

## ASX RELEASE

29 OCTOBER 2015

CODE: ALY

### BOARD OF DIRECTORS

**Mr Oscar Aamodt**  
Non-Executive Chairman

**Ms Sofia Bianchi**  
Non-Executive Director

**Ms Liza Carpene**  
Non-Executive Director

**Mr Lindsay Dudfield**  
Non-Executive Director

**Mr Anthony Ho**  
Non-Executive Director

### ISSUED CAPITAL

SHARES 228,788,035

OPTIONS 3,000,000 (Unlisted)

### PROJECTS

BRYAH BASIN (80-100%)

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# SEPTEMBER 2015 QUARTERLY REPORT

## Highlights

### BRYAH BASIN PROJECT

#### *Base Metal Exploration*

- Independence Group NL (ASX: **IGO**) completed initial RC/Diamond drilling at Neptune targeting geochemical anomalism and EM conductors over 2 km strike of prospective Narracoota – Karalundi volcano-sedimentary sequence
- Drilling intersected zones of disseminated, blebby and stringer-style, pyrite-dominated sulfide mineralisation, including trace chalcopyrite, at several stratigraphic horizons
- Results from 4m composite samples from the RC holes and RC pre-collars of diamond holes return multiple mineralised horizons with strong copper and/or gold anomalism within the prospective sequence
- Assay results on diamond drill core samples through these zones expected in the coming weeks

#### *Gold Exploration*

- Northern Star Resources Ltd (ASX: **NST**) Farm-in and Joint Venture continues exploration of gold prospective landholding at Bryah Basin
- Program of auger geochemical sampling commences post Quarter along Seaborg, Flamel, Henry, Border and Troy corridors

