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REX MINERALS LTD
ACN 124 960 523

ASX and Media Release: 23 January, 2009
ASX Code: RXM

Quarterly Activities Report - for the period ended 31 December 2008

HIGHLIGHTS

- **Large scale high grade copper-gold mineralisation discovered within the Zanoni structure at Hillside including:**
  - **Total down hole intersection of 259m @ 1.7% copper and 0.4g/t gold from 205m***
- **High grade Uranium discovered within the Parsee structure at Hillside with results including:**
  - **18m @ 297 U_3O_8 from 509m in HDD016 and,**
  - **2m @ 887 U_3O_8 from 504m in HDD016**
- **Gravity results received for the Parara Project, 12km north of Hillside, highlighting multiple targets with characteristics similar to the Hillside Project.**
- **Resource upgrade completed at Mt Carrington for a total of:**
  - **190,000ozs of gold**
  - **10.5Mozs of silver**
- **Sale of the Victorian gold projects for $1.48 million completed.**

The results at Hillside have continued to support the interpretation first postulated by Rex in its Prospectus that there are multiple large scale copper-gold-uranium deposits on the Yorke Peninsula in South Australia. The outstanding intersection returned from HDD018W1 highlights the exciting potential of the copper-gold mineralisation in this area. Rex is in a good position to optimise the return from these discoveries with 100% ownership of the project area, a tight capital structure and with the required finances and drilling capacity to continue exploring well into 2010.

The resource upgrade completed at Mt Carrington is also a significant result and provides Rex with an excellent opportunity to acquire an advanced gold and silver project. The existing resources at Mt Carrington are very shallow with the potential for further extensions near the surface. Rex considers that the Mt Carrington project has the required attributes to meet its vision of acquiring projects with the potential for large scale and high grade mineralisation whilst providing exposure to the gold and silver price.

**Down hole width does not represent the true width of the mineralisation. For an interpretation of the mineralisation associated with this intersection see Figure 2.*

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PROJECTS

Hillside Copper-Gold-Uranium Project (South Australia)

Drilling results over the past year have significantly improved the understanding of the copper mineralisation on the Yorke Peninsula with the assay results improving at each stage. From this information the geological evidence suggests that the largest concentration of copper is yet to be identified, which is interpreted by Rex to exist at depth and is associated with the cause of a local gravity anomaly (Figure 1). Although the latest results are of an exceptionally high quality, Rex intends to keep the drilling focussed on the discovery of the largest possible copper deposit on the Yorke Peninsula before narrowing the focus to one location for the purpose of defining a copper-gold-uranium resource.

High grade uranium (U_3O_8) results were also returned from the drilling results completed in the last quarter. These results add a new and exciting element to the potential of the Hillside project. The uranium was discovered in a structure called the Parsee, which is situated approximately 300m to the east of the Dart and Zanoni structures (Figure 1).

Highlights of assay results returned recently from the Hillside Project are presented in table 1 below.

Hole Number	From (m)	To (m)	Interval (m)	Estimated True Width	Copper (%)	Gold (g/t)	U_3O_8 (ppm)
HDD016	**427**	**430**	**3***		**1.6**	**0.4**	**-**
	439	**444**	**5***		**0.8**	**0.1**	**276**
	509	**527**	**18***		**0.1**	**-**	**297**
including	*512*	*515*	*3**		*-*	*-*	*955*
	544	**546**	**2***		**-**	**-**	**887**
HDD018	**205**	**280**	**75**	**31.7**	**3.3**	**0.8**	**-**
Including	*206*	*213*	*7*	*3.0*	*10.7*	*1.5*	*-*
	220	*223*	*3*	*1.3*	*7.4*	*1.6*	*-*
	257	*266*	*9*	*3.8*	*6.3*	*2.2*	*-*
	276	*279*	*3*	*1.3*	*10.2*	*0.9*	*-*
	447	**452**	**5**	**2.1**	**3.5**	**0.6**	**-**
HDD018W1	**252**	**280**	**28****	**11.8**	**4.1**	**1.3**	**-**
	416	**442**	**26**	**11**	**4.4**	**0.9**	**-**
	450	**460**	**10**	**4.2**	**2.3**	**0.4**	**-**

