

ASIAPHOS

Corporate Presentation & 1Q2017 Results



April-May 2017

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- Unaudited financial statements announcement of AsiaPhos Limited for 4Q16 and financial year ended 31 December 2016, dated [20 Feb 2017](#) ; and [1Q17 results dated 26 April 2017](#)
- Audited financial statements announcement of AsiaPhos Limited for the full year ended 31 December 2016, dated [31 March 2017](#) / [Annual Report FY2016](#)
- Offer document of AsiaPhos Limited dated 25 September 2013 (the “[Offer Document](#)”)

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- Mian Mao Highway expected to improve access / haulage road
- Resource Tax Reform (Sichuan Gov't announcement)
- Electricity Pricing Reforms

Financial Highlights

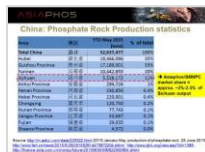
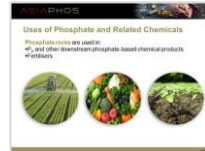
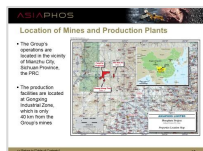
- Income Statement Highlights
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About Phosphate

- Why Phosphate? Essential to Life / No Substitutes
- Uses of Phosphate and Related Chemicals
- Potential demand growth (Electric Vehicles / Battery market)

Further Reading

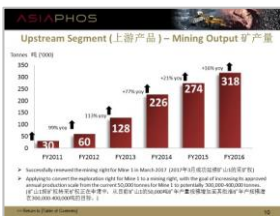
- Market Report: China adapts to 'new normal' of dwindling high grade phosphate reserves
- Electricity pricing reforms
- China: Phosphate Rock Production statistics
- "Favourable policies boost phosphorus industry in China" (Jan 2015)
- Phosphorus ore listed as strategic mineral resource in China (Dec 2016)



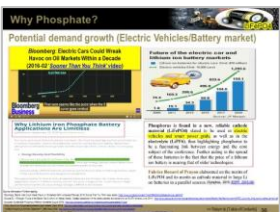


Key messages 重要信息

1. After eventful year (G20 Summit and Accident), our strategy to build up and diversify customer base is starting to bear fruit.
2. [Continued limited production of P4 in 1Q2017](#), to clear backlog of orders, build up sufficient inventory and to take advantage of rising selling prices.
3. 1st time since our IPO: [Profitable 1Q](#) / [positive operating cashflows](#).
4. [Increase in P4 output](#) is also expected following resumption of normal production of P4 by end-June 2017 with expected higher average selling prices. We will seek to capitalise on opportunities (as some P4 producers in other PRC provinces are shut for inspections).
5. Strategy will continue to evolve to further unlock the value inherent in our business. Refer to [MOUs with Mianyang Aostar/QiMingXing & Lomon Chemicals \(announced March 2017\)](#).
6. Will also develop the export market and capitalise on the [cooperation with QiMingXing](#) on trading their chemicals
7. Exploring with strategic partners to further integrate horizontally and vertically, in view of the [potential market demand growth](#), from agriculture/ black phosphorous/ electric vehicles & LiFePO4 battery market)
8. [Successful Rights cum Warrants issue](#) will reduce reliance on financing from PRC banks and also reduce/remove constraints that hold back growth.



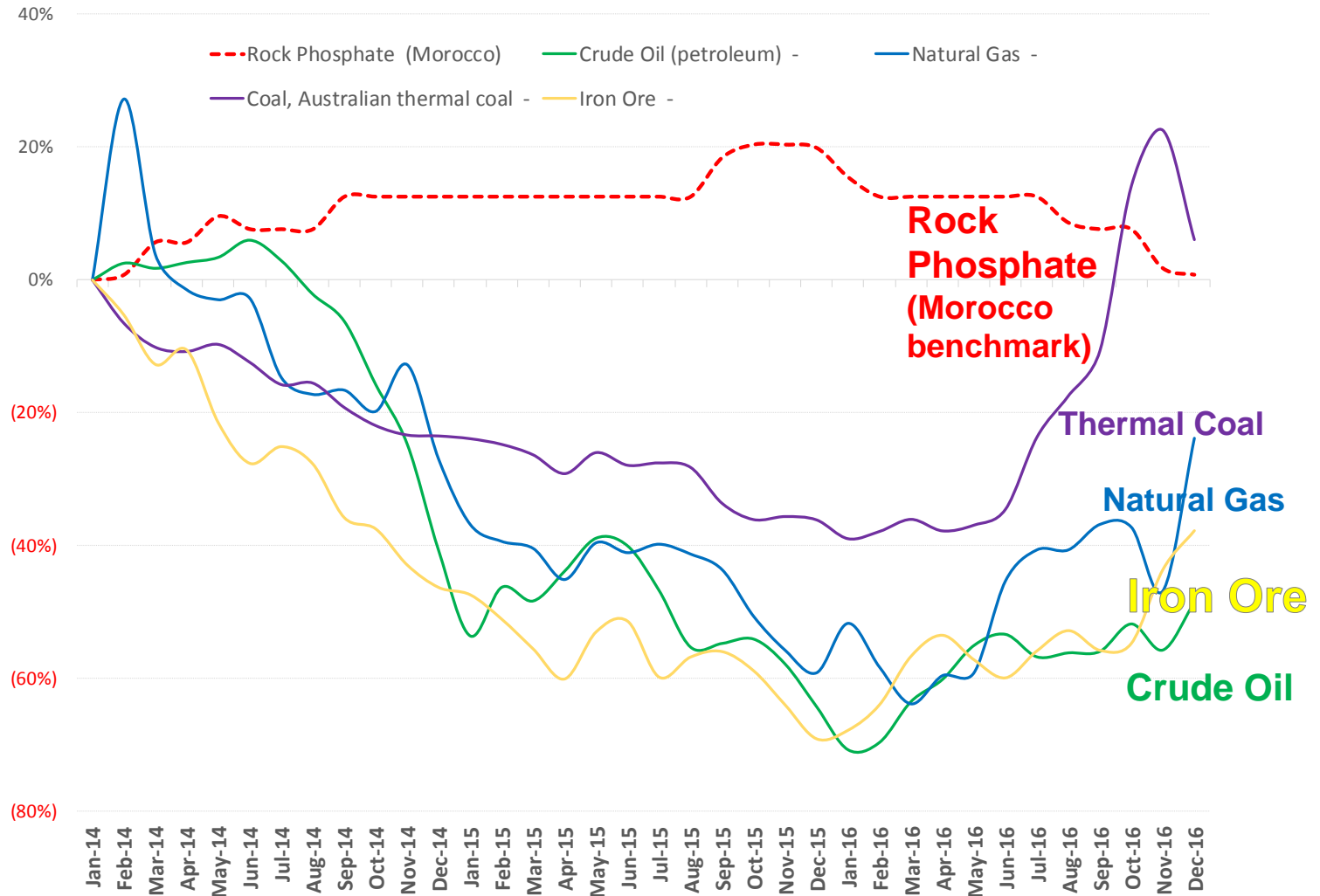
Item	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Cash generated from operations	1,234	1,567	1,890	2,123	2,456	2,789
Change in working capital	(123)	(456)	(789)	(1,012)	(1,345)	(1,678)
Interest received	45	123	234	345	456	567
Interest paid	(67)	(123)	(234)	(345)	(456)	(567)
Dividend received	12	34	56	78	90	112
Dividend paid	(34)	(56)	(78)	(90)	(112)	(134)
Net cash generated from operations	1,082	1,365	1,659	1,941	2,239	2,567





Relative Commodity Price Performance

Rock Phosphate vs Other Commodities - Price Comparison vs Jan 2014 (To Dec 2016)



Source: IndexMundi and World Bank (Data extracted: 27 Feb 2017)

<http://www.indexmundi.com/commodities/?commodity=rock-phosphate&months=12&commodity=iron-ore>

Cash flow statement

	Group	
	First Quarter Ended 31 March	
	2017	2016
	\$'000	\$'000
Cash flows from operating activities :		
Profit/(Loss) before taxation	122	(915)
Adjustments for :		
Depreciation expenses	607	504
Gain on disposal of property, plant and equipment	-	(1)
Amortisation expenses	83	74
Interest expense	207	180
Interest income	(5)	(4)
Unrealised exchange loss/(gain)	(230)	(271)
Amortisation of deferred income	(30)	(9)
Operating profit/(loss) before working capital changes	754	(442)
(Increase)/decrease in stocks	2,195	(1,153)
(Increase)/decrease in receivables	1,510	2,624
Increase/(decrease) in payables	(1,924)	(1,795)
Cash (used in)/generated from operations	2,535	(766)
Interest received	5	4
Interest paid	(396)	(820)
Tax paid	-	(199)
Net cash flows (used in)/generated from operating activities	2,144	(1,781)
Cash flows from investing activities :		
Payments for property, plant and equipment	(574)	(1,100)
Receipt of government grant	-	58
Proceeds from disposal of property, plant and equipment	-	1
Net cash flows (used in)/generated by investing activities	(574)	(1,041)
Cash flows from financing activities :		
Net proceeds from Rights cum Warrants Issue	4,158	-
Payments of share issuance expense	(115)	(32)
Proceeds from issue of redeemable preference shares	-	4,000
Redemption of redeemable preference shares	(1,403)	(6,325)
Increase in pledged deposits	(1)	(4)
Repayment of loan due to a director	(467)	-
Proceeds from bank loan	-	2,144
Net cash flows (used in)/generated from financing activities	2,172	(217)
Net increase/(decrease) in cash and cash equivalents	3,742	(3,039)
Cash and cash equivalents at beginning of period	1,012	3,098
Effects of exchange rate changes on cash and cash equivalents	(54)	(69)
Cash and cash equivalents at end of period	4,700	(10)

Cash Flow & Debt Management

- December 2016: Announced Rights cum Warrants Issue.
- March 2017: Successful completion of Rights cum Warrants Issue. Early redemption of 2016 RPS (maturity: Jan 2021).

