



TALGA PRESENTATION AT RIU SYDNEY RESOURCES ROUNDUP CONFERENCE

Talga Resources Ltd
ABN 32 138 405 419

1st Floor, 2 Richardson St,
West Perth, WA 6005

T: +61 8 9481 6667

F: +61 8 9322 1935

www.talgaresources.com

Corporate Information

ASX Code **TLG**

Shares on issue **105.1m**

Options (unlisted) **3.75m**

Company Directors

Keith Coughlan

Non-Executive Chairman

Mark Thompson

Managing Director

Grant Mooney

Non-Executive Director

 **ASX Code: TLG**

Talga Resources Limited (ASX:TLG) ("Talga" or "the Company") is pleased to provide a copy of the presentation to be delivered by Managing Director Mr Mark Thompson at the *RIU Sydney Resources Round-Up* conference this week.

The presentation summarises Talga's latest corporate information and focusses on its wholly owned graphite and graphene projects in Sweden. The presentation will be made available on the Company's website www.talgaresources.com

The presentation details are as follows:

Date: Thursday, 15th May 2014

Time: 9.20am

Venue: Sofitel Sydney Wentworth

Further information on the Company's graphite/graphene developments and divestment projects will be available at Talga's booth at the conference.

For further information, contact:

Mark Thompson

Managing Director

Talga Resources Ltd

Tel +61 (08) 9481 6667

Email admin@talgaresources.com

ABOUT TALGA

Talga Resources Limited (Talga) (ASX: "TLG") is a diversified mineral explorer and developer with a portfolio of 100% owned graphite, iron, copper/gold projects in Sweden and gold projects in Western Australia.

The main focus is the development of its unique graphite and graphene deposits of northern Sweden utilising the advantages of world-leading high-grade deposits, low cost power, established mining infrastructure and short transport distance to high demand markets in Europe.



Talga Resources Ltd Investor Presentation

**RIU Conference
Sydney 13-15 May 2014**



ASX: TLG

Cover; Nunasvaara graphite core sample and graphene schematic.

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Executive Summary



- ▶ Talga Resources Ltd (“Talga”) ASX:TLG is developing the **world’s highest grade graphite mineral resource**¹, located in the Kiruna mining district of Sweden.
- ▶ In recent tests Talga has demonstrated a **world-first ability** to produce **high quality graphene** direct from its **raw** (uncrushed/unpurified) **graphite ore** which provides Talga with **unique economic advantages** compared to global graphene peers.
- ▶ This new **low cost** and **abundant** supply potential is a paradigm shift in the production outlook for bulk graphene, a high-value ‘wonder’ material with huge growth potential.
- ▶ Talga has defined 7.6 million tonnes source ore to date and is ramping up its low-cost development to focus on becoming a global graphite and graphene supplier with industry leading margins.
- ▶ The Company is transitioning to a sole graphite/graphene focus by divesting non-core assets including iron ore projects in Sweden and gold projects in Australia.
- ▶ Near term potential value catalysts include new upscaling of metallurgical process with **breakthrough graphene option, commercial/sales agreements** and **scoping study** utilising **dual graphite/graphene production**.

¹ See appendices for details of JORC (2004) resources and www.techmetalsresearch.com for world graphite resources grade comparison.

Talga Resources Corporate Overview

Board of Directors

Keith Coughlan	Non-executive Chairman
Mark Thompson	Managing Director
Grant Mooney	Non-executive Director

Capitalisation Summary

Ordinary Shares	105.1M
Unlisted Options ¹	3.75M
Cash (at 31/3/2014)	\$1.9M
Debt	\$0.0M
Market Capitalisation (full diluted @ \$0.22)	\$23.9M

Share Price last 12 months ASX:TLG



Top Shareholders (+3%)

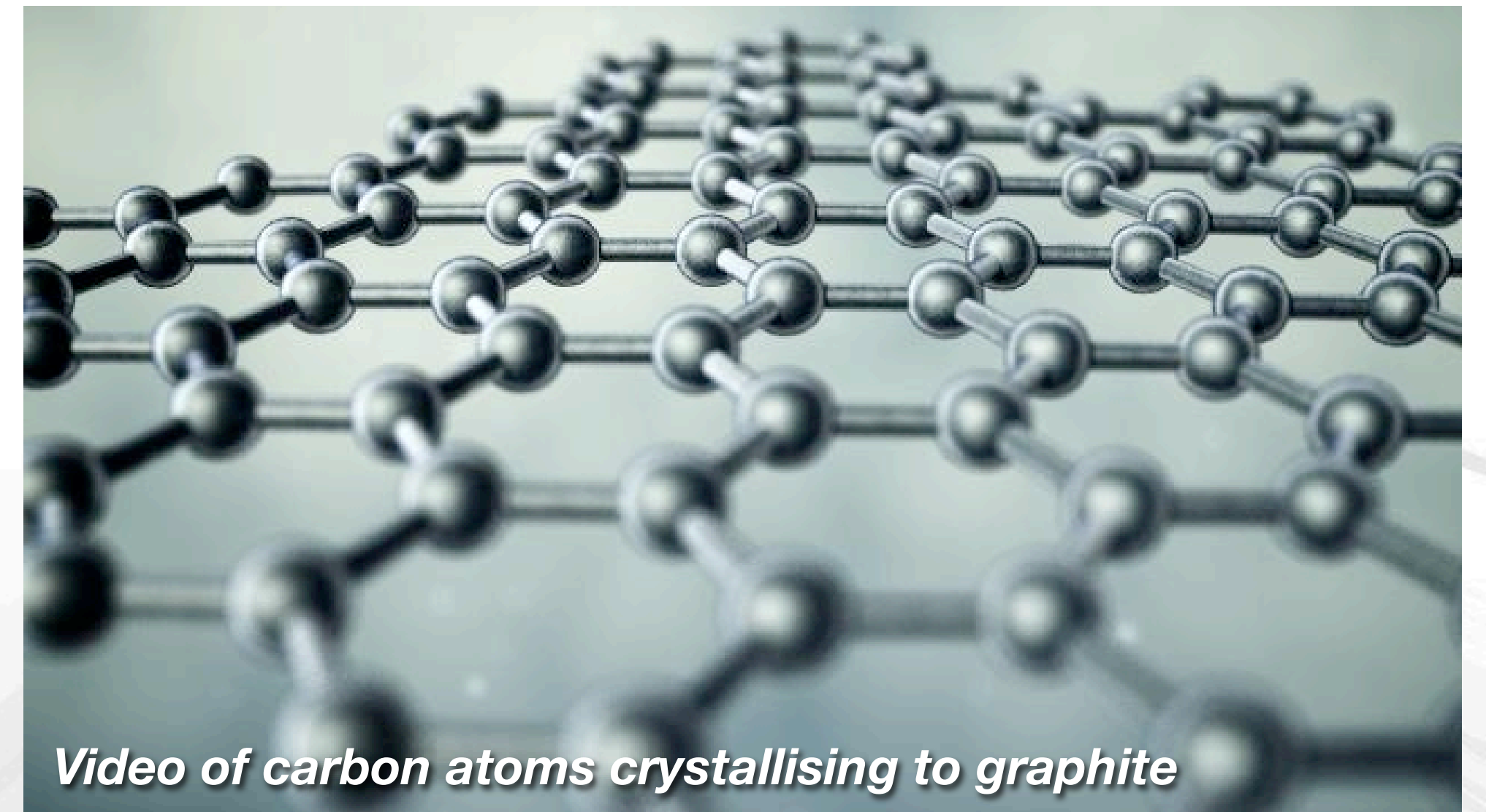
Lateral Minerals Pty Ltd (<i>Managing Director</i>)	8.8%
Two Tops Pty Ltd	4.5%
Yandal Investments Pty Ltd	3.4%

Top 20 own 45%

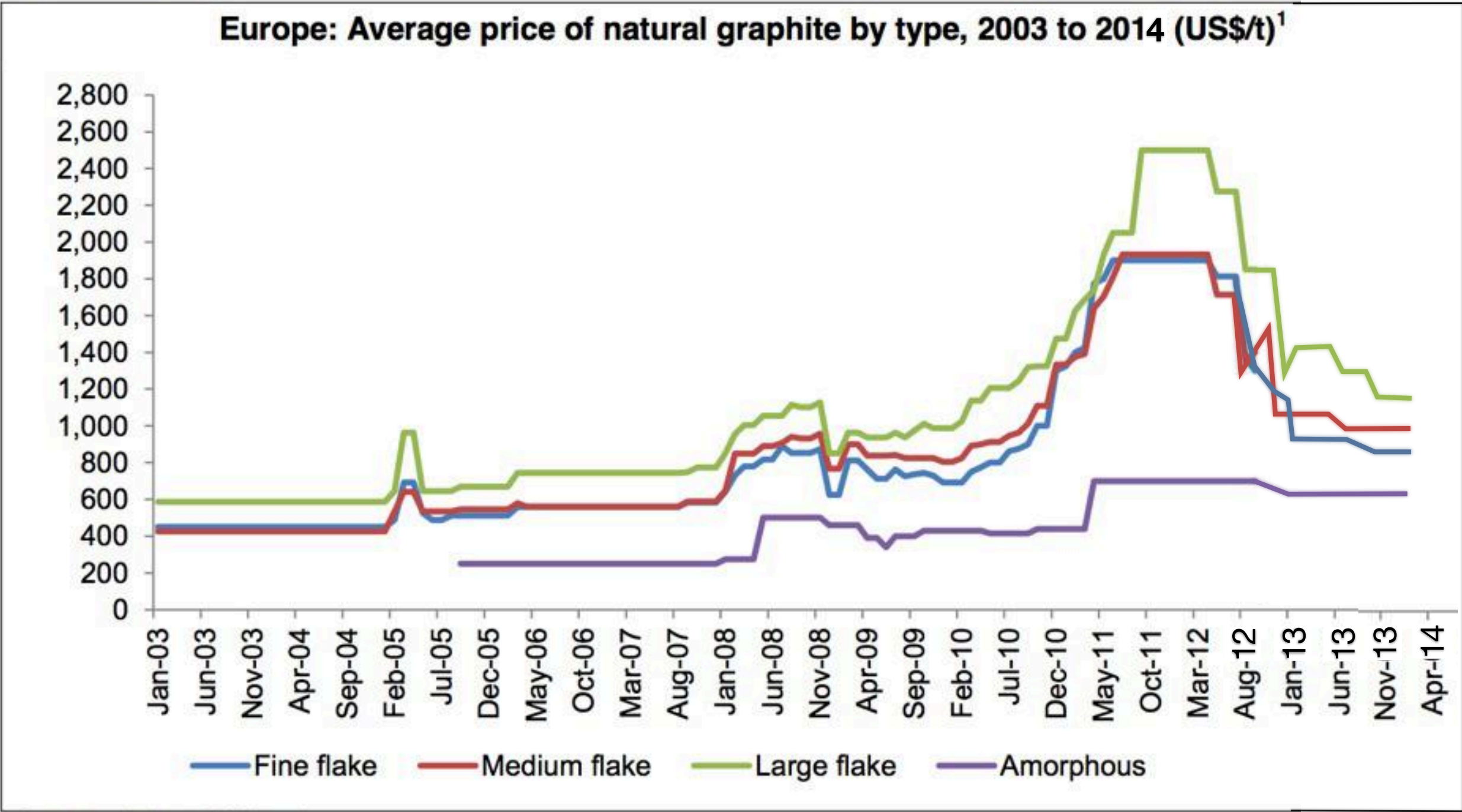
¹ 2.75m @ 40c director exp 30 Nov 2014, 0.5m @ 35c employee exp 21 Jul 2015, 0.5m @ 45c employee exp 3 Oct 2016.

