



## ASX Announcement

ASX Code: ARM

Date: 29 July 2016

## Aurora Minerals Group of Companies

*Diversified minerals exploration via direct and indirect interests*

### Predictive Discovery Limited (ASX: PDI) – 43.1%

- Gold Exploration / Development in Burkina Faso

### Peninsula Mines Limited (ASX: PSM) – 32.0%

- Graphite, Lithium, Gold, Silver, Base Metals, Molybdenum and Tungsten Exploration in South Korea

### Aurora Western Australian Exploration – 100%

- Base metals, iron and gold exploration

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# QUARTERLY ACTIVITIES REPORT

## ENDING 30 JUNE 2016

Aurora Minerals Limited ASX: ARM ("**Aurora**" or "**the Company**") and its subsidiary and associate companies conduct exploration across three continents with a focus on South Korea (Peninsula Mines Limited), West Africa (Predictive Discovery Limited) and Western Australia.

### Highlights:

Highlights from the quarter to 30 June 2016 are as follows:

- Peninsula Mines Limited (Peninsula)
- High-grade graphite was confirmed at Daewon, Wolmyeong and Yongwon Projects. Metallurgical and petrographic analyses are underway.<sup>D1,2,3</sup>
- Dongsugok lithium tenements cover prospective geology adjacent to the Boam Lithium Mine where an aeromagnetic high is interpreted to represent the igneous intrusive source. Detailed stream sediment sampling was carried out in May and June 2016. The results will pinpoint targets for detailed surface mapping and sampling.<sup>D4</sup>
- Daehyeon Lithium Project covers an extensive geochemical anomaly in published, state-wide, stream sediment sampling. Peninsula carried out detailed stream sediment sampling to verify this anomaly and target potential sources. Samples have been dispatched to the Philippines for analysis along with those from Dongsugok.<sup>D4</sup>
- Aurora's loan was converted to equity bringing its shareholding to 32%.<sup>D5</sup>
- Predictive Discovery Limited (Predictive)
- Excellent RC results in drilling at Boundiali permit, Côte D'Ivoire, included 28m @4.0g/t Au from 3m. Drilling was conducted by Toro Gold Limited through their JV with Predictive.<sup>P1</sup>
- Toro, through their JV, have also generated encouraging initial diamond drilling results at the Kokoumbo permit, Côte D'Ivoire. The results include 7.5m @16.0g/t Au from surface.<sup>P2</sup>
- Corporate
- Aurora cash at bank ~\$3.1M (parent) and ~\$3.8M (consolidated group) at end of quarter.
- Value of cash and investments as at 28 July 2016 ~\$16M (~14c/share).
- During the quarter, and post quarter end, Aurora disposed of 141M shares in Golden Rim Resources Limited realising net proceeds of approximately \$1.472M included in the cash balanced shown Table 1.<sup>G1</sup>

A table of Aurora's subsidiary and associate company investments and market valuations as at 28 July 2016 adjusted for sale of Golden Rim shares is shown in Table 1\*, below.

*Table 1: Aurora Minerals Group Investments*

Aurora Minerals Group Investments					
	Shares (M)	% Interest	Price	Mkt Val \$M	NTA c/share
Predictive Discovery	572	43.1%	\$0.013	\$7.4	
Peninsula Mines	139	32.0%	\$0.027	\$3.8	
other				\$0.6	
Subtotal				\$11.8	
Total value of investments				\$11.8	10.1
Cash as at 28 July 2016 (including receipts of proceeds from sale of GMR shares)				\$4.4	3.8
Total NTA				\$16.2	13.9

\*Value of Cash and investments approximately 11c per share as at 30 June 2016. At the date of this report the market value of the above investments has risen substantially such that the NTA approximates \$16M or 14c/share.

## Peninsula Mines Limited (Aurora 32%)

Peninsula Mines' focus of exploration is South Korea, where its wholly owned Korean subsidiary, Suyeon Mining Co. Ltd. (SMCL), holds tenure over ground prospective for:

- **Lithium:** Dongsugok and Daehyeon Projects lie in the east of the country near the Boam Lithium Mine
- **Graphite:** Six projects across the country include a number of former mines including Korea's largest historical graphite mine at Wolmyeong
- **Gold, silver and base metals:** Osu Project and
- **Molybdenum-tungsten:** Daehwa Project.

See Figure 1, below.