With the completion of the redemption of the 2016 RPS, the Group is expected to benefit from lower borrowing costs in FY2017.





Executive Summary / Overview (摘要)



Business started in 1996; Possesses the rights to explore and mine phosphate (since 2002), a valuable and non-renewable natural resource in Sichuan Province, the PRC (业务开始于1996年;拥有磷矿探矿权和采矿权(2002年起), 四川省, 中国。磷矿是不可再生的自然宝贵资源。)



Adopts a vertically-integrated strategy by investing in downstream processing facilities which: (通过投资于下游加工设施, 形成垂直整合的策略:)

- refine and process phosphate rocks; and (提炼和加工磷矿;和)
- produce and sell phosphate-based chemical products (生产和销售的磷酸盐产品)



Was affected by the 2008 earthquake in Wenchuan County, Sichuan Province, the PRC, and has been focused on rebuilding since (受2008年汶川地震影响, (汶川位于中国 四川省 汶川县), 专注于重建)



First mineral resources company to be listed on the SGX-ST which is solely focused on exploring and mining phosphate in the PRC

第一家矿产资源公司上市于新交所。专注于在中国境内探矿和采矿磷矿石。



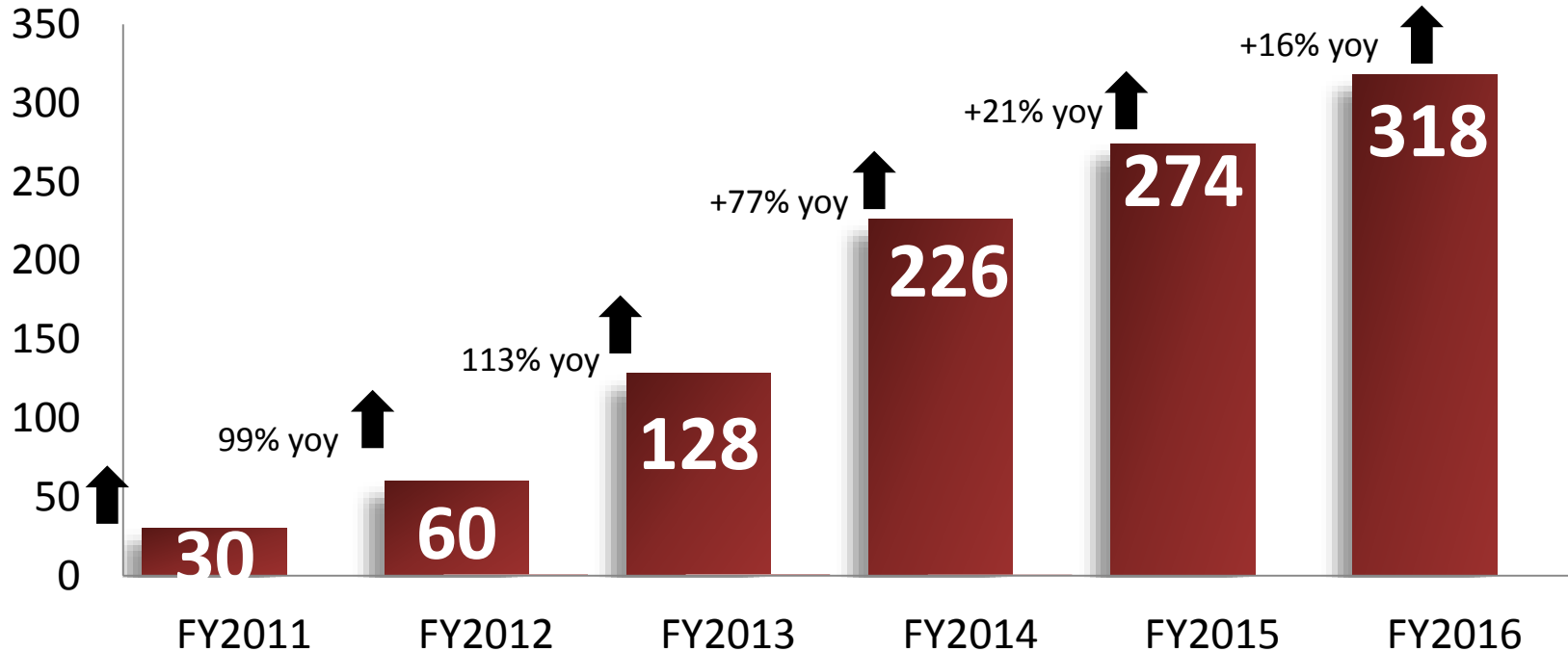
IPO (7 Oct 2013)

新交所上市（2013年10月7日）



Upstream Segment – Mining Output

Tonnes 吨 ('000)



- Successfully renewed the mining right for Mine 1 in March 2017
- Applying to convert the exploration right for Mine 1 to a mining right, with the goal of increasing its approved annual production scale from the current 50,000 tonnes for Mine 1 to potentially 300,000-400,000 tonnes.



Our Business (集团业务)

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Our Vertically-Integrated Business Strategy

Upon completion of our Rebuilding Programme, our vertically-integrated business model will involve the following:

Mining Operations

- Phosphate Rocks
- Mining
 - Rights to explore and mine phosphate from our two mines located in Sichuan Province, the PRC

Chemical Production Operations

- P_4 Processing
 - Commercial production commenced in FY2014
- Acid Manufacturing
 - Planned construction of new phosphoric acid plant with designed capacity of 30,000 tonnes per year
- SNMP and STPP Manufacturing
 - Completed relocation of one STPP plant (and resumed commercial production) with designed capacity of 30,000 tonnes per year
 - Planned construction of one SNMP plant with designed capacity of 20,000 tonnes per year

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Location of Mines and Production Plants

- The Group's operations are located in the vicinity of Mianzhu City, Sichuan Province, the PRC
- The production facilities are located at Gongxing Industrial Zone, which is only 40 km from the Group's mines

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Gongxing Production Facilities

- Rebuilding programme in Gongxing Industrial Zone, Sichuan Province, the PRC
 - Phase 1: New site of approximately 54,863 m² land use rights obtained
 - Designed to withstand earthquakes of up to 7.0 on Richter scale
- Phase 1 completed:
 - Two new P_4 furnaces, each with designed annual capacity of 10,000 tonnes
 - Commercial production of P_4 commenced in May 2014
- Receipt of Land Use Rights for Phase 2 Land
 - Announced: 12 March 2015

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Photos: From Mines to Factory

Tramway system at Mines From Mine to Factory via Truck Weighbridge / Rock / materials handling and zoning

P_4 factory / bulk storage P_4 factory control centre STPP factory

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Our Phosphate Mines (采矿作业)

Rail system system at Mines 矿山铁路系统

LCU / mine control monitoring & communication systems

Tunnel construction near future (designated Map-Mao Highway)

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Examples of our sustainability efforts (可持续发展工作的例子)

2015 Mianzhu City Industrial Development (rebuild) program: Our company received government grant for the project P4 gas integrated abatement technology improvement.

2014年绵阳市工业发展重建补助项目: 我们公司通过获得补助项目(黄磷尾气综合利用技术改造项目)。

Objectives of the project: To re-use hot gas to save energy resource and reduce gas emissions (CO₂ discharge). The gas is used for new material firing, generating steam from hot gas boiler and hot recovery for a separate Polyphosphate plant (e.g. STPP).

