



CONSOLIDATED ZINC LTD

# High Grade Mexican Zinc Project

October 2017

*Scoping Study Delivers Positive Results*



# Corporate Snapshot



## Capital Structure (ASX:CZL)

Shares on Issue	726,211,447
Total unlisted options on issue	166,776,168
Share Price	\$0.016
Available Funds (September 30)	\$1.6 million
<b>Approx Market Cap (undil)</b>	<b>\$11.6 million</b>
<b>EV</b>	<b>\$10 million</b>

## Board and Management

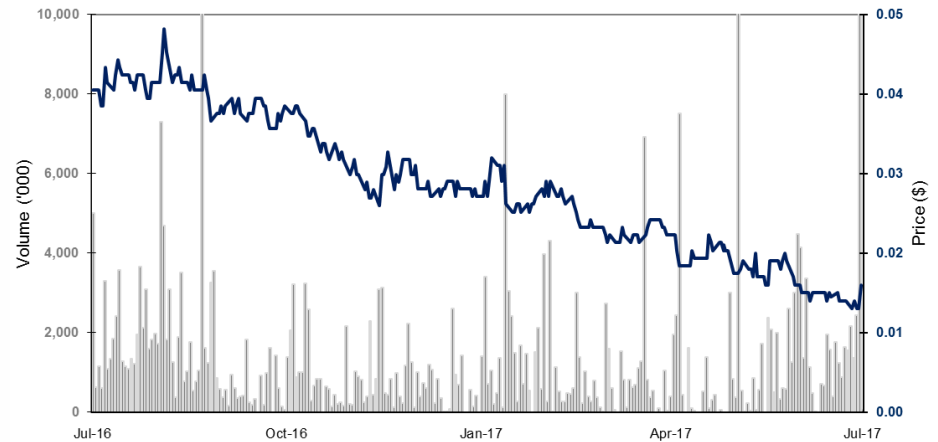
Stephen Copulos	Non-Executive Chairman
Will Dix	Managing Director
Andrew Richards	Executive Director
Luis Rogelio Martinez Valles	Non-Executive Director
Steve Boda	Exploration Manager

## Share Price Performance

## Major Shareholders

Copulos Group	21.4%
Farjoy Pty Ltd	9.4%
Retzos Group	9.3%
Jetosea Pty Ltd	5.3%
<b>Top 20</b>	<b>58.3</b>

12 Month Share Price Performance and Volume



# Plomosas Project: Overview



## Plomosas Zinc Project (51% owned, option to increase)

- Historic mine, with excellent existing underground infrastructure and processing plant on site;
- Located in Chihuahua, Mexico – a **world-class mining province**;
- Currently 51% owned by CZL, with clear pathway to 100% ownership near term (option expiry 2018. Terms in Appendix);
- **Updated JORC 2012 Mineral Resource of 968,000T @ 15.9% Zn+Pb** (154,000t contained metal);
- August 2018 Resource upgrade of **70% tonnage and 60% increase in contained metal**. Open in multiple directions;
- **Positive Metallurgical Results**: +90% recoveries to concentrate  
Low capital requirements, fast payback and short lead time to production;
- Near term production potential. **Targeting mining and concentrate production Q1 2018**;
- **CZL undervalued in relation to its peers.**

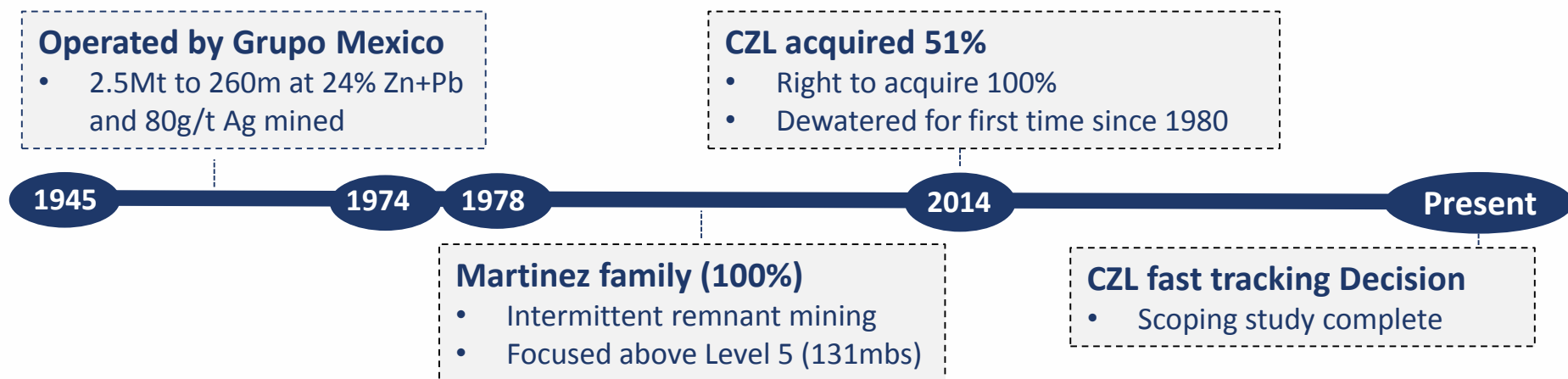


Green symbols are base metals mining operations in area

# Plomosas Project: History



- September 2017 JORC Resource upgrade:  
**968,000t @ 16% Zn+Pb, incl. 158,000 @ 24.6% Zn+Pb indicated category**
- Simple geology
  - Earlier mining shows very clean product and good recovery
  - No deleterious elements / highly sought after as a blending concentrate
  - **Grupo Mexico mined 2.5Mt @ 24% Zn+Pb without drilling a hole**
- Excellent infrastructure
- World-class mining province - ranked #5 for investment (2016)
- Mined 1945-1974 then intermittently – see timeline below
- **CZL now well placed to recommence mining operations after positive Scoping Study**



# Production Strategy



*Targeting near-term production scenario to provide funding for expanded strategy*

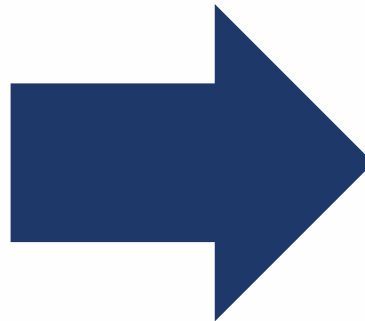
## Stage 1 (Scoping Study):

- Utilise current resource base and existing infrastructure to begin mining operations.
- Increase ownership at the asset level to +90%
- **Targeting mining and stockpiling of ore by Q1 2018**

Stage 2: Use cash flow from operations to continue to drill out a larger Resource (both within/near mine and **regional targets**) to support a larger, stand-alone plant.

### STAGE 1 OUTLINE

Timeline: Mining Q4 2017  
Producing Q1 2018  
Scoping Study near completion  
Existing plant onsite –  
Targeting: ~110ktpa for 20Kt of  
Zn concentrate pa



### STAGE 2 OUTLINE

Timeline: Estimated ~2020  
New Standalone plant:  
Targeting ~250,000 tpa  
Extended Resource to support  
mine life



# Scoping Study Completed



## Scoping study

- Completed and returned positive result focussed on mining from Tres Amigos;
- Metallurgical test-work indicates **+90% recovery** of sulphide to concentrate at Tres Amigos.

