

PILBARA MINERALS LIMITED ASX: PLS

Production, Cash Flow, Growth

An emerging Australian strategic metals producer – July 2014 Investor Update

Disclaimer and Competent Person's Statement



Disclaimer

• This presentation may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this presentation are to Australian currency, unless otherwise stated. Investors should make and rely upon their own enquires and assessments before deciding to acquire or deal in the Company's securities.

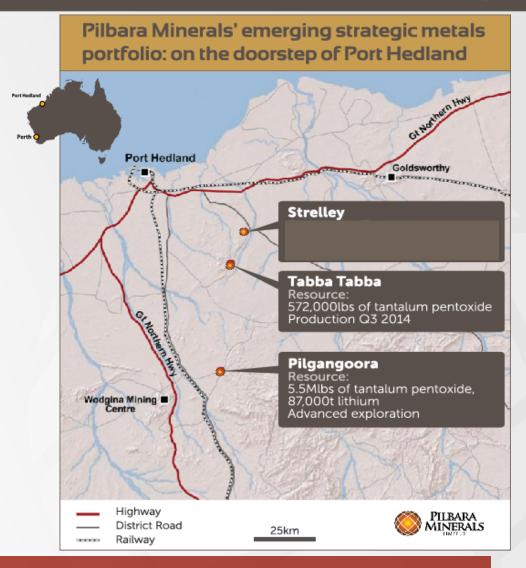
Competent Person Statement

- The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Young (Executive and Chief Geologist of Pilbara Minerals Limited). Mr Young is a shareholder of Pilbara Minerals. Mr Young is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Young consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.
- The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr John Young (Executive and Chief Geologist of Pilbara Minerals Limited). Mr Young is a shareholder of Pilbara Minerals. Mr Barnes and Mr Young are members of the Australasian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Young is the Competent Person for the database, geological model and completed the site inspection. Mr Barnes is the Competent Person for the database and the resource estimation. Mr Barnes and Mr Young consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Investment Highlights



- An emerging, low-cost producer of tantalum and lithium
- Portfolio of two substantial near-production assets in the Pilbara
- Located within 100km of Port Hedland excellent infrastructure
- Imminent production and cash flow from Tabba Tabba Tantalum Project – 50/50 JV with Nagrom:
 - Mining commencing Q3 2014
 - Low capital intensity, strong economics, secure off-take
 - Excellent mine life growth potential within Tabba Tabba underexplored pegmatites
- 100% ownership of the world-class Pilgangoora Project, located
 55km from Tabba Tabba:
 - World Class lithium-tantalum resource with substantial upside



Pilbara Minerals will produce ~10% of global tantalum production once Tabba Tabba is in production...

Corporate Overview ASX CODE: PLS



CAPITAL STRUCTURE	ASX Code: PLS	
Shares on Issue:	569M (Pro forma)	
Convertible Notes:	1.5M @ \$1.00 each	
Market Cap:	\$11.3M @ 2.0c	
Тор 20:	80%	
Board and Management:	25%	
Cash at Bank	\$3.2 Million (pro forma)	



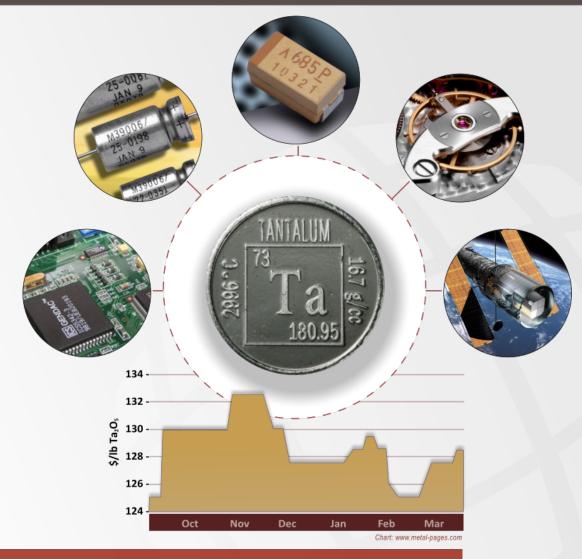
Highly experienced management team with strong experience in exploration, mining and corporate management:

- Tony Leibowitz, Non-Executive Chairman Fellow of The Institute of Chartered Accountants in Australia, over 30 years professional experience and previously a senior partner with Price Waterhouse Coopers in Corporate Finance and Investment Banking.
- **Neil Biddle, Director** Geologist and Corporate Member of the AusIMM with over 30 years professional and management experience in the global exploration and mining industry. Since 1987, Mr Biddle has served as Managing Director and Exploration Manager of several ASX-listed companies.
- Robert G Adamson, Non-Executive Director Geologist with over 40 years experience, served in technical, managerial and board positions with several publicly-listed exploration and mining companies in Australia, South Africa, New Zealand, South Korea, Canada and the Philippines.
- John Young, Exploration Manager Geologist and Corporate Member of the AusIMM with over 25 years experience in the global exploration and mining industry. Ten years direct experience managing tantalite, tungsten and molybdenite projects

