### CZL INVESTOR UPDATE – OCTOBER 2015

# PLOMOSAS UNDERGROUND ZINC MINE, MEXICO

High grade zinc mine with silver, lead credits, targeting JORC resource and near term production with significant exploration potential













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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.

## The Company



Capital Structure (ASX:CZL)								
Shares on issue (approx)	219,655,958							
Total options on issue including listed options	50,887,662 23,350,152							
Available Funds as at Oct 13	\$1,300,000							
Share Price	\$0.039							
Approx Market Cap (undil)	\$8.5 million							
EV	\$7.7 million							
Major Shareholders								
Copulos Group	19.9%							
Mexican Vendors	11.4%							
Arena Group	6.8%							

### **Board and Management**

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

\*CZL entered into a A\$1M draw down facility with Copulos Group to fast track the drilling of the Tres Amigos mineralisation. (ASX announcement 14/10/15).



## The Project



MEXICO

# CZL owns 51% of the high grade Plomosas Zn-Pb-Ag mine in Mexico

With the rights to acquire up to 80% interest (and ultimately 100%) for additional \$750,000 cash and \$2,500,000 shares (details in Appendix)

### **Plomosas – Key Project Attractions**

- Multiple, very high grade Zn-Pb-Ag deposits grading 18-25% Zn+Pb with 60g/t Ag;
- Newly Identified Tres Amigos Zone intersections up to 4.7m @ 42% Zn, 4.6% Pb , 33 g/t Ag;
- Significant additional exploration upside with immediate drill targets;
- A near term production asset with UG access to mineralisation already established;
- Excellent infrastructure;
- Historically clean mineralogy and high metallurgical recoveries;
- Low cost and low capex mining and processing options (TBC).



## **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 Chris Watts**

Chris has 20 years experience in audit and corporate services together with experience in the commercial sector. He has provided audit and corporate services to listed and unlisted companies of varying sizes as well as non profit groups.

### **EXPLORATION MANAGER**

### **Mr Steve Boda**

Steve 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 definition of JORC resources.



## **Plomosas** - Location



### **Plomosas Location**

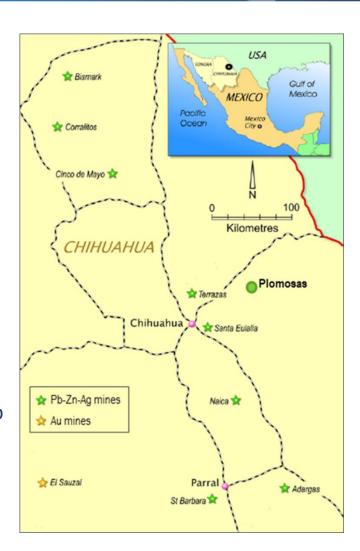
- 2 hour flight from Dallas/Houston;
- 110 Km from Chihuahua City;
- 90 Km to concentrator on paved roads.

### **Chihuahua Province**

- World class mining province;
- Experienced work force;
- The country's largest zinc producing state.

### Mexico

- Favourable regulatory environment allows 100% ownership for foreign companies;
- Ranked #5 in world for mining investment (2013);
- Ranked #6 for zinc production (2013).





## **Plomosas** – Mining history



ASARCO Grupo Mexico operated until 1974. Mined 2.2Mt ore at 16% Zn, 8% Pb and 60 g/t Ag.

= 20,000t ore per vertical metre at 24% Zn + Pb

Intermittent mining since 1975 focused only on remnant mineralisation above level 5 (131 mbs).

Current small scale production of up to 90- 100 tpd.



### **CZL** work in progress:

Finished dewatering and currently stabilising Level 7 to:

- Investigate potential for immediate production ramp up;
- Provide access for drilling and underground exploration.

#### **Accessed Level 5 to:**

- Drill newly identified footwall zone (Tres Amigos);
- Assess potential for early extraction (scoping study).



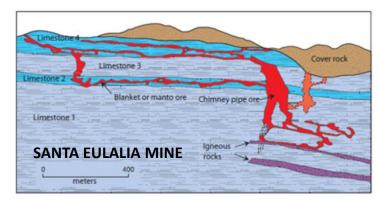
## **Plomosas** – Simple Geology

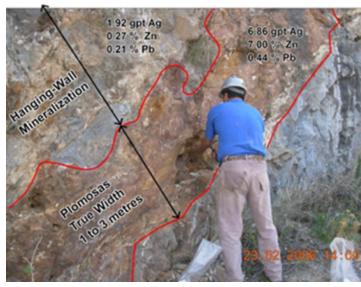


- Shale-limestone sediments at margins of major Chihuahua Basin;
- Deposits formed by mineralised fluids migrating through large structures and replacing limestone units;
- Mineralisation is confined to identifiable stratigraphic horizons as:
  - 1. Mantos Low angle, stratiform sheets, or
  - **2. Chimneys** High angle, crosscutting mineralised bodies in linking structures.