Exploration on the graphite and lithium projects is underway, commencing with historical data review, mapping and surface sampling. This will be followed by geophysics and drilling on the prospects deemed most prospective. Metallurgical testwork is being undertaken at an early stage for the more promising projects to determine the suitability of each product for various processing options and industrial applications. Each of the prospects will be reviewed on their merits and exploration efforts prioritised accordingly.

Figure 1: Location Plan of Peninsula's South Korean Projects





## Lithium:

Peninsula's Korean subsidiary, SMCL, holds tenement applications over several blocks adjacent to and in the vicinity of the Boam Lithium Mine, where pegmatites are considered prospective for lithium, tin and tantalum mineralisation. This is referred to as the **Dongsugok Project**.<sup>D6</sup> The ore at the Boam mine is described as greisen style mineralisation associated with a blind intrusive body, evident from regional aeromagnetics, see Figures 3 and 4 below. The lithium at Boam occurs as spodumene and lepidolite mica in brecciated quartz veins associated with pegmatite and aplite dykes. Historically, pegmatites in the area were mined for tin, with a number of small tin mines located to the north and west of Boam mine.<sup>D6</sup>

Korean state-wide geochemistry shows significant lithium anomalism to the northwest of Boam Mine (see Figure 5 below), where SMCL has applied for 53 tenements over pegmatitic lithium prospects making up the **Daehyeon Project**. Each of the Korean tenement blocks covers an area of 1' (minute) of latitude by 1' (minute) of longitude, or approximately 275 hectares each.<sup>D7</sup>

A large, detailed stream sediment sampling program was carried out across both Projects in May and June 2016, with 273 samples collected. See Figure 2, below. The samples were dried and sieved into three size fractions before being shipped to Intertek in the Philippines for analysis. Results are awaited.<sup>D4</sup>

Spatial analysis of the results will determine where further exploration will be focussed, enabling the rationalisation of the large tenement area. Further work will consist of mapping, rock chip sampling, soil sampling and ultimately drilling. At each stage, the prospects will be reviewed on their merits and prioritised accordingly.

Figure 2: Daehyeon Project tenements and Stream Sediment Sample Sites on the KIGAM 1:50,000 Geology<sup>D7</sup>

