

# Quarterly Report

for the period ended 30 September 2009



## Highlights

### *Further encouragement from gold exploration at Mount Windsor Project:*

- 45 strong gold targets located from new geological interpretation and exploration targeting exercise within Liontown's extensive tenement package
- Geological mapping and geochemical sampling programmes completed over the most promising gold targets, which lie within the prolific Charters Towers gold field
- Geochemical signatures indicative of possible vertically zoned epithermal-style gold systems (e.g., Vera Nancy, Pajingo) identified at Mt Redan
- Further intrusive-related, breccia-style targets identified from airborne geophysical data and field checking
- Ground position consolidated with new tenement applications lodged

### 1.0 Mount Windsor Volcanics Project (Liontown 100%)

*The Mount Windsor Volcanics Project comprises an extensive tenement package located in the prolific Charters Towers gold field of North Queensland which has yielded over 15 million ounces of gold to date from world-class mines such as Charters Towers (+6Moz), Kidston (+4Moz), Pajingo (+3Moz), Ravenswood (+2Moz) and Mt Leyshon (2.7Moz). The Project also includes the Liontown base metal deposit, located near Kagara Limited's Waterloo and Thalanga Projects.*

Exploration on the Mount Windsor Volcanics Project ("MWV Project") during the Quarter again focused on the gold potential of the area yielding further encouraging results.

The geological interpretation and exploration targeting exercise by the Company's consultant was expanded eastwards from previous coverage, leading to new EPM applications.

This interpretation uses new regional aeromagnetic and radiometric data to identify potential gold-bearing Carbo-Permian breccia, intrusive or epithermal systems.

Twenty six targets have now been defined within the Company's granted tenements and uncontested applications have been lodged over a further 19 targets. Field checking and grid-based geological mapping and geochemical sampling have been conducted on the most promising targets within our granted tenements.

These included G-3 (Sunset), G-5, G-12 (The Donut), G-14, G-20 (Mosquito Hill), G-22a (Mt Redan), G-38 and G-45. These targets were selected for priority follow-up because they are located in areas

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of outcrop or shallow cover and are therefore accessible to traditional surface exploration techniques.

Results from work conducted during the Quarter have provided significant encouragement that several of these targets may represent the tops of vertically zoned gold systems:

1. **Target G-22A (Mt Redan)** - soil sampling has outlined an extensive strongly arsenic-antimony-mercury anomalous zone approximately 1.5 x 1.7 km in area. Rock chips from silicified breccias confirm the anomaly, with assays up to 3,890 ppm arsenic and 443 ppm antimony associated with mercury up to 13 ppm. This form of alteration and the levels of path-finder anomalism are consistent with the top of a low-sulphidation epithermal system, with the gold zone, if developed, located several hundred metres below the current surface (as at the Vera Nancy deposit at Pajingo). The results indicate that further in-fill and step-out sampling is strongly warranted, prior to conducting Induced Polarisation (IP) geophysics to guide deep drilling.
2. **Target G-14** - results from soil sampling suggest there is a gold-copper-lead-antimony-bismuth-molybdenum-tungsten-tellurium anomaly possibly related to a sheeted quartz vein system hosted by granitic rocks, and a separate silver-lead-bismuth soil anomaly associated with a breccia pipe. Rock chip samples from ferruginous stockworks within this breccia returned assays to 5.92 g/t silver, 1.9% lead, 376 ppm arsenic and 31 ppm antimony. Further work is warranted, including mineral spectral analysis to investigate hydrothermal alteration zoning patterns, followed by IP surveys and drilling.
3. **Target G-20 (Mosquito Hill)** - soil sampling at this target was designed to search for evidence of distal alteration above a blind breccia system as illustrated in Figure 1. Results suggest that there is a coincident weak arsenic-antimony-silver-tin-bismuth-molybdenum-barium signature with a lithium-manganese halo, and partially developed outer barium-copper-zinc-gold anomaly. The data is consistent with a magmatic source of hydrothermal fluids at depth, and follow up work is warranted, including IP and deep drilling.
4. **Target G-3 (Sunset)** - sampling to date has outlined a molybdenum-rich core to a felsic porphyry. This is surrounded by a zone of silver-copper-lead-zinc-bismuth-molybdenum-tellurium anomalism associated with fresh pyrite in silicified andesite over an extensive area surrounding the porphyry. Other arsenic-bismuth-tellurium-tin-indium-thallium anomalous areas lie along the southern margin of the porphyry. While the geochemical signature suggests that the core of the porphyry is too deep for breccia-hosted gold mineralisation, there is potential for gold mineralisation to be developed in zones outward from the porphyry. Further work is warranted to confirm the existence of this zonation model.

