

**TECHNICAL REVIEW OF
ASIAPHOS LIMITED
CHENG QIANG YAN AND SHI SUN XI
PHOSPHATE DEPOSITS,
AND
FENGTAI EXPLORATION PROPERTY,
MIANZHU CITY, SICHUAN PROVINCE,
PEOPLE'S REPUBLIC OF CHINA**

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1. EXECUTIVE SUMMARY

Introduction and Terms of Reference

Watts, Griffis and McOuat Limited ("**WGM**") was engaged 22 October 2015 by AsiaPhos Limited ("**AsiaPhos**") to update its November 21, 2014 NI 43-101 report and Mineral Resource estimate. This update describes the work completed since September 2014 and incorporates exploration and development results to December 31, 2015 for both the Cheng Qiang Yan (Mine 1) and Shi Sun Xi (Mine 2) mining properties and the recently acquired FengTai exploration permit. The availability of two consecutive years of development and production data has now allowed for WGM to convert some of the Mineral Resources to Mineral Reserves. The report incorporates all exploration and production data received from AsiaPhos to, December 31, 2015 and observations of the WGM QP during the site visit in October 2015. The effective date of the Mineral Resource estimate is December 31, 2015.

AsiaPhos was listed October 7, 2013, on the Catalist board of the Singapore Exchange Securities Trading Limited ("**SGX-ST**"), (trading Symbol 5WV). The company has two operating properties, Cheng Qiang Yan, (Mine 1) and Shi Sun Xi (Mine 2) held by Sichuan Mianzhu Norwest Phosphate Chemical Co. Ltd ("**Mianzhu Norwest**"), a wholly owned subsidiary of AsiaPhos.

During 2015 AsiaPhos also completed the acquisition of a 55% equity interest in 德阳市峰泰矿业有限责任公司 (Deyang FengTai Mining Co., Ltd. ("**FengTai**") which holds the FengTai exploration license located approximately 500 metres northwest of Cheng Qiang Yan, (Mine 1). The 17.91 km² FengTai property is an exploration project.

All the properties are located in Sichuan Province, People's Republic of China ("PRC"). Mianzhu Norwest has been restoring its operations following the May 12, 2008 Wenchuan Earthquake. The report also updates the status of the current exploration, development, mining and processing operations and improvements to the access roads, as part of the continuous reporting obligations of AsiaPhos.

This independent technical report has been prepared according to the reporting standards of the National Instrument 43-101 Standards of Disclosure for Mineral Projects, including Companion Policy 43-101, as promulgated by the Canadian Securities Administrators ("NI 43-101") for Reporting of Exploration Results, Mineral Resources and Ore Reserves and in compliance with the requirements of the Catalist Board of the Singapore Exchange Securities Trading Limited ("**SGX-ST**") as specified by Practice Note 4C, Disclosure Requirements for Mineral, Oil and Gas Companies.

Jack Beichen Yue, P.Eng., Associate Mining Engineer with Watts, Griffis and McOuat Limited ("**WGM**") conducted a due diligence site visit from October 23-25, 2015 to review and assess the development of Cheng Qiang Yan (Mine #1) and Shi Sun Xi (Mine #2), the

progress of the Mian-Mao Highway (the Haulage way); and the mine planning to update the Mineral Resource and reserve and potential of further exploration. The October 2015 site visit included new wells (adits) #1 at Mine 1 and 1709 Level at Mine 2.

The WGM QP inspected the underground development, transportation system, and operations. WGM accompanied by Mr. Luo, Mine General Manager, visited Mine 1. Mr. Yue was accompanied on the site visit by Mr. Luo Guangming, Mine Manager of AsiaPhos, and Mr. Zhang Wei, Geology Manager of Sichuan Province Geological Exploration and Development Bureau (the Geological Bureau). Mr. Yue also had discussions with Mr. Wang Xuebo during the course of the site visit.

