

# Colluli: Positively Unique

**Investor Road Show: June 2015** 

Helping grow a better future

ASX:DNK

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Factors that could cause actual results to differ materially from those in forward-looking statements include market prices of potash and, exploitation and exploration successes, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, as well as those factors disclosed in the Company's filed documents.

There can be no assurance that the development of the Colluli Project will proceed as planned. Accordingly, readers should not place undue reliance on forward looking information. Mineral Resources and Ore Reserves have been estimated using the Australian JORC (2012) Code ('JORC 2012'). To the extent permitted by law, the Company accepts no responsibility or liability for any losses or damages of any kind arising out of the use of any information contained in this presentation. Recipients should make their own enquiries in relation to any investment decisions.

Material resource and financial assumptions made in this presentation are consistent with assumptions detailed in the Company's ASX announcements dated 25 February 2015 and 4 March 2015, which continue to apply and have not materially changed. The Company is not aware of any new information or data that materially affects assumptions made.

### Colluli – a class of its own



- Economically favourable prefeasibility study
- Large, long life, expandable resource
- Unrivalled proximity to coast
- Colluli resource yields high purity, premium SOP
- Commercially proven process
- Potassium salts are mined in solid form
- Lowest capital intensity and operating costs
- Unmatched potash diversification potential
- Excellent access to the key markets of the future
- Stable and maturing mining jurisdiction

Positively Unique

### **PFS – Economic snapshot**



	Phase I	Phase II	Phase III and beyond
<sup>1</sup> Project NPV <sub>10%</sub> (US\$m)	462	846	Project will grow
Project IRR (%)	22.3	24.7	with market over time and
STB NPV <sub>10%</sub> (US\$m)	206	397	diversify product
STB IRR (%)	22.3	25.9	mix.
Development Capital (US\$m)	442	282 <sup>2</sup>	
Expected Module Capacity (tpa)	425,000	+ 425,000	
Average Mine Gate Cash Costs (US\$/t SOP)	162	141	
Production Commences	Q3 2018	Q3 2023	
Expected mine life (years - based on Measured and Indicated)	520	260	
Undiscounted cumulative cash flow (US\$m)	2,645	5,134	

Phase I has been modelled as a standalone project and is an attractive investment in itself.

Phase II calculated with the second module commencing in 2023, with volumes in addition to Phase I.

<sup>1</sup>Modelled at long term SOP price of US\$588/tonne

Note: PFS for EPM Mining modelled US\$716/tonne SOP [Source: EPM Mining N43-101 PFS report]

Note: DFS for IC Ochoa modelled at \$618/tonne SOP [Source: IC Ochoa N43-101 Feasibility report]

Note: Colluli Project NPV10% @ US\$700/tonne = US\$689m Phase I (28.3% IRR) and US\$1,205m (30.5% IRR) Phase II

<sup>2</sup> Incremental additional capital

### Large, long life, expandable resource

### **1.1Bt Ore Reserve**

- 287 million tonnes Proved
- 820 million tonnes Probable

205 million tonnes of recoverable sulphate of potash (SOP)

 Largest volume of recoverable SOP of all greenfield projects

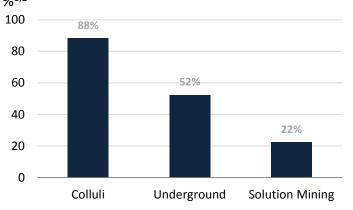
Shallow mineralisation allows open cut mining

- A safer mining method versus underground
- High resource recovery
- Reduced complexity
- High degree of selectivity
- Ideal for modular growth
- Proven method for salt mining in arid regions



Photo: Danakali employee checking drill hole coordinates

Conversion of Mineral Resource to Ore Reserve estimates for selected potash (MOP and SOP) projects  $\%^{1,2}$ 



1. Underground mining methods and applications, company reports

2. Danakali Reserve, Allana Potash , IC Ochoa

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# **Colluli Ore Reserve in perspective**

Colluli Ore Reserve estimate dwarfs many planned and current large scale operations

Company	Project	Design Capacity (Mtpa)	Mine Life (yrs)
IC Potash	Ochoa	0.75	50
Potash Ridge	Blawn Mountain	0.65	40
Allana	Danakhil Project	1.00	20
Highfield	Muga	1.12	24
Potash Corp	New Brunswick	0.80	107
	Cory	1.50	125
	Allan	1.40	100
	Rocanville	2.80	74
	Lanigan	3.40	85
South Boulder Mines	Colluli	0.850	243

Ore Reserve estimates for selected potash (MOP and SOP) projects Million tonnes<sup>1,2</sup>

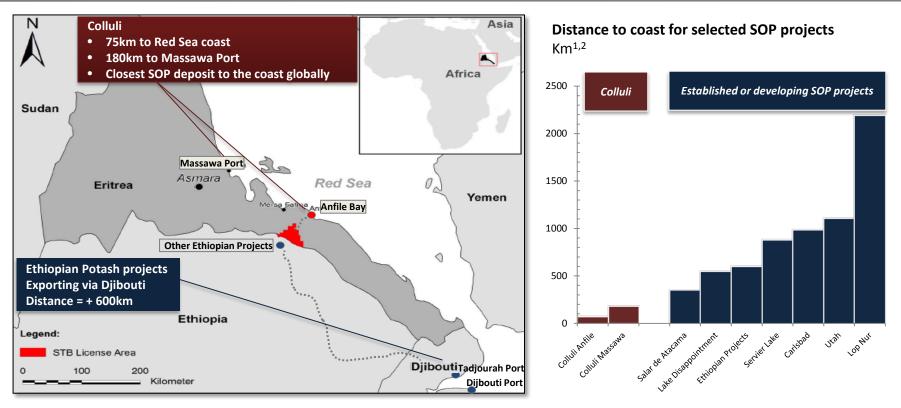
1200			_	-
1000				
800	Greenfield SOP projects	Greenfield MOP projects	Brownfield Potash Corp MOP operations	
600	,,			-
400				-
200	ЪŬ			
0	Potash Ridge A	iana usal	Rocan Jarie Colluli	Ļ
	Potsh Ridee Al	AL NEWBLU	40 <sup>1</sup> 1	

1. Company websites, Potash Corp annual report

- 2. MOP = Muriate of Potash, otherwise known as potassium chloride
- 3. SOP = sulphate of potash, otherwise known as potassium sulphate