Tantalum – Rare and Precious



- Classified as a rare earth metal.
- Refined tantalum has a market value between \$800,000 and \$1.2M per tonne
- Tantalite, Ta₂O₅, has an approximate market value of \$200,000 per tonne
- Largest deposits located in Australia, Brazil and Africa
- Major use in **electronics**, especially for capacitors = ~50% of global production (tablets, smart-phones, cameras, etc.)
- Also used for chemical and nuclear power plants,
 airplanes and missiles may also substitute for platinum
- Global tantalum market forecast to grow by up to 60% to ~2,000 tonnes by 2016 from ~1,300 tonnes currently
- Two major refiners globally: GAM and HC Starck (GAM is our off-take partner)

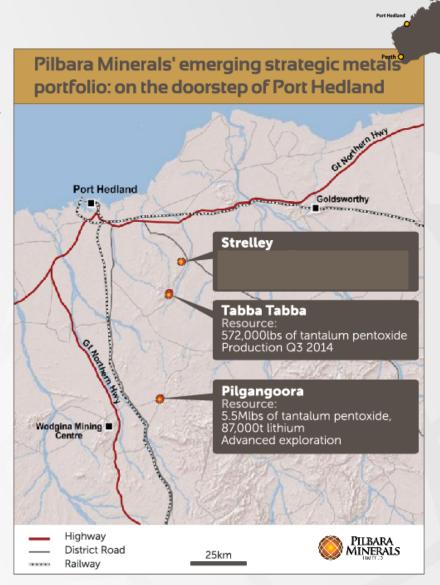


Pilbara Minerals will account for ~10% of global tantalum production once Tabba Tabba is in production...

Pilbara Tantalum and Lithium-Tantalum Projects



- Tabba Tabba Tantalum Project advanced, high quality tantalum project located just 75km south-east of Port Hedland:
 - Maiden JORC resource of 212,900t @ 1,220ppm Ta₂O₅ for 572,200lbs of contained Ta₂O₅
 - Forecast to generate \$16M of EBITDA in first 1.5 years on low CAPEX
 - Secure 5-year off-take with GAM
 - Processing plant 95% constructed: project start-up Q3 2014
 - Excellent potential to increase project reserves to at least 5 year minelife
- Pilgangoora Lithium Tantalum Project
 - Maiden JORC Resource of 10.4Mt @ 0.024% Ta_2O_5 for 5.5Mlbs of Ta_2O_5 , including 8.6Mt @ 1.01% Li_2O for 87,000t of lithium
 - Outstanding world class Lithium and Tantalite Resource, huge exploration upside

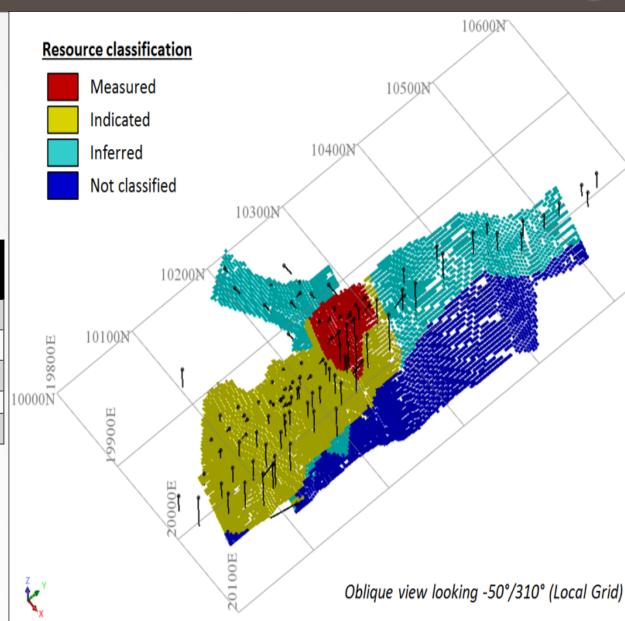


Tabba Tabba Tantalum Project

- Four granted Mining Licences: M45/354;
 M45/375; M45/376 and M45/377
- Environmental approvals completed
- JORC Resource