Table 1: *Tabulated assay results from the Hillside Project in South Australia.*

**True widths not estimated due to the disseminated nature of the lower grade copper mineralisation.*
***Twin intersection from HDD018 which started in the middle of the ore zone.*

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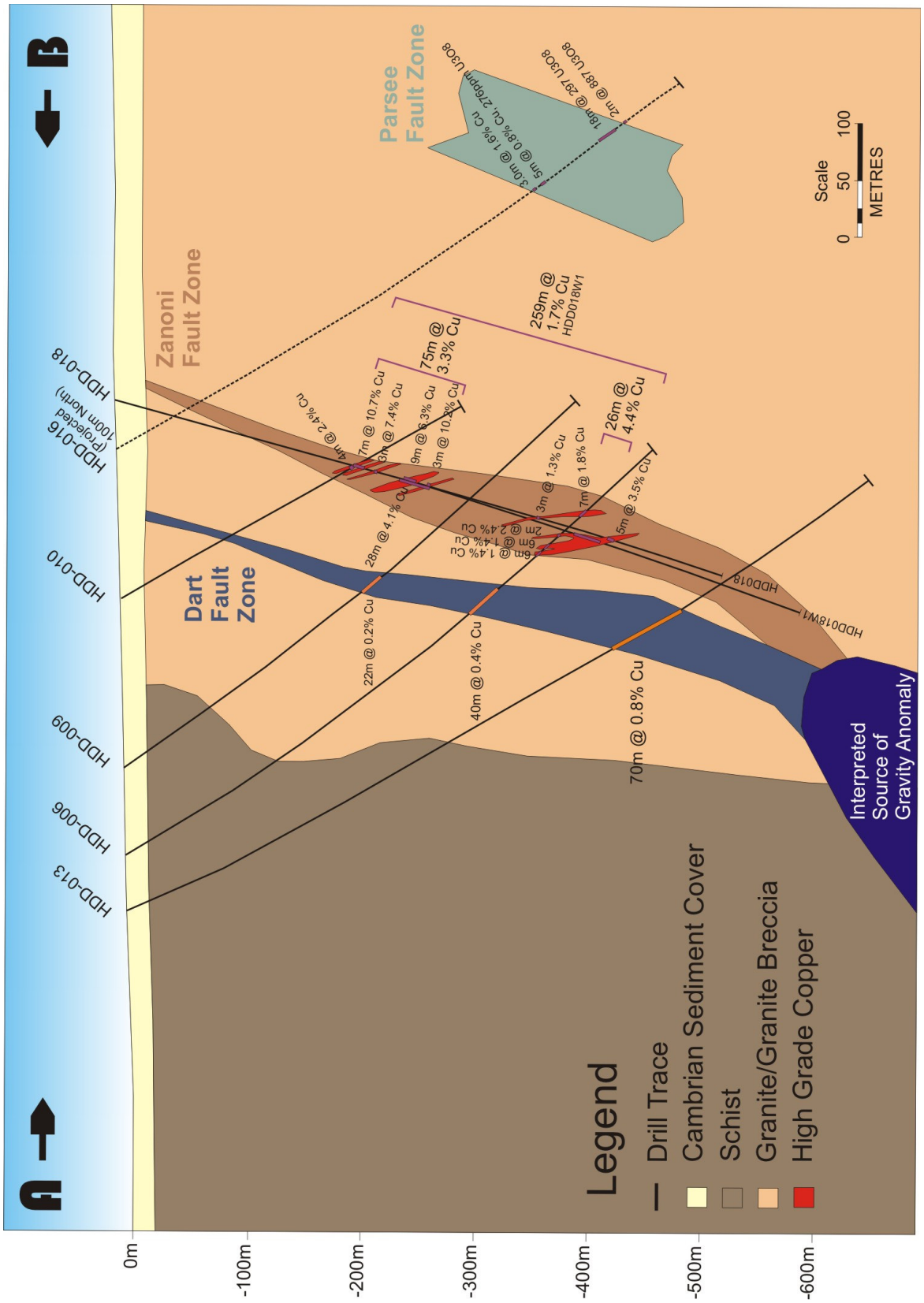

Figure 1: *Cross section showing the interpretation of high grade results from Hillside*

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Parara Copper-Gold-Uranium Project (South Australia)

Gravity survey work completed recently at the Parara Project was processed and interpreted during the quarter. A number of important features were identified in the area that have given Rex the confidence to plan drilling in the area, and increase the priority of this drilling (Figure 2).

