of Mammoth Ni-Cu Target Showing Intersections for FRRC040 & FRRC041

Source: CLZ ASX Announcement 16 December 2013





Source: CLZ ASX Announcement 16 December 2013



A diamond hole drilled adjacent to FRRC039 and close to surface showed visible sulphides. Figure 6 highlights the semi-massive to massive nature of the mixed sulphides of a core 50mm in diameter from FRDC0021 at 42.2 metres.

Figure 6: Core Sample from FRDC0021 (Diamond Drill Hole) Showing nature of mixed sulphides (Source: CLZ ASX Announcement 17 December 2013)



Downhole electromagnetics (DHEM) commenced on a number of RC holes at the Mammoth target in early 2014 to help delineate the extent of the mineralisation 200 metres below surface. In addition, ground electromagnetics was completed in early 2014 to investigate the presence of conductors to a depth of 300 metres around Alpha and Mammoth.

The completion of both the DHEM and the ground EM extended the conductor model at Mammoth and initially identified four new targets in a 3km 'conductive hot zone' between Mammoth and the Alpha Copper Deposit. A further review of geophysical data, including historic aeromagnetic data to the south of the Mammoth target has since doubled the 'target zone' to 6km in length and 2km in width.



2.4 Key Priority Targets in the Conductive Zone – Phase 4 Drilling

CLZ intends to focus exploration at the northern end of the `conductive hot zone', where a number of high-priority targets have been identified.

The Company has recently completed six new holes in order to prove up depth³ and strike extensions to the NE as part of an approved 100-hole for the Mammoth target. In addition, CLZ have applied to drill additional holes along strike to the SW, where there are five priority targets that have been untested.





Source: CLZ ASX Announcement 12 March 2014

Figure 8 shows the VTEM image of the key priority targets emerging from the 6km 'conductive hot zone'. Aside from Mammoth and the Alpha Copper Deposit, the key area of focus include:

³ The six holes show continuity of mineralisation well below 140 metres. For example, FRRC067 recorded a sulphide intersection of 9 metres from 150 metres to 160 metres; FRRC068 recorded a sulphide intersection of 10 metres from 150 metres to 160 metres, FRRC069 recorded a sulphide intersection of 12m from 159 metres to 171 metres and FRRC071 recorded a sulphide intersection of 2 metres from 165 metres to 167 metres.





A17 (400 metres SW of Mammoth) - the A17 conductor is the largest within the target zone between Mammoth and Alpha. The VTEM has highlighted two parallel conductors of approximately 700m in length running through A17.

A21 and A20 - Both are aeromagnetic anomalies. A21 is a 700metre long magnetic anomaly running parallel to the east of A17 and 600 metres along strike, SW from Mammoth. A20 is a 200-metre long magnetic anomaly 200 metres west of Mammoth. Both are considered to be highly prospective given that they are adjacent to Mammoth and A17.

A18, A19 and A22 – A19 is a new conductor identified parallel to the Alpha Copper Deposit and target A18 and in a similar position to Mammoth with the potential for new sulphide mineralisation. Directly south of A19, a further large magnetic anomaly, A22, has been identified.

A new geochemistry program has commenced and a new aeromagnetic survey on a 50-metre line spacing is expected to commence during April 2014. This is expected to be followed by ground EM with the Company expected to begin drilling of all new targets in the June 2014 quarter.



Figure 8: VTEM Image of key priority targets from the 6km 'Conductive Hot Zone'

Source: CLZ ASX Announcement 12 March 2014

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2.5 **Encouraging Drilling Results at Mammoth**

Results from the latest RC drilling program at Mammoth show the continuity of mineralisation along strike and at depth. All six holes from this latest round of drilling continue to intersect sulphides, as illustrated in Figures 9 and 10.

In particular, Mammoth is intersecting nickel-copper mineralisation from the SW line and on every line for 240 metres, with mineralisation plunging to the NE and remaining open to the NE and SW.

Drilling is currently focussed on eight other high-priority targets along the 6km 'conductive hot zone' that have been identified extending SW from the Mammoth target.