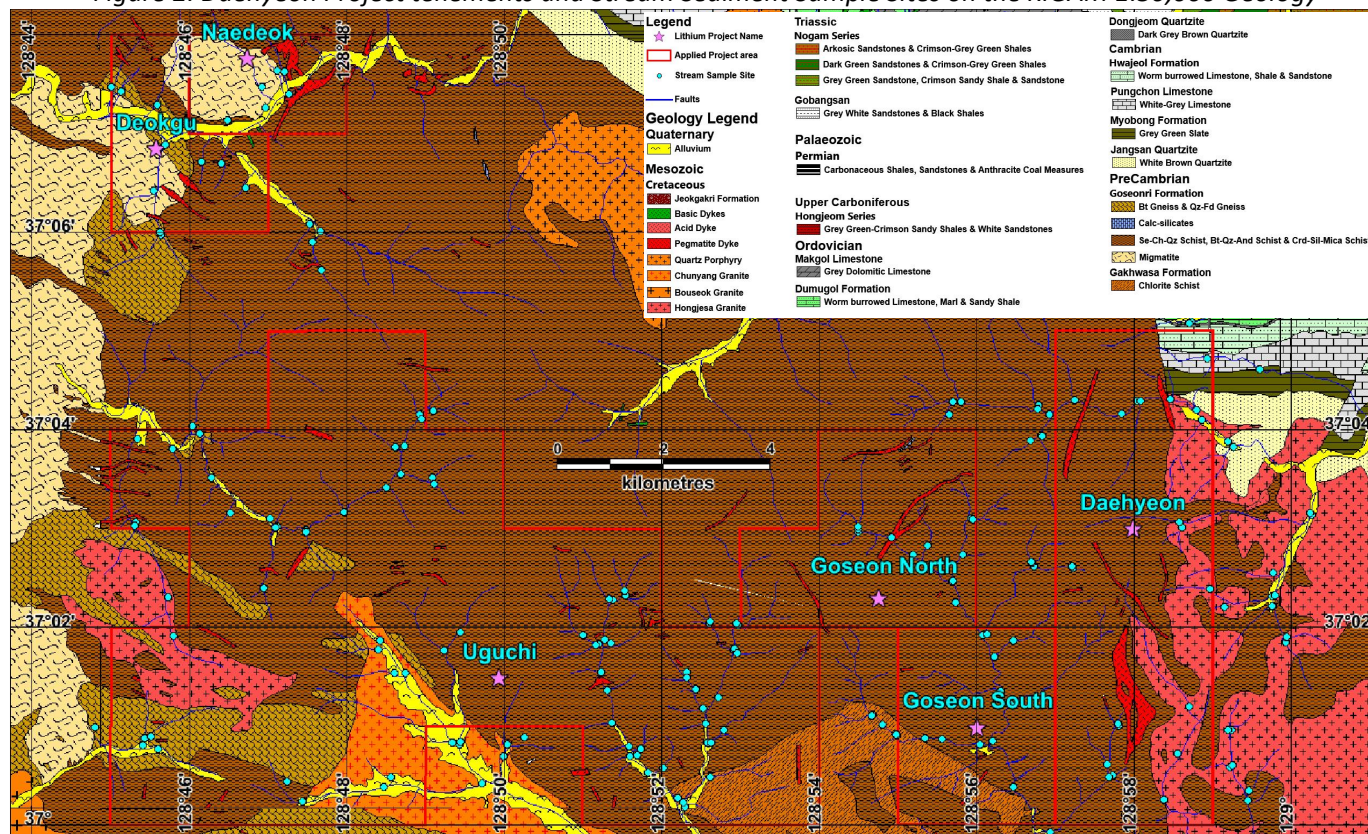




Figure 3: Regional Aeromagnetics Showing KORES Mapped Pegmatite Outcrop at Dongsugok Project<sup>D6</sup>

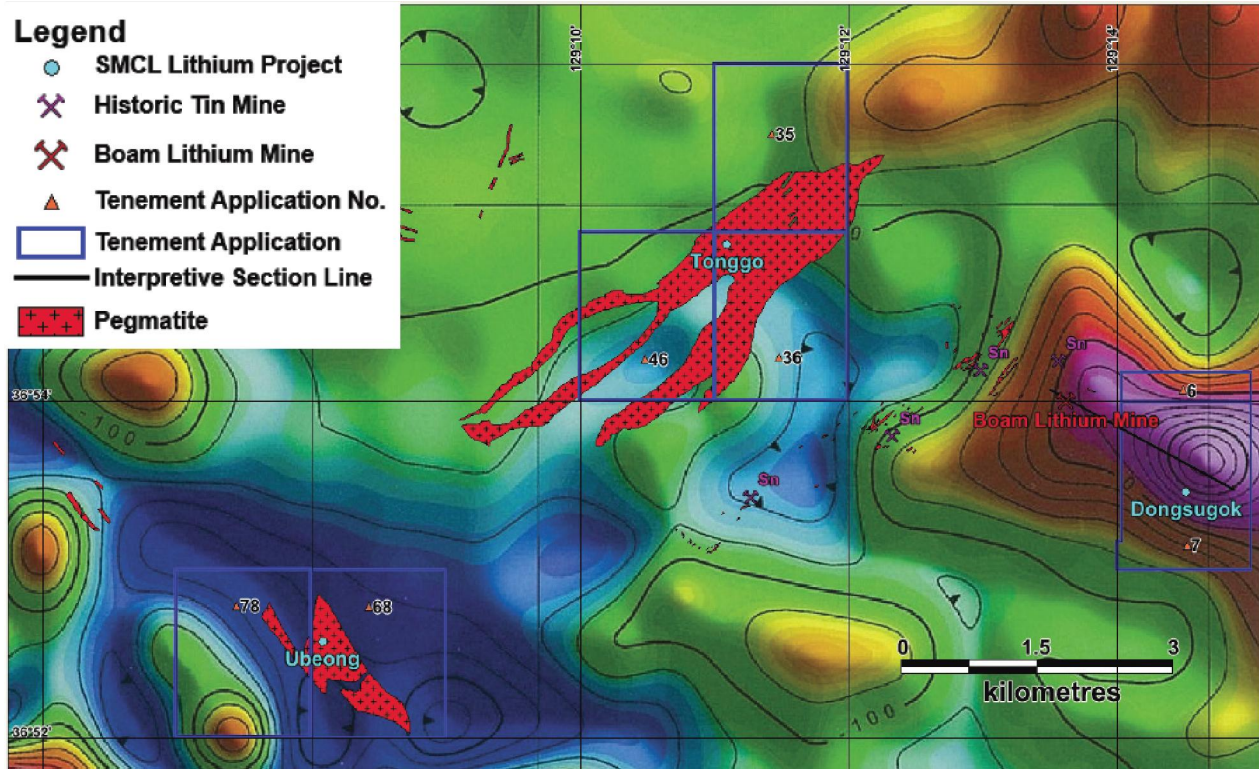


Figure 4: Boam Mine Interpretive Section Showing Peninsula's Lithium Mineralisation Targets<sup>D6</sup>