### **Unrivalled proximity to coast**





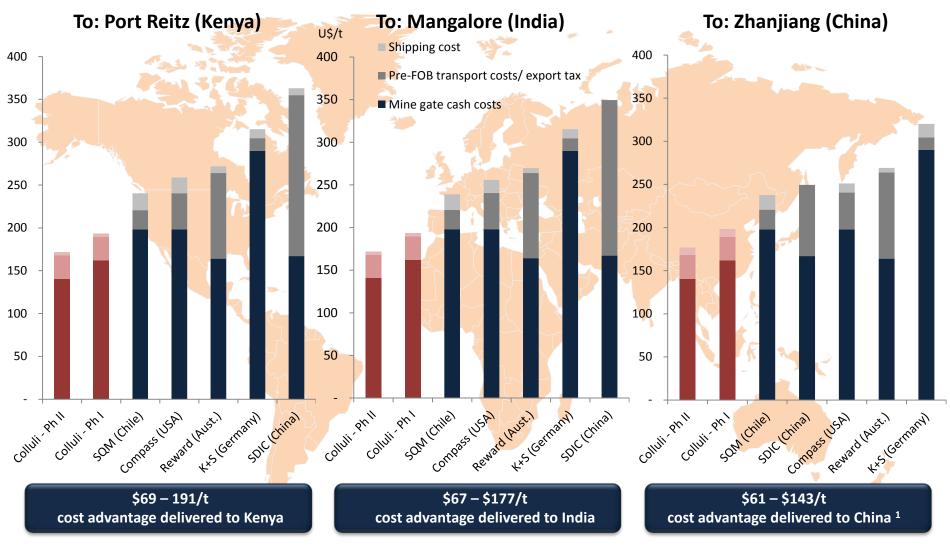
- Colluli is significantly closer to shipping point than potassium sulphate peers globally
- Only 75km to the Red Sea Coast (Anfile Bay); 1300km of access to Red Sea coast from Eritrea
- Only 180km to the Port of Massawa (The key import/export facility in Eritrea)
- Trucking is a simple, low cost option to access port

1. Company announcements: Allana Potash, Circum

2. Danakali Analysis

### **Unparalleled delivered cost advantage**



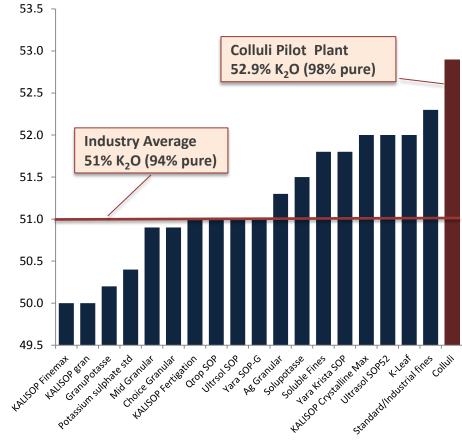


Sources: Sea distances.org, company websites/ presentations, CRU, DNK analysis. Reward Minerals costs based on May 2015 Roadshow and AGM presentation. 1) Major SOP consuming regions in southern China, 2) Freight cost estimates assume Panamax vessels, common port costs at destination locations, oil prices at \$US56/barrel. Pre-FOB inland rail / trucking estimates based on industry referenced figures. All figures excluding royalties. Chinese exports incur \$US100/t export tax.

## Top end of the quality spectrum

#### The SOP Quality Spectrum

%K<sub>2</sub>O versus SOP product<sup>1,2</sup>



Company websites 1.

2. Colluli salt pilot plant tests

#### Colluli pilot test generated SOP samples for marketing<sup>2</sup>







#### Colluli Soluble

Fine powder – rapidly dissolves in water. Suitable for open feed fertigation, foliar feeding and greenhouse and hydroponic systems

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#### Colluli Standard

Suitable for application on hardy crops and in manufacture of compound fertilisers

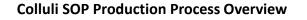
#### Colluli Granular

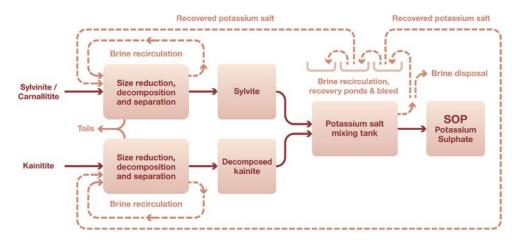
Suitable for bulk blends, mechanised spreading and for manual application

### **Commercially proven process**



- The Colluli resource salt composition is highly favourable for SOP production
- The resource contains both kainite and sylvite (KCl)
- Combining these salts in water results in a high yield, ambient temperature conversion to SOP
- Process uses simple mineral processing units including conventional flotation, mixing tanks and centrifuges
- This process is the most commonly used for the primary production of SOP
- One important difference is that Colluli salts are mined in <u>solid form</u> versus potassium rich brines





High potassium yield, ambient temperature conversion to SOP

Colluli SOP production process design reviewed and endorsed by Technical Review Committee comprising selected industry experts

## Salts mined in solid form – a distinct advantage



# Smaller surface footprint and reduced infrastructure

- Naturally occurring or solution mining generated potassium rich brines require pre-processing ponds to produce harvest salt for subsequent processing
- Salts in solid form only require evaporation ponds to improve overall recovery sizes much smaller

### **Reduced water consumption**

- Relative to solution mining , water consumption is very low
- Low impact on sub-surface water resources

### Faster production ramp up

 No pre-production evaporation required to generate harvest salts



Photo: Cores from the Colluli resource

### Lowest operating costs and capital intensity

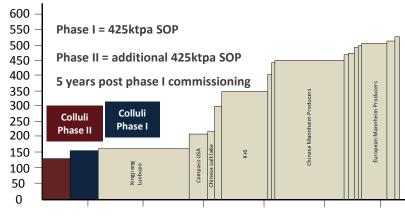
- Economically attractive prefeasibility study for a two phase development for production of sulphate of potash (SOP). PFS indicates:
  - > Lowest operating costs for SOP production globally
  - Lowest capital intensity of advanced greenfield
     SOP projects globally
  - Phase I demonstrates robust economics with significant upside in Phase II
  - Colluli is one of only two SOP projects in the world with development capital <US\$450m</p>
- Underpinned by a large resource with the capability of potash product diversification, the project can support a pipeline of projects to grow capacity well beyond Phase II

1. CRU Research, EPM Mining presentation 2014, Company websites, Integer Research

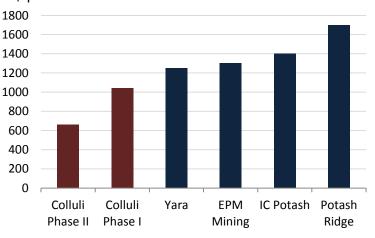
2. Danakali prefeasibility Study

### Mine gate operating costs for SOP production

US\$ per tonne<sup>1</sup>



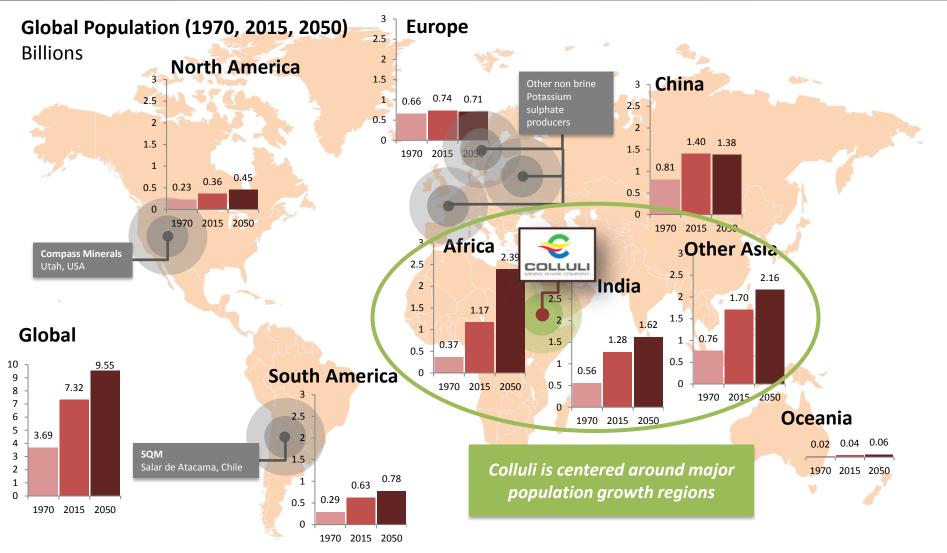
**Capital intensity of advanced SOP projects** US\$ per tonne<sup>2</sup>





