



Corporate Presentation

"Pure-Play" Phosphate Fertilizer Company

June 2018

## Cautionary statements and forward-looking information

#### FORWARD-LOOKING INFORMATION

This presentation contains forward-looking information ("FLI") regarding future events or the future performance of the company ("Itafos"). Generally, FLI can be identified by expressions of belief, expectation or intention, and often contain words such as "anticipates", "believes", "expects", "estimates", "intends", "plans", "could", "may", "might", "should", "would" or variations of such words. FLI is based on various assumptions, including with respect to fertilizer market growth, reserves and resources, mine life, production, operating costs, product sales and pricing, capital expenditures, financing sources and use of funds, operations and financial performance and business prospects and opportunities. While Itafos considers these assumptions to be reasonable based on information currently available, such assumptions may prove to be incorrect as FLI is subject to various risks and uncertainties that could cause actual events or results to differ materially from those projected. These risks and uncertainties include, but are not limited to: variations from Itafos' assumptions regarding the matters mentioned above; changes in the agriculture, fertilizer, commodity, raw material, energy, transportation and financial market conditions and prices; fluctuations in currency exchange rates; changes in government policy and in environmental and other governmental regulation; inability to obtain necessary permits and licenses; timing and outcome of current and pending government and third party claims or lawsuits; ability to attract and retain skilled employees with relevant industry expertise; imprecision in mineral reserves and resources estimates; certainty of supply of raw materials; intermittency of operations and production; increases in production costs; ability to sell product; credit risk of offtake counterparties; ability to effectively integrate any future developments and/or acquisitions into its business structure; catastrophic events such as fires, floods, explosions, release of hazardous chemicals and

#### INTERNATIONAL FINANCIAL REPORTING STANDARDS

Itafos prepares its financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. IFRS differs in certain respects from U.S. generally accepted accounting principles ("US GAAP"). Therefore, financial information presented herein may not be directly comparable to similar information presented by companies that prepare their financial statements in accordance with US GAAP.

#### **NON-IFRS MEASURES**

There are a number of non-IFRS measures used in this presentation, including but not limited to EBITDA (calculated to be earnings before interest, income taxes, provincial mining and other taxes, depreciation, amortization and other non-cash expenses. Itafos' calculation of non-IFRS measures may not be directly comparable to that of other companies.

#### MINERAL RESOURCES

This presentation uses mineral reserve and resource classification terms that comply with reporting standards set forth in Canadian National Instrument ("NI") 43-101 for all public disclosure of scientific and technical information concerning mineral projects by Canadian registered issuers. NI 43-101 standards differ significantly from standards set forth by the United States Securities and Exchange Commission ("SEC"). Therefore, information regarding mineralization presented herein may not be directly comparable to similar information disclosed by companies in accordance with SEC standards. For instance, mineral reserve estimates contained in this presentation may not qualify as "reserves" under SEC standards. You are cautioned not to assume that any part or all of the mineral resources identified as "Mineral Resource," "Measured Mineral Resources," "Indicated Mineral Resources" and "Inferred Mineral Resources" in this presentation will ever be converted into mineral reserves as defined in NI 43-101, be upgraded to a higher category, or be economically or legally mineable.

#### **OTHER**

Please refer to the technical reports of Itafos and its affiliates available at www.sedar.com.



### Table of contents

- 1 Executive summary
- 2 Investment highlights
- A Appendix A: Phosphate highlights
- Appendix B: Portfolio highlights
- c Appendix C: Financial highlights



## Company overview

#### **Key highlights**

- Itafos is a publicly traded (TSX-V: IFOS) vertically integrated phosphate fertilizers and specialty products company with an attractive portfolio of long-term strategic businesses located in key fertilizer markets worldwide
  - ✓ The Itafos Conda phosphate operations, a vertically integrated phosphate fertilizer business with production and sales capacity of approx. 550kt per year of mono-ammonium phosphate (MAP), super phosphoric acid (SPA), merchant grade phosphoric acid (MGA) and specialty products (APP) located in Idaho, U.S.
  - ✓ The Itafos Arraias phosphate operations, a vertically integrated phosphate fertilizer business with production and sales capacity of approx. 500kt per year of single super phosphate (SSP) located in Tocantins, Brazil
    - ✓ The Itafos Paris Hills project, a phosphate mine project located in Idaho, U.S.
    - ✓ The *Itafos Farim project*, a phosphate mine project located in Farim, Guinea Bissau
    - ✓ The *Itafos Santana project*, a vertically integrated phosphate fertilizer project located in Pará, Brazil
    - ✓ The *Itafos Araxá project*, a phosphate and rare earth oxide mine project located in Minas Gerais, Brazil
      - ✓ The Itafos Mantaro project, a phosphate mine project located in Junin, Peru
- Itafos is managed by an industry leading board of directors and experienced management team with extensive operations and commercial expertise
  - Former Potash Corp., OCP Group, Cargill Group, KemWorks, GB Minerals and AEI senior executives
- Itafos' largest shareholder is Castlelake, which owns an approx. 57.7% interest in Itafos
  - Global private investment firm managing more than US\$13bn in assets as of December 31, 2017



## Strategy overview

#### Mission

Itafos' mission is to be a leading pure-play, geographically diverse, and vertically integrated phosphate fertilizer and specialty products company, creating value for all its stakeholders in a responsible and economically sustainable manner

#### **Strategy**

#### Itafos will achieve its mission by executing the following strategy

- Owning and operating vertically integrated phosphate based fertilizers and specialty products businesses that produce and sell products that its customers need
- Optimizing the portfolio, including mitigating critical risks and maximizing cash flow over the life of the businesses
- Positioning the company to meet its markets' increasing demand for phosphate based fertilizers and specialty products

#### Focus

#### Itafos will execute its strategy by focusing on the following

- Applying and maintaining technical, environmental, health, safety and governance best practices and excellence
- Producing, marketing and selling its phosphate based fertilizers and specialty products through a combination of short to long-term contracts and wholesale market spot sales to crop retailers, farmers, producers and other offtakers
- Managing key inputs and other fixed expenses to reduce overall costs to produce, market and sell phosphate based fertilizers and specialty products
- Developing and maintaining market knowledge and strong relationships with local governments, regulators, communities, employees, offtakers, suppliers and key other stakeholders
- Maintaining a flexible capital structure with moderate levels of debt
- Investing capital at attractive rates of return into brownfield and greenfield development projects and acquisitions of new businesses

## Investment highlights overview

# 1. Outstanding leadership

#### Industry leading board of directors and experienced management team

- Industry leading board of directors with balanced mix of executive and board of directors level skillsets
- Experienced management team with extensive operations and commercial expertise relentlessly focused on safety, reliability and cost control

# 2. Attractive portfolio

# Owner and operator of attractive long-term and strategic phosphate businesses located in key fertilizer markets worldwide

- Diversified through geography, project development stage and business characteristics
- Current fertilizer production capacity of approx. 1.1Mt per year and total phosphate rock resources of 870.1Mt with contained P<sub>2</sub>O<sub>5</sub> resources of 119.7Mt
- Proven business development model with front-end planning of project development life-cycle through start-up of commercial operations improves financing potential of projects and mitigates overall execution risk

#### 3. Itafos Conda

# North American vertically integrated phosphate fertilizer business with 550kt per year of fertilizer production and sales capacity

- Vertically integrated producing asset base benefiting from consolidated operations and infrastructure and security of key raw material inputs
- Strategic position in attractive North American fertilizer markets with long operating track-record consistently delivering responsible operating and commercial performance
- Operational flexibility offers multiple options to deliver P<sub>2</sub>O<sub>5</sub> value to market through combination of long-term contracts, short-term contracts and wholesale and retail market sales

## Investment highlights overview (cont'd)

#### 4. Itafos Arraias

# Brazilian vertically integrated phosphate fertilizer business with 500kt per year of fertilizer production and sales capacity