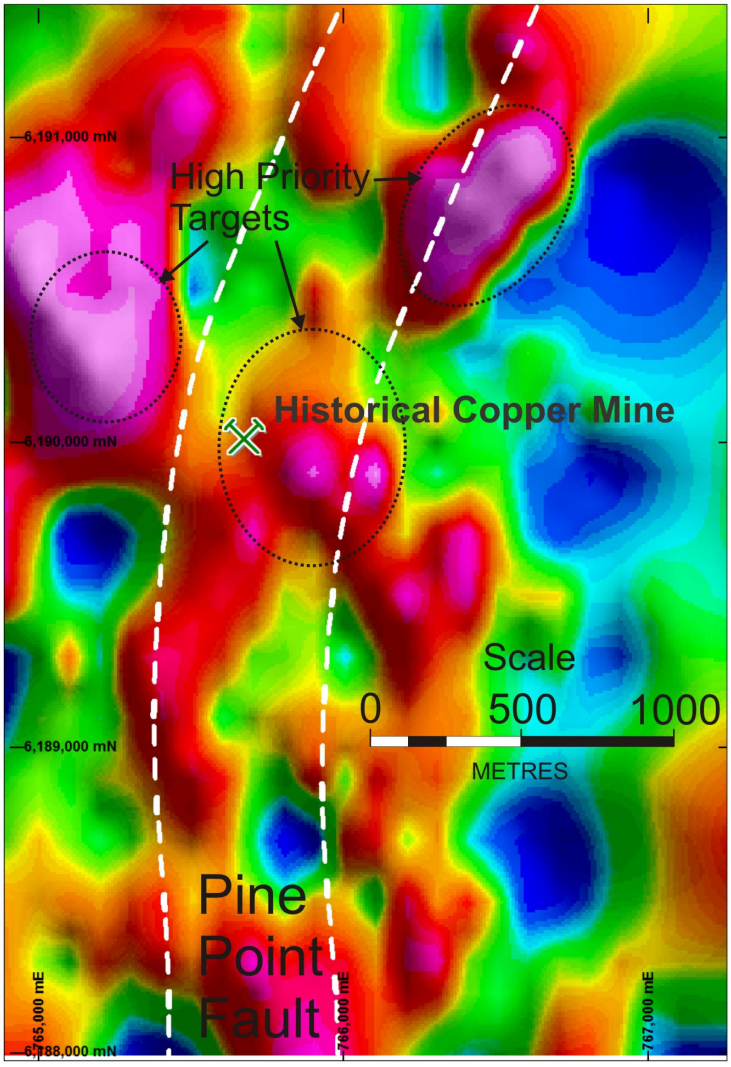

Figure 2: *Gravity image of the Parara Project area, with the interpreted position of the Pine Point Fault highlighted along with the target area's identified by Rex.*

Rex interprets that the geological events which produced Olympic Dam and Prominent Hill, also produced a series of large scale copper-gold-uranium deposits over a broad region within the geological terrain known as the Eastern Gawler Craton. An extensive blanket of cover sediments has prohibited the earlier discovery of these potential deposits. The small high grade historical mines on the Yorke Peninsula (Figure 3) indicate the location of some of these potential copper-gold uranium deposits and are considered by Rex to be a small part of a much larger mineralised system.

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In recent times the tools for finding these deposits underneath the cover sediments have been refined, based on experience from the Olympic Dam and Prominent Hill discoveries. These tools include the use of gravity and magnetic surveys which gives Rex the ability to focus the exploration effort on the Yorke Peninsula.