### **Excellent access to markets of the future**





# **Colluli Summary**

- .....
- Economically favourable prefeasibility study
- Large, long life, expandable resource
- Unrivalled proximity to coast
- Colluli resource yields high purity, premium SOP
- Commercially proven process

 $\checkmark$ 

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# Thank you

# Colluli: Positively Unique

### **Investment drivers**



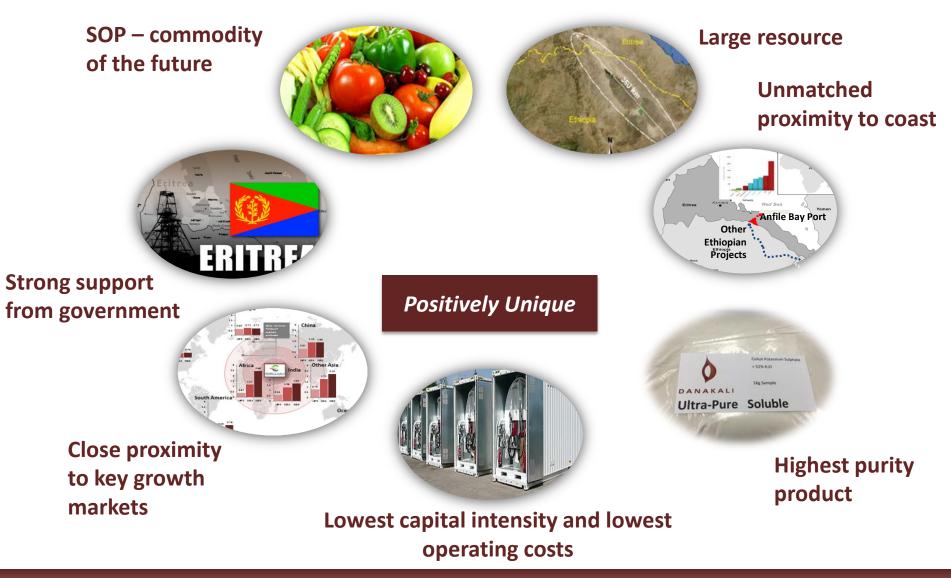
South Boulder Mines owns 50% of the Colluli Mining Share Company (CMSC) and is working with its Joint Venture partner, the Eritrean National Mining Company (ENAMCO) to develop the Colluli Potash Project in Eritrea, East Africa. The project is 100% owned by CMSC.

The Colluli project is positively unique. The investment drivers are:

- > Large resource containing over 1.2 billion tonnes of potassium bearing salts, suitable for the production of potash fertiliser an essential, non-substitutable source of potassium for plant growth
- > A unique potassium salt composition which allows the production of a diverse range of potash types
- > Composition is particularly favourable for the production of sulphate of potash (SOP) a high quality fertiliser that achieves a price premium over the more common potassium chloride
- > Economically viable resources for primary production of SOP are geologically scarce
- Colluli has unrivalled access to the coast and is the closest SOP resource to a coastline anywhere in the world
- > Shallow mineralisation allows open cut mining which gives superior resource recovery relative to alternate mining methods.
- > High purity product Colluli SOP is at the top of the quality spectrum
- Positive prefeasibility study results indicating lowest capital intensity and lowest operating costs for SOP production
- > Substantial project upside from rocksalt, gypsum and magnesium chloride
- > Experienced and capable management team with track record of delivery

# The Colluli Potash Project – an unparalleled opportunity





### **Economically favourable PFS**



	Phase I	Phase II	Phase III and beyond
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### **Experienced board and management**





#### Seamus Cornelius, Non Executive Chairman

Mr Cornelius has 21 years of corporate experience in both legal and commercial negotiations. He has been based in Shanghai and Beijing since 1993, where he has been living and working as a corporate lawyer. From 2000 to 2011 Mr Cornelius was an international partner with one of Australia's leading law firms, specialising in cross border investments in the energy and resource sectors.



#### Paul Donaldson, CEO and Managing Director

Mr Donaldson was appointed to the role of Chief Executive Officer in February 2013. He joins Danakali from a series of senior management roles with BHP Billiton. Mr Donaldson has experience in large scale open cut mine management, supply chain logistics, mineral processing, business improvement and marketing.



#### Tony, Kiernan, Non Executive Director

Mr Kiernan was previously a commercial lawyer and is currently Chairman of the Australian iron ore producer BC Iron Ltd (ASX:BCI) and a non-executive director of several listed mining companies including Chalice Gold Mines Ltd (ASX: CHN), which has been operating in Eritrea since 2009.



#### Liam Cornelius, Non Executive Director

Mr Cornelius graduated from Curtin University of Technology with a BAppSc in Geology. He has been involved in the exploration industry within Australia and Africa for 18 years. As a founding member of the Company, Mr Cornelius has played a key role in outlining areas of interest for the company.



#### John Fitzgerald, Non Executive Director

Mr Fitzgerald joined the board in February 2015, and has previously held positions at NM Rothschild and Sons, Investec Bank Australia, Commonwealth Bank and HSBC Precious Metals. He is the Managing Director of Optimum Capital Pty Ltd, a corporate debt and advisory business focussed on the mining sector. Mr. Fitzgerald is also a Non-Executive Director of Northern Star Resources Limited and Chairman of Mungana Goldmines Limited. Mr Fitzgerald is a Chartered Accountant, a Fellow of FINSIA and a member of the Australian Institute of Company Directors.



#### James Durrant, Project Manager

Mr. Durrant joined Danakali after a series of operational roles within BHP Billiton. With tertiary qualifications in both mechanical and mining engineering, Mr. Durrant brings project management, organisational design and operational management of large scale open cut mines skills to the organisation.



#### Zeray Leake, Country Manager

Mr Leake is a Geologist with over 12 years experience in the development and exploration of potash, gold, base metals and industrial minerals.

Mr Leake previously worked for the Geological Survey of Eritrea.

