

Florence Copper Site Tour October 16, 2018

## **Forward Looking Statements**

## **Taseko**

Some of the statements contained in the following material are "forward-looking statements". All statements in this release, other than statements of historical facts, that address estimated mineral resource and reserve quantities, grades and contained metal, and possible future mining, exploration and development activities, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements should not be in any way construed as guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices for metals, the conclusions of detailed feasibility and technical analyses, lower than expected grades and quantities of resources, mining rates and recovery rates and the lack of availability of necessary capital, which may not be available to the Company on terms acceptable to it or at all. The Company is subject to the specific risks inherent in the mining business as well as general economic and business conditions. For more information on the Company, Investors should review the Company's annual Form 40-F filing with the United States Securities Commission at www.sec.gov. and its Canadian securities filings that are available at www.sedar.com.

See Appendix for 43-101 Compliance Information

## **Taseko Mines Limited**

## **Discussion Topics**

- General Overview
- PTF Pre-Operations Test Results
- Benefits of the PTF
- Timeline to Commercial Production
- Financing





#### **History**

1960	American Smelting & Refining Co. (ASARCO) undertakes early exploration
1970 - 1976	Continental Oil Company (Conoco) records first copper intercepts
	Conoco constructs two 700' shafts and one mile of cross-cuts and performs on-site testing
1992 - 1996	Acquired by Magma Copper Company Magma evaluates potential for ISCR production
1996 - 1998	Magma acquired by BHP Copper (Florence Copper, Inc.) Conducts geological and hydrogeological characterization
	ISCR pilot test initiated - including installation of 67 injection, production and monitoring wells
2000	BHP deferred mining operations due to low metal prices
	Property acquired by Merrill Ranch Investments LLC
2009 - 2010	Curis Resources acquires Florence Copper property and State of Arizona mineral lease
	Senior project team assembled to advance the Florence Copper project toward development
2011 - 2014	Curis submits permit applications; permitting process; extensive engineering, environmental studies, and community engagement
2014 - present	Curis Resources is acquired by Taseko Mines; completed permitting of the PTF; construction of PTF began in 2017



#### A Near Term, Low Cost Copper Producer

Location:	Central Arizona near the community of Florence		
Ownership:	100% (acquired in 2014 for US\$70 million)		
Mineral Reserves:	345 million tons grading 0.36% TCu (at a 0.05% total copper cutoff) containing 1.7 billion pounds of recoverable copper		
Mine Type:	In-situ copper recovery		
Mine Life:	20 years		



#### **Project Highlights**

- Major power and transportation infrastructure in place
- Phase 1 test facility permitted and constructed
- Potential for production from the commercial plant by the end of 2021
- Over US\$135 million spent on project by former owners Conoco, Magma and BHP Copper Inc. plus subsequent \$50 million spent by Curis & Taseko



#### 2017 Technical Study

- In January 2017, Taseko announced the results of a two-year metallurgical test program as well as an optimization of the project well field development sequence
- The updated data was used to re-cost the project which resulted in a significant improvement in project economics

#### **Technical Study\* Highlights**

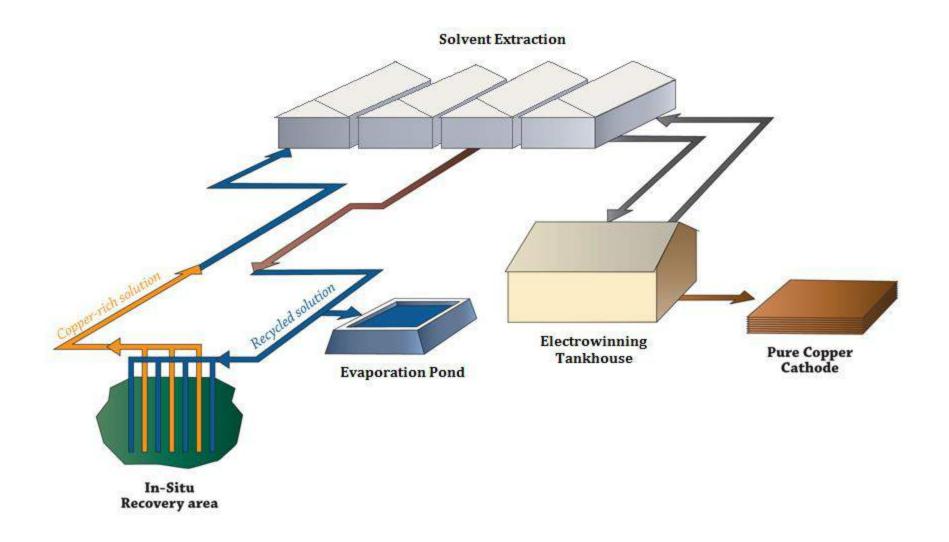
- Initial capital cost of US\$200 million
- Payback of capital 2.3 years (pre-tax)
- Operating cost of US\$1.10/pound LME Grade copper cathode
- Annual average copper production of 85 million pounds
- Total life of mine production in excess of 1.7 billion pounds of copper
- 20 year mine life