An important observation in the regional magnetic data is the presence of a large linear feature which lies along the eastern margin of the Yorke Peninsula, known as the Pine Point Fault Zone. Rex's licence holding extends for over 50km along the Pine Point Fault Zone, which Rex believes to be a crucial controlling fault for copper mineralisation in this part of the Gawler Craton. The exploration effort in South Australia is aimed at finding multiple copper-gold-uranium deposits on the Yorke Peninsula, followed by more detailed definition of the larger high grade deposits that have been discovered.

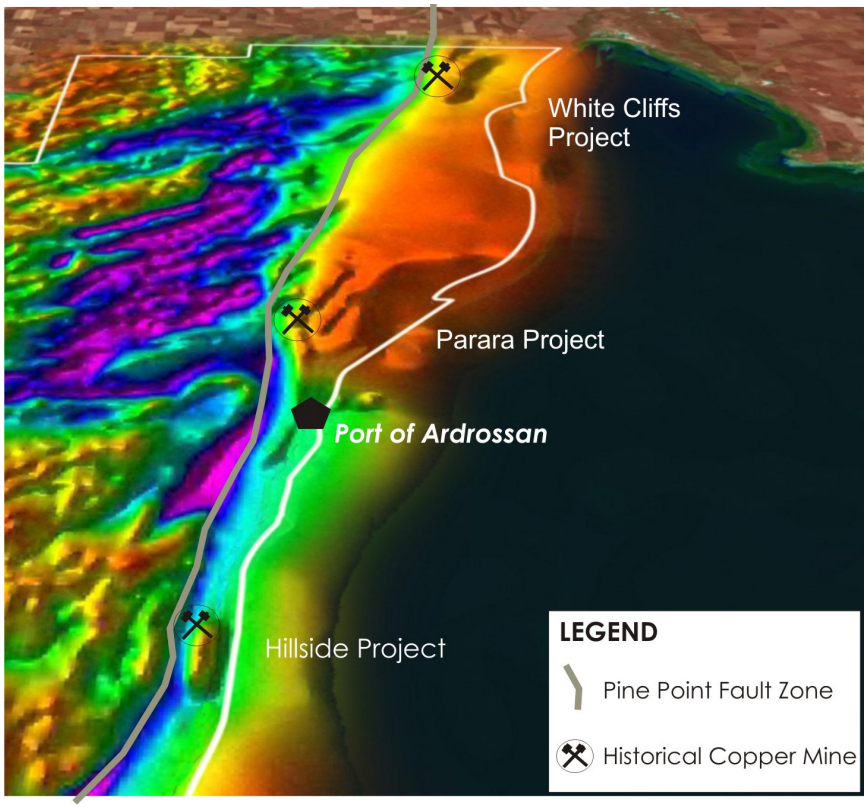

Figure3: *Oblique view of Rex's copper projects on the east coast of the Yorke Peninsula, including the location of the nearest port facility at Ardrossan. The magnetic image shown highlights the location of the Pine Point Fault Zone.*

The Hillside Project and the other copper projects Rex is exploring along the Pine Point Fault Zone display a number of very significant economic and logistical advantages to most other copper projects throughout Australia. These include:

- The Projects are within 2 hours drive of Adelaide, providing excellent access to skilled people and equipment and are also situated within 20km of the nearest port, at the township of Ardrossan.
- The Projects are situated on freehold agricultural land.
- The host rocks of the copper-gold mineralisation exist underneath thin cover sediments, which range in thickness from 5m to 70m, with the average estimated to be less than 50m.

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Wandearah Copper-Gold-Uranium Project (South Australia)

After the completion of a large infill gravity survey in early 2008, Rex commenced drilling at Wandearah towards the end of the quarter. The gravity results highlight the presence of strong north-west and northerly trending structural features which appear to constrain a number of significant gravity anomalies at their intersection points. Multiple targets have been identified from this survey within an area of 12km x 6km. The results of the gravity survey indicate that the potential for large scale copper-gold-uranium exists at Wandearah and that multiple drilling campaigns will be required to identify the location of the mineralisation.

One drill hole (WDD002) was completed in the quarter to 707m. The hole intersected a sequence of cover sediments (carbonaceous sediments and conglomerate) to 465m, before passing into the interpreted host rocks to the copper mineralisation (basement rocks). The basement rocks were composed of siltstone displaying weak pervasive hematite alteration and veining, minor brecciation and thin granitic intrusions. Assay results remain outstanding.