### **Development focus**





### **Delivering on our commitments**

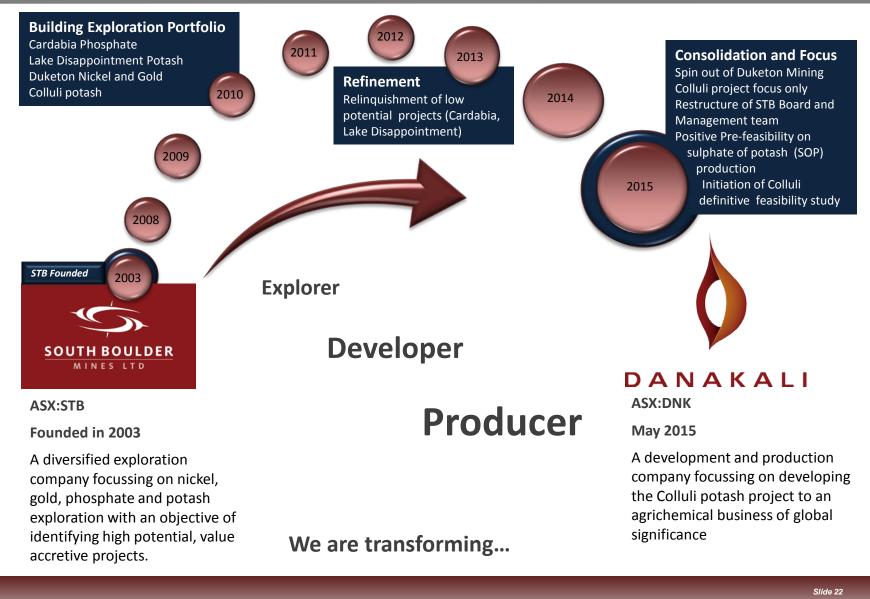
- Strengthened balance sheet with two above market capital raisings
- Strengthened board composition with the appointment of John Fitzgerald
- ✓ Completed JORC 2012 compliant resource review on Colluli
- Delivered an economically robust PFS for production of SOP
- ✓ Submitted 70% of environmental baseline assessments
- Completed Technical review of PFS process design
- Initiated definitive feasibility study
- Initiated optimisation and pilot testing of DFS process design
- Generated high purity SOP samples for product marketing
- Declared 1.1Bt Maiden Ore Reserve
- Appointed Head of Market Development

On track to complete DFS by Q3 2015



### A positive future – development and production focus







Milestones		2014			2015E			2016E			2017E				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Metallurgical testwork															
Preliminary feasibility Study															
Finalise resource															
Optimisation and pilot tests															
Definitive feasibility study															
Social Environmental Impact Assessment															
Mining License Application															
Funding															
Detailed Engineering															
Phase I Construction															



Population growth, particularly in developing economies, is increasing the demand for food

- 95% of global population growth is centred around Colluli; Africa, India and Asia
- 62% in Africa alone; Colluli is uniquely positioned to meet African agricultural needs
- Africa and India will see the biggest gains in overall calorific consumption as standards of living rise, and population growth accelerates
- Sulphate of Potash (SOP) is highly valued in arid regions and is ideal for much of Africa
- A reduction in arable land in these areas is further driving demand for fertiliser to increase crop yields
- China is undergoing a shift from cereal and grain based crops as incomes rise, to more diversified diets based on <u>fruits</u>, vegetables, meats and dairy products
- Shifting dietary patterns underpin greater use of SOP to support yields of these high value crops

### **Potash overview**



Potash: generic term used to describe a variety of potassium bearing minerals and manufactured chemicals used primarily as fertiliser

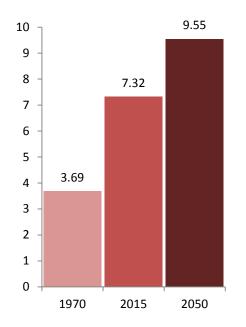
- Essential to the world's food supply
- No known substitute

**Key Drivers** 

- Global population growing at 80 million people per annum
- Reduction in arable land
- Calorific demand growing and dietary mix changing

### More People = More Food = More Fertiliser = More Potash

### **Global Population versus time** Billion people



### **Potash comes in a variety of types**

....

Potash types are differentiated by chemistry									
<ul> <li>Availability type</li> <li>Potash price</li> </ul>			es varies with po different	otash					
Potash type	Abbreviated name	Typical sale price (US\$/t)	Key Primary Production Centres	Abundance of resources suitable for exploitation					
Potassium chloride <sup>1</sup>	МОР	315	Canada, Russia, Middle East, China	Very high					
Potassium magnesium sulphate <sup>2</sup>	SOP-M	400	United states	Very low					
Potassium Sulphate <sup>3</sup>	SOP	720	United states, Chile, China	Very low					
Potassium Nitrate <sup>4</sup>	NOP	900		Manufactured					
Source: Company Announcements, Greenman	rkets								

1. FOB Vancouver, Standard

2. FOB Carlsbad

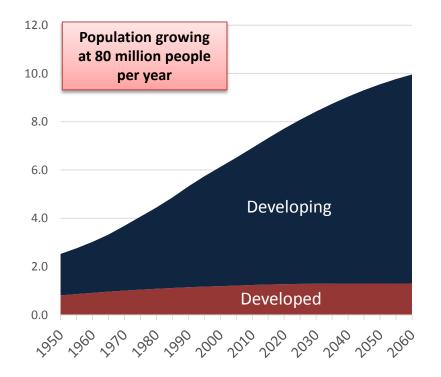
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## **Developing economies will be the growth engine for food and fertilisers**



