**Mineral Resource Estimate Summary**

The phosphorite Mineral Resource estimates for the Cheng Qiang Yan and Shi Sum Xi deposits are presented, in various formats, on the table in the Summary, Tables 9, 10 and 11 in Section 14, and Table 16 in Section 25 of this Technical Report.

For presentation of the computer models and their results, a series of six figures have been prepared for inspection. These figures, with brief explanations, are:

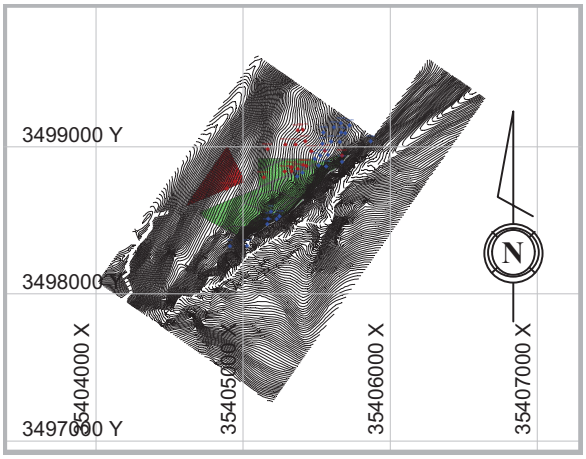
- Figure 7 Cheng Qiang Yan -- Perspective View; this Figure presents a 3D perspective view of the topography, sampling points and license boundaries for the Cheng Qiang Yan deposit;

- Figure 8 Shi Sun Xi -- Perspective View; this Figure presents a 3D perspective view of the topography, sampling points and license boundaries for the Shi Sun Xi deposit. The view is to the NE showing the outcrop, the dip of the phosphorite bed, the sample locations and the radii used for determining the Resource classifications;

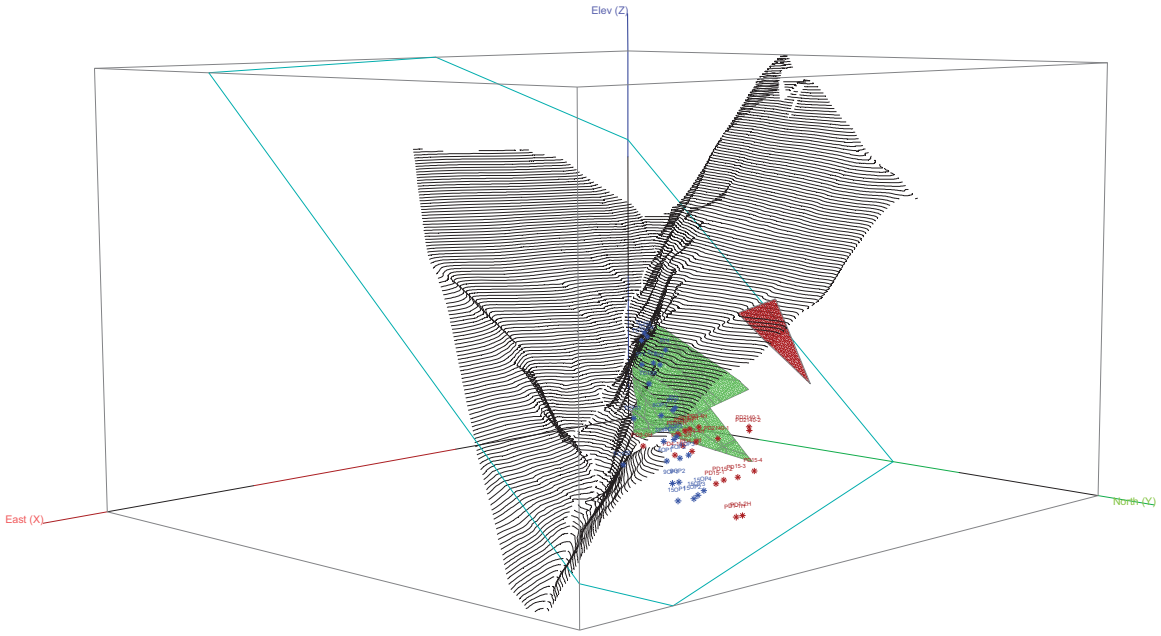
- Figure 9 Cheng Qiang Yan -- Resource Polygons; This view to the east shows the phosphorite bed outcrop, the trenches and other sample locations as well as the mining and exploration license boundaries. It also shows the Resource polygons which have been truncated at the phosphorite bed outcrop. Note that many of the sample locations are outside the mining license boundary as these samples were taken from operations involved with gaining access to the licensed area. Using this Figure, what is shown on Figure 7 may become more clear; and

- Figure 10 Shi Sun Xi -- Resource Polygons**;** This Figure, with South to the top of the page shows the Resource polygons which have been truncated at the boundaries of the mining and exploration licenses. The phosphorite bed outcrop is toward the top of the Figure.

No compliant Reserve estimates have been completed.








Legend:

| | |
|---|---|
| * | *Sample Locations (New samples in red)* |
| | *Topography Elevation Contours* |
| | *Measured Resource Polygons* |
| | *Indicated Resource Polygons* |
| | *Inferred Resource Polygons* |

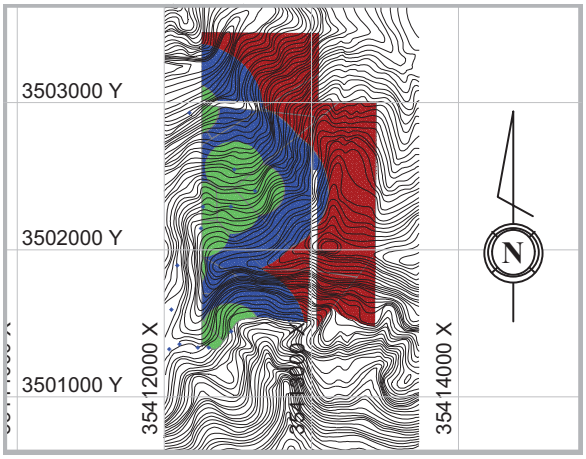
Figure 7.

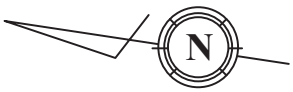
**ASIAPHOS LIMITED**

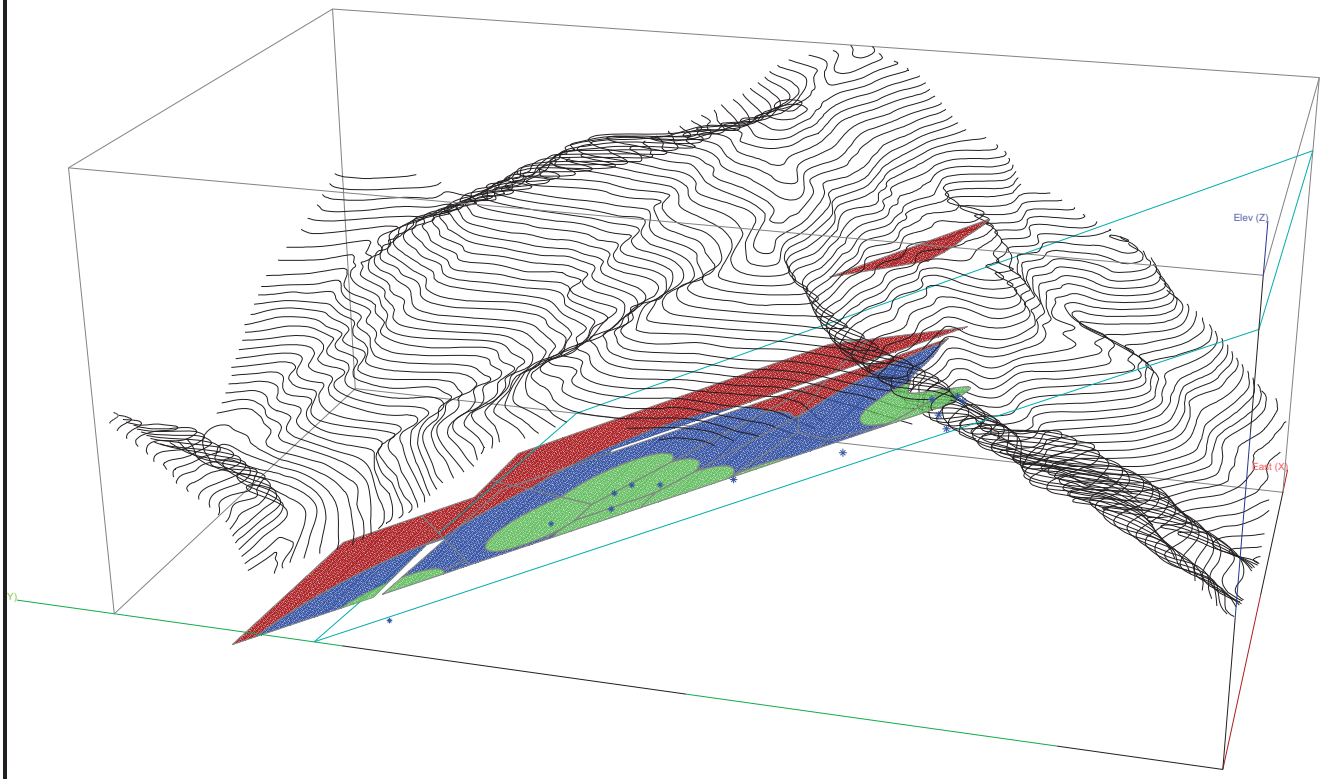
**Phosphate Project**
*Sichuan Province, P.R. China*

***Cheng Qiang Yan - 3D Perspective View***

Graphics by: Watts, Griffis and McOuat Limited




Legend:

* *Sample Locations*

*Topography Elevation Contours*

*Measured Resource Polygons*

*Indicated Resource Polygons*

*Inferred Resource Polygons*

Figure 8.

**ASIAPHOS LIMITED**

**Phosphate Project**
*Sichuan Province, P.R. China*

***Shi Sun Xi - 3D Perspective View***

Graphics by: Watts, Griffis and McOuat Limited

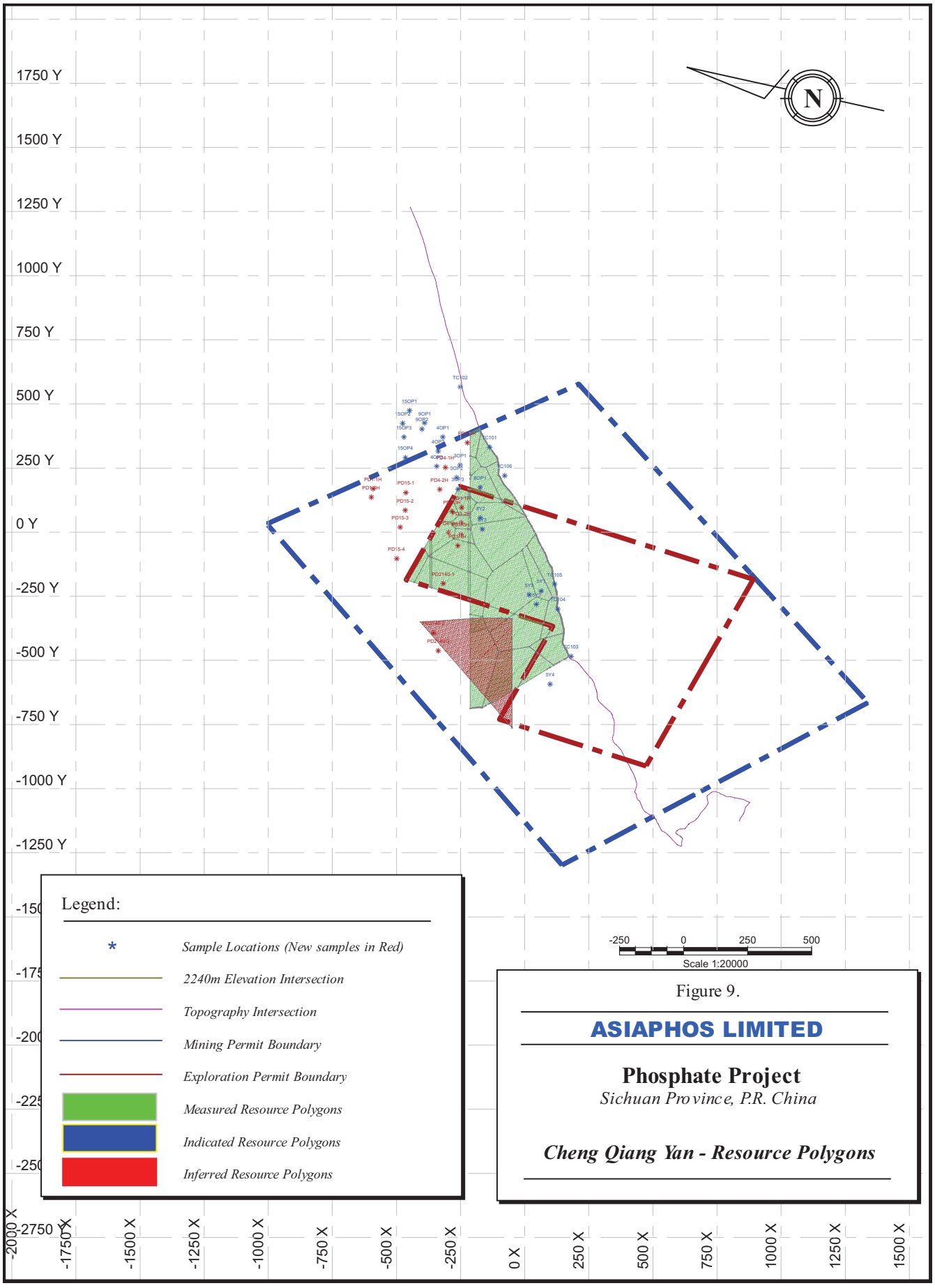



Figure 9.