Net Present Value (NPV) Analysis*			
Copper price US\$/lb	NPV (7.5%) / IRR		
\$3.00	US\$920 Million / 44% - pre-tax US\$760 Million / 40% - after-tax**		

\*The NI 43-101 technical report documenting these results including tax implications and discussion was filed on www.sedar.com on February 28, 2017.

\*\*Recent changes to US tax legislation have increase the project's after-tax net present value to US\$760 million (from US\$680 million, as stated in the 2017 technical study.)







### A Rare Hydrogeological Opportunity

- The quartz monzonite host rock with chrysocolla copper mineralization
- The oxide zone at Florence is an extensively fractured, porous bedrock
- Saturated nature of the deposit make it ideal for ISCR
- Underlying and overlying deposits provide additional secondary safeguards for ISCR
- The 1998 BHP Copper in-situ copper recovery production test demonstrated "hydraulic control" of solutions in the ground
- There are no negative environmental impacts as proved by the quarterly monitoring since 1996

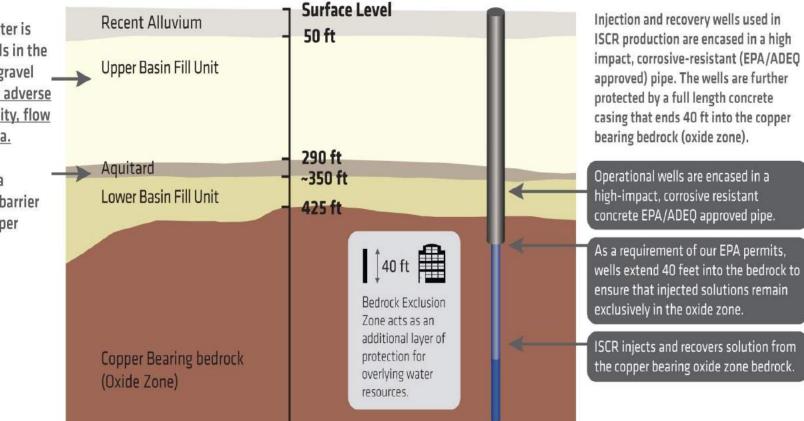




### A Rare Hydrogeological Opportunity

Regional and local water is obtained through wells in the upper conglomerate/gravel layer. <u>There will be no adverse</u> <u>impacts to water quality, flow</u> or quantity in this area.

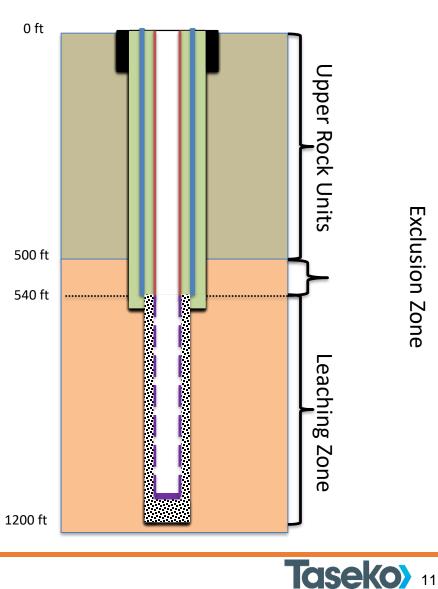
Clay aquitard acts as a secondary protective barrier to water quality in upper ground water zone.