项目目标: 利用余热, 节约能源, 减少温室气体排放, 采用余热回收技术。

Our P4 Plant is designed to operate in compliance with China environmental law, and production waste recycling and off-gas collection as well as single disposal in a nearby cement operation.

我们的P4工厂是按照中国环保法规设计的, 生产废料回收利用, 废气收集并就近在一家水泥厂进行处置。

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Competitive Strength: Higher Quality Phosphate Rocks 竞争优势: 高品质磷矿

- Asiaphos phosphate rocks have relatively high P_2O_5 content $\approx 28\%$ (五氧化二磷含量 $\approx 28\%$)
 - Higher value and demand (较高的价格和较大的需求)
- Phosphate rock deposits with P_2O_5 content of at least 30% constitute only 10 - 25% of the total phosphate rock deposits in the PRC (磷矿五氧化二磷含量至少30%, 在中国只占有10-25%的总储量。)
- Most phosphate mines in the PRC are mining phosphate rocks with P_2O_5 content of 20 - 25% (大部分磷矿的五氧化二磷含量位于20-25%。)
- Average grade of PRC's phosphate rock deposits is estimated to have P_2O_5 content of below 20% (中国平均磷矿的五氧化二磷含量小于20%。)
- We believe that our phosphate rocks have relatively low arsenic content ≤ 10 ppm (我们认为, 我们的磷矿是具有相对较低的砷含量 ≤ 10 ppm。)

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Our Vertically-Integrated Business Strategy

Upon completion of our Rebuilding Programme, our vertically-integrated business model will involve the following:

Mining Operations



Phosphate Rocks

Mining

- Rights to explore and mine phosphate from our two mines located in Sichuan Province, the PRC

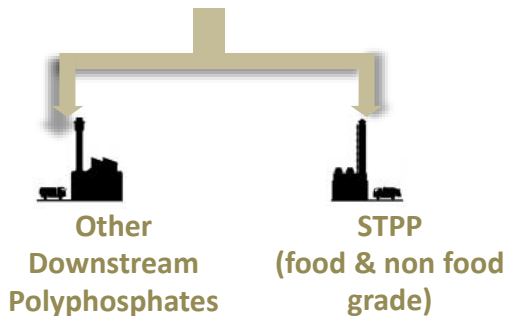
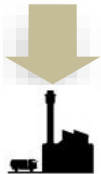
Chemical Production Operations



P₄

P₄ Processing

- Commercial production commenced in FY2014



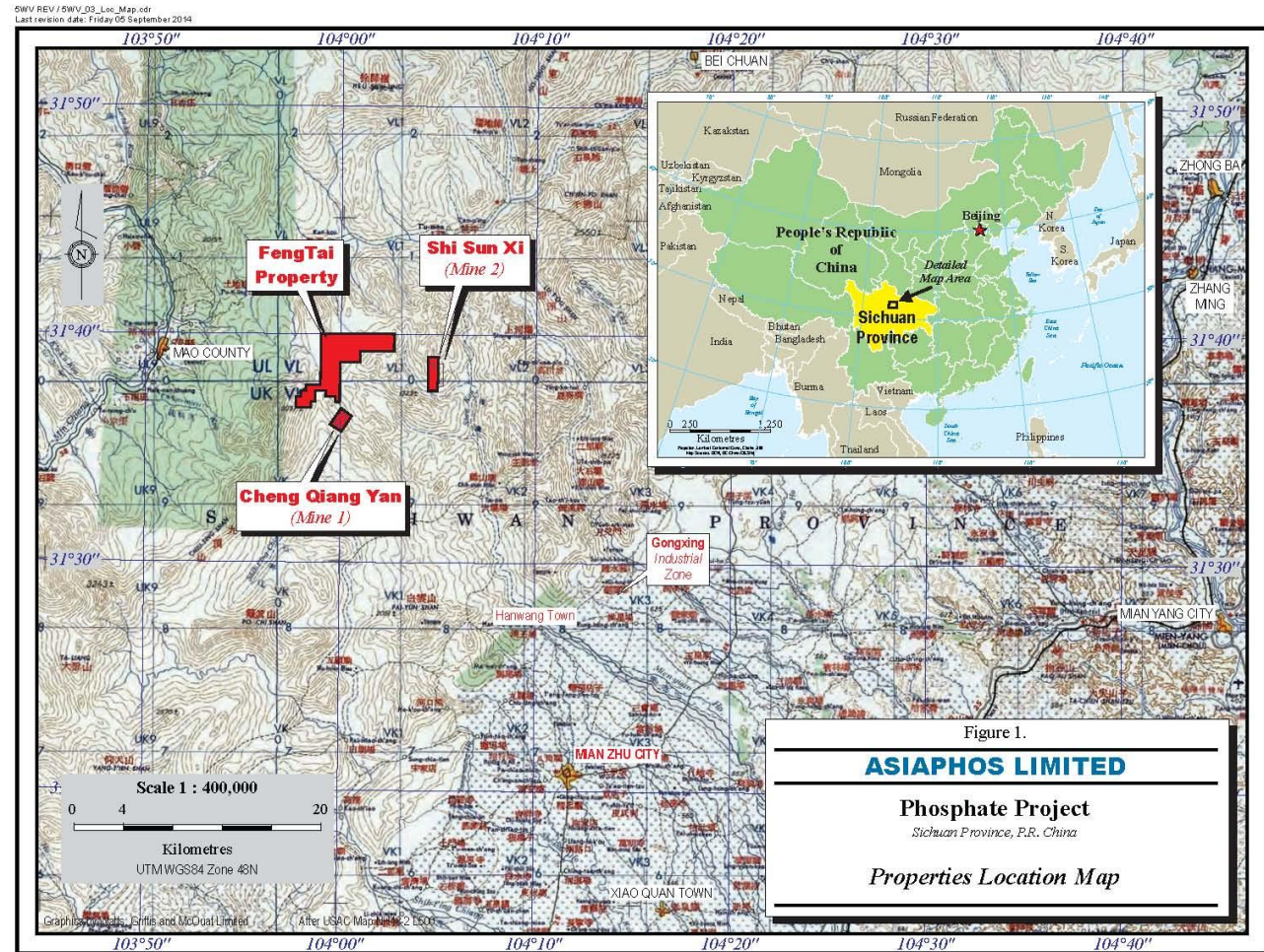
STPP and other Polyphosphate Manufacturing

- Completed relocation of one Polyphosphate/ STPP plant (and resumed commercial production) with designed capacity of 30,000 tonnes per year
- 'Phase 2' Land Use Rights: Received in FY2015 (50 years, to FY2065, area 134 亩 Mu, approx. 89,000 sq.m.). This enables further downstream phosphate chemicals manufacturing possibilities.



Location of Mines and Production Plants

- The Group's operations are located in the vicinity of Mianzhu City, Sichuan Province, the PRC
- The production facilities are located at Gongxing Industrial Zone, which is only 40 km from the Group's mines





Gongxing Production Facilities

- Rebuilding programme in Gongxing Industrial Zone, Sichuan Province, the PRC
 - Phase1 : New site of approximately 54,863 m²; land use rights obtained
 - Designed to withstand earthquakes of up to 7.0 on Richter scale
- Phase 1 completed :
 - Two new P₄ furnaces, each with designed annual capacity of 10,000 tonnes
 - Commercial production of P₄ commenced in May 2014
- Receipt of Land Use Rights for Phase 2 Land
 - Announced: 12 March 2015





Photos: From Mines to Factory (照片：从矿山到工厂)



Tramway system at Mines
矿山轨道车系统



From Mine to Factory via Truck
(section of [Mian Mao Highway](#))
从矿山去工厂的卡车 (绵茂公路)



Weighbridge:
Rock / materials handling and zoning
地磅：矿石、原料分开堆放



P4 factory / bulk storage 黄磷工厂, 储罐



P4 factory control centre 黄磷控制室



Polyphosphate/ STPP factory
三聚磷酸钠工厂



Our Phosphate Mines (采矿作业)



Rail/Tramway system at Mines
矿山轨道车系统



CCTV / mine control monitoring &
communications systems



Tunnel construction near mines
(redesigned Mian-Mao Highway)



WGM, Page 92/93 of QPR (9 March 2016): "Also observed at Mine 1 (CQY) are the improved ground control measures. The portal was reinforced with solid concrete structure; the fractured areas were supported with rock bolts, mesh screen, steel arches with timber filling, and shotcrete. **The quality of the ground support installation is above standard.**"



Independent Geologist inspection: "WGM also observed ramps and manways that connect levels. These developments allow personnel and equipment to access all level from underground and avoid exposure to hazardous environment, such as steep slopes and falling rocks along the mountain side. **This is considered as a major improvement since the last visit.**"



In accordance with the local PRC regulations, we have completed the construction of 'six safety' monitoring systems within the adits "井下安全避险六大系统" for our mines. These include improved communication channels within adits, position monitoring for each miner within adits, particles/ smoke monitoring system, water supply within adits, a secured shelter for miners, in the event of emergency, within the vicinity of the adits and compressed air self-rescue devices. Level 2 of the safety requirements allows the Group to obtain mining safety permit from the local authority.