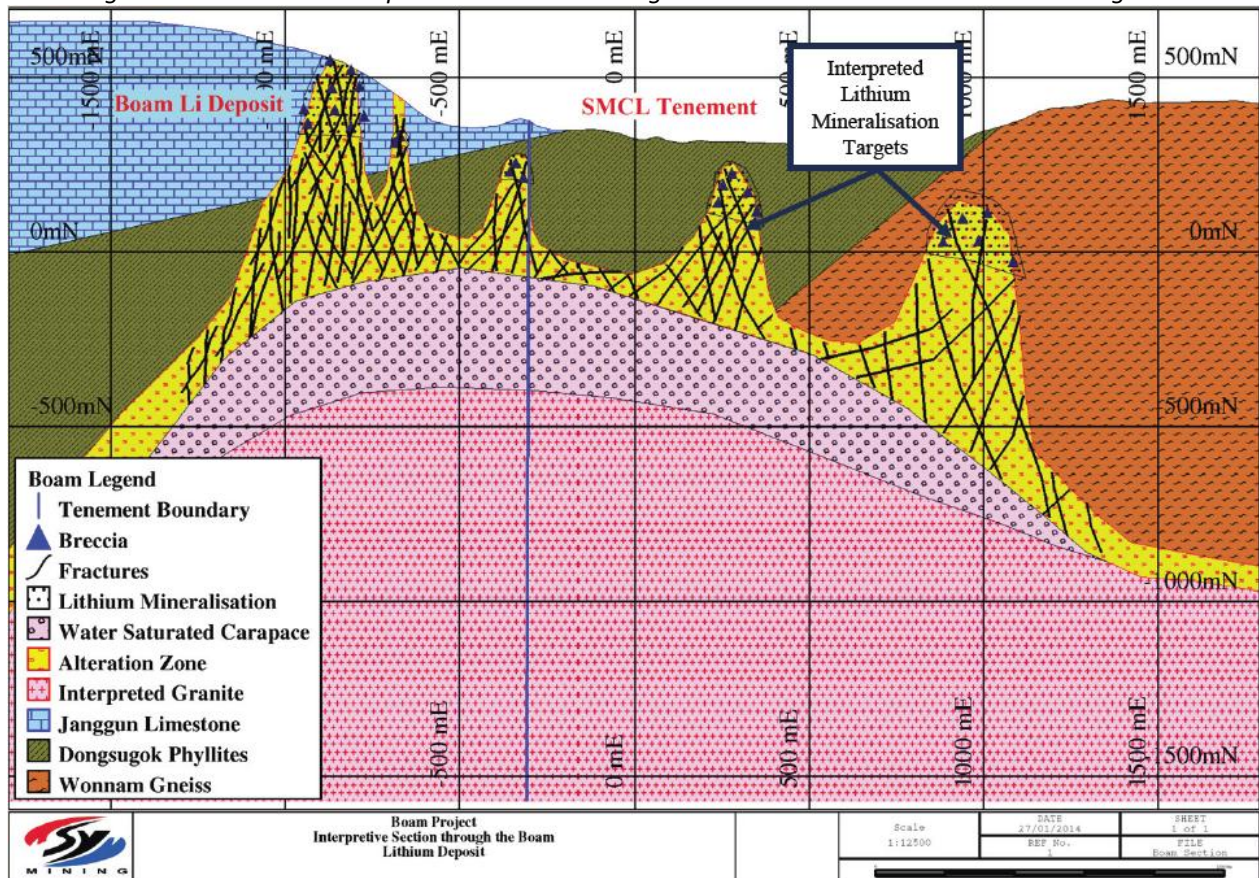