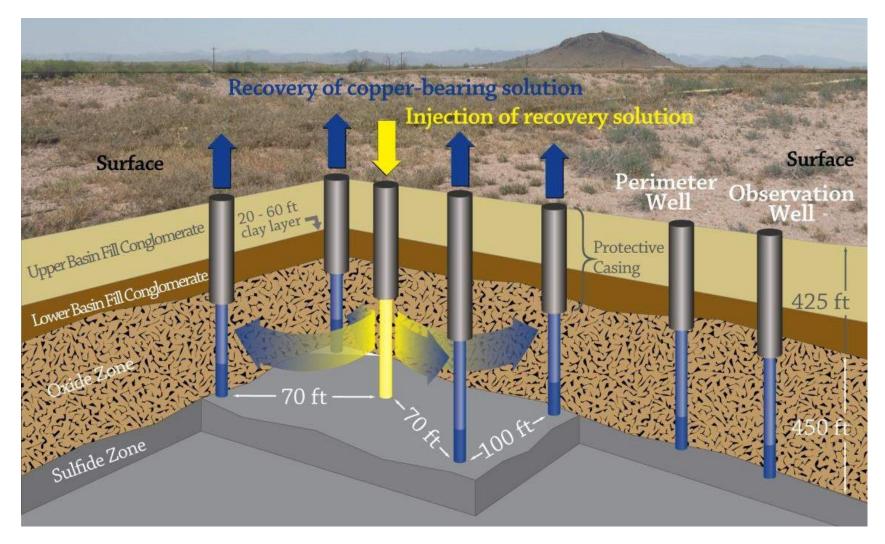
#### **Injection and Recovery Well Construction**

- 1. Surface Casing 24" dia.
- 2. Upper Drilling
- 3. Steel Casing -12" dia.
- 4. Outer Cement
- 5. Lower Drilling
- 6. Two Part Casing 5" dia.
- 7. Lower Media Packing
- 8. Inner Cement Well Complete



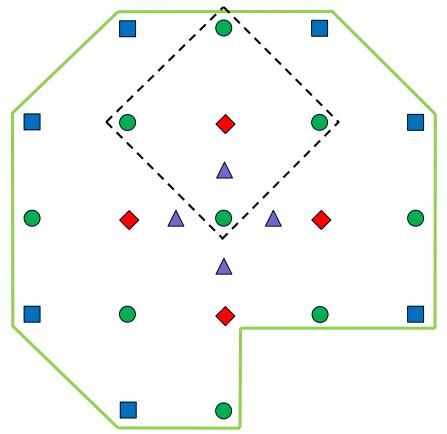
**Exclusion Zone** 

#### **5-Spot Well Pattern**

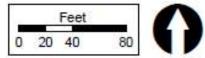




#### **PTF Wellfield Plan View**



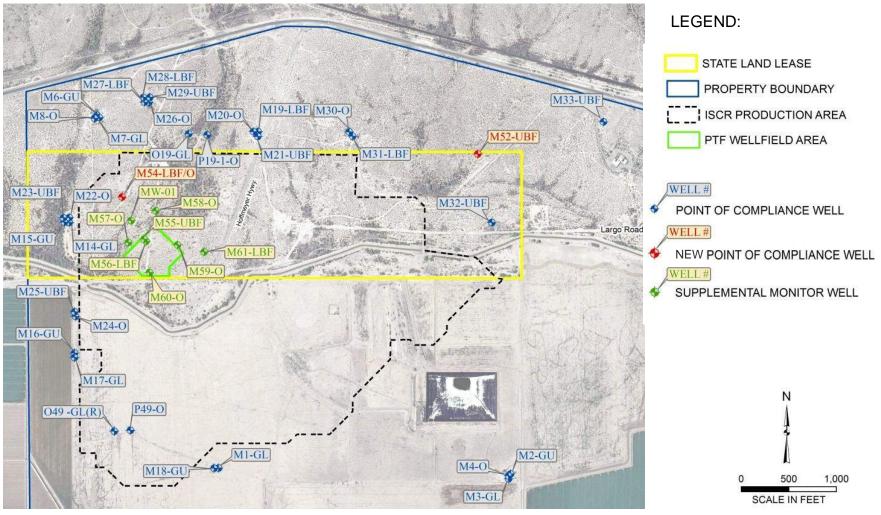
- Injection Well
- Recovery Well
- Observation Well
- ▲ Sampling Well





#### **Commitment to Water Protection**

#### ADEQ and USEPA compliance wells act as a security perimeter around the site





**Commitment to Water Protection** 





**Residential** 3,000 acre-feet per year\*



Agricultural 4,800 acre-feet per year\*

\*An acre foot is equivalent to 1 acre of land being covered by water 1 foot deep.



