



**AZURE**  
MINERALS LIMITED



# ACTIVITIES REPORT

For the period ended 31 December 2010

Azure Minerals Ltd is an Australian mineral exploration company focused on developing mining projects in Mexico. The Company operates in the richly mineralised Sierra Madre Occidental mining province in northern and central Mexico.

Azure currently holds 100%-ownership of 12 projects covering an impressive area of 1,080 km<sup>2</sup> in the northern Mexican states of Sonora and Chihuahua.

The Company is committed to value-added growth by becoming an independent minerals producer at its high grade Promontorio copper-gold-silver project in Chihuahua, Mexico.

Promontorio has a JORC resource of 502Kt @ 4.7% Cu, 2.1g/t Au & 99g/t Ag. Metallurgical test work produced excellent metal recoveries into a high grade copper-gold-silver concentrate.

Evaluation of the project economic potential shows the project could be developed and operated at a profit, with a significant positive margin over operating costs. The deposit also shows a noticeable trend of increasing grade with depth.

To accelerate exploration and bring forward potential value-adding activities, Azure has entered into joint venture exploration for large porphyry copper deposits on the La Tortuga project (in JV with JOGMEC) and on the San Eduardo project (in JV with OZ Minerals Ltd). Initial results are encouraging and work is ongoing.

The Board of Azure Minerals Limited (ASX: AZS, "Azure") is pleased to provide the Quarterly Report for the period ended 31 December 2010.

## HIGHLIGHTS

- Azure enters agreement to purchase the San Francisco high grade manganese deposit in Jalisco, Mexico.
- Environmental Impact Statement for drilling campaign at Promontorio completed and submitted to the Federal Ministry of Environment and Natural Resources.
- Exploration continuing on the San Eduardo Project, where joint venture partner OZ Minerals may earn a 70% interest by sole-funding US\$13 million over 8 years. Drilling to be undertaken in Q1 2011.
- New zones of silver and base metal mineralisation identified on the El Tecolote Project.
- Soil geochemical sampling at Estacion Llano identifies gold anomalism along strike from operating San Francisco Gold Mine.
- Azure continues to evaluate further project opportunities in Mexico.

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## PROJECTS

### SAN FRANCISCO

During the Quarter Azure entered into an agreement to purchase 100% ownership of the San Francisco Manganese Mine and surrounding exploration areas, located in the state of Jalisco, Mexico.

San Francisco is a high grade manganese deposit containing a non-JORC compliant Foreign Resource Estimate (refer ASX Announcement 2 December 2010). It has recent production history, excellent location close to existing transport and port infrastructure, and requires minimal work to restart production.

The San Francisco deposit is an extensive flat-lying layer of high grade manganese oxide with very low impurities. It forms the western extension of the original Autlan Manganese Mine which produced approximately 4 million tonnes of manganese ore at an average grade of 38% Mn, before closing in the mid-1960's due to low metals prices at that time.

Extensive underground mine development comprising more than 4,000 metres of horizontal ore drives was prepared in anticipation of mining in the area which now forms the San Francisco deposit, however operations ceased before this area was mined. Recent detailed channel sampling throughout this mine development has confirmed continuous mineralisation over an area of at least 250,000m<sup>2</sup>.

After lying dormant for 40 years, a small scale mining operation was undertaken by the current owners in 2008 and 2009, with a total of 7,524 tonnes grading 44.6% Mn mined and shipped to China. This is, in effect, a bulk sample from within the San Francisco deposit, thereby confirming the quality of the ore.

Visible manganese mineralisation in artisanal mine workings and in outcrop is present throughout the 1,610 hectare project area, indicating considerable scope to expand the current mineral resources through further exploration. An assessment of this exploration potential has been completed and, based on the geological setting, the ore deposit remaining open in all directions, and the area of tenure held, has estimated a target of a further **3.2 – 5.8 million tonnes at a grade of 35 – 42% Mn<sup>1</sup>**.

The San Francisco Project is ideally situated only 7km from the city of Autlan de Navarro, which has a population of 45,000, with extensive mining and industrial infrastructure located within the district. Autlan is approximately 3 hours drive on Mexican National Highway #80 from the modern deep water port of Manzanillo to the south.

Manzanillo is located on the Pacific coast, is Mexico's largest container port, and has ship loading facilities for bulk mineral commodities with iron ore currently a major export. Spare capacity is available at the port for loading both bulk commodity and containerised cargoes.