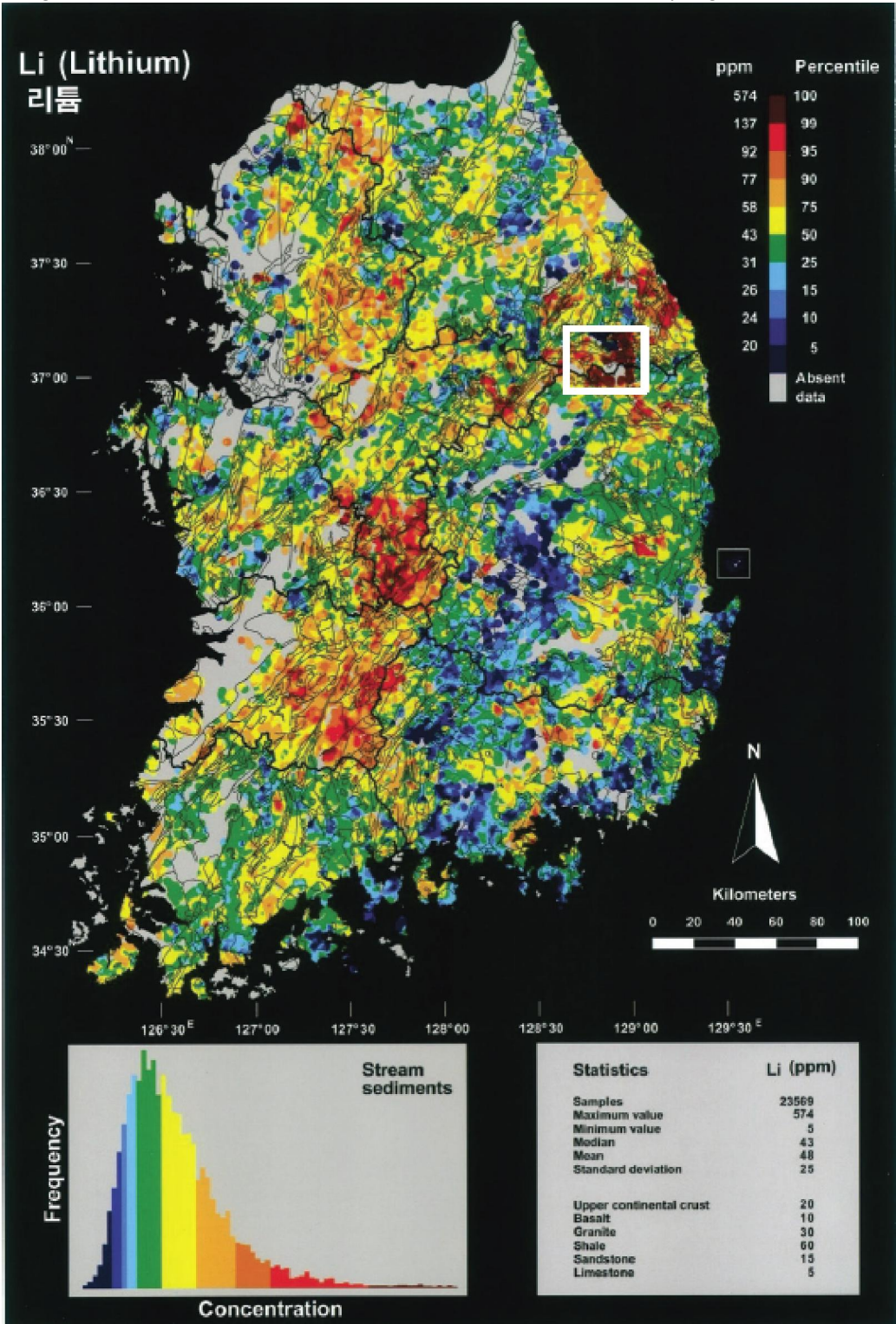