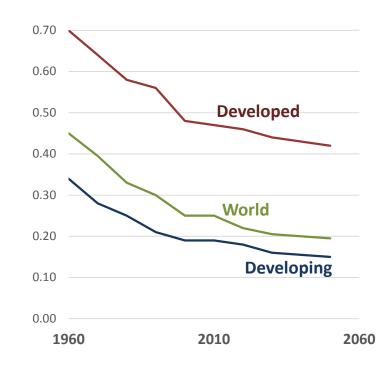
**Global Population** 

**Billion people** 



### 98% of population growth will be driven by less developed regions; 62% in Africa alone

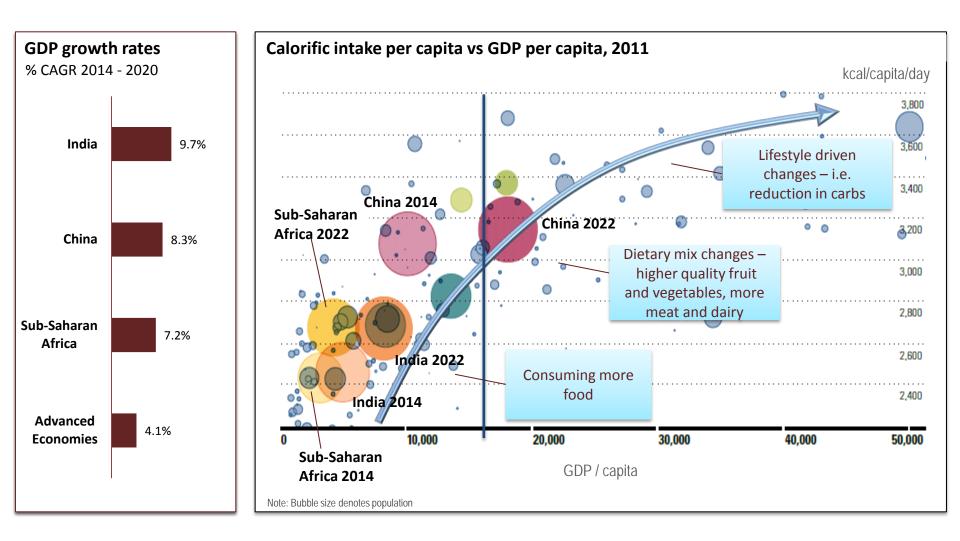
Arable land/capita ha/ person



Crop yields for arable land in less developed economies will have to increase

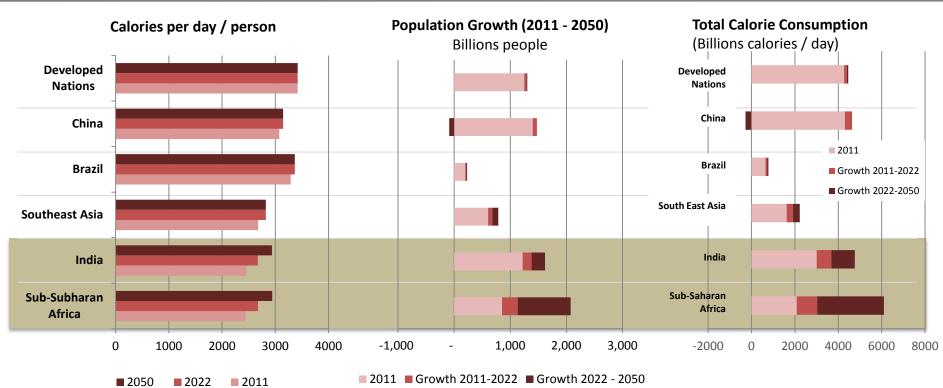
# **GDP growth drives calorie intake (amount of food) and diet composition**





# Africa and India dominate food consumption growth





Significant implications for global food markets

- Sub-Saharan Africa's calorie growth to 2050 equates to total calories consumed in 2011 by **all Developed Nations combined**
- India's growth to 2050 exceeds the total calorific intake of **South East Asia in 2011**

### **Colluli start up module focuses on SOP**



Improves yields, quantity, taste and enhances shelf life

Especially valued for chloride sensitive crops, where it increases yields :

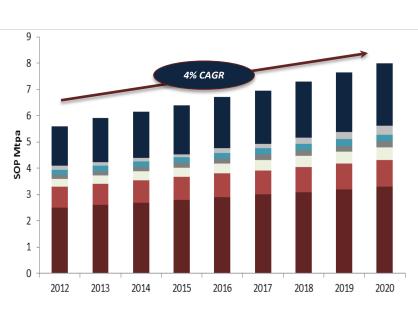
SOP is also highly valued in arid regions with low rainfall, and salinity affected soils



- Fruits
- Vegetables
- Nuts
- Tea
- Coffee
- Beans



SOP Demand growing strongly



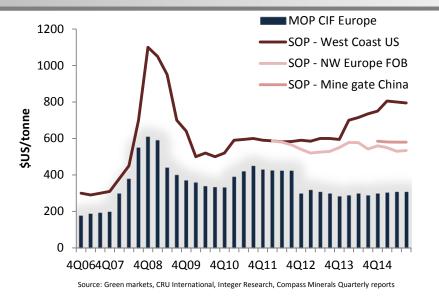
■ China ■ EU = US ■ Middle East ■ Africa ■ South America/Oceana ■ ROW

Source: Parthenon Analysis, EPM Mining

4 % CAGR and approx. 2 million tonnes of SOP growth projected over next decade

# SOP: Supply constrained market with limited greenfield developments

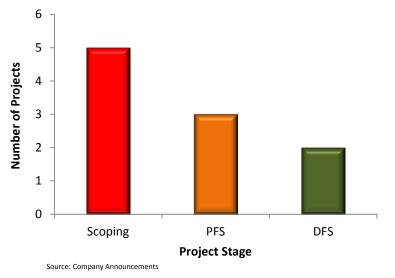




### SOP Prices Up

- While MOP prices have dropped since 2010,
   SOP prices in the US continue to climb and
   Europe remains stable at higher than
   historical premiums
- Since 2006, MOP prices have increased 72%

while SOP prices have increased by 165%

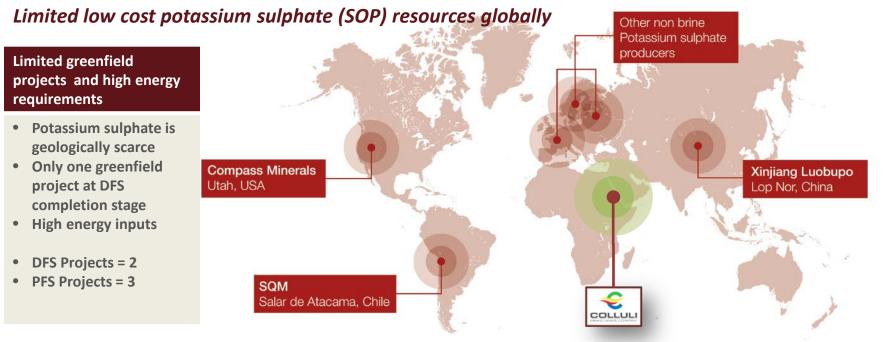


### Limited advanced projects (PFS or DFS)

- Only two greenfield SOP developments with completed DFS
- Only three greenfield projects with completed
   PFS (including Colluli)

## Limited global supply options





Project	Location	Phase	Capacity	Capex est. (\$US)	Capital Intensity	Process
1	New Mexico	DFS Complete	700kt/yr	\$1.2b	\$1714/t	Calcine (500°C), leach, crystallise
2	Utah	PFS Complete	300kt/yr	\$378m	\$1260/t	Solar evaporation, slurry (90°C)crystallise
3	Utah	PFS Complete	770kt/yr	\$1.1b	\$1429/t	Calcine (550°C), leach, crystallise
4	Eritrea	DFS Underway	425kt/yr	\$442m	\$1087	Mixed salts and solar evaporation (ambient)

Source: 1. IC Ochoa N43-101 Definitive feasibility study 2. EPM Sevier Lake, Preliminary feasibility study 3. Potash Ridge preliminary feasibility study 4. Danakali (formerly South Boulder Mines) prefeasibility study