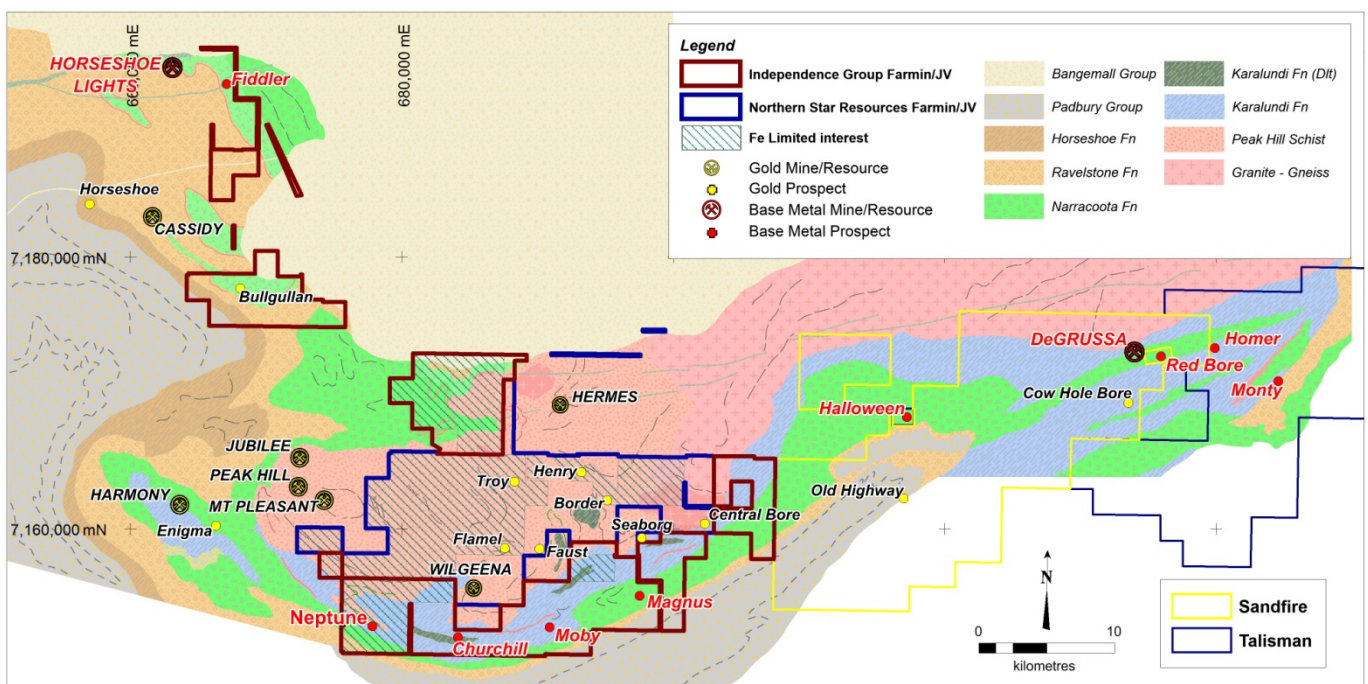
### CORPORATE

- Cash at 30 September 2015 – \$1.68M
- Alchemy targeting high quality projects in Australia and abroad to evaluate and explore

## Bryah Basin Project

Alchemy's Bryah Basin Project comprises a 500km<sup>2</sup> ground package located 130km NE of Meekatharra, Western Australia. The project is located along strike and west of Sandfire Resources' DeGrussa copper-gold mine and its discovery of high-grade copper-gold mineralisation at the Monty prospect, and adjacent to Peak Hill where about 1Moz of gold has been mined from several deposits (*Figure 1*). Alchemy holds 100% interest in the project with the exception of several tenements held in joint-venture with Fe Ltd (ASX: **FEL**).

Alchemy retains its interests in the base metal and gold prospective Bryah Basin Project through farm-in and joint venture agreements with Independence Group NL (ASX: **IGO**) ("**Independence**") (see ASX announcement dated 5 November 2014) and Northern Star Resources Ltd (ASX: **NST**) ("**Northern Star**") (see ASX announcement dated 24 February 2015). Should a high-value base metal or gold discovery be made by Independence or Northern Star, Alchemy retains the right to participate as a 20% partner, an equity position that may deliver significant value to shareholders.



**Figure 1:** Bryah Basin Project – Independence JV and Northern Star JV areas and gold and base metal prospects.

### Base Metals Exploration – Independence Group earning up to 80%

Leading Australian base metal and gold producer Independence Group NL is exploring and earning an interest ("**Independence JV**") in the whole and part tenements that cover the base metal prospective part of the Bryah Basin Project (see ASX announcement dated 5 November 2014). Under the terms of the Independence JV, Independence can earn up to 80% in Alchemy's interests (excluding iron ore rights) through Earn-In Expenditure of \$6M within five years, with Alchemy free-carried on further exploration to completion of a Pre-Feasibility Study and then carried on an interest-free deferred basis for a further \$5M of Definitive Feasibility Study expenditure.

The Independence JV area contains more than 40km of strike extent of the Narracoota – Karalundi volcano-sedimentary sequence, host to Sandfire Resources' DeGrussa copper-gold deposit and its high-grade copper-gold discovery at the Monty prospect (*Figure 1*), and prospective for discovery of volcanic massive-sulphide (VMS)-style copper-gold deposits.

In the Neptune area (Figure 1), RAB/aircore drilling has defined a 2.5 km long, strike-parallel zone of high-order, multi-element VMS pathfinder anomalism, localised within the underlying sedimentary-dominated Karalundi Formation and on the basal contact of the mafic-dominated Narracoota Formation (see ASX announcement dated 29 January 2015), and represents a priority target. These zones of anomalism are semi-coincident with several linear, moderate to strong electromagnetic (EM) conductors returned from moving-loop EM (MLEM) surveys conducted over the Neptune prospect, along with several potential basin-forming growth faults.

During the Quarter, Independence completed an initial RC and diamond drilling program at the Neptune prospect (see ASX announcement dated 2 October 2015). The program of five RC holes and three RC/diamond tail holes, drilled on five sections nominally 500m apart (Figure 2), targeted mineralisation at vertical depths of between 200 and 400m along 2 km of strike of the prospective zone. Funds from a WA Government Exploration Incentive Scheme Co-funded Drilling Initiative grant were used towards the drilling.