Examples of our sustainability efforts (可持续发展工作的例子)

2015 Mianzhu City industrial development reward program: Our subsidiary company (Mianzhu Norwest) has received government grant/ award, for the project 'P4 flue gas integrated utilisation technology improvement'.

2015年度绵竹市工业经济发展奖励补助项目:

我司已通过奖励补助项目《黄磷尾气综合利用技术改造项目》。

Objectives of the project: To re-use flue gas to save energy resource and reduce gas emissions (CO) discharge. Flue gas is used for raw material drying, generating steam from flue gas boilers and heat source for a separate Polyphosphate plant (e.g. STPP).

Profile in Sichuan newspaper: (<http://dy.newssc.org/system/20121130/000839967.html>)

“从原料收集、粉碎处理、烘干、进入生产车间，采用全封闭式、全机械化运作，**每一个环节都在做环保。**”

在这个化工企业，看不到粉尘、听不到噪音、流不出工业污水。

不仅经济上去了，大家的生活质量也得到保证，这样的企业我们支持多建。”

Our P4 Plant is designed to operate in compliance with PRC environmental law, and practices water recycling and off gas collection as well as slag disposal at a nearby cement operation.

Monetary contributions are paid for timberland compensation and forest recovery fund for the occupied land, to the Deyang Forestry Bureau.

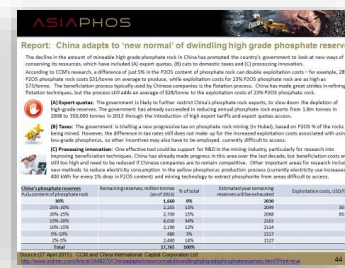
Further monetary provision is made for rehabilitation and reforestation upon closure of mine.

Various efficiency initiatives have been implemented, for example, P4 production process was reviewed to [reduce electricity consumption](#). This has contributed to lower P4 production costs.

Summary of quote: "From the collection of raw materials, crushing, drying, to the P4 production in factory, there is a fully enclosed / mechanized operation, and includes industrial wastewater recycling/ treatment, **the process has been designed with environmental protection in mind.**"

Competitive Strength: Higher Quality Phosphate Rocks 竞争优势: 高品质磷矿

- AsiaPhos' phosphate rocks have relatively high P_2O_5 content $\approx >29\%$ (亚化磷矿的五氧化二磷含量 $\approx >29\%$)
 - Higher value and demand (较高的价格和较大的市场)
 - Phosphate rock deposits with P_2O_5 content of at least 30% constitute only 10 - 25% of the total phosphate rock deposits in the PRC (磷矿五氧化二磷的含量至少30%, 在中国只占有10-25%的总储量。)
 - Most phosphate mines in the PRC are mining phosphate rocks with P_2O_5 content of 20 – 25% (大部分磷矿的五氧化二磷含量 位于20-25%。)
 - Average grade of PRC's phosphate rock deposits is estimated to have P_2O_5 content of below 20% (中国平均磷矿的五氧化二磷含量小于20%。)
- We believe that our phosphate rocks have relatively low arsenic content $\approx 8 - 10 \text{ ppm}$ (我们相信, 我们的磷矿石具有相对的低砷含量 $\approx 8 \sim 10 \text{ ppm}$ 。)





Financial Highlights

财务报告要点

ASIAPHOS		损益表要点						
Income Statement		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Revenue 营业收入		¥775	4,507	4,987	8,458	23,922	44,505	34,345
Gross profit 毛利		402	2,374	2,703	2,550	4,684	8,487	5,325
Profit/(loss) before tax 税前利润		(1,206)	2,531	1,509	(3,249)	19,484	3,027	(1,421)
Profit/(loss) after tax 税后利润		(1,178)	2,531	1,225	(3,669)	19,408	2,409	(1,424)
Profit/(loss) after tax above includes:								
Fair value gains on financial instruments relating to FX acquisition						20,703		
Fair value gains on revaluation of pre-emptive consideration of DR							4,850	
Termination of pre-existing contract								(1,429)
Revaluation gains 公允价值增值		3,874	3,471					
Financial expenses 财务费用		(1,118)	(1,945)			1,780	2,478	
FY2016 Income are per the 20 February 2017 public announcement								
FY2016 Income are per the 20 February 2017 public announcement								
FY2016 Income are per the 20 February 2017 public announcement								

ASIAPHOS		Income Statement Highlights (FY2016)						
损益表要点		Fourth Quarter Ended 31 December 2016	2015	Change %	Financial Year Ended 31 December 2016	2015	Change %	
Revenue 营业收入		13,517	16,839	(20)	34,345	44,505	(23)	
Cost of sales 主营成本		(11,915)	(13,446)	(13)	(28,860)	(36,018)	(18)	
Gross profit 毛利		1,604	3,393	(53)	6,285	8,487	(26)	
Other income 其他收入		66	4,862	(98)	337	6,379	(98)	
Profit/(loss) before tax 税前利润		(820)	4,760	(1,831)	3,027			
Taxation 所得税		197	(481)	N.M.	197	(818)	N.M.	
Profit/(loss) for the period attributable to owners of the Company 归属于母公司所有者的净利润		(623)	4,309	(1,736)	2,209			
Note: Refer to audited Annual Reports. Asphos investor relations website for further details: http://www.asphos.com/investor-relations								
FY2016 Income are per the 20 February 2017 public announcement								
FY2016 Income are per the 20 February 2017 public announcement								
FY2016 Income are per the 20 February 2017 public announcement								

ASIAPHOS		Income Statement Trend (By Quarter) 损益表分析 (按季度)									
本表 (美元)		Q2015	Q2015	Q2015	Q2015	Q2015	Q2015	Q2015	Q2015	Q2015	Q2015
Amount shown are in Singapore Dollars		\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Revenue 收入		12,049	12,049	12,049	12,049	12,049	12,049	12,049	12,049	12,049	12,049
Gross profit 毛利		1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712
Profit/(loss) before tax 税前利润		191	191	191	191	191	191	191	191	191	191
FY2016 Income are per the 20 February 2017 public announcement											
FY2016 Income are per the 20 February 2017 public announcement											
FY2016 Income are per the 20 February 2017 public announcement											

ASIAPHOS		Revenue Trend (By Segment) 营业收入趋势 (按产品类别)									
Revenue 营业收入		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2016	FY2016	FY2016
Upstream Revenue (上游产品收入)		1.3	3.7	6.5	12.7	18.0	10.8				
Downstream Revenue (下游产品收入)		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Revenue model: Balanced mix of upstream and downstream activities											
Upstream: Phosphate rock prices are expected to remain stable. The Group intends to increase its rock production and this is expected to contribute positively to the Group's cash flows and profits.											
Downstream: Management will continue to explore the export market for P4 and other downstream phosphate chemical products.											
FY2016 Income are per the 20 February 2017 public announcement											
FY2016 Income are per the 20 February 2017 public announcement											
FY2016 Income are per the 20 February 2017 public announcement											

ASIAPHOS		Balance Sheet (Summary) 资产负债表(明细)			
S\$M (百万, 新加坡元)		As at 31 Dec 2016 (Unaudited, 半年报)	As at 31 Dec 2015 (Audited, 半年报)		
ASSETS (资产)					
Current Assets (流动资产)		16.2	13.0		
Non-Current Assets (非流动资产)		121.6	136.2		
Total Assets (总资产)		137.8	149.2		
LIABILITIES (负债)					
Current Liabilities (流动负债)		21.1	20.6		
Non-Current Liabilities (非流动负债)		25.6	22.1		
Total Liabilities (总负债)		46.7	42.7		
EQUITY (权益)					
Share Capital (注册资本)		68.2	68.2		
Reserves (留存收益)		13.5	18.1		
Total Equity (所有权益合计)		81.7	81.0		
FY2016 Income are per the 20 February 2017 public announcement					
FY2016 Income are per the 20 February 2017 public announcement					
FY2016 Income are per the 20 February 2017 public announcement					

ASIAPHOS		Cash flow statement 现金流量表			
Cash flow from operating activities		152	152		
Cash flow from investing activities		(10)	(10)		
Cash flow from financing activities		(10)	(10)		
FY2016 Income are per the 20 February 2017 public announcement					
FY2016 Income are per the 20 February 2017 public announcement					
FY2016 Income are per the 20 February 2017 public announcement					