Colluli is the closest SOP deposit to a coastline globally

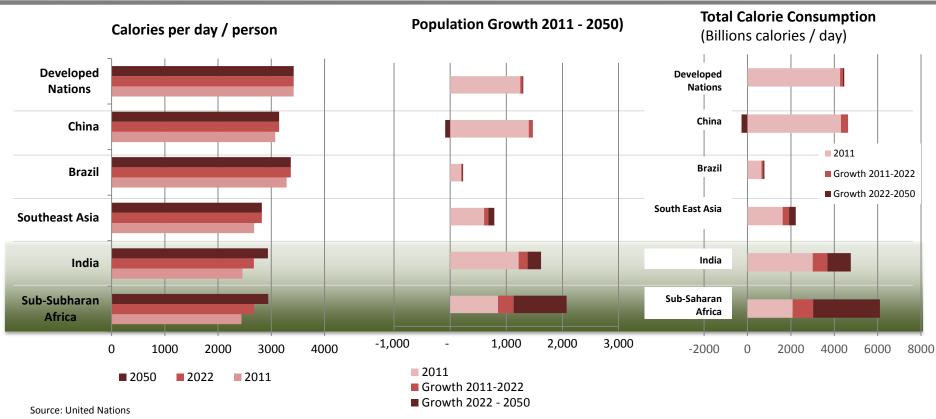
It will be **the closest supplier to the major growth markets** and, coupled with low extraction costs,

is expected to be the lowest delivered cost SOP supplier to the growth markets

and substantially cheaper than many of the incumbent players

### Location, location, location

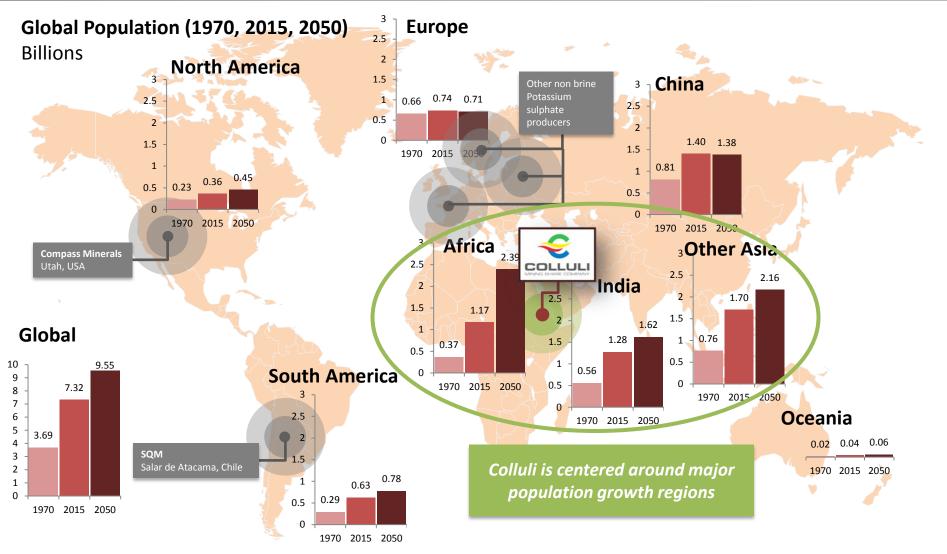
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# <u>Africa and India</u> will dominate growth in food consumption, driven by population growth and rising economic wealth

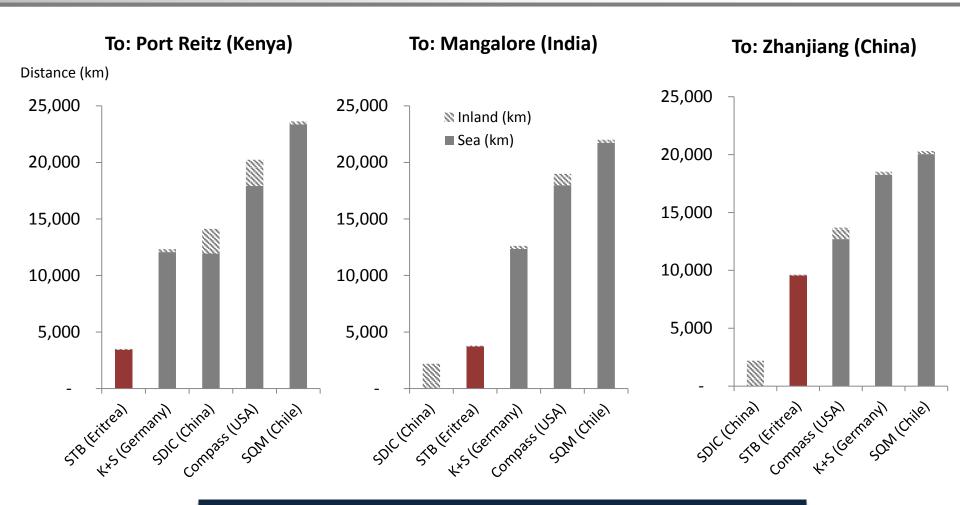
# 95% of global population growth in close proximity to Colluli





### Logistically favourable relative to key markets

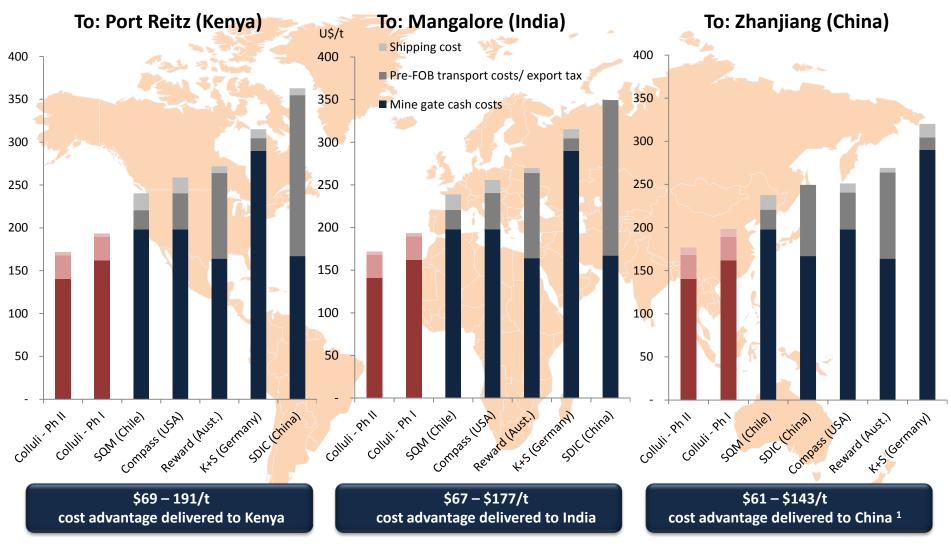
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Major population growth centres

### **Unparalleled delivered cost advantage**

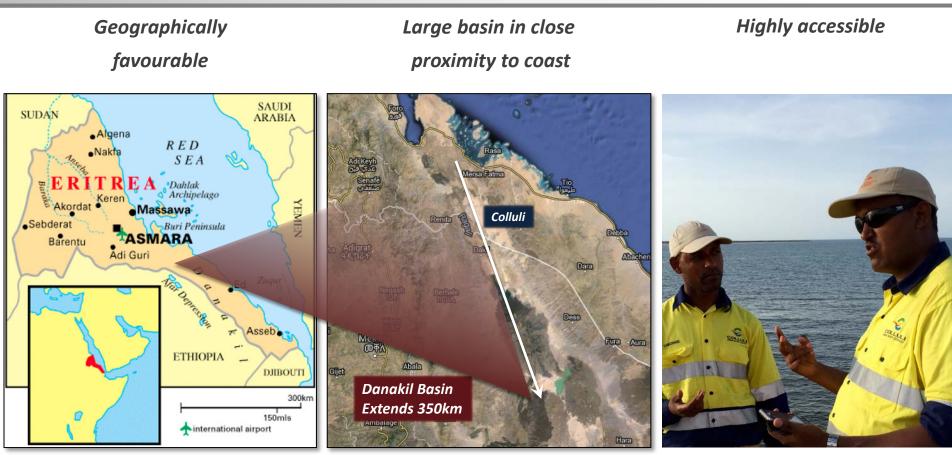




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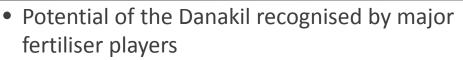
## The Danakil region – a globally significant potash basin



