



Report for the Quarter Ending 31st March, 2009

28th April, 2009

Highlights

- ◆ The South Australian Minister for Mines and Energy the Hon. Paul Holloway visited the Crocker Well Uranium Deposit on 20th January, 2009 together with representatives from PIRSA, PepinNini Minerals and Sinosteel PepinNini Curnamona Management Pty Ltd.
- ◆ Drilling at the proposed site for the process plant at Crocker Well has been completed to determine geotechnical parameters for construction purposes.
- ◆ Drilling has commenced to convert more of the current Inferred Resource at Crocker well to an Indicated Category.
- ◆ Three diamond cored boreholes completed and a fourth commenced during the quarter at the Mt Caroline nickel copper sulphide targets located within EL 4048 in the Musgrave Province of South Australia. Additional vacuum boreholes were also completed during the quarter with 220 regional geochemical samples being submitted for assaying.
- ◆ Sulphides have been intersected in all cored boreholes completed within EL 4048 to date confirming sulphur saturation occurred within the Caroline intrusion.
- ◆ The vacuum drilling program has delineated several regions of anomalous nickel-copper-cobalt in the regolith which are to be followed up with infill vacuum drilling and diamond drilling.
- ◆ A temporary field camp has been established for EL 3536 Pine Ridge and a 700 borehole vacuum drilling program commenced on 24th March. Five prospect sites within EL3536 have been approved for diamond drilling and the Company diamond rig is currently mobilizing to the area to commence drilling operations.
- ◆ A helicopter assisted reconnaissance sampling survey of EPM14834 Plain Creek, EPM15990 Rush and EPM16537 Loyo located in north Queensland has confirmed high uranium, phosphate, potash and strontium grades in all 3 tenements at a number of prospects. Highest grades reported from the samples submitted were:
 - Highest Uranium 3,513 ppm U3O8 from Sassafras Creek Prospect
 - Highest Phosphate 21.4% P2O5 from Robyn Lorraine West Prospect
 - Highest Potash 5.8% from Sassafras Creek & Homestead Prospects
 - Highest Strontium 5,630 ppm from Robyn Lorraine West Prospect.
- ◆ Samples collected from 20 sites within the Edward EPM 15160 exhibited surface malachite mineralisation and returned copper values ranging from 1.6% to 8.8% with several samples also reporting high lead up to 10.5% and silver up to 160 g/t.

- ◆ EPM 16289 Sandy Creek and EPM 16917 Lower Percy were granted during the quarter. Results from a recently completed surface sampling program have confirmed polymetallic mineralization within the Sandy Creek EPM.
- ◆ At the end of the quarter the Company held \$10.3 million in cash.



SOUTH AUSTRALIA

Musgrave Province Project

The project consists of three granted exploration licences, EL 3368, EL 3536 and EL 4048, and two exploration licence applications, ELAs 118/96 and 185/96 which are considered prospective for base metals, gold, platinum group metals, ferrous metals and precious stones. The tenements comprise eleven separate areas covering approximately 8,143 km².