**ASIAPHOS LIMITED**

**Phosphate Project**

*Sichuan Province, P.R. China*

***Cheng Qiang Yan - Resource Polygons***

Graphics by: Watts, Griffis and McOuat Limited

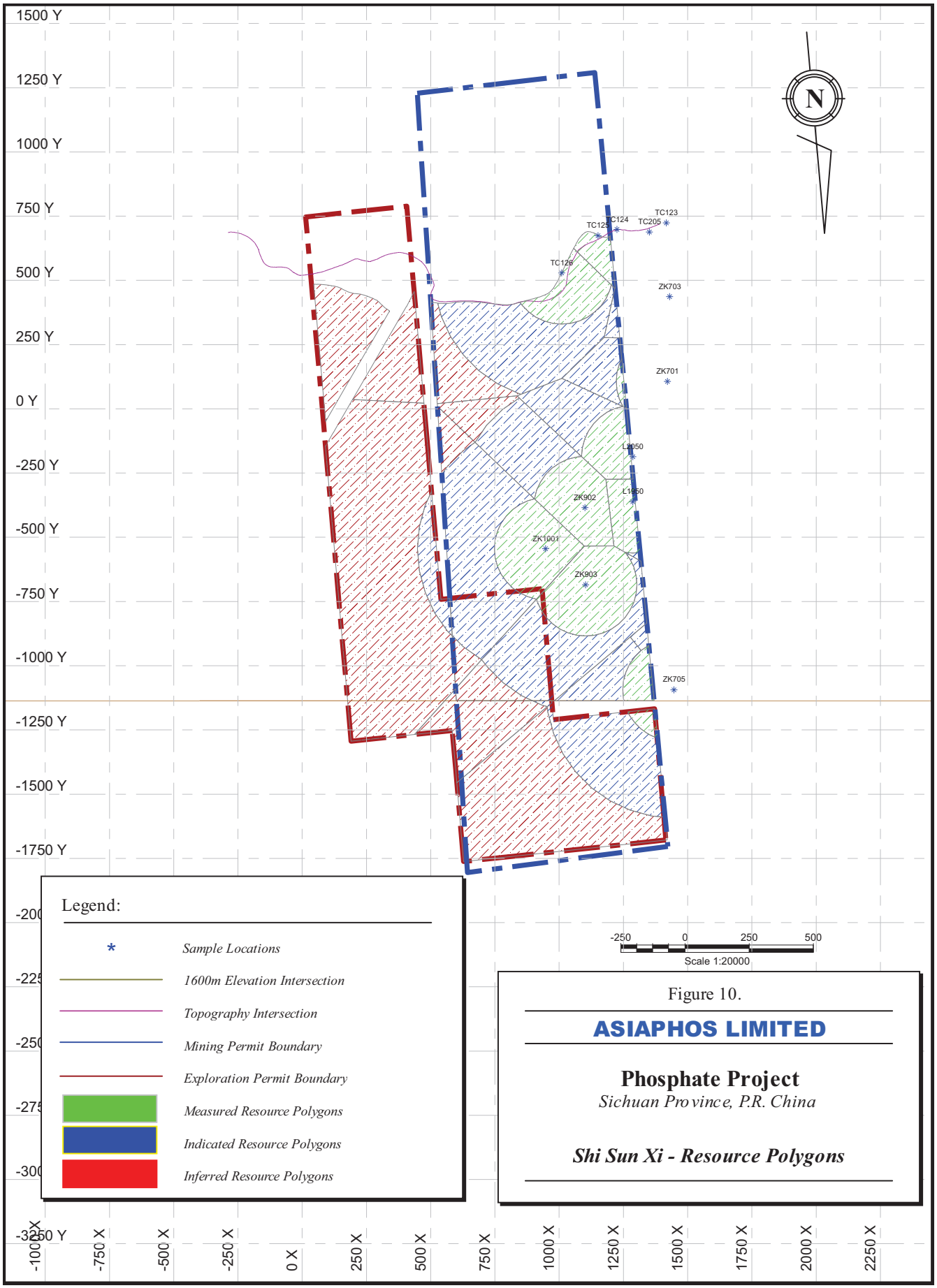



Figure 10.

**ASIAPHOS LIMITED**

**Phosphate Project**

*Sichuan Province, P.R. China*

***Shi Sun Xi - Resource Polygons***

Graphics by: Watts, Griffis and McOuat Limited

## 15. MINERAL RESERVE ESTIMATES

AsiaPhos has not yet carried out any JORC or NI 43-101 compliant pre-feasibility or feasibility studies of the Mines designed to convert the Mineral Resources previously described in this report to Mineral Reserves.

## 16. MINING METHODS

From 2002 until the Wenchuan Earthquake in 2008, Mianzhu Norwest has produced and shipped approximately 379,000 tonnes of phosphate rock. Since that time until the end of 2013, approximately 223,000 tonnes were produced and shipped.

**Mining**

The company's two Phosphate producing mines are both underground mines comprising relatively higher density, hard host rock. Primary access is by adit from the mountainside at 100 metre vertical intervals and plus 3% grade for water control. These horizontal adits are driven conventionally with handheld drills in the footwall parallel to the steeply dipping 42°-58°, phosphorite bed.

Crosscuts are driven from the footwall adit drift into the ore zone at regular 15 metre centers. Without diamond drilling, these crosscuts are initially used to find the ore zone and outline potential stoping blocks, then later utilized as drawpoints for ore removal from the stope. A typical stope is 50 metres along strike and 50 metres high. Once a stoping block has been outlined, conventional stull and ladder raises are driven every 50 m along the adit drift to define the lateral extent and gain access to the top of the 50 m high stope.

The footwall raises are driven from the adit drift to a captive sub level 50 m above and then the raise is continued up another 50 m to the adit above. The Phosphate orebody is fairly consistent but can be cut off or displaced by faults. If the ore is consistent between adit levels, a pair of raises will define two stopes, one from the adit to the sublevel and a second from the sublevel to the upper adit.

Once development of the drifts, crosscuts, sublevel and raises are completed as part of the preparatory work and through ventilation established, then mining of the stoping block may commence. During the stope development phase, the drawpoints are coned up to an undercut level. Once that first cut is taken 50 m along strike between the two stope raises, the regular stoping cycle can begin. The mining method is conventional shrinkage stoping where uppers are drilled using handheld drills in a horizontal slice from one raise to the raise at the other extent of the 50 m long stope. Due to the steeply dipping ore, gravity allows the broken ore in the stope to migrate down to the extraction drawpoint below. Swell muck is extracted from drawpoints and the remainder of the ore is left in the stope for a working platform for the stope

miners who work off the broken ore in the stope. A backhoe-conveyor mucking arrangement mucks ore from the drawpoint into a small three wheeled, diesel powered mine cart. The truck or cart hauls the ore out the adit to a chute on the mountainside where it is loaded into an aerial tramway bucket and transported across the valley to a surface truck bin.

**Blast Hole Drilling**

In order to optimise the recovery of high-quality phosphate rocks with high $P_2O_5$ content level, care is taken to minimize dilution by placement of drill holes and limiting the amount of explosives charged in the holes. During the drilling cycle, continuous water sprays are used to minimise the inhalation of dust by miners.

**Retrieving**

After the explosives are detonated remotely, the blasted phosphate ore is removed from the lodes. Strict safety precautions are observed in the use of explosives, such as ensuring that miners are at a safe distance prior to the detonation of explosives. And before the miners are allowed to re-enter the adit following a blast, the lodes are well-ventilated from any harmful gases or residual dust.

**Transport**

Depending on the actual conditions and slope angle of the relevant phosphorite bed, phosphate rocks may be recovered directly from the stope drawpoint or through a number of inter-level ore passes, before being loaded into mine carts. Once loaded onto the mine cart, the phosphate rocks are transported via one tonne capacity cable skips to designated collection depots and subsequently via trucks to the processing plant. Once stockpiled and grade determined, the ore is either processed in the company plant or sent directly to a customer's facility. Third party trucking contractors are engaged for transporting the phosphate rocks from the Mines to the processing plant.

**Facilities**

The mines are located within a few kilometres of an all season road maintained by the State.

The mines and processing operations benefit from nearby water supply from both rivers and wells and are close to power provided by the state grid. The processing plant also has a closed circuit water recycling system, which is compliant to Chinese national standard for water treatment for chemical factories. The recycled water is a source of supply to daily operations in the processing plant. A back-up diesel generator has also been installed to mitigate any disruptions to electricity supply.

The company maintains offices, maintenance facility and fully functional camp, at each of the mines. The small office facility at each mine includes gathering rooms for job instruction, safety meetings and training courses. Other offices are available for supervisors and

engineering drawings. Mine plans are submitted to the government annually but updated weekly by company surveyors on AutoCAD for daily and monthly mine planning.

A small maintenance facility is manned by mechanics who maintain loaders and bulldozers used to build and maintain roads within several kilometres of the mines.

The camps provide a fully catered kitchen facility and sleeping quarters for the miners. Since the area is rich with mineral resources, there are a number of other mining operations in the area. This provides the company with a large pool of highly experienced miners which is available locally within the region.

The company also provides a small assay lab at the main plant for grade control. Muck samples are taken in drawpoints in addition to sampling from the trucks during the stockpile operation.

Mining related infrastructure on surface includes chutes at each adit entrance where ore is dumped using the 3 wheeled mine carts. Typically, an aerial tramway transports ore from the adit chutes at higher elevations on the mountainside across the valley in one tonne capacity tram buckets to truck bins at the road elevation. Contract truckers pull the bin chutes to load their own trucks for transport to the plant site 2-3 hours away. The Phosphate plant allows for a fully integrated mining and processing facility and is described elsewhere.

## 17. RECOVERY METHODS

Mine ore is transported by contract truckers from the two mines to the company's processing plant located in Gongxing industrial zone. Each truck carries a ticket identifying the origin by mine well and a weigh ticket from the mandatory government weigh scale located between the mines and the plant. The trucks are instructed to dump in stockpiles, one stockpile per well of origin and samples are sent to the nearby company assay lab to determine the grade and moisture content. Once the grades have been determined, mine ore from the various stockpiles is sent either to the processing facility or sold as raw ore based on grade/quality of the material.

The stock piled ore is fed by loader and conveyor belts to two stages of rock crushing which have been installed in the courtyard.

Lower grade material is generally sold untreated as crushed rock for local consumption or to the fertilizer industry and is not processed any further.

The highest quality rock that is mined is utilized to meet the capacity of the Mianzhu Norwest P4 Plant (see section 18 Process plant facilities).

Mine production in excess of the required capacity of the Mianzhu Norwest Plant is either stockpiled for future use or will be sold to other phosphate rock processors in the region. If necessary any shortfall in production from Norwest mining operations can be filled with the purchase of other production in the area.

The new processing location also includes an adjacent area for the production of the food processing chemicals, SHMP and STPP. Relocation of the STPP plant and the related storage and handling facilities immediately west of the new furnace site has been completed and is operational.

# 18. PROJECT INFRASTRUCTURE

**Mine Infrastructure**

The restoration of the adits remains a priority of Mianzhu Norwest. Mianzhu Norwest has made agreements with neighbouring mine operations to integrate three surplus tunnels into their handling of mine rock production. These tunnels facilitate traffic movement, material handling and truck loading further down the valley at each operation to improve productivity, safety, and relieve congestion with truck loading.

The production forecast includes continued incorporation of these tunnels into the mine operations in 2014 to develop an underground passage system at both Mines that connects all levels to allow equipment and personnel to enter and exit the Mines through a well established and protected main portal. These adits will be established at lower elevations in areas where there is much reduced risk from further rock slides. The adits will also be designed with a loading pocket with adequate capacity to support continuous truck loading in the adit and under the loading pocket.

Cheng Qiang Yan or Mine #1 is the company's flagship mining operation with development and stoping in five adits or wells as of December 2013. The five wells being developed and mined at Mine 1 are Wells #1, #4, #5, #8 and #15. As of December 2013, a total of 84 miners were employed at the 5 wells in Mine 1 including drillers, blasters, haulage personnel and helpers.

Shi Sun Xi or Mine #2 is the newer of the two mines and mainly under development with stoping to accelerate during FY2014. As of December 2013, there were five adits or wells being developed at Mine #2, namely wells at Elevation 1,709 m, 1,815 m, 1,950 m, 2,050 m and 2,150 m. Development included reinforced concrete for ground support at the 1,815 m, portal, an 800 tonne capacity loading station, a wide drift that allows trucks to be move directly under the loading station. The secondary main adit at Level 1703, provides a second safe truck loading station to sustain production at Mine 2.

While adits at Mine #1 are named by well number, the adits at Mine #2 are named by elevation in metres above sea level. As of December 2013, there were 69 contract miners working at Mine #2.

WGM has reviewed the mine development plans and capital cost estimates provided by Mianzhu Norwest, for both Mines. The plan consists of drift advancement on most of the existing mine levels to create production faces and to connect levels with rock passes and ventilation raises. The planned underground development will help Mianzhu Norwest to further explore and initiate definition of Reserves. This will lead to more accurate mine planning and control of production capacity and grades.

**Process Plant and Facilities**

The company has completed construction of its P4 Plant (which includes the construction of two (2) furnaces each of 10,000 tonnes capacity, at the New Gongxing industrial zone under Phase 1. Trial production was carried out and completed in FY2013. There were no sales of P4 in 2013 since trial production of P4 was only started in mid-2013. The company is currently awaiting approvals before the P4 produced can be sold.

As at December 31, 2013, the company expended approximately Rmb122.8 million, (approximately S$25.5 million) on the construction of the New Gongxing Facilities.

Plans are in place to build a flue gas storage facility to collect flue gas, which is a by-product generated from the production of P4. The flue gas that is collected will be used to heat the furnaces to aid in the production of STPP and SHMP. The company intends to build this flue gas storage facility during FY2014. Such building works are currently estimated to cost S$1.4 million, all of which is expected to be expended by FY2014.