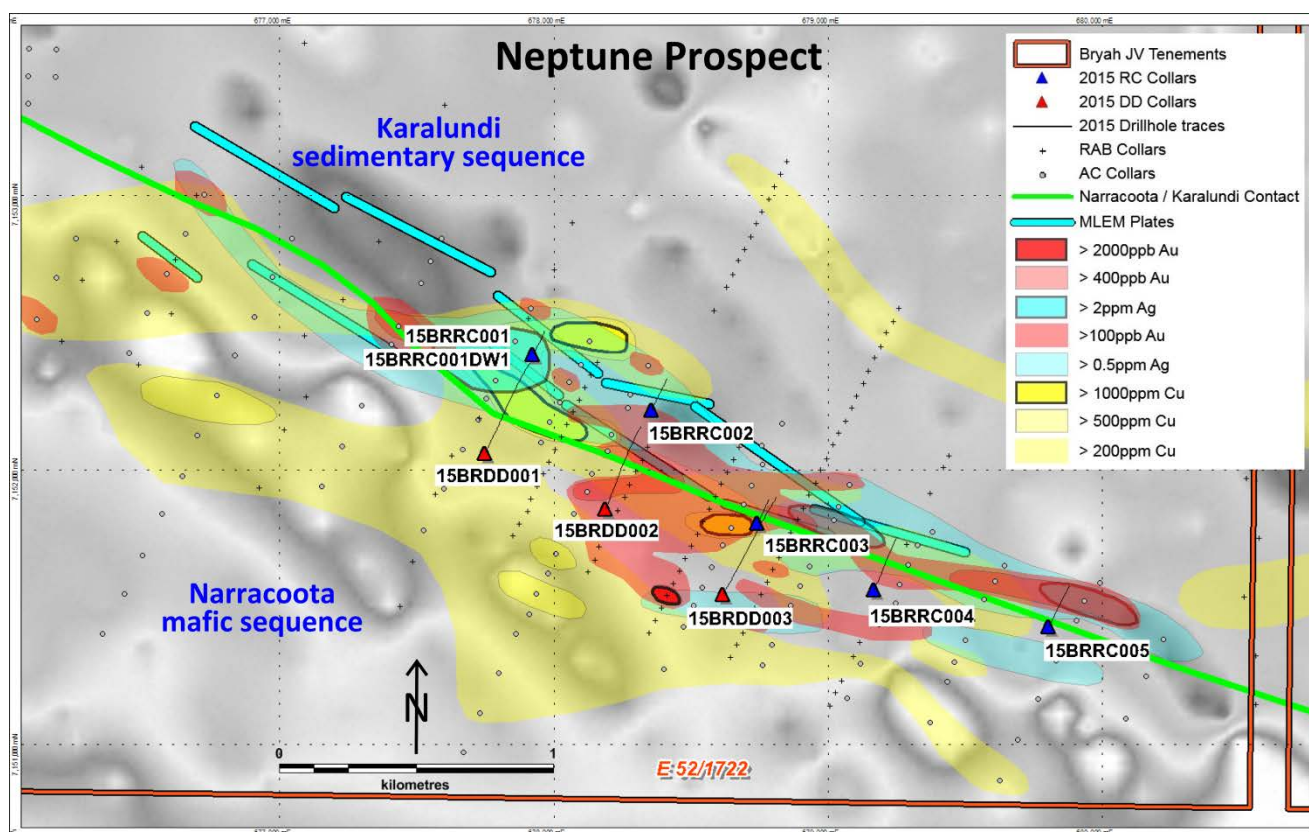


Figure 2: Neptune prospect showing and location of the RC-DD drilling program, previous RAB/AC drilling, geochemical Au-Ag-Cu anomalism and MLEM plates over magnetic image.

Drilling intersected zones of disseminated, blebby and stringer-style, pyrite-dominated sulfide mineralisation at several stratigraphic horizons within the Karalundi sedimentary-dominated sequence close to the contact with the overlying mafic (sub-)volcanic-dominated Narracoota sequence.

