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## ASX ANNOUNCEMENT

Wednesday 13th February 2013

# Productora Pre-feasibility gets go-ahead after Scoping Study finds project is on- track to be a major low-cost copper producer

- Strong results from Scoping Study and near-doubling of the resource underpins a decision to start Pre-feasibility Study on Productora copper project.
- Scoping Study forecasts C1 cash operating cost of just US\$1.20-US\$1.50 a pound (after gold credits)
- Study finds access to nearby infrastructure will significantly reduce time and cost of development and operations
- Metallurgical tests show conventional processing will be suitable
- Ausenco appointed to continue as lead consultant and Study Manager for the Productora Pre-feasibility study.
- The Environmental Impact Assessment (EIA) and baseline studies have commenced.

Hot Chili (ASX: HCH) is pleased to announce that the Board has approved the full commencement of the Productora Pre-feasibility Study (PFS).

The decision follows the highly favourable findings of the Scoping Study and a near-doubling of the Productora resource estimate (see *separate ASX announcement today*). It also puts Hot Chili on track to make a decision to mine next year.

Leading engineering and project development group Ausenco has been commissioned to manage the study in conjunction with Hot Chili's own development team.

### DEVELOPMENT STRATEGY

During 2013, Hot Chili is continuing to pursue a strategy of project development and de-risking in parallel with an on-going focus on resource growth for the Productora copper project.

In line with this strategy, a number of conceptual/scoping studies were undertaken in 2012 to identify risks and opportunities related to potential future mining operations at Productora. The outcomes from the

### ASX Code

HCH

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conceptual/scoping studies have provided a framework for the PFS and given the Company confidence to initiate advanced environmental work streams in the early stages of 2013.

### **Pre-feasibility Study Underway - Conceptual/Scoping Study Successfully Completed**

The PFS will be based on the upgraded 165.2Mt Productora resource estimate (*see separate ASX announcement today*) and will benefit from a second major resource upgrade scheduled to be completed in the second half of 2013.

Development studies at Productora will continue to assess the establishment of an open cut mining operation, a copper concentrator processing facility and other associated infrastructure. The study will be managed by Ausenco, which will be supported by a number of specialised consultants both in Chile and Australia. Ausenco has considerable relevant experience in study management and project execution.

It is anticipated that the Study will be undertaken in three distinct phases:

1. **A strategic optimisation phase** - utilising outcomes from the concept/scoping studies;
2. **A project design phase** - including option studies;
3. **A realignment phase** - to incorporate any new resource information.

The first two phases will take place through to Q3 of 2013. The third phase will take place as appropriate based on resource drilling results.

### **Environmental and Social Impact**

The Environmental Impact Assessment (EIA) commenced early in January 2013. Two leading environmental consultants in Chile, MIMA and GAC, have been engaged to support the program. MIMA will be responsible for running the EIA process while GAC will provide support through a peer review process.

Baseline studies have commenced in the project area including both the flora and fauna summer campaigns. Importantly, work has also commenced on possible infrastructure corridors and maritime concessions. Social baseline studies are due to commence shortly.

### **Conceptual/Scoping Study Outcomes**

Hot Chili has successfully completed a conceptual/scoping study of the Productora copper project. The study assessed the viability of a ~11Mtpa mining and processing operation at Productora.

The conceptual/scoping study was specifically designed to identify risks and opportunities for the anticipated project and provide a basis to meet long lead environmental requirements. Importantly, the studies demonstrated that the project site can support the 'footprint' of a large mining operation and that the established infrastructure within the region will deliver considerable time and cost advantages for Productora.



Table 1 below outlines key parameters on which the studies were based and the outcomes from the assessment.

The scale, geometry and continuity of the updated resource supports assumptions made during the concept study for a nominal throughput assessment in the range of 8-12Mtpa.