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

- Strike lengths from tens to several hundred metres;
- Thicknesses from 0.5m to 15m (average ~3 4m) (Tres Amigos intersections 2.5- 4m true width).







## **Plomosas** – Exploration Targets



### **Zinc-Lead-Silver targets**

Prospective mineralised horizon up to 25m thick dips at low to moderate angles (Main Manto Horizon).

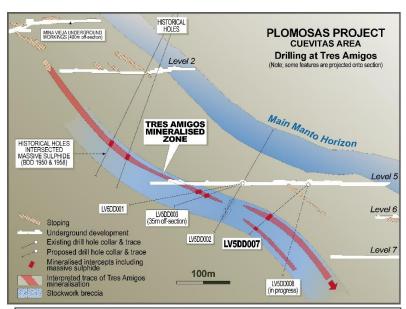
- Mineralised sequence within horizon averages over 3m;
- Plomosas concessions contain over 6km strike of the mineralised horizon(s). Underexplored and requires drill testing;
- Expect additional mineralisation down dip and as repetitions along strike, or higher/lower in sequence.

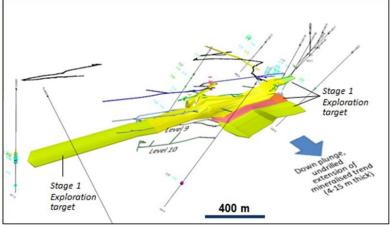
## INITIAL EXPLORATION TARGET – STAGE 1\* 2.8–3.2 Mt at 15%-25% Zn+Pb and 60-80gt Ag.

Down dip of existing mine workings (assuming advance additional 125-215mbs at 20kt per vertical metre).

\*Does not include Tres Amigos mineralisation identified to date.

The exploration target is conceptual in nature and there is no certainty that it will be realised. Further drilling is required to determine a mineral resource.







# Plomosas – Latest UG sampling



Sample	Elev.	Туре	Zn %	Pb %	Ag g/t
CV022	988.090	Channel	39.58	12.55	63.5
CV023	992.368	Channel	42.32	4.39	56.9
CV025	998.334	Channel	43.59	13.05	52.6
VJ003	1124.365	Channel	43.82	4.80	41.0
VJ015	1105.509	Channel	31.22	2.25	38.4
CV021	1003.780	Channel	26.50	8.22	34.3
CV026	989.020	Channel	24.20	9.66	32.1
TRS1	1000.171	Grab	24.20	0.80	13.3
VJ019	1106.179	Channel	annel 23.10 3.52		30.7
VJ006	1121.258	1.258 Channel		8.39	31.3
CV015	1115.010	Channel	22.40	10.55	25.3
28VJ004	1125.661	Channel	22.40	7.75	32.0
CV016	1113.049	Channel	21.90	9.02	26.1
CV008	1111.427	Channel	20.70	7.76	14.6
CV009	1113.340	Channel	19.35	11.75	29.7
CV024	995.496	Channel	19.25	7.19	41.3
CV001	1114.060	Channel	18.05	9.33	24.5
LVL5ST	990.430	Grab	16.00	12.20	28.0

- Previously unexplored mineralised zones identified (highlighted in orange);
- Sampling confirms widespread high grade through the mine.