## Infrastructure

- Existing pilot plant on site;
- Can be upgraded to suit larger throughput;
- **Low lead-time** for plant refurb and upgrade estimated at 4-6 months;
- Key items to be upgraded include electric circuit and drying filter.

## Production

- **Aim to upgrade to 250-300tpd (110Kt);**
- Option to produce separate Zinc and Lead concentrate or bulk high Zn conc;
- Preliminary discussions underway with potential offtake partners;
- Historically produced a very clean and highly sought-after concentrate.

## Permitting

- Historical mine. Required permitting includes: Explosives, Extraction, Processing;
- Can be **fully permitted for mining within 6 months** (same time line as refurb).



# Stage 1: Timeline



## Current Timeline to Key Milestones

Milestone	2017				2018					
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Scoping Study - limited pre-feas										
Mine Planning and Mine Design										
Shaft study										
Hydrogeology/water pumping study										
Metallurgical Testwork - phase 1										
Process flow sheet and plant design										
Pre-feas additional drilling										
Permitting - construction, extraction, process, explosives										
Costing and quoting on long lead time items										
Development Decision										
Funding and Offtake										
Recruitment of key personnel and contractors										
Construction of plant and underground infrastructure										
First underground mining and stockpiling of plant feed										
first concentrate production										
First concentrate sales										

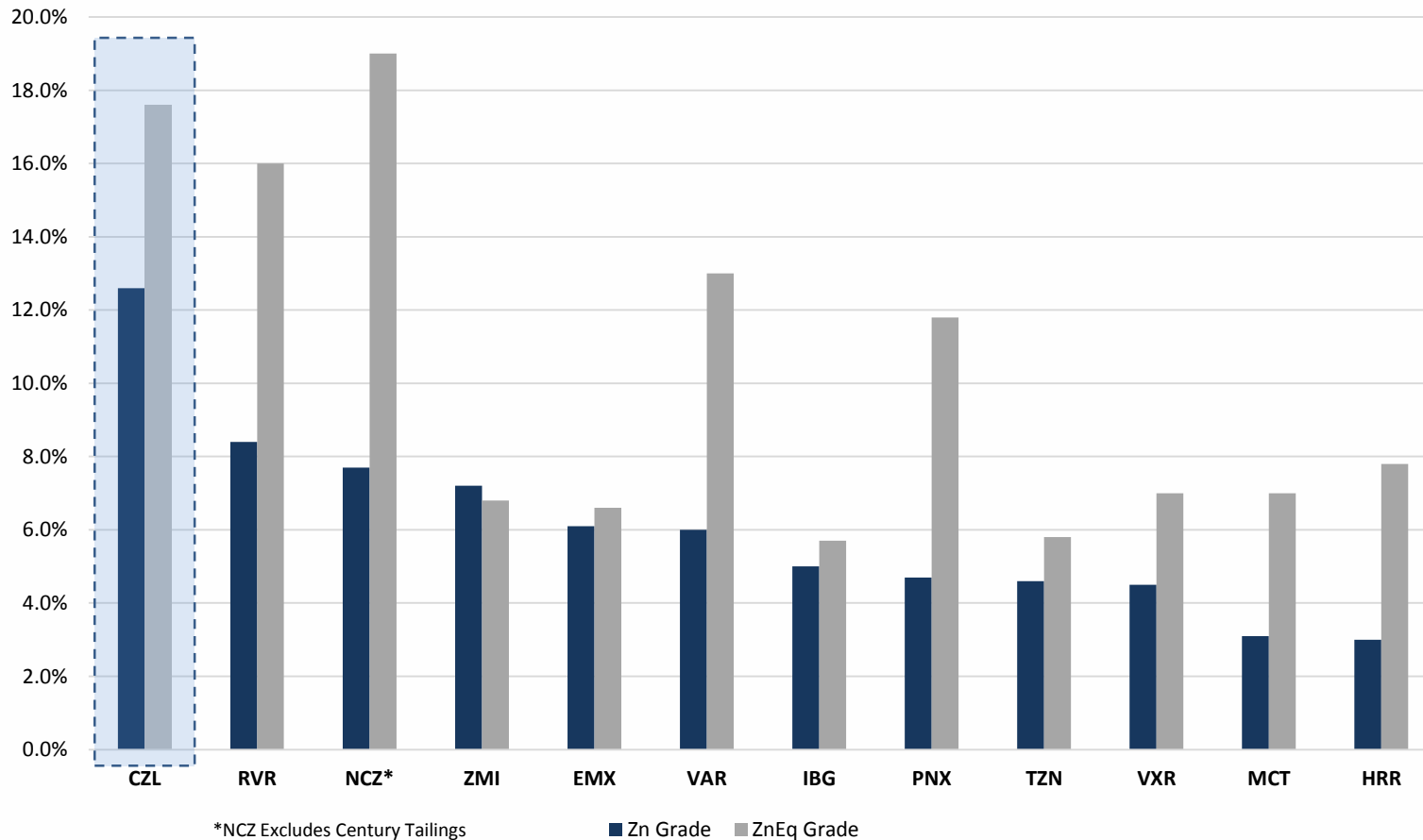
- Most key inputs well advanced, Scoping Study Complete;
- Key stakeholders engaged and fully supportive;
- Preliminary discussions with financing and off-take partners underway.

# Peer Benchmarking: Zinc Grades



- Highest-grade Zinc exposure on ASX
- Existing infrastructure and ready access to ore implies **low lead time to production**