- Vertically integrated producing asset base benefiting from consolidated operations and infrastructure and security of key raw material inputs
- Strategic position in one of the fastest growing fertilizer markets in the world with significant and sustainable logistics costs competitive advantages
- Adds competitive domestic supply to SSP market with disciplined sales and marketing strategy supported by growing SSP demand, vertical integration, strategic position and engaged team to execute

#### 5. Itafos Farim

#### West African construction ready high-grade and low cost phosphate rock mining project

- Extensive geological deposit with potential to increase mine life (estimated measured and indicated resources of 105.6Mt at 28.4% P2O5; includes estimated proven and probable reserves of 44Mt at 30% P2O5)
- Expected phosphate rock concentrate production of 1.32Mt per year at 34% P2O5
- Low project costs and operating costs relative to peers
- Access to existing infrastructure including 70km of paved road covering most of the route from site to deep water port and ability to ship product globally
- High quality phosphate rock is becoming more attractive and demanding pricing premium

# 6. Compelling economics

#### Compelling economic profile anchored by operating businesses and development pipeline

- Near-term and predictable cash flow profile driven by Itafos Conda and Itafos Arraias along with commercial operations of Itafos Farim in 2020
- Low levels of debt provide maximum flexibility through market cycles and facilitate growth strategy
- Valuation upside opportunity supported by continued de-risking of Itafos Farim and Itafos' development pipeline generally and robust industry M&A activity

Source: Itafos Information



8



# Industry leading board of directors

Key highlights					
Name	Name Role Experience				
Brent de Jong	Director and Chairman	Partner at Castlelake, responsible for the firm's investments in emerging markets; Over 20 years of investment and asset management experience; Previous experience includes CEO of Zaff Capital LP and senior roles at Ashmore Investment Management and JP Morgan			
Evgenij lorich	Director	Managing Partner at Pala, responsible for the firm's investments globally; Over 15 years of investment and asset management experience; Previous experience includes senior roles at Mechel			
David Delaney	Director	Strategic advisor to public and private companies; Over 25 years of operations, commercial and finance experience; Previous experience includes senior roles at Pain & Partners (strategic advisor), Potash Corp. (COO and President of Sales and Marketing), Arcadian Corp and Allied Chemical			
Dr. Mhamed Ibnabdeljalil	Director	Founder and Managing Partner of Spika Ventures LLC; Over 20 years of corporate development, commercial and research and development experience; Previous experience includes senior roles at OCP Group (CCO and EVP), Monodrive Inc. and Texas Instruments			
Ron Wilkinson	Director	Strategic advisor to public and private companies; Over 40 years of operations, commercial and administration experience; Previous experience includes senior roles at Agrium (SVP and President), Viridian, Sherritt and Imperial Oil/Exxon Chemical and director on industry boards including the Canadian Fertilizer Institute, Profertil and Canpotex			
Tony Cina	Director	Senior Vice President of Business Administration at Yamana Gold; Over 30 years of business strategy, finance and administration experience; Previous experience includes senior roles at Itafos (CFO from June 2009 through June 2012) and founding partner of audit, accounting and tax practice			

#### Balanced mix of executive and board of directors level skillsets



# Experienced management team

		Key highlights
Name	Role	Experience
Brian Zatarain	CEO	Senior executive with over 20 years of hands-on and diverse corporate and business development, mergers and acquisitions, capital raising and investment management experience; Previous experience includes senior roles at Zaff Capital LP (co-founder and Managing Director) and AEI (EVP and CRO)
George Burdette	CFO	Senior executive with over 12 years of corporate development, financial, commercial and investment management experience; Previous experience includes senior roles at First Solar (Director Project Finance), Zaff Capital (Principal) and AEI (Manager)
Paul Dekok	VP Operations	Senior executive with over 25 years of fertilizer industry experience; Previous experience includes senior roles at Potash Corp. (President of Phosphate Operations) and predecessor companies
Marten Walters	VP Engineering	Senior executive with over 35 years of fertilizer industry experience; Previous experience includes Founder and President of KemWorks where he oversaw the modernization and restructuring of fertilizer plants for Agrium, Ammophos, Mosaic, ICS and Simplot
Sarvin Patel	VP Commercial	Senior executive with over 17 years of business development, mergers and acquisitions, principal investing and risk management experience; Previous experience includes senior roles at Carval Investors and Cargill (VP)
Olga Kovalik	VP Development	Senior executive with over 20 years of business development, finance and construction experience; Previous experience includes senior roles at GB Minerals (VP of Development and Construction), Alcoa and various investment banking roles at UBS, Citigroup and Morgan Stanley
Tim Vedder	General Manager Itafos Conda	Senior executive with over 20 years of operations and engineering experience; Previous experience includes senior roles at Agrium (plant manager and senior engineer), Novellus Systems and engineering and platoon leadership roles in the U.S. Army
Fernando Planchart	General Counsel	Senior legal counsel with over 15 years of cross border corporate, M&A and tax legal experience (both in-house and external); Previous experience includes senior roles at AEI, Fox, Horan & Camerini and Macleod Dixon

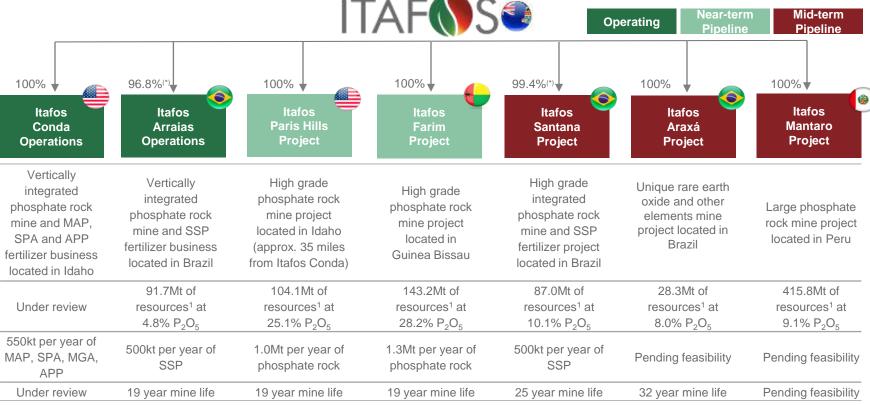
Extensive operations and commercial expertise relentlessly focused on safety, reliability and cost control



# Owner and operator of attractive long-term and strategic phosphate businesses located in key fertilizer markets worldwide

#### Key highlights

- Current fertilizer production capacity of approx. 1.1Mt per year and total phosphate rock resources of 870.1Mt with contained P<sub>2</sub>O<sub>5</sub> resources of 119.7Mt (note: does not include resources from Itafos Conda)
- Proven business development model with front-end planning of project development life-cycle through start-up of commercial operations improves financing potential of projects and mitigates overall execution risk



<sup>(\*) 3</sup>rd party interest represented by preferred non-voting shares issued by Itafos in 2018 upon exercise of warrants held by creditors under the 2016 Brazilian restructuring proceedings