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<sup>1</sup> The potential quantity and grade of the target is conceptual in nature, and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



Azure has appointed Mr Gary Leighton as Project Manager to lead the development of the San Francisco Project. Mr Leighton, a graduate of the Colorado School of Mines in the United States, is a highly experienced Mining Engineer with an extensive career in the successful development, construction and operation of major resource projects. He has more than 30 years experience working in South America and is a fluent Spanish speaker.

During his career, Mr Leighton has held senior positions with several major international mining companies in South America, including:

- BHP Minerals (Manager of engineering & construction at Escondida Copper Mine, Chile);
- Placer Dome & Outokumpu Copper (General Manager of development at Zalvidar Copper Mine, Chile); and
- Bema Gold (General Manager of Cerro Casale Gold Project, Chile).

More recently, Mr Leighton has been responsible for the rehabilitation and resumption of mining and processing operations at the high grade Tamaya underground copper-gold mine in Chile (2004-2006) and the Carmen open pit and underground copper mine in the Philippines (2007-2010).

Azure has also appointed international mining consultancy Coffey Mining Pty Ltd of Perth, Western Australia to undertake a technical study of the San Francisco Project and provide Azure with an Independent Technical Report. This report will include:

- bringing the Foreign Resource Estimate to JORC Code compliance;
- exploration activities designed to increase the currently outlined mineral resources; and
- development activities such as metallurgical testwork, process and infrastructure design, and estimation of operating and capital costs.

Under the terms of the Agreement, Azure will make several payments to the vendors totaling US\$15 million, staged over two years, for 100%-ownership of the project. Additional royalty payments will also be made to the vendors, based upon production.

## **El Tecolote**

**(Azure 100%)**

This 138km<sup>2</sup> property contains the skarn-hosted El Tecolote Copper-Zinc-Silver Mine (now closed), with recorded production of 1,405,396 Tons @ 1.9% copper, 7.0% zinc & 47g/t silver. Mining ceased due to low metals prices with unmined copper and zinc mineralisation remaining around the old mine workings. Further potential exists along strike and at depth and Azure has commenced an initial program of geological mapping, sampling and ground magnetics.

During the December Quarter, encouraging results were received from exploration over the southern part of the property which identified more zones of skarn-hosted copper-zinc-silver mineralisation. Rock chip sampling of outcrop around old mine workings returned grades up to 26g/t silver, 3.7% copper and 5.4% zinc. This area has been named **Reyna del Cobre**.



Exploration during the previous quarter identified the Monarca gold prospect in the northern part of the El Tecolote property. Monarca is a shear zone with quartz veining and brecciation present over approximately 500m of strike length. Gold values up to 8.0g/t Au were returned from sampling over the major vein structures.

Both the Reyna del Cobre and Monarca prospects will be drill tested during February 2011.

## **San Eduardo Joint Venture**

**Copper-Zinc**

**(Azure 100% - OZ Minerals Limited earning up to 70%)**

Geological mapping and sampling has defined a porphyry copper target at the El Venado prospect within the San Eduardo property. Drill testing the target with two 800 metre deep holes will be undertaken in February and March 2011.

## **La Tortuga Joint Venture**

**Copper-Zinc**

**(Azure 100% - JOGMEC earning 51%)**

Phase III of the La Tortuga Joint Venture exploration program continued during the Quarter, comprising the following activities:

- Diamond core drilling - 5 holes for 1,315 metres;
- Reconnaissance Induced Polarisation (IP) survey – 6 lines for 17 line-kilometres; and
- Reconnaissance surface geochemical sampling – 5 lines for 62 samples.

The drilling tested two separate targets defined by geological mapping, surface geochemical sampling, and aeromagnetic and IP surveys. Assay reports indicate anomalous, but not economically significant, mineralisation is present.

The reconnaissance exploration activities were carried out in the northwest of the project area, which is mostly covered with alluvium. The IP survey lines were positioned to cover several aeromagnetic anomalies typical of porphyry copper signatures, and returned strong chargeability and resistivity responses coincident with geochemical anomalism.

Azure, together with Joint Venture partner JOGMEC, will now assess the results of this latest activity before determining future activities.

JOGMEC is a Japanese Government corporation established to assist in the stable supply of oil, gas and mineral resources to the Japanese economy. JOGMEC seeks to gain entry into high-potential mineral exploration projects through providing funding and technical assistance, with a view to the later introduction of commercial Japanese interests.