Resource Grade - ASX Peer Group

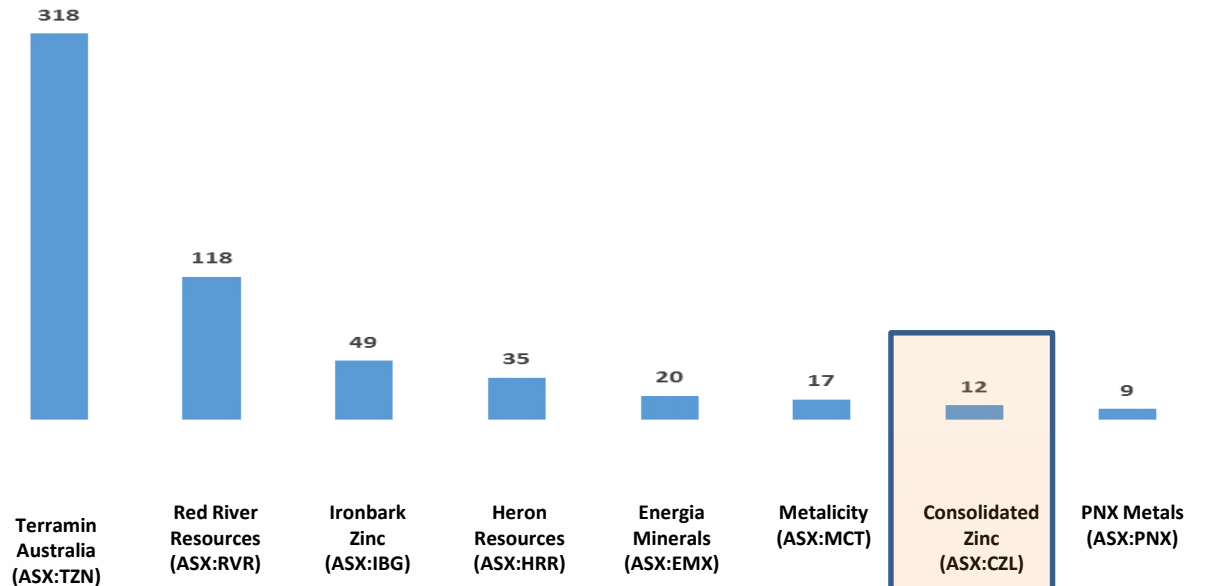




# Near Term ASX Zinc Producers



Market value of listed zinc peers (A\$m)<sup>1</sup>  
ASX Zinc Developers



	Terramin Australia (ASX:TZN)	Red River Resources (ASX:RVR)	Ironbark Zinc (ASX:IBG)	Heron Resources (ASX:HRR)	Energia Minerals (ASX:EMX)	Metalicity (ASX:MCT)	Consolidated Zinc (ASX:CZL)	PNX Metals (ASX:PNX)
Project Fully Funded?	✗	✓	✗	✗	✗	✗	✗	✗
Mill in Place?	✗	✓	✗	✗	✗	✗	✓	✗
Fully Permitted?	✗	✓	✗	✗	✗	✗	✗ <sup>2</sup>	✗
Mine Development?	✗	✓	✗	✗	✓	✗	✓	✗
2017 Restart?	✗	✓	✗	✗	✗	✗	✓	✗

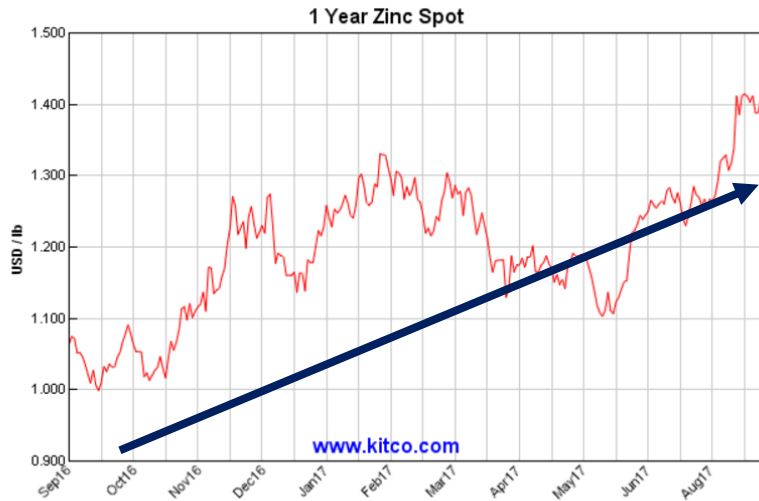
(1) As at 31 Aug 2017

(2) By end of 2017

# Zinc Landscape



## Zinc Price Marching Higher



- Significant mine closures
- LME Inventories Declining
- Falling Mine Production
- Treatment Charges have tightened significantly



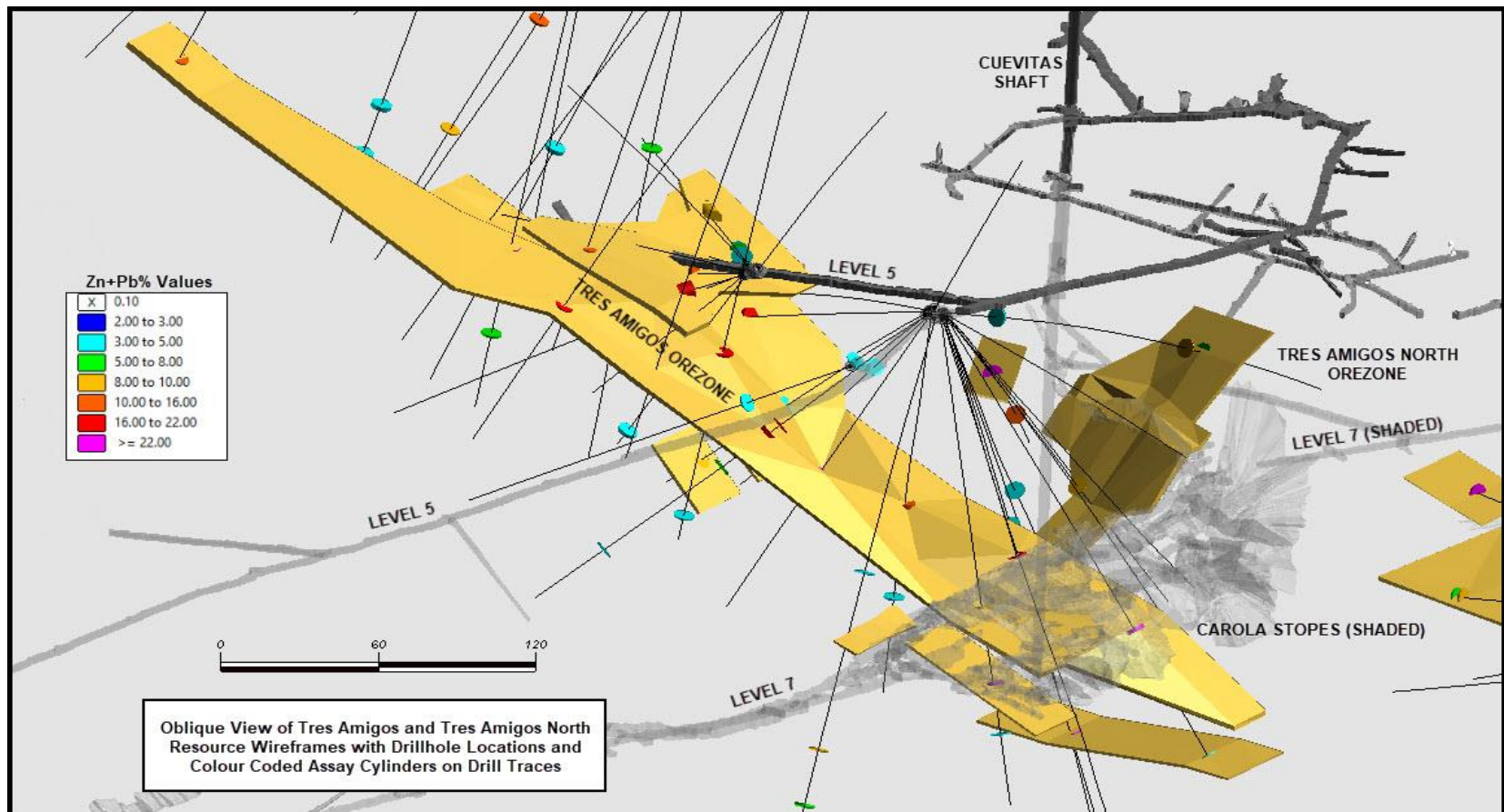
## LME Warehouse Stocks are Low



# Upgraded JORC Resource



- New Resource **968,000T @ 15.9% Zn+Pb and 24g/t Ag for 154,000t contained metal**
- Multiple zone inferred resource open along strike, down plunge and down dip – further drilling ongoing
- Excellent Metallurgy from Tres Amigos: >90% recoveries of sulphide to concentrate