**Phase 2 of the Rebuilding Program**

Barring any unforeseen circumstances, and subject to meeting all regulatory and legal requirements, estimated at approximately S$0.6 million to secure such land use rights, the company expects to receive the land use rights for Phase 2 of the Rebuilding Program by the end of FY2014. The company plans to, upon receipt of the land use rights for Phase 2 of the Rebuilding Program, increase the scale of its Chemical Production Operations (commencing in 2014) by enhancing the processing and manufacturing capabilities through the construction and upgrading of processing facilities.

Phase 2 of the Rebuilding Program involves the following:

| **Facilities** | **Designed capacity (tonnes per year)** |
|---|---|
| Relocating and upgrading of one (1) food grade and non food grade STPP plant | 30,000 |
| Construction of one (1) new thermal phosphoric acid plant | 30,000 |
| Construction of one (1) new food grade and non food grade SHMP plant | 20,000 |

The company also intends to construct (i) offices, dormitories and other operating facilities (such as laboratories); and (ii) infrastructure for the factories (such as access roads), at the New Gongxing industrial zone. As at December 31, 2013, approximately Rmb5.4 million (approximately S$1.1 million) have been expended on Phase 2 of the Rebuilding Program.

For FY2013 and FY2014, Mianzhu Norwest intend to spend approximately S$5.9 million for the construction of the above-mentioned facilities, barring any unforeseen circumstances and assuming that the expansion plans progress as intended.

**Access Road**

Mianzhu Norwest made a production forecast for their operations starting in 2012 of 40,000 tonnes and gradually building to 415,000 tonnes in 2015 or once the reconstruction of the northern section of the mine haulage road is scheduled for completion.

Major reconstruction work on the haulage road from the processing plant to Qing Ping Town was paved and widened to two lanes throughout most of the distance, and single lane travel restricted only at certain narrower corners. A major water diversion and flood control structure at the side of the highway was also constructed in 2013. Many slope stability installations, such as bolting of screen mesh, and planting of vegetation, had also been completed to reduce the risk of further rock slides. The river channel was also cleared throughout this section. With the completion of the majority of the highway to Qing Ping town, the travel time has been greatly reduced. Unfortunately extensive flooding in mid-2013 had again damaged substantial portions of this section of the road such that several sections were barely passable and substandard.

The conditions on the section north of Qing Ping Town to both mines or the Section 2 of Mian-Mao Highway were also being improved with plans to construct a series of tunnels and bridges. This northern section of the road (Figure 11) currently requires major work to establish a safe and reliable haulage route to sustain the Mianzhu Norwest mine production as well as that of two other mine operations in the area and will be a critical factor until the construction is completed. Based on the latest information available to WGM construction of the north section is to be continued, but no completion date is available. Stockpiling of aggregate was noted since mid 2013 and excavation of three tunnels of the seven tunnels planned was started along with some of the planned bridge construction. Due to heavy rainfall during raining season each year, these bridges and tunnels have been redesigned and relocated to higher elevation to avoid potential damaged. It has caused further delay in construction. Thus, there is no completion date available during WGM's visit.

Most parts of the road north of Qing Ping Town and the last 3 km to access the Mines is under upgrade and maintenance by the three companies operating the mines in the area. Due to higher elevation, this section of the road received less damaged from flooding compare to the lower section of the highway (Hanwang town to Qing Ping town section). However, most damages to this secondary gravel road are mainly from loaded trucks from the three mining companies. The collective efforts have continuously provided sufficient support to the haulage.

NMA REV / NMA_04_Roads.cdr
Last revision date: Thursday 10 January 2014

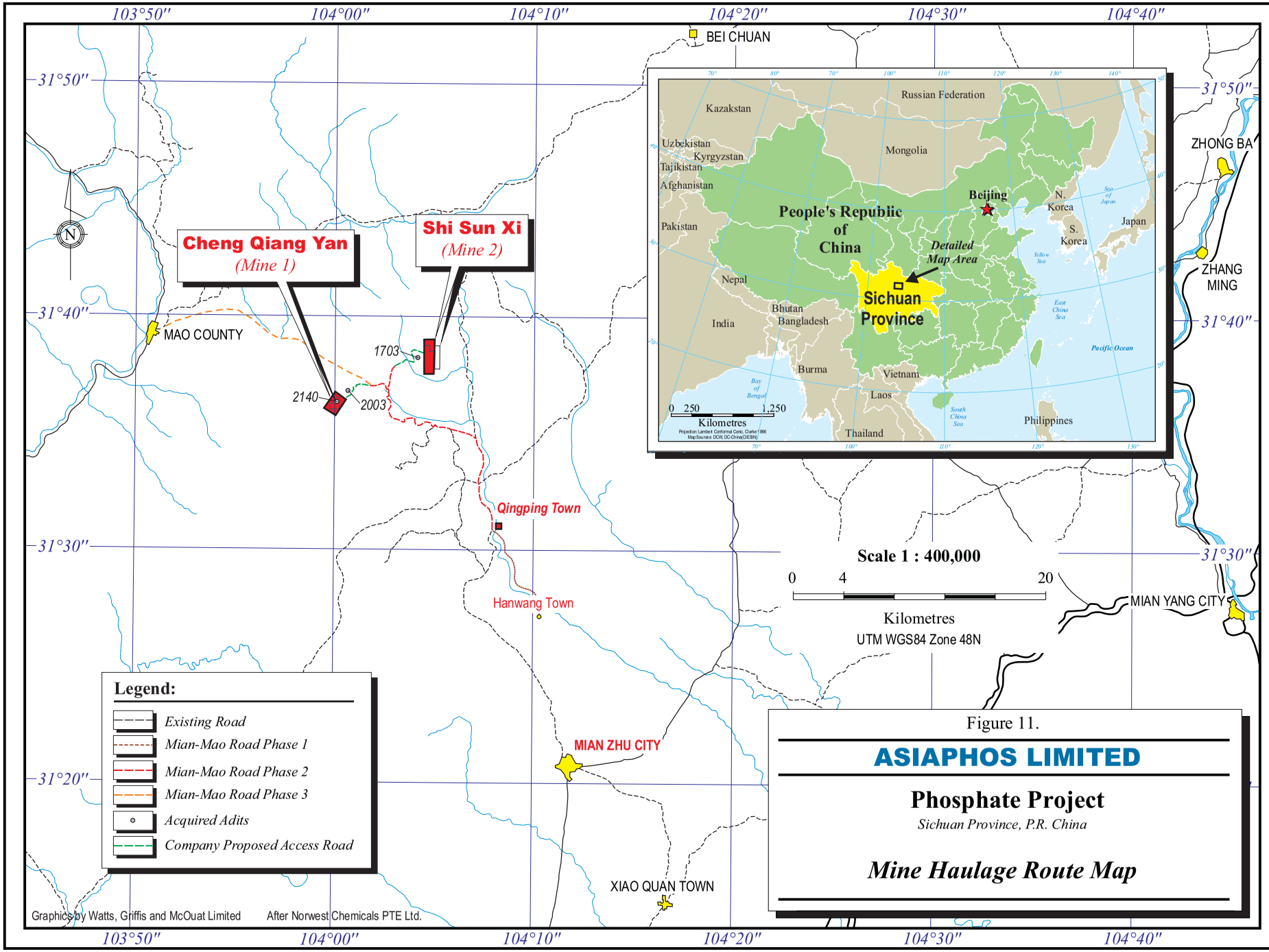



Figure 11.

**ASIAPHOS LIMITED**

**Phosphate Project**

*Sichuan Province, P.R. China*

***Mine Haulage Route Map***

Watts, Griffis and McOuat

## 19. MARKET STUDIES AND CONTRACTS

The recent independent CRU International Limited ("CRU") market review dated 21 June 2013 prepared for AsiaPhos indicates that their phosphate rocks are of relatively higher quality than other phosphate rocks mined in the PRC.

According to the CRU report, the industry preference is for phosphate rocks with a minimum $P_2O_5$ content of 29% to 32%. The phosphate rock deposits with $P_2O_5$ content of 30% or higher are currently estimated to constitute only 10% to 25% of the PRC's phosphate rock deposits. CRU further states that most of the phosphate mines in the PRC are mining phosphate rocks with $P_2O_5$ content of 20% to 25%, and that the average grade of PRC's phosphate rock deposits is estimated to have $P_2O_5$ content of less than 20%.

The combined measured and indicated phosphate rock resources for Mine 1 and Mine 2 have an average $P_2O_5$ content of 29.62%. In addition CRU noted in their report date 21 June 2013that phosphate rock with low Cadmium (Cd) content of less than 5 ppm Cd would generate a premium. Independent samples by WGM show the cadmium content of 2 composite samples to be 2.12 and 2.99 ppm respectively.

The CRU Industry Report, notes the $P_2O_5$ content of a phosphate rock is the "typical benchmark" by which phosphate rocks are valued and priced, as, *inter alia*, higher phosphate content typically means lower impurity content, and in turn, higher reaction efficiencies, less waste and fewer processing issues.

The Mianzhu Norwest Operations will yield phosphate rocks with relatively high $P_2O_5$ content, which will be valued and priced as higher-quality phosphate rocks, and should generate strong demand from customers.

Between 1 January and 31 December 2013, Mianzhu Norwest produced an actual mine output of approximately 128,000 tonnes of phosphate rocks with an average $P_2O_5$ content of 30.9. The Y2013 actual was about 6,600 tonnes or 5% higher than the 121,400 tonnes budgeted for the year. The Y2013 actual mining output tonnage was approximately two times the tonnage of what was mined in Y2012.

In addition, the phosphate rocks obtained from the Mining Operations have relatively low arsenic content levels. Internal measurements, show arsenic content of between 8 to 10 ppm and external samples collected by WGM ranged from 16-30 ppm, all in the relatively low range.

AsiaPhos believes that the phosphate rocks with relatively high $P_2O_5$ content and low contaminants offer production and cost efficiencies in Chemical Production Operations.

The CRU report dated 21 June 2013 forecasts a modest growth for global phosphate production with a compound annual average growth rate of 1.8% per year until 2022. China accounted for 40% of world consumption in 2012. CRU believes that future Chinese production will closely match domestic demand.

Vertically integrated operations are favoured and AsiaPhos benefits from a number of factors such as operational experience, access to power, their new and more efficient plant and an established marketing network.

While still considered small scale and faced with a fragmented local market the company's objectives of growing the operation to 415,000 tonnes production per annum in the near term and to 1 million tonnes annual production over the longer term would advance them to a larger scale producer category. The domestic market is considered to be the primary market at least for the short term.

AsiaPhos believes that their vertically-integrated strategy will provide stability with the supply and price of raw material as well as quality assurance and production flexibility as noted in the Offer Document dated 25 September 2013 and detailed below:

- *Raw materials price and supply stability* – AsiaPhos will be able to control processing costs as main raw material, phosphate rocks, will be supplied by their own Mines. AsiaPhos are also able to cushion to some extent margins from the impact of fluctuations in prices of intermediate products, such as phosphoric acid and P4, which may be used as raw materials. In addition, AsiaPhos Mines provide a more stable source of raw materials to Chemical Production Operations;
- *Raw materials quality assurance* – AsiaPhos intends to use phosphate rocks from their Mines for Chemical Production Operations, to control and assured quality of raw materials used; and
- *Sales and production flexibility* – AsiaPhos will have the flexibility of allocating phosphate rocks to either direct sales or to Chemical Production Operations. Depending on business strategies, production schedules, existing orders, market prices of and demand for phosphate rocks and phosphate-based chemical products, AsiaPhos will have the flexibility to produce and sell phosphate rocks and phosphate-based chemical products in accordance with current market conditions to optimise profit margins and achieve business strategies.

## 20. ENVIRONMENTAL STUDIES, PERMIT, AND SOCIAL OR COMMUNITY IMPACT

In the course of reviewing the various aspects of the operations and facilities of Mianzhu Norwest, WGM noted various conditions and practices that would not meet the standards of international best practice. Mianzhu Norwest acknowledges this and has stated the desire to move their operations towards international best practices. The current operating plans provide for capital and operating budgets to maintain the operations in compliance with PRC regulations. The Plant commissioned in mid 2013 is designed to operate in compliance with the environmental law of the PRC and will practice water recycling and off gas collection as well as slag disposal at a nearby cement operation.

The company also provides monetary reimbursement for a timberland compensation and forest recovery fund bi-yearly and has set aside provisions for rehabilitation and reforestation upon mine closure as well as investment in a number of areas to improve the mine workplace safety and productivity. The underground operations have recently installed a communication and personnel locating system as well as provision of mine refuge stations, fire control and prevention, and underground air quality monitoring.

The company has also complied with and obtained the required Mine safety permits and has installed waste water treatment facilities at the mine sites and has also budgeted for the improvement and maintenance of access roads (in conjunction with its neighbours).

As an initiative in community social responsibility, Mianzhu Norwest has also donated funds to help finance education for local students from low income families. The company plans to continue donating part of the annual net profit as well as funding scholarships for university students.

WGM is not aware of any social or environmental issues, which would affect exploration, development, and exploitation of the Mianzhu Norwest`s properties herein described as currently practiced in the PRC, other than the required post-earthquake restoration activities which are currently being carried out in co-ordination with local government and regulators.

Mianzhu Norwest has indicated that the economic conditions of working the licenses are not considered a significant operational cost item. These include but are not limited to one time purchase fees for the lands for the processing facilities, exploration and mining licence renewal and applications fees and environmental and closure (abandonment) costs.

## 21. CAPITAL AND OPERATING COSTS

WGM has reviewed the mine development plans and capital cost estimates provided by Mianzhu Norwest, for both Mines in 2013. The plan consists of drift advancement on most of the existing mine levels to create production faces and to connect levels with rock passes and ventilation raises. The planned underground development will help Mianzhu Norwest to further explore and initiate definition of Reserves. This will lead to more accurate mine planning and control of production capacity and grades.

All development and mining at the company's two mining operations is completed using experienced contract miners. Since rates are fixed, development and stoping costs are predictable. All development and mining costs are at a flat rate as defined by contracts and all consumables except explosives are the responsibility of the contractor. Contract drill and blast crews are responsible for all development and mining.