Income Statement

损益表要点

S\$'000

FY2010 FY2011 FY2012 FY2013 FY2014 FY2015 FY2016

Revenue	销售收入	2,775	4,522	4,897	8,458	23,822	44,505	34,345
---------	------	-------	-------	-------	-------	--------	--------	--------

Gross profit	毛利	402	2,374	2,101	2,550	4,684	8,487	5,255
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Profit/(loss) before tax	税前利润	(1,206)	2,933	1,509	(2,249)	19,484	3,027	(1,931)
--------------------------	------	---------	-------	-------	---------	--------	-------	---------

Profit/(loss) after tax	税后利润	(1,178)	2,933	1,225	(3,667)	19,498	2,209	(1,734)
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Profit/(loss) after tax above includes: 税后利润/(亏损)含:

- Fair value gains on financial instruments relating to LYR acquisition

收购LYR的金融工具公允价值收益

20,203

- Fair value gains on reassessment of purchase consideration of LYR

重新评估LYR收购价格的公允价值收益

4,850

- Termination of pre-existing contract

终止预先存在的合同

(2,429)

- relocation gain: 搬迁增益

-

1,874

3,471

-

- one-time listing expenses: 一次性上市费用

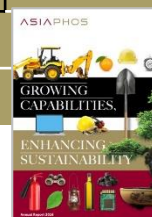
-

1,780

2,478

Note: Refer to audited Annual Reports / Asiaphos investor relations website for further details: <http://asiaphos.com/financial-results.php>

注: 参见审计年报/ 亚化投资者联系网站了解更多详情: <http://asiaphos.com/financial-results.php>



**FY2016
Annual
Report**



Income Statement Highlights (FY2016)

损益表要点

	Fourth Quarter Ended 31 December			Financial Year Ended 31 December		
	2016 \$'000	2015 \$'000	Change %	2016 \$'000	2015 \$'000	Change %
金额（新元）						
Revenue 销售收入	13,517	16,839	(20)	34,345	44,505	(23)
Cost of sales 主营业务成本	(11,933)	(13,649)	(13)	(29,090)	(36,018)	(19)
Gross profit 毛利	1,584	3,190	(50)	5,255	8,487	(38)
Other income	68	4,863	(99)	337	6,378	(95)
Profit/(loss) before tax 税前利润	(829)	4,760		(1,931)	3,027	
Taxation 所得税	197	(451)	N.M.	197	(818)	N.M.
Profit/(loss) for the period attributable to owners of the Company 税后利润	(632)	4,309		(1,734)	2,209	

Note: Refer to audited Annual Reports / Asiaphos investor relations website for further details: <http://asiaphos.com/financial-results.php>

注：参阅审计年报/亚化投资者联系网站了解更多详情: <http://asiaphos.com/financial-results.php>

- “N.M” denotes not meaningful. （“N.M”表示无可比性）
- Other income decreased by \$4.8 million, from \$4.9 million in 4Q2015 to \$0.1 million in 4Q2016, mainly due to the absence of fair value gains of \$4.8 million which arose from the reassessment of purchase consideration of LY Resources Pte. Ltd. (“LYR”), leading to fair value gains from convertible loan note and derivative asset. There were no such fair value gains in 4Q2016.

其他收入减少了480万新元，从2015年第四季度的490万新元降至2016年第四季度的10万新元，主要是由于重新评估收购LY资源公司（“LYR”）的可转换债券票据和衍生资产的公允价值变动而导致的公允价值收益480万新元不再重复发生。2016年第四季度没有这样的公允价值收益。



Income Statement Highlights (1Q2017)

损益表要点

	Group		
	First Quarter Ended 31 March 2017	2016	Change
金额（新元）	\$'000	\$'000	%
Revenue 销售收入	12,122	1,982	512
Cost of sales 主营业务成本	(10,450)	(1,489)	602
Gross profit 毛利	1,672	493	239
Profit/(loss) before tax 税前利润	122	(915)	
Taxation 所得税	-	-	N.M.
Profit/(loss) for the period attributable to owners of the Company 税后利润	122	(915)	

Note: Refer to Asiaphos investor relations website for further details: <http://asiaphos.com/financial-results.php>

- 1Q2017 financials are per the 26 April 2017 public announcement.
- "N.M" denotes not meaningful.

- Revenue from the Upstream Segment increased by \$0.4 million, from \$1.7 million in 1Q2016 to \$2.1 million in 1Q2017 due to increase in both the quantity and average selling price of the phosphate rocks sold in 1Q2017. In 1Q2017, the Group sold 34,700 tonnes of phosphate rocks as compared to 25,800 tonnes in 1Q2016. The inventory of phosphate rocks carried over from the 2016 mining season as well as the commencement of the 2017 mining season enabled the Group to have more phosphate rocks available for sale in 1Q2017. As the Group managed to secure a consistent supply of quality phosphate rocks from an external phosphate rock supplier, it no longer needs to reserve its high quality phosphate rocks for its P4 production. This enabled the Group to have more high quality phosphate rocks available for sale. Such quality phosphate rocks also generally fetch higher average selling prices.
- Revenue from the Downstream Segment increased by \$9.7 million, from \$0.3 million in 1Q2016 to \$10.0 million in 1Q2017, due to the increase in revenue from sale of P4. In 1Q2017, the Group sold 3,700 tonnes of P4. Due to the availability of phosphate rocks for production of P4 and continued demand from the customers, the Group was able to continue with the production of P4 on a limited scale for sale in 1Q2017 as compared to 1Q2016 when the Group did not have any P4 inventory for sale. In the past, the Group typically ceased P4 production in the December and only resumed production in late April.
- The Group had decided to continue with the production of P4 on a limited scale during 1Q2017 so as to, *inter alia*, clear the backlog of orders to its customers whose delivery were affected by the industrial accident at the Group's P4 production plant in October 2016, build up sufficient inventory to meet its customers' requirements and to also take advantage of the rising average selling prices of P4.
- Please refer to the 1Q2017 results announcement, for a more detailed commentary on the business performance, trends and market conditions.



Extract from 1Q2017 Results Announcement (Chapter 10 commentary)

A commentary at the date of the announcement of the significant trends and competitive conditions of the industry in which the group operates and any known factors or events that may affect the group in the next reporting period and the next 12 months.

Upstream Segment

As disclosed in the Group's announcement dated 3 March 2017, the Group has received the approval for the renewal of its mining license for Mine 1, which is now valid until 28 February 2018.

The Group plans to increase its rock output in the financial year ending 31 December 2017 ("FY2017"). Following its move to secure a consistent supply of quality rocks from an external supplier for its in-house production of P4, the Group intends to unlock the value of its rock inventory by selling more of its higher quality rocks to third parties, which were previously reserved for its in-house P4 production. Barring unforeseen circumstances, this is expected to contribute positively to the Group's results and cash flows in FY2017.

The Group expects phosphate rock prices to remain stable for the rest of the year.

Downstream Segment

In 1Q2017, the Group continued with the production of P4 on a limited scale. The Group has since resumed full production of P4.

Average selling prices for P4 sold in April were higher than that in 1Q2017. This was because of continued high demand for P4, due in part to (i) the recovery in the pesticide market and (ii) tight supply of P4 because several P4 producers in other provinces in the PRC were undergoing environmental and safety inspections and were unable to produce during the inspection period.

Management expects the pace of P4 price increase to moderate when more P4 supply enters the market in the second half of 2017. The Group will continue to build up the P4 business and monitor production efficiencies to improve the Group's bottomline.

Debt Management

The successful completion of the Rights cum Warrants Issue has (i) provided additional working capital which the Group can utilise to increase output and further improve its bottomline; and (ii) reduce the gearing of the Group. This will translate to lower interest on the Group's borrowings. The early redemption of the RPS will also result in interest savings of approximately \$0.3 million in FY2017. This also means that the Group need not be overly reliant on bank financing, thereby overcoming one of the key financial constraints holding back growth.

Going forward

In line with the Group's strategy to grow in a sustainable and responsible manner, the Group has invested carefully to build up and grow the business. It has been successful in growing its mines' rock output, increasing its P4 output, and building up its customer base.

The change in strategy, to realise the value of its inventory of higher quality phosphate rocks by selling to third parties, is expected to improve cash flow and increase the contribution from the Upstream Segment, thereby strengthening another pillar of income stream for the Group.

The Group will examine ways to further improve efficiency and profitability. To further enhance the future value of the Group, the management is exploring with strategic partners to establish complementary businesses, both horizontally and vertically, in view of the potential market demand and applications for black phosphorus and lithium ion phosphate (LiFePO4) battery.