Category	Tonnes and Grade (ppm Ta ₂ O ₅)	Contained Ta ₂ O ₅ (lb)
Measured:	30.1Kt @ 1,610ppm Ta ₂ O ₅	106,960
Indicated:	124.4Kt @ 1,260ppm Ta ₂ O ₅	346,040
Inferred:	58.4Kt @ 925ppm Ta ₂ O ₅	119,200
Combined:	212.9Kt @ 1,220ppm Ta ₂ O ₅	572,200lbs

- Significant potential for future resource growth
- Tabba Tabba resource remains open in every direction



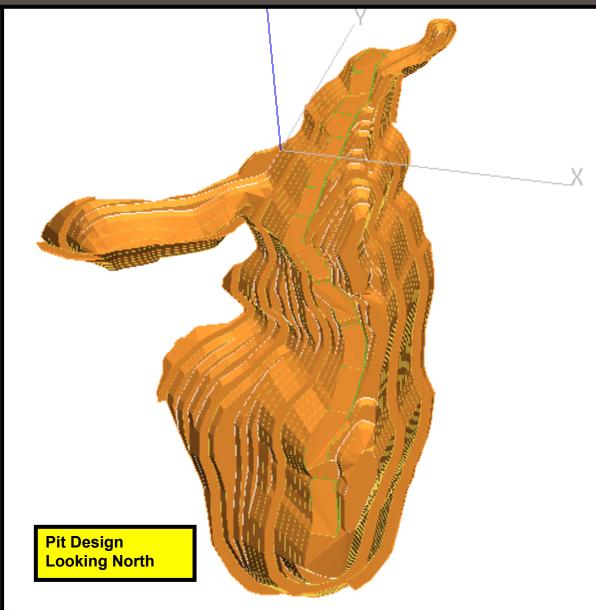
Tabba Tabba Mining Reserve



- Focused on high-grade zone
- Well defined independent resource estimate by MRG, containing 572,000lbsTa₂O₅
- Reserve

Category	Tonnes and Grade	Contained Ta₂O₅ (lbs)
Proven	30.1Kt @ 1,610ppm Ta ₂ O ₅	106,960
Probable	124.4kT @ 1,260ppm Ta ₂ O ₅	346,040
Combined:	154.5Kt @ 1,220ppm Ta ₂ O ₅	455,000

 Inferred material may add substantially to the mine model with potential for significant increase in the pit design and financial model



Tabba Tabba Pegmatite — Open Pit Zone looking south





Tabba Tabba Tantalum Project — Strong growth Potential



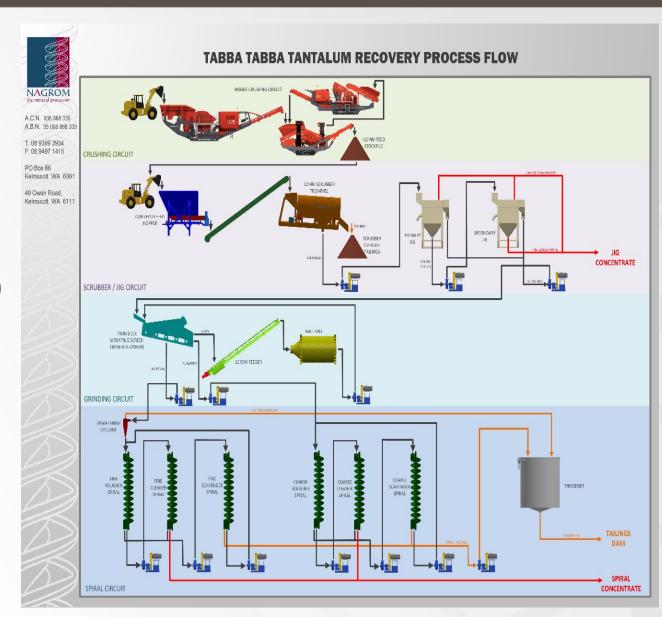
- Tabba Tabba pegmatite only drilled in high grade zone, up and down dip and along strike extensions to be drill tested in August 2014
- Exploration targets at Tabba Tabba and surrounding areas have potential to significantly expand minelife
- Advanced exploration asset located at Strelley
 10km from Tabba Tabba, JV has MOU with GAM
- Historical Strelley drilling comprises 62 NQ Diamond Holes and 3 RC holes