Figure 9 (Left): Sulphides (varying from blebby to massive) in 50mm core from FRDH001 at 41.7m downhole showing pyrrhotite (pale grey) and pentlandite (nickel iron sulphide) & chalcopyrite (yellow). Figure 10 (Right): Polished section of sulphide minerals from core hole DRDH001 at 41.6m downhole



Source: CLZ ASX Announcement 25 March 2014



3. ANALYSIS ON PEER ASX-LISTED COMPANIES

Table 2 and Figure 11 provide a comparison of the Enterprise Values (EV) for key ASX-listed players in the Fraser Range Province. For the purposes of the comparison, the list is made up of junior exploration companies and have been selected on the basis that they have active and ongoing exploration programs in place at their respective projects in the Fraser Range Province.

Accordingly, Sirius Resources NL is not included in the analysis, as the company has completed a scoping study and is progressing to a feasibility study for the Nova-Bollinger deposit.

Table 2: Trading and Financial Snapshot of Junior ASX-Listed Exploration Companies Comparable to Classic Minerals Ltd

Company Name	ASX	Mkt Cap	Net Cash	EV
	Code	(\$m)	(\$m)	(\$m)
Sheffield Resources	SFX	83.7	3.4	80.3
Matsa Resources	MAT	30.3	2.5	27.8
Windward Resources	WIN	22.9	7.9	15.0
Buxton Resources	BUX	13.9	2.3	11.6
Classic Minerals	CLZ	11.8	1.8	10.0
Segue Resources	SEG	9.5	0.3	9.2
Orion Gold	ORN	11.2	2.1	9.1
Enterprise Metals	ENT	8.9	1.8	7.1
Boadicea Resources	BOA	7.8	1.5	6.3
Ram Resources	RMR	4.6	0.5	4.1



Figure 11: Enterprise Value Comparisons for Peer Group (Figures in \$m)

Source: Company Financial Statements, Alpha Securities (Figures as at 7 April 2014)



The peer group includes the following junior explorers in the Fraser Range Province:

Enterprise Metals (ASX: ENT)

ENT's Fraser Range Project covers 594km² and is located approximately 100 kilometres east of Norseman and 650 kilometres east of Perth within the Albany-Fraser province. The Project is considered prospective for gold and copper/nickel/PGE mineralisation and is situated some 30 kilometres SW of SIR's Nova nickel-copper discovery.

ENT commenced a 1,500 to 2,000 metres RC drilling program at the Plato prospect in February 2014, where four high-priority targets have been identified. The RC drilling program will then be followed by DHEM to identify massive sulphides. The Plato prospect is interpreted to be an intrusive body similar to that associated with the Nova deposit and SIR's recently announced Crux anomaly.

Orion Gold (ASX: ORN)

In March 2014, ORN received the first results from its 2014 RD drilling program at the Peninsula Project, within its Fraser Range Nickel-Copper Project. Three RC holes at the Peninsula Project intersected wide zones of nickel-copper mineralisation, with the best result being 80 metres at 0.11% nickel and 0.5% copper (including 12 metres at 0.22% nickel and 0.11% copper).

ORN has identified 23 targets for follow up across its Fraser Range Project.

Segue Resources (ASX: SEG)

SEG control exploration licenses totalling 3,538km² in Fraser Range Province, making it one of the largest publicly-listed tenement holders in the Province. The current focus for SEG is the Plumridge Nickel and Gold Projects (2,240km²) in the northern portion of the Fraser Range, as it is highly prospective for Nova-style nickel-copper deposits.

SEG have recently completed a Phase 1 exploration program that included a review of high-resolution aeromagnetic data, with the review identifying 16 eye targets that have a similar magnetic structure to the Nova-Bollinger nickel deposit. According to SEG, the largest eye identified at the Plumridge Project is over 20 kilometres long, with the average size of SEG's eye targets is >5x larger than that of the Nova eye.

Windward Resources (ASX: WIN)

WIN's Fraser Range north Project - located 8 kilometres north of SIR's Buningonia prospect and 60 kilometres NE of the nova-Bollinger deposits – contains multiple intrusive features and potential strike extension of CLZ's Mammoth target.