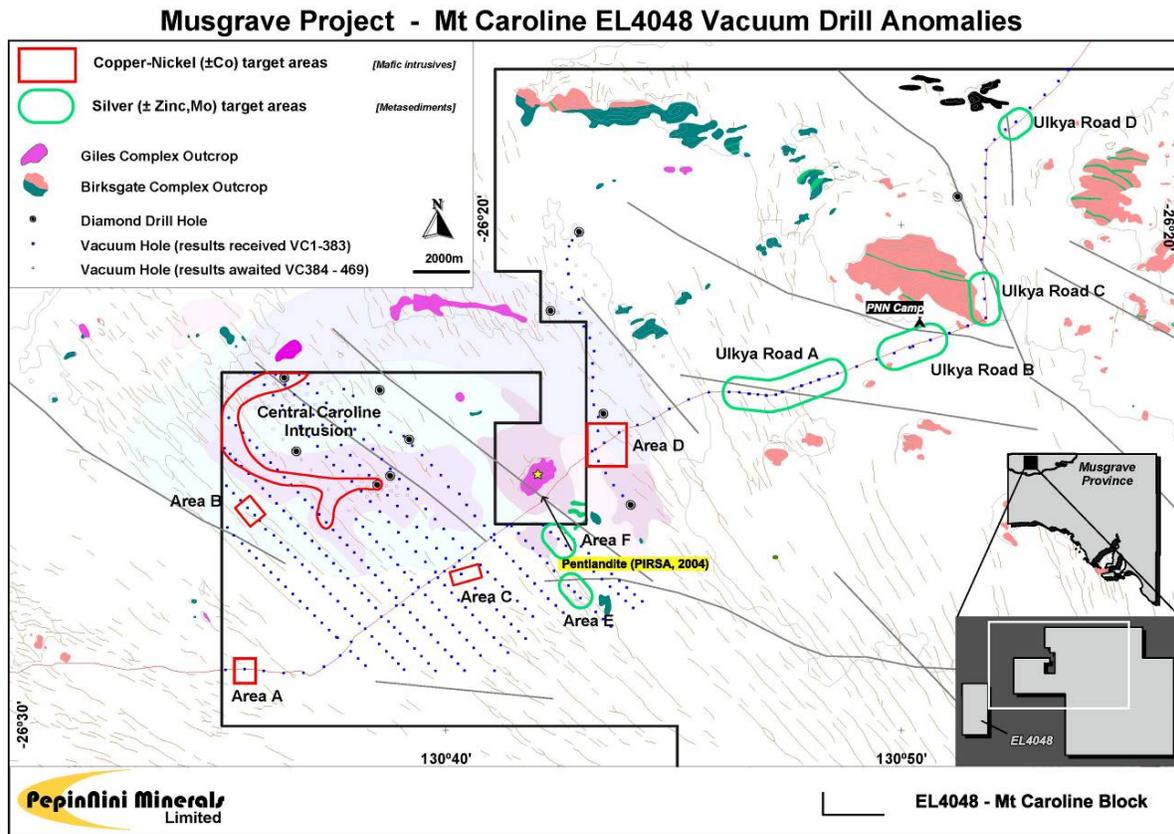
Exploration Licence EL4048 – Mt Caroline

Exploration activities in EL4048 are currently focused on targeting nickel-copper sulphide and chromium-titanium-vanadium mineralisation within layered mafic-ultramafic intrusions of the Giles Complex. Base metal mineralisation in felsic and mafic gneisses of the Birksgate Complex are also being targeted by the regional drilling program.

Drilling operations utilising the Company owned and operated diamond drilling rig and vacuum rig recommenced within EL4048 on the 14th February. Since drilling recommenced in 2009, three boreholes have been completed (DD08CAR008, DD09CAR009, DD09CAR010) and a fourth commenced (DD09CAR011). Visible sulphides have been intersected in each hole. The diamond drilling program within EL4048 has now drilled a total of 3,762m, up to and including DD09CAR010. A total of 266 diamond drill core samples have recently been submitted for assaying.

The regional vacuum drilling program within EL4048 has now completed 469 boreholes, totaling 5,142 metres. Holes vary in depth from 1.2m to 24.6m with a median depth of 11.1m. A total of 972 subsurface samples have been collected and submitted for multi-element geochemical analysis.

To date, 770 sample results have been received from holes VC001-383. A total of 202 geochemical samples have recently been submitted for assaying.



Diamond and vacuum borehole locality map, EL4048 Mt Caroline

Anomalous results from the vacuum drilling occur as three groups:

1. Central Caroline Intrusion

Interpreted as a >500m wide zone of anomalous Nickel-Copper-Cobalt wrapping around the western side of the core of the Caroline intrusion consistent with magnetic horizons interpreted to be layering within the mafic intrusion and occasionally coincident with gravity and EM anomalies.

Maximum assay values within the zone include:

- 1880 ppm Ni & 1340ppm Ni
- 360 ppm Cu & 335ppm Cu
- 1660 ppm Co & 475ppm Co

2. Caroline Intrusion Margins (A-F)

Six dispersed anomalous occurrences are located to the south and east of the Caroline Intrusion. These targets require follow-up investigations.