Tabba Tabba Tantalite Recovery Flowsheet



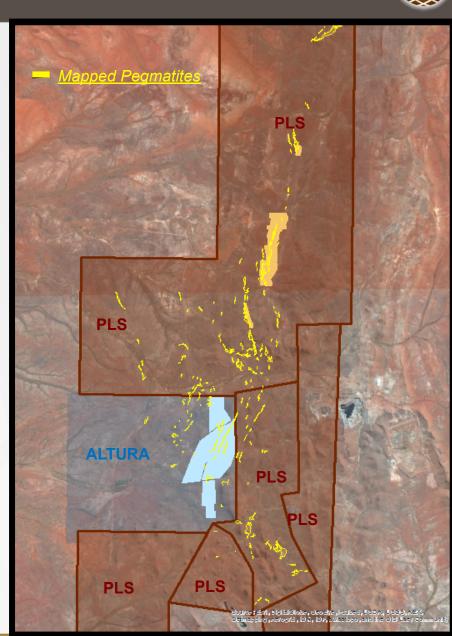
- Crushing and gravity plant rated at 120,000tpa on single shift
- Upgradeable to 250,000tpa with additional ball mill and spirals
- Upgradeable to 500,000tpa with working 2 x 10 hour shifts per day
- Produces 5% Ta₂O₅ concentrate to meet
 GAM's off-take specification



Pilgangoora Lithium-Tantalite Project



- 100% owned world class Lithium and Tantalite resource within contiguous block of 3 Mining Licences, 2 Exploration licences
- Maiden Inferred Resource of 10.4Mt @ 0.024% Ta₂O₅ containing 5.5Mlb of Ta₂O₅, including 8.6Mt @ 1.01% Li₂O containing 87,000t of lithium
- Significant potential to increase Resource through in-fill and stepout drilling
 - RC drilling planned for Q4 2014 focusing on higher-grade tantalum lenses and lithium targets on strike from Altura's resource
- Majority of pegmatites remain untested by drilling

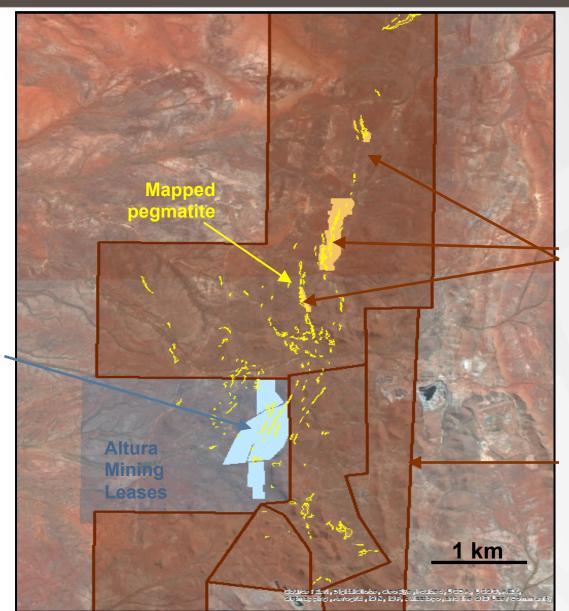


Pilgangoora Lithium-Tantalite Project



Altura Mining Limited Pilgangoora Li Resource 25.2Mt @ 1.23% Li₂O

Third largest hard rock lithium resource in the world



Pilbara Minerals Pilgangoora Resource 10.4Mt @ 0.024% Ta₂O₅ and 1.01% Li₂O

Pilbara Minerals tenements

Timetable for Tabba Tabba Production — Resource Upgrades



- July 2014: Complete \$2.5M capital raising, Complete lodgement of Statutory Works Approval Application, Mine Plan, Mine Closure plan
- August 2014: Complete construction of Tabba Tabba treatment plant, Commence resource extension drilling at Tabba Tabba, exploration drilling at southern pegmatite
- September 2014: Commission treatment plant at Nagrom, complete Tabba Tabba drilling, commence Pilgangoora resource drilling, commence mine construction pads for tailings dam and waste dumps, pads and concrete footings for treatment plant, camp pads, haul roads upgrade
 Tabba Tabba resource/reserve, assess southern pegmatite for resource potential
- October 2014: Transport treatment plant to site, install and commence trialling, complete mine construction, commence open pit pre strip and ore stockpile, continue Pilgangoora drilling
- November 2014: Official mine opening, production and sale of first tantalite concentrates, complete first phase of Pilgangoora drilling, infill drilling southern pegmatite
- December 2014: Resource upgrade for Pilgangoora, resource estimate southern pegmatite

Quality Strategic Partners



Nagrom

- Project Manager, large PLS shareholder
- World-recognised metallurgical laboratory and tantalum processing specialists since 1978
- Nagrom metallurgical staff will operate Tabba Tabba plant, ensuring optimum recovery and profit

Global Advanced Metals (GAM)

- Leading vertically integrated and conflict-free provider
 of high performance tantalum metallurgical and powder
 products to the electronics, aerospace, automotive,
 chemical manufacturing and other industries.
- Off-take partner for Tabba Tabba (5-year term)

Mining and
Agreement
h GAM







50/50
Development and Mining
Joint Venture



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