Additional first-pass reconnaissance sampling has also been undertaken on Targets G-11, 12, 15, 35, 36, 46, 52, 54, 55 and 56. This work is part of a program designed to complete reconnaissance work over the bulk of the targets in outcrop, either in granted tenements or in application. Two exciting prospects are emerging from this work:

**Target G-56 (Scartwater)** - comprising a large circular topographic and magnetic feature, approximately 6.5km across, formed from a series of shallow in-ward dipping sediments and felsic flows and/or conformable intrusives (the Scartwater Formation), interpreted to be

some form of Carbo-Permian caldera infill. A series of gold and base metal anomalies are located around the rim of the complex, including the Native Bee anomaly on the southern edge, within LTR tenements. This is a similar geological environment to Conquest Mining's Mt Carlton project, some 90 km to the east.

**Target G-11** - where a series of late quartz-sulphide or quartz breccia veins are developed within a large area of strong silicification developed on the edge of a large magnetic low, and straddling the contact between Seventy Mile Range Group and granites. The rock chip sample results include 162 g/t silver and 2.0 g/t gold associated with highly anomalous arsenic, antimony, mercury, tellurium and very high bismuth (to 481 ppm). Further reconnaissance work is planned, plus grid sampling once the tenement is granted.

Numerous other targets beneath later cover such as the Campaspe Formation remain to be tested but will require ground geophysics and drilling.

## 2.0 Fort Constantine South (Liontown 100%)

In April 2008 Liontown entered into an option agreement with Exco, whereby Exco has the right to earn up to a 70% interest in the project by spending \$3.2 million over 4.5 years. Exco has announced it intends to drill test a number of prospective geophysical anomalies during the next Quarter as part of its ongoing exploration program.

## 3.0 Sheep Mountain Copper-Molybdenum Project (Liontown option to acquire 100%)

*Sheep Mountain is a large-scale copper-molybdenum project located in Arizona, USA.*

The Company continues to examine various options to advance its Sheep Mountain Project, including bringing in a partner to fund a major drilling programme.

As previously announced, Sheep Mountain contains an Inferred Resource of 40,300,000 tonnes at an average copper grade of 1.4% and an average molybdenum grade of 0.035% above a cut-off grade of 0.8% copper equivalent (equating to approximately 1.2 billion lb of copper and 31 million lb of molybdenum).

## 4.0 Corporate

Please refer to the attached Form 5B for details of cash flow for the Quarter ended 30 September 2009.



Dr Douglas A Jones  
Managing Director

October 23, 2009 The information in this report that relates to Exploration Results is based on information compiled by Dr Douglas A Jones, a full-time employee and Director of Liontown Resources Limited, who is a Member of the Australian Institute of Mining and Metallurgy and is a Chartered Professional Geologist. Dr Jones has sufficient experience in the field of activity being reported to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.

The resource estimation quoted herein for the Sheep Mountain Project has been carried out by Denver, Colorado based Geological Consultant, William F Tanaka. Mr Tanaka is a Member of the Australasian Institute of Mining and Metallurgy and has extensive experience in the area of porphyry copper deposits from both a consulting and operational perspective. As such he is qualified to be considered a Competent Person as defined in the December 2004 edition of the JORC Code. Mr Tanaka consents to the release of the information in the form and context in which it appears here.

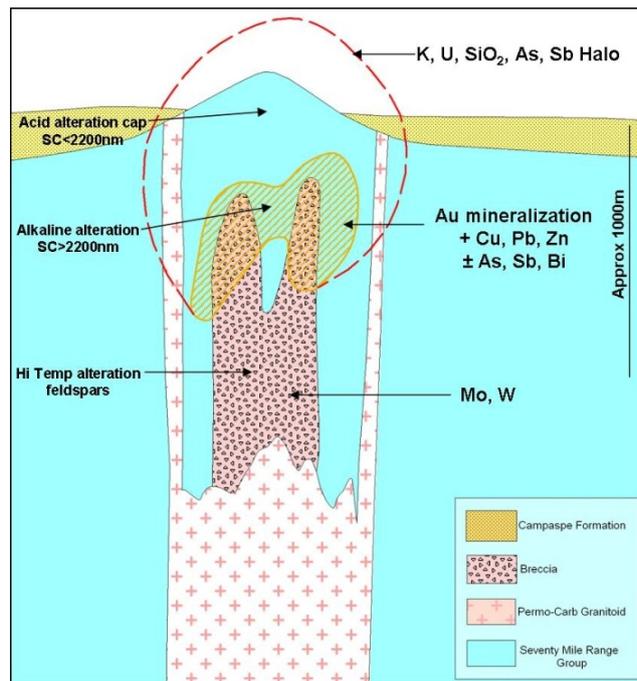


Figure 1: Schematic showing vertical zonation through a breccia-hosted gold deposit, based on the Mosquito Hill Prospect.