Maximum assay values include:

- Area A - 140ppm Ni & 115ppm Cu
- Area B - 175ppm Cu & 105ppm Ni
- Area C - 285ppm Ni & 250ppm Ni
- Area D – 510ppm Ni, 195ppm Co & 115ppm Cu

- Area E - 210ppm Cu, 185ppm Zn & 48.5ppm Pb
- Area F - 11g/t Ag & 135ppm Zn

3. Ulkya Road (A-D)

Four regional targets are located along the Ulkya access road to the southwest, east and north of the Mt Caroline hill. The anomalous results overly felsic and mafic gneisses of the Birksgate Complex. Maximum assay values include:

- Ulkya Rd A – 25.5g/t Ag & 1240ppm Zn, 14ppm Mo, 280ppm Ni & 140ppm Cu
- Ulkya Rd B - 1g/t Ag & 600ppm Zn
- Ulkya Rd C - 1g/t Ag & 1200ppm Zn
- Ulkya Rd D - 560ppm Zn

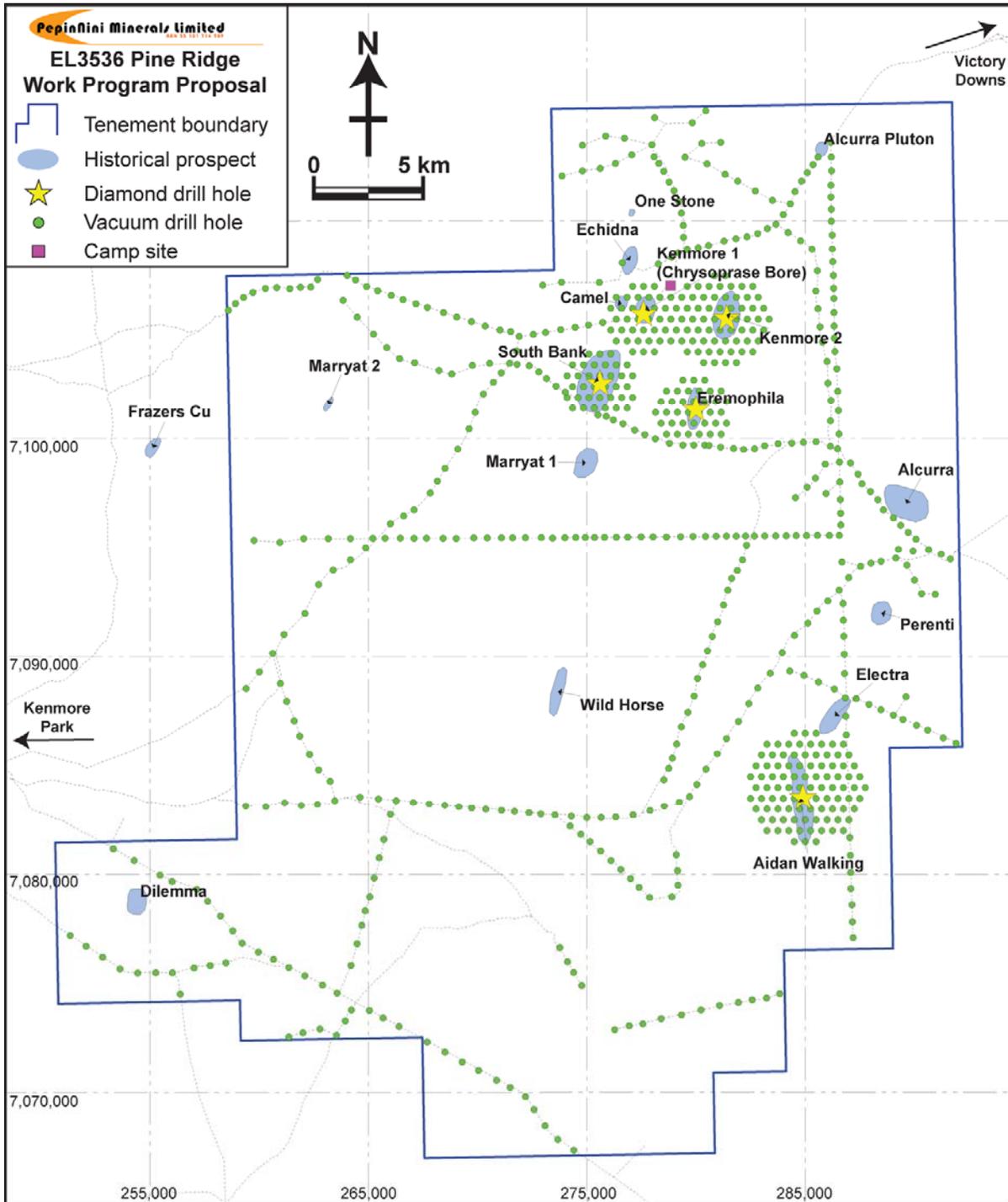
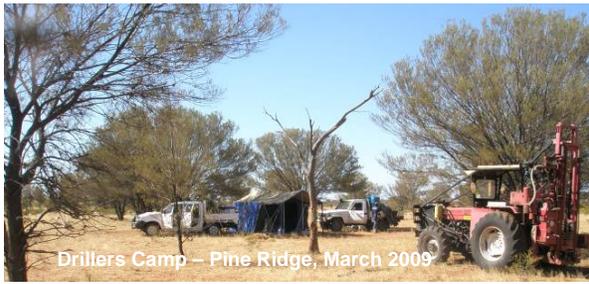
The vacuum drilling program has delineated several regions of anomalous nickel-copper-cobalt in the regolith which are being followed up with infill vacuum drilling and diamond drilling. The vacuum drilling rig has now been relocated to EL3536 Pine Ridge.