## **PROMONTORIO**

**Copper - Gold - Silver**

**Promontorio Central (Azure has right to acquire 100%)**

**Promontorio Regional (Azure 100%)**

A portion of the Promontorio project area is located within the boundaries of a “Protected Natural Area” (an “ANP”), and as the project is advancing towards development, the Ministry



of Environment and Natural Resources (“SEMARNAT”) of the Mexican Federal Government requested Azure submit an Environmental Impact Statement (“EIS”) before approval is given for the next stage of drilling and project development. This environmental study, prepared by Clifton Associates Ltd which is Mexico’s largest environmental consultancy, was completed and submitted to SEMARNAT during the Quarter.

This approval, if granted, will allow Azure to operate in all areas where the land surface has undergone disturbance through previous exploration, mining or forestry activities. Drilling will commence as soon as practicable after Azure receives the required approval.

Meanwhile, Azure is continuing to compile a second, more detailed EIS to enable the Company to operate in previously undisturbed areas at Promontorio and this is expected to be lodged during Q1 2011.

## **ESTACION LLANO**

**Gold**

**(Azure 100%)**

This 24km<sup>2</sup> property covers the interpreted western extension of the mineralised system hosting the +1.3 million ounce San Francisco Gold Mine (currently producing at a rate of 100,000oz gold per year). Drilling by Canadian owner Timmins Gold Corp confirms the mineralised system extends west towards Estacion Llano, however no significant historical exploration activities, including drilling, have occurred on Azure’s property.

Azure commenced exploration with a program of reconnaissance soil sampling which returned gold anomalism coincident with the interpreted extensions of the San Francisco mineralised system.

## **POZO DE NACHO**

**Molybdenum**

**(Azure 100%)**

Pozo de Nacho contains a substantial body of molybdenum mineralisation hosted within an intrusive porphyry system and the surrounding sediments. During 2006/07 Azure drilled mineralisation over an area of 800 by 250 metres, from surface to depths in excess of 300 metres, and it remains open-ended in most directions. Follow-up work was delayed by the recent worldwide credit crisis.

An Induced Polarisation and Resistivity survey covering 24km<sup>2</sup> of the property was completed in late 2010. This has identified a large and strong chargeability and resistivity anomaly which will be targeted by deep diamond drilling, planned for early to mid-2011.

## **CORPORATE**

The Company remains in a strong position to advance its exploration projects with cash on hand at the end of the December quarter standing at \$3.6 million. In addition to advancing its current projects Azure continues to evaluate new opportunities in Mexico that have the potential to add value to the Company.

-ENDS-



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**Competent Person Statement:**

*Information in these documents that relates to Exploration Results is based on information compiled by Mr Tony Rovira, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Rovira is a full-time employee of Azure Minerals Limited. Mr Rovira has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Rovira consents to the inclusion in the documents of the matters based on his information in the form and context in which it appears.*



# Appendix 5B

## Mining Exploration Entity Quarterly Report

Name of entity

Azure Minerals Limited

ABN

46 106 346 918

Quarter ended ("current quarter")

31 December 2010

### Consolidated statement of cash flows

|   |  | Current quarter | Year to date<br>(6 months) |
|---|--|-----------------|----------------------------|
|   |  | \$A'000         | \$A'000                    |
| <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                | (834)           | (1,252)                    |
|   | (b) development  | -               | -                          |
|   | (c) production   | -               | -                          |
|   | (d) administration   | (388)           | (656)                      |
| 1.3   | Dividends received   | -               | -                          |
| 1.4   | Interest and other items of a similar nature received      | 77              | 146                        |
| 1.5   | Interest and other costs of finance paid                   | -               | -                          |
| 1.6   | Income taxes paid  | -               | -                          |
| 1.7   | Other (JV advances)  | 511             | 511                        |
| <b>Net Operating Cash Flows</b>                   |  | <b>(634)</b>    | <b>(1,251)</b>             |
| <b>Cash flows related to investing activities</b> |  |                 |                            |
| 1.8   | Payment for purchases of: (a) prospects                    | (183)           | (183)                      |
|   | (b) equity investments                                     | -               | -                          |
|   | (c) other fixed assets                                     | (27)            | (33)                       |
| 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>(210)</b>    | <b>(216)</b>               |
| 1.13  | Total operating and investing cash flows (carried forward) | <b>(844)</b>    | <b>(1,467)</b>             |



|      |  |       |         |
|------|--|-------|---------|
| 1.13 | Total operating and investing cash flows (brought forward) | (844) | (1,467) |
|      | <b>Cash flows related to financing activities</b>          |       |         |
| 1.14 | Proceeds from issues of shares, options, etc.              | -     | (76)    |
| 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 – security deposits                                  | -     | (22)    |
|      | <b>Net financing cash flows</b>                            | -     | (98)    |
|      | <b>Net increase (decrease) in cash held</b>                | (844) | (1,565) |
| 1.20 | Cash at beginning of quarter/year to date                  | 4,507 | 5,243   |
| 1.21 | Exchange rate adjustments to item 1.20                     | (11)  | (26)    |
| 1.22 | <b>Cash at end of quarter</b>                              | 3,652 | 3,652   |