Included in the analysis is the capital cost estimates for establishing the production increases. The capital estimated by WGM also includes completion of the necessary drilling to define Measured and Indicated Resources that can, with the appropriate application of the Modifying Factors, be converted into Reserves as detailed in Table 17 in Section 26 as well as the ongoing exploration needed to update the Reserves.

The current surface areas being used to sustain mine production and loading of haulage trucks will require major revisions to sustain the 1.0 Mtpa after 2018 that has been evaluated in the cash flows. WGM has commenced its mine expansion study to design the best way to develop and operate the mines to produce 1.0 Mtpa.

A capital cost allowance of US$18.8 million included in the 2013 forecast to complete mine development and purchase the necessary mobile equipment to sustain the 1.0 Mtpa production will be updated later in 2014. This capital cost allowance should be regarded as very preliminary with a possible variance of plus or minus 30% as the full scope of work cannot be properly defined until the thorough engineering study is completed. The sensitivity of the mine expansion capital cost is shown in Figure 11 to be the least significant to the project economics.

WGM believes that expenditures to remove the high risk of rock slides near the main adit at Mine 2 should be given high priority to avoid potential injuries to the workforce as well as potential damage to equipment. Production from this area will be subject to interruptions until this risk is removed or the production is replaced by the main portal that is under construction.

Although still subject to study, it has been assumed that a more international style design will be adopted to provide a higher level of safety along with some application of trackless

equipment both in the stope operation as well in rock handling to the surface haulage trucks. It would be expected that the low labour costs of the PRC would be integrated into the higher productivities of western style design and mining equipment. Further study is required to refine future expansion plans at the two existing mines. Expansion is based on receiving approvals to convert certain exploration leases to mining leases, a requirement for production mining.

The average long term operating costs as presented in Table 12 are used only for long term budgeting and are based on company supplied historical costs of the Mianzhu Norwest's operations prior to the Wenchuan Earthquake.

**TABLE 12.**
**SUMMARY OF OPERATING AND CAPITAL COSTS**
**MIANZHU NORWEST'S OPERATIONS**

| Description | | |
|---|---|---|
| **Economic Parameters** | | |
| Exchange Rate | ¥6.10:US$1.00 (March, 2014) | |
| Inflation Rate | 5.0% | |
| | | |
| **OPERATING COSTS** | | |
| **Operating Costs per Tonne Product** | | |
| Phosphorous Rock | ¥306 | $50.16 |
| P4 | ¥16,263 | $2,666.07 |
| SHMP | ¥5,395 | $884.43 |
| STPP | ¥8,483 | $1,390.66 |
| | | |
| **CAPITAL INVESTMENT (2014-2026)** | ¥96,000,000 | $15,800,000 |

**Current Operating Costs for Y2013**

The total unit operating cost in Y2013 based on approximately 128,000 dry tonnes was Rmb243 per tonne mined including amortisation and depreciation, compared to Rmb240 per tonne in 2012. The 1.25% increase in unit operating costs in Y2013 versus the previous year was mainly due to higher labor costs but offset by lower unit co-operation costs and higher tonnes mined (Table 13). Transport unit costs were the same year over year due to no change in contract trucking rates. Resources tax increased by Y2 per ton and safety costs doubled from Rmb1 to Rmb2 per tonne.

**TABLE 13.**
**OPERATING COSTS 2013**

| (RMB per tonne) | Actual FY2013 | Actual % to total | Budget FY2013 | Variance Actual v Budget | Actual FY2012 | Variance Actual FY13 v Actual FY12 |
|---|---|---|---|---|---|---|
| Labour 劳务费 | **94** | 39% | 86 | 8 | 59 | 35 |
| Transport 运输 | **50** | 21% | 50 | (0) | 50 | (0) |
| Maintenance 维修 | **2** | 1% | 5 | (4) | 2 | (0) |
| Co-operation costs 利润分成 | **26** | 11% | 31 | (5) | 66 | (40) |
| Resource tax 资源税 | **15** | 6% | 15 | 0 | 13 | 2 |
| Consideration money 补偿费 | **6** | 3% | - | 6 | 6 | 0 |
| Stationary 办公费用 | **0** | 0% | - | 0 | 3 | (3) |
| Mining right amortisation | **3** | 1% | - | 3 | 5 | (2) |
| 油料 Diesel | **1** | 0% | - | 1 | 2 | (1) |
| Depreciation | **4** | 2% | 9 | (4) | 6 | (2) |
| Labour costs 矿山员工工资 | **6** | 3% | 8 | (2) | 5 | 1 |
| Social insurance 矿山劳保费用 | **0** | 0% | - | 0 | 0 | 0 |
| Entertainment 矿山应酬费用 | **0** | 0% | - | 0 | - | 0 |
| Safety costs 矿山安全费用 | **2** | 1% | - | 2 | 1 | 1 |
| Amortisation of drilling costs 矿山掘进费 | **4** | 1% | - | 4 | 2 | 1 |
| Price adjustment fee | **31** | 13% | 30 | 1 | 19 | 12 |
| **Total Unit Cost** | **243** | **100%** | **234** | **9** | **240** | **4** |

# 22. ECONOMIC ANALYSIS

## 22.1 FUTURE PRODUCTION PLANNING/ MINE PLAN AND FINANCIAL EVALUATION

As at 31 December 2013, Mianzhu Norwest has produced approximately 223,000 tonnes of Phosphate ore since the Wenchuan Earthquake. With the start-up of the 20,000 tpa Plant in mid-2013, a revised production schedule forecast and expansion of the mine production forecast for 2014 and 2015 to annual levels of 264,400 tonnes and 415,000 tonnes, respectively. Mine production in excess of the required capacity of the Mianzhu Norwest Plant will be sold to other phosphate rock processors in the region. The highest quality rock that is mined will be utilized to meet the capacity of the Mianzhu Norwest Plant. With the risk associated with the road reconstruction scheduled to be completed in 2015 maintaining an inventory of mined rock at the plant site will be important. If necessary any potential shortfall in production from Norwest mining operations could be filled with the purchase of other production in the area.

The expansion of production will require extensive development and expansion of the mine capacity at the two Mianzhu Norwest mining sites. Over this expansion period the number of producing levels, are expected to be increased to 14 levels in order to mine and produce 415,000 tpa. The expanded mine production is based on achieving approximately 30,000 tpa from each mine production level. The build-up of production is planned as shown in Table 14.

In addition to the typical past history of using aerial tramways to handle the rock from the mine portals to truck loading bins, Mianzhu Norwest has made agreements with neighbouring mine operations to integrate three surplus tunnels into their handling of mine rock production. These tunnels facilitate traffic movement, material handling and truck loading further down the valley at each operation to improve productivity, safety, and relieve congestion with truck loading. The production forecast includes incorporation of these tunnels into the mine operations in 2014.

**TABLE 14.**
**MIANZHU NORWEST MINE PRODUCTION PLAN, MIANZHU NORWEST PHOSPHORITE OUTPUT**

| | 2012 | 2013 | 2014 | 2015 | Total |
|---|---|---|---|---|---|
| **Mine 1** | | | | | |
| Level #1 | - | 70 | 20,000 | 20,000 | 40,500 |
| Level #15 | 30,389 | 46,820 | 33,500 | 50,000 | 150,425 |
| Level #9 | - | - | - | - | - |
| Level #4 | 18,230 | 42,012 | 32,500 | 50,000 | 141,,346 |
| Level #3 | 5,829 | 22,722 | 25,500 | 40,000 | 103,102 |
| Level #8 | - | 6,448 | 25,500 | 30,000 | 68,000 |
| Level 1850 | - | - | - | 5,000 | 7,000 |
| Level 2003 | - | - | 9,000 | 20,000 | 31,200 |
| Level 2140 | - | - | 23,200 | 15,000 | 20,200 |
| **Total** | **54,448** | **117,481** | **169,200** | **230,000** | **561,773** |
| | | | | | |
| **Mine 2** | | | | | |
| Level 1815 | 4,800 | 4,825 | 25,500 | 50,000 | 103,363 |
| Level 1950 | 2,618 | 2,562 | 19,000 | 50,000 | 100,364 |
| Level 2050 | - | 3,150 | 15,000 | 25,000 | 45,100 |
| Level 2150 | - | - | 10,000 | 20,000 | 30,500 |
| Level 1709 | - | - | 25,500 | 35,000 | 70,300 |
| Level 1600 | - | - | - | 5,000 | 5,000 |
| Level 1500 | - | - | - | - | - |
| Level 1400 | - | - | - | - | - |
| **Total** | **7,418** | **10,536** | **95,000** | **185,000** | **354,627** |
| | | | | | |
| **GRAND TOTAL** | **61,866** | **128,017** | **264,200** | **415,,000** | **916,400** |

WGM has reviewed Mianzhu Norwest's proposed production plan and has completed an independent evaluation of the economics of the project over the next 13 years. This review includes the gradual expansion of the mining capacity to 1.0 Mtpa (million tpa) over a four year period following the scheduled completion of the reconstruction of the haulage road in 2015.

WGM has not considered what permitting may be necessary to expand the mine production nor allowed for any delays in the production schedule that may result from failure to receive the necessary permits as required by the plan.

The analysis has been projected over 14 years as the discounted financial indicators will not appreciably change even though the probable life of mine will exceed this period with the current resource level that is indicated.

It has been assumed that a more international style design needs to be adopted to provide a higher level of safety along with some application of trackless equipment both in the stope operation as well in rock handling to the surface haulage trucks. It would be expected that the

low labour costs of the PRC would be integrated into the higher productivities of western style design and mining equipment.

The operating costs used in the analysis are based on historical costs of the Mianzhu Norwest's operations prior to the Wenchuan Earthquake. A summary of this financial analysis is shown (Table 15) with the details of the analysis included in Appendix I. The WGM evaluation is based on the information provided by Mianzhu Norwest, but assumes a project basis (i.e. no opening balances and all previous costs are sunk). The basic assumptions in the Mianzhu Norwest model extend to the year 2033, and include the actuals for 2013. WGM presents the first 14 years of this model, with the annual production rate projected to increasing from 415,000 tpa in 2015 to 1.0 Mtpa in 2019. Also, the WGM model is based on an inflation rate of 5% of both prices and capital and operating costs and an exchange rate of Rmb6.10 per US$ (March, 2014). While WGM believes that labour costs in the PRC will increase faster than 5% in the coming years, the increased capital cost allowed for some mechanization in the mine operations in the business plan should help mitigate these labour cost increases.

WGM has treated the year 2013 as sunk revenue and cost and has discounted the net cash flow to the beginning of 2014. As the financial analysis demonstrates, the production plan of Mianzhu Norwest has robust economics over the 13 years (the discounted period) that have been analysed. The project shows an NPV of US$120.8 million (Appendix 1 and in Table 15 below) at a discount rate of 10%, an IRR of 121% and a payback period of 2.2 years from the start of 2014. WGM regards the greatest risk to this analysis is the potential impact of the haulage road from the mine to the Plant in the initial three years when the haulage road reconstruction is expected to be completed.

**TABLE 15.**
**SUMMARY OF FINANCIAL ANALYSIS OF MIANZHU NORWEST'S OPERATIONS, 2012 to 2026**

| Description | |
|---|---|
| **Economic Parameters** | |
| Exchange Rate | ¥6.1000:US$1.00 (March, 2014) |
| Inflation Rate | 5.0% |
| | |
| **Analysis Period** | 13 years |
| Phosphorous Rock Mined | 10,629,200 tonnes |
| | |
| **Products Sold** | |
| Phosphorous Rock | 9,573,351 tonnes |
| P4 - Elemental Yellow Phosphorus | 88,448 tonnes |
| P4 - By product (slag) | 1,169,057 tonnes |
| P4 - By product (sludge) | 10,628 tonnes |
| P4 - By product (Ferro phosphate) | 10,628 tonnes |
| SHMP - Sodium Hexametaphosphate | 16,167 tonnes |
| STPP - Sodium Tripolyphosphate | 44,782 tonnes |

**TABLE 15.**
**SUMMARY OF FINANCIAL ANALYSIS OF MIANZHU NORWEST'S OPERATIONS, 2012 TO 2026**
**(continued)**

| Description | | |
|---|---|---|
| **REVENUE** | | |
| **Sales Prices** | | |
| Phosphorous Rock | ¥543 | US$88.97 |
| P4 | ¥18,900 | US$3,098.32 |
| P4 - By product (slag) | ¥53 | US$8.74 |
| P4 - By product (sludge) | ¥1,479 | US$242.47 |
| P4 - By product (ferrophosphate) | ¥1,479 | US$242.47 |
| SHMP | ¥12,371 | US$2,028.03 |
| STPP | ¥11,049 | US$1,811.36 |
| **Gross Revenue over 15 years** | | |
| Phosphorous Rock | ¥5,196,000,000 | US$851,800,000 |
| P4 | ¥1,672,000,000 | US$274,000,000 |
| P4 - By product (slag) | ¥62,000,000 | US$10,200,000 |
| P4 - By product (sludge) | ¥16,000,000 | US$2,600,000 |
| P4 - By product (ferrophosphate) | ¥16,000,000 | US$2,600,000 |
| SHMP | ¥200,000,000 | US$32,800,000 |
| STPP | ¥495,000,000 | US$81,100,000 |
| **Total Gross Revenue** | ¥7,656,000,000 | US$1,255,100,000 |
| **OPERATING COSTS** | | |
| **Operating Costs per Tonne Product** | | |
| Phosphorous Rock | ¥306 | US$50.16 |
| P4 | ¥16,263 | US$2,666.07 |
| SHMP | ¥5,395 | US$884.43 |
| STPP | ¥8,483 | US$1,390.66 |
| **Total Costs** | | |
| Phosphorous Rock | ¥3,056,000,000 | US$501,000,000 |
| P4 | ¥1,484,000,000 | US$243,300,000 |
| SHMP | ¥95,000,000 | US$15,600,000 |
| STPP | ¥390,000,000 | US$63,900,000 |
| **Total Direct Operating Costs** | ¥5,025,000,000 | US$823,800,000 |
| **Plus:** Selling Expenses | ¥127,000,000 | US$20,900,000 |
| General & Administration | ¥194,000,000 | US$31,800,000 |
| **Total Operating Costs** | ¥5,347,000,000 | US$876,600,000 |
| **EBITDA** | ¥2,309,000,000 | US$378,500,000 |
| **Less:** Depreciation & Amortization | ¥170,000,000 | US$27,800,000 |
| Corporate Taxes | ¥535,000,000 | US$87,700,000 |
| **Net Cash Operating Profit** | ¥1,604,000,000 | US$263,000,000 |
| **Net Cash Flow to Project** | | |
| Net Cash Operating Profit | ¥1,604,000,000 | US$263,000,000 |
| **Plus:** Depreciation | ¥170,000,000 | US$27,800,000 |
| **Less:** Capital Investment | ¥96,000,000 | US$15,800,000 |
| Changes in Working Capital | ¥0 | US$0 |
| **Net Cash Flow to Project** | ¥1,678,000,000 | US$275,100,000 |
| **Internal Rate of Return (IRR)** | 121% | |
| **Net Present Value of NCF disc. At 5%** | ¥1,091,000,000 | US$210,200,000 |
| **Net Present Value of NCF disc. At 10%** | ¥737,000,000 | US$120,800,000 |
| **Net Present Value of NCF disc. At 15%** | ¥514,000,000 | US$84,300,000 |
| **Payback Period** | 2.2 Years | |
| **Working Capital Time Delays** | | |
| Accounts Receivable (Rock Only) | **0 days (sold for cash)** | |
| Accounts Receivable (Remaining Products) | **30 days** | |
| Accounts Payable | **60 days** | |
| Product Inventory | **90 days** | |

WGM has also conducted an analysis to determine the sensitivity of the project Net Cash Flow to changes in product price and capital and operating costs. The sensitivity tested these variables from -25% to +25% of their Base Case values. As can be seen in the accompanying chart, Figure 12, the net cash flow remains positive even at a 25% decrease in product prices. Also, as would be expected, the project is most sensitive to sales prices, followed by operating costs and is least sensitive to changes in capital costs.