To date, assays have been received for 4m composite samples taken down each of the RC holes and RC pre-collars of diamond holes. The results indicate multiple mineralised horizons with strong copper and/or gold anomalism within the prospective Narracoota – Karalundi volcano-sedimentary sequence, including

<b>15BRRC002</b>	24m @ 1,263 ppm Cu	(from 88m)
<b>15BRRC003</b>	12m @ 426 ppm Cu, 645 ppm Zn	(from 28m)
	12m @ 118 ppb Au, 224 ppm Cu	(from 72m)
	16m @ 133 ppb Au, 193 ppm Cu	(from 100m)
<b>15BRRC004</b>	48m @ 130 ppb Au, 174 ppm Cu	(from 172m)



The high-order copper anomalism in 15BRR002 (24m at 1,263 ppm Cu from 88m) is associated with pyrite-dominated sulfide mineralisation within the Karalundi sedimentary sequence. The mineralisation is also associated with anomalism of a multi-element (Ag-Au-Bi-Mo-Sb-Se-Tl) suite, which is consistent with VMS-style copper-gold deposits.

The moderate-order (>100 ppb) gold anomalies in 15BRR003 and 15BRR004 are within broader (25-90m) zones of low-order (>50 ppb) gold anomalism associated with sulfide-mineralised, intercalated shale and siltstone within the Karalundi sequence. The broad zones of gold anomalism extend for over a 1 km strike proximal to the Narracoota – Karalundi contact.

Logging of the drill core has been completed and selected intervals of cut half-core have been submitted for gold and multi-element assay. Assay results of the core samples will become available in the coming weeks.

The diamond drilling has provided important stratigraphic and structural information in an area with no previous cored-drilling. Follow-up down-hole EM (DHEM) will also provide constraints on any off-hole EM conductors in the near vicinity.

The size and amplitude of the geochemical and geophysical anomalism at Neptune is indicative of the marginal zone of a VMS system. The current density of drilling (500m between sections) at Neptune is insufficient to provide a definitive test of the prospect. Upon receipt of the drill core assay results and the DHEM, Independence will integrate the results with existing data sets to identify priority exploration targets along the prospective Narracoota – Karalundi sequence.

#### ***Gold Exploration – Northern Star Resources earning up to 80%***

During the June Quarter, leading Australian gold producer Northern Star Resources Ltd commenced a Farm-in and Joint Venture ("**Northern Star JV**") (see ASX announcement dated 24 February 2015). The Northern Star JV is to explore and earn up to 80% of Alchemy's interests in the whole and part tenements that cover the gold prospective part of the Bryah Basin Project (Figure 1), including existing gold resources at the Wilgeena gold deposit (Indicated Resource of 1.36Mt @ 1.99g/t, equivalent to 87,373 ounces of gold: see ASX announcement dated 22 October 2012), and allows gold exploration to be accelerated.

Under the terms of the Northern Star JV, Northern Star can earn up to 80% in Alchemy's interests through Earn-In Expenditure of \$1.2M within three years on the gold prospective tenements. Upon Northern Star fulfilling its Earn-In Expenditure, Alchemy's interest is carried on an interest-free deferred basis to production, with Alchemy to repay Northern Star the deferred amount at the rate of 50% of its share of free cash flow from production following commencement of mining.

The Northern Star JV will enable near-term exploration to drill test high-grade gold targets at the Wilgeena, Central Bore and Seaborg areas and test historic gold intercepts and gold-in-soil anomalies along strike from these prospects and other high priority targets. The Seaborg and Central Bore gold prospects are two high priority targets that have returned high-grade gold results. Based on drilling results to date, gold mineralisation at Seaborg and Central Bore remains open at depth and potentially along strike, and targeted deeper drilling is required.

A pipeline of advanced to grass roots gold targets requiring further systematic exploration and targeted drilling has been identified over the gold prospective landholding in the Bryah Basin Project. Subsequent to the end of the September Quarter, Northern Star commenced a program of auger geochemical sampling in the Seaborg, Flamel, Troy, Henry, Border and Faust areas (Figure 1). The program is sampling the residual regolith immediately below the transported cover with auger hole depths of about 3 to 4m. Previous studies have shown that auger

geochemical sampling is an effective method of obtaining a meaningful geochemical response in areas with thin colluvial/alluvial cover.

Northern Star has advised that in the next Quarter it plans to undertake a high resolution airborne magnetic and radiometric survey to upgrade and extend the coverage of aeromagnetic data, as well as acquire additional aerial imagery to aid geological mapping over the Joint Venture area.

## Corporate

At 30 September 2015, the Company retained a cash balance of \$1.68M.