#### Diversified through geography, project development stage and business characteristics



# Itafos Conda ... A North American vertically integrated phosphate fertilizer business

#### Key highlights

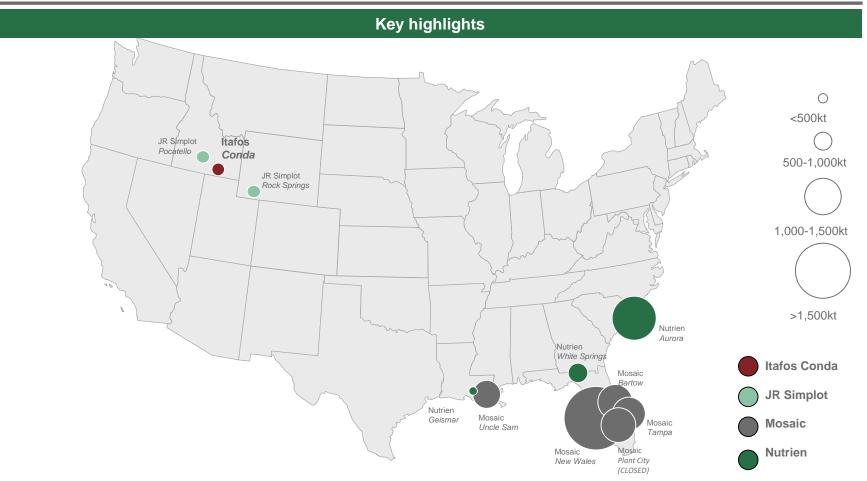
- Located in Conda, Idaho, near Soda Springs, Idaho, approx. 50 miles southeast of Pocatello, Idaho
- Production and sales capacity of approx. 550kt per year of MAP, SPA, MGA and APP serving the North American fertilizer markets
- Owns phosphate ore mines located approx. 15 miles from the production facilities with a combined reserve life through 2024 and clear line of site to extend mine life through development of Itafos Paris Hills and other alternatives
- Phosphate ore conventionally open pit mined by a 3<sup>rd</sup> party operator on a cost plus basis and transported by truck and rail to the production facilities
- Sulfuric acid internally produced (~40%) and purchased from 3<sup>rd</sup> parties (~60%), together with sulfur, on a price tied to sulfur and sulfuric acid benchmarks
- Ammonia purchased from Nutrien pursuant to a five year supply agreement with price tied to phosphate benchmark
- Total of 275 employees and over 250 contractors (mostly from 3<sup>rd</sup> party mining operator)

Product	Gross production	Net saleable product	Key highlights
MAP	340kt	340kt	<ul><li>Produced by reacting ammonia with phosphoric acid</li><li>Solid granule fertilizer used on crops such as wheat and barley</li></ul>
SPA	162kt	140kt	<ul> <li>Produced by concentrating phosphoric acid to a level of 68-72% phosphate</li> <li>Liquid fertilizer used to make liquid ammonium phosphate fertilizer products (e.g., APP), known for easy and precise applications to crops such as corn, soybeans, wheat, cotton and specialty crops</li> <li>Approx. 22kt transferred to make APP</li> </ul>
APP	65kt	65kt	<ul> <li>Produced by reacting ammonia with SPA</li> <li>Liquid fertilizer used for ammonium phosphate fertilizer products</li> </ul>
MGA	168kt	2kt	<ul> <li>Produced by concentrating phosphoric acid to a level of 52% phosphate</li> <li>Majority is upgraded to SPA with minimal quantities sold to market</li> <li>Liquid fertilizer used for various crop and industrial applications</li> </ul>

#### 550kt per year of fertilizer production capacity



# Strategic position in attractive North American fertilizer markets



- Itafos Conda production is geographically separate from majority of production in the U.S. and close to key markets
- Imports of phosphate fertilizers into U.S. primarily into NOLA and require further distribution up the Mississippi river and then inward to West and East

Long operating track-record consistently delivering responsible operating and commercial performance



# Operational flexibility offers multiple options to deliver P<sub>2</sub>O<sub>5</sub> value to market

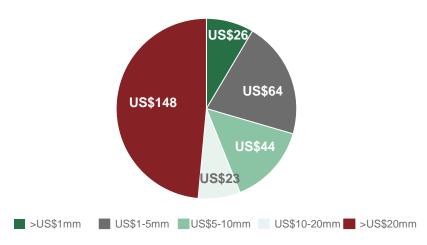
#### **Key highlights**

- Itafos Conda's products sold into the North American fertilizer markets
- Itafos Conda partners with leading crop services companies that have the trust of the grower market and who have the infrastructure to reach the maximum number of growers within the target sales region
- MAP sold to Nutrien pursuant to five year MAP offtake agreement with price tied to phosphate benchmark
- SPA sold to crop input retailers who re-sell to end users

#### SPA is a high-value product

- SPA sells at a price of US\$1-2 and APP sells at a price of US\$3-5 per point higher on US\$/P<sub>2</sub>O<sub>5</sub> basis compared to MAP
- U.S. market demand is approx. 870kt with 90%-95% coming from agriculture, of which 2/3 is used in production of liquid ammonium phosphate
  - 16 states represent 81% of SPA demand
- Demand for SPA is primarily linked to corn dynamics, also to high value crops like grapes and vegetables
- Itafos Conda is one of three key U.S. SPA producers

#### Sales by customer size (US\$mm)<sup>1</sup>





Long-term contracts, short-term contracts and wholesale and retail market sales





# Itafos Arraias ... A Brazilian vertically integrated phosphate fertilizer business

#### Key highlights

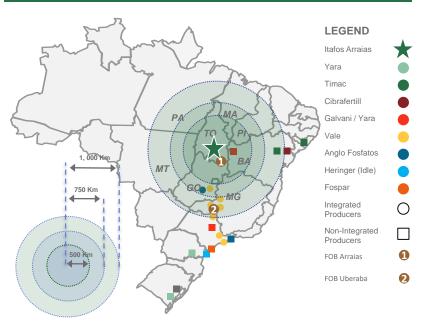
- Located in Arraias, Brazil, in close proximity to the border of Goias and Tocantins states
- Production and sales capacity of approx. 500kt per year of SSP serving the Brazilian fertilizer markets
- Recommissioning completed and ramp-up of production ongoing with expectation of reaching full production by the end of 2Q 2018
- Owns phosphate ore mines located approx. 10 miles from the production facilities with a combined reserve life through 2036 (approx. 91.7Mt of total resources<sup>1</sup>)
- Phosphate ore conventionally open pit mined by a 3<sup>rd</sup> party operator on a cost per ton basis and transported by truck to the production facilities
- Sulfuric acid internally produced (~100%) with sulfur purchased from 3<sup>rd</sup> parties, on a price tied to sulfur benchmarks
- Ammonia purchased from 3<sup>rd</sup> parties on a price tied to ammonia benchmarks
- Total of 287 employees and over 250 contractors (mostly from 3<sup>rd</sup> party mining operator)

Product	Gross production	Net saleable product	Key highlights
SSP	500kt	500kt	<ul> <li>Produced by reacting phosphate rock with sulfuric acid and ammonia</li> <li>Solid granule fertilizer used on crops such as soybeans</li> </ul>
Sulfuric Acid	210kt	40kt	<ul> <li>Used in acidulation process with excess production sold into local sulfuric acid markets</li> </ul>

#### 500kt per year of fertilizer production capacity

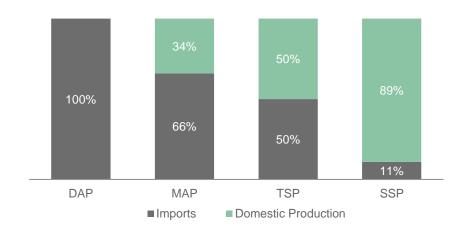
# Strategic position in one of the fastest growing fertilizer markets in the world

#### SSP target region and domestic capacity



- Itafos Arraias is vertically integrated, while competitors, in central Brazil, are generally not
- Itafos Arraias' target region includes eight states within Cerrado region (Bahia, Goias, Mato Grosso, S. Piaui, Maranhao, Tocantins, Pará, Minas Gerais)
- These states consume 2.5Mt per year of SSP, of which 1.1Mt is within Itafos Arraias' target region
- Overall Brazil consumes 5.0Mt per year of SSP

#### Phosphate fertilizer imports have less impact on SSP



#### **SSP logistics costs**

- SSP capacity is scattered along coastal locations and in southern states
- Some competitors are located >700km away while some of the nearest ports are >1,000km away
- Assuming US\$0.06-0.07/t/km for logistics, cost advantage to Itafos Arraias expected in the range of US\$20-25/t

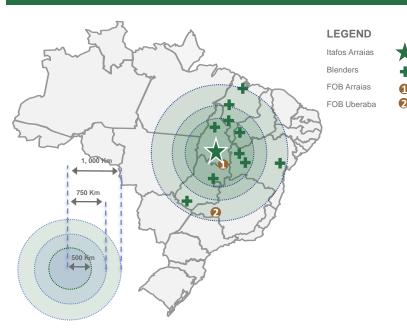
#### Significant and sustainable logistics costs competitive advantages