What is Natural Graphite?

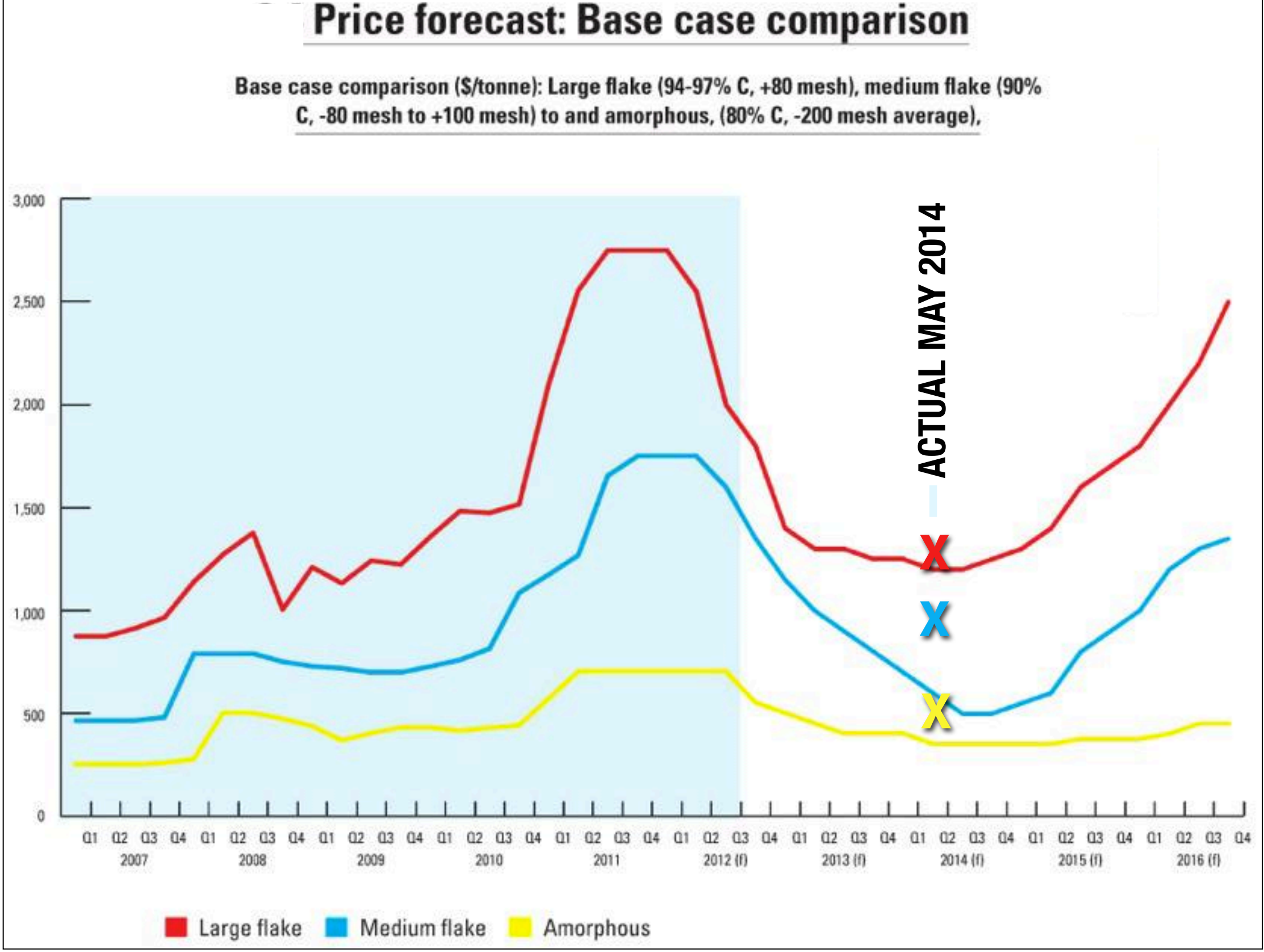
- ▶ **Graphite** is a crystalline form of carbon that forms in nature when carbon-rich rocks undergo metamorphism (pressure/temperature induced change). It can be synthesised but at very high cost.
- ▶ Graphite (the mineral) consists of parallel sheets of carbon atoms in a hexagonal lattice, which when one or few atoms in thickness, are called **graphene**.
- ▶ Graphite has remarkable **properties** of electrical and thermal conductivity that make it useful for a large range of applications.
- ▶ Natural graphite demand is about **1.1Mt/yr**, a volume similar to Nickel, with total value approximately US\$1B/yr.
- ▶ Graphite is most commonly sold as a concentrate by private contract. Industry prices are surveyed and published by **Industrial Minerals** magazine.
- ▶ Consumption is diverse with significant markets in steel production and refractories (>50%), automotive parts, lubricants and batteries.
- ▶ China and Brazil supply >**80%** world natural graphite.



Graphite prices exceeding historic and forecast trends.