The Company is actively seeking and assessing potential opportunities to acquire high-value gold and base metal projects.

Please direct enquiries to:        Mr Oscar Aamodt – Chairman  
   Dr Kevin Cassidy – Chief Executive Officer  
   Telephone: +61 8 9481 4400

*The information in this report that relates to Exploration Results is based on information compiled by Dr Kevin Cassidy, who is an employee and security holder of Alchemy Resources Limited. Dr Cassidy is a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2012'). Dr Cassidy consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to Mineral Resources at the Wilgeena Gold Deposit is based on information compiled by Simon Coxhell, who is an employee of CoxsRocks Pty Ltd, a consultant to Alchemy Resources Limited. Mr Coxhell is a Member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2004'). Mr Coxhell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*Alchemy confirms that the Indicated Mineral Resource at the Wilgeena Gold Deposit were prepared and first disclosed under JORC Code 2004. These have not been updated since to comply with JORC Code 2012 on the basis that the information has not materially changed since last reported on 22 October 2012. Alchemy is not aware of any new information or data that materially affects the information included in that announcement and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.*

**Appendix 1: Schedule of Mining Tenements as at 30 September 2015**

<b>Project/Tenement</b>	<b>Location</b>	<b>Interest</b>	<b>Co-holder</b>	<b>Notes</b>
<b>Bryah Basin Project</b>	Western Australia			
E52/1668		80%	Jackson Minerals Pty Ltd	1, 2, 3
E52/1678		80%	Jackson Minerals Pty Ltd	1, 2, 3
E52/1722		80%	Jackson Minerals Pty Ltd	1, 2
E52/1723-I		100%	PepinNini Robinson Range Pty Ltd	2, 4, 5
E52/1730		80%	Jackson Minerals Pty Ltd	1, 2, 3
E52/1731		100%		2, 4
E52/1810		100%		2
E52/1852		100%		4
E52/2360		100%		2, 4, 6
E52/2362		100%		2, 4, 6
M52/722		100%		2, 4, 6
M52/723		100%		2, 4, 6
M52/737		100%		4, 6
M52/795		100%		2, 4, 6
M52/844-I		100%		2, 6
M52/1049		100%		4, 6
P52/1195		80%	Jackson Minerals Pty Ltd	1, 3
P52/1196		80%	Jackson Minerals Pty Ltd	1, 3
P52/1199		100%		2
P52/1200		100%		2
P52/1314		100%		4, 6
P52/1315		100%		4, 6
P52/1316		100%		4, 6
P52/1317		100%		2, 6
P52/1318		100%		2, 6
P52/1320		100%		2, 6
P52/1321		100%		4, 6
P52/1322		100%		4, 6
P52/1323		100%		2, 6
P52/1327		100%		4, 6
P52/1365		100%		4, 6
P52/1425		100%		2
P52/1427		100%		2
P52/1428		100%		2
P52/1429		100%		4
P52/1467		100%		2
P52/1468		100%		2
P52/1469		100%		2
P52/1470		100%		2
<b>SE Yilgarn Project</b>	Western Australia			
E28/2475		100%		
E28/2476		100%		

**Notes:**

1. Jackson Minerals Pty Ltd, a subsidiary of Fe Ltd (ASX: FEL), retains a 20% interest free-carried to a decision to mine.
2. Independence Group NL (ASX: IGO) has a right to explore and earn a 70-80% interest (excludes iron ore) in whole or part tenement free-carried to a pre-feasibility study.
3. Northern Star Resources Ltd (ASX: NST) has a right to explore and earn a 70% interest in whole or part tenement by sole funding a total \$1,200,000 on exploration expenditure over tenements or parts of tenements marked (3) & (4).
4. Northern Star Resources Ltd (ASX: NST) has a right to explore and earn a 80% interest in whole or part tenement by sole funding a total \$1,200,000 on exploration expenditure over tenements or parts of tenements marked (3) & (4).
5. 100% "Other" mineral rights (excludes iron ore); Robinson Range Iron Ore JV – 100% iron ore.
6. 100% minerals rights for all minerals, excluding iron ore; Carey Mining Iron Ore JV – Alchemy Resources 50%, Carey Mining 50% iron ore.