Borehole CAR 009 EL 4048 Mt Caroline February 2009

Exploration Licence EL3536 – Pine Ridge

Exploration activities within EL3536 are focused on targeting nickel-copper sulphide mineralisation within the Giles Complex and base metal mineralisation within the Birksgate Complex. Stratabound copper mineralisation within felsic gneiss of the Birksgate Complex has been reported by previous explorers in the area and is prioritised for follow-up drilling. A temporary field camp has been established for the Pine Ridge tenement and a 700 borehole vacuum drilling program commenced on 24th March. Five prospect sites identified by previous explorers within EL3536 have been approved for diamond drilling and the Company diamond rig is currently mobilizing to the area to commence drilling operations.



Prospects, diamond drill hole and vacuum drill hole localities, EL3536 Pine Ridge

Exploration Licence EL3368 – Mt Marcus

No exploration activities were conducted within EL 3368 during the quarterly reporting period.

Curnamona Province Project

The development of the Crocker Well Uranium Deposit by Sinosteel Corporation (60%) and PepinNini Minerals (40%) is being managed by Sinosteel PepinNini Curnamona Management Pty Limited (SPCM) on behalf of the Joint Venture partners. The project has its own dedicated website at www.crockerwell.com.au. A Bankable Feasibility Study (BFS) for the development of a mine at Crocker Well is currently in progress and is scheduled to be completed in September, 2009. The Sinosteel PepinNini Joint Venture has lodged an application for a Mining Lease with the South Australian Government for the development of a uranium mine at Crocker Well.

Geotechnical Drilling

Drilling at the proposed site for the process plant has been completed to determine geotechnical parameters for construction purposes. Drilling is also being undertaken at the proposed site of the tailings dam.

Hydrogeological Program

Work is currently underway to determine the hydrogeological parameters of the proposed mine areas and to investigate possible water sources in the immediate vicinity of the mine.

Process Design

The BFS managers, Bateman, have designed a process circuit which includes a flotation beneficiation stage. Laboratory flotation test work was completed during December 2008. The results indicate that flotation can be successfully deployed for upgrading the Crocker well ore body. The recovery of uranium by flotation was determined to be in excess of 80% with a mass pull of approximately 20-30%. Further metallurgical test work is still in progress to optimize the process and the overall uranium recovery.

Ministerial Site Visit

The SA Minister for Mines and Energy the Hon. Paul Holloway visited the Crocker Well site on 20th January, 2009 together with representatives from PIRSA, PepinNini Minerals and SPCM.