#### **Commitment to Environmental Protection**

	Florence ISCR	Conventional Open Pit Mine	
Energy Consumption- (kWh/lb Cu)	2	7	71% lower
Fresh Water Use – (gal/lb Cu)	3	41	93% lower
Carbon Emissions – (kg CO <sub>2</sub> /lb Cu)	1	6	83% lower

#### **Additionally:**

- no mine tailings or waste rock for long-term surface impoundment
- minimal dust emissions
- no significant change to site topography
- land available for general use after operations complete



#### **Economic Impact to Florence , Pinal County and Arizona**



## \$2.2 billion

in economic activities for the state of Arizona

## \$1.1 billion

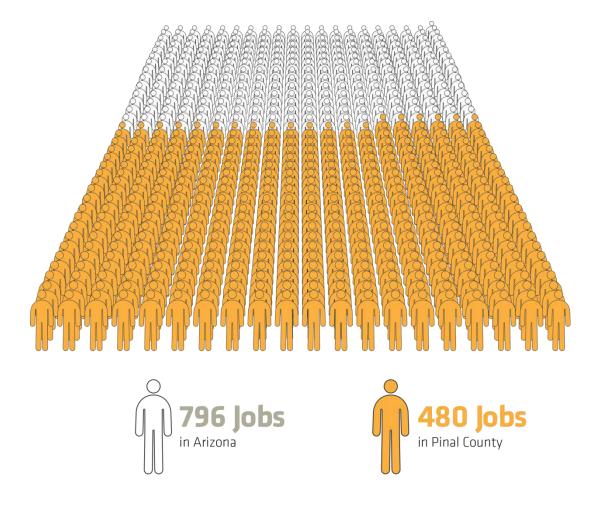
in economic activities for Pinal County

## \$325 million

in taxes and royalties for Arizona government



#### **Jobs Created by Florence**





#### **Our Commitment to the Community**









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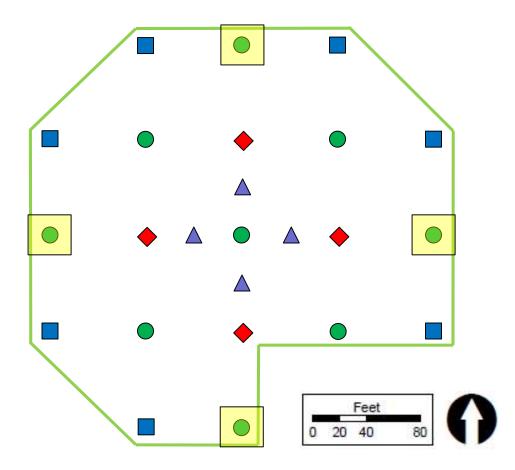