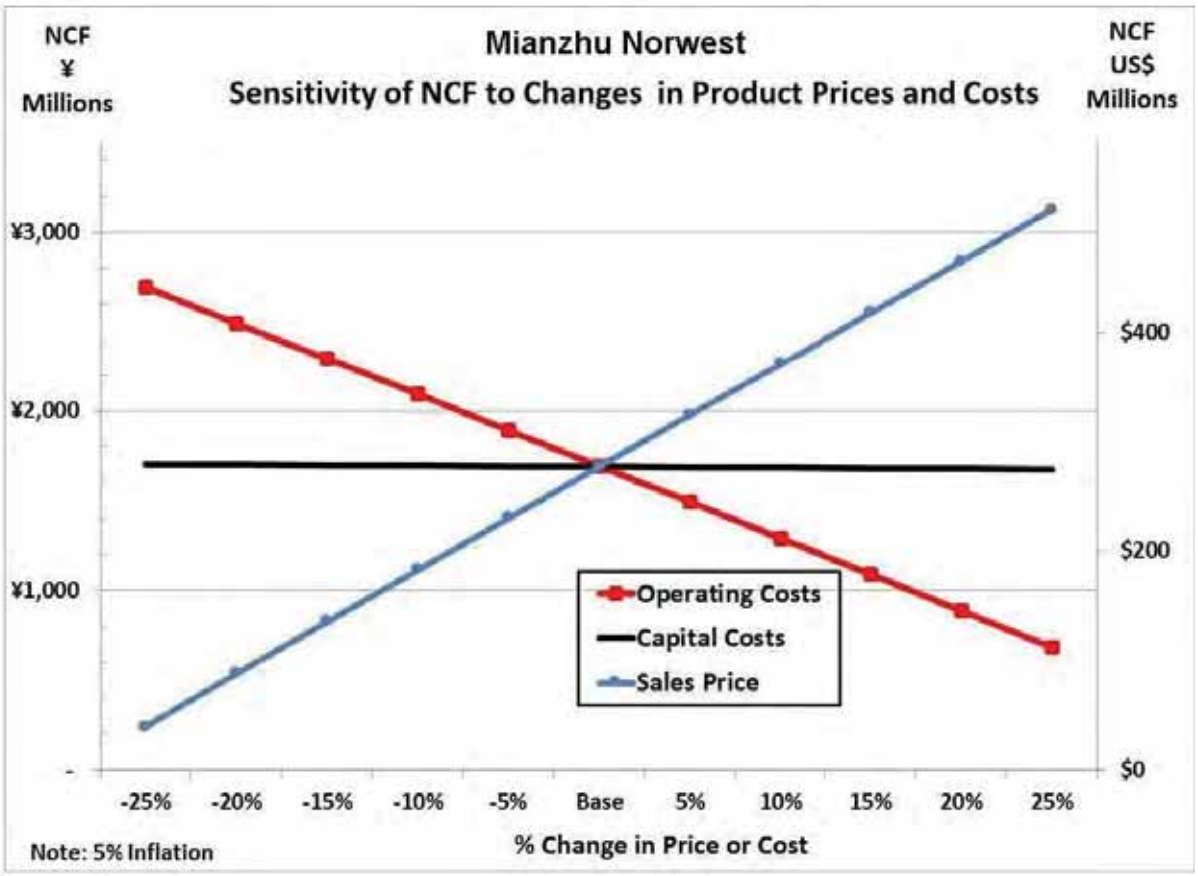



Figure 12. Sensitivity analysis of Mianzhu Norwest net cash flow

## 23. ADJACENT PROPERTIES

The Mianzhu Norwest Mines, Cheng Qiang Yan and Shi Sun Xi, are both located in an historic phosphorite mining area that was active until the Wenchuan Earthquake Cooperation between the neighbouring companies and Mianzhu Norwest was taking place with provision of access during operations and continues to be good cooperation during post-earthquake restoration activities. The recent co-operation efforts include the cost sharing of restoring access to all properties in the appropriate and adjacent water-sheds which provide the main routes of access to the Mianzhu Norwest properties as well as others in the area.

During the original site-visit 2010 interviews with Sichuan Institute of Chemical Engineering and Geological Exploration, WGM's personnel were not permitted to know the names of the "neighbours" or the status of any applications for mining license, or exploration license, renewals or extensions as is the practice of the PRC.

Using other sources of information, WGM has determined that the adjacent "neighbours" at Cheng Qiang Yan are Lomon Phosphate Company to the north and Qing Ping Phosphate Mining Company to the east of the current mining license area. Likewise, at Shi Sun Xi the adjacent "neighbours" are the Deyang Long Lin Mining Company to the west and An Xian Shi Sun Xi Mining Company to the east.

Since the Wenchuan Earthquake and the Landslide, the efforts by all adjacent enterprises have been focused on re-establishing access to each of the two Mianzhu Norwest areas began restoration of the surface facilities. This access was restored to a very rudimentary state in 2010 and with a few interim setbacks has been continually improving. Underground visits to both Cheng Qiang Yan and Shi Sun Xi showed that the underground workings are stable and have maintained excellent ground conditions both during and after the Wenchuan Earthquake. Adjacent Mines have also been restored to production since 2011.

# 24. OTHER RELEVANT DATA AND INFORMATION

Since the Wenchuan Earthquake, Mianzhu Norwest has been working to restore production of their two mining operations and the processing facilities. In addition to the earthquake damage to the two mines and the four phosphate furnaces and support facilities in Mianzhu City, the haulage road between the mines and the plant was extensively damaged initially in 2008 and again in 2010 by the Landslide causing extensive delays to Mianzhu Norwest's production restoration plans. In 2010 the decision was made to relocate the process plant from the Hanwang Town site to the Gongxing industrial zone which included the construction of two new 10,000 tpa furnaces and the support infrastructure.

As of December 2013, Mianzhu Norwest has restored production capability on five levels at Cheng Qiang Yan and starting production from one level at Shi Sun Xi. A total of five levels are being developed and mined at Cheng Qiang Yan. And five levels are under development at Shi Sun Xi with one being brought into production.

Until the road reconstruction is completed, Mianzhu Norwest will be required to work closely with the other operating companies in the area as well as the local and provincial governments to repair the existing roads common to all the operations. This work will require geotechnical measurements to assess the numerous safety hazards and prioritize the reconstruction work. It will also include installation of warnings and traffic controls to facilitate haulage truck movement in the narrow areas.

## 24.1 ADDITIONAL REQUIREMENTS

This document only reports the phosphorite Resources for the two Mines of the Mianzhu Norwest. There are no additional requirements to report that would materially affect the estimation of the Resources.

There are some formal studies that would add to the database of information available to more fully evaluate the potential of these properties and their ability to support other types of phosphorite products in the future.

Among the studies mentioned above is the need to fully assess the quality of the current phosphorite production against the possible processing by the flow sheet for wet process phosphoric acid ("WPPA") to fully evaluate possible alternative markets. In the collection of geologic data for this study (drilling, sampling, analytical results), a complete chemical evaluation of each sample is required. These complete analyses will also establish a basis to more fully understand the electric furnace operations and possibly, make alterations to the process that will enhance the profitibility of the overall operations and better control possible environmental impacts.

To date no comprehensive project study has been carried out that includes drilling, definition of Reserves, metallurgical testing, market analysis, project economics and environmental assessment although some or all of these elements may be necessary in the future. No timetable has been presented for the initiation or conclusion of these activities.

## 25. INTERPRETATION AND CONCLUSIONS

WGM's interpretations and conclusions remain that the primary phosphogenesis and accumulation events for the material contained in the phosphorite bed of interest on both Mianzhu Norwest properties occurred in Lower Cambrian times. These are the same events that fostered the deposition of the Meishucun Formation in the area. In the Mianzhu City area, the Meishucun Formation accounts for probably up to 80% of the phosphorite production (pre-earthquake). Between Lower Cambrian times and the Upper Devonian times there was a period of depositional hiatus and erosion. In Upper Devonian times, a marine transgression fostered the "final" erosion of the "Lower Cambrian" phosphorite beds in the area and redeposited this material on the undulating topographic surface previously created at the top of the Upper Sinian Deng Ying Formation. This event was wide spread enough that the local Sichuan Province geological teams created a special "deposit type" and name for the resulting phosphorite bed(s) – the "Shi Fang Type". These geologists have assigned an Upper Devonian age for the Shi Fang type deposit and, locally, assigned the geologic symbol "$D_3S^1$" for its identification.

The tectonic movements, beginning over 600 million years ago, have formed a suture zone and zone of deformation that includes all of the phosphorite producing area in west of the Mianzhu City area of Sichuan Province. These same tectonic movements (primarily compression with a slight right-lateral strike-slip vector) have formed a region of intense folding and thrust faulting which greatly complicates the structural geology of the area. Primary structural control is strongly influenced by the early Mesozoic, and previous, faulting. More recent events often re-activate these older structures. Based on historical seismic activity, it is reasonable to expect repeat events in the future due to the geologic structures and features The intensity of the major earthquakes can again reach a Mercalli intensity VIII, and mining operations as well as other construction in the region should designed accordingly.

WGM, using computer modelling, has estimated the phosphorite Resources for Mianzhu Norwest's Mines in west-central Sichuan Province. Table 16 presents the total Mineral Resource estimate for both Cheng Qiang Yan and the Shi Sun Xi property as prepared by WGM for Mianzhu Norwest's license holdings. Average bed thickness and average $P_2O_5$ content are weight averaged by tonnes from various applicable polygons resulting from the estimating process.

The Resource estimates made in this report are based on the assumption of the existence of one continuous mineralized bed on the licenses. More detailed exploration at Mine 1 has led to a modest increase in resources due to a better understanding of the local structure and thickness variations of the mineralization.

**TABLE 16.**
**ESTIMATED PHOSPHORITE RESOURCES FOR CHENG QIANG YAN and SHI SUN XI**

| | | Tonnes (million) | Bed Thk (m) | $P_2O_5$ (%) |
|---|---|---|---|---|
| **Mining License Area** | | | | |
| **Cheng Qiang Yan** | | | | |
| M & I Resource | Measured | 2.9 | 5.88 | 28.22 |
| | **Total** | **2.9** | **5.88** | **28.22** |
| **Shi Sun Xi** | | | | |
| M & I Resource | Measured | 6.9 | 6.81 | 29.25 |
| | Indicated | 10.7 | 7.05 | 29.77 |
| | **Total** | **17.6** | **6.96** | **29.57** |
| **Total** | | | | |
| M & I Resource | Measured | 9.8 | 6.53 | 28.95 |
| | Indicated | 10.7 | 7.05 | 29.77 |
| | **Total** | **20.5** | **6.80** | **29.38** |
| **Exploration License Area** | | | | |
| **Cheng Qiang Yan** | | | | |
| M & I Resource | Measured | 1.2 | 9.62 | 26.90 |
| | **Total** | **1.2** | **9.62** | **26.90** |
| **Shi Sun Xi** | | | | |
| M & I Resource | Measured | 0.03 | 1.37 | 19.76 |
| | Indicated | 1.3 | 6.18 | 26.71 |
| | **Total** | **1.4** | **6.07** | **26.55** |
| **Total** | | | | |
| M & I Resource | Measured | 1.3 | 9.41 | 26.72 |
| | Indicated | 1.3 | 6.18 | 26.71 |
| | **Total** | **2.6** | **7.75** | **26.71** |

Notes: Mineral Resources effective December 31, 2013

1. Mineral Resources are estimated at a cutoff value of 8% P2O5, and a minimum phosphorite bed thickness of 0.25 m.
2. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.
4. The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005.
5. S.G. of 3.08 tonnes/m3 and 3.03 08 tonnes/m3 used for Cheng Qiang Yan and Shi Sun Xi respectively.
6. Indicated amounts may not precisely sum due to rounding.
7. Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.

From a phosphorite quality viewpoint, the phosphorite Resources controlled by Mianzhu Norwest are higher grade than many of the nearby phosphorite deposits that have been interpreted to be of a different geologic age. The Shi Fang type of phosphorite deposit has been in production in the region for many years providing a great deal of experience in processing products from this deposit type. The products produced from the Shi Fang deposits include elemental phosphorous and downstream products as well as fertilizer products from wet process phosphoric acid.