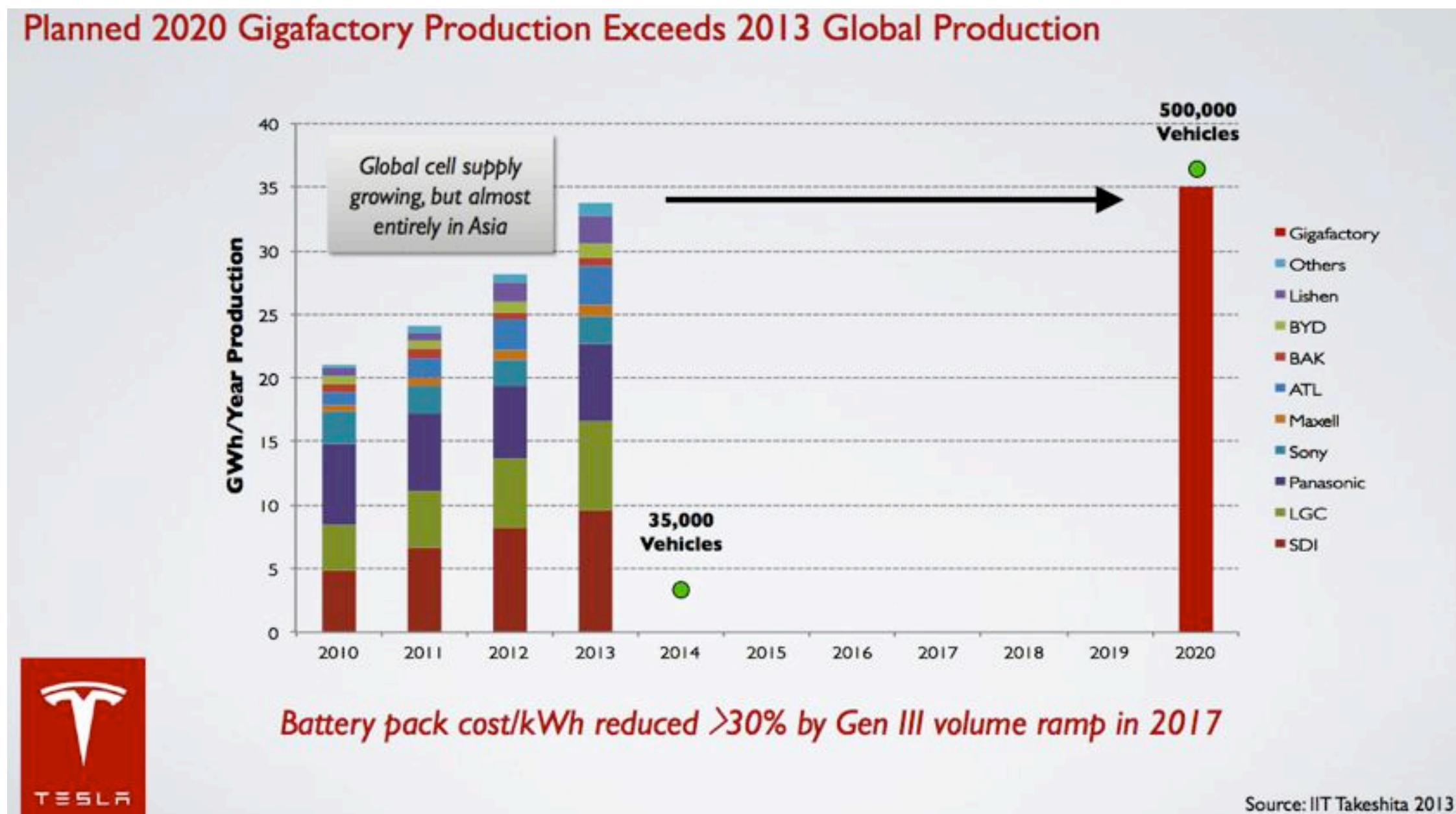
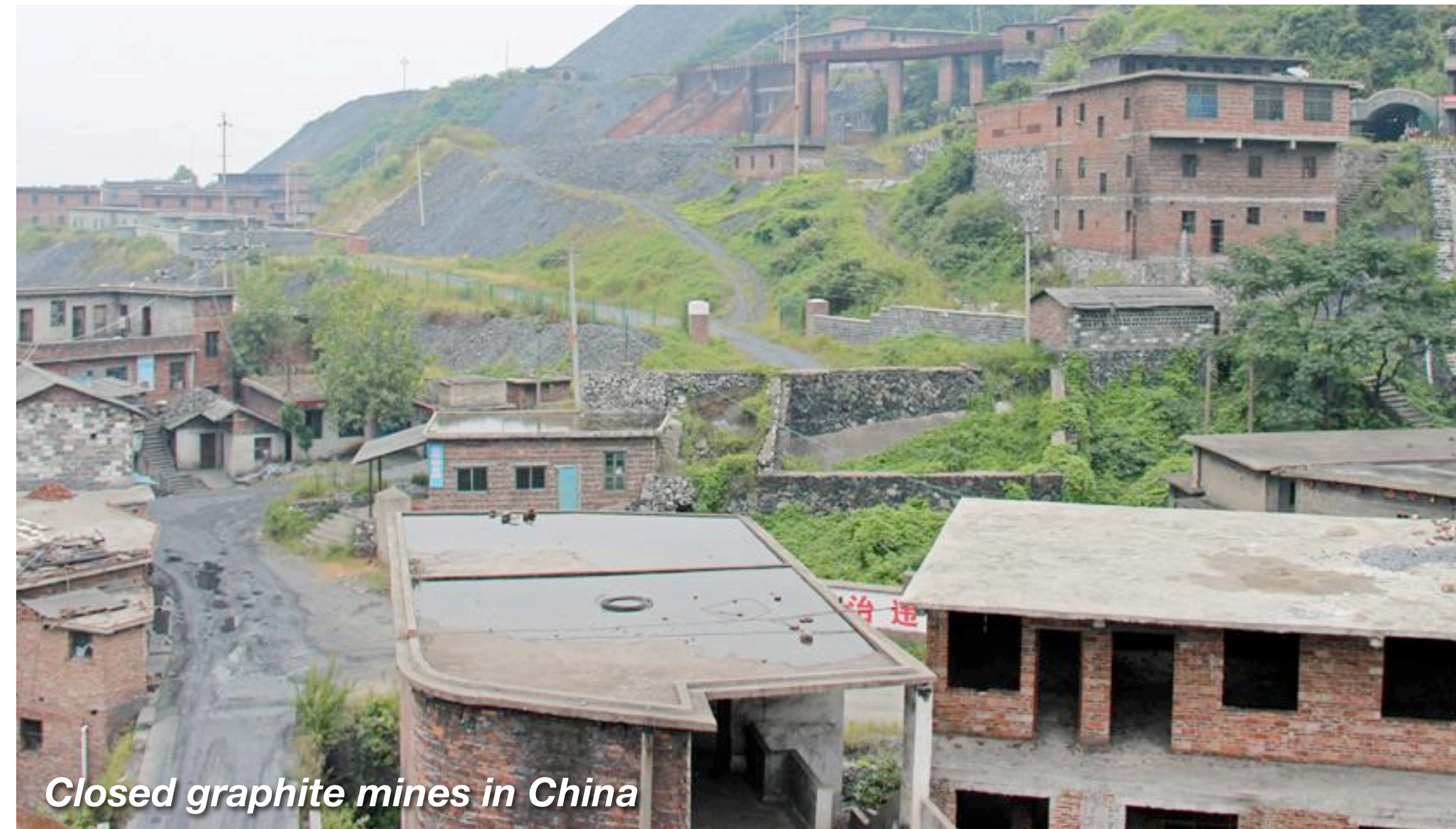
Graphite prices now steady, with flake 50% higher and amorphous 100% higher than long term averages.



Prices have exceeded forecasts since end of 2012 and base case prices are trending to surprise on upside. See appendix for further price/market data.

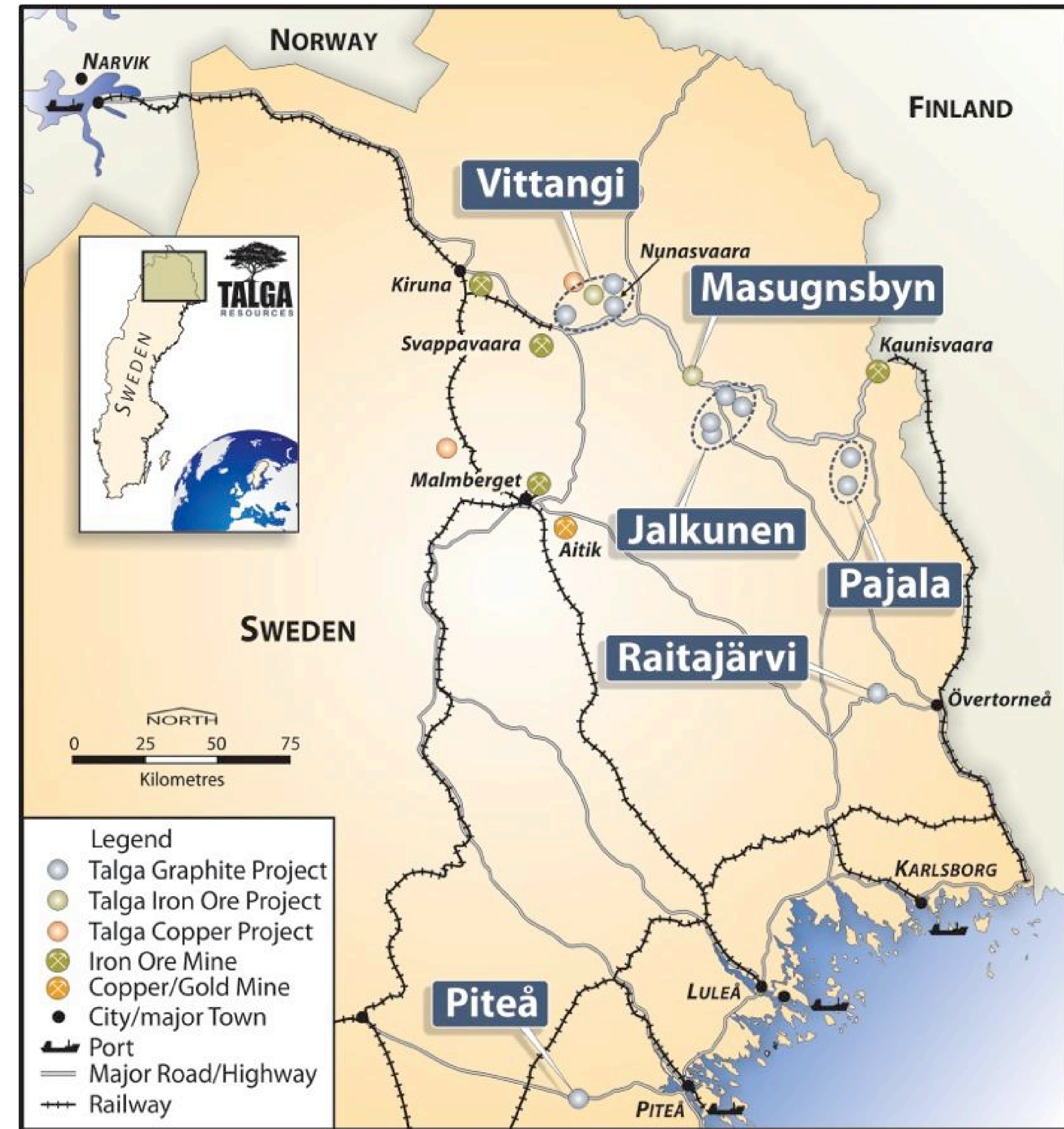
Graphite Drivers

- ▶ **China** has maturing operations with rapidly **declining production** profiles but **rising costs**. Additional **government consolidation** and **crackdown** on **environmental pollution** has **shut** significant amount of graphite production. Graphite declared **critical strategic mineral** in UK, EU and USA.
- ▶ **Graphite** is a **significant component** of many types of **battery**, particularly Li-ion which contain **10x more graphite than lithium** in battery anode. Electric vehicles can use up to **100kg graphite per vehicle** in batteries.
- ▶ **Rapid growth** taking place in EV's causing shortages. **Tesla** recently announced plans for a **US\$5B Li-ion battery 'gigafactory'** that alone will require the graphite equivalent to 6 new mines. Other manufacturers may compound shortage.
- ▶ New applications creating **new markets**; graphite and graphene pivotal role in future **energy transport, storage** and **performance** via unique material properties.



Talga's Graphite Projects

- ▶ **100% ownership of five graphite projects** with multiple deposits offering the **full range of market size specifications**.
- ▶ **Two advanced stage projects in the development pipeline.** These are drilled to **JORC Indicated** status and preliminary **economic studies** are underway;
 - *Nunasvaara* is a microcrystalline flake deposit with the **highest JORC/NI43-101 resource grade in the world¹**. It is located within the *Vittangi* project.
 - *Raitajärvi* is a **coarse flake deposit** with 49% of flake classified large to jumbo size.
- ▶ At an earlier stage of drilling but exceptionally **well located** and containing **>80% XL-size (jumbo) flake** graphite is the *Piteå* project.



¹ See appendices for details of JORC (2004) resources and www.techmetalsresearch.com for world graphite resources grade comparison.



Advantages of Sweden for Mining

- ▶ Ranked **No.1 mining jurisdiction in world** by Fraser Institute 2013-14
- ▶ Corporate tax rate **22%**, Mineral Production tax **0.2%**
- ▶ **Established** bulk commodity **infrastructure** with open access rail, road and ports
- ▶ **Low cost power** from hydroelectricity and nuclear grid
- ▶ Well established **mining province** with **highly skilled** workforce and **support industries**
- ▶ Hosts **world-class mineral deposits** but remains under-explored relative to peers as foreign mineral ownership only allowed since 1992

The 'Aitik' Cu-Au mine, northern Sweden. Owner; Boliden. Milling 36Mt annum ore.