# Resource Expansion: Within Mine

## New discoveries: Carola South and Las Espadas

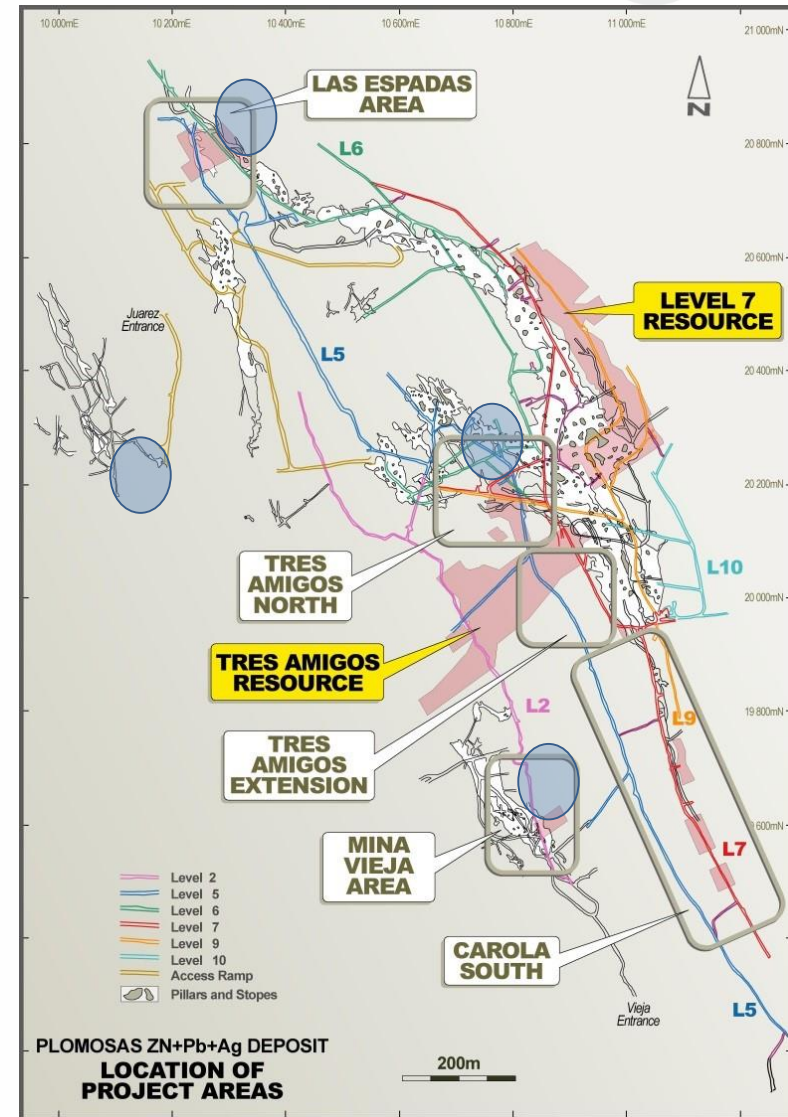
- Significant mineralisation found that will expand the Resource tonnes
- Could have implications for project's scale
- Grades up to **53.62% Zn+Pb**
- Significant strike length; accessible from underground
- Drilling to add additional tonnes to next resource update

## Widespread high grade mineralisation

- Underground sampling shows nature of mineralisation
- No previous exploration below Level 7 and sub-levels

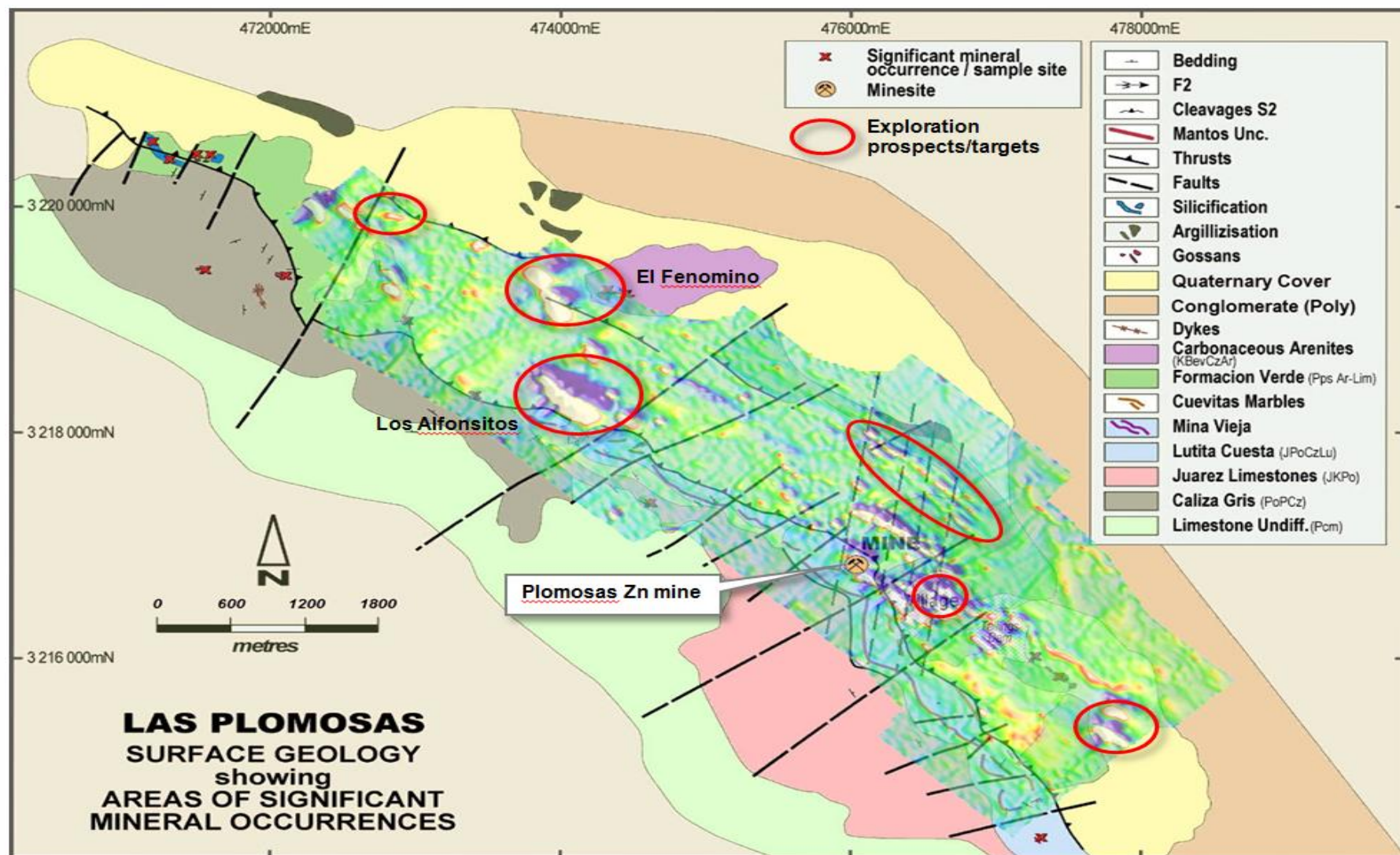
## 4 Priority Areas Identified

- Internal to the mine development with unmined ore
- Multiple target areas - focus Juarez, Las Espadas, Mina Vieja and Tres Amigos North