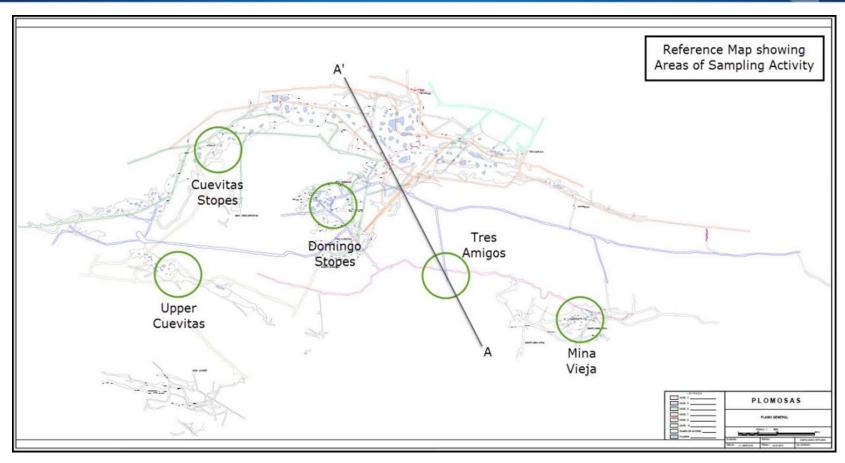






## **Plomosas** – Exploration Areas



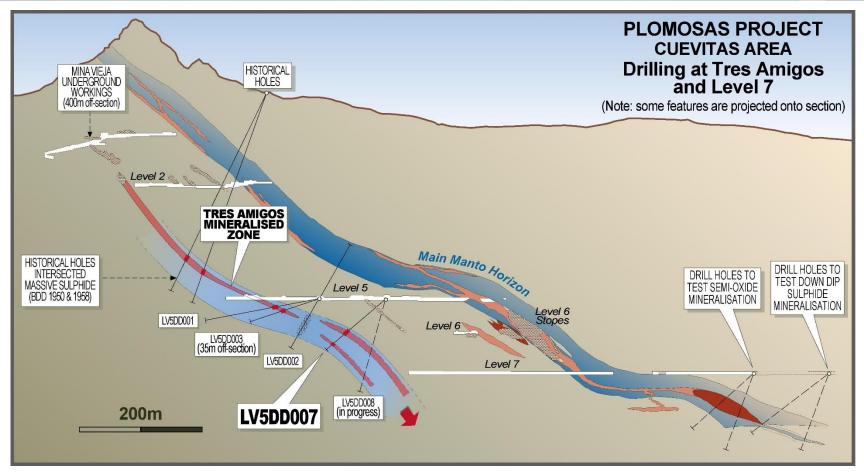


- Recent Sampling areas showing the widespread nature of the high grade mineralisation;
- Section A-A' (next slide) illustrates the drill targets for the initial campaign at Tres Amigos;
- Drilling from Level 7 requires additional underground development which is nearing completion.



## Plomosas – Stage 1 Drilling





Drilling from Level 5 tested Tres Amigos footwall massive sulphide zone while Level 7 dewatering and refurbishment is completed.



## **Plomosas** – Tres Amigos Drilling

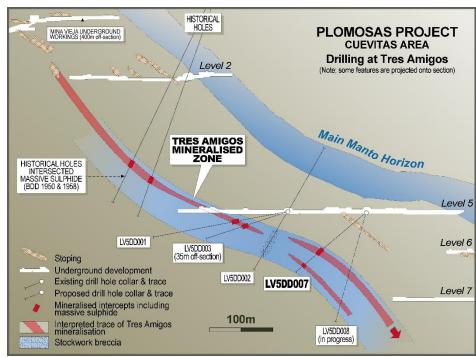


First drilling of Tres Amigos confirmed high grade massive sulphide horizon, in footwall below Main Manto Horizon.

- Bonanza grades up to ~60% (Zn+Pb) with 37 g/t Ag over 0.7m obtained;
- Near existing mine development;
- Some pinching and swelling but historical holes confirm widths up dip;
- Potential for down dip extensions and repetitions in limestone units stratigraphically below.



Sphalerite (Zn), Galena (Pb) and pyrite/carbonate in drill core



LV5DD001 4.70m @ 42.3% Zn, 4.6% Pb, 32.8 g/t Ag (TW~3.3m)
LV5DD002 2.20m @ 2.1% Zn, 0.2% Pb, 2.5 g/t Ag (TW~2.2m) (intersected compressive (thin) zone)
LV5DD003 4.45m @ 19.3% Zn, 1.7% Pb, 15.3 g/t Ag (TW~2.7m) 4.15m @ 21.7% Zn, 0.1% Pb, 7.7 g/t Ag (TW~2.5m) (35m off section and along strike of LV5DD001)
LV5DD007 Intersected 6m and 1.7m (TW) of massive and semi massive sulphides. Results awaited.



## **Plomosas** – Mining Features



Mine infrastructure Excellent condition, some u/g rehab required and additions for

short term production (shaft refurb, equipment upgrade).

Production rate (e) Current infrastructure can handle 1,000 tpd from multiple

headings.

Mining method Cut and fill method or up hole stoping expected to maximise

ore recovery.

**Operating costs**Comparison & estimates suggest opex will be low (tbc by FS).

**Upside potential/Mine life** Prospectivity for additional high grade resources have been re-

affirmed - minimum 10 year mine life targeted.

Immediate targets Ongoing exploration and resource definition programs in the

Tres Amigos zone and at depth in sulphide and semi oxide

zones.







## **Plomosas** – Processing features



**Processing plant** Current plant is pilot scale – can be upgraded to 200tpd but a larger

full scale operation requires a new concentrator.