Logistics Advantages

- ▶ Talga's projects located **proximal** to high quality sealed roads and open-access heavy haulage railway with **direct link to Europe markets**. No shipping required.
- ▶ Major **cost advantage** on delivery compared to shipments from other jurisdictions.
- ▶ EU consumes **20%** of world's natural graphite production, and **imports 95%** of its needs (vast majority from China).
- ▶ EU has classified graphite as a "critical raw material".

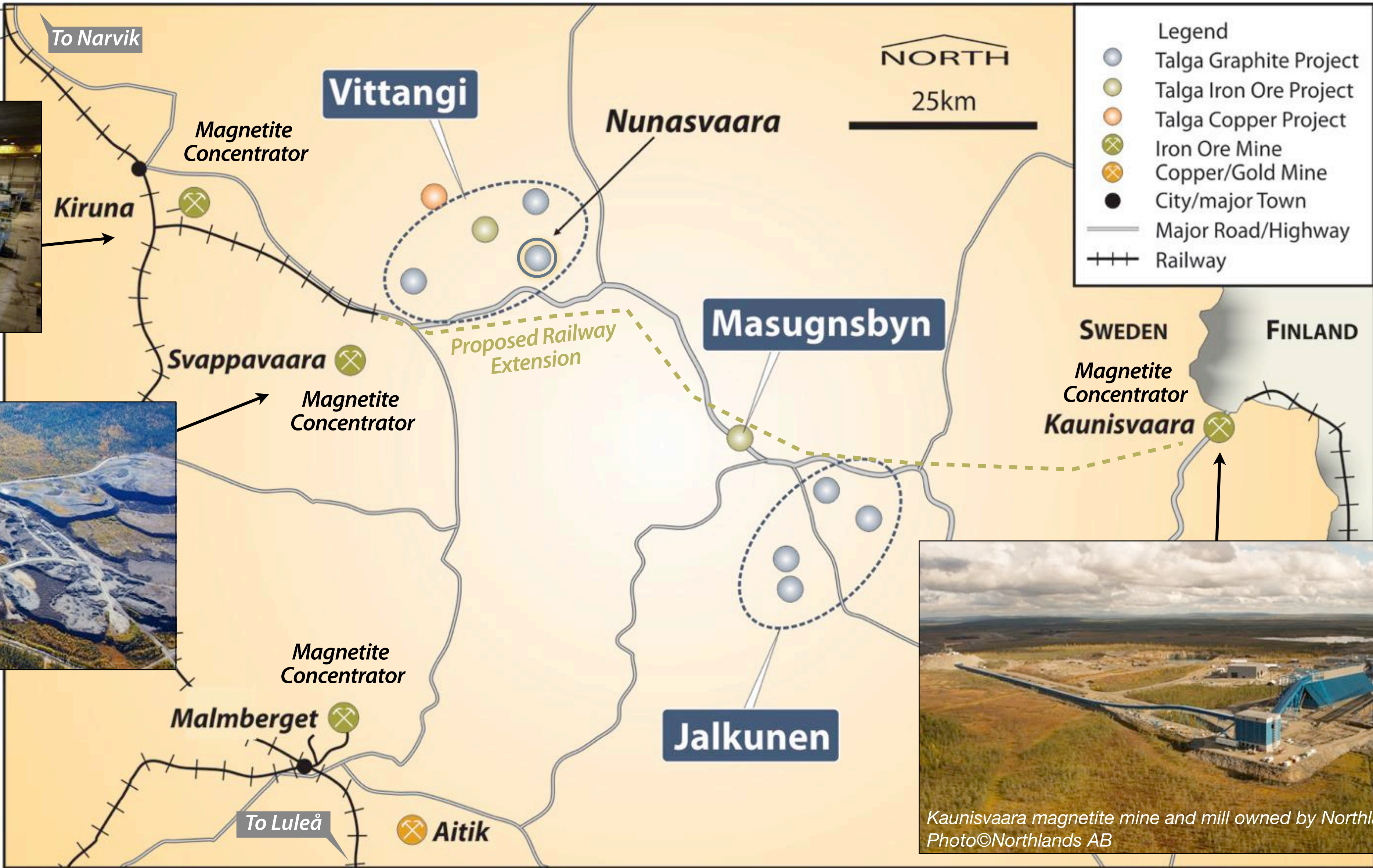


Road through Nunasvaara project



Öresund Bridge road/rail tunnel linking Sweden to mainland Europe

Established mining district with extensive milling and transport infrastructure



Kiruna magnetite mine and mill owned by LKAB. Photo©Fredric Alm/LKAB



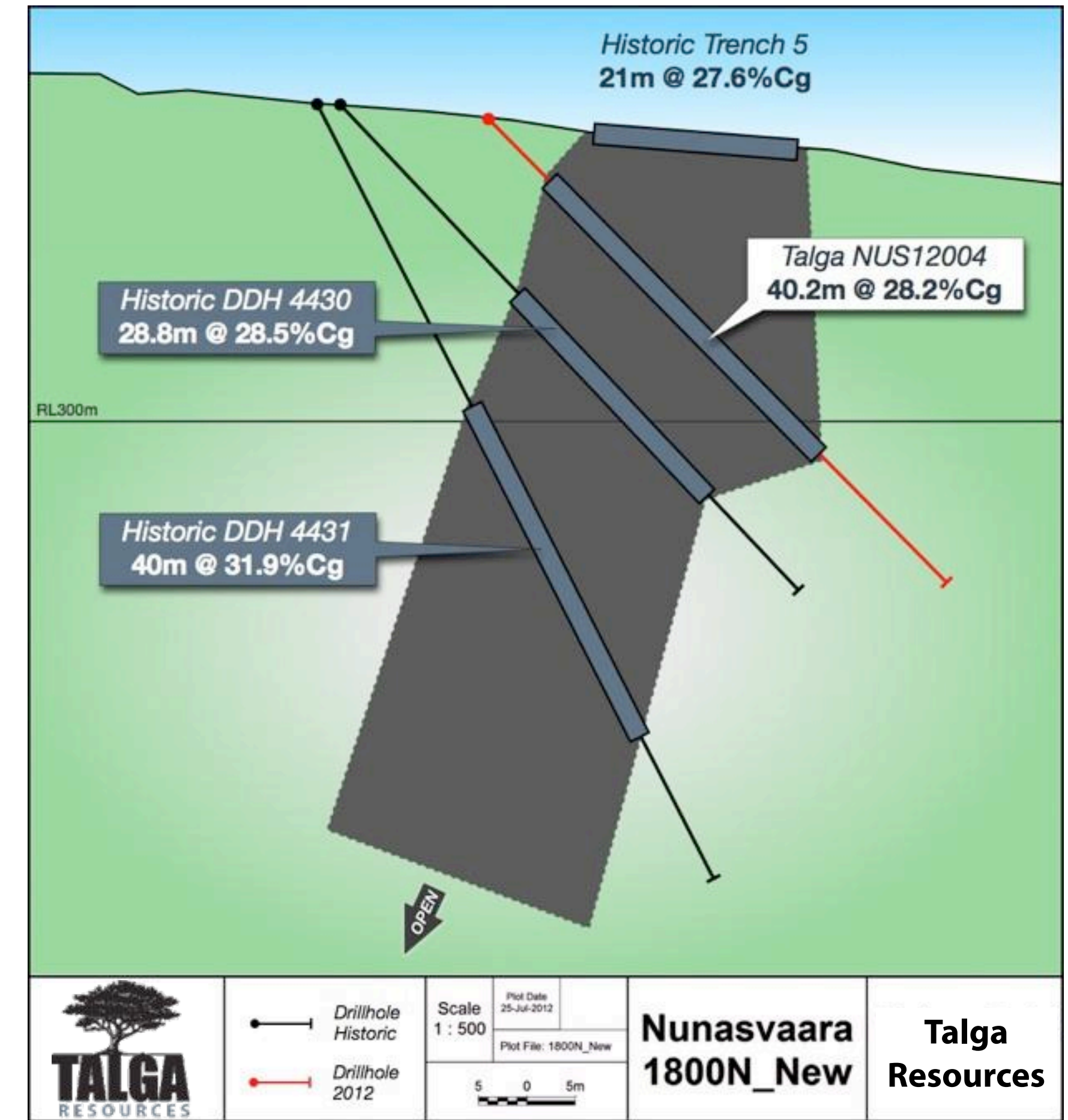
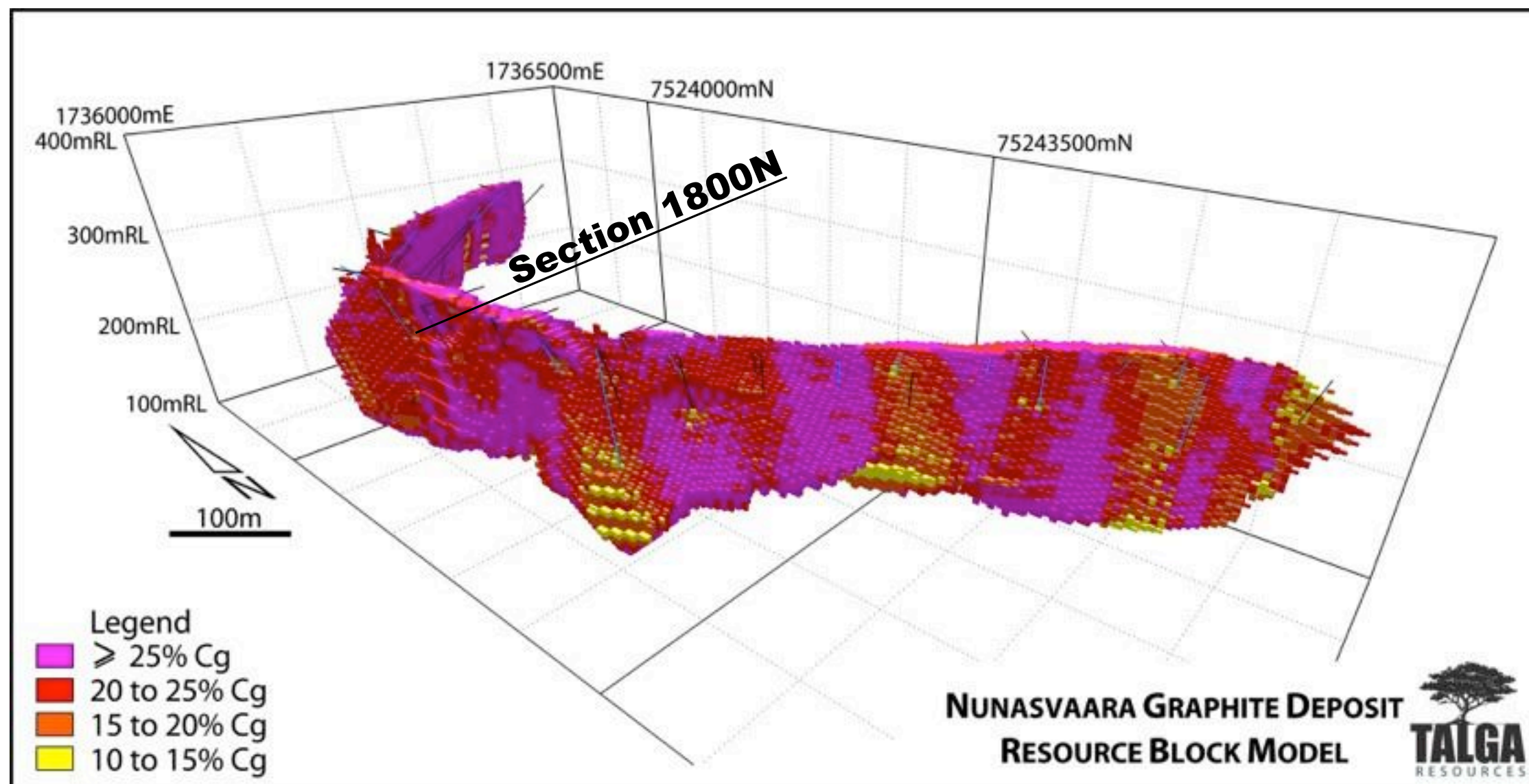
Svappavaara magnetite mine and mill owned by LKAB. Photo©Fredric Alm/LKAB