#### **Formation Test**

Monitoring Well

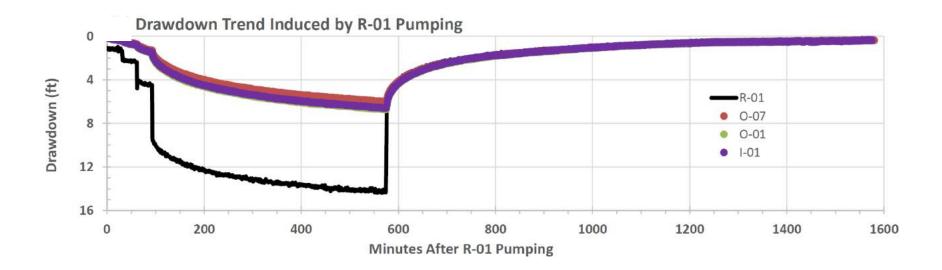


- Injection Well
- Recovery Well
- Observation Well
- ▲ Sampling Well



#### **Formation Test Results**

✓ Hydraulic properties in the wellfield confirm the groundwater model

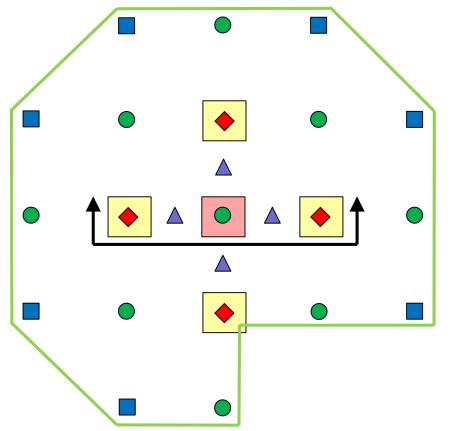


 Confirmed that the hydraulic conductivity between the wellfield and the monitoring and compliance wells to demonstrate that the planned pumping will create a cone of depression



#### **Wellfield Tracer Test**

PTF Wellfield – Plan View





#### Recovery Well

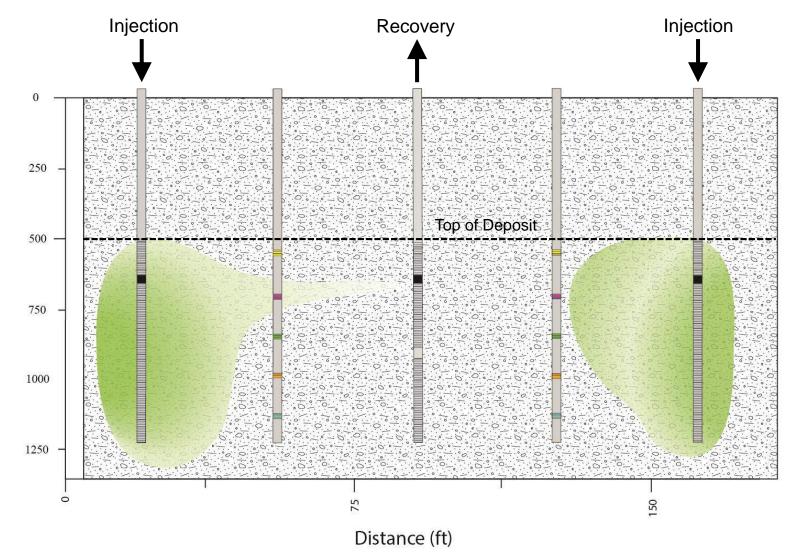
- Observation Well
- ▲ Sampling Well





#### Wellfield Tracer Testing – Day 1

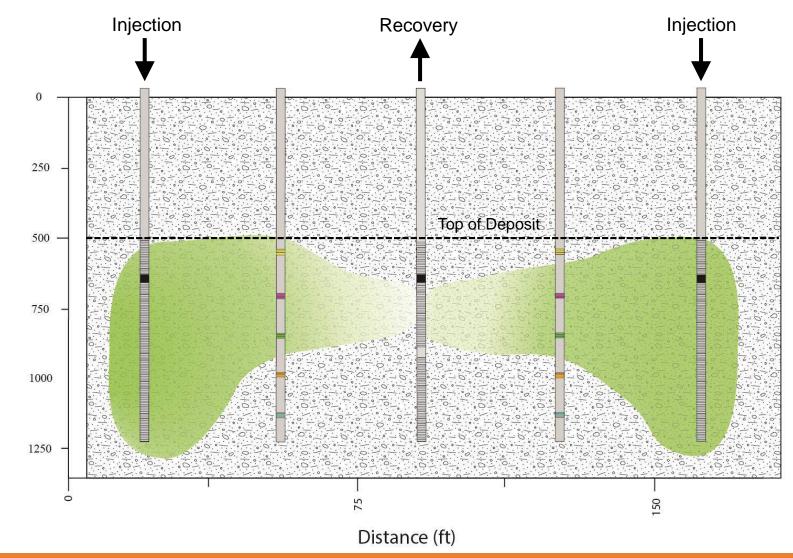
Depth (ft)