Source: Itafos Information; ANDA; Ministry of Agriculture; Agroconsult; Secex; ICIS



# Adds competitive domestic supply to SSP market with disciplined sales and marketing strategy

#### Target region



 Sales to selected retail clients is a 2<sup>nd</sup> phase of the sales and marketing strategy aimed to boost margins

#### **Key highlights**

#### **Upstream sales strategy**

 Strong relationship with main distributors ensures minimization of "seasonality" impact

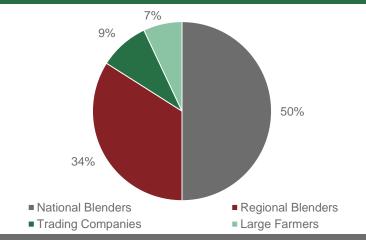
#### Low risks of credit

 Focus on a few large customers, providing easier access and ability to pay cash for products

#### Lean sales team required

 Negotiation will be held by top managers and will be conducted on specific dates during the year, increasing product margins

#### **Composition of customers**



Supported by growing SSP demand, vertical integration, strategic position and respected team to execute





# Itafos Farim ... A West African construction ready high-grade and low cost phosphate rock mining project

#### **Key highlights**

- Located near Farim, 120km northeast of Bissau
- Extensive geological deposit with potential to increase mine life
  - Estimated measured and indicated resources of 105.6Mt at 28.4% P<sub>2</sub>O<sub>5</sub> (includes estimated proven and probable reserves of 44Mt at 30% P<sub>2</sub>O<sub>5</sub>)
- Expected phosphate rock concentrate production of 1.32Mt per year at 34% P<sub>2</sub>O<sub>5</sub>
  - Estimated mine life of 25 years
- Low project costs and operating costs relative to peers
  - Estimated project costs of US\$180-200mm (contract mining)
  - Estimated opex of US\$60-66/t per year (contract mining)
- Access to existing infrastructure including 70km of paved road covering most of the route from site to port
  - Port to be located at Ponta Chugue and will be able to receive 35,000 Dead Weight Tonne ("DWT") ships
  - Port to be 100% owned by Itafos
- Ability to ship product globally, beyond the natural market of the Atlantic Basin
  - Freight cost advantage to ship product to the U.S. and Atlantic basin
- A Feasibility Study and an Environmental and Social Impact Assessment ("ESIA") completed in 3Q 2015
- Permitting and other approvals are near complete

Reserve and resources highlights <sup>1</sup>				
Item	Tons (Mt)	Grade (%)	P <sub>2</sub> O <sub>5</sub> (Mt)	
Reserves	44.0	30.0%	13.2	
M&I Resources	105.6	28.4%	30.0	
Inferred Resources	37.6	27.7%	10.4	
Total Resources	143.2	28.2%	40.4	

Average 25 year mine life

#### **Construction ready**

- Almost all necessary test work performed (tailings, geochemistry, hydrogeology, geotechnical)
- All required geotechnical drilling completed and integrated into the designs
- Sand, aggregate and cement from local suppliers tested for suitability
- Site location of mining camp finalized
- On-going air, noise and water quality readings taken since the ESIA to establish baseline
- Contractors in Guinea Bissau, Senegal, Ghana and Togo have pre-gualified

Extensive geological reserve base with significant expansion potential



# High quality phosphate rock is becoming more attractive

Itafos Farim specification sheet					
Element	Typical Range	Maximum			
$P_2O_5$	34.0% +/- 0.5%	-			
$CO_2$	2.40% - 2.90%	3.10%			
$SO_3$	0.10% - 0.15%	0.20%			
Acid Insol.	2.4% - 3.7%	4.27%			
CaO	47.3% - 48.0%	49.0%			
MgO	0.12% - 0.14%	0.15%			
Fe <sub>2</sub> O <sub>3</sub>	2.3% - 2.7%	3.60%			
$Al_2O_3$	0.28% - 0.40%	0.45%			
Na <sub>2</sub> O	0.16% - 0.19%	0.20%			
K <sub>2</sub> O	0.02% - 0.19%	0.03%			
F	3.1% - 3.4%	3.69%			
CI	290 – 315 ppm	470 ppm			
Cd	6.4 – 6.9 ppm	10 ppm			
Organics	0.32% - 0.40%	0.45%			
H <sub>2</sub> O	2% - 3%	5%			
Adjusted MER <sup>1</sup>	0.06 to 0.08	0.10			

Product size ranges from 1,180  $\mu$ m to 20  $\mu$ m with 60% coarse (1,180  $\mu$ m to 106 $\mu$ m) and 38% fine (106 $\mu$ m to 20  $\mu$ m)

#### Proposed changes to EU regulation on fertilizers

- EU Parliament voted to reduce allowable Cadmium levels in fertilizers sold across the EU
  - Current level of 60mg/kg to 40mg/kg P<sub>2</sub>O<sub>5</sub> after 6 years
  - From 40mg/kg in year six to 20mg/kg P<sub>2</sub>O<sub>5</sub> after 16 years
- North and West African producers challenged to supply within these limits unless major changes are made to their beneficiation processes
  - Aside from capital investments, opex would likely increase in the US\$20-50/t range
- Low Cadmium levels in Itafos Farim phosphate rock make it an ideal source for the European market and any other jurisdiction with low Cadmium requirements

#### **Expanded market opportunity**

- Itafos Farim phosphate rock can be used to make DAP and MAP
- Off-take agreements being negotiated with several players, located in Asia Pacific and Europe; Strong indication of interest given high quality of Itafos Farim phosphate rock
- Off-take agreements are multi-year, fixed volume basis with pricing tied to global benchmarks

#### **Demanding pricing premium**







# Compelling economic profile anchored by operating businesses and development pipeline

Item	2018	2019	2020	Notes		
EBITDA						
Itafos Conda	US\$35-45mm	US\$20-30mm	US\$40-50mm	Drop in 2019 due to sulfuric acid contract re-pricing		
Itafos Arraias	US\$5-10mm	US\$15-25mm	US\$20-30mm	2018 reflects ramp-up period		
Itafos Farim	Construction	Construction	US\$25-30mm	Mid year 2020 commercial operations date (contract mining)		
Total	US\$40-55mm	US\$35-55mm	US\$85-110mm	N/A		
Capex						
Itafos Conda	US\$20-25mm	US\$15-20mm	US\$25-30mm	Does not include capex allocated to Nutrien		
Itafos Arraias	US\$4-6mm	US\$4-6mm	US\$4-6mm	N/A		
Itafos Farim		US\$180-200mm		Reflects contract mining		
Total	US\$24-31mm	US\$19-26mm	US\$29-36mm	Does not include Itafos Farim capex		
Debt						
Itafos	US\$165mm	US\$165mm	US\$165mm	Closed US\$165mm financing in June 2018		
Itafos Farim		US\$110-130mm	US\$110-130mm	Project financing and reflects contract mining		
Total	US\$165mm	US\$275-295mm	US\$275-295mm	Debt is not netted with cash balances		

- Production levels based on design capacity unless otherwise noted
- Phosphate rock, fertilizer and input pricing largely based on current price environment unless otherwise noted
- Itafos Conda, Itafos Arraias and Itafos Farim cash costs expected at US\$430/t, US\$140/t and US\$67/t, respectively
- Itafos Conda and Itafos Arraias effective tax rates range from approx. 35-40% and 15-20%, respectively
- Itafos Farim EBITDA increases by approx. US\$20mm per year, capex increases by approx. US\$50mm and debt increases accordingly in self mining scenario vs contract mining scenario
- Itafos corporate costs range from approx. US\$5-7mm per year and not included above

Low levels of debt provide maximum flexibility through market cycles and facilitate growth strategy

