Hartleys

BUXTON RESOURCES LIMITED (BUX)
Fraser Range Drilling to Commence Early CY2014

Buxton Resources recently completed ground-based electromagnetic (EM) surveys over previously identified airborne VTEM conductors at its wholly-owned Zanthus nickel-copper project in the Fraser Range, WA.

The interpretation of the detailed EM surveys has led to the identification of 4 high-priority and 6 medium-priority targets, which are planned to be tested by a RC drill program early in the New Year; likely mid-late January on current timing.

10 Priority Conductors Confirmed for Drilling

The Zanthus Project contains all of the key indicators for the potential occurrence of nickel-copper magmatic sulphide mineralisation, with interpreted intrusive bodies, confirmed mafic rocks, and importantly priority geophysical targets some of which have anomalous surface geochemistry.

Recent exploration activities involved the investigation of the 20 VTEM conductors through a combination of ground EM surveys and detailed soil sampling. Four high-priority and 6 medium-priority targets have been confirmed by this work.

The most compelling drill-target is anomaly ZV16 which is defined by a strong steeply dipping conductor (conductance of ~1000 S) with dimensions of 280m in strike length, extending ~300m in depth from ~90m below surface. The conductor is also coincident with anomalous surface nickel geochemistry of up to 50ppm Ni and is located on the margins of a gravity-high within an interpreted intrusion. Other high priority conductors include: ZV02 which has been modelled as a sub-horizontal target ~100m below surface with a corresponding conductance of ~800 S, positioned in-between two intrusive bodies; ZV07 and ZV07 North represent high to moderate strength irregular conductors located on the margin of two gravity highs. Six medium-priority targets will also be tested in the next phase of exploration.

Work Program Approved for 3,000m of RC

Buxton has completed heritage clearance and is now awaiting the program of work approval for the initial ~3,000m drill program to commence. At this stage drilling is set to begin in early Q1 CY2014 and as a first pass, single drill-holes are proposed to test each target, with additional holes dependent on the rocks and potential mineralisation encountered. In addition, recently completed calcrete geochemical sampling has defined a number of new surface nickel, copper and gold anomalies which will be further investigated.

Fraser Range Exploration Heating Up

We remain of the opinion that Buxton has highly prospective ground within one of Australia’s hottest exploration destinations (Fraser Range), priority drill-targets and the technical expertise that could translate to discovery success. The Company’s current cash position of $3.1m covers all planned exploration activity through to mid-2014.

Greenfield nickel exploration is high risk, but with a tight capital structure, low market capitalisation of ~$11m (EV of ~$7.5m), and if exploration potential is realised, then we would expect significant share price appreciation. With drilling to commence early in the New Year, we maintain our Speculative Buy recommendation.

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### Key Market Information

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<th>Share Price</th>
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<tr>
<td>Market Capitalisation</td>
<td>$11m</td>
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<tr>
<td>Net Debt (cash)</td>
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<tr>
<td>Issued Capital</td>
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<td>Issued Capital (fully diluted ITM options)</td>
<td>55.0m</td>
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<tr>
<td>Options</td>
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<td>12Mth Price Target</td>
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### Projects

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<tr>
<td>Ni, Cu</td>
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</tr>
<tr>
<td>Graphite</td>
<td>WA</td>
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<tr>
<td>Au, Ni</td>
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<td>TGC</td>
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### Investment Summary

Actively exploring in the Fraser Range WA

Multiple drill-ready targets providing strong newsflow and potential for discovery. A long portfolio of opportunities.

### Newsflow

- **Q4 CY13** - Completed sampling/ground EM
- **Q4 CY13** - RC drilling (~1,670m) of graphite targets
- **Q1 CY14** - Target drill-testing and more sampling
- **Q1 CY14** - Infill calcrete sampling
- **Q1 CY14** - Drill results become available

### P&L

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<tr>
<th>FY2013F</th>
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### Unpaid Capital

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### Comments

Early stage exploration company with no production assets, ongoing funding will be required. Leveraged to exploration success/improved market sentiment.