No visit to the FengTai property was possible at the time of the visit as underground access had not yet advanced sufficiently to reach the property and surface visits were still not possible as earthquake debris still blocked the access road.

Previously WGM Senior Industrial Minerals Specialist, Don Hains, P.Geo., visited the site on April 22 and 23, 2014 to inspect the project advances and held extensive discussions with mine management and operational personnel. The WGM QP, visited active working or development areas at each of the two sites. The Chen Qiang Yan mine was accessed through Adit #1 (1950 level) while the Shi Sun Xi mine was accessed through the adit at the 1709 level. The WGM QP confirmed the location of the stratigraphically higher (up-faulted) phosphorite bed but was unable to personally visit it or the FengTai property being acquired due to the steep terrain and limited time available. WGM has relied on documentation and on information from Mr. Luo and Mr. Wang respecting the property which it believes to be representative.

Mr. Hains, accompanied by Mr. Zhang Yuanting of AsiaPhos and Mr. Luo Guangming, Mine Manager and Mr. Meng Shenghong, Assistant Mine Manager; reviewed the new exploration data supporting the Mineral Resource estimate and also visited the processing facilities at the New Gongxing industrial zone and held discussions with management respecting these facilities and plans for production and expansion.

The Qualified Persons and Joe Hinzer as well as other partners, 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 partners, 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 firm 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.

The effective date of this Technical Report is December 31, 2015 and this Technical Report is dated March 9, 2016. WGM confirms to the best of their knowledge, that there is no new material information that has arisen between the effective date and the date of the Technical Report which would be required to be included in the Technical Report for completeness.

WGM has also been provided with production statistics and related information to December 31, 2015 by AsiaPhos as well as the most recent exploration data dated April 2014 and the subsequent report dated August 2014 generated by the Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade.

WGM incorporated information from its previously published NI 43-101 compliant Technical Report entitled “*An Updated Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, Mianzhu City, Sichuan Province, People’s Republic of China*” dated November 21, 2014 by Donald H. Hains, P.Geol. Senior Associate Industrial Mineral Specialist.

WGM also incorporated information from its previously published NI 43-101 compliant 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, by Donald H. Hains, P.Geol. Senior Associate Industrial Mineral Specialist, Jack Beichen Yue, P.Eng., Associate Mining Engineer, and William Glover, P.Eng., Senior Associate Mining Engineer.

Reliance on Other Experts

WGM has relied on information translated from the May 2014 and August 2014 and October 2015 exploration reports reportedly prepared by Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade as well as other production information provided by Mianzhu Norwest management. The information provided to WGM appears consistent with our personal observations and WGM believe these data to be representative.

WGM has also relied on information presented in the AsiaPhos Offer Document dated September 25, 2013 and subsequent news releases regarding the status of legal title, property agreements, corporate structure, taxes, and information on environmental compliance are reportedly compliant with local regulatory requirements. WGM has not independently researched property title or mineral rights for the exploration permits and Mines under study and expresses no opinion as to the current title and ownership status of the Mianzhu Norwest Mines and Plant nor the status of related permitting and compliance.

Property Description and Location

Mianzhu Norwest's Mines and exploration property are located in the district of Mianzhu City and come under the jurisdiction of Qing Ping Town, Mianzhu City, Sichuan Province,

PRC. The elevations of the properties range from 3,200 m to about 1,380 m. Each of the properties, Cheng Qiang Yan, Shi Sun Xi, and FengTai, is defined by existing mining and/or exploration permits with surveyed coordinates. The approximate geographic locations of the permit centre points are:

Cheng Qiang Yan	Shi Sun Xi	FengTai
N31°36'14.00"	N 31°38'37.00"	N 31°38'00.00"
E 104°00'14.00"	E 104°04'43.00"	E 103°59'30.00"

The AsiaPhos mining property holdings are as follows:

Asset name / Country	AsiaPhos's Interest (%)	Development Status	Licence Expiry Date	Licence Area	Type of Mineral, Oil or Gas Deposit	Remarks
Exploration Area						
Cheng Qiang Yan / PRC*	100	Development	9 April 2016	1.54 km ²	Phosphate	Exploration rights
Shi Sun Xi / PRC	100	Development	16 June 2016	1.28 km ²	Phosphate	Exploration rights
FengTai	55	Exploration	12 December 2015	17.91 km ²	Barite (Phosphate)	Application for renewal submitted
Mining Area						
Cheng Qiang Yan / PRC	100	Development	25 December 2016	1.6491 km ²	Phosphate	Mining rights
Shi Sun Xi / PRC	100	Development	9 January 2020	2.02 km ²	Phosphate	Mining rights

* Application submitted for conversion to mining permit.

Mianzhu Norwest has 100% ownership of the property rights for Mines 1 and 2. Subject to the restructuring arrangement dated 6 July 2015, and receipt of stock exchange approval for related items 24 July 2015, AsiaPhos has effectively acquired 55% ownership of the FengTai exploration property and extinguished the former profit sharing operational agreements for various levels (adits) with various parties (collectively, the “**Dashan Co-operation Agreements**”), (see AsiaPhos news release of 6 July 2015 and 27 July 2015).

At the time of the most recent visit WGM understood that Mianzhu Norwest was in compliance with all applicable local regulations. These include purchase fees for the lands for the processing facilities, exploration and mining licence renewal and application fees and environmental and closure (abandonment) costs. The company has also complied with and obtained the required local Mine safety permits valid until 2017 and 2018.

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 and has installed waste water treatment facilities at the mine sites.

Because of the steep terrain and recorded seismic history along with ongoing tectonic activity this area is also prone to landslides and earthquakes.

The steep terrain also leads to periodic access interruptions due to inclement or hazardous weather conditions which can cause flooding, mudslides and landslides. Therefore, in the winter the site operations are generally suspended from late December to mid-March. Inclement weather at other times may delay access to the property if roads become washed out due to heavy rains.

The company has budgeted for the improvement and maintenance of access roads (in conjunction with neighbouring operations).

Access Climate Local Resources and Infrastructure and Physiography

The two mines and exploration permit which are within an approximately 8 km-9 km local radius and are located about 45 km northwest (approximate straight-line distance at 330°) of downtown Mianzhu City. They are approximately 40 km by road from Mianzhu Norwest's new downstream processing facility in the Gongxing industrial zone, near the start of the Mian Yuan River canyon that leads to the properties.

The Mian-Mao Highway Section 1 provides the main access from the Mianzhu Norwest Plant site via Hanwang Town to Qing Ping Town a distance of approximately 20 km. From there Section 2 goes further up the valley to access local communities and various mining operations. Section 3 will connect with Mao County further to the Northwest of the mines.

Major reconstruction work on the haulage road from the processing plant to Qing Ping Town paved and widened the road to two lanes throughout most of the distance, with 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. Since the extensive flooding in mid-2013, the government has changed its overall strategy on the Mian-Mao Highway. The current road is under minimum maintenance to allow normal access without restoring it to original designed condition. A new highway, designed at a higher elevation to avoid flooding damage, is now under construction. The new design consists of underground tunnels and bridges. As of October 2015, a main bridge at Qing Ping Town was completed, and many tunnels are ready to be connected.

The conditions on the section north of Qing Ping Town to both mines or Section 2 of Mian-Mao Highway are also being improved with plans to construct a series of tunnels and bridges. This northern section of the road currently requires major work to establish a safe and reliable haulage route for the transport of Mianzhu Norwest mine production as well as that of two other mine operations in the area. Road accessibility will be a critical factor until the construction is completed. Based on the latest information available to WGM construction of the north section is in progress throughout 2015, but no completion date is available. WGM

did observe a number of openings along mountain ridges for tunnel construction as well as many pillar foundations for bridge construction as part of the redesigned Mian-Mao Highway relocated to higher elevation to avoid future potential damage.