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

LIONTOWN RESOURCES LIMITED

ABN

39 118 153 825

Quarter ended ("current quarter")

30 SEPTEMBER 2009

### Consolidated statement of cash flows

	Current quarter \$A	Year to date (3 months) \$A
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration and evaluation	(369,683)	(369,683)
(b) development	-	-
(c) production	-	-
(d) administration	(90,227)	(90,227)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	5,863	5,863
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other – Goods and Services Tax (net)	(12,461)	(12,461)
<b>Net Operating Cash Flows</b>	<b>(446,508)</b>	<b>(446,508)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a)prospects	-	-
(b)equity investments	-	-
(c)other fixed assets	(505)	(505)
1.9 Proceeds from sale of: (a)prospects	-	-
(b)equity investments	-	-
(c)other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
<b>Net investing cash flows</b>	<b>(505)</b>	<b>(505)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(467,013)</b>	<b>(467,013)</b>

+ See chapter 19 for defined terms.

<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc. (net)	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other	-	-
<b>Net financing cash flows</b>		-	-
<b>Net increase (decrease) in cash held</b>		<b>(467,013)</b>	<b>(467,013)</b>
1.20	Cash at beginning of quarter/year to date	<b>1,019,773</b>	<b>1,019,773</b>
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	<b>552,760</b>	<b>552,760</b>

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A
1.23	Aggregate amount of payments to the parties included in item 1.2	103,128
1.24	Aggregate amount of loans to the parties included in item 1.10	Nil

1.25 Explanation necessary for an understanding of the transactions

Item 1.23 consists of legal fees paid to a director for the provision of legal services (\$10,500), the net salary and superannuation paid to the Managing Director (\$38,312) and service charges paid to a director related entity (Chalice Gold Mines Limited) for the provision of corporate services, office rent and technical personnel (\$54,316). All transactions are on commercial terms and conditions.

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

N/A

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

N/A

**Financing facilities available**

*Add notes as necessary for an understanding of the position.*

		Amount available \$A	Amount used \$A
3.1	Loan facilities	Nil	Nil
3.2	Credit standby arrangements	Nil	Nil

+ See chapter 19 for defined terms.

**Estimated cash outflows for next quarter**

	\$A
4.1 Exploration and evaluation	150,000
4.2 Development	Nil
<b>Total</b>	<b>150,000</b>

**Reconciliation of cash**

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A	Previous quarter \$A
5.1 Cash on hand and at bank	542,349	1,009,457
5.2 Deposits at call	10,411	10,316
5.3 Bank overdraft	-	-
5.4 Other (Bank Guarantee)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>552,760</b>	<b>1,019,773</b>

**Changes in interests in mining tenements**

6.1 Interests in mining tenements relinquished, reduced or lapsed	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
	EPM10601	Surrendered	100%	0%
	EPM18151	Application surrendered	0%	0%
	EPM18154	Application surrendered	0%	0%
	EPM18148	Application surrendered	0%	0%
	EPM18147	Application surrendered	0%	0%

6.2 Interests in mining tenements acquired or increased	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
	EPM18147	Application	0%	0%
	EPM18224	Application	0%	0%
	EPM18235	Application	0%	0%
	EPM18231	Application	0%	0%
	EPM18236	Application	0%	0%
	EPM18233	Application	0%	0%
	EPM18271	Application	0%	0%
	EPM18270	Application	0%	0%
	EPM18269	Application	0%	0%

+ See chapter 19 for defined terms.

**(1) Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference +securities</b> <i>(description)</i>	Nil	Nil	N/A	N/A
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs.	N/A	N/A	N/A	N/A
7.3 <b>+Ordinary securities</b>	187,200,018	187,200,018	N/A	N/A
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital.	Nil	Nil	N/A	N/A
	Nil	Nil	N/A	N/A
7.5 <b>+Convertible debt securities</b> <i>(description)</i>	Nil	Nil	N/A	N/A
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured.	Nil	Nil	N/A	N/A
7.7 <b>Options</b> Share Options	4,825,000	Nil	Exercise price \$0.25	Expiry date 18.12.2009
	1,500,000	Nil	\$0.25	31.12.2009
	250,000	Nil	\$0.35	6.8.2010
	310,000	Nil	\$0.35	1.11.2010
	4,000,000	Nil	\$0.35	1.12.2012
	1,250,000	Nil	\$0.225	14.07.2010
	500,000	Nil	\$0.20	31.07.2013
	3,000,000	Nil	\$0.20	02.12.2013
7.8 Issued during quarter  Share Options	Nil	Nil	N/A	N/A
7.9 Exercised during quarter	Nil	Nil	N/A	N/A
7.10 Expired/Forfeited during quarter	Nil	Nil	N/A	N/A
7.11 <b>Debentures</b> <i>(totals only)</i>	Nil	Nil		
7.12 <b>Unsecured notes</b> <i>(totals only)</i>	Nil	Nil		

+ See chapter 19 for defined terms.

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act.
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here:   
Company Secretary

Date: 27 October 2009

Print name: Richard Hacker

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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