# Regional Targets



# How does Plomosas compare?

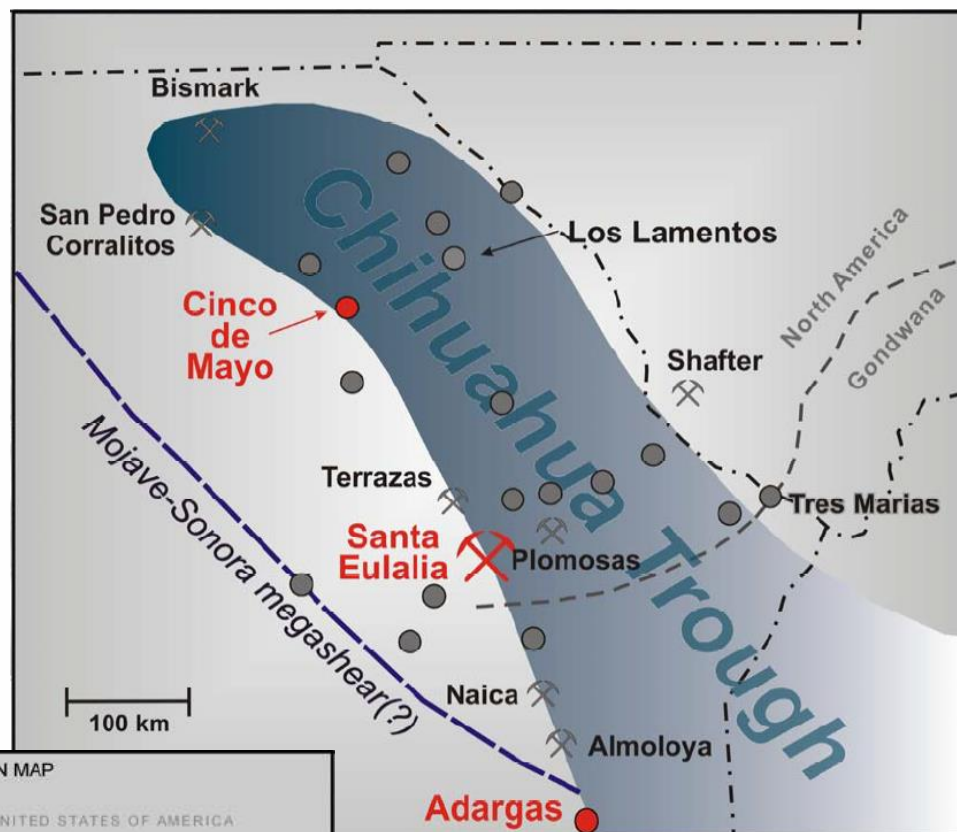


## World-class grades

- Combined Zinc and Lead grades higher than most deposits
- CRD deposits generally extensive and semi continuous – similar to MVT deposits

## Potentially profitable

- Plomosas style and size of deposit has been highly profitable around the world including
- Chihuahua region (e.g. Naica, Santa Eulalia)
- Lennard Shelf, WA
- Arizona Mining in US
- Platosa Mine in Durango



Dr Peter McGaw





# Why Consolidated Zinc?



- On track to short term cash flow from the recommencement of mining;
- High grade mineralisation below the current mine development – ongoing aggressive resource definition drilling;
- Numerous in-mine exploration targets including new discoveries at Carola South and Las Espadas;
- Exploration potential and walk up drill targets along 7Km of untested strike and in parallel manto units;
- Long life mining leases and permitting well advanced;
- **Zinc continues to perform strongly and forecast for continued growth.**



# IMPORTANT NOTICE



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## CAUTIONARY STATEMENT:

The potential quantity and quality of the exploration targets identified in this announcement are conceptual in nature, and there has been insufficient exploration to date to define a mineral resource in accordance with the Australian Code for Reporting of Mineral Resources and Ore Reserves published by the Joint Ore Reserve Committee 2012 ("JORC Code 2012"). Furthermore, it is uncertain if further exploration at its exploration targets will result in the determination of a mineral resource.

The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the exploration target itself will be realised.

## COMPETENT PERSONS' STATEMENT:

The information in this report that relates to exploration results, data collection and geological interpretation is based on information compiled by Mr Andrew Richards BSc (Hons), Dip Ed, MAusIMM, MAIG, MSEG, GAICD who is a Member of the Australasian Institute of Mining and metallurgy (AusIMM) and Institute of Geoscientists (AIG). Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (JORC Code). Mr Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



# Appendix – Additional Information





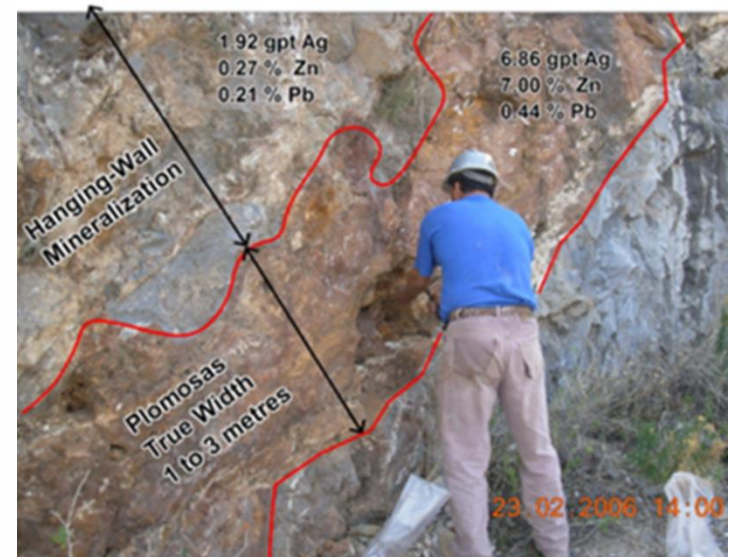
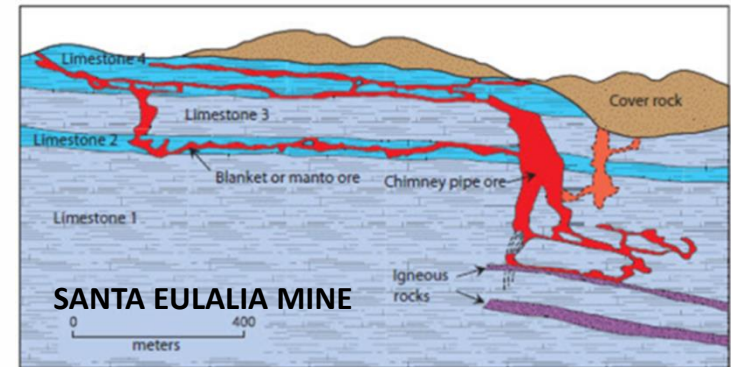
# Simple geology



- Shale-limestone units deposited at the margins of the major Chihuahua sedimentary basin
- Deposits formed by mineralised fluids migrating through district scale structures and replacing carbonate units in the shale-limestone sequence, affinities to MVT-style
- Mineralisation is confined to identifiable stratigraphic horizons as:
  1. *Low angle, stratiform sheets of mineralisation at several limestone-rich horizons in the sequence (**mantos**), or*
  2. *High angle, crosscutting mineralised bodies in linking structures (**chimneys**)*
  3. *Replacive-style endo-skarns related to shearing within carbonate hosts*