**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<br>\$A'000 |
|------|--|----------------------------|
| 1.23 | Aggregate amount of payments to the parties included in item 1.2 | 106                        |
| 1.24 | Aggregate amount of loans to the parties included in item 1.10   | -                          |

1.25 Explanation necessary for an understanding of the transactions

Item 1.23 includes aggregate amounts paid to directors including salary, directors' fees and superannuation.

**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

During the quarter JOGMEC contributed US\$350,000 towards its US\$3 million earn-in in the Los Nidos – La Tortuga joint venture and OZ Minerals contributed US\$150,000 towards its initial US\$3 million earn-in in the San Eduardo joint venture.

### Financing facilities available

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

|                                 | Amount available<br>\$A'000 | Amount used<br>\$A'000 |
|---------------------------------|-----------------------------|------------------------|
| 3.1 Loan facilities             | NIL                         | NIL                    |
| 3.2 Credit standby arrangements | NIL                         | NIL                    |

### Estimated cash outflows for next quarter

|                                | \$A'000 |
|--------------------------------|---------|
| 4.1 Exploration and evaluation | 800     |
| 4.2 Development                | -       |
| 4.3 Production                 | -       |
| 4.4 Administration             | 300     |
| <b>Total</b>                   | 1,100   |

### 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<br>\$A'000 | Previous quarter<br>\$A'000 |
|--|----------------------------|-----------------------------|
| 5.1 Cash on hand and at bank                     | 185                        | 217                         |
| 5.2 Deposits at call                             | 3,467                      | 4,290                       |
| 5.3 Bank overdraft                               |                            |                             |
| 5.4 Other (provide details)                      |                            |                             |
| <b>Total: cash at end of quarter</b> (item 1.22) | 3,652                      | 4,507                       |

### Changes in interests in mining tenements

|     | Tenement reference  | Nature of interest (note (2)) | Interest at beginning of quarter | Interest at end of quarter |
|-----|---|-------------------------------|----------------------------------|----------------------------|
| 6.1 | Interests in mining tenements relinquished, reduced or lapsed | -                             |                                  |                            |
| 6.2 | Interests in mining tenements acquired or increased           | -                             |                                  |                            |



### 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><br><i>(description)</i>  |              |               |   |  |
| 7.2 Changes during quarter<br>(a) Increases through issues<br>(b) Decreases through returns of capital, buy-backs, redemptions |              |               |   |  |
| 7.3 <b>+Ordinary securities</b>  | 343,217,666  | 343,217,666   |   |  |
| 7.4 Changes during quarter<br>(a) Increases through issues<br>(b) Decreases through returns of capital, buy-backs              |              |               |   |  |
| 7.5 <b>+Convertible debt securities</b> <i>(description)</i>   |              |               |   |  |
| 7.6 Changes during quarter<br>(a) Increases through issues<br>(b) Decreases through securities matured, converted              |              |               |   |  |
| 7.7 <b>Options</b> <i>(description and conversion factor)</i>  | 500,000      | Nil           | <i>Exercise price</i><br>\$0.175              | <i>Expiry date</i><br>30/01/11                   |
|  | 500,000      | Nil           | \$0.25  | 30/01/12   |
|  | 500,000      | Nil           | \$0.35  | 30/01/13   |
|  | 12,500,000   | Nil           | \$0.088                                       | 30/11/12   |
|  | 4,500,000    | Nil           | \$0.13  | 30/11/13   |
|  | 800,000      | Nil           | \$0.25  | Various dates                                    |
| 7.8 Issued during quarter  | 4,500,000    | Nil           | \$0.13  | 30/11/13   |
| 7.9 Exercised during quarter   |              |               |   |  |
| 7.10 Expired during quarter  |              |               |   |  |
| 7.11 <b>Debentures</b><br><i>(totals only)</i>   |              |               |   |  |
| 7.12 <b>Unsecured notes</b><br><i>(totals only)</i>  |              |               |   |  |



## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.

A handwritten signature in black ink, appearing to read 'Brett Dickson'.

Sign here: ..... Date: 27 January 2011  
(Director/Company secretary)

Print name: Brett Dickson

## 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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