# 26. RECOMMENDATIONS

In general, WGM recommends that Mianzhu Norwest should continue with the post-Wenchuan Earthquake business plan that accommodates the current conditions of each of the Mines. This should include the scope, schedule and cost of the restoration of full production as well as the long-term approach for the operations taking into consideration current and projected markets. The plan should address the type of operation necessary to reach standards that are more analogous to international best practice and that may be necessary for compliance with potential future state requirements, company standards, or possibly required by the future market place standards such as ISO.

In recognition of the possible interruption of haulage of rock from the Mines to the Plant, Mianzhu Norwest must continue to work with the neighbouring operations to prioritize the risks to the road north of Qing Ping Town. This should include a geotechnical assessment and prioritizing of the risks with the scaling down of loose rock or securing of all potential rock slides. With the extensive construction work planned for the northern portion of the route until 2015, there will be a need to plan haulage of mine production during periods of reduced activity to maintain a stockpile at the processing site to ensure continuous operations.

At the mine adits and truck loading locations, Mianzhu Norwest has made significant improvements during 2013 on establishing production points from more stable areas lower in the valley and making the existing locations safer by scaling or securing potential rock slides. The portal construction currently in progress should be continued on a priority basis. With the increasing production requirements, it will be possible to achieve the higher level of safety in the better locations for truck loading while at the same time increasing the mine production capacity. Mianzhu Norwest currently has budgeted $720,000 at Mine #1 and $1,700,000 at Mine #2 to reconstruct the portals for safer and higher capacity truck loading. The good progress on this construction was evident during the November 2013 site visit,

Mianzhu Norwest has currently budgeted $220,000 for Mine #1 and $1,200,000 for Mine #2 to expand the level haulage systems towards achieving the increased capacity necessary to sustain the budgeted production. WGM has identified additional requirements and additional budget requirements to implement significant steps towards establishing safer operations at both mines as well as advancing the mines to higher production capacities.

WGM also recommends the initiation of new practices to replace current practices of exploration through production should by utilizing more extensive exploration drilling to remove more of the risk to mine production and grade control. This will allow for the collection of additional geologic information and sampling to allow for more accurate mine planning and provide the data to estimate mineable reserves.

The following exploration program is proposed for the definition of Reserves to allow development of lower risk mine plans and more accurate production forecasts. It is necessary to plan annual expenditures to raise the classification of the Resource and replace the Reserves that have been mined. The program should also include an annual reconciliation of mine production against the Resources and Reserves to assess the accuracy of the mine planning, grade control, mine dilution and other factors that can impact production and costs. The following program is considered what is necessary to initiate these normal management practices at Mianzhu Norwest's operations. The scope of ongoing annual programs will need to be reviewed each year.

It is proposed to initially utilize the existing development in the footwalls at each mine to establish drill stations to drill the phosphate mineralization. This will be necessary over the next several years until the mineable reserve base is established ahead of mining and a longer term exploration drilling program can be carried out to replenish the mineable reserves on an annual basis. At that time the development of the footwall drifts and mining production can be better planned.

In review of the geology at the two Mianzhu Norwest mines as well as the operating history to date WGM has concluded that the intensity of drilling information necessary to raise the category of mineral resources to mineral reserves requires a sample of the formation for each 30,000 tonnes of resource.

The Mianzhu Norwest practice has been to establish footwall drifts at 100 m elevations with sublevels at 50 m intervals with stoping carried out at 50 m intervals along strike. The average stope size is 50 m x 100 m x the phosphate bed thickness which averages 7.75 m. Based on average parameters each stope contributes approximately 118,000 tonnes of resource and would require an average of 4 sample points to categorize it as Reserves before mining.

With the assumption that each sample point will require a drill hole the following is the estimated requirement for Mianzhu Norwest to establish mineable reserves to support the required reporting standards and allow for more accurate mine planning. Because drilling will be from existing footwall haulage drifts in the initial years, an estimate of 40 meters per drill hole has been used in the plan. An allowance of 30% extra drilling has been allowed to accommodate the known irregularities and mineralization offsets caused by faulting. It is anticipated that future years will complete the exploration drilling from devoted footwall exploration drifts which will allow drilling over greater dip lengths from each drill station with each hole greater in length. At that stage it is suggested that the footwall drift for exploration becomes part of the exploration budget where its value to future mine planning and production will be realized.

The program anticipated will include mine development in the footwall to allow access to drill the phosphate deposit in a fan of holes. It is anticipated that the drifts would be sized and

located so they can be also be used for production haulage ways as mining progresses. Crosscuts further back into the footwall may be necessary to allow the drilling to collar multiple holes from each drill station and reduce the costs of the program. The drill core will be sampled across the mineralized bed as well as the contact zone at the hanging wall and footwall to allow better control of dilution and provide for more accurate estimates of the ore grade to be mined. It is anticipated that the initial drilling program will be able to use existing production drifts already developed in the two mines to start the drilling program. In any event, further study is required to refine development for future expansion plans.

In addition to analysing the samples for the phosphate grade, the program should determine all constituents in the rock to establish an information base for future reference in reviewing processing operations, environmental issues, market requirements, etc. The samples may also be used to support bench scale metallurgical testing to support the ongoing operations or evaluation of potential processing options.

In years 2014 to 2019 when the planned mine production is scheduled to increase from 264,200 tonnes to 1,000,000 tonnes with 1Mtpy to be maintained thereafter, the requirement to establish Mineable Reserves to sustain that production level was estimated previously when the restoration of production after the Wenchuan Earthquake was just beginning. Since that time considerable development of the footwall haulage has been completed at both mines.

The new estimate (Table 17) of the exploration requirements considers the increased level of mine development now available noted in the site visit of November 2013. The exploration requirement that is identified is the order of the exploration expenditure required to define the minimum portion of the Mineral Resource as Mineable Reserves. It has been estimated as follows:

**TABLE 17.**
**ESTIMATED ANNUAL REQUIREMENT**
**DEFINITION OF MINEABLE RESERVES FOR MIANZHU NORWEST MINES 1 AND 2**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Annual Production (tonnes) | 264,200 | 415,000 | 520,000 | 630,000 | 800,000 | 1,000,000 |
| Number of Exploration samples based on subsequent year production | 14 | 18 | 21 | 27 | 34 | 34 |
| Number With Contingency | 18 | 23 | 28 | 36 | 45 | 45 |
| Drilling Required (metres) | 720 | 901 | 1092 | 1440 | 1800 | 1800 |
| Drilling Cost (US$ x 1000) | $86.4 | $108.1 | $131.0 | $172.8 | $216.0 | $216.0 |
| Sampling Cost (US$) | $1674 | $2139 | $2604 | $3348 | $4185 | $4185 |
| Footwall Drifting (metres) | 0 | 0 | 200 | 300 | 300 | 300 |
| Footwall Development (US$) | 0 | 0 | $34,000 | $51,000 | $51,000 | $51,000 |
| Exploration Management and Administration | $22,018 | $27,560 | $41,900 | $56,800 | $67,800 | $67,800 |
| **Total Exploration Cost (US$ x1,000)** | **$110.1** | **$138.0** | **$209.5** | **$283.9** | **$339.0** | **$339.0** |

## 27. DATE AND SIGNATURE PAGE

This report titled "*An updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014 was prepared and signed by the following authors:

Dated effective as of March 28, 2014.

Donald H. Hains, P.Geo.
Senior Associate Industrial Minerals Specialist

William Glover, P.Eng.
Senior Associate Mining Engineer

Jack Beichen Yue, P.Eng.
Associate Mining Engineer

**DATE AND SIGNATURE PAGE OF**
**WATTS, GRIFFIS AND McOUAT LIMITED**

The principal authors of this report titled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014, Donald Hains, Jack Beichen Yue and William Glover, all associates of Watts, Griffis and McOuat Limited (the "Qualified Persons"), completed their work under the direct supervision of Joe Hinzer, P.Geo., the President and Director of Watts, Griffis and McOuat Limited.

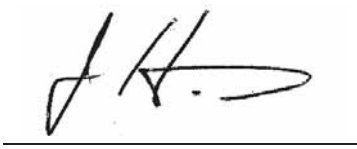
The Qualified Persons and Joe Hinzer as well as other directors and substantial shareholders of WGM and their associates are independent of AsiaPhos Limited, its directors and substantial shareholders.

The Qualified Persons and Joe Hinzer as well as other directors and substantial shareholders of WGM and their associates do not have any interest, direct or indirect, in AsiaPhos Limited, its subsidiaries or associated companies and will not receive benefits other than remuneration paid to the Qualified Persons in connection with the Qualified Person's report.

Remuneration paid to the Qualified Persons or WGM in connection with this report is not dependent on the findings of this report.

Each of Watts, Griffis and McOuat Limited, Donald H. Hains, Jack Beichen Yue and William Glover, the qualified persons producing the WGM Technical Report, has confirmed that he has reviewed the information contained in the Annual Report which relates to the WGM Technical Report and further confirmed that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated effective as of March 28, 2014.



Joe Hinzer, P.Geo.
President and Director

# CERTIFICATE

I, Donald H. Hains, hereby certify that:

1. I reside at 2275 Lakeshore Blvd. West, Suite 515, Toronto, Ontario, Canada, M8V3Y3.

2. I am a Senior Associate Industrial Minerals Specialist with Watts, Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by Professional Engineers Ontario since 1969, and professional geoscience by the Association of Professional Geoscientists of Ontario.

3. This certificate accompany the report titled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014.

4. I am a graduate from the Dalhousie University, Ontario with a MBA (Finance & Marketing) Degree in 1976, and from Queen's University, Ontario, Canada with a Honours B.A. (Chemistry) Degree in 1974.

5. I am a Professional Geoscientist licensed by Association of Professional Geoscientists of Ontario (Membership Number 0494). I am also a member of: the Society for Mining, Metallurgy and Exploration (SME, #4175075, the American Ceramics Society (#48643), Metallurgical Society of AIME (#45887), Society Manufacturing Engineers (#2866887), Technical Association Pulp & Paper Industry, Canadian Institute of Mining and Metallurgy (#93478), and the Prospectors and Developers Association of Canada (#1026).

6. I have practised my profession as a geoscientist continuously since 1976. My experience with phosphate mining and processing projects includes the following:

   - NI 43-101 report on the Lianlianping Phosphate Mine, Hubei Province, PRC, May 2009;
   - Resource estimate, scoping study and valuation of a proposed phosphate mine and SSP plant in Brazil, 2002;
   - Due diligence technical assistance to joint-venture partner for Martison phosphate project, Ontario, Canada, 2008-2009;
   - NI 43-101 reports for Mantaro phosphate project, Peru, 2007, 2008, 2010;
   - Due diligence technical review and QP supervision of Paris Hills phosphate project, Paris Hills, Idaho, USA;
   - Review and analysis of phosphate exploration projects by Ma'aden, Kingdom of Saudi Arabia, 2010-2011;
   - Due diligence technical review of various phosphate projects in Mexico, 2009, 2011 and 2012;
   - Due diligence technical review of phosphate exploration project, Togo, West Africa, 2009;
   - Due diligence technical review of phosphate exploration project, Ferni district, British Columbia, 2009; and
   - Review of Cargill Township phosphate project, Ontario, 1998.

7. I have read the definition of “qualified person” set out in the National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

8. I have read the definition of "qualified person" set out under Section B of the Listing Manual of the SGX-ST (the "Catalist Rules") and certify that I fulfill the requirements to be a "qualified person" for the purposes of the Catalist Rules.

9. I have not visited the Cheng Qiang Yan Phosphate and Shi Sun Xi Phosphate properties.

10. I am fully responsible for Sections 7, 8 and 14. With co-authors Jack Beichen Yue and William Glover, I am responsible for sections 1-5, 12, and 25-27. I am jointly responsible for Section 6, 9-11, 23 and 24 with Jack Yue.

11. I am independent of the issuer as described in Section 1.5 of NI 43-101.

12. I have not worked for AsiaPhos Limited in the Property areas or elsewhere.

13. I have read NI 43-101, Form 43-101F1 and the technical report and have prepared the technical report in compliance with the standards as pertaining to NI 43-101, Form 43-101F1 and generally accepted Canadian mining industry practice.

14. As of the date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Donald H. Hains
March 28, 2014

# CERTIFICATE

I, Jack Beichen Yue, hereby certify that:

1. I reside at 6231 Dunsmuir Cres., Richmond, B.C., V7C 5R6, Canada.

2. I am an Associate Mining Engineer with Watts, Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by Professional Engineers Ontario since 1969, and professional geoscience by the Association of Professional Geoscientists of Ontario.

3. This certificate accompany the report titled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014.

4. I am a graduate from the University of Toronto, Ontario with a B.A.Sc. (Mineral Engineering) degree in 2008.

5. I am a Professional Engineer licensed by Professional Engineers Ontario (Membership Number #100148667). I am also a member of the Prospectors and Developers Association of Canada (#220146).

6. I have practised my profession continuously since 2008. My experience includes: five years assisting with market development activities and client communications for projects in China, as well as assisted with and conducting numerous due diligence site visits for commodities including base and precious metals, Fe and industrial minerals. Supervised sample collection and processing and database management for an alluvial and tailings sampling program and resource estimation project in Alaska. Currently working on mine planning engineering duties at a remote gold mine in Russia. I have previously assisted with and/or conducted five site visits to the Mianzhu Norwest Mines from 2010 to 2013.

7. I have read the definition of "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

8. I have read the definition of "qualified person" set out under Section B of the Listing Manual of the SGX-ST (the "Catalist Rules") and certify that I fulfill the requirements to be a "qualified person" for the purposes of the Catalist Rules.

9. I have most recently visited the Cheng Qiang Yan Phosphate and Shi Sun Xi Phosphate properties on November 27, 2013.

10. With co-authors Donald Hains and William Glover, I am responsible for sections 1-5, 12, and 25-27. I am jointly responsible for Section 6, 9-11,23 and 24 with Donald Hains, and Sections 16-22 with William Glover.