A Appendix A: Phosphate highlights



## Phosphate is a critical nutrient

#### Why phosphorus?

- All life forms need the element Phosphorus (P), which is involved in photosynthesis, energy transfer, cell division and enlargement
- Important in root formation and growth that improves the quality of fruit and vegetable crops
- Vital to seed formation, improves water usage and helps hasten maturity
- 85% of phosphate consumption is used for fertilizer manufacturing
- Phosphate fertilizers account for a quarter of total NPK fertilizers consumed globally
- Phosphate consumption is driven by key megatrends, resulting in need for increased crop yields
  - Population growth
  - Limited arable land availability
  - Rising incomes and purchasing power in developing countries lead to shifts in dietary habits towards more meat and dairy products, which require more crops as feed
- Phosphorous is a critical nutrient required to support growers for higher yields

# Healthy leaves shine with a rich, dark green color when supplied with sufficient supply of phosphorus

Phosphorus shortage marks leaves with

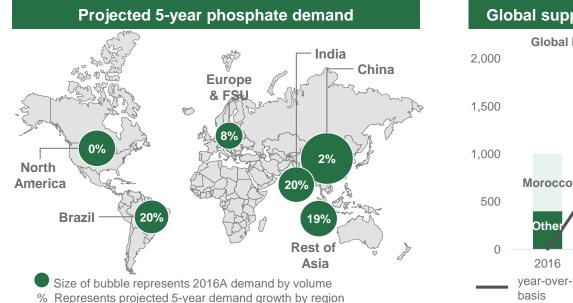
reddish-purple, particularly on young plant



Well positioned to benefit from agriculture and food megatrends



## Phosphate supply/demand expected to stabilize in mid-term





- Phosphate demand is supported by strong fundamentals
  - Global phosphate demand in 2016 was 66,000kt, on a DAP/MAP/NSP/TSP basis and expected to grow ~9% or ~2% CAGR over the next five years to a total of 75,000kt
  - Key markets like Brazil and India expected grow by ~20% in the next five years
  - Brazil is 4th largest fertilizer consumption market in the world
- New supply coming on-stream causing market imbalance in near-term, however, pace of new capacity expansions set to lessen after 2018, with planned expansions less than expected demand growth from 2019 onwards
  - Saudi Arabia (Ma'aden) and Morocco (OCP) are main producers with large expansions
  - Ma'aden and OCP projects' expansions are expected to continue coming on-line gradually over the next five years
  - Lower for longer price forecasts have curbed further large projects initiatives from other parts of the world, leaving OCP as the sole large incremental producer by 2020+

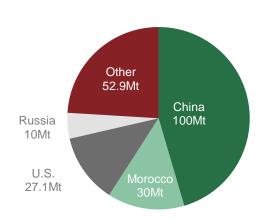
#### Driven by positive demand outlook





# "Traded" phosphate rock market volumes have not grown significantly over last 20 years

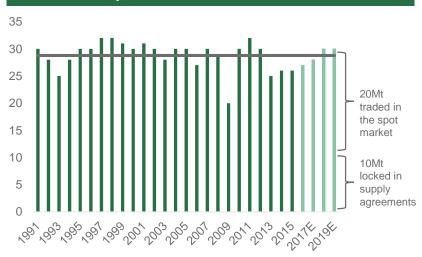
#### **Production per year**



#### Increased supply of phosphate rock...

- 70Mt production added since 1999 (210Mt today)
- Phosphate rock production growth in line with fertilizer consumption increase
- Chinese production dominates the market (50%)
- The increased supply of phosphate rock globally did not influence the "traded" phosphate rock market volumes because most of this was in Asia (China) and tied to integrated granulation plants within China

#### Phosphate rock trade 1990 – 2019E



#### ... had no observed impact on "tradeable rock" offer

- Of the 30Mt "traded" market, approx. 10Mt is sold towards DAP/MAP production which is limited by supply sources
- OCP, which supplies the higher quality traded phosphate rock has expanded into granulation (taking some of their own traded volume and supplying it to themselves); This has further helped balance supply/demand

"Traded" phosphate rock supply remains stable





# Portfolio highlights

ltem		Itafos Conda		Itafos Arraias		Itafos Paris Hills		Itafos Farim	ŀ	tafos Santana		Itafos Araxá	lí	afos Mantaro
Ownership	•	100% Itafos	-	96.8%(*) Itafos	•	100% Itafos	•	100% Itafos	-	99.4%(*) Itafos	-	100% Itafos	•	100% Itafos
Location	-	Idaho, U.S.	•	Tocantins, Brazil	-	Idaho, U.S.	•	Farim, Guinea Bissau	-	Pará, Brazil	•	Minas Gerais, Brazil	-	Junin, Peru
Stage		Operations	•	Operations (ramp-up in progress)		Feasibility		Feasibility		Feasibility		Pre-feasibility		Pre-feasibility
Commercial operations date	-	Over 30 years	-	Mid-year 2017	-	2019 (estimate)	•	Mid year 2020 (estimate)	-	Pending feasibility	•	Pending feasibility	•	Pending feasibility
Reserves <sup>1</sup>	-	Under review	-	64.8Mt at avg. 5.1% P <sub>2</sub> O <sub>5</sub>	•	16.7Mt at avg. 29.5% P <sub>2</sub> O <sub>5</sub>	-	44.0Mt at avg. 30.0% P <sub>2</sub> O <sub>5</sub>	•	45.5Mt at avg. 12.9% P <sub>2</sub> O <sub>5</sub>	-	N/A	-	N/A
Measured and indicated resources <sup>1</sup>		Under review		79.0Mt at avg. 4.9% P <sub>2</sub> O <sub>5</sub>		90.1Mt at avg. 25.1% P <sub>2</sub> O <sub>5</sub>		105.6Mt at avg. 28.4% P <sub>2</sub> O <sub>5</sub>		60.4Mt at avg. 12.0% P <sub>2</sub> O <sub>5</sub>		6.4Mt at avg. 8.4% P <sub>2</sub> O <sub>5</sub>		39.5Mt at avg. 10.0% P <sub>2</sub> O <sub>5</sub>
Inferred resources <sup>1</sup>	-	Under review	-	12.7Mt at avg. 3.9% P <sub>2</sub> O <sub>5</sub>	•	14.0Mt at avg. 25.0% P <sub>2</sub> O <sub>5</sub>	-	37.6Mt at avg. 27.7% P <sub>2</sub> O <sub>5</sub>	•	26.6Mt at avg. 5.6% P <sub>2</sub> O <sub>5</sub>	•	21.9Mt at avg. 7.9% P <sub>2</sub> O <sub>5</sub>	-	376.3Mt at avg. 9.0% P <sub>2</sub> O <sub>5</sub>
Mine life		Under review	-	19 years	-	19 years		25 years	-	32 years	•	Pending feasibility	•	Pending feasibility
Product		MAP, SPA, MGA, APP	•	SSP and excess sulfuric acid		Phosphate rock		Phosphate rock	•	SSP and excess sulfuric acid	•	Rare earth oxides and other elements		Phosphate rock
Production		550kt per year		500kt per year	-	1.0Mt per year		1.3Mt per year		500kt per year	•	Pending feasibility	•	Pending feasibility

<sup>(\*) 3</sup>rd party interest represented by preferred non-voting shares issued by Itafos in 2018 upon exercise of warrants held by creditors under the 2016 Brazilian restructuring proceedings



- Itafos Conda is a vertically integrated phosphate fertilizer (MAP, SPA, MGA, APP) operating business owned 100% by Itafos
  - Produces MAP, SPA, MGA and APP to be sold to wholesale and retail customers
  - Located in Conda, Idaho, U.S. on a property consisting of approx. 1,693 ha of land and in close proximity to existing infrastructure
  - Expected average mine life currently estimated at least six years (not including Itafos Paris Hills mine life integration which would extend mine life by 19 years) with MAP, SPA, MGA and APP production and sales capacity of 550kt per year

#### **Status**

- Management currently focused on extending the life of mine
- Current mining plan includes obtaining ore from Rasmussen Valley Mine (RVM); Mining for phase 1 started in January 2018 and is in ramp-up period
- Based on existing mined ore inventory and current reserves, Itafos Conda is expected to continue commercial operations through the next six years before additional ore would be required