Most damage to this secondary gravel road is from the loaded ore trucks from the three mining companies. Their collective maintenance efforts however, have provided sufficient support to allow for continuous haulage.

The climate is a medium alpine humid/cold climate. The annual precipitation is about 1,050 mm. The months from July to September are considered the rainy season (59% to 84% of annual average), and from November to February is the snow and frost season. The maximum recorded 24-hour rainfall event is about 255 mm. The highest temperature is 36°C (July) and the lowest temperature is -10°C (January).

The entire area of Mianzhu City is being reconstructed to repair damages caused by the Wenchuan Earthquake. Towns and villages have been relocated and entire industries are also being relocated. The Mianzhu Norwest processing facility has also been relocated, to the new Gongxing industrial zone approximately 3 km to the northeast.

The topography is extremely rugged with steep mountains trending northeast with some vegetation cover of the valleys/canyons. The terrain is defined as steeply sloping with multiple scree (loose rock) slopes and inherent instability from slopes close to failure. The entire area is too steep to support any substantial farming or animal husbandry industries. There are however, some small areas between Qing Ping Town and the Gongxing Industrial zone that appear to support small familial gardening/farming.

The chief employment in the area between new Gongxing Industrial zone and Mianzhu Norwest's Mines is centered on state-run and private phosphate mining as well as a state-supported/directed forestry industry.

History

The discovery of Phosphorite rocks in this area dates back to 1968 when it was first reported by the #101 Geology Team of the Sichuan Bureau of Geology. Subsequent additional and more detailed surveys were reported from 1970, and 1990-1994.

Mining was first reported at Shi Sun Xi, in 1992 but was reportedly abandoned by 2000 due to low grades. Subsequent mining attempts in 2001 and 2002 from two adits at 1,841 and 1,872 m elevation were also abandoned because mineralization was not encountered where expected.

Mining at Cheng Qiang Yan was started in 1994 by the Sichuan Mianzhu School-Run Enterprise Group Company and has been in operation more or less continuously ever since.

Mianzhu Norwest acquired the mining operations in 2002 and carried out limited mining operations up until the time of the 2008 Wenchuan Earthquake. During this period the Sichuan Institute of Chemical Engineering and Geological Exploration prepared a Mineral Reserve estimate to the PRC standard and subsequently the Coal Design and Research Institute of Sichuan province was engaged to prepare a preliminary design to increase the capacity at Shi Sun Xi to 200 kt/a (which remains the current allowed capacity).

Local exploration at the FengTai property before it was acquired by AsiaPhos was conducted between 2008 and 2013 on behalf of the owner in search of Barite by the Hydrologic Engineering Brigade of Sichuan Metallurgic Geology Bureau which included 34.5 km of geological mapping, 3266 m of trenching and analyses of 170 samples.

The company has been working on rehabilitating the operations at Cheng Qiang Yan and Shi Sun Xi since 2009. Following a recent restructuring exercise completed in 2013, AsiaPhos Limited became the ultimate holding company of Mianzhu Norwest. In July 2015 the acquisition of the FengTai property was completed and exploration for phosphate has commenced.

Geological Setting and Mineralization

The outcrops in the area of Mianzhu Norwest's Mines, Cheng Qiang Yan and Shi Sun Xi, and FengTai exploration property include Upper Sinian strata, Upper Devonian strata, Lower Carboniferous strata, Lower Permian strata and a small amount of Quaternary system. In general, the geologic structures strike NE to SW and dip to North and Northwest at 42°-58°.

This region is located in the middle part of the discordogenic faults at Longmen Shan Thrust Belt and earthquakes frequently occur with some in the strong to severe categories. The Longmen Shan area marks the (rapid) transition from thick crust (60 km+) beneath the Tibetan Plateau (to the west) to continental crust with normal thickness (around 40 km) beneath the Sichuan Basin. This area is also the boundary point between the Caledonian-age folding (Silurian Period) and Songpan-Ganzi geosynclines fold belt of Indosinian orogeny of the early Mesozoic Era (Late Triassic Period) and has been in the process of deformation for at least the last 600 million years.