WIN have commenced a 15,000-metre aircore drilling program, of which 3,900 metres has been completed. To date, drilling has identified a new 1 kilometre bedrock nickel trend at the Buningonia north Prospect that has returned numerous assays of >0.2% nickel, with up to 1.1-metre intercepts. Follow up ground geophysics have been planned.



4. COWARNA ROCKS HEMATITE PROJECT

4.1 Overview

The Cowarna Rocks Project comprises one exploration license (E28/2238) covering 94km² and is located 75 kilometres east of Kalgoorlie, north of the multi-user Trans Australia railway line, which leads west to Kalgoorlie, then joins a line leading south to the Port of Esperance, which already exports hematite.

The project is prospective for detrital hematite, similar to a large 136Mt alluvial deposit 5kms to the west, as illustrated in Figure 12. That deposit contains 15% hematite granules at grade 58% Fe when concentrated.





Soil

Basalt

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4.2 **Prior Exploration**

Surface geochemical methods in the area are considered to be reasonably effective, given the presence of outcropping rocks within the hanging wall of the west-dipping Avoca Fault Zone (AFZ).

The Cowarna area was originally explored for nickel in the 1970s and then base metals (primarily copper and zinc), from the mid-1970s to mid-1980s. Since that time, gold has been the principal commodity explored for in the region. In 1996 the Mt Monger Gold Project (MMGP), acquired a large number of tenements centred on the Cowarna district and embarked on an exploration program over the entire area, including that now covered by E28/2238.

Work carried out by MMGP included acquisition of historical data and images, geological mapping and interpretation, enhancement and interpretation of the airborne magnetic and auger sampling. A number of +50ppb gold anomalies were defined, however aircore drilling of the anomalies failed to return significant intersections.

In late 1999, MMGP entered into a joint venture with north Mining Ltd to further advance exploration at Cowarna North drilled a total of 15 RC holes beneath the better gold in soil anomalies and concluded that the surface gold anomalies were best explained by local gold enrichment within favourable regolith types (i.e. laterite).

In 2000, Croesus Mining NL took over the obligations of the joint venture. While RAB drilling was completed on a number of targets, Croesus failed to return any significant gold intersections, although a number of interesting nickel results were returned from tenements located to the west of the E28/2238 tenement. No further work was recommended and no documented work has been completed over the E28/2238 tenement.

4.3 Planned Exploration

CLZ has commenced work to determine the amount of detrital iron ore occurring in the valley. Mapping undertaken in the September 2013 quarter indicated extensive alluvial hematite in the Cowarna Creek valley, with the hematite extending 3.4 kilometres up to the northern boundary of the tenement and is up to 700 metres wide. The depth of the hematite is unknown.

CLZ have planned a 110 aircore hole drilling program, with east-west lines 200 metres apart, with holes 100 metres apart along lines to investigate the extent and thickness of the hematite. A work program has been submitted to the DMP, with drilling to commence once approval is received.



5. DOHERTY'S GOLD PROJECT

5.1 Overview

The Doherty's Project (M57/619) consists of three groups of historical mine working (Doherty's, Old Camp and south Shear mines) and is located at the southern end of the Barrambie Greenstone Belt, approximately 65 kilometres north of Sandstone and 600 kilometres NW of Perth in the east Murchison Mineral Field. Access is by way of the Sandstone-Meekatharra main road, and then about five kilometres east along a graded track to the Doherty's Mine Site.

The Barrambie Belt is a NW trending belt in the east Murchison and has a history of high-grade gold production, having produced around 27,339 oz gold for 34,233t of ore (24.8 g/t).

5.2 **Prior Exploration**

Previous exploration and underground mine developments at the Doherty's workings have identified high grade gold mineralisation in a folded quartz vein, including a horizontal distance of 51 metres along a drive at 100 metres depth. In April 2005, a deposit continuation at depth for Doherty's of 26,700t @ 23.8 g/t gold was estimated by consultants Geological Investigations P/L^4 .

The gold is in a north plunging anticline, and the deposit is not closed off to the north. Gold grades commonly exceed 20g/t and the best intersection is 2m @ 81g/t. A shaft to a depth of 100 metres was excavated, and provides access to the 60M and 100-metre deep drives. The shaft needs refurbishing to allow renewed access and mining.