11. I am independent of the issuer as described in Section 1.5 of NI 43-101.

12. I have not worked for AsiaPhos Limited in the Property areas or elsewhere.

13. I have read NI 43-101, Form 43-101F1 and the technical report and have prepared the technical report in compliance with the standards as pertaining to NI 43-101, Form 43-101F1 and generally accepted Canadian mining industry practice.

14. As of the date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Jack Beichen Yue, P.Eng.
March 28, 2014

# CERTIFICATE

I, William Glover, do hereby certify that:

1. I reside at P.O. Box 923, Kirkland Lake, Ontario, Canada, P2N 3K4.

2. I am a Senior Associate Mining Engineer with Watts, Griffis and McOuat Limited, a firm of consulting engineers and geologists, which has been authorized to practice professional engineering by Professional Engineers Ontario since 1969, and professional geoscience by the Association of Professional Geoscientists of Ontario.

3. This certificate accompany the report titled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014.

4. I am a graduate of Queen's University, Ontari*o, Canada, with a Bachelor of Science, Mining Engineering in 1972.*

5. I am a Professional Engineer licensed by Professional Engineers Ontario (Registration Number# 16357014), Life Member of the Canadian Institute of Mining and Metallurgy (Member # 92527), and Past Chairman Kirkland Lake Branch.

6. I have practiced my profession continuously since 1972 in Canada, United States, Europe, Asia and South America with mining companies, mining contractors and mining consulting firms. My experience includes forty years in underground mining projects and operations in gold, base metals, iron ore, uranium, platinum-palladium, diamonds and industrial minerals such as asbestos and salt. My roles have included 6 years as General Manager Operations at operating underground gold mines, over 20 years as project manager on shaft sinking projects, track and trackless underground development and mine construction. In addition I have been project manager on advanced exploration and 43-101 compliant scoping studies, pre-feasibility and full feasibility studies.

7. I have read the definition of "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience with metal and industrial mineral, operations including underground mining and mineral processing operations, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

8. I have read the definition of "qualified person" set out under Section B of the Listing Manual of the SGX-ST (the "Catalist Rules") and certify that I fulfill the requirements to be a "qualified person" for the purposes of the Catalist Rules.

9. I visited the Property during November 25 to 30, 2013.

10. I am fully responsible for Section 13. With co-authors Donald Hains and Jack Beichen Yue, I am responsible for sections 1-5, 12, and 25-27. I am jointly responsible for Sections 16-22 with Jack Beichen Yue.

11. I am independent of the issuer as described in Section 1.5 of NI 43-101.

12. I have not worked for AsiaPhos Limited in the Property areas or elsewhere.

13. I have read NI 43-101, Form 43-101F1 and the technical report and have prepared the technical report in compliance with the standards as pertaining to NI 43-101, Form 43-101F1 and generally accepted Canadian mining industry practice.

14. As of the date of the technical report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

William Glover, P.Eng.
March 28, 2014

# CONSENT OF QUALIFIED PERSON

Dear Sirs/Mesdames:

**Re: AsiaPhos Limited (the "Company")**

I, Donald H. Hains, P.Geo., Senior Associate Industrial Mineral Specialist of Watts, Griffis and McOuat Limited, do hereby consent to the filing of the technical report entitled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014 (the "Technical Report").

I also consent to any extracts from or a summary of the Technical Report and to the public filing of the Technical Report with the securities regulatory authorities and stock exchange.

Each of Watts, Griffis and McOuat Limited, Donald H. Hains, Jack Beichen Yue and William Glover, the qualified persons producing the WGM Technical Report, has confirmed that it/he has reviewed the information and confirmed that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated this 28th day of March, 2014.

Yours truly,

Donald H. Hains, P.Geo.,
Senior Associate Industrial Mineral Specialist

# CONSENT OF QUALIFIED PERSON

Dear Sirs/Mesdames:

**Re: AsiaPhos Limited (the "Company")**

I, Jack Beichen Yue, P.Eng., Associate Mining Engineer of Watts, Griffis and McOuat Limited, do hereby consent to the filing of the technical report entitled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014 (the "Technical Report").

I also consent to any extracts from or a summary of the Technical Report and to the public filing of the Technical Report with the securities regulatory authorities and stock exchange.

Each of Watts, Griffis and McOuat Limited, Donald H. Hains, Jack Beichen Yue and William Glover, the qualified persons producing the WGM Technical Report, has confirmed that it/he has reviewed the information and confirmed that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated this 28th day of March, 2014.

Yours truly,

Jack Beichen Yue, P.Eng,
Associate Mining Engineer

# CONSENT OF QUALIFIED PERSON

Dear Sirs/Mesdames:

**Re: AsiaPhos Limited (the "Company")**

I, William Glover, P.Eng., Senior Associate Engineer of Watts, Griffis and McOuat Limited, do hereby consent to the filing of the technical report entitled "*An Updated Technical Review of the Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People's Republic of China for AsiaPhos Limited*" dated March 28, 2014 (the "Technical Report").

I also consent to any extracts from or a summary of the Technical Report and to the public filing of the Technical Report with the securities regulatory authorities and stock exchange.

Each of Watts, Griffis and McOuat Limited, Donald H. Hains, Jack Beichen Yue and William Glover, the qualified persons producing the WGM Technical Report, has confirmed that it/he has reviewed the information and confirmed that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated this 28th day of March, 2014.

Yours truly,

William Glover, P.Eng.
Senior Associate Mining Engineer

## REFERENCES


AsiaPhos Limited

2013 *Offering Document*, dated September 25, 2013.

Canadian Institute of Mining, Metallurgy and Petroleum

Dec. 2005 *CIM Definition Standards – on Mineral Resources and Mineral Reserves* (adopted by CIM Council on 12/11/05).

Coal Design & Research Institute of Sichuan Province

Apr. 2006 *Mineral Resources Development and Utilization Solution for Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd (Shi Sun Xi Phosphorite Mine)*.

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2009 *Additional exploration of geological report for Sichuan Mianzhu Norwest Chemical Company Ltd (Shi Sun Xi Phosphorite Mine)*.

2005 *Mining Geology Environmental Impact Statement about Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd (Shi Sun Xi Phosphorite Mine)*.

1998 *Census Survey Report of Phosphorite Reserve in the School-Run Cheng Qiang Yan Phosphorite Mine at Qing Ping Town, Mianzhu City, Sichuan Province*.

United States Geological Survey

1983 *Coal Resource Classification System of the U.G. Geological Survey* in Geological Survey Circular 891.

1980 *Principles of a Resource/Reserve Classification for Minerals* in Geological Survey Circular 831.

1976 *Coal Resource Classification System of the U.S. Bureau of Mines and U.S Geological Survey* in Geological Survey Bulletin 1450-B.


**NOTE:** Not all Sections from all Chinese reports, cited above, have been translated into English for this Technical report.

# APPENDIX 1:
# FINANCIAL ANALYSIS

## FINANCIAL ANALYSIS

| Base Case Inflation - 5% | Units | Total/ Average | Actual 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRODUCTION** | | | | | | | | | | | | | | | | |
| Phosphorous Rock Mined | t | 10,629,200 | 128,286 | 264,200 | 415,000 | 520,000 | 630,000 | 800,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| **Products Sold** | | | | | | | | | | | | | | | | |
| Phosphorous Rock | t | 9,573,351 | 91,831 | 211,130 | 352,000 | 453,850 | 560,543 | 727,070 | 923,423 | 919,594 | 915,574 | 911,353 | 906,920 | 902,266 | 897,380 | 892,249 |
| P4 - Elemental Yellow Phosphoru | t | 88,448 | - | 4,421 | 5,279 | 5,543 | 5,820 | 6,111 | 6,417 | 6,738 | 7,074 | 7,428 | 7,800 | 8,189 | 8,599 | 9,029 |
| P4 - By product (slag) | t | 1,169,057 | 27,702 | 66,000 | 69,300 | 72,765 | 76,403 | 80,223 | 84,235 | 88,446 | 92,869 | 97,512 | 102,388 | 107,507 | 112,882 | 118,527 |
| P4 - By product (sludge) | t | 10,628 | - | 600 | 630 | 662 | 695 | 729 | 766 | 804 | 844 | 886 | 931 | 977 | 1,026 | 1,078 |
| P4 - By product (ferrophosphate) | t | 10,628 | - | 600 | 630 | 662 | 695 | 729 | 766 | 804 | 844 | 886 | 931 | 977 | 1,026 | 1,078 |
| SHMP - Sodium Hexametaphosph | t | 16,167 | 149 | 250 | 1,000 | 1,050 | 1,103 | 1,158 | 1,216 | 1,276 | 1,340 | 1,407 | 1,477 | 1,551 | 1,629 | 1,710 |
| STPP - Sodium Tripolyphosphate | t | 44,782 | 890 | 3,000 | 2,625 | 2,756 | 2,894 | 3,039 | 3,191 | 3,350 | 3,518 | 3,694 | 3,878 | 4,072 | 4,276 | 4,490 |
| **REVENUE** | | | | | | | | | | | | | | | | |
| **Sales Prices** | | | | | | | | | | | | | | | | |
| Phosphorous Rock | ¥/t | 543 | 353 | 380 | 399 | 419 | 440 | 462 | 485 | 509 | 535 | 561 | 590 | 619 | 650 | 682 |
| P4 | ¥/t | 18,900 | - | 13,400 | 14,070 | 14,774 | 15,512 | 16,288 | 17,102 | 17,957 | 18,855 | 19,798 | 20,788 | 21,827 | 22,919 | 24,064 |
| P4 - By product (slag) | ¥/t | 53 | 43 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 53 | 56 | 59 | 62 | 65 | 68 |
| P4 - By product (sludge) | ¥/t | 1,479 | - | 1,050 | 1,103 | 1,158 | 1,216 | 1,277 | 1,341 | 1,408 | 1,478 | 1,552 | 1,630 | 1,712 | 1,798 | 1,888 |
| P4 - By product (ferrophosphate) | ¥/t | 1,479 | - | 1,050 | 1,103 | 1,158 | 1,216 | 1,277 | 1,341 | 1,408 | 1,478 | 1,552 | 1,630 | 1,712 | 1,798 | 1,888 |
| SHMP | ¥/t | 12,371 | 8,850 | 8,679 | 9,113 | 9,569 | 10,047 | 10,550 | 11,077 | 11,631 | 12,213 | 12,823 | 13,464 | 14,138 | 14,845 | 15,587 |
| STPP | ¥/t | 11,049 | 7,898 | 7,875 | 8,269 | 8,682 | 9,116 | 9,572 | 10,051 | 10,553 | 11,081 | 11,635 | 12,217 | 12,828 | 13,469 | 14,142 |
| **Gross Revenue** | | | | | | | | | | | | | | | | |
| Phosphorous Rock | k¥ | 5,195,830 | 32,416 | 80,229 | 140,448 | 190,140 | 246,581 | 335,828 | 447,848 | 468,291 | 489,556 | 511,664 | 534,634 | 558,485 | 583,233 | 608,893 |
| P4 | k¥ | 1,671,641 | - | 59,242 | 74,276 | 81,889 | 90,283 | 99,537 | 109,739 | 120,987 | 133,388 | 147,061 | 162,135 | 178,753 | 197,076 | 217,276 |
| P4 - By product (slag) | k¥ | 62,340 | 1,191 | 2,508 | 2,772 | 3,056 | 3,362 | 3,690 | 4,043 | 4,422 | 4,922 | 5,461 | 6,041 | 6,665 | 7,337 | 8,060 |
| P4 - By product (sludge) | k¥ | 15,719 | - | 630 | 695 | 766 | 845 | 931 | 1,027 | 1,132 | 1,248 | 1,376 | 1,517 | 1,673 | 1,845 | 2,034 |
| P4 - By product (ferrophosphate) | k¥ | 15,719 | - | 630 | 695 | 766 | 845 | 931 | 1,027 | 1,132 | 1,248 | 1,376 | 1,517 | 1,673 | 1,845 | 2,034 |
| SHMP | k¥ | 200,003 | 1,319 | 2,170 | 9,113 | 10,047 | 11,077 | 12,213 | 13,464 | 14,845 | 16,366 | 18,044 | 19,893 | 21,932 | 24,180 | 26,659 |
| STPP | k¥ | 494,814 | 7,029 | 23,625 | 21,705 | 23,930 | 26,383 | 29,087 | 32,069 | 35,356 | 38,980 | 42,975 | 47,380 | 52,237 | 57,591 | 63,494 |
| **Total Gross Revenue** | k¥ | 7,656,066 | 41,955 | 169,034 | 249,704 | 310,595 | 379,375 | 482,217 | 609,218 | 646,165 | 685,708 | 727,956 | 773,117 | 821,419 | 873,107 | 928,450 |
| **OPERATING COSTS** | | | | | | | | | | | | | | | | |
| **Operating Costs per Tonne Product** | | | | | | | | | | | | | | | | |
| Phosphorous Rock | ¥/t | 306 | 231 | 230 | 241 | 253 | 267 | 276 | 284 | 298 | 313 | 328 | 345 | 362 | 380 | 399 |
| P4 | ¥/t | 16,263 | - | 12,365 | 12,930 | 13,496 | 14,105 | 14,663 | 15,233 | 15,881 | 16,679 | 17,497 | 18,334 | 19,191 | 20,072 | 20,977 |
| SHMP (Purchased & Resold) | ¥/t | 5,395 | - | - | 4,680 | 4,867 | 5,068 | 5,253 | 5,444 | 5,660 | 5,923 | 6,195 | 6,473 | 6,685 | 6,792 | 7,094 |
| STPP | ¥/t | 8,483 | 6,660 | 6,300 | 6,766 | 7,065 | 7,382 | 7,693 | 8,016 | 8,369 | 8,770 | 9,187 | 9,620 | 10,005 | 10,312 | 10,795 |
| **Total Costs** | | | | | | | | | | | | | | | | |
| Phosphorous Rock | k¥ | 3,056,021 | 21,213 | 48,480 | 84,906 | 114,627 | 149,485 | 200,591 | 262,478 | 274,284 | 286,539 | 299,304 | 312,558 | 326,411 | 340,745 | 355,613 |
| P4 | k¥ | 1,484,294 | - | 54,667 | 68,256 | 74,808 | 82,090 | 89,606 | 97,747 | 107,001 | 117,995 | 129,969 | 142,995 | 157,166 | 172,596 | 189,396 |
| SHMP | k¥ | 95,088 | - | - | 4,680 | 5,111 | 5,587 | 6,081 | 6,618 | 7,224 | 7,938 | 8,717 | 9,564 | 10,371 | 11,063 | 12,133 |
| STPP | k¥ | 389,883 | 5,927 | 18,899 | 17,760 | 19,473 | 21,365 | 23,377 | 25,575 | 28,038 | 30,852 | 33,934 | 37,309 | 40,743 | 44,091 | 48,467 |
| **Total Direct Operating Costs** | k¥ | 5,025,286 | 27,140 | 122,046 | 175,602 | 214,020 | 258,528 | 319,656 | 392,418 | 416,547 | 443,324 | 471,924 | 502,425 | 534,691 | 568,495 | 605,609 |
| **Plus:** Selling Expenses | k¥ | 127,464 | 4,894 | 6,838 | 7,817 | 8,176 | 8,532 | 8,907 | 9,300 | 9,713 | 10,147 | 10,602 | 11,080 | 11,582 | 12,109 | 12,662 |
| General & Administration | k¥ | 194,272 | 10,189 | 11,036 | 11,629 | 11,679 | 12,318 | 12,997 | 13,720 | 14,491 | 15,313 | 16,193 | 17,134 | 18,143 | 19,227 | 20,392 |
| **Total Operating Costs** | k¥ | 5,347,021 | 42,224 | 139,921 | 195,048 | 233,874 | 279,378 | 341,560 | 415,438 | 440,751 | 468,784 | 498,719 | 530,639 | 564,416 | 599,830 | 638,663 |
| **EBITDA** | k¥ | 2,309,045 | 268 | 29,114 | 54,656 | 76,721 | 99,997 | 140,658 | 193,780 | 205,414 | 216,924 | 229,237 | 242,478 | 257,003 | 273,277 | 289,787 |
| **Less:** Depreciation & Amortization | k¥ | 169,805 | 4,099 | 7,958 | 10,651 | 11,331 | 12,197 | 12,505 | 13,490 | 14,354 | 15,190 | 16,093 | 16,965 | 15,556 | 10,650 | 12,865 |
| Corporate Taxes | k¥ | 534,810 | - | 5,289 | 11,001 | 16,348 | 21,950 | 32,038 | 45,072 | 47,765 | 50,434 | 53,286 | 56,378 | 60,362 | 65,657 | 69,231 |
| **Net Cash Operating Profit** | k¥ | 1,604,430 | 4,367 | 15,866 | 33,004 | 49,043 | 65,850 | 96,114 | 135,217 | 143,296 | 151,301 | 159,858 | 169,134 | 181,085 | 196,970 | 207,692 |