Cowell Iron Project (South Australia)

Assay results were received for the diamond drilling completed at Cowell in late 2008. No iron analyses of note were returned, however the drilling did return anomalous copper values to 0.33% and uranium values to 165ppm. Results will be interpreted in the context of the basement geology to determine the potential for follow up exploration.

Mt Carrington Gold-Silver Project (New South Wales)

Rex completed a comprehensive review of the drilling and geological information from the Mt Carrington Project, leading to an updated Resource estimate. The results from this work are summarised in table 2.

MT CARRINGTON INFERRED RESOURCES					
Gold Resources					
Deposit	**Tonnes**	**Gold grade (g/t)**	**Gold ounces**	**Silver grade (g/t)**	**Silver ounces**
Strauss	1,150,000	2.1	78,000	5.0	185,000
Kylo	1,370,000	1.6	71,000	3.2	141,000
Guy Bell	160,000	2.5	13,000	4.9	25,000
Sub-Total	*2,680,000*	***1.9***	*162,000*	*4.1*	*351,000*
Silver Resources					
Deposit	**Tonnes**	**Gold grade (g/t)**	**Gold ounces**	**Silver grade (g/t)**	**Silver ounces**
Lady Hampden	1,070,000	0.8	28,000	59	2,030,000
White Rock	4,080,000	-	-	62	8,134,000
Sub-Total	*5,150,000*		*28,000*	***61***	*10,164,000*
Total	**7,830,000**		**190,000**		**10,515,000**

Table 2: *Summary of the Mt Carrington Inferred Resource estimate completed by Rex Minerals in December 2008. All gold Resources have been produced using a lower cut-off of 0.5g/t and all silver Resources have been produced using a lower cut-off of 25g/t.*

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The gold Resources at Mt Carrington predominantly occur within three deposits (Kylo, Strauss and Guy Bell) that are in close proximity to each other and to existing infrastructure (Figure 4). Previous operations at Mt Carrington have established infrastructure which can form part of a new development opportunity. This infrastructure includes access to mains power, a fresh water dam, a tailings dam and a cleared plant site (previous processing plant was removed).

The deposits display considerable potential for further extensions to each of the existing gold Resources at depth and along strike. A number of areas have yet to be tested in between the existing deposits, providing opportunities to increase the shallow Resources that are amenable to open pit mining within the existing mine site area.

Figure 4: *Aerial photograph of the Mt Carrington mine site showing the location of the existing open pits and other infrastructure.*

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On average the gold deposits contain 0.77% zinc, the majority of which could be recovered if a zinc concentrate was produced for the recovery of both gold and zinc. Metallurgical test work is required to test a variety of possible options for the recovery of both metals. The aim of the metallurgical test work will be to assist in the design of a processing option for the recovery of the gold, silver and zinc.

The silver Resources and additional exploration potential provide a unique opportunity and exposure to the silver price. At the White Rock deposit there are a total of 232 drill holes which are constrained within an area of 250m x 250m. All of these drill holes contain coherent silver mineralisation and the average grade of the Resource estimated from this drilling is 62g/t silver, using a cut-off grade of 25g/t.

Beyond the existing White Rock Resource, there are additional drill holes some 600m further north, which also produced thick intersections of high grade silver mineralisation (Figure 5). In addition, another 600m to the west there are historical silver workings, which together define an area some 1km^2 of potential silver mineralisation. Rex is looking to test the extent of this silver mineralisation during 2009.