Table 1: Concept/Scoping Study Parameters	
<b>Processing Rate</b>	~11Mt/a
<b>Strip Ratio</b>	3.5 – 4.5 : 1 (Target strip ratio of 4:1)
<b>Metallurgical Recovery</b>	>90% for copper, ~80% for gold ~75% for molybdenum Recoveries achieved from coarse 180um grind size
<b>Flowsheet</b>	Conventional crush-grind-float for sulphide processing plant
<b>Concentrate Production</b>	~220kt/a grading approx. >25% Cu and 6g/t Au
<b>Development Capex</b>	\$500M - \$700M (contingent on off balance sheet options for mining and certain infrastructure)
<b>Opex (C1 including gold credits)</b>	US\$1.20/lb – US\$1.50/lb
<b>Molybdenum concentrate production</b>	To be evaluated (grading 5,300ppm Mo)
<b>Magnetite mine gate sale</b>	To be evaluated, potentially, from FY2018 onwards
<b>Power Requirement</b>	~60MW consumption, ~80MW installed capacity
<b>Power Costs</b>	17 - 21c/kWhr until 2018 and 12-15c/kWhr 2018 and beyond Power cost exposure- ~15 – 20% of opex
<b>Infrastructure</b>	Power – 17km from site Rail – 5 km from site (CMP) Road – Pan American Highway 5km from site Accommodation – Town of Vallenar 15km from site Ports – Huasco, 56km from site (CMP) Water – Seawater, ~60km pipeline to be constructed along existing CMP easement corridor

## Mining

Conventional open pit, blast and haul mining methods will be suitable for mining the Productora copper project. The planned central pit development contains a large continuous block of resources that will be the focus for mine design. The updated resource has highlighted near surface, high grade material that presents an opportunity to “high grade” the early production.

The concept mining study indicated strip ratios in the range of 3.5 - 4.5:1. Initial indications are that both ore and waste are reasonably competent. Further work is expected to drive down strip ratios. This will include:



- Further resource drilling to target mineralisation along the eastern flank of the resource currently classified as waste,
- The company is assessing the addition of a parallel zone of magnetite that looks likely to lie within the western waste-rock wall of the planned central pit development.
- Addition of further economic low-grade tonnes. Mining studies completed as part of the conceptual/scoping studies indicated a preliminary marginal cut-off grade of 0.2% copper. A substantial amount of lower grade material surrounds the +0.3% mineral resource estimate within the planned future pit development.

## Processing

Metallurgical test work has demonstrated that conventional processing including crushing, grinding and floatation will be suitable for the recovery of copper, gold and potentially molybdenum minerals. Initial indications are that high copper and gold recoveries (>90%, ~80% respectively) may be achieved with a relatively coarse grind size of 180um. The ore is classified as hard, though this is somewhat offset by coarse liberation characteristics of the copper and gold minerals.

Initial test work has demonstrated that concentrates containing in excess of >25% copper may be produced with two stages of cleaning.

## Infrastructure

The project is situated at low-altitude (800m), 5km south of the mining town of Vallenar, and 5km west of the Pan-American Highway that connects Vallenar to the major coastal city of La Serena in the south.

The following key infrastructure areas were reviewed during the Scoping/concept studies :

**Power** – an extensive high-voltage distribution network exists within the Vallenar region with the major sub-station (Maitencillo) to the central grid just 17km from Productora. Initial indications are that a 25km high-voltage line will be required to connect the site to the central grid. A number of options will be considered through the PFS process.

**Water** – Sea water processing has been assessed for Productora. It is anticipated that sea water will be delivered to site through a ~56km pipeline that will draw water from an intake facility located close to the Huasco port facility.

**Accommodation** – it is anticipated that construction and operational staff will be housed in the town of Vallenar which has a population of circa 50,000.

**Port** – several ports are within a reasonable trucking distance from the site, the closest being the Huasco port, which is 60km to the west and serviced by sealed roads. Hot Chili, in co-operation with CMP, is assessing the construction of a potential copper concentrate loading facility at Huasco port.

**Road** – the Pan American highway is located 5km to the east of the proposed project site.

**Rail** – existing CMP rail infrastructure runs parallel to the project immediately to the east and west of the resource.





Ongoing studies related to the infrastructure will provide the basis for PFS option studies.