Plant upgrade Low capex to upgrade current plant – US\$900.

**Concentrate** Historically very clean – Zn-Pb-Fe-Ag with very minor other elements.

High recoveries and desirable blending properties.

**Process water** Groundwater neutral and benign (pH 6.74).

**Permitting upgrade** Full permitting expected to take around 6 months from submission.





## **Plomosas Timeline**



- Initial drilling campaigns commenced in footwall horizon (August 2015);
- Expand drill programs into Level 7 to assess semi-oxide and sulphide mineralisation (November 2015);
- Stage 1 JORC resource (Footwall/Semi-oxidised zone) (December/January 2016);
- Scoping Study to run partly in parallel (February/March 2016);
- Aiming for a bigger picture development decision following further resource drilling at depth, second half 2016 based on:

Initial 5-10 yr mine life with target production ramp up to 250,000 to 300,00 tonnes per annum.

		2015							2016				
Milestone	March	April	May	June	July	August	September	October	November	December	January	February	March
Completion of DD and Cap Raise													
In mine sampling and dewatering													
Pre-drilling preparation underground							Lvl 7 completi	on					
Stage 1 in and near-mine drilling						Tres Amig	os u/g and sur	face					
Extensional and Exploration drilling									Semi oxidised	d and Lvl7 ext	•		
Stage 2 Expl. drilling (new targets)													
Resource Study and JORC													
Scoping Study													
													_



## **How does Plomosas compare?**

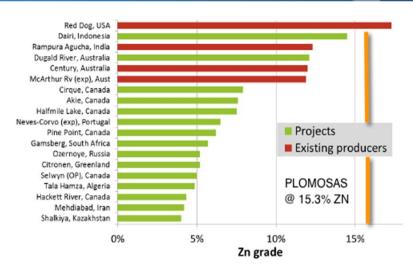
Zinc grade is higher than most deposits and competes with major, world class producers.

Silver content offers significant credits to reduce operating costs.



The Plomosas style and size of Zn-Pb-Ag deposit has been highly profitable around the world including the:

- Chihuahua region (eg Naica, Santa Eulelia), and
- Lennard Shelf, WA.



Lennard Shelf I	Lennard Shelf Resources (December 2000)										
Deposit	Tonnes	Zn %	Pb %	Zn+Pb%	Ag						
Cadjebut	5,215.000	11.2	3.2	14.4	<l0g t<="" td=""></l0g>						
Cadjebut Splay Fault	390,000	1.4	14.4	15.8	<l0g t<="" td=""></l0g>						
Goongewa	2,571.000	71.000 8.5 2.8 11.3		40g/t							
Kapok/Kapok E	4.636.000	9.4	8.6 18.0		10-15g/t						
Kapok West	1,220.000	4.3	9.0	13.3	10-15g/t						
Kutarta	2,340.000	7.2	0.5	7.7	40g/t						
CADJEBUT TREND	16,372,000	8.9	5.0	13.9							
Pillara	18,786,000	7.8	2.6	10.4	15-20g/t						
Napier Range	590,000	8.5	8.0	16.5	75g/t						
Fossil Downs	1,460.000	10.1	1.6	11.7	30g/t						
TOTAL	37,208,000	8.4	3.7	12.1							



## Peer comparisons

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**Plomosas Global Peer Project** 

Pioriiosas Giobai Peer i	Project			
Project Name	Company	Mt	Zn grade (%)	Contained Zn (tonnes)
Citronen	Ironbark Zinc	29.9	6.6	1,971,600
Prairie Creek	Canadian Zinc Corp	13.7	11.0	1,501,309
Olympias	Eldorado	19.1	6.1	1,152,769
Aripuana	Anglo American	21.8	4.1	882,500
Newfoundland	Canadian Zinc Corp	9.4	5.0	474,382
Kutcho	Capstone	12.4	3.2	392,301
Marg	Minquest	11.7	3.2	379,282
Plomosas (Stage 1) *	<b>Consolidated Zinc</b>	3.0	12.0	360,000
Huaron	Pan American Silver	12.0	2.7	325,440
Morococha	Pan American Silver	8.0	3.4	269,650
Stratoni	Eldorado	1.6	10.0	161,903
Thalanga	Red River Resources	2.3	7.0	159,575

<sup>\*</sup>Exploration target for Plomosas Zinc project (Stage 1)