Income Statement Trend (By Quarter)

损益表分析 (按季度)

金额（新元）

Amounts shown are
in Singapore Dollars

	1Q2015	2Q2015	3Q2015	4Q2015	FY2015		1Q2016	2Q2016	3Q2016	4Q2016	FY2016		1Q2017	
	\$'000	\$'000			\$'000		\$'000	\$'000			\$'000		\$'000	
Revenue 收入	6,278	12,008	9,380	16,839	44,505		1,982	9,606	9,240	13,517	34,345		12,122	
Upstream 上游产品	3,782	6,548	1,790	5,837	17,957	40%	1,708	3,572	1,232	4,275	10,787	31%	2,101	17%
Downstream 下游产品	2,496	5,460	7,590	11,002	26,548	60%	274	6,034	8,009	9,242	23,559	69%	10,021	83%
Gross profit 毛利	1,576	2,009	1,712	3,190	8,487		493	1,895	1,284	1,583	5,255		1,672	
Profit/(loss) before tax 税前利润/(亏损)	(59)	618	(2,292)	4,760	3,027		(916)	367	(552)	(829)	(1,931)		122	
Sales quantity (tons) 销售数量 (吨)														
Phosphate rocks 矿石	47,000	89,100	23,890	88,566	248,556		25,848	57,617	23,009	77,910	184,384		34,706	
P4 黄磷	780	1,900	2,840	4,555	10,075		-	2,330	3,665	3,843	9,838		3,715	

Note: Refer to Asiaphos investor relations website for further details: <http://asiaphos.com/financial-results.php>

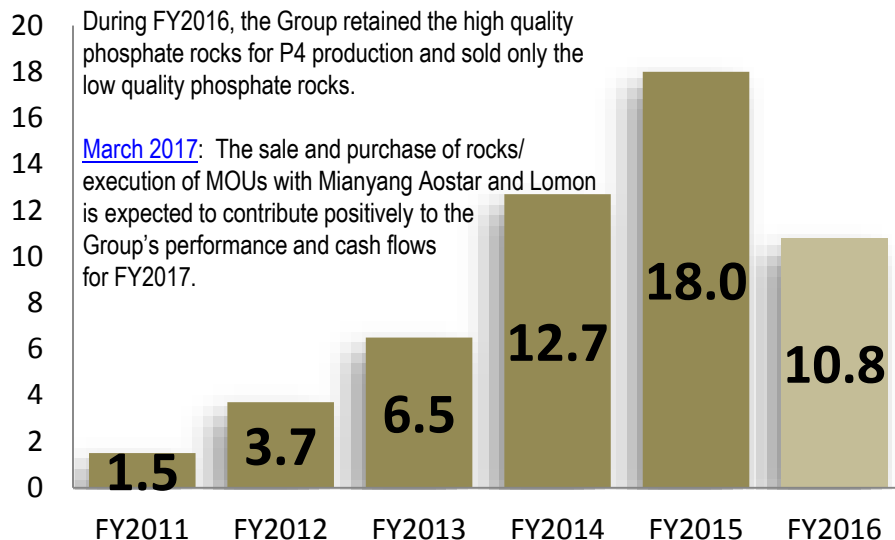
“N.M” denotes not meaningful.



Revenue Trend (by Segment)

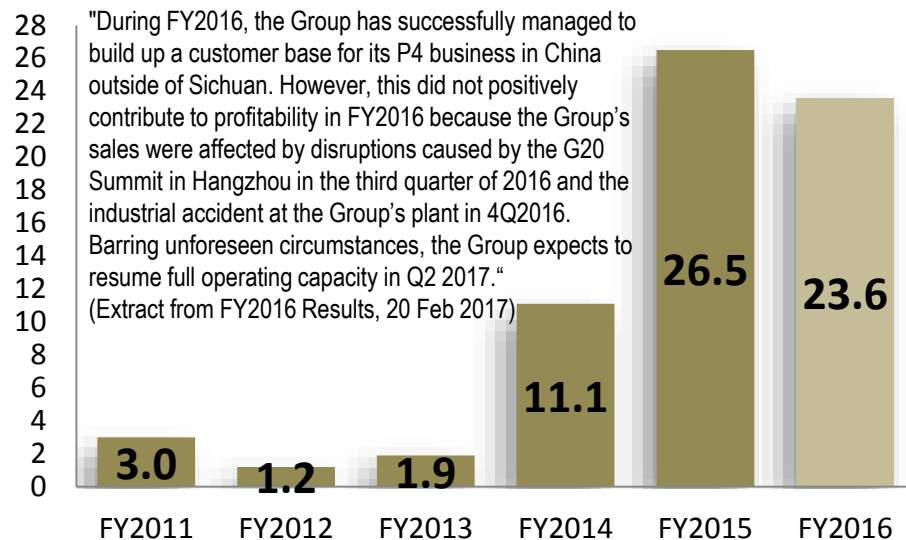
Upstream Revenue

S\$m



Downstream Revenue

S\$m



- **Revenue model:** Balanced mix of upstream and downstream activities
- **Upstream:** The Group expects phosphate rock prices to remain stable. The Group intends to increase its rock production and this is expected to contribute positively to the Group's cash flows and profits.
- **Downstream:** Management will continue to explore the export market for P4 and other downstream phosphate chemical products.



Balance Sheet (Summary) 资产负债表(明细)

S\$m (百万 , 新加坡元)	As at 31 March 2017 (Unaudited, 未审计)	As at 31 Dec 2016 (Audited, 已审计)	As at 31 Dec 2015 (Audited, 已审计)
ASSETS (资产)			Updated (refer Note)
Current Assets (流动资产)	15.2	16.2	13.0
Non-Current Assets (非流动资产)	120.0	121.6	123.8
Total Assets (总资产)	135.2	137.8	136.8
LIABILITIES (负债)			
Current Liabilities (流动负债)	16.6	21.1	20.6
Non-Current Liabilities (非流动负债)	19.8	25.6	20.5
Total Liabilities (总负债)	36.4	46.7	41.1
EQUITY (股东权益)			
Share Capital (注册资本)	77.0	68.2	68.2
Reserves (公积)	12.3	13.5	18.1
Non-controlling interest (少数股东权益)	9.5	9.5	9.5
Total Equity (所有者权益合计)	98.8	91.1	95.7

Refer to Asiaphos investor relations website for further details: <http://asiaphos.com/financial-results.php>



26

THE ASIAPHOS STORY

Corporate History and Recent Developments



One of the first few producers of heavy-density STPP, which commands higher commercial value than powder low-density STPP.



Mianzhu Norwest became a wholly foreign-owned enterprise after the acquisition of equity interests from the PRC partner.

Mining commenced at the Shi Sun Xi mine.

Received exploration rights for additional mining depths and areas around existing mines.

Due to the 2008 Wenchuan Earthquake in Sichuan Province, production facilities and infrastructure surrounding the mines were damaged, and lives were lost.



Commenced trial production of P₂O₅.
Successfully listed on the Catalyst Board of the SGX-ST on 7 October 2013.



Completed acquisition of LY Resources Group.
Obtained land use rights for Phase 2 land to rebuild and expand downstream processing facilities.

Recent developments:

- [Nov 2016](#): MOU with QiMingXing / Mianyang Aostar
- [March 2017](#): Renewal of mining right for Mine #1 (CQY)
- [March 2017](#): Successful rights-cum-warrants issue: Positions the company for continued growth momentum.
- [March 2017](#): Signed MOU/agreement with QiMingXing/ Mianyang Aostar and Lomon Chemicals, for sale & purchase of phosphate rocks
- [Ongoing](#): Application for conversion of Mine #1 (CQY) exploration right, into a mining right; This would increase CQY's approved production scale to potentially 300-400,000 tonnes/year

1996 to 1997 1998 to 1999 2001 to 2002 2003 to 2008 2009 to 2011 2012 2013 2014 2015 2016

Established Mianzhu Norwest, a Sino-foreign joint venture to process and produce phosphate-based chemical products.
Obtained ISO 9001.



Mianzhu Norwest attained ISO 14001 environmental management system certification, one of the few phosphate-based chemical producers in the PRC to be accredited.

In 2002, as part of a vertically-integrated strategy, Mianzhu Norwest acquired mining rights for two phosphate mines in Sichuan Province.

Mining commenced at the Cheng Gao Yan mine.

Undertook recovery efforts with support from the local PRC authorities, suppliers and customers.

Obtained land use rights for the new Gonggong site, Phase I land, to relocate, rebuild and expand downstream processing facilities.



Incorporated AsiaPhos.
Completed construction of P₂O₅ plant and relocation of STPP plant to the new Gonggong site.



Received approval for the expansion of exploration right for Cheng Gao Yan mine to 154km².



Obtained renewal of mining and exploration right for Cheng Gao Yan mine, as well as the exploration right for Shi Sun Xi mine.

Obtained renewal of exploration right for Feng Tai mine for an exploration area of approximately 12.43 km².

Signed MOU with major customer Mianyang Aostar Phosphorus Chemical Industry Co., Ltd.