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**Summary Page**

**Buxton Resources Limited**

**Key Market Information**

- **Share Price**: $0.195
- **Market Capitalisation**: $11m
- **Net Debt (cash)**: -$3.1m
- **Issued Capital**: 54.5m
- **Issued Capital (fully diluted ITM options)**: 55.0m
- **Options**: 15.28m @ A$0.42
- **Issued Capital (fully diluted all options)**: 69.8m
- **EV**: $7.5m
- **Valuation**: N/A
- **12Mth Price Target**: N/A

**Directors**

- **Seamus Cornelius (NE Chair)**
- **Anthony Maslin (MD)**
- **Julian Stephens (NED)**
- **Liu Xing Zhou (NED)**
- **Stuart Fogarty (NED)**

**Top Shareholders**

- **National Business Holdings (VU) Ltd**: 8.67m, 15.9%
- **Montezuma Mining Company**: 2.37m, 4.4%
- **Directors & Management**: 2.20m, 4.0%

**Projects**

- **Zanthus**: 100% WA Ni, Cu, Fe
- **Widowmaker**: 100% WA Ni, Cu
- **Yalbra**: 85% WA Graphite
- **Dempster**: 90% WA Au, Ni
- **Northampton**: 100% WA Base Metals

**Base Metals**

- No JORC resources

**Iron Ore - Magnetite**

- **Inferred**: 103.6 26.5% Fe 100%

**Graphite**

- **Expl Target**: 8-12 7-11% TGC 85%

**P&L**

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**Comments**

Early stage exploration company with no production assets, ongoing funding will be required. Leveraged to exploration success/improved market sentiment.

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**Sources**: IRESS, Company Information, Hartleys Research
Zanthus Drilling in Mid-Late January 2014

The Zanthus Project is located within the Fraser Range Complex of the Albany-Fraser Mobile Belt of WA, some 30km north-east (along strike) of the Company’s Widowmaker Project. The project area is considered prospective for nickel-copper sulphide mineralisation. The Company is taking a systematic exploration approach.

**Fig. 1: Zanthus Project Location**

A technical review of available data (open file geological, geochemical information and available geophysical datasets) identified a suite of rocks that are similar to the sequence that host the Nova-Bollinger deposits some 60kms to the south-west. The work also identified possible intrusive bodies which suggest potential for multiple magma pulses (heat sources) for possible mineralising events.

In early August 2013, Buxton commissioned a helicopter electromagnetic (VTEM) survey over 40% (145km$^2$) of the project area at a 250m flight line spacing. The area surveyed concentrated on areas of possible mafic-ultramafic intrusive bodies identified in the gravity survey.

A total of 20 anomalies were identified to be possible bedrock conductors from the VTEM survey and ground-based EM follow-up verifying 10 priority targets. Some of the more compelling high-priority VTEM targets include:

- **ZV16:** The most compelling drill-target defined by a strong steeply dipping conductor (conductance of ~1000 S) with dimensions of 280m in strike length,
extending ~300m in depth from ~90m below surface. The conductor is also coincident with anomalous surface nickel geochemistry of up to 50ppm Ni and is located on the margins of a gravity-high within an interpreted intrusion.

- **ZV02**: has been modelled as a sub-horizontal target ~100m below surface with a corresponding conductance of ~800 S, positioned in-between two intrusive bodies.
- **ZV07 and ZV07 North**: represent high to moderate strength irregular conductors located on the margin of two gravity highs.
- Six medium-priority targets will also be tested in the next phase of exploration.

![Image: Priority EM Targets within interpreted intrusive bodies](source: Buxton Resources Limited)

On the current timing, pending mines department program of work (PoW), Buxton expects to be testing the best anomalies with drilling in Q1 CY2014, likely mid-late January 2014.
New Strong Geochem Anomaly at Widowmaker

Buxton’s Widowmaker Project is located ~22km along strike from SIR’s Nova-Bollinger nickel-copper discoveries in the Fraser Range Province.