#### **Plomosas Peer Valuation**

Company	Code	Project	Country	Equity	Mt	%Zn	Cont Zn (kt)	Mkt Cap (\$M)	EV (\$M)
Atherton Resources	ATE	Kong Vol	Australia	100%	3	12	360	55.9	61.4
Energia Metals	EMX	Gorno	Italy	100%	6-10*	7-10*		27.4	23.3
Red River Resources	RVR	Thalanga	Australia	100%	2.3	6.9	159	21.3	19.6
Consolidated Zinc	CZL	Plomosas	Mexico	100%	2.9-3.2*	15-25*	290- 544	7.9	7.6

<sup>\*</sup> Exploration target grades (Zn+Pb)%

Source: DJC\*/thecloudminer.com



## Zinc market and outlook

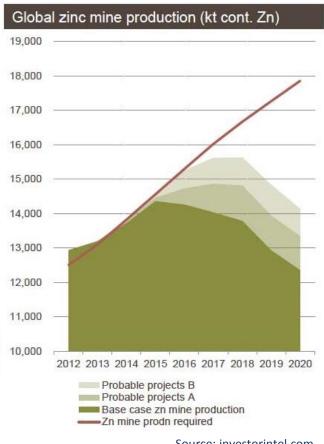


### **Recent Developments:**

- MMG Group announce Century Mine in QLD is complete
- Glencore reduce production by 500,000t (4% of global supply)
- ANZ Bank forecast larger Zn deficit in 2016
- Zn price up 10% to USD1,820 per tonne 9<sup>th</sup> October
- Price stability and some upward pressure expected as stocks are reduced
- Little new production forecast to replaced closing mines

World Refined Zinc Supply and Usage 2010 - 2015											
000 tonnes	2010	2011 2012		2013	2014	2014	2015		20	15	
	2010	2011	2012	2013	2014	Jan	-Jul	Apr	May	Jun	Jul
Mine Production	12360	12582	12898	12977	13349	7520	8000	1144.0	1195.3	1198.9	1120.1
Metal Production	12869	13037	12610	12853	13298	7522	8155	1173.9	1177.1	1211.2	1170.9
Metal Usage	12628	12679	12375	12964	13527	7781	8005	1153.1	1200.1	1226.6	1156.0

Source: ILZSG



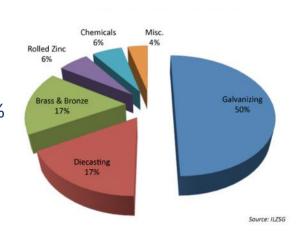
Source: investorintel.com



## Zinc market details



- At present, approximately 75% of the zinc consumed worldwide originates from mined ores and 25% from recycled or secondary zinc;
- Zinc is the 4<sup>th</sup> most utilised metal in the world;
- Rises in apparent demand of 9.2% in the United States and 13.8% in China were the main drivers behind an increase in global zinc metal usage of 7.4% for 2014;
- Demand in Europe rose by a more modest 0.7%;
- Chinese net imports of refined zinc metal increased by 8.7% to 448kt.









## **Summary & overview**



### The Plomosas project provides ConZinc with:

- Entry into a highly mineralised, low cost mining region;
- Low risk country with strong mining culture;
- Ability to define mineral resources in short term;
- Near term cashflow;
- Opportunity to establish operation with a significant mine life;
- Outstanding upside potential through exploration and acquisitions.

### **Plomosas features:**

- Multiple, very high grade Zn-Pb-Ag deposits including newly discovered Tres Amigos zone;
- Mining lease and most mining approvals in place;
- Additional immediate drill targets;
- Good infrastructure and access;
- Historically clean mineralogy;
- Low cost and low capex mining and processing options (tbc).



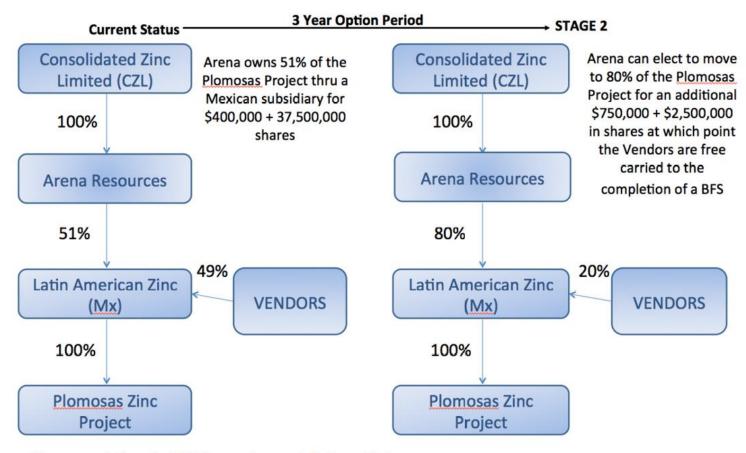






## **Acquisition terms**





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

- 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)