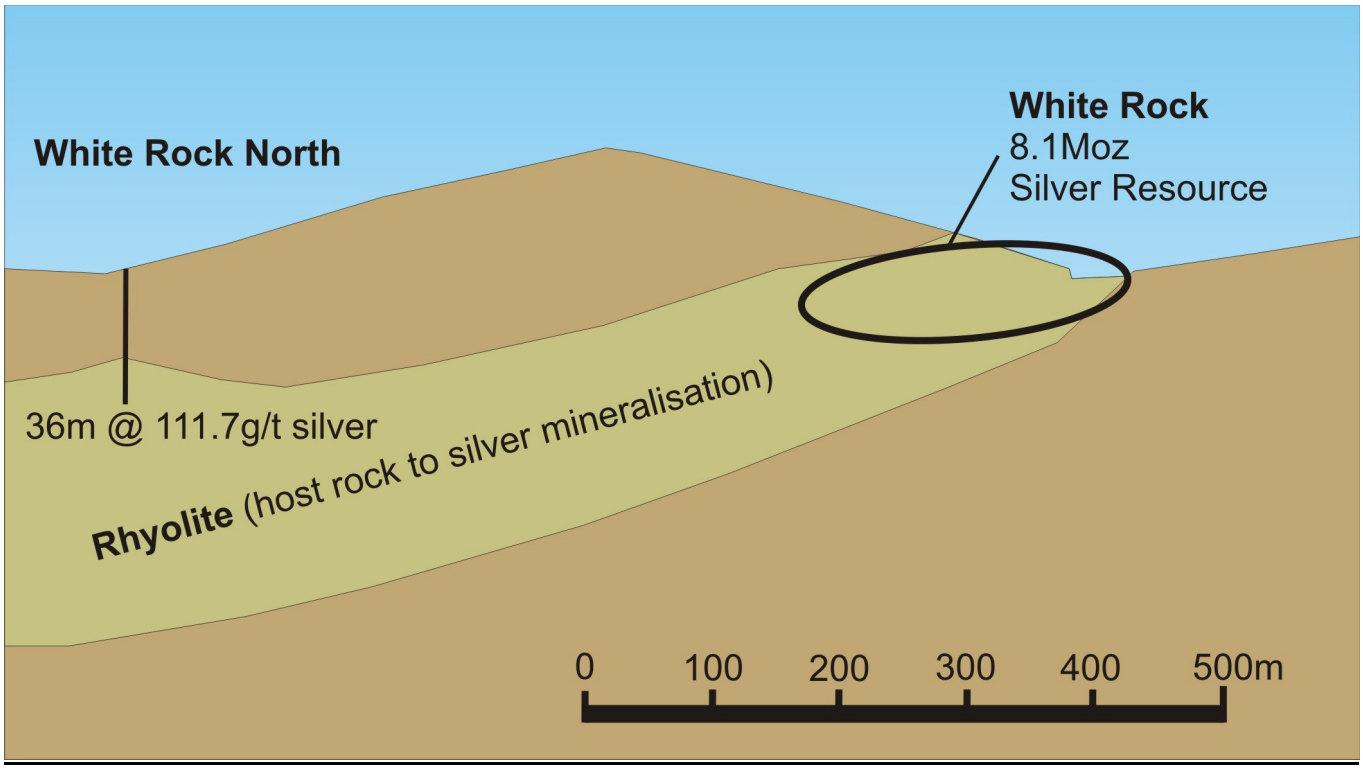

Figure 5: *Cross section of the White Rock Project showing the location of the silver Resource and possible extensions to the silver mineralisation within the Rhyolite host rock.*

Metallurgical test work was completed by Aberfoyle at White Rock, which indicated that the silver was leachable after agglomeration, with test results producing recoveries of 74%. A lower cut off grade has been reported due to the possibility of having a low cost recovery method (as indicated in the test work from Aberfoyle) and the shallow nature of the mineralisation. Alternative processing methods are typically more expensive in which case a higher cut off grade would be more appropriate. Additional metallurgical test work is required at White Rock to optimise the potential recovery of silver and confirm that low cost processing options produce the best economic return from this deposit.

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ACTIVITIES PLANNED FOR NEXT QUARTER

Rex is currently drilling at the Mt Carrington project to improve the confidence level of the existing Resource estimate and to test a number of possible shallow extensions of the current Resources. This campaign is anticipated to be completed at the end of February with results due in early April, prior to the expiry of the option to purchase agreement for Mt Carrington on April 28. Following on from the drilling at Mt Carrington, the drill rig will be moving back to South Australia where a number of high priority targets at both Parara and Hillside will be tested.