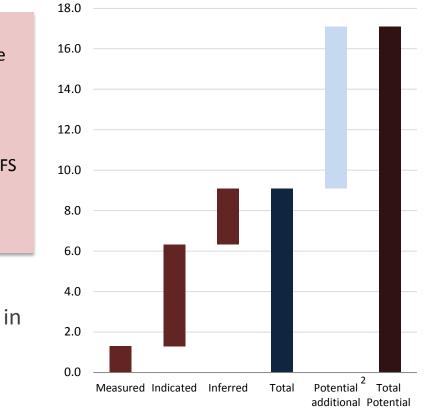


## The Danakil region – a globally significant potash basin





#### **Danakil Basin Reported Potassium Salts** Billion tonnes<sup>1</sup>



	Market Cap US\$9B	Currently finalising the purchase of Allana Potash		
yara	Market Cap US\$14.5B	Recently completed DFS on sulphate of potash project <sup>3</sup>		

- Over 9 billion tonnes of measured and indicated potassium bearing salts identified in the Danakil region to date<sup>1</sup>
- Seismic data indicates potentially an additional 7 to 9 billion tonnes<sup>2</sup>

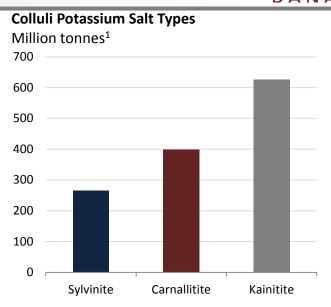
1. Company announcements: Allana Potash, Danakali, Circum

2. Circum company website

3. Yara have completed a DFS for 600,000 tonnes per annum of sulphate of potash production. No resource data published

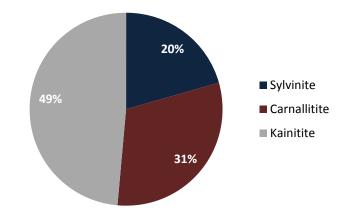
## **Premium potash for a growing global population**

- The Danakil is one of only three regions in the world with substantial volumes of Kainite, the most important potassium salt for the primary production of SOP
- SOP is a premium sulphur bearing potash fertiliser that achieves a substantial price premium over the more common potassium chloride (MOP)
- Other major Kainite rich regions have exhausted resources beyond economic sustainability<sup>2</sup>
- While highly suitable for the production of SOP, the suite and composition of potassium salts in Colluli also allows the production of a variety of potash types



#### Colluli Potassium Salt Types

% of each salt type in the Colluli Mineral Resource  $^{\rm 1}$ 





<sup>1.</sup> Company announcements: Danakali, 25th February 2015

<sup>2.</sup> Kainite rich deposits previously mined in Sicily, Ukraine and Germany. Germany has depleted resources

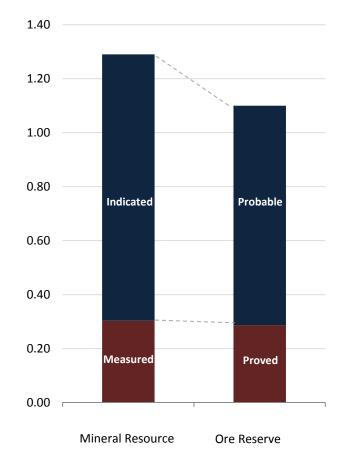
## Colluli is a large, long life, expandable resource



#### • 1.1 billion tonnes of Ore Reserve

- > 287 million tonnes Proved Ore Reserve
- > 820 million tonnes Probable Ore Reserve
- > Largest SOP resource of advanced projects
- 97% of Measured Resource converted to Proved Ore Reserve
- 88% conversion of Measured and Indicated Resource to Proved and Probable Ore Reserve
- Approximately 205 million tonnes of SOP contained in Ore Reserve

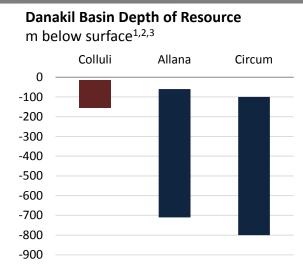
#### **Colluli Mineral Resource and Ore Reserve estimate** Billion tonnes



# Colluli has the best access to both resource and market

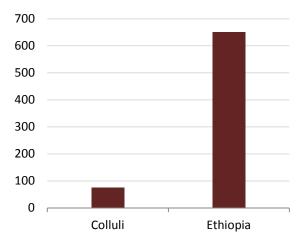
- Colluli contains the shallowest mineralisation in the Danakil
  - > Mineralisation commences at just 16m depth
  - > Excellent geological continuity
  - > Amenable to open cut mining

- Colluli has the best access to the Red Sea coast
  - Planned export facility only 75km from the Colluli mine site
  - > Only 180km from the Port of Massawa
  - > Trucking in Ethiopia Dallol region to Djibouti over 600km
- 1. Company announcements: Allana Potash, Danakali
- 2. Circum data taken from SEDAR publications for Agriminco
- 3. Allana and Circum projects are both located in Ethiopia



#### **Danakil Basin Coastal Access**

km to export location



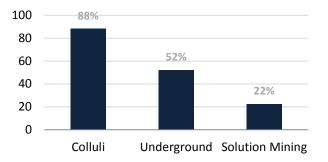




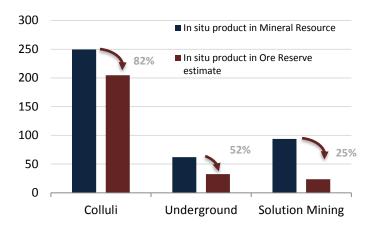
# High resource recoveries primarily the result of open pit mining

- Open pit mining substantially increases the mineable material
  - > No resource loss for roof support
    - Room and pillar mining for potash sterilises approximately 50 to 55% of the resource<sup>1</sup>
  - > No solution mining complexities
    - > losses from roof support
    - > geological continuity and seam thickness
    - > preferentially soluble salt types
- In addition to high resource recovery, open pit mining also has the advantages of
  - Safety safer working conditions and better safety record than underground mining
  - Expandability open cut mining offers ease of growth using the principles of modularity
  - Selectivity salts within diverse suites can be selectively mined, allowing consistent grade and stable processing operations

## Conversion of Mineral Resource to Ore Reserve estimates for selected potash (MOP and SOP) projects $\%^{2,3}$



In situ product in Mineral Resource and in situ product in Ore Reserve estimates for selected potash (MOP and SOP) projects Million tonnes <sup>1,2</sup>