Taseko) 25

#### Wellfield Tracer Testing – Day 3

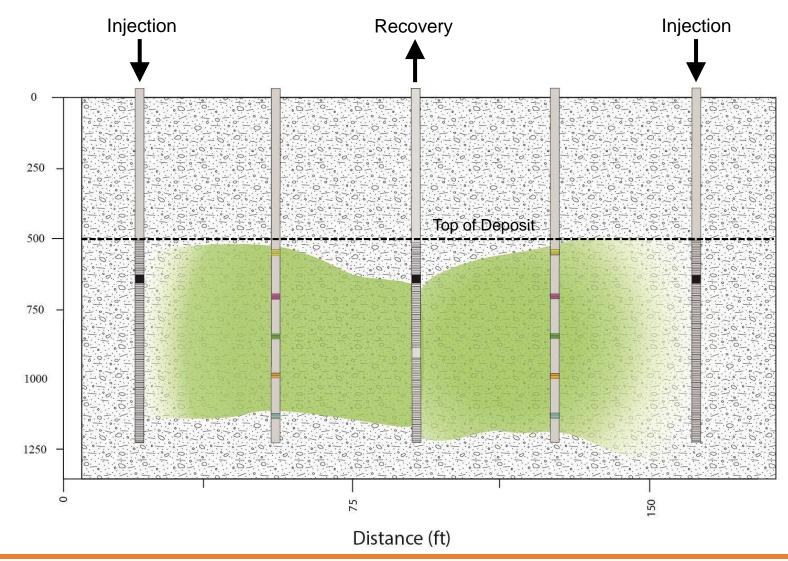
Depth (ft)



Taseko> 26

#### Wellfield Tracer Testing – Day 7

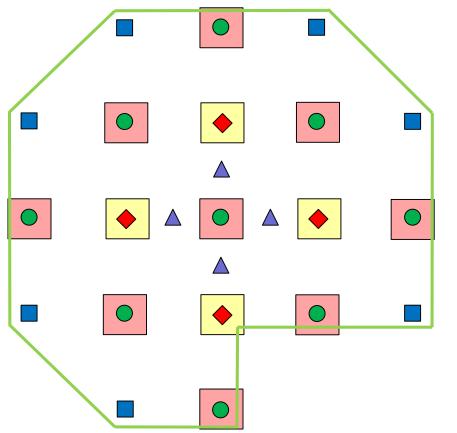
Depth (ft)



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#### **Pre-Operational Test**

PTF Wellfield – Plan View





#### Recovery Well

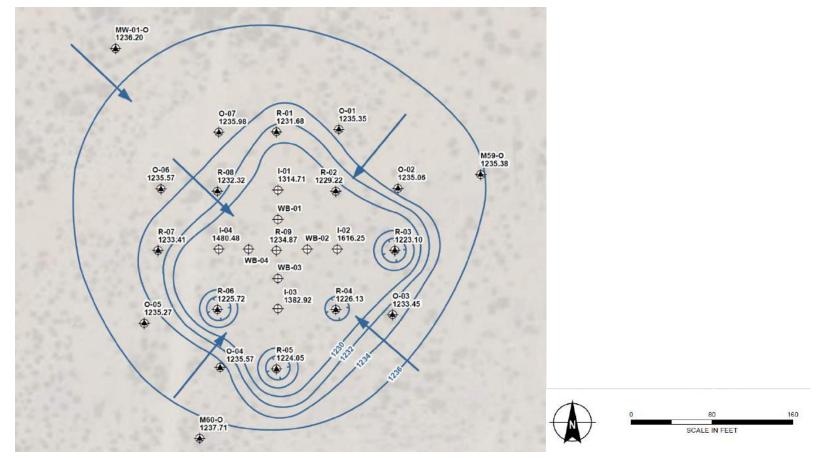
- Observation Well
- ▲ Sampling Well





#### **Pre-Operational Test Results**

✓ The cone of depression created by the planned PTF pumping is sufficient to maintain hydraulic control of solutions





## Benefits of the PTF



## **Benefits of the PTF**

### **Hydrology and Metallurgy**

#### ✓ Confirm scale-up and reduce initial commercial operations risk

- Demonstrate:
  - hydraulic control of solutions
  - o suitability of permit conditions
  - production flow rates through orebody
- Validate:
  - hydraulic control pumping requirements
  - sweep efficiency model
  - leaching model including:
    - $\circ$  acid consumption
    - o kinetics
    - o PLS grade
    - $\circ$  PLS composition