Kaunisvaara magnetite mine and mill owned by Northlands AB. Photo©Northlands AB

Vittangi Project - Nunasvaara Graphite

- ▶ World's highest grade JORC/NI43-101 resource¹ of (ASX:TLG 8 Nov 2012) 7.6Mt @ 24.4% graphite ("Cg") (see appendix).
- ▶ Resource mineralisation from surface to 165m depth and remains open. Average true width 20m over 1.2km strike and remains open along strike. Mapped unit >15km in TLG 100% control.
- ▶ Graphite unit hosted within atypically low metamorphic grade volcanic greenstones with potentially unique mineralogy. Robust outcropping high grade resource makes low-cost potential in both ultrafine to fine graphite and bulk graphene market.

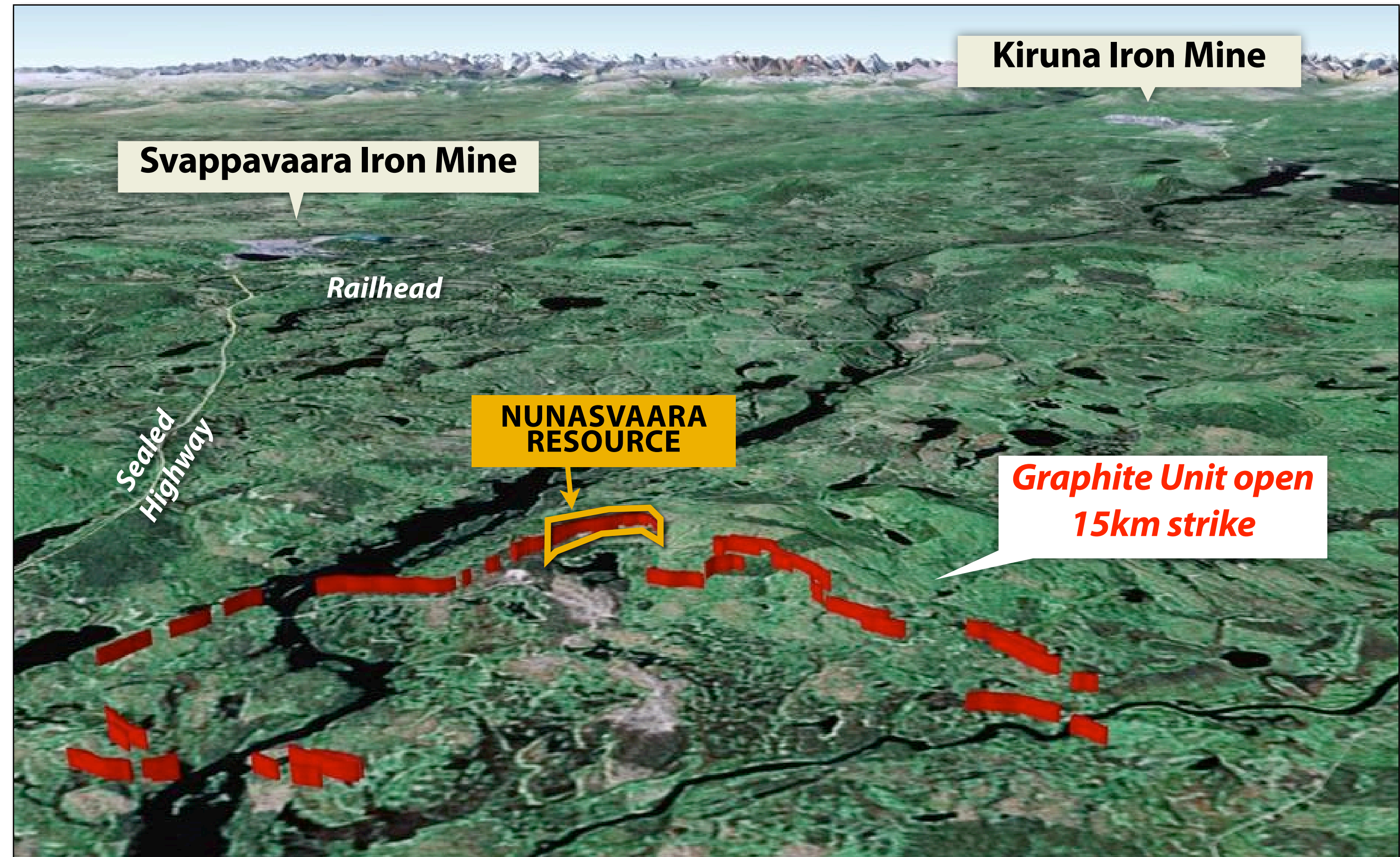


Nunasvaara Mineral Resource¹ (10% Cg lower cut-off grade)

JORC 2004 Classification	Tonnes (Mt)	Grade (%Cg)	Contained Graphite (tonnes)
Indicated	5.6	24.6	1,377,600
Inferred	2.0	24.0	480,000
Total	7.6	24.4	1,857,600

Growth potential and logistics advantages

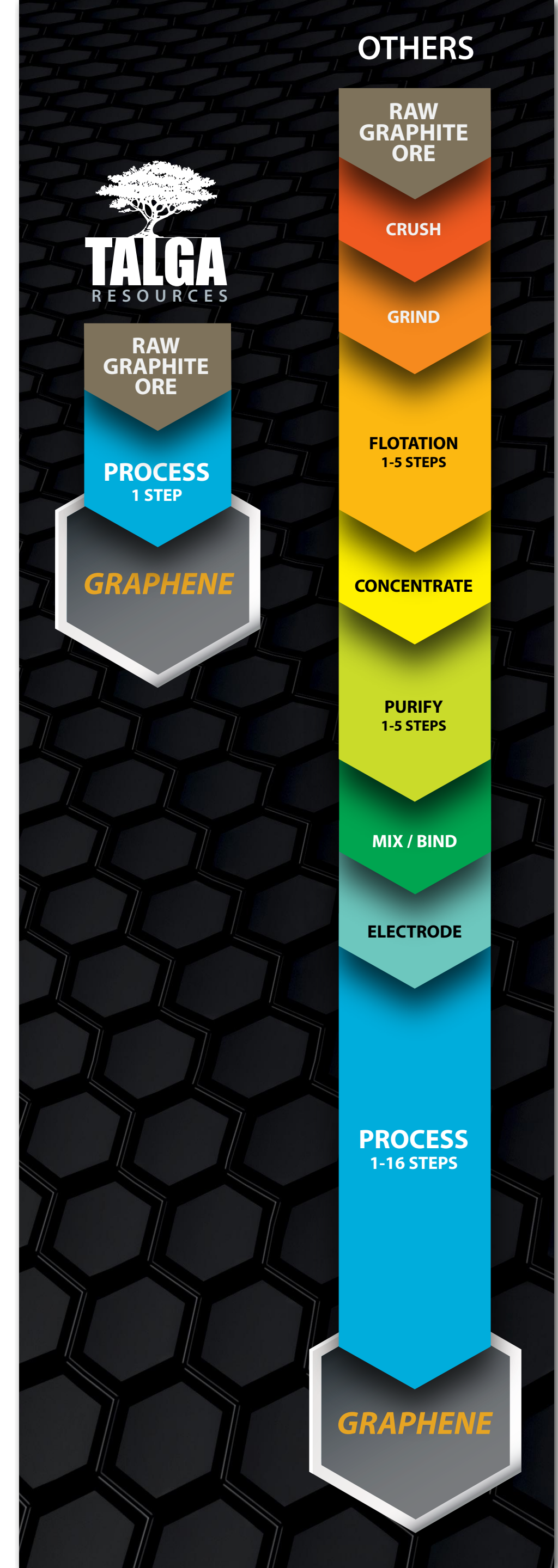
- ▶ Graphite unit outcrops in part and is mapped over at least **15km strike**. 100% controlled by TLG.
- ▶ Sampling by Talga of the outcropping unit averaged **26.2% Cg** with grades up to **46.7% Cg**.
- ▶ Less than 8% of graphite unit drill tested to date.
- ▶ Development advantages of **exceptional grade, open-pit bulk mining option, low-cost grid power and nearby road/rail/port options (3km to road, 25km to rail)**.