Figure 5: Lithium distribution in state-wide stream sediment sampling, South Korea<sup>D7</sup>



## Graphite:

- SMCL has filed 18 tenement applications over six, historically active, graphite projects (Figure 1).<sup>D2,4</sup>
- Several of the projects were active mines at some point prior to 1990, including **Wolmyeong**, formerly the largest graphite mine in South Korea, where extremely high grades of graphite (79 to 83% Total Graphitic Carbon) were historically recorded in 3 consecutive metamorphosed coal seams. High grade graphite mineralisation has been verified in recent rock chip analysis by LECO method. See Table 2, below.<sup>D1</sup>
- The **Yongwon** Project covers 5 adjoining tenement blocks where a graphite bearing structure hosted within Precambrian gneisses outcrops over 300m. Evidence of historical mining at the eastern end of the outcrop is encouraging. Historical assays recorded grades of 8.7% to 16.4%TGC which were verified in recent rock chip and channel sampling analyses. See Table 3, below.<sup>D3</sup> Petrographic and metallurgical analyses are underway.
- The **Daewon** Project consists of two tenement blocks where graphitic schists and limestone occur as part of a basement sequence dominated by Precambrian gneisses and intruded by Mesozoic granites and felsic porphyry. Previous rock chip sampling by KORES in 1978 identified flake graphite grades ranging from 6.9 to 42.4% Total Graphitic Carbon (TGC). The recent delineation of outcrop over 350m is encouraging, pending confirmation of the historical grades. Samples have been dispatched for petrographic studies, LECO analysis and metallurgical testing.<sup>D2</sup>
- **Janggohang** is the most recently secured tenement application of 4 blocks over an historically mined deposit, which demonstrates a significant strike length in outcrop. Preliminary assay results received from surface sampling suggest the content of graphite is low with the bulk of the carbon reporting as anthracite. As such this is a low priority target for Peninsula.<sup>D2</sup>
- The **Deokseung** prospect is a single tenement application over graphitic structures hosted within gneissic basement.
- Similarly, the **Eunha** prospect application covers a single tenement block where graphitic structures are hosted in granitic gneisses.<sup>D4</sup>

Table 2: Results of recent check samples collected by SMCL<sup>D1</sup>

Method	S-IR08	C-IR07t	C-IR17 <sup>#</sup>	C-IR18 <sup>#</sup>	(C-IR17) - (C-IR18)	(C-IR07t) - C-IR17
Analyte	S Total	C Total	C Organic & Graphitic	C Graphitic	C Organic	C Inorganic
	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.02	0.02	0.1	0.1
WR0001	0.03	54.1	52.9	52.8	0.1	1.2
WR0002	0.03	53.1	51.1	49.6	1.5	2.0
WR0003	<0.01	53.4	52.9	48.7	4.2	0.5
WR0004	0.04	72.9	70.2	66.7	3.5	2.7

# Results averaged from 3 readings due to high grade nature of the assays.

Table 3: Summary of Yongwon graphite analysis<sup>D3</sup>

SampleID	Analysis	Width (m)	Sample Type	Comments	Lithology	TGC%
YR0001	TGC		Spot		Graphitic Sandstone	17.95
YR0002	TGC		Spot		Graphitic Sandstone	16.05
YR0003	TGC	0.7	Channel		Graphitic Schist	9.07
NS*		0.7	Channel	soil cover	Soil	0
YR0004	TGC	1	Channel		Graphitic Sandstone	11.65
YR0005	TGC	1	Channel		Graphitic Quartzite	5.11
YR0006	TGC	1.2	Channel		Graphitic Quartzite	8.31
Total width sampled		4.6			Length weighted average across channel	7.2

\* Note a grade of zero has been assumed for the un-sampled soil covered interval for the purpose of completing a length weighted average grade calculation across the full width of the exposed structure in the sampled costean.



Figure 6: Yongwon sample locations on the Google Earth image. YR-003 and YR-006 mark the ends of the channel samples



Figure 7: Close-up view of Yongwon rock sample YR-002





## Predictive Discovery (Aurora 43.1%)

### Côte D'Ivoire:

Predictive has a significant presence in Côte D'Ivoire and has been actively expanding its gold tenure there through acquisition and JV agreement. Exploration of Predictive's own ground is enabled through a joint venture agreement with London-based Toro Gold Limited. Toro have maintained an aggressive exploration program which has included RC and diamond drilling both of which generated significant results for the JV during the Quarter.