## **Benefits of the PTF**

### Wellfield and SXEW

#### ✓ Refine designs and plans for commercial facility

- Gained experience drilling and constructing wells
- Test effectiveness of packers for targeting solution flow
- Test commercial scale wellfield:
  - o equipment
  - o materials of construction
  - o Instrumentation and controls
- Evaluate well spacing
- Confirm SXEW reagents
- Evaluate water treatment methodologies and potential beneficial uses



## Permitting / Timeline



## Permitting

#### **All Required Permits for PTF are in Place**

GOVERNMENT AGENCY	PERMITAL/THORIZATION DESCRIPTION	
United States Environmental Protection Agency (EPA)	Underground Injection Control Permit	✓
Protection Agency (EFA)	Memorandum of Agreement with the Arizona State Historic Preservation Office & the Advisory Council on Historical Preservation	$\checkmark$
Arizona Department of Environmental Quality (ADEQ)	Aquifer Protection Permit	✓
	Arizona Pollutant Discharge Elimination System - General Permit for Stormwater Discharges	$\checkmark$
	Hazardous Waste Generator Identification Number	$\checkmark$
	Septic Tank	✓
	401 Certification	$\checkmark$
Arizona Department of State Land	Mineral Lease	$\checkmark$
	Mining Plan of Operations	$\checkmark$
Arizona Department of Water	Permit to Withdraw Groundwater for Mineral Extraction & Metallurgical Processing	$\checkmark$
Resources	Water Rights	✓
US Army Corps of Engineers	404 Jurisdictional Determination	✓
Arizona State Mine Inspector	Mined Land Reclamation Plan	$\checkmark$
Pinal County Air Quality Control District	Air Quality Permit	$\checkmark$



## Permitting

#### **Key Permit & Authorizations for Commercial Operations**

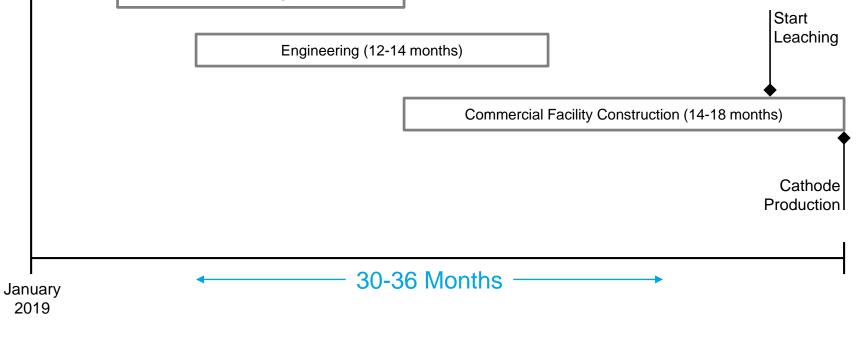
GOVERNMENT AGENCY	PERMIT/AUTHORIZATION DESCRIPTION
United States Environmental Protection Agency (EPA)	Amend Underground Injection Control Permit
	Update Programmatic Agreement with the Arizona State Historic Preservation Office & the Advisory Council on Historical Preservation
Arizona Department of Environmental Quality	Amend Site Wide Aquifer Protection Permit
(ADEQ)	Septic System
Arizona Department of State Land	Amend Mining Plan of Operations for Mineral Lease
Arizona State Mine Inspector	Update Mined Land Reclamation Plan



## **Timeline to Commercial Production**

PTF Operations (12-14 months)

Commercial Permitting (9-12 months)







#### Project capital requirements\*:

- Capex US\$205 million (incl. US\$37 million contingency)
- Reclamation bonding TBD (estimate US\$40-50 million)

#### Taseko financial position (June 30, 2018):

(C\$ millions)

Cash	\$ 52	
Debt:		
Senior secured notes (US\$250)	\$319	Maturing June 2022, callable in June 2019
Leases & equipment loans	\$ 30	Monthly payments thru 2022



#### **Financing Options**

- 1. Senior Secured Debt
  - Existing bonds are secured by Taseko's investment in Gibraltar Mine, but not Florence
  - Bond indenture allows for up to US\$150mm of 'first lien' debt
    - US\$100mm general and credit facilities basket +US\$50mm equipment financing
  - Project level debt or corporate credit facility
  - Commercial banks or debt funds.
- 2. Reclamation Surety Bonds
  - To cover Florence bonding requirement
  - Potential to access C\$36 million of funds tied up in Gibraltar reclamation deposit
- 3. Equipment Financing / Leasing:
  - Florence SX-EW plant
  - Gibraltar mobile fleet