The stratigraphic records for the two mines are very similar. Local geological brigades are unsure as to the exact age of the phosphorite bed. Although the geological age for the phosphorite bed on the two properties is currently judged to be of Upper Devonian age, historically the bed has also been assigned to the Lower Cambrian and/or Upper Sinian (Pre-Cambrian) ages. The deposit type is known as the “Shi Fang” type. The down plunge extension of the phosphorite bed from the Cheng Qiang Yan property is expected to extend onto the FengTai property as well, although the local surface stratigraphy especially to the west is more complex and less well mapped.

There was a depositional hiatus from the Lower Cambrian to the Devonian Period at which time this phosphorite bed, in preference to others in the area, was severely weathered which created some internal structural changes and enrichment in P₂O₅ content. The internal structure changes and increases in P₂O₅ content are documentable. WGM questions whether this bed should be assigned to the Devonian Period or whether it should be more correctly assigned to the Lower Cambrian.

It is believed that the main phosphorite bed currently being mined at both Mianzhu Norwest's Cheng Qiang Yan and Shi Sun Xi mines are stratigraphically equivalent. Faulting appears to have repeated the unit on the Cheng Qiang Yan property, this however needs to be confirmed by more detailed geological and structural studies.

Upper Devonian System Lower Shawozi Group (D₃S¹) Contains the Phosphorite Bed.

This unit is composed of the grey or dark carbon hydromica claystone, phosphatic clay, siliceous phosphorite and phosphorite; composed of carbon hydromica claystone, phosphatic kaolinite claystone, svanbergite and brecciated phosphorite. Where the claystone is exposed at the surface, there is a risk of serious weathering. In addition, the claystone is vulnerable to be argillized; while svanbergite (strontium aluminum phosphate sulphate hydroxide) and phosphorite, on the other hand, is stable in thickness, hard in texture and good in stability.

Only a detailed description of the phosphorite bed at Shi Sun Xi is presented here and WGM believes it applies equally to Cheng Qiang Yan. The thickness of the phosphorite bed ranges from 1.1 to 13.8 m with an average thickness of 7.4 m. The P₂O₅ content of the bed ranges from 17.8% to 32.2% with an average of 29.6% P₂O₅. The strike of the phosphorite bed is generally E-W and the dip of the bed is about 30° to 40° in a northerly direction. The contact interface of the phosphorite and the bounding wall rock is clear and abrupt, both at the hanging wall and the footwall. This bed is projected, but has not yet been verified to be present on the FengTai property.

The phosphorite bed has a clear lithological zonation. From the bottom to top there is brecciated phosphorite, dense phosphorite, lutaceous phosphorite, svanbergite, siliceous phosphorite, and phosphatic claystone.

The phosphorite bed often leads to vertical zoning that is not complete, or is partially missing, due to the constraints of variability of the karst base (floor material) at the top of the underlying Deng Ying Group of strata.

The mineral combination mainly includes apatite, collophanite, svanbergite, kaolinite and hydro-mica among other minerals. However, from top to bottom the content of apatite and collophanite decreases in the phosphorite bed, while that of kaolinite and hydro-mica increases. The svanbergite is generally found in the central portion of the property.

The phosphorite bed is generally featured, by positive corpuscle-order gradation, a grain-size change from coarse to fine going from the bottom to the top except for the mixed order and sizes of brecciated phosphorite at the bottom of the sequence.

Physical conformation of the phosphorite bed is strictly controlled by the erosional surface of karstic topography at the base of the bed. Usually the upper contact is regular and even while the lower contact is irregular.