Resource Verification

Drilling has commenced to convert more of the current Inferred Resource to an Indicated Category. The drilling program of approximately 8,000 metres in approximately 77 boreholes has been designed to complete the conversion of at least 80% of the current Inferred Resource to an Indicated Category. An interim resource estimate incorporating data from the previous drilling program conducted last year is in preparation and is expected to be completed by mid June.

WESTERN AUSTRALIA

Peak Hill Gold Project and Robinson Range Iron Ore Project

During the quarter the Receivers and Managers of Eagle Gold Mines Pty Limited (EGMPL) advised that the secured creditor Bluecrest Mercantile III BV exercised its rights under a Mortgage over Shares Agreement between itself and Eagle Gold Mines Limited (EGMPL's parent company) and acquired the sole share in EGMPL which has subsequently changed its name to Grosvenor Gold Pty Limited.

PepinNini Minerals remains a major shareholder of Eagle Gold Mines Limited an unsecured creditor of Grosvenor Gold Pty Limited (formerly EGMPL) (Receiver Manager Appointed).

Meanwhile PepinNini continues to maintain the status of the Robinson Range Iron Ore Farm-In and Joint Venture notwithstanding disagreement between PepinNini and the Receiver and Manager on that issue.

NORTH QUEENSLAND

Georgetown Inlier/Woolgar Goldfield/Drummond Basin Project

A helicopter assisted reconnaissance sampling survey of EPM14834 Plain Creek, EPM15990 Rush and EPM16537 Loyo was undertaken between 19th and 29th January. A total of 127 sites were inspected during the sampling program and a total of 90 rock samples collected. Assay results have been received and confirm high uranium, phosphate, potash and strontium grades occur in all 3 tenements at a number of prospects. Highest grades reported from the samples submitted were:

- Highest Uranium 3,513 ppm U₃O₈ from Sassafras Creek Prospect
- Highest Phosphate 21.4% P₂O₅ from Robyn Lorraine West Prospect
- Highest Potash 5.8% from Sassafras Creek & Homestead Prospects
- Highest Strontium 5,630 ppm from Robyn Lorraine West Prospect

Samples were also collected from the Edward EPM 15160. A total of 21 sites were inspected and surface malachite mineralisation was observed at all but one site. Copper values ranged from 1.6% to 8.8% with several samples also reporting high lead up to 10.5% and silver up to 160 g/t. An IP survey is scheduled to be undertaken to define drilling targets.

Reconnaissance and surface sampling programs are currently being conducted at the Percyville Project including EPMs 15440, 15547, 16289 and 16917. Fifty four samples have been submitted recently for assaying. Encouraging results from previous sampling programs conducted over the past 6 months have confirmed widespread copper, gold, silver, lead and zinc mineralization and identified a number of priority drill targets within these tenements.



Some of the more significant assay results previously reported include:

EPM 15440 Spring Valley Prospect

- **335g/t gold**, 85.4g/t silver, 0.2% copper, 2.8% lead
- 53.8g/t gold, **870g/t silver**, **32.8% copper**
- 166g/t gold, 563g/t silver, 4.9% copper, **4.7% lead**, 0.4% zinc
- 3.3g/t gold, 542g/t silver, 5.8% copper, 3.7% lead
- 10.7g/t gold, 242g/t silver, 8.8% copper, 0.2% lead
- 90.1g/t gold, 63.8g/t silver, 2.8% copper

EPM 15440 Union Prospect

- **65.1g/t gold**, 435g/t silver, 9.9% copper
- 3.6g/t gold, **653g/t silver**, **20.3% copper**
- 42.3g/t gold, 124g/t silver, 1.4% copper
- 4.7g/t gold, 13.7g/t silver, 3.0% copper

EPM 15440 Dividend Gully

- **40.5g/t gold**, **1,360g/t silver**, 0.1% copper, 0.4% lead
- 38.1g/t gold, 184g/t silver, 0.2% copper, 2.3% lead
- **18% lead**

EPM 15440 Freedom Prospect

- 3.2g/t gold, **732g/t silver**, **13.8% copper**, **1.0% lead**
- **15.1g/t gold**, 28.6g/t silver, 3.1% copper, 0.6% lead, 0.2% zinc