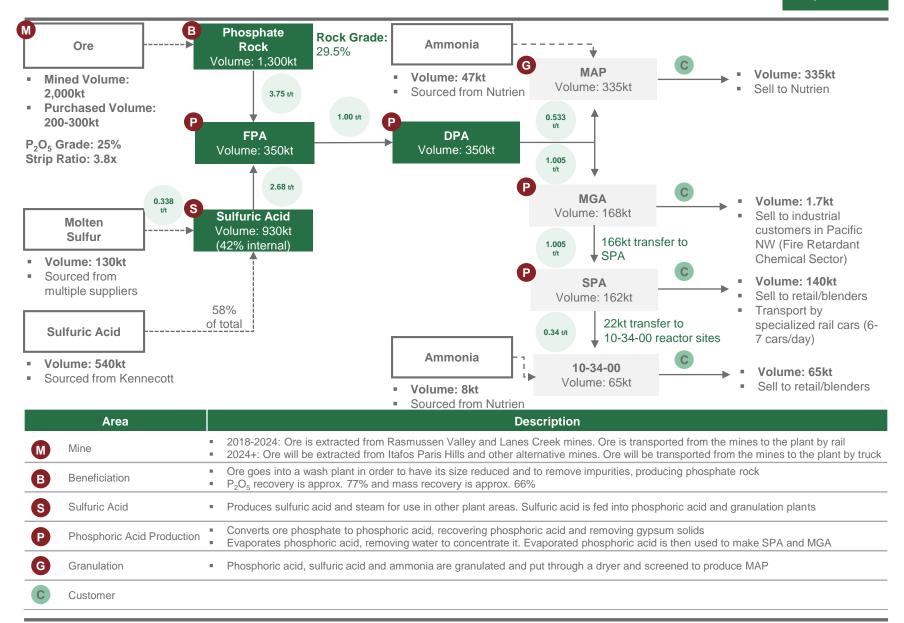
#### **Location highlights**



#### Reserves and resources highlights

- Existing permitted mining assets include Lanes Creek Mine (LCM) and Rasmussen Valley Mine (RVM) which together are expected to have approx. six years of mine life remaining
- Existing unpermitted mining assets include North Dry Ridge (NDR) and integration of Itafos Paris Hills
- Itafos plans to commission a feasibility study in 2018 to confirm the reserves and resources that have already been identified through previous work

One of three key SPA producers in the U.S., strategically located in the West



- Itafos Arraias is a vertically integrated phosphate fertilizer (SSP) operating business owned 96.8% by Itafos
  - Produces SSP to be sold to blenders and farmers and excess sulfuric acid
  - Located in Tocantins, Brazil on a property consisting of approx. 105,421 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 91.7Mt at an average grade of 4.8% P<sub>2</sub>O<sub>5</sub> with expected SSP production and sales capacity of 500kt per year and sulfuric acid production of 210kt per year
  - Expected average mine life of 19 years

#### **Status**

- Feasibility study completed in March 2013
- Recommissioning completed and ramp-up of production ongoing with expectation of reaching full production by the end of 2Q 2018

#### Location highlights

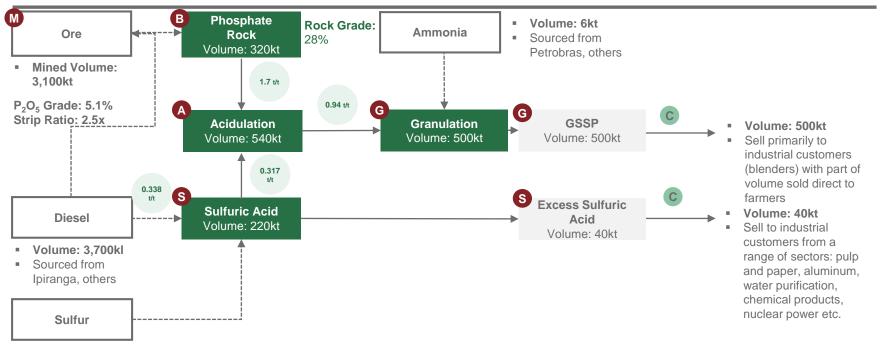


## Reserve and resources highlights<sup>1</sup>

Item	Tons (Mt)	Grade (%)	P <sub>2</sub> O <sub>5</sub> (Mt)
Reserves	64.8	5.1%	3.3
M&I Resources	79.0	4.9%	3.9%
Inferred Resources	12.7	3.9%	0.5
Total Resources	91.7	4.8%	4.4

Only operational vertically integrated phosphate rock mine and SSP production operation in central Brazil





- Volume: 72kt
- Sourced from Petrobras, Vale, others

	Area	Description
M	Mine	<ul> <li>Ore is extracted from Itafos Arraias mine. Ore is transported from the mine to the plant by truck</li> </ul>
В	Beneficiation	<ul> <li>Ore goes into a wash plant in order to have its size reduced and to remove impurities, producing phosphate rock</li> <li>P<sub>2</sub>O<sub>5</sub> recovery is approx. 57% and mass recovery is approx. 10%</li> </ul>
S	Sulfuric Acid	<ul> <li>Produces sulfuric acid and steam for use in turbine generator and other plant areas. The electricity produced, from a 6.5 MW onsite co-gen power plant, provides over 50% of the entire Itafos Arraias plant needs. Sulfuric acid is fed into the acidulation plant</li> </ul>
A	Acidulation	<ul> <li>Phosphate rock is reacted with sulfuric acid, forming SSP powder. No gypsum waste is created in this process</li> </ul>
G	Granulation	SSP powder, ammonia, water and mud are fed into the drum granulator. Mix is granulated, dried, and screened to produce GSSP
C	Customer	

- Itafos Paris Hills is a phosphate rock mine development project owned 100% owned by Itafos
  - Produces phosphate rock to be integrated with Itafos Conda
  - Located in Idaho, U.S. on a property consisting of approx. 1,010 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 104.1Mt at an average grade of 25.1% P<sub>2</sub>O<sub>5</sub> with expected phosphate rock production of 1.0Mt per year
  - Expected average mine life of 19 years

#### **Status**

- Feasibility study completed in January 2013
- Management currently focused on finalizing permitting plan and integrating with Itafos Conda



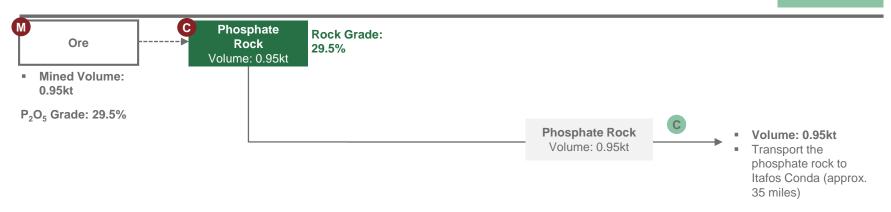
Reserve and resources highlights <sup>1</sup>					
Item	Tons (Mt)	Grade (%)	P <sub>2</sub> O <sub>5</sub> (Mt)		
<u>Lower Zone</u> Reserves	16.7	29.5%	4.9		
M&I Resources	29.8	30.0%	8.9		
Inferred Resources	4.6	29.9%	1.4		
Total Resources	34.4	30.0%	10.3		
<u>Upper Zone</u> M&I Resources	60.3	22.7%	13.7		
Inferred Resources	9.4	22.6%	2.1		
Total Resources	69.7	22.7%	15.8		

One of the highest grade undeveloped phosphate rock mine projects located in mining friendly jurisdiction



# Itafos Paris Hills process overview

Near-term pipeline



	Area	Description						
M	Mine	Ore will be extracted from Itafos Paris Hills mine. Ore will be conveyed to the surface and stockpiled						
C	Crusher  Ore will be crushed in order to prepare the phosphate rock to a suitable size for transport to Itafos Conda. No further processing of will take place following crushing to specification							
C	Customer							

- Itafos Farim is a phosphate rock mine development project owned 100% by Itafos
  - Produces phosphate rock to be sold to producers of phosphate based fertilizers
  - Located in Farim, Guinea Bissau on a property consisting of approx. 30,625 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 143.2Mt at an average grade of 28.2% P<sub>2</sub>O<sub>5</sub> with expected phosphate rock production of 1.32Mt per year
  - Expected average mine life of 25 years