**Massive orebodies are found in groups with individual dimensions comprising:**

- Strike lengths from tens to several hundred metres, and
- Thicknesses from 0.5m to 15m (average ~3 - 4m)



# JORC RESOURCE ESTIMATE



- High grade resource of **968,000T @ 15.9% (Zn+Pb)+24g/t Ag**
- 70% increase in tonnes from the December 2016 estimate
- **Includes 158,000T @ 24.6% (Zn+Pb)+60g/t Ag Indicated category**
- Independently estimated by RungePincockMinarco
- 3% global cut-off grade used in estimate
- Positive additional drilling at Tres Amigos and sampling at Carola South and Las Espadas
- Work program extending into 2018
- Upside is down plunge at Level 7 and also repeat “swells” down-dip
- Possible connectors to Mina Vieja and Juarez mineralisation



# SEPTEMBER 2017 JORC RESOURCE



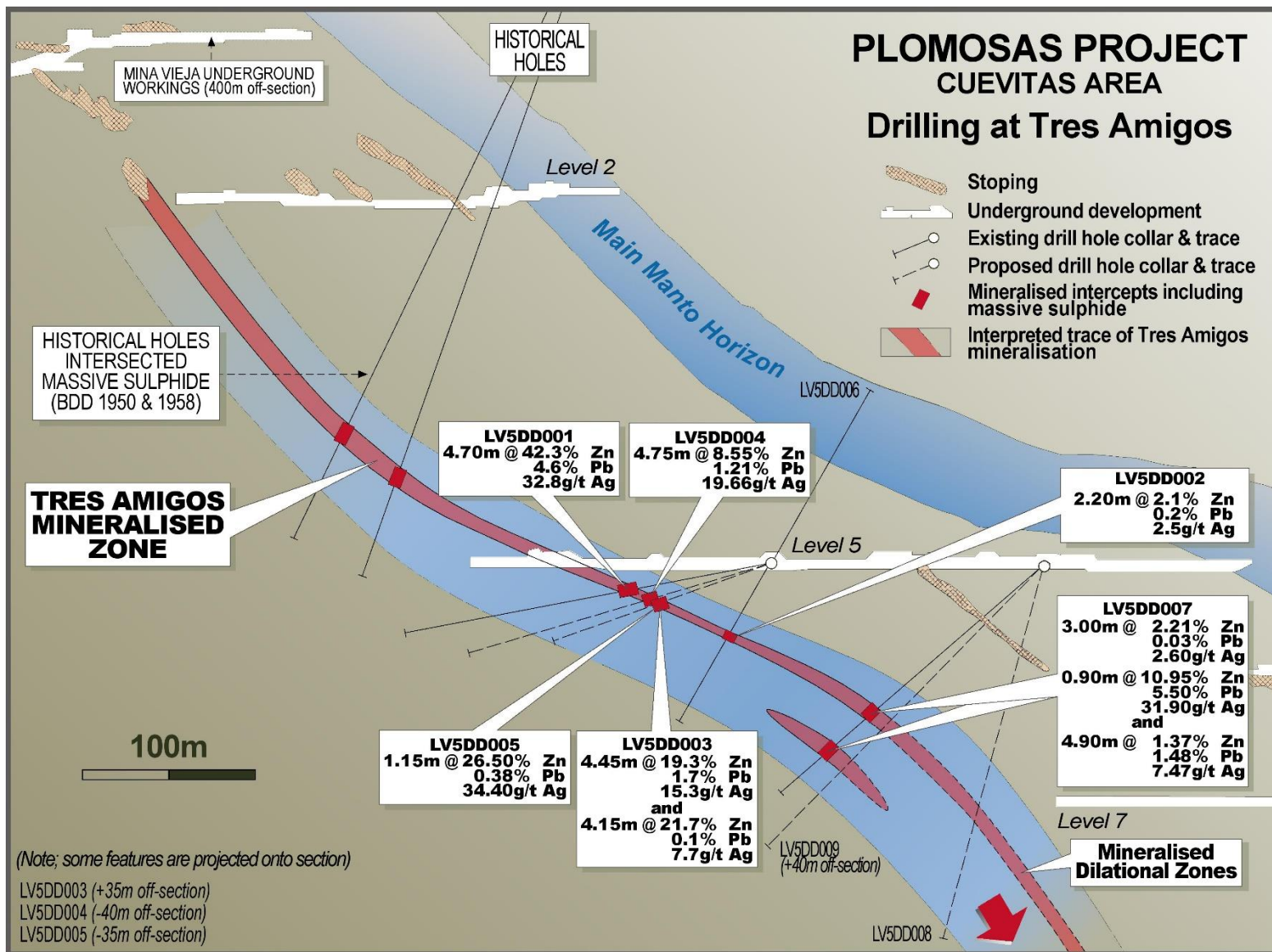
Table 1. Plomosas Project

## September 2017 Mineral Resource Estimate (3% Zn Cut-off)

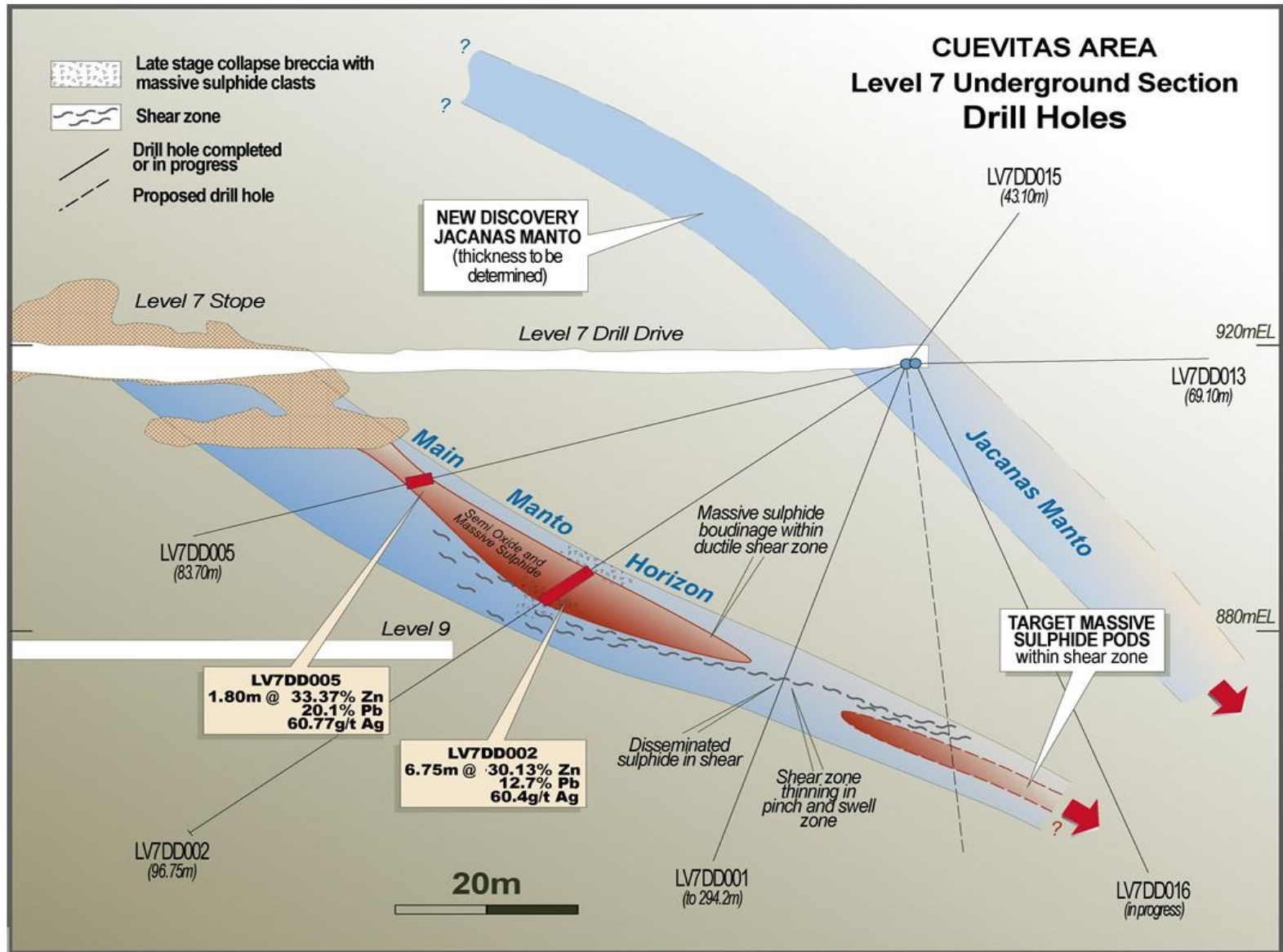
Indicated Mineral Resource							
Prospect	Tonnage	Zn	Pb	Ag	Zn	Pb	Ag
	t	%	%	g/t	t	t	Oz
Level 7	107,000	18.5	8.6	54.8	20,000	9,000	189,000
Tres Amigos	51,000	17.6	1.8	19.5	9,000	1,000	32,000
<b>Total</b>	<b>158,000</b>	<b>18.2</b>	<b>6.4</b>	<b>43.4</b>	<b>29,000</b>	<b>10,000</b>	<b>220,000</b>
Inferred Mineral Resource							
Prospect	Tonnage	Zn	Pb	Ag	Zn	Pb	Ag
	t	%	%	g/t	t	t	Oz
Level 7	212,000	11.0	5.1	32.8	23,000	11,000	224,000
Tres Amigos	493,000	10.6	2.2	13.3	52,000	11,000	211,000