Figure 8: Location of PDI's Côte D'Ivoire exploration permits operated under JV with XMI and Toro Gold Limited





**Boundiali Project:**

Early results from Toro's RC drilling program are suggestive of "a major gold mineralised system" due to the grades and widths encountered, corresponding to the 2km long gold-in-soil anomaly. Visible gold has been panned from drill chips. Highlights included:

28m at 4.0g/t Au from 3m, including 1m at 49.7g/t Au

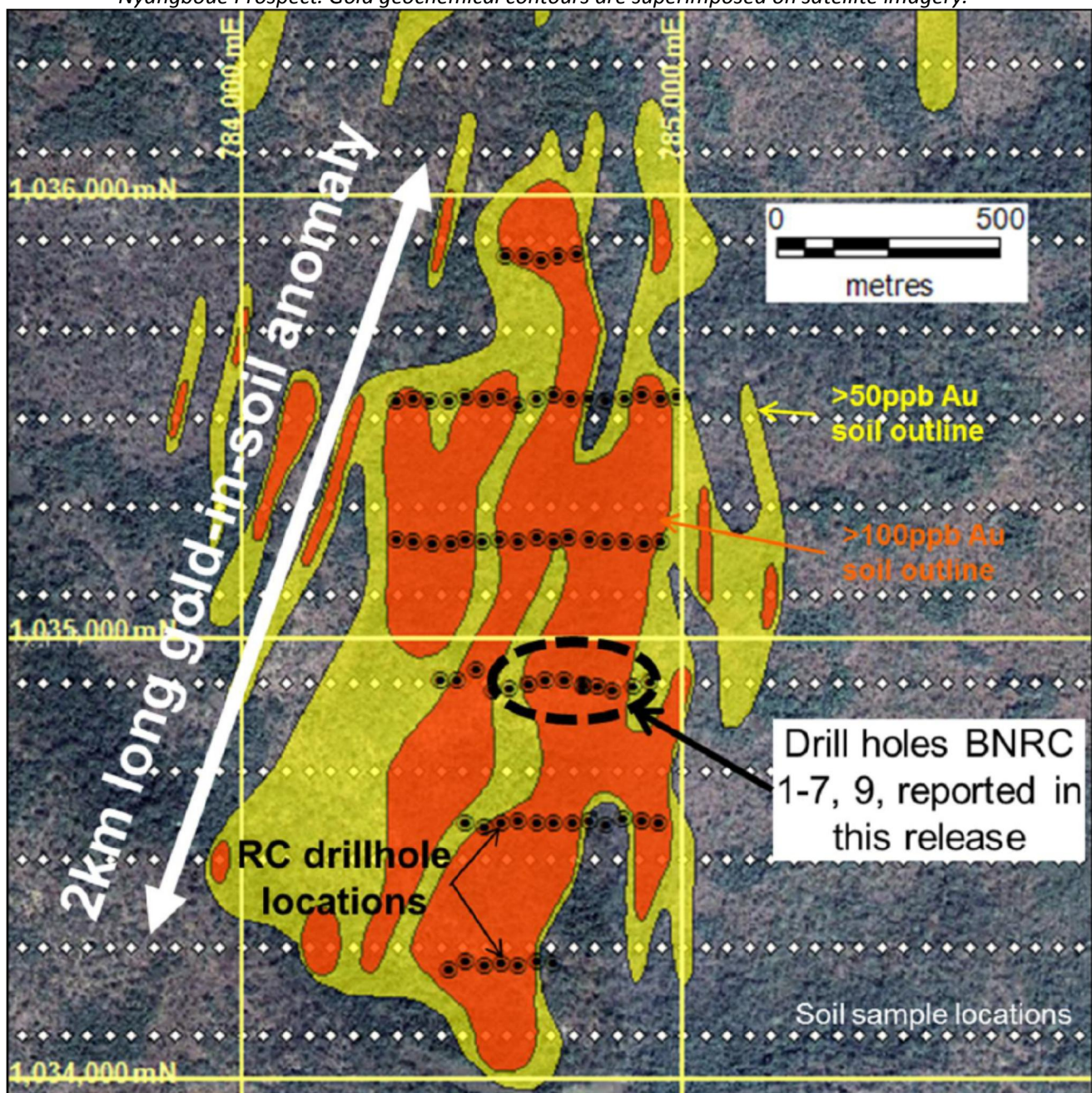
14m at 5.5g/t Au from 32m, including 1m at 31.6g/t Au

20m at 2.0g/t Au from 0m

6m at 3.3g/t Au from 47m<sup>P2</sup>

9m at 7.9g/t Au from 99m<sup>P3</sup> (this result was released post quarter end).