Typical of the "Shi Fang Type" of phosphorite deposit, the phosphorite bed is located in the space formed by the erosion process as a point of accumulation and the bed has transverse thickness variations. The erosional aspects of deposition has a certain character of its own as the accumulation of phosphorite develops along with erosion, and the phosphorite is accumulated in the lower part of the erosional topography as a bed. The phosphorite bed is derived from the weathered and reworked material from the Lower Cambrian Meishucun Formation.

The Cheng Qiang Yan property is situated in between two major, and regional, fault systems, faults F1 and F2. Most of the faults specifically on the property are reverse faults, typical of overthrust and compressional terranes. A strike slip fault near the western boundary of the property dips toward the west at 55°. This fault appears to have up faulted the phosphorite bed resulting in the second appearance of the phosphorite bed at a higher elevation.

The faults on the property generally strike NE to SW with a monoclinical structure and dip toward NW to N at 43 to 58°.

The Shi Sun Xi property contains only one described fault which strikes from SW to NE and dips in an unknown direction at an unknown angle. The fault influences the phosphorite stratum under the exploration license to the east of the mining permit.

The FengTai property is located within the east branch of the Maowen Fault, a north branch of Jiuding Mountain Fault. The fault follows the south side of the Moutuo-Shilipu NE striking anticlinorium and is considered a compressive twist fault dissecting the Sinian and Permian formations, striking 45°~50° and dipping NW-NNW at an angle range of 50°~80°. The Sinian dolostone shows a relative high degree of fragmentation. This major fault and structure and several sub parallel minor faults dominate the area.

According to GB18306-2001 "China's earthquake motion peak acceleration division map" (PRC "National Standard Amendment No.1", June 11th, 2008), the earthquake motion peak acceleration in this region is 0.20 g, the basic earthquake intensity is Mercalli VIII, the earthquake response spectrum eigenperiod is 0.35. According to the Sichuan Province tectonic system and earthquake distribution maps in 1980, Mianzhu county annals and the

quartz mine ESR age results explored in the fault zone of this region confirm that this region is located in a later structured active belt, where minor shocks have frequently occurred during geologic times. It was recorded that there were more than 10 earthquakes that affected this region; such as on March 22, 1983, when an earthquake occurred in Qing Ping Town in Mianzhu City, the epicentre was located at 104°17'E longitude and 31°34'N latitude with a magnitude of 4.2. Fortunately it caused little damage due to its mild intensity. However, Qing Ping Town became a severely damaged area after the Wenchuan Earthquake. Most of the buildings were destroyed and other damage was devastating. Based on the recorded seismic history in the area along with the geologic features and structures, it is expected that earthquakes will continue in the future. The intensity of major earthquakes could again reach a Mercalli intensity VIII (equivalent to Richter scale between 6 and 7, and mining construction as well as other projects should be planned and designed accordingly.

Although surface facilities were extensively damaged, the underground workings of the Mianzhu Norwest mine were minimally affected by the earthquake. This has been confirmed by recent exploration, development and mining activities since that time.

The phosphorite mineral composition consists chiefly of fluoroapatite and collophanite (70 to 80%) and of clay minerals (3-10%) with an accompanying 1 to 10% quartz and 1-10% zirlite (an amorphous aluminum-hydrate encrustation) as well as small amounts of pyrite, fragments of carbonate, ferric oxide, and chlorite.

The key element of commercial interest in the phosphorite mineral is phosphorus (P), which occurs in the natural oxidized form as P_2O_5 . According to 2015 production statistics, the combined average P_2O_5 extracted from the two mines was 30.89 percent.

The Coal Design & Research Institute of Sichuan Province determined that the major gangue mineralization in the phosphorite includes MgO , Fe_2O_3 , Al_2O_3 , and CO_2 . These gangue minerals will have no impact on the P_2O_5 quality or production. This is generally consistent with WGM's recent analyses and current analytical work reported by the bureau.

The barite mineralization zone striking NE and dipping northwest occurs in the "graniphyric" dolostone of the Upper Sinian Dengying Formation, with a bedding consistent with the strata. The trench TC03 indicated that the mineralized zone is 140 m long and 15 m wide, and offered some samples which returned assay results of 8%~12% $BaSO_4$.