Since the first discovery of gold mineralisation in 1905, historical mining has been undertaken at four locations along the belt, and the recorded production from these locations totalled 27,339 oz of gold from 34,233t at an average grade of 24.8g/t gold. Table 3 details historical gold production from the Barrambie region.

Location	Tonnes	Gold (oz)	Grade (g/t)	Period
Doherty's	2,292	1,872	25.4	1955 - 1985
Barrambie	16,530	15,390	29.0	1907 - 1966
Sugarstone	5,270	3,880	22.9	1908 - 1913
Erroll's	10,141	6,197	19.0	1906 - 1919
TOTAL	34.233	27.339	24.8	

Table 3: Recorded Gold Production at Barrambie Region (Source: CLZ)

Work carried out by Samson Exploration NL within the project area between 1986 and 1990 (which included aerial photography, gridding, soil and rock chip sampling and mapping was followed by RAB, RC and diamond drilling as well as underground mapping. The RAB drilling program identified anomalous gold values in a number of locations west of the known gold workings, which warrant further investigation.

A program of diamond drilling comprising 12 holes was completed at Doherty's Mine Workings to test the down plunge continuation of the

⁴ This estimate is not considered JORC compliant, as a revised 2012 JORC compliant resource estimate has not been made. Additional diamond drilling in the resource area to accompany data compilation will allow a revised JORC compliant estimate to be made.



gold-bearing lode. Reverse circulation drilling completed by the previous owners (Golden West Resources) during January 2008 defined further anomalous gold intercepts confirming and extending the mineralised structure down dip.

In 2010, CLZ drilled four RC drill holes for a total of 374 metres, ranging on depth from 85 to 95 metres and were targeted at known gold mineralisation at the northern end of the tenement, adjacent to the Scheelite North Doherty's gold occurrence.

Samples were submitted as 5-metre composites for analysis with two intersections returned. DRC07 returned 5m @ 7.08 g/t gold from 60-65 metres and DRC08 returned 5m @ 3.64 g/t gold from 60-65 metres.

Soil geochemistry, localised mapping and rock chip sampling were undertaken by CLZ in 2013, and located several soil anomalies which require follow up sampling.

An analysis by CLZ of historical data showed that accurate collar and downhole surveys had not been undertaken on all RC holes, some of which intersected the high-grade gold-bearing quartz vein.

Accordingly, the Company had these holes accurately downhole directional surveyed in the $1^{\rm st}$ quarter of calendar 2014 in order to plan additional drilling.

5.3 Planned Exploration

CLZ believes that the potential in the area is the down plunge potential of the main gold mineralised anticline structure. Further drilling (deeper diamond core) of these targets should extend the known gold mineralisation, followed by a resource estimation and economic analysis in order to advance the project.

A geophysical interpretation located six targets within the tenement and geochemistry is planned to validate these targets, followed by RC drilling to test them.

CLZ also plan to undertake a new accurate survey of all old hole collars and a topographic survey in the immediate area of the old workings at Doherty underground gold mine, to facilitate planning of new holes.



6. MT MAITLAND URANIUM PROJECT

6.1 Overview

The Mt Maitland Project is located around 800 kilometres North of Perth and 100 kilometres NW of Meekatharra and west of Yeelirrie in the Murchison Mineral Field. Both tenements combined comprise an area of >200km². In the adjacent tenements to the east of the project area, carnotite uranium mineralisation in calcrete was defined by Western Mining Corporation in the 1970s.

Access to the project site from Meekatharra is by way of the Meekatharra-Mt Augustus main road that passes through the centre of the area from south to north.

6.2 **Regional Geology and Prior Exploration**

The regional geological setting of the Mt Maitland Prospect area compromises the western contact zone between the Mt Maitland Greenstone Belt with the Palaeoproterozic Bryah Group rock sequence to the west.

Regional exploration for gold was undertaken within the prospect area that is centred on the historic Mt Maitland North workings hosted by laminated quartz veins within deformed BIF. A surface geochemical program outlined several narrow, discontinuous gold anomalies exhibiting sporadic gold distribution that occurs at the northern extremity of the Yilgarn Craton.