| Base Case Inflation - 5% | Units | Total/ Average | Actual 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Net Cash Flow to Project** | | | | | | | | | | | | | | | | |
| Net Cash Operating Profit | k¥ | 1,604,430 | 4,367 | 15,866 | 33,004 | 49,043 | 65,850 | 96,114 | 135,217 | 143,296 | 151,301 | 159,858 | 169,134 | 181,085 | 196,970 | 207,692 |
| **Plus:** Depreciation | k¥ | 169,805 | 4,099 | 7,958 | 10,651 | 11,331 | 12,197 | 12,505 | 13,490 | 14,354 | 15,190 | 16,093 | 16,965 | 15,556 | 10,650 | 12,865 |
| **Less:** Capital Investment | k¥ | 96,188 | 69,334 | 38,200 | 3,045 | 5,072 | 6,020 | 5,956 | 6,254 | 3,886 | 4,081 | 4,285 | 4,499 | 4,724 | 4,960 | 5,208 |
| Changes in Working Capital | k¥ | - | 4,188 | 21,790 | 12,510 | 9,552 | 10,494 | 16,254 | 20,402 | 6,306 | 6,644 | 7,152 | 7,712 | 8,367 | 9,138 | 136,321 |
| **Net Cash Flow to Project** | k¥ | 1,678,047 | 73,790 | 36,165 | 28,100 | 45,750 | 61,534 | 86,409 | 122,052 | 147,457 | 155,765 | 164,514 | 173,888 | 183,550 | 193,522 | 351,670 |
| **Accum NCF to Project** | k¥ | 1,678,047 | 73,790 | 36,165 | 8,065 | 37,685 | 99,219 | 185,628 | 307,680 | 455,137 | 610,902 | 775,416 | 949,305 | 1,132,855 | 1,326,377 | 1,678,047 |
| **Internal Rate of Return (IRR)** | % | 121% | | | | | | | | | | | | | | |
| **Net Present Value of NCF** | ¥ | | | 5% | ¥1,091,000,000 | | | 10% | ¥737,000,000 | | | 15% | ¥514,000,000 | | | |
| | US$ | | | | US$178,900,000 | | | | US$120,800,000 | | | | US$84,300,000 | | | |
| **Payback Period** | | 2.2 Years | | | | | | | | | | | | | | |

Notes: 1) Totals / Averages including IRR's and NPV's are for the years 2014 to 2026.
2) NPV's are discounted back to January 1, 2014 assuming mid-year discounting.
3) All Cash flows are 100% project and do not include payments to underlying Land/Royalty Holders.
4) P4 production is scheduled to start in May 2014.

# APPENDIX 2:
# DETAILS OF RESOURCE CALCULATIONS

**MINE 1 CHENG QIANG YAN**

| Category | Hole ID | Tonnage | $P_2O_5$ | Thickness |
|---|---|---|---|---|
| E1_MEAS | PD15-4 | 4,000 | 29.91 | 0.31 |
| E1_MEAS | PD2140-1 | 809,000 | 26.47 | 12.03 |
| E1_MEAS | PD3-1H | 83,000 | 26.41 | 7.11 |
| E1_MEAS | PD3-2H | 26,000 | 31.35 | 2.56 |
| E1_MEAS | PD3-3H | 31,000 | 32.76 | 3.61 |
| E1_MEAS | PD3-4H | 118,000 | 21.48 | 3.13 |
| E1_MEAS | PD4-3H | 87,000 | 33.39 | 8.61 |
| E1_MEAS | PD4-4H | 39,000 | 28.37 | 1.42 |
| E1_MEAS | 3OP3 | 32,000 | 29.9 | 4.95 |
| E1_MEAS | 8OP1 | 1,000 | 34.38 | 4.52 |
| E1_MEAS | 8Y2 | - | 34.09 | 1.04 |
| **Total** | | **1,230,000** | **26.90** | **9.62** |
| | | | | |
| M1_MEAS | PD2140-1 | 342,000 | 26.47 | 12.03 |
| M1_MEAS | PD2140-2 | 16,000 | 26.61 | 1.57 |
| M1_MEAS | PD2140-3 | 14,000 | 35.39 | 0.18 |
| M1_MEAS | PD3-0H | 8,000 | 20.89 | 0.8 |
| M1_MEAS | PD3-1H | 19,000 | 26.41 | 7.11 |
| M1_MEAS | PD3-2H | 2,000 | 31.35 | 2.56 |
| M1_MEAS | PD3-3H | 6,000 | 32.76 | 3.61 |
| M1_MEAS | PD3-4H | 68,000 | 21.48 | 3.13 |
| M1_MEAS | TC101 | 259,000 | 32.2 | 13.84 |
| M1_MEAS | TC103 | 165,000 | 25.38 | 5.04 |
| M1_MEAS | TC104 | 161,000 | 33.03 | 5.76 |
| M1_MEAS | TC105 | 148,000 | 18.51 | 4.85 |
| M1_MEAS | TC106 | 114,000 | 33.32 | 4.35 |
| M1_MEAS | 3OP1 | 28,000 | 30.99 | 4.59 |
| M1_MEAS | 3OP2 | 1,000 | 31.24 | 5.46 |
| M1_MEAS | 5Y1 | 110,000 | 28.84 | 3.93 |
| M1_MEAS | 5Y2 | 341,000 | 28.83 | 3.94 |
| M1_MEAS | 5Y3 | 476,000 | 26.87 | 4.02 |
| M1_MEAS | 5Y4 | 366,000 | 26.77 | 3.86 |
| M1_MEAS | 8OP1 | 165,000 | 34.38 | 4.52 |
| M1_MEAS | 8Y2 | 40,000 | 34.09 | 1.04 |
| M1_MEAS | 8Y3 | 67,000 | 29.99 | 0.67 |
| **Total** | | **2,916,000** | **28.22** | **5.88** |
| | | | | |
| M1_INF | 5Y4 | 918,000 | 26.77 | 3.86 |
| **Total** | | **918,000** | **26.77** | **3.86** |
| | | | | |
| M | | 4,146,000 | 27.83 | 6.99 |

## MINE 2 SHI SUN XI

| Category | Sample | Tonnage | Thickness | $P_2O_5$ (%) | |
|---|---|---|---|---|---|
| E2_MEAS | ZK705 | 32,000 | 1.37 | 19.76 | |
| **E2_MEAS** | | **32,000** | **1.37** | **19.76** | |
| | | | | | |
| E2_IND | ZK1001 | 829,000 | 9.02 | 30.84 | |
| E2_IND | ZK903 | 20,000 | 6.65 | 26.58 | |
| E2_IND | ZK705 | 492,000 | 1.37 | 19.76 | |
| **E2_IND** | | **1,341,000** | **6.18** | **26.71** | |
| | | | | | |
| E2_INF | ZK1001 | 13,061,000 | 9.02 | 30.84 | |
| E2_INF | TC126 | 195,000 | 1.08 | 31.65 | |
| E2_INF | ZK903 | 1,506,000 | 6.65 | 26.58 | |
| E2_INF | ZK705 | 1,052,000 | 1.37 | 19.76 | |
| E2_INF | TC126 | 268,000 | 1.08 | 31.65 | Upthrust side of fault |
| **E2_INF** | | **16,081,000** | **8.07** | **29.74** | |
| | | | | | |
| M2_MEAS | ZK1001 | 2,284,000 | 9.02 | 30.84 | |
| M2_MEAS | TC126 | 169,000 | 1.08 | 31.65 | |
| M2_MEAS | ZK902 | 1,062,000 | 4.94 | 31.94 | |
| M2_MEAS | ZK903 | 1,977,000 | 6.65 | 26.58 | |
| M2_MEAS | L2050 | 496,000 | 4.00 | 29.50 | |
| M2_MEAS | TC125 | 69,000 | 1.24 | 17.77 | |
| M2_MEAS | TC124 | 1,000 | 7.08 | 27.01 | |
| M2_MEAS | L1950 | 662,000 | 7.60 | 28.60 | |
| M2_MEAS | ZK701 | 73,000 | 5.77 | 32.25 | |
| M2_MEAS | ZK705 | 78,000 | 1.37 | 19.76 | |
| **M2_MEAS** | | **6,871,000** | **6.81** | **29.25** | |
| | | | | | |
| M2_IND | ZK1001 | 5,008,000 | 9.02 | 30.84 | |
| M2_IND | ZK902 | 1,124,000 | 4.94 | 31.94 | |
| M2_IND | L2050 | 646,000 | 4.00 | 29.50 | |
| M2_IND | TC126 | 489,000 | 1.08 | 31.65 | |
| M2_IND | ZK903 | 2,533,000 | 6.65 | 26.58 | |
| M2_IND | ZK701 | 588,000 | 5.77 | 32.25 | |
| M2_IND | ZK703 | 145,000 | 7.96 | 28.26 | |
| M2_IND | ZK705 | 148,000 | 1.37 | 19.76 | |
| M2_IND | L1950 | 21,000 | 7.60 | 28.60 | |
| M2_IND | ZK705 | 18,000 | 1.37 | 19.76 | |
| **M2_IND** | | **10,718,000** | **7.05** | **29.77** | |
| | | | | | |
| M2_INF | ZK902 | 380,000 | 4.94 | 31.94 | |
| M2_INF | TC126 | 163,000 | 1.08 | 31.65 | |
| M2_INF | ZK1001 | 471,000 | 9.02 | 30.84 | |
| M2_INF | ZK1001 | 294,000 | 9.02 | 30.84 | |
| M2_INF | ZK903 | 473,000 | 6.65 | 26.58 | |
| **M2_INF** | | **1,781,000** | **6.79** | **30.02** | |
| | | | | | |
| M | | 6,903,000 | 6.78 | 29.21 | |
| I | | 12,059,000 | 6.95 | 29.43 | |
| M+I | | 18,962,000 | 6.89 | 29.35 | |
| INF | | 17,862,000 | 7.94 | 29.77 | |

**SUMMARY**

| | Tonnes | $P_2O_5$ (%) | Thickness (m) |
|---|---|---|---|
| **Measured** | | | |
| Mine | 9,787,000 | 28.94 | 6.53 |
| Exploration | 1,262,000 | 26.72 | 9.41 |
| **Total** | **11,049,000** | **28.69** | **6.86** |
| | | | |
| **Indicated** | | | |
| Mine | 10,718,000 | 29.77 | 7.05 |
| Exploration | 1,341,000 | 26.71 | 6.18 |
| **Total** | **12,059,000** | **29.43** | **6.95** |
| | | | |
| **Measured + Indicated** | | | |
| Mine | 20,505,000 | 29.38 | 6.80 |
| Exploration | 2,603,000 | 26.71 | 7.75 |
| **Total** | **23,108,000** | **29.08** | **6.91** |
| | | | |
| **Inferred** | | | |
| Mine | 2,699,000 | 28.91 | 5.79 |
| Exploration | 16,081,000 | 29.74 | 8.07 |
| **Total** | **18,780,000** | **29.62** | **7.74** |