Phosphate has not been discovered on surface to date. However based on the Phosphate beds at Cheng Quan Yan and the adjacent Longman properties to the south it is expected that the phosphate bed underlies the property as well.

Deposit Type

The primary phosphorite bed of economic interest is of sedimentary origin. While there is some disagreement between various historical geological reports as to the exact age and nature of the two deposits, the main feature being the phosphorite bed is easily identifiable and traceable at both sites.

The geology reports by local geological bureaus for the two deposits differ as to the geologic age of the phosphorite bed with the bed at Shi Sun Xi being of Devonian age and the Cheng Qiang Yan being Upper Pre Cambrian. WGM believes that both are more likely of Lower Cambrian age and equivalent to the Meishucun Formation similar to the deposits on the east flank of the very large anticline that forms the basis of most of Mianzhu area's phosphorite production.

WGM has no doubts that the roof material for the Shi Sun Xi bed is Devonian and there is a significant unconformity between the two strata just as there is an unconformity between the phosphorite bed and the underlying Upper Sinian strata identified as the Deng Ying Formation.

Because of the "Devonian" age assignment for the phosphorite bed at Shi Sun Xi, this type of "Devonian phosphorite deposit" is designated as the "Shi Fang Type" in Sichuan Province. During the depositional hiatus and erosional events that occurred between the Middle Cambrian and Devonian ages the phosphorite bed was severely weathered which increased the quality of the bed significantly compared to the Meishucun Formation. This is a natural "beneficiation" process. During the initial depositional events during the sea on-lap in the Devonian age, the "Shi Fang Type" beds were displaced somewhat and incurred internal structural changes to the bed which was subsequently covered with mid- to upper shelf Devonian marine sediments.

Exploration

At Cheng Qiang Yan, no significant exploration of the licences had taken place before 2013 other than the advancement in the understanding of the mineralization stemming from the small scale mining and development efforts. The Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade has been engaged since the last quarter of 2013 to complete the exploration work and supporting technical studies as required by PRC regulation in support of the Mianzhu Norwest applications for the renewed exploration permit and subsequently an expanded Mining Permit covering the elevations both above and below the current mining Licence.

The Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade completed the bulk of the exploration work, consisting primarily of underground surveying, mapping and sampling by December 21, 2013. Additional geodetic positioning survey work and sampling the up faulted portion of the bed, collection of

additional samples for hydrological analyses, as well as completion of whole rock and trace element analyses was completed in Q1 and Q2 of 2014. Details of the exploration up to November 2014, for both properties, have been presented in WGM's previous technical reports.

Activities since November 2014 at the Cheng Qiang Yan property included production, monitoring and resource assessments for the mining permit as well as applications for mining and exploration permit renewals and related engineering and geodetic studies. Exploration was limited to underground development for production (1,566.2 m) and access (exploration) tunnels for planning (4,177.1 m) and included 785.4m for tunnelling towards the FengTai property.

For the Shi Sun Xi mining permit and exploration permit work in 2015 was limited to production related development work (1,816.5 m) and exploration for resource definition (7,169.3 m). Work on the exploration permit was limited to planning and tunnel preparations for the proposed underground drilling program in 2016.

For the FengTai property the geological bureau completed an assessment report and proposed a surface exploration program. Mianzhu has already commenced tunnelling to reach the projected phosphate zone from underground. Access tunnel and exploration drift work totalling 116 m was completed in 2015. WGM notes some discrepancy between the alignment of topographic features between the 1:10,000 FengTai geology map and the adjacent more detailed 1:5,000 Cheng Qiang Yan property maps provided by the geological bureau.

WGM notes that as part of the transition of all geodetic data for mining and exploration permits to the Xian 1980 co-ordinate system from the former Beijing 1954 system there are some small displacements noted between maps of different dates. We believe