MOU with QiMingXing / Mianyang Aostar (Nov 2016) 2016年11月：会议备忘录 (绵阳 启明星 磷化工有限公司)

ASIAPHOS

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ENTRY INTO MEMORANDUM OF UNDERSTANDING WITH MIANYANG AOSTAR PHOSPHORUS CHEMICAL INDUSTRY CO., LTD.

The board of directors (the "Board") of AsiaPhos Limited (the "Company"), and together with its subsidiaries, the "Group" is pleased to announce that Sichuan Mianzhu Norwest Phosphate Chemical Limited ("Mianzhu Norwest"), a wholly-owned subsidiary of the Company, has on 3 November 2016, entered into a non-binding memorandum of understanding with Mianyang Aostar Phosphorus Chemical Industry Co., Ltd. (绵阳市磷化工有限公司) ("Mianyang Aostar") to collaborate on certain initiatives in relation to the Group's operations (the "MOU").

Mianyang Aostar is one of the biggest manufacturers in the People's Republic of China ("PRC") of yellow phosphorus, phosphoric acid and related phosphate products based in Mianyang City, Sichuan Province, and is a purchaser of phosphate rocks from the Group.

Under the terms of the MOU, Mianyang Aostar and Mianzhu Norwest intend to cooperate on, *inter alia*, the following areas:

- (i) Enhancing communication of information in relation to the market for P₄ in the PRC between Mianyang Aostar and Mianzhu Norwest, with the aim of establishing reasonable pricing and the prevention of unfair competition;
- (ii) (a) Mianzhu Norwest will, subject to the Group's internal requirements, prioritise the fulfilment of purchase orders placed by Mianyang Aostar (if any) for phosphate rocks from the Group. Under the MOU, Mianyang Aostar has indicated that it may purchase approximately 20,000 tonnes of phosphate rocks and up to 100,000 tonnes of phosphate rocks from the Group in the remaining months of 2016 and in 2017 respectively, and (b) Mianzhu Norwest and Mianyang Aostar will seek to purchase phosphate-based chemical products from each other to satisfy orders received from third parties which are in excess of their respective available inventory or capacity (where applicable); and
- (iii) Explore the purchase of electricity by Mianzhu Norwest at preferential rates, by leveraging on Mianyang Aostar's existing electricity arrangements.

Shareholders should note that the MOU is non-binding in nature and may or may not lead to the entry into of definitive agreement(s) with Mianyang Aostar by the Group in relation to the initiatives contemplated under the MOU.

The signing of the MOU is not expected to have any material impact on the net tangible assets per share and earnings per share of the Group for the current financial year ending 31 December 2016.

None of the directors or the controlling shareholders of the Company has any direct or indirect interest in this MOU, save through their shareholding interests in the Company.

The Company will make further announcements as and when there are material developments with regard to the initiatives contemplated under the MOU.

BY ORDER OF THE BOARD

Simon Ong Eng Hock
Executive Director
AsiaPhos Limited
4 November 2016



绵阳启明星磷化工有限公司

Mianyang Aostar Phosphorus Chemical Industry Co., Ltd.

The initiatives under the MOU include

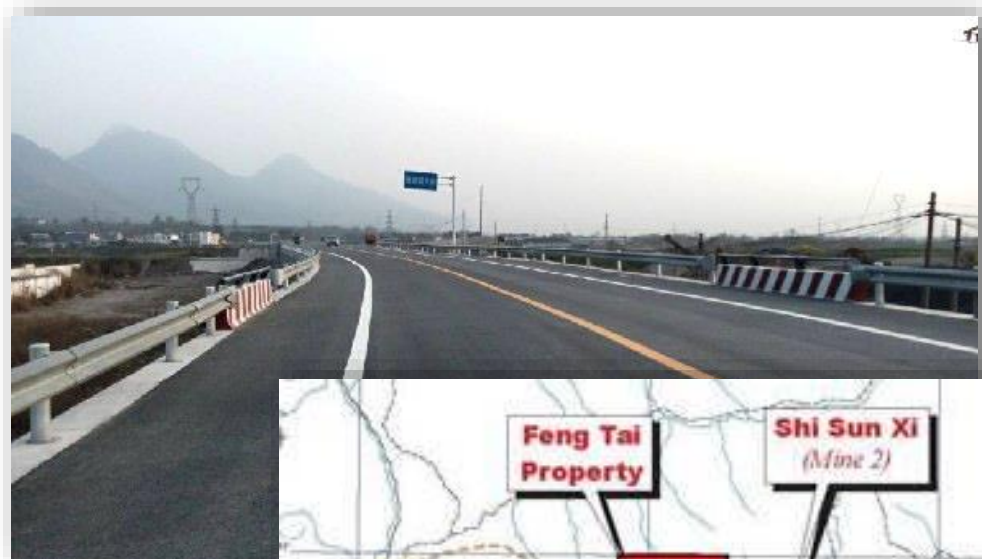
- (i) promoting the development of the market for P₄ in the PRC;
 - (ii) the supply of phosphate rocks by our subsidiary company (Mianzhu Norwest) to Mianyang Aostar;
 - (iii) the purchase of phosphate-based chemical products from each party to satisfy third party orders; and
 - (iv) the purchase of electricity by Mianzhu Norwest by leveraging on Mianyang Aostar's existing electricity arrangements.
- Mianyang Aostar is one of the biggest manufacturers in the PRC of yellow phosphorus, phosphoric acid and related phosphate products and purchases phosphate rocks from our company.
 - The MOU formally seals the close and longstanding relationship between the Group and Mianyang Aostar, which is one of the Group's key customers. The considerable synergies will offer many partnership opportunities, which the Group believes can help to achieve better market positioning, competitive advantages and cost savings, amongst other benefits.

Link:



Mian Mao Highway expected to improve access / haulage road 绵茂公路有望提高通车/运输道路

- Phased construction of the Mian Mao Highway (part of Hong Kong/Sichuan post-earthquake reconstruction cooperation programme) 绵茂公路分段建设（香港和/四川，地震灾后重建合作项目的一部分）
- Completion of Mian Mao Highway will increase accessibility between mines and production facilities 绵茂公路建成后，将增加矿山和生产设施之间的贯通
- Increased reliability and shortened time required for transportation of phosphate rocks upon completion of Mian Mao Highway 绵茂公路建成后所需磷矿石运输提高可靠性、有效性，缩短运输时间



Mian Mao Highway (Hanwang to Qingping section)

绵茂公路 (汉旺至清平段): 项目建设规模、资金及工期

项目建设规模: 援建路段全长约24公里, 包括新建隧道5条(共8.4公里)、桥梁20座(共2,167米)、棚洞及其他配套设施。

Project construction scale: The construction section is about 24 kilometres long, including 5 new tunnels (8.4 kilometres), 20 bridges (2,167 meters), 'rock-shed' half-tunnels and other facilities.

项目工期: 工程于**2009年7月**开始施工, 在**2016年10月**竣工。

Project duration: Started construction July 2009; completed October 2016.



清平场镇大桥 (Qingping Town Bridge)



主线清平乡路段 (Highway, Qingping section)



蔡家沟大桥 (Caijiagou Bridge)



蔡家沟大桥及云湖二号隧道
(Caijiagou Bridge and Yunhu No.2 Tunnel)



楠木沟大桥及金鱼隧道向清平出口
(NanMuGou bridge/ JinYu tunnel / Qingping exit)



主线及天池连接线路段
(Highway, Tianchi section)



云湖二号隧道 (Yunhu No.2 Tunnel)



About Phosphate (关于磷矿)

ASIAPHOS

Why Phosphate? Essential to Life / No Substitutes
为什么磷酸盐？生命必不可少的/无替代品

"We may be able to substitute nuclear power for coal power, and plastics for wood, and yeast for meat, and friendliness for isolation – but for phosphorus there is neither substitution nor replacement."

(Isaac Asimov's 1959 essay 'Life's Bottleneck')
“我们可以用核电替代煤电，和塑料替代木材，和酵母替代肉，和隔离 – 但对磷，既没有替代，不能更换。(著名科普作家阿西莫夫 (Isaac Asimov) 便曾称它为「生命的瓶颈」，1959年)

ASIAPHOS

Uses of Phosphate and Related Chemicals

Fertilisers Oral hygiene products Beverages Metal treatment / paint

Fire retardants Pharmacy products LCD / Semi-conductor Electric car battery

STPP is used in, or in the manufacturing process for:

Food and beverage products Detergents Home building

SHMP is used in, or in the manufacturing process for:

Paints Food processing Water treatment Oil & gas

Why Phosphate?