### **Financing Options**

- 4. Offtake Financing:
  - Florence cathode or Gibraltar concentrate
- 5. Bond Market (high-yield debt)
  - TKO Senior Secured Notes currently trading at ~102%
  - Potential for add-on offering under the existing indenture
  - Or refinance prior to June 2022 maturity date.
- 6. Royalties and Streams
- 7. Minority JV Partner

#### Other considerations:

- Debt capacity of Taseko and the Florence project
  - LOM C1 cost of US\$1.10/lb.
  - 20 year mine life
- Copper prices in 2019 and 2020?
- We don't need to make any decisions yet!



#### **Process and Timing**

- Cutfield Freeman engaged as independent advisor October 2018
- Preliminary lender discussions in Q1 2019
- Engage independent engineer
- Formal lender proposals in Q3 2019
- Targeting to have committed financing in place by end of 2019





# Thank You! Questions?

## NI 43-101 Compliance

Unless stated otherwise, Taseko Mines Limited (the "Company") has prepared the technical information in this presentation including Mineral Reserve Mineral Resource estimates ("Technical Information") based on information contained in the technical reports and news releases (collectively the "Disclosure Documents") available under the Company's profile on SEDAR at www.sedar.com. Each Disclosure Document was prepared by or under the supervision of a qualified person ("Qualified Person") as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101"). For readers to fully understand the information in this presentation, they should read the technical reports identified below in their entirety, including all gualifications, assumptions, and exclusions that relate to the information set out in this presentation which gualifies the Technical Information. The Disclosure Documents and this presentation are each intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the Disclosure Documents.

The Technical Information in this presentation has been prepared in accordance with NI 43-101 and has been reviewed and approved by Scott Jones, P.Eng, Vice-President Engineering of the Company, and a "Qualified Person" under 43-101. Mr. Jones has verified the data disclosed in this presentation and no limits were imposed on his verification process.

Mineral Reserve and Mineral resource estimates are shown on a 100 percent basis for each project. The Measured and Indicated Resource Estimates are inclusive of those Mineral Resources modified to produce the Mineral Reserve estimates. All estimates are current as of the effective date of their corresponding technical reports with the exception of those for the Gibraltar Mine which reflect mining depletion since the effective date as documented in the Company's most recent annual information form. Estimates for all projects are prepared by or under the supervision of a Qualified Person as defined in NI 43-101. Mineral Reserve and Mineral Resource estimates for all projects have been calculated using metal prices, foreign exchange, recoveries, and costs stated in their respective technical reports.

For further Technical Information on the Company's properties, refer to the following technical reports, each of which is available on the Company's SEDAR profile at www.sedar.com.

Florence Copper Project: technical report entitled "NI 43-101 Technical Report, Florence Copper Project, Florence, Pinal County, Arizona" issued February 28, 2017 with an effective date of January 16, 2017, as amended November [], 2017.

#### Florence

The resource and reserve estimation (effective date Jan 16 2017) was completed by Dan Johnson PE, Vice-President/General Manager for Florence Copper, Inc., and a Qualified Person under National Instrument 43-101. The updated Mineral Reserves are based on engineering performed by SRK Consulting incorporating the measured and indicated resources established in 2010, metallurgical work completed by SGS Inc. and T. McNulty and Associates, process facility designs by M3 Engineering as well as well field designs by Haley and Aldrich Inc. The study was done using a long term metal price of US\$3.00/lb for copper. Mineral reserves are contained within the measured and indicated mineral resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability (Under US standards no reserve declaration is possible until a full feasibility study is completed and financing and permits are acquired.)

Category		Grade	Recoverable Metal	Contained Metal
(at 0.05% TCu cut-off)	Size (M Tons)	(%TCu)	Cu (B lbs)	Cu (B lbs)
Probable Reserves	345	0.36	1.7	2.5
Measured	296	0.35	-	2.1
Indicated	134	0.28	-	0.7
M + I Resources	429	0.33	-	2.8
Inferred	63	0.24	-	0.3