Unique Graphene Production Ability

Nunasvaara has unique advantage to potentially produce bulk quantity graphene at ultra-low cost

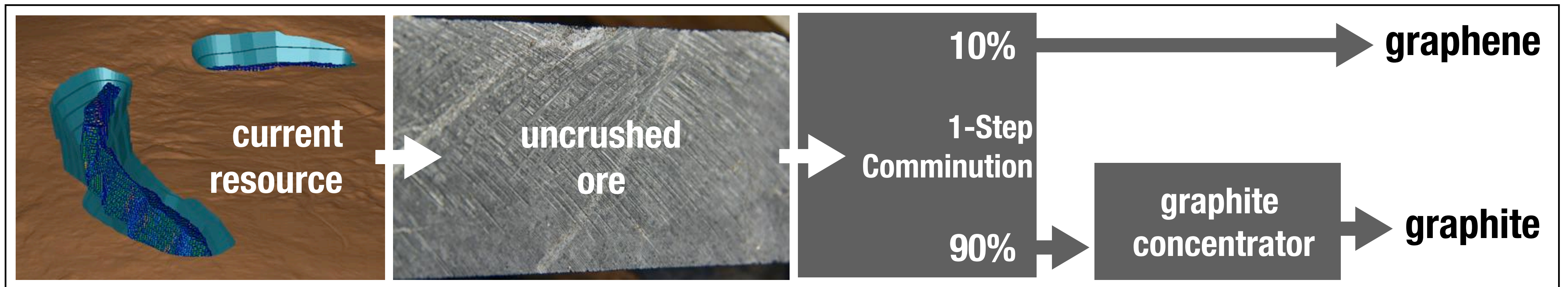
- ▶ The common path to **graphene production** from **natural graphite ore** involves **multiple stages** of crushing, milling and flotation to form a **concentrate** that is **purified** before entering further steps including electrode forming, oxidation and reduction to reach saleable graphene.
- ▶ These **stages add costs** while **damaging** the **quality** of the graphene, **lowering price** and **shrinking market applications**.
- ▶ Talga's economic advantage is that Nunsvaara ore **does not need multiple stage processing**. Because of the **unique** characteristics of the **ore**, both graphite and graphene can be liberated from the ore in a **single step** process.
- ▶ This enables Talga to enjoy a **vastly different production** and **capital cost** structure **compared to other** producers globally, and represents a paradigm shift in the production outlook for **bulk graphene**.



Dual Graphite/Graphene Production Option

On 19 Feb 2014 Talga announced exceptional results from new metallurgical testwork on Nunasvaara graphite ore. Key conclusions of the testwork include:

- ▶ A 1-step process using electric current applied **directly to uncrushed/unpurified** Nunasvaara ore can cause rapid **liberation of graphite and graphene without physical milling**.
- ▶ Single to few layered graphene is produced **without** oxidation or sonication and therefore retains a pristine **high quality** state not commonly possible at high yield bulk scale potential (defect-to-layer ratio <0.25). The liberated graphite and waste products can undergo a concentration step to produce graphite concentrate for sale, making the **graphene almost a byproduct**.
- ▶ Nunasvaara ore has **extraordinary** properties of **grade, structure** (massive texture) and **mineralogy** that enable the process to happen. This may be **unique globally for large-scale open-cut graphite ores** and suggests a **ground breaking** shift in the **cost structure** to produce **bulk graphene**.



Graphene Market

Growing fast. Massive development underway.

- ▶ Graphene is the world's first quasi-2D material and has superlative characteristics in electrical and thermal conductivity, strength, lightness, transparency and flexibility. Exponential patent growth evidences development curve but mainstream market in infancy and awaiting lower cost supply (costs range widely \$100kg to \$1500kg or more depending on supply, quality and performance factors)
- ▶ Mainstream is focussing on 'high-tech' uses such as 'bendy' LCD screens and quantum computers but larger volumes required for super-capacitors, conductive inks, 3-d printing and bulk material additives.
- ▶ Research² has demonstrated small amounts of graphene (0.05-2%) added to common bulk materials can impart **exponential** increases in strength with less weight e.g. **cement** (global consumption 3,300Mt/ann), and **aluminium** (45Mt). Similar additions of graphene to **steel** (840Mt) can impart anti-corrosion properties and **plastics** (100Mt) can become conductive, causing increased outlook for graphene demand.

Worldwide patent applications by publication year.
From Intellectual Property Office UK, Graphene Patent Landscape 2013

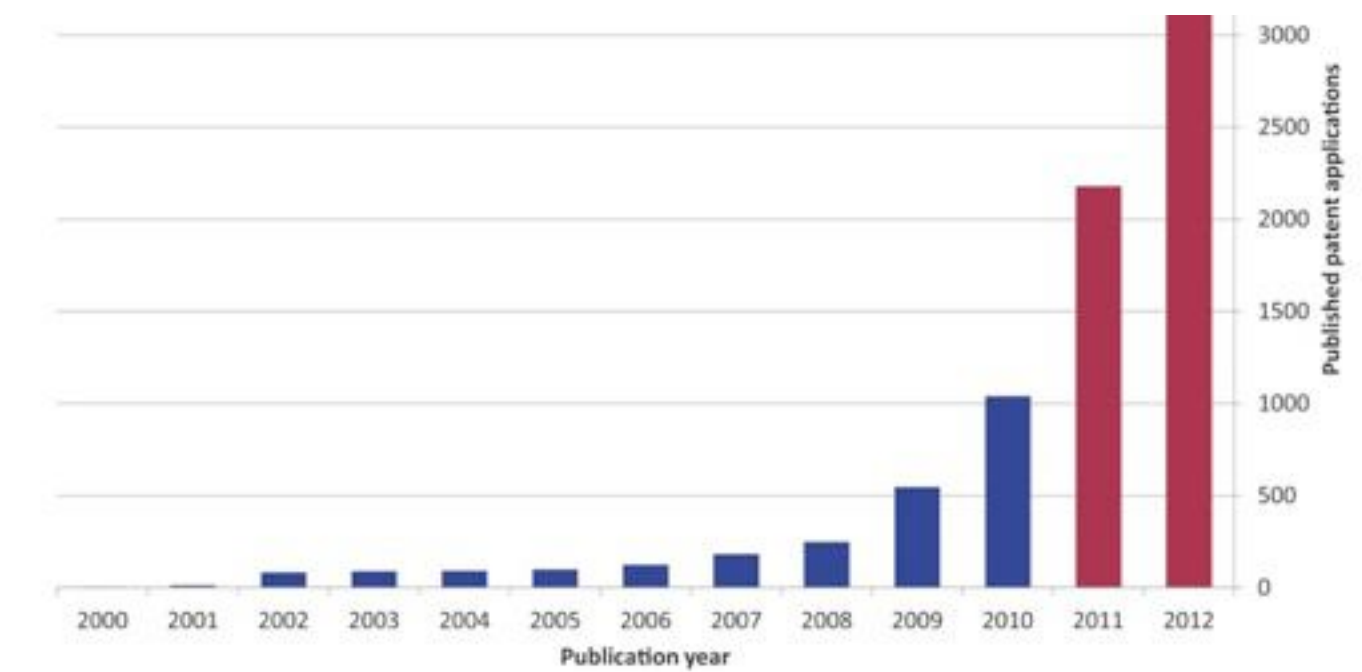


Figure 1: Worldwide patent publications by publication year

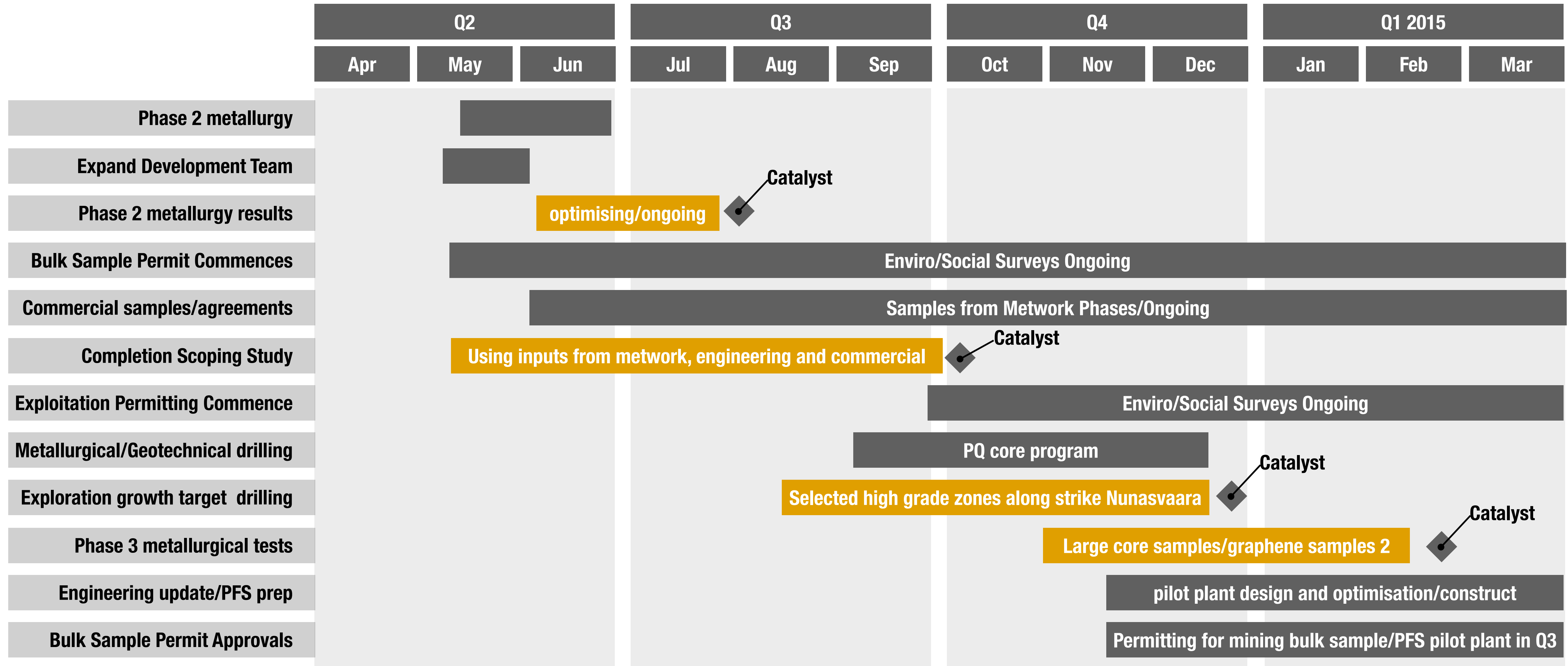
**Global Consumption
(million tonnes annum)
Concrete 3,300**