2. Danakali Mineral Reserve, Allana Potash, IC Ochoa



## **Open pit mining and surface reclamation of salts proven and positive**



Mine Method <sup>1,2</sup>	Selectivity of salts	Expandability	Resource Recovery	Surface Operational footprint	Water Requirements	Subsidence risks
Open cut				٠		
Underground Mining		•				
Solution Mining	•		6	•		

Most favourable

Least favourable



Open Pit Salt Mining, Salar Grande



Salt Lake Surface Mining, Turkey



Wirtgen Surface Miner Cutting Salt

- 1. Danakali Analysis
- 2. Colluli is planned as an open cut mine

## **Unmatched potash diversification potential**

- The variety of potassium salts in the Danakil basin provides unrivalled potash diversification opportunities that cannot be replicated by any other potash basin in the world
- Colluli has the largest advantage of potash product diversification due to selective mining of potassium salts from open pit operations
- The potential potash suite includes sulphate of potash (SOP), sulphate of potash magnesia (SOP-M) and muriate of potash (MOP)

#### **Colluli Potash Type Production Potential**

Danakil Potential	Potash Type	Also known as	Sale Price US\$/tonne <sup>1</sup>	Nutrients	Uses
$\checkmark$	Potassium Chloride	МОР	315	Potassium	Staples – wheat, corn, chloride tolerant crops
~	Sulphate of Potash Magnesia	SOP-M	400	Potassium, sulphur and magnesium	Specialty fertiliser, high value crops, limited production centres
~	Sulphate of Potash	SOP	720	Potassium and sulphur	Chloride intolerant and specialty crops such as fruits, vegetables, nuts, beans and coffee
	Potassium Nitrate	NOP	900	Potassium and nitrogen	Chloride sensitive crops that require additional nitrogen



## **Colluli infrastructure solution based on modularity**





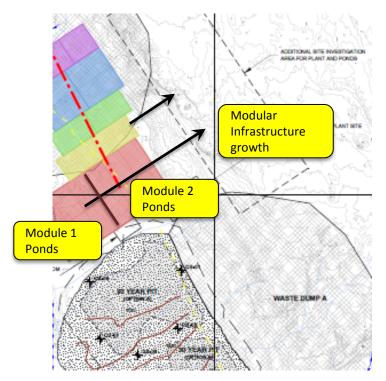
Modular Servicing Bays (example)



Modular Fuel Pods (example)



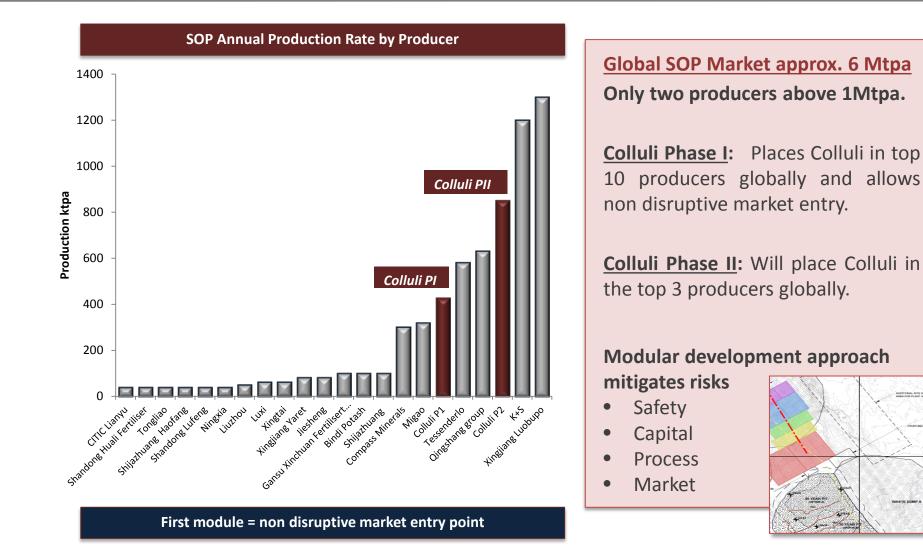
Modular Offices and Camp (example)



- Simpler logistics
- Reduced Earthworks
- Ease of expandability
- Improved capital management
- Improved process ramp up

# Phase II will make Colluli the third largest SOP producer globally





### **DFS work well advanced**





Project engineering and environmental teams have completed site visits Pilot tests well advanced On track for Q3 completion







## Social and environmental baselines well progressed



- Community engagement well advanced
- All social and environmental baseline assessments submitted to the Ministry of Environment
- Colluli exploration camp managed by closest community as needed





### Markets for these products are well established

#### Potential Markets for Various Resource Mineralisation

Mineral Present at Colluli	Colluli Resource <sup>1</sup>	Global Market Context	
rock salt (NaCl)	+ 650Mt	300Mtpa global salt market	
halite (NaCl)	10301011		
bischofite (MgCl <sub>2</sub> )	+200Mt	6 – 7Mtpa global market	
anhydrite	Avg 4% ( ~40Mt)	187Mtpa Gypsum market	
kieserite (MgSO <sub>4</sub> )	40Mt	Established fertiliser segment	

## Eritrea – growing economy, maturing mining industry and stable jurisdiction

#### Fast growing economy

- Eritrea was ranked 11<sup>th</sup> fastest growing economy globally in 2014, at 8% p.a.
- Growth driven by strong mineral exports, agricultural output and infrastructure development

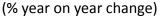
#### **Maturing Mining Industry**

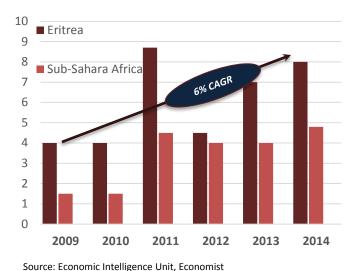
- Bisha mine (Nevsun:ENAMCO) in production since 2010
- Zara mine (previous owner Chalice Gold) currently commissioning
- Asmara project (Sunridge Gold:ENAMCO) completed DFS
- Colluli project (South Boulder Mines:ENAMCO) completed PFS

#### Stable jurisdiction

- 24 years of independence
- Stable government

Gross domestic Product







## **Eritrea mining law**



- 1. Stable Tax Regime
- Accelerated depreciation straight line method over 4 years of all capital and pre-production costs
- 3. Generous reinvestment deduction
  - (5% of gross income)
- 4. 10 year carrying forward of losses
- 5. 0.5% import duty on mining inputs
- 6. Simple "one stop" licensing system



Bisha Mine



Zara Mine

## **Eritrea – advancing**

	Population with	1991	14%
	Access to Safe Water	2014	80%
	Net Primary Enrolment	1991	30%
	in School	2014	80%
S.	Maternity Mortality	1991	1700/100,000
٢.	materinty mortanty	2014	380/100,000
	Under 5 Mortality	1991	151/1000
T	onder 5 mortanty	2014	50/1000
8	Prevalence of HIV	1991 📕	2.94%
$\sim$	Aids	2014	0.93%
_			
1	Immunisation	1991	76%
*	Coverage of 1 Yr olds	2014	99%
1	Population with	1991	20%
r	access to Electricity	2014	38%







## Colluli: Positively Unique