Expected demand growth (Electric Vehicles/Battery market)

Bloomberg: Electric Cars Could Wreak Havoc on Oil Markets Within a Decade (2016-02 'Sooner Than You Think' video)

Future of the electric car and lithium ion battery markets

Why Lithium Iron Phosphate Battery Applications Are Limitless

Phosphorus is found in a new, reliable cathode material (LiFePO4) used in the most advanced electric and hybrid power packs, as well as in the electric vehicle (EV) market, this highlighting phosphorus to be a decreasing risk between energy and the one subject of the conference. Further adding to the spread of these batteries is the fact that the price of lithium-ion battery is starting that of older technologies.

Further Report of Phosphorus elaborated on the merits of LiFePO4 and its needs as cathode material in large Li-ion batteries in a parallel session. [Phosphorus](#), 2016, [http://www.asiaphos.com](#)

“About Phosphate”: Links to further info (+Source) on Global Fertiliser Market / Phosphate Reserves & Production:

- . Why Phosphate / Food Security (Phosphorus Platform): <https://www.youtube.com/watch?v=Y17HqUsaoj8> ; <https://www.youtube.com/watch?v=YXpnr9nnmn4>
- . Industry Chain / Uses: <http://www.cnchemicals.com/special/special/PhosphorusIntelligence.aspx> ; <http://phosphatesfacts.org/uses-applications/>
- . Phosphorus and Phosphorus Chemicals | IHS Markit: <https://www.ihsmarkit.com/products/phosphorus-chemical-economics-handbook.html>

“Why Phosphate”: Expected Demand Growth (Agriculture / Electric Vehicles / Battery Market, etc)

- . Bloomberg: Electric Cars Could Wreak Havoc on Oil Markets Within a Decade (February 2016, ‘Sooner Than You Think’ video series): <https://www.youtube.com/watch?v=jwHN6QQWv2g&feature=youtu.be&t=45>
- . Europa.EU / JPMorgan: Future of the Electric Car & Lithium Ion Battery Market: Detailed assessment of the market potential, and demand for, an EU ETV scheme (June 2011): https://ec.europa.eu/environment/ecoap/sites/ecoap_stayconnected/files/etv-files/files/documents/EPEC_study/etv_final_report_market_annex1.pdf
- . European Sustainable Phosphorus Platform newsletter (August 2015): <http://www.phosphorusplatform.eu/images/scope/scopenewsletter115.pdf>
- . “Why Lithium Iron Phosphate Applications are Limitless” (Sept 2015): <http://www.relionbattery.com/blog/why-lithium-iron-phosphate-battery-applications-are-limitless>
- . “Is Black Phosphorus the New Graphene?” , IEEE (Sept 2015): <http://spectrum.ieee.org/semiconductors/materials/is-black-phosphorus-the-new-graphene>
- . “Black phosphorus is new 'wonder material' ” | Business Standard (March 2015): http://www.business-standard.com/article/news-ians/black-phosphorus-is-new-wonder-material-115030300472_1.html



Why Phosphate? Essential to Life / No Substitutes 为什么磷酸盐？生命必不可少的/无替代品

“We may be able to substitute nuclear power for coal power, and plastics for wood, and yeast for meat, and friendliness for isolation – but for phosphorus there is neither substitution nor replacement.”

(Isaac Asimov's 1959 essay 'Life's Bottleneck')

“我们可以用核电替代煤电，和塑料替代木材，和酵母替代肉，和隔离 – 但对磷，既没有替代，不能更换。(著名科普作家阿西莫夫 (Isaac Asimov) 便曾稱它為「生命的瓶頸」，1959年)





Uses of Phosphate and Related Chemicals



Fertilisers



Oral hygiene products



Beverages



Metal treatment / paint



Fire 阻燃剂
Fire retardants



Pharmacy products



LCD / Semi-conductor



LiFePO₄
Electric car battery

STPP is used in, or in the manufacturing process for:



Food and beverage products



Detergents



Home building

SHMP is used in, or in the manufacturing process for:



Paints



Food processing



Water treatment



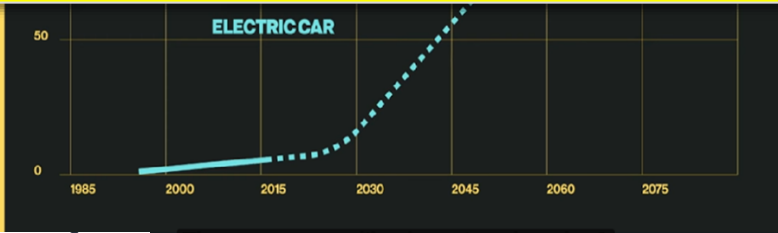
Oil & gas

Why Phosphate?



Potential demand growth (Electric Vehicles/Battery market)

Bloomberg: Electric Cars Could Wreak Havoc on Oil Markets Within a Decade
(2016-02 'Sooner Than You Think' video)



Bloomberg Business

That sure seems like the point when the S curve goes vertical.

1:43 / 3:39

Why Lithium Iron Phosphate Battery Applications Are Limitless

published on September 24, 2015 by Paul Hecimovich

For many years now, lithium batteries have been the most trusted high-performance batteries in various industries. Used in smartphones, watches, computers and tablets, lithium iron phosphate (LiFePO₄) batteries provide benefits that make them a smart choice for everyday use.

• Energy Density And Flexibility

Lithium iron phosphate batteries offer the **best balance of energy density and safety without causing harm to the environment**. Their high energy density means lithium iron phosphate batteries can be made into battery packs of any size.

Consequently, LiFePO₄ batteries are being used in license plate monitoring devices, depth finders, paddle boards and playground equipment.

The opportunities for lithium iron phosphate batteries are limitless. No matter what your application, there is a lithium battery solution for your energy needs. If you require a high-performance battery for your energy storage, LiFePO₄ is the answer.

Future of the electric car and lithium ion battery markets

■ Lithium ion batteries for electric cars (Unit: \$10 million)
●● Electric vehicles (Unit: 10,000 cars)



Phosphorus is found in a new, reliable cathode material (LiFePO₄) slated to be used in **electric vehicles and smart power grids**, as well as in the **electrolyte (LiPF₆)**, thus highlighting phosphorus to be a fascinating link between energy and the core subject of the conference. Further aiding in the spread of these batteries is the fact that the price of a lithium ion battery is nearing that of older technologies.

Fabrice Renard or Prayon elaborated on the merits of LiFePO₄ and its merits as cathode material in large Li on batteries in a parallel session. (Symphos, 2015 ([ESPP, 2015-08](#)))

Source information / Further reading:

- Bloomberg: Electric Cars Could Wreak Havoc on Oil Markets Within a Decade (February 2016, 'Sooner Than You Think' video series): <https://www.youtube.com/watch?v=jwHN6QQWv2g&feature=youtu.be&t=45>
- Europa.EU / JPMorgan: Future of the Electric Car & Lithium Ion Battery Market: Detailed assessment of the market potential, and demand for, an EU ETV scheme (June 2011): https://ec.europa.eu/environment/ecoap/sites/ecoap_stayconnected/files/etv-files/files/documents/EPEC_study/etv_final_report_market_annex1.pdf
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- "Black phosphorus is new 'wonder material' " | Business Standard (March 2015): http://www.business-standard.com/article/news-ians/black-phosphorus-is-new-wonder-material-115030300472_1.html



Further Reading

- . “Miners regain mojo to spark \$18b in exploration hunt, China at forefront” (Bloomberg/DealStreetAsia, 23/26 March 2017):
<http://www.dealstreetasia.com/stories/miners-regain-mojo-to-spark-18b-in-exploration-hunt-china-at-forefront-68484/>

- . Report: China adapts to ‘new normal’ of dwindling high grade phosphate reserves” (27 April 2015): CCM and Industrial Minerals:
<http://www.indmin.com/Article/3448270/Chinaadaptstonewnormalofdwindlinghighgradephosphatereserves.html>

- . “China presses ahead with power pricing reform”; 12 Sept 2016: <http://www.scmp.com/business/companies/article/2018410/china-presses-ahead-power-pricing-reform>

- . “Electricity system reforms to ease cost pressure on yellow phosphorus companies” (Dec 2015):
<http://www.cnchemicals.com/Detail/Readonline.aspx?id=5198&type=n&cid=20879606159>

- . “Favourable policies boost phosphorus industry in China” (Jan 2015):
<http://www.cnchemicals.com/Detail/Readonline.aspx?id=4196&type=n&cid=20879580693>

- . China Mineral Resources Report (中国矿产资源报告) / Phosphate Rock Production statistics (中国磷矿石产量统计):
<http://www.cgs.gov.cn/xwl/ddyw/201611/W020161117357746551241.pdf>

- . Phosphorus ore listed as strategic mineral resource in China (December 2016):
<http://www.cnchemicals.com/Detail/Readonline.aspx?id=6141&type=n&cid=20879632279>



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