**Steel
840**

**Plastics 100
Aluminium 45**

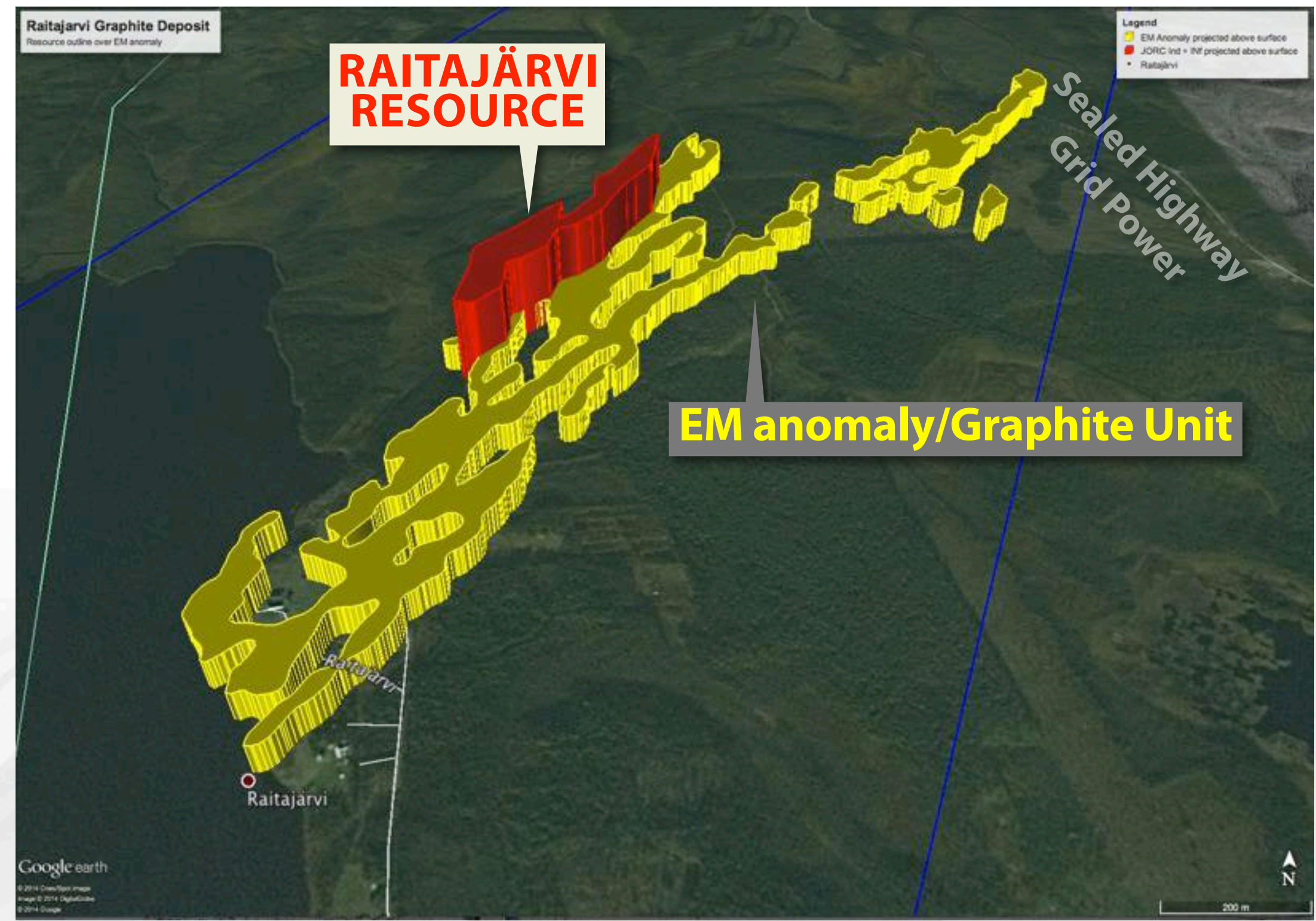
Nunasvaara - summary 12 month development plan

▶ Nunasvaara's JORC Indicated resource is ideally situated for fast-tracking to development. Next steps are upscaling metallurgical work to complete dual graphite/graphene scoping study in Q3 2014 and a bulk sample to be processed through a pilot plant in 2015. Sales of graphene from any stage will be sought to potentially make the process self sustaining and minimise funding requirements on path to development milestones/full scale construction.



Other Graphite Projects - Raitajärvi Resource

- ▶ Current total JORC 2004 resource¹ of 4.3Mt @ 7.1% C_g, open and less than 25% of EM anomaly drill tested.
- ▶ A high proportion of resource is coarse flake. 87% >100 micron and 49% >200 micron.
- ▶ Historic metallurgical tests produced graphite concentrate grading 90-94% C from simple (unoptimised) flotation and 99% C in basic enrichment test.
- ▶ Advantageously located 2km from the Övertorneå - Övertorneå Highway and grid power, 25km to town and railway, 130km to port.
- ▶ Targeting 10-20,000t/annum capable deposit to be second producer for Talga. Further metallurgy for graphite flake/graphene potential will be assessed as developments at Nunasvaara continue.



Raitajärvi Mineral Resource¹ (5% C_g lower cut-off)

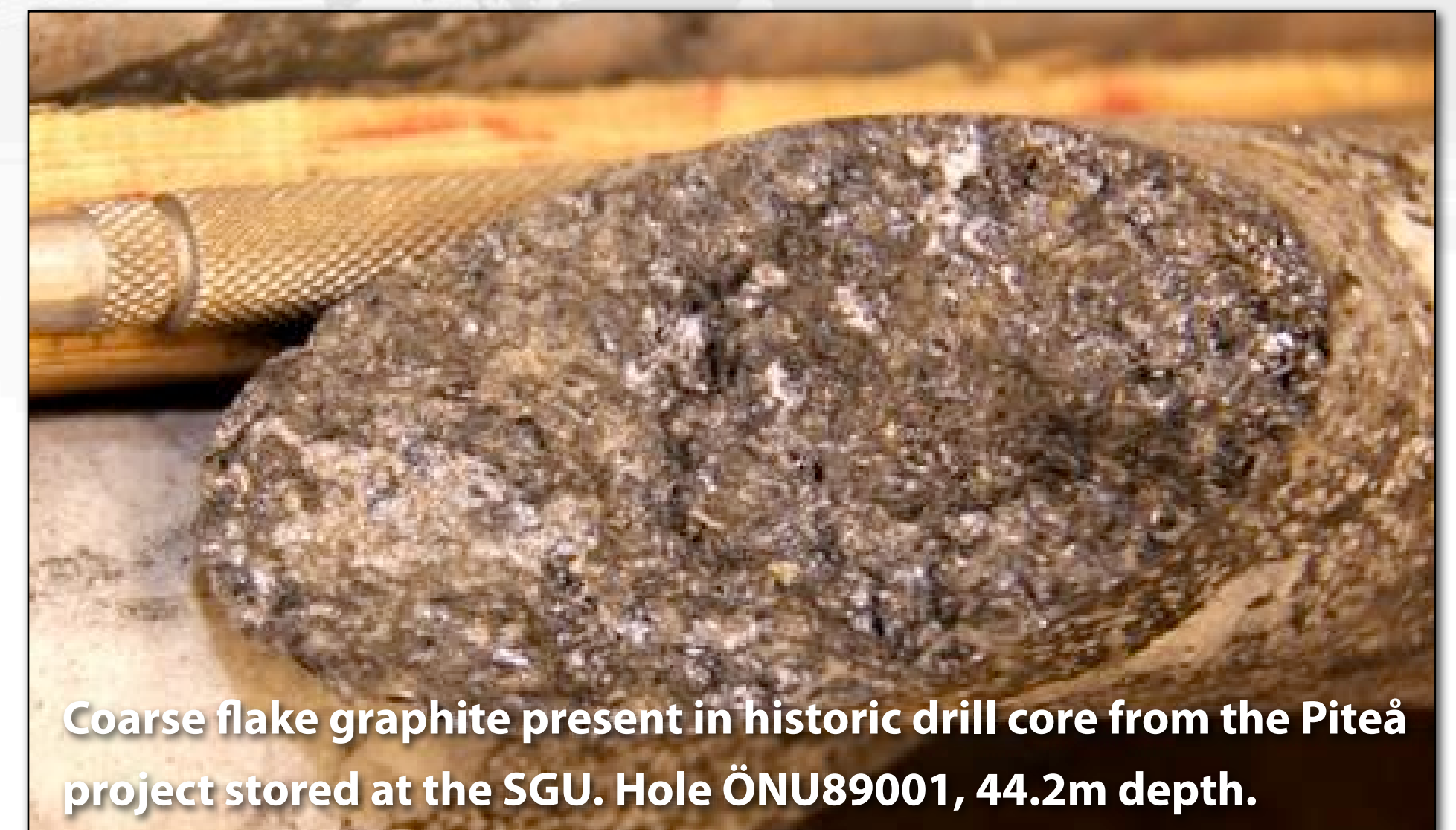
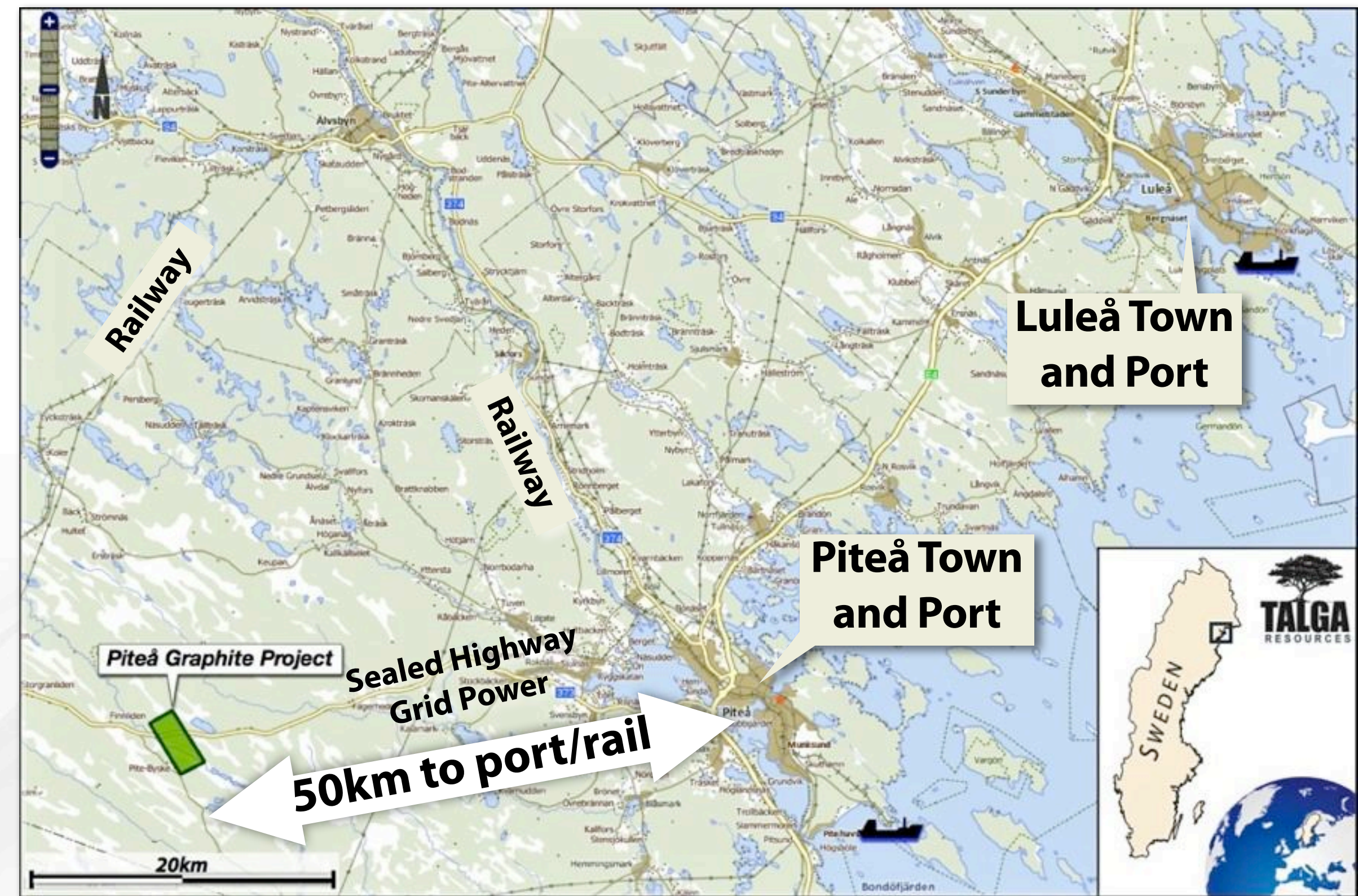
JORC 2004 Classification	Tonnes (Mt)	Grade (%C _g)	Contained Graphite (t)
Indicated	3.4	7.3	246,400
Inferred	0.9	6.4	60,900
Total	4.3	7.1	307,300