## ► Productora Infrastructure Location

- 40km distance to Huasco Port (Controlled by CAP/CMP – HCH project partner)
- 15km south of township of Vallenar
- Linked adjacent to PanAmerican Hwy, CMP rail corridor to Port and near-by power stations



Hot Chili Managing Director Christian Easterday said the next nine months promised to be another rewarding growth phase for the Company.

“With funding now secured for 2013, Hot Chili has an opportunity to establish itself as one of the leading emerging copper producers on the ASX in a relatively short timeframe” Mr Easterday said.

**For more information please contact:**

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## Resource Statement - February 2013

Classification	Resource Series (+0.3% Cu)	Tonnage	Grade				Contained Metal			
			Cu %	Au g/t	Mo g/t	Cu Eq* %	Copper (Tonnes)	Gold (Oz)	Molybdenum (Tonnes)	Copper Eq* (Tonnes)
INDICATED	Res Upgrade 1	39,400,000	0.6	0.1	124	0.8	230,000	150,000	5,000	310,000
	Central Resource	31,200,000	0.6	0.1	159	0.8	190,000	110,000	5,000	250,000
	<b>Total</b>	<b>70,600,000</b>	<b>0.6</b>	<b>0.1</b>	<b>140</b>	<b>0.8</b>	<b>420,000</b>	<b>260,000</b>	<b>10,000</b>	<b>560,000</b>
INFERRED	Res Upgrade 1	40,600,000	0.5	0.1	110	0.7	200,000	130,000	4,000	270,000
	Central Resource	54,000,000	0.6	0.1	138	0.7	300,000	180,000	8,000	400,000
	<b>Total</b>	<b>94,600,000</b>	<b>0.5</b>	<b>0.1</b>	<b>126</b>	<b>0.7</b>	<b>500,000</b>	<b>310,000</b>	<b>12,000</b>	<b>670,000</b>
TOTAL	Res Upgrade 1	80,000,000	0.5	0.1	117	0.7	440,000	290,000	9,000	580,000
	Central Resource	85,200,000	0.6	0.1	146	0.8	480,000	290,000	13,000	650,000
	<b>Total</b>	<b>165,200,000</b>	<b>0.6</b>	<b>0.1</b>	<b>132</b>	<b>0.7</b>	<b>920,000</b>	<b>580,000</b>	<b>22,000</b>	<b>1,230,000</b>

*Note: Figures in the above table are rounded and are reported to one significant figure in accordance with Australian JORC code 2012 guidance on mineral resource reporting. Refer to ASX announcement released on February 13th 2013.*

### Competent Person's Statement- Exploration Reporting

Information in this announcement that relates to exploration results and mineralisation is based on information compiled by Mr Christian Easterday, a Director, who is a Member of The Australian Institute of Geoscientists. Mr Easterday has sufficient experience which is relevant to the style of mineral and type of deposit under consideration and to the activity which he is undertaking 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' (the JORC Code). Mr Easterday consents to the inclusion in this presentation of the statements based on his information in the form and context in which they appear.

### Competent Person's Statement- Resource Reporting

The information in this report that relates to the Central Mineral Resource, Productora is based on information compiled by Alf Gillman, who is a fellow of the Australasian Institute of Mining and Metallurgy. Alf Gillman is a director of Odessa Resources Pty Ltd, and has sufficient experience in mineral resource estimation, which is relevant to the style of mineralisation and type of deposit under consideration. He is qualified as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Alf Gillman consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Mineral Resource estimates outside of the Central Mineral Resource is based on information compiled by Aloysius Voortman and Fleur Muller. Aloysius Voortman is a Fellow of the Australasian Institute of Mining and Metallurgy, and Fleur Muller is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Aloysius Voortman is an employee of Coffey Mining, and Fleur Muller is an employee of Hot Chili Ltd, and both have sufficient experience in mineral resource estimation, which is relevant to the style of mineralisation and type of deposit under consideration. Mr Voortman and Mrs Muller are qualified as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Both Mr Voortman and Mrs Muller consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.