Carola	28,000	13.0	5.7	64.7	4,000	1,600	58,000
Las Espadas	77,000	11.8	5.0	14.4	9,000	4,000	36,000
<b>Total</b>	<b>810,000</b>	<b>10.9</b>	<b>3.3</b>	<b>20.3</b>	<b>88,000</b>	<b>27,000</b>	<b>528,000</b>
Total Mineral Resource							
Prospect	Tonnage	Zn	Pb	Ag	Zn	Pb	Ag
	t	%	%	g/t	t	t	Oz
Level 7	319,000	13.5	6.3	40.2	43,000	20,000	412,000
Tres Amigos	544,000	11.2	2.1	13.9	61,000	12,000	242,000
Carola	28,000	13.0	5.7	64.7	4,000	1,600	58,000
Las Espadas	77,000	11.8	5.0	14.4	9,000	4,000	36,000
<b>Total</b>	<b>968,000</b>	<b>12.1</b>	<b>3.8</b>	<b>24.0</b>	<b>117,000</b>	<b>37,000</b>	<b>748,000</b>



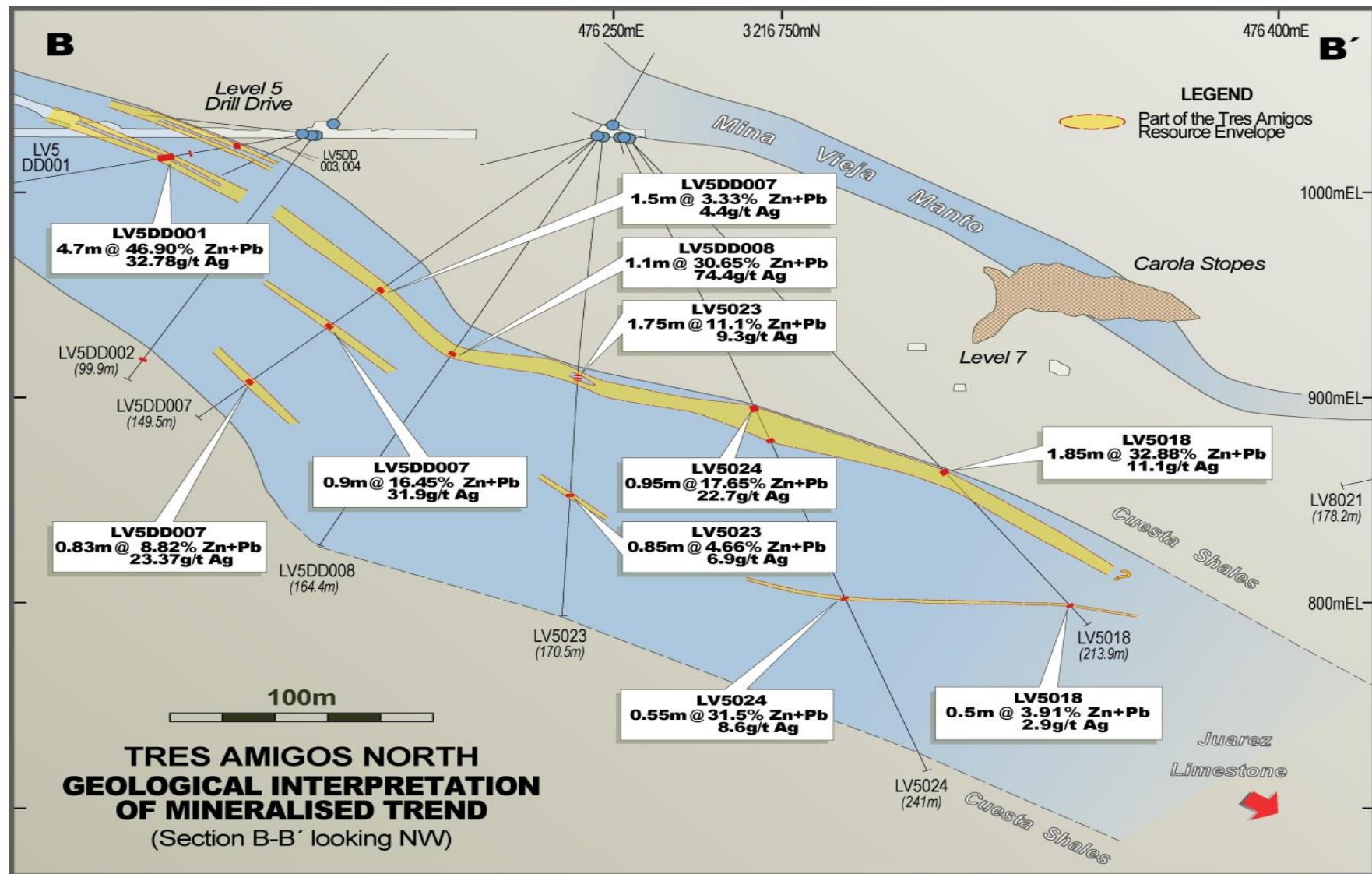
# Additional Info



# Additional Info



# Additional Info – Overview Section





# Mining Features



<b>Mine infrastructure</b>	Excellent condition, some u/g rehab required and additions for short term production (shaft refurb, equipment upgrade).
<b>Production rate</b>	Current infrastructure can handle up to 1,000 tpd from multiple headings.
<b>Mining method</b>	Room and pillar method or shrink stoping expected to maximise ore recovery.
<b>Operating costs</b>	Comparison & estimates suggest opex will be low (tbc).
<b>Upside potential/Mine life</b>	Prospectivity for additional high grade resources have been re-affirmed - minimum 10 year mine life targeted.
<b>Immediate targets</b>	Ongoing exploration and resource definition programs in the Tres Amigos zone and at depth in sulphide and semi oxide zones.