EPM 15547 The Return

- **31.3g/t gold**, 42g/t silver, 0.2% lead
- 27.7g/t gold, 41g/t silver, 0.7% lead
- 29.0g/t gold, **49g/t silver**, 0.5% lead
- 4.9g/t gold, 7g/t silver, **1.1% lead**

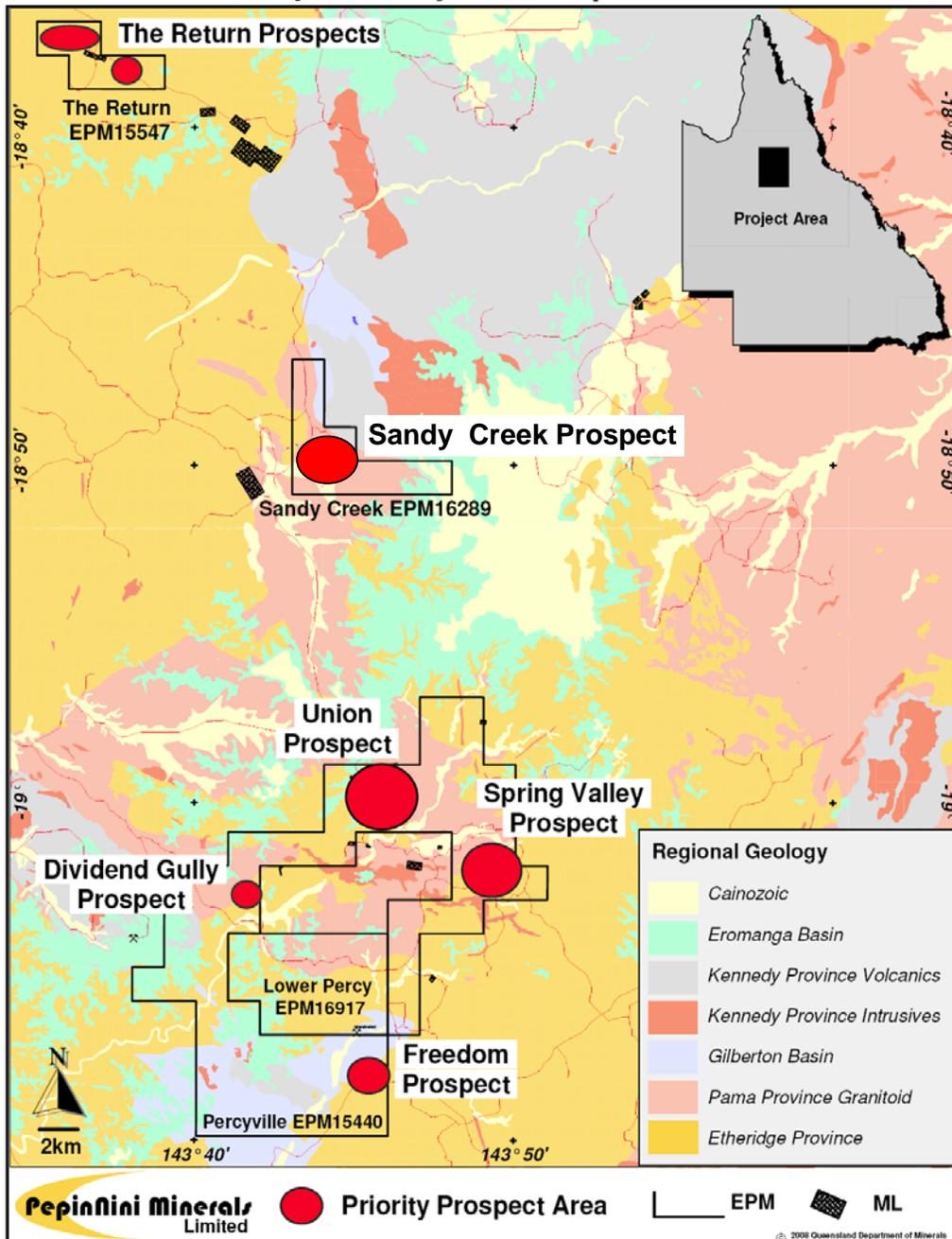
EPM 16289 Sandy Creek and EPM 16917 Lower Percy were granted during the quarter. Results from a recently completed surface sampling program have confirmed polymetallic mineralization within the Sandy Creek EPM.