For more information about Rex Minerals and its projects please visit our website www.rexminerals.com.au or contact:

Steven Olsen (Managing Director) or Janet Mason (Company Secretary)

Phone: 03 5337 4000 *E-mail:* info@rexminerals.com.au

Background

Rex has ownership of projects covering the commodities of copper, gold, silver and iron. They are located in both South Australia and New South Wales within geological terrains that are known for their endowment in these commodities. The strategy at Rex is to acquire highly prospective projects with potential to host high grade and hence profitable deposits. Rex then applies its extensive technical experience and existing drilling capacity to progress these projects.

Rex is searching for the Iron Oxide Copper Gold (IOCG) style of mineralisation at its 100% owned Moonta South (including the Hillside Project) and Wandearah Projects in South Australia. IOCG mineralisation and alteration is typical of the Olympic Dam and Prominent Hill deposits.

Rex has an option to acquire the Mt Carrington gold-silver Project. Mt Carrington has 190,000 ozs of gold and 10.5Mozs of silver with additional shallow gold and silver potential. The style of deposit defined at Mt Carrington hosts some of the highest grade and most profitable gold mines in the world. Rex believes there is a significant opportunity to discover high grade mineralisation at depth beneath the extensive shallow gold and silver mineralisation which would be amenable to large scale mining.

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Geoffrey Lowe who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of Rex Minerals Ltd. Mr Lowe 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 Lowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The grade estimation and classification of the Mineral Resource estimates is based on a geological model produced by Dr Christopher Gee who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Mining One Pty Ltd. Dr Gee 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'. Dr Gee consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Rule 5.3

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

REX MINERALS LTD

ABN	Quarter ended ("current quarter")
12 124 960 523	31 DECEMBER 2008

Consolidated statement of cash flows

	Cash flows related to operating activities	Current quarter $A'000	Year to date $A'000
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for evaluation (a) exploration and	(641)	(1,116)
	(b) development	-	-
	(c) production	-	-
	(d) administration	(333)	(642)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	48	113
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Other (lump sum Payment for Drilling Services, refer corporate activities report)	-	-
	Net Operating Cash Flows	(926)	(1,645)
	Cash flows related to investing activities		
1.8	Payment for purchases of: (a)prospects	-	-
	(b)equity investments	-	-
	(c) other fixed assets	-	-
1.9	Proceeds from sale of: (a)prospects	-	-
	(b)equity investments	1,480	1,480
	(c)other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
	Net investing cash flows	1,480	1,480
1.13	Total operating and investing cash flows (carried forward)	554	(165)

+ See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	554	(165)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	-	-
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 (provide details if material)	-	-
	Net financing cash flows	-	-
	Net increase (decrease) in cash held	544	(165)
1.20	Cash at beginning of quarter/year to date	3,157	3,876
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	**Cash at end of quarter**	3,711	3,711

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'000
1.23	Aggregate amount of payments to the parties included in item 1.2	85
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

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

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

Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available $A'000	Amount used $A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

+ See chapter 19 for defined terms.

Estimated cash outflows for next quarter

		$A'000
4.1	Exploration and evaluation	600
4.2	Development	-
	Total	**600**

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'000	Previous quarter $A'000
5.1	Cash on hand and at bank	3,711	3,157
5.2	Deposits at call	-	-
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	3,711	3,157

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	EL4669, EL4914 EL4920, EL5105		100%	0%
6.2	Interests in mining tenements acquired or increased				

+ See chapter 19 for defined terms.

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	**Preference +securities** *(description)*				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	**+Ordinary securities**	54,375,000	39,045,000		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	1,810,000	1,810,000	$0.25	$0.25
7.5	**+Convertible debt securities** (*description)*				
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	**Options** *(description and conversion factor)*	180,000 1,500,000 5,700,000	- - -	*Exercise price* $0.365 $0.30 $0.25	*Expiry date* 30/6/2011 30/6/2011 30/6/2011
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter	120,000*	-	$0.365	30/6/2011
7.11	**Debentures** *(totals only)*				
7.12	**Unsecured notes** *(totals only)*				

+ See chapter 19 for defined terms.

*Options lapsed on employee resignations

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.

Sign here: (Company secretary) Date: 23 January 2009

Print name: Janet Mason

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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