Previous exploration over the project has involved airborne VTEM and ground-based EM surveys and the drill-testing of 8 conductive features. Unfortunately all 8 targets (conductors) tested were explained by either pyrite (iron sulphide) or graphite, or both. Minor chalcopyrite (copper sulphide) was encountered in two of the holes, but this mineralisation was deemed to be uneconomic.

Recent exploration, following a detailed review of results involved a calcrete sampling program to further investigate a strong geochemical (Ni, Cu, Co, Cu and As) anomaly located along an apparent regional shear zone. The anomaly has dimensions of ~3km with a central core ~700m long. Peak results at the main calcrete anomaly were: 143ppm Ni, 115ppm Cu, 25ppm Co, 1,130 ppm Cr & 137ppm As.

Further infill sampling and aircore drilling is expected to be the next steps, with the low-impact exploration expected to commence in early 2014.

Fig. 3: Main Calcrete Anomaly at Widowmaker

Source: Buxton Resources Limited
Dempster Generating Interest

Buxton’s Dempster project area is located ~90km north-northeast of Esperance and ~60 km west of the Kalgoorlie-Esperance highway and covers over 1,365km$^2$ within the Albany-Fraser Fold Belt. The ground is considered prospective for magmatic nickel-copper and gold mineralisation.

Previous historical exploration over the area has confirmed presence of mafic-ultramafic rocks (gabbros and dunites) and defined two surface nickel anomalies. One of these prospects (“Prickle”) returned peak geochemical results of up to 0.25% Ni and 348ppm Cu in a bottom-of-hole RAB sample.

We note that AusQuest Limited (AQD) has defined a number of high-quality EM targets immediately along strike and next to Buxton’s tenement holdings. AusQuest plan to drill-test four of these targets in the coming weeks and if encouraging rocks/mineralisation is encountered then Buxton’s ground will be upgraded. Exploration in this area is expected to ramp up in 2014.

**Fig. 4: Dempster Land Position, Albany-Fraser, WA**

Source: Buxton Resources Limited
Risks
Key risks for Buxton include making an economic discovery and obtaining funding for ongoing exploration. Weather, land access, drill rig availability, retaining key people are all risks.

**Fig. 5: Key Risks**

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Risk of not realising assumption</th>
<th>Downside risk to shareprice if assumption is incorrect</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Funding for ongoing exploration</td>
<td>Med</td>
<td>Med-High</td>
<td>We estimate BUX has a current cash position ~$3.4m. The Company has a number of options to raise additional funds for future exploration, including new equity issuances and potential new joint venture deals. The Company operates under a lean corporate structure (low cost base). The Company is fully funded for planned current exploration.</td>
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<td>Discovery Success</td>
<td>Med</td>
<td>Low-Med</td>
<td>Though the Company has some good drill targets this does not guarantee success. BUX’s management team has a high level of technical expertise and has conducted detailed exploration in preparation for the testing of drill targets, which does provide some level of comfort in the program(s) ahead.</td>
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<tr>
<td>Commodity Prices</td>
<td>Med</td>
<td>Med-High</td>
<td>The projects remain highly sensitive to commodity price movements and sentiment. Current exploration focus is nickel, copper and gold.</td>
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**Conclusion**
At this stage we consider the assumptions have a low to high risk of not being achieved. At this stage we have no valuation for BUX, but the Company's extensive project portfolio with high prospectivity and low current market cap, implies the Company is undervalued.

Source: Hartleys Research
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Buy  Share price appreciation anticipated.
Accumulate  Share price appreciation anticipated but the risk/reward is not as attractive as a “Buy”. Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a “Buy”.
Neutral  Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits  It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell  Significant price depreciation anticipated.
No Rating  No recommendation.
Speculative Buy  Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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