EPM 16289 Sandy Creek

- **141g/t gold, 66g/t silver, 3.7% copper, 12.1% lead, 6.6% zinc**

Soil sampling is planned within the Percyville Project tenements to assist in defining drilling targets. Recent mapping on EPM 15440 has defined extensive surface gossans at the Union prospect and detailed mapping is about to commence at the Spring Valley and Dividend Gully Prospects as well as within EPM 15547 and EPM 16289 to follow-up previously reported gold and base metal anomalism. IP surveys will be undertaken at the Union and Spring Valley Prospects to assist in defining drilling targets.

Percyville Project - Prospect Locations



Sandy Creek EPM - Recent Polymetallic Rock Sample Results



The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Chairman and Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Norman Kennedy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please contact:

Mr Norman Kennedy
 Chairman and Managing Director, PepinNini Minerals Limited
 Phone: (02) 9417 6212

Note: Additional information on PepinNini Minerals Limited can be found on the website:
www.pepinnini.com.au

Additional information for the Crocker Well Uranium Project can be found on the website:
www.crockerwell.com.au

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

PepinNini Minerals Limited

ABN

55 101 714 989

Quarter ended ("current quarter")

March 2009

Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (... 9. months) \$A'000
Cash flows related to operating activities		
1.1 Receipts from product sales and related debtors		
1.2 Payments for (a) exploration and evaluation (b) development (c) production (d) administration	(669)	(4,546)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	6	506
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (PACE drilling refund – SA govt grant)	100	106
Net Operating Cash Flows	(686)	(4,805)
Cash flows related to investing activities		
1.8 Payment for purchases of: (a)prospects (b)equity investments (c)other fixed assets	-	(2)
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) – controlled entity contributing cash		
Net investing cash flows	-	(2)
1.13 Total operating and investing cash flows (carried forward)	(686)	(4,807)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(686)	(4,807)
	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 – On market Share Buy-back	-	(270)
	Net financing cash flows	-	(270)
	Net increase (decrease) in cash held	(686)	(5,077)
1.20	Cash at beginning of quarter/year to date	11,030	15,421
1.21	Exchange rate adjustments to item 1.20		
1.22	Cash at end of quarter	10,344	10,344

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	114
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

Within Item 1.2		
1.	Managing Director, Administration Director and non-executive directors' remuneration	\$114,999
2.	Reimbursement of Directors' expenses	0

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

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- 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

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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	2,000
4.2	Development	
Total		2,000

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	344	1,030
5.2	Deposits at call	10,000	10,000
5.3	Bank overdraft		
5.4	Other (provide details)		
Total: cash at end of quarter (item 1.22)		10,344	11,030

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	EPM 15482 EPM 16026 EPM 15469 EL 3171 Kalabity	Surrender Surrender Statutory partial relinquishment Expired	100% 100% 25 sub blocks 40%	0% 0% 13 sub blocks 0%
	6.2	Interests in mining tenements acquired or increased	EL 4239 Kalabity EPM 16537 EPM 16289 EPM 16917	Renewed Assignment New Grant New Grant	0% 40% 100% 100% 100%

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

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 <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 +Ordinary securities	68,202,499	68,202,499	N/A	N/A
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	(a)203,304	(a)203,304	75c	75c
7.5 +Convertible debt securities <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 Options <i>(description and conversion factor)</i>	500,000 200,000 100,000		<i>Exercise price</i> 138cents 130cents 35cents	<i>Expiry date</i> 30 Nov 2010 1 Sep 2011 31 Dec 2010
7.8 Issued during quarter	200,000		80cents	1 Sep 2011
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 Debentures <i>(totals only)</i>				
7.12 Unsecured notes <i>(totals only)</i>				

+ 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 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:

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Date **28th April 2009..**

Print name:

.....**Rebecca Holland-Kennedy**.....

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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