# Processing features



<b>Processing plant</b>	Current plant is pilot scale – can be upgraded to 300tpd but a larger full scale operation requires a new concentrator.
<b>Plant upgrade</b>	Estimated low capex to upgrade current plant – SRK Report.
<b>Concentrate</b>	Historically very clean – Zn-Pb-Fe-Ag with very minor other elements. High recoveries and desirable blending properties.
<b>Process water</b>	Groundwater neutral and benign (pH 6.74).
<b>Permitting upgrade</b>	Full permitting expected to take around 6 months from submission.



# Directors and Management



## CHAIRMAN

### **Mr Stephen Copulos**

Over 30 years' experience in business and investments and over 16 years experience as a company Director of both listed and unlisted entities. He is the major shareholder of Consolidated Zinc Limited and Chairman of Crusader Resources (ASX:CAS) and Black Rock Mining Ltd (ASX:BKT).

## MANAGING DIRECTOR

### **Mr Will Dix**

A geologist with over 23 years' international experience including as a Company Director in listed and unlisted companies. A proven track record of bringing projects from exploration to production and in funding junior resource companies.

## EXECUTIVE DIRECTOR

### **Mr Andrew Richards**

Over 30 years' experience as a geologist including senior management roles and project finance. Andrew has extensive international experience and has been on the boards of several unlisted and listed companies on the ASX and AIM.

## NON-EXECUTIVE DIRECTOR

### **Mr Luis Rogelio Martinez Valles**

Mr Martinez is a mining entrepreneur with 40 years' experience in industrial minerals, base and precious metals. He holds an Industrial Engineer qualification from Chihuahuas Tech, with a Masters in Business Administration from Nuevo León University, and a Member of the Mining Association of Chihuahua.

## COMPANY SECRETARY

### **Mr Andrew Beigel**

Mr Beigel has more than fifteen years' corporate experience across a range of industries and has held executive positions with other ASX listed companies in the resources sector. He holds a Bachelor of Commerce from Murdoch University and is a member of CPA Australia.

## EXPLORATION MANAGER

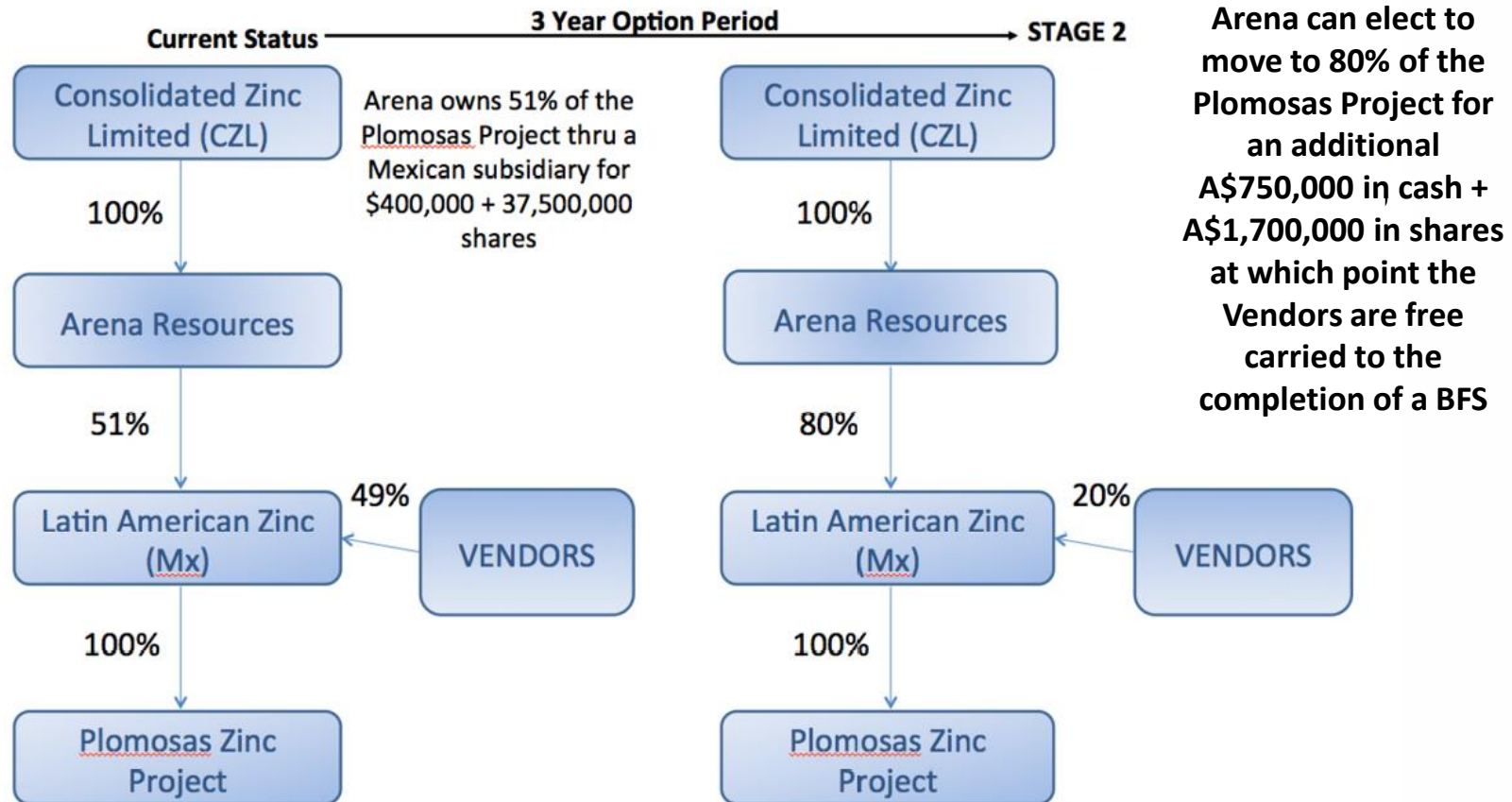
### **Mr Steve Boda**

Mr Boda has 25 years' experience in exploration and occupied senior management roles with mining and exploration in Australia, China, SE Asia and Zambia. He has a track record in using structural geology to target economic mineralisation across a variety of commodities and estimation of JORC resources.





# Acquisition Terms



Upon completion of a BFS, the vendors contribute or dilute or

- 1) MX 10% can be purchased by CZL for 10% of valuation of asset (at CZL election)
- 2) Arena 10% is a put/call for 10% of the EV of CZL (MC - \$\$ in bank)





**CONSOLIDATED ZINC LTD**

## **For further information please contact:**

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