#### **Status**

- Feasibility study completed in September 2015
- Management currently focused on finalizing permitting, pursuing offtake alternatives, procuring engineering and construction contractor and securing project financing
- Based on current plan expected commercial operations date is in 2020

#### **Location highlights**

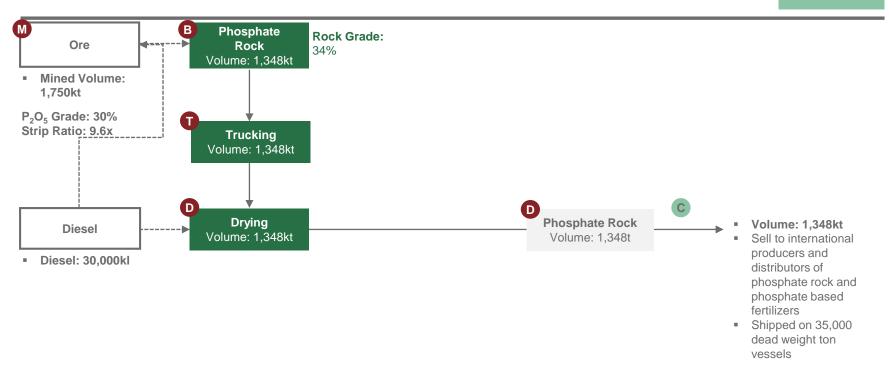


#### Reserve and resources highlights<sup>1</sup>

Item	Tons (Mt)	Grade (%)	P <sub>2</sub> O <sub>5</sub> (Mt)
Reserves	44.0	30.0%	13.2
M&I Resources	105.6	28.4%	30.0
Inferred Resources	37.6	27.7%	10.4
Total Resources	143.2	28.2%	40.4

One of the highest grade undeveloped phosphate rock mine projects located near key infrastructure





	Area	Description
M	Mine	Ore will be extracted from Farim mine. Ore will be transported from the mine to the plant by truck
В	Beneficiation	<ul> <li>Ore will go into a wash plant in order to have its size reduced and to remove impurities, producing phosphate rock</li> <li>P<sub>2</sub>O<sub>5</sub> recovery will be approx. 87% and mass recovery will be approx. 77%</li> </ul>
<b>T</b>	Trucking	<ul> <li>Phosphate rock will be trucked 75km to the new port site at Ponta Chugue</li> </ul>
D	Drying	Phosphate rock will be unloaded from the truck and conveyed through a rotary dryer
G	Customer	



- Itafos Santana is a integrated phosphate rock mine and SSP production facility development project owned 99.4% owned by Itafos
  - Produces SSP to be sold to blenders and farmers
  - Located in Pará, Brazil on a property consisting of approx. 235,150 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 87.0Mt at an average grade of 10.1% P<sub>2</sub>O<sub>5</sub> with expected SSP production of 500kt per year and sulfuric acid production of 210kt per year
  - Expected average mine life of 32 years

#### **Status**

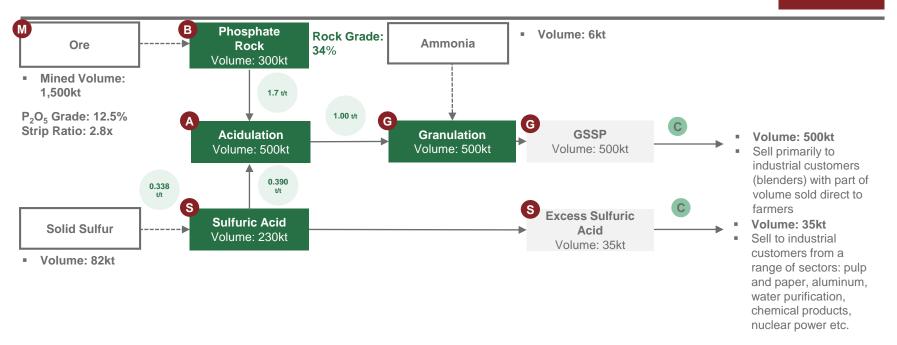
- Feasibility study completed in October 2013
- Management currently focused on preparing project development plan including expectations on start of project development and permitting activities
- Based on current plan expected commercial operations date is expected for post 2020

#### Location highlights



Reserve and resources highlights <sup>1</sup>							
Item Tons (Mt) Grade (%) P <sub>2</sub> O <sub>5</sub> (Mt)							
Reserves	45.5	12.9%	5.9				
M&I Resources	60.4	12.0%	7.2				
Inferred Resources	26.6	5.6%	1.5				
Total Resources	87.0	10.0%	8.7				

Integrated phosphate rock mine and SSP production project located in growing Brazil agricultural market



	Area	Description
M	Mine	Ore will be extracted from Itafos Santana mine. Ore will be transported from the mine to the plant by truck
B	Beneficiation	<ul> <li>Ore will go into a wash plant in order to have its size reduced and to remove impurities, producing phosphate rock</li> <li>P<sub>2</sub>O<sub>5</sub> recovery will be approx. 55% and mass recovery will be approx. 20%</li> </ul>
S	Sulfuric Acid	<ul> <li>Produces sulfuric acid and steam, which will supply a turbine generator and other plant needs. The electricity produced, from a 8.0 MW onsite co-gen power plant, will provide over 60% of the entire Itafos Santana plant needs. Sulfuric acid is fed into the acidulation plant</li> </ul>
A	Acidulation	<ul> <li>Phosphate rock will be reacted with sulfuric acid, forming SSP powder. No gypsum waste is created in this process</li> </ul>
G	Granulation	SSP powder, ammonia, water and mud will be fed into the drum granulator. Mix will be granulated, dried and screened to produce GSSP
C	Customer	

- Itafos Araxá is a phosphate rock and rare earth oxide mine development project owned 100% owned by Itafos
  - Produces phosphate rock and rare earth oxides to be sold to producers of phosphate based fertilizers and rare earth products
  - Located in Mina Gerais, Brazil on a property consisting of approx. 214 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 28.3Mt at an average grade of 8.0% P<sub>2</sub>O<sub>5</sub> with production to be determined in definitive feasibility

#### **Status**

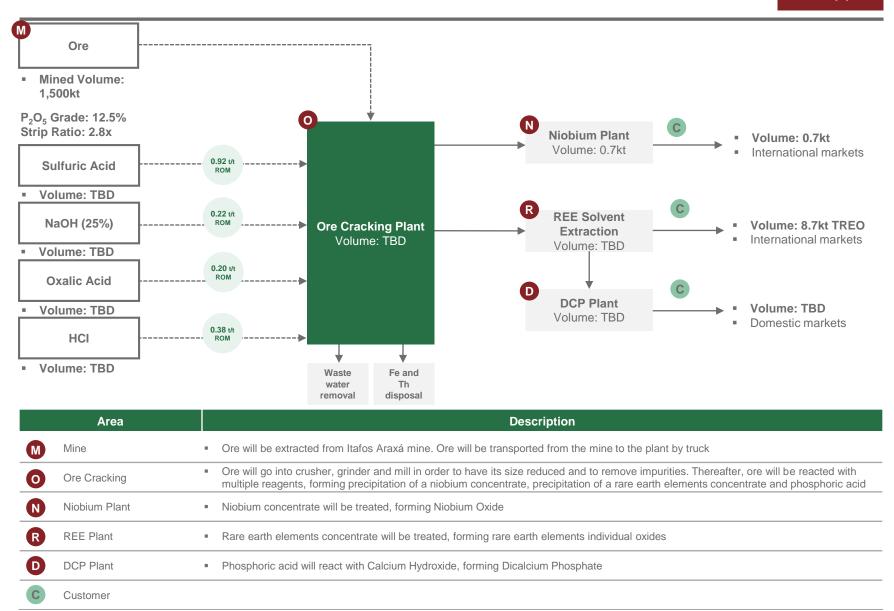
- Feasibility study completed in October 2012
- Management currently focused on evaluating strategic alternatives