Raitajärvi graphite flake size

< 100µm	100-200µm	200-400µm	>400µm
13%	38%	38%	11%

Piteå Jumbo Flake Project

- ▶ 3 historic drillholes targeting base metals intercepted **coarse flake graphite** within a 4 x 1km EM anomaly.
- ▶ **80% of flake graphite at Piteå exceeds 300 μm size i.e. 80% +50 mesh, aka “jumbo”.**
- ▶ Such large flake graphite is **premium product** for spherical graphite production and commands **higher prices** (>\$1700/t, see Appendix).
- ▶ **Blue sky growth project** located on sealed road **50km from port** of Piteå and adjacent to grid power.
- ▶ **Location and size advantages** worth exploring.
- ▶ Plan to expand target zone prior to stage 2 drill testing.



Coarse flake graphite present in historic drill core from the Piteå project stored at the SGU. Hole ÖNU89001, 44.2m depth.

Talga's Graphite Development Advantages

- ▶ **Highest grade JORC/NI43-101 graphite resource in world.**
- ▶ **World-first single step graphite/graphene production option.**
- ▶ **Low cost capex and bottom of production cost curve expected.**
- ▶ **Advanced stage PEAS underway; further major drilling not required.**
- ▶ **Massive growth profile; dominant land position on drilled EU graphite deposits.**
- ▶ **Located on road and rail routes to major markets.**
- ▶ **Highly ranked low-risk mining and corporate jurisdiction, Sweden.**

Catalysts/Events

- ▶ **Next stage dual graphite/graphene testwork and upscaling in Q2.**
- ▶ **Graphite and graphene samples for commercial and strategic partners ongoing.**
- ▶ **Scoping study results with dual graphite/graphene focus in Q3.**

To get further information or register interest in a divestment project contact:

Mark Thompson - Managing Director

1st Floor, 2 Richardson St West Perth WA 6005

Australia

Tel +61 89481 6667

admin@talgaresources.com

www.talgaresources.com



ASX: TLG



Appendices

Talga Asset Structure and JORC (2004) Resources*

1 Note: This information was prepared and first disclosed under the JORC code 2004. It has not been updated since to comply with the JORC code 2012 on the basis that the information has not materially changed since it was last reported. The Company is not aware of any new information or data that materially affects the information included in the previous announcement and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement have not materially changed.

TALGA RESOURCES LTD

100%

Talga Mining Pty Ltd

100%

Swedish Branch

100%

100%

IRON

GRAPHITE

Nunasvaara Graphite Mineral Resource @ 10% Cg lower cut-off Nov 2012

Classification	Tonnes (Mt)	Graphite (%Cg)
Indicated	5.6	24.6
Inferred	2.0	24.0
Total	7.6	24.4

Raitajärvi Graphite Mineral Resource @ 5% Cg lower cut-off Aug 2013

Classification	Tonnes (Mt)	Graphite (%Cg)
Indicated	3.4	7.3
Inferred	0.9	6.4
Total	4.3	7.1

Iron Mineral Resources @ 20% Fe lower cut-off July 2013

Deposit	Tonnes (Mt)	Grade %Fe	JORC Category
Vathanvaara	51.2	36.0	Inferred Resource
Kuusi Nunasvaara	46.1	28.7	Inferred Resource
Mänty Vathanvaara	16.3	31.0	Inferred Resource
Sorvivuoma	5.5	38.3	Inferred Resource
Jänkkä	4.5	33.0	Inferred Resource
Masugnsbyn	87.0	28.3	Indicated Resource
Masugnsbyn	25.0	29.5	Inferred Resource
Total	235.6	30.7	

Appendices

Graphite size classification.

Trade Name	microns	US Mesh Size
Amorphous/Ultrafine	<10	na
Amorphous/Fine	10-75	-200
Small	75-150	200-100
Medium	150-180	100-80
Large	180-300	80-50
XL/Jumbo	>300	50+

Source: Industrial Minerals Natural Graphite Report 2012 cross referencing various sources. Many terms are proprietary or mixed use; there are few if any industry standards in naming principles.

Common natural graphite concentrate product sizes, grades and prices

Size (microns)	Size US Mesh	Purity % C	Quote US \$/tonne
300+	50+	94-97	>1700
180-300	80-50	94-97	1275
		90	1125
150-180	100-80	94-97	1100
		90	950
		85-87	750
75-150	200-100	94-97	900
		90	775
-75	-200	80-85	525

Source: Industrial Minerals Magazine Mar 2014.
 Most prices FCL, CIF European Port.
 Note prices averaged from low-high range and selected as common commercial products where natural graphite sold as concentrate. Many specialty grades with much higher prices are traded but do not represent the bulk of market demand.

References & Qualified Persons

1 Resource Note: All Talga owned resources referred to in this report are based on information prepared and first disclosed under the JORC code 2004. They have not been updated since to comply with the JORC code 2012 on the basis that the information has not materially changed since it was last reported. The Company is not aware of any new information or data that materially affects the information included in the previous announcement and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement have not materially changed.

2 Research references

Graphene in concrete "Materials Genome for Graphene-Cement Nanocomposites for Infrastructure Applications"; Hunain Alkhateb et al Department of Civil Engineering, University of Mississippi USA plus see <http://www.monash.edu.au/assets/pdf/industry/graphene-oxide-reinforced-concrete.pdf>

Graphene in aluminium "Reinforcement with graphene nanosheets in aluminum matrix composites". Wang, J et al (2012). Scripta Materialia, 66 (8).

Graphene in plastics "Graphene Nanoplatelets: A Multi-functional Nanomaterial Additive for Polymers and Composites" (2013) Lawrence T. Drzal, Chief Scientist XG Sciences, Inc. Professor, Chem Engin and Materials Science Michigan State University

Graphene on iron/steel "Hybrid nanocomposite coatings for corrosion protection of low carbon steel: A substrate-integrated and scalable active-passive approach," (2011) G.K. Rout et al, J. Mater. Res., 26, 837–44 and see <http://www.steeltimesint.com/news/view/tata-partners-with-epsrc-to-develop-graphene-coated-steels>.

Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Mark Thompson, who is a member of the Australian Institute of Geoscientists. Mr Thompson, an employee of the Company, has sufficient experience which is relevant to the activity which is being undertaken 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" ("JORC Code"). Mr Thompson consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Resource Estimation is based on information compiled and reviewed by Mr Simon Coxhell of CoxsRocks Pty Ltd. Mr Coxhell is a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document 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" ("JORC Code"). Mr Coxhell consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.