Drill targets were defined after further soil and stream sediment sampling, however follow-up RAB drilling failed to return any significant results. A neighbouring tenement to the east has recently reported anomalous uranium grades of up to 2400 ppm U in pits dug into calcrete within the eastern extension of the same valley.

Part of the current tenement was part of the Narryer-Mount Gould diamond project explored by Astro Mining NL. Exploration completed during 1998-99 comprised a data review including interpretation of geophysical data, aerial photographs and reconnaissance and geological mapping.

Stream sediment sampling for diamond indicator minerals was undertaken but rock samples and heavy mineral concentrates returned negative results so the tenements were surrendered. Little work has been undertaken since this time.

A neighbouring tenement to the east has recently reported anomalous uranium grades of up to 2400 ppm U in pits dug into calcrete within the eastern extension of the same valley, with visible yellow carnotite. This area drains west into a broad valley within the CLZ tenements, which are also likely to have uranium values within the calcrete.



6.3 Planned Exploration

The project has large areas of calcrete exposed or under shallow cover in shallow valleys likely to contain uranium. Accordingly, CLZ's exploration activities for the project is targeting a Yeelirrie type, valley calcrete uranium deposit, which in other areas of the Murchison (Yeerlirrie) have developed within intermittently active flowing tributaries and ancient Palaeo-channels of the Murchison and Talga River systems that overlie deeply eroded late "hot" radiometric Archean granitic intrusive rocks.

CLZ had planned a 197-hole aircore drilling program across the calcrete area of the valley in order to test for uranium minerals. These planned holes were on north-south lines two kilometres apart with holes 400 metres apart across the whole valley.

The Company has largely completed the approvals required prior to the drilling commencing, with the remaining requirement being the expensive Aboriginal Heritage Survey, which was planned to be completed in the first half of calendar 2014 prior to submitting a program of work the Department of Mines and Petroleum (DMP).

However, after reviewing the onerous exploration and mining regulations for uranium minerals, should a deposit be found, the Company decided that it had better opportunities at Fraser Range to maximise shareholder value, and both exploration licenses have been relinquished.



7. BOARD OF DIRECTORS

DIRECTOR	BACKGROUND
Justin Doutch Managing Director <u>Interest in CLZ:</u> 2.0m ordinary shares	Mr Doutch has served in the resource industry of WA for the past 15 years, where he has gained extensive experience in areas of drilling, mineral exploration and project financing. He has a background in the establishment, development and operation of a successful business, having formerly owned and operated a Goldfields engineering company.
<i>Listed options</i> (<i>ASX: CLZO</i>): 0.5m @ 20c exp 30/6/2015	More recently, Mr Doutch has been serving as a Non-Executive Director of Ironstone Resources Ltd, actively involved in the exploration and acquisition of a diverse range of tenements in WA. Further, Mr Doutch is a Non-Executive Director in Patron Commodity Partners specialising in marketing and sales of iron ore in the international marketplace.
Stanislaw Procak Non Executive Director Interest in CLZ: 1.65m ordinary shares Listed options: (ASX: CLZO): 0.825m @ 20c exp 30/6/2015	Mr Procak is an experienced manager with over 35 years' of mining experience particularly in WA. His specific area of experience comprises the coordinating of the complete set-up for mining projects from grass roots including staffing, operating budgets, financial management, mining techniques and methods and staff motivation to attain significant project milestones including throughput and grades. Immediately prior to joining Classic Minerals Ltd, Mr Procak was project manager at Golden West Resources Ltd and prior to that General Manager Operations with Mawson West Ltd. Mr Procak's experience includes employment in senior positions at Telfer Gold Mine, Big Bell Gold Mine, Golden Grove Polymetalic Mine and Kambalda Nickel Operations.
Kent Hunter Non Executive Director & Company Secretary Interest in CLZ: 1.3m ordinary shares	Mr Hunter is a chartered accountant with over 22 years corporate and company secretarial experience. He has experience in capital raisings, ASX compliance and regulatory requirements and is currently a director of ASX- listed companies Cazaly Resources Ltd, Carbon Conscious Ltd, Western Manganese Ltd, Krakatoa Resources Ltd and Stratum Metals Ltd.



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