#### Location highlights



Reserve and resources highlights <sup>1</sup>					
Item Tons (Mt) Grade (%) P <sub>2</sub> O <sub>5</sub> (M					
M&I Resources	6.4	8.4%	0.5		
Inferred Resources	21.9	7.9%	1.7		
Total Resources	28.3	8.0%	2.3		

High grade rare earth oxides and other elements mine project located near key infrastructure



- Itafos Mantaro is a phosphate rock mine development project owned 100% owned by Itafos
  - Produces phosphate rock to be sold to producers of phosphate based fertilizers
  - Located in Junin, Peru on a property consisting of approx. 12,800 ha of land and in close proximity to existing infrastructure
  - Expected total resources of 415.8Mt at an average grade of 9.1% P<sub>2</sub>O<sub>5</sub> with production to be determined in definitive feasibility

#### **Status**

- Feasibility study completed in February 2010
- Management currently focused on evaluating strategic alternatives

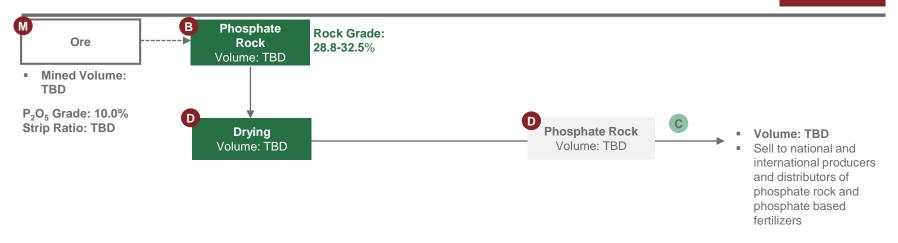


Reserve and resources highlights <sup>1</sup>					
Item	Tons (Mt)	Grade (%)	P <sub>2</sub> O <sub>5</sub> (Mt)		
West Zone M&I Resources	39.5	10.0%	4.0		
Inferred Resources	376.3	9.0%	33.9		
Total Resources	415.8	9.1%	37.8		
East/Far East Zone East	425-435	9.0%	38.3-39.2		
Far East	280-290	9.0%	25.2-26.2		
Total Resources	705-725	9.0%	63.5-65.3		

#### Large-scale phosphate rock mine project located near key infrastructure

# Itafos Mantaro process overview

Mid-term pipeline



	Area	Description
M	Mine	Ore will be extracted from Itafos Mantaro mine. Ore will be transported from the mine to the plant by truck
В	Beneficiation	<ul> <li>Ore will go into a wash plant in order to have its size reduced and to remove impurities, producing phosphate rock</li> <li>P<sub>2</sub>O<sub>5</sub> recovery and mass recovery to be determined</li> </ul>
D	Drying	Phosphate rock will be conveyed through a rotatory dryer located at the beneficiation plant
C	Customer	



c Appendix C: Financial highlights



# Income statement

Income Statement	1Q18	1Q17	Δ US\$	Δ %
Income Statement (US\$ 000's)				
Revenues, Net Cost of Goods Sold	<b>58,116</b> 43,643	-	-	-
Expenses Selling, General and Administrative Expenses Operating Income (Loss) Unrealized Foreign Exchange Gain (Loss) Other Income (Expense) Finance Income (Expense) Gain (Loss) from Investment in Associates Income Loss) Before Income Taxes Current and Deferred Income Tax Expense Net Income (Loss) - Parent Net income (Loss) - Non-controlling Interest	5,222 9,251 (29) (191) (1,985) 7,909 14,955 4,112 10,843	3,469 (3,469) (767) (1,608) (79) (337) (6,260) 309 (6,569)	1,753 12,720 738 1,417 (1,906) 8,246 21,215 3,803 17,412	51% -367% -96% -88% 2,413% -2,447% -339% 1,231% -265%
Net Income (Loss)	10,843	(6,569)	17,412	-265%
Basic Earnings per Share Fully Diluted Earnings per Share	0.08 0.08	(0.10) (0.10)	0.18 0.18	-180% -180%



# Balance sheet

Balance Sheet	1Q18	4Q17	∆ US\$	Δ %
Assets (US\$ 000's)				
Cash	10,795	63,677	(52,882)	(83%)
Accounts Receivable	28,815	116	28,699	24,741%
Inventories	114,185	8,277	105,908	1,280%
Other Current Assets	20,585	9,005	11,580	129%
Total Current Assets	174,380	81,075	93,305	115%
Property, Plant and Equipment (net)	283,299	263,427	19,872	8%
Mineral properties	128,763	47,195	81,568	173%
Investments in Associates	-	15,074	-	-
Other Long-Term Assets	13,200	14,520	(1,320)	(9%)
Total Non-Current Assets Total Assets	425,262	340,216	85,046	25%
	599,642	421,291	178,351	42%
Liabilities and Equity (US\$ 000's)				
Accounts Payable and Accrued Liabilities	89,537	16,937	72,600	429%
Current Debt	93,562	25,530	68,032	266%
Other Current Liabilities	224	184	40	22%
Current Debentures	873	960	(87)	(9%)
Provisions Tatal Quantitativities	750	542	208	38%
Total Current Liabilities	184,946	44,153	140,793	319%
Other Long-Term Liabilities	9,659	8,733	926	11%
Long-term Portion of Debentures	2,305	2,240	65	3%
Other Liabilities	1,641	1,614	27	2%
Provisions Total Non-Current Liabilities	5,984	2,952	3,032	103%
Total Liabilities	19,589 204,535	15,539 59,692	4,050 144,843	26% 243%
Share Capital	509,897	486,562	23,335	5%
Contributed Surplus	246,626	246,626	(070)	-
Cumulative Translation Adj. Reserve Deficit	7,785 (378,263)	8,455	(670) 10,843	(8%)
Equity Attributable to Shareholders	386,045	(389,106) <b>352,537</b>	33,508	10%
Non-Controlling Interest	9,062	9,062	33,300	10 /0;
Total Equity	395,107	361,599	33,508	9%
Total Liabilities and Equity	599,642	421,291	178,351	42%



# Cash flow statement

Cash Flow Statement	1Q18	1Q17	∆ US\$	Δ %
Operating Activities (US\$ 000's)				
Net Income (Loss) Adj. for the Following Items:	10,843	(6,569)	17,412	(265%)
Depreciation and Depletion Share-Based Payment Expense Current and Deferred Income Tax Expense	39 616 4,112	196 309	420 3,803	214% -
(Gain) Loss from Investment in Associates Unrealized Foreign Exchange (Gain) Loss Financial Expense	(7,909) 29 1,985	337 767 79	(8,246) (738) 1,906	(96%) -
Net Change in Working Capital  Cash Flows from Operating Activities	(22,649) (12,934)	2,200 (2,681)	(24,849) ( <b>10,253)</b>	-
Investing Activities (US\$ 000's)				
Acquisition of PP&E and Mineral Properties Acquisition of Conda Cash Received from Conda at Acquisition Acquisition of GBL Issuance of Note to GBL Cash Received from GBL at Acquisition Cash Flows from Investing Activities	(8,455) (66,500) 725 (25,539) (4,500) 2,898 (101,371)	(5,919) - - - (5,919)	(2,536) - - - (95,452)	43% - - - -
Financing Activities (US\$ 000's)				
Proceeds from Debt Financing Net Proceeds from Issuance of Shares Cash Flows from Financing Activities	61,421 - <b>61,421</b>	3,000 29,840 <b>32,840</b>	58,421 - <b>28,581</b>	- - 87%
Cash, End of Period (US\$ 000's)				
Effect of Foreign Exchange Increase (Decrease) in Cash Cash, Beginning of Period Cash, End of Period	2 <b>(52,882)</b> 63,677 <b>10,795</b>	(97) <b>24,143</b> 2,875 <b>27,018</b>	99 ( <b>77,025)</b> 60,802 ( <b>16,223</b> )	(102%) - - ( <b>60%)</b>