Figure 9: RC drill hole collar locations on a gold-in-soil geochemical contour plan in the southern 2km portion of the Nyangboue Prospect. Gold geochemical contours are superimposed on satellite imagery.<sup>P2</sup>





**Kokoumbo Project:**

Early results from Toro's 15-hole diamond drilling program have yielded the following highlights:

KOD001: 7.5m at 16.0g/t Au from 0m, including 1.5m at 74.2g/t Au from 6.0m

KOD002: 7.5m at 1.6g/t Au from 0m

KOD003: 4.5m at 3.4g/t Au from 0m

Further results are awaited and will determine the next phase of exploration.<sup>P1</sup>

*Figure 10: Photograph taken just as drill hole KOD001 was being set up. Note also the surrounding large area of recent surficial artisanal gold workings.<sup>P1</sup>*

**Aurora Minerals Western Australian Projects**

No field activities were undertaken during the quarter.

## Corporate

Aurora cash at bank ~\$3.1M (parent) and ~\$3.8M (consolidated group) at end of quarter.

Peninsula's placement, concurrent with an agreement to convert the balance of Aurora's loan to equity, resulted in the dilution of Aurora's shareholding to 32%.<sup>D5</sup>

During the quarter, and post quarter end Aurora disposed of 141M shares in Golden Rim Resources Limited realising net proceeds of approximately \$1.472M. Golden Rim has largely exited its Western African gold exploration strategy and as such was no longer core to Aurora's strategy. <sup>G1</sup>

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### **Competent Person Statement**

*The information in this report that relates to the exploration results and Mineral Resources of Aurora, Peninsula, Golden Rim and Predictive is summarised from publicly available reports as released to the ASX of the respective companies. The results are duly referenced in the text of this report and the source documents listed below.*

*The information in this report that relates to Exploration Results for Aurora Mineral's Australian Projects is based on information reviewed by Mr Daniel Noonan, a Member of the Australian Institute of Mining and Metallurgy. Mr Noonan is employed as a consultant.*

*Mr Noonan 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Noonan consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.*

*All the information in this release that is based on information compiled prior to 1 December 2013 was produced under the reporting directions as set out in the 2004 ed. JORC code. All subsequent releases have been compiled under the guidelines for reporting as set down under the 2012ed. JORC code. The information summarised herein has not changed materially from the greater detail that was originally disclosed in earlier public releases and which has been duly referenced in this release. The Company confirms that it is not aware of any new information or data that materially affects the information included in this report.*



## APPENDIX 1

### Mineral Tenement Information (as at 30 June 2016)

PROJECT	TENEMENT	PERCENT HOLDING	TITLE HOLDER/ APPLICANT	JOINT VENTURE
<b>WESTERN AUSTRALIA</b>				
<b>Glenburgh</b>	E52/1983	100%	Aurora Resources Pty Ltd	
<b>Camel Hills</b>	E09/1323	49.98%	Aurora Resources Pty Ltd	JV with Peninsula Mines

## APPENDIX 2

*List of Announcements to the Australian Securities Exchange which are referenced in this release:*

- D1 *Peninsula ASX Announcement 2 June 2016 – High Graphite Grades at Wolmyeong Project, South Korea*
- D2 *Peninsula ASX Announcement 21 June 2016 – Peninsula Mines Secures Janggohang Graphite Mine, South Korea*
- D3 *Peninsula ASX Announcement 19 July 2016 – High Graphite Grades at Yongwon Project, South Korea*
- D4 *Peninsula ASX Announcement 29 April 2016 – Quarterly Activities Report Ending 31 March 2016*
- D5 *Peninsula ASX Announcement 29 April 2016 – Notice of Change of Interest of Substantial Shareholder*
- D6 *Peninsula ASX Announcement 1 February 2016 – Lithium Prospect Enhanced by Magnetic High*
- D7 *Peninsula ASX Announcement 29 February 2016 – Five New Lithium Prospects in South Korea*
  
- P1 *Predictive ASX Announcement 13 May 2016 – 7.5m at 16g/t Au from Surface in Diamond Drilling, Côte D'Ivoire*
- P2 *Predictive ASX Announcement 23 June 2016 – Excellent initial RC Drill Results from Boundiali, Côte D'Ivoire*
- P3 *Predictive ASX Announcement 25 July 2016 – More Good Drill Results from Boundiali, Côte D'Ivoire*
  
- G1 *Golden Rim ASX Announcement 25 July 2016 – Form 605 - Notice of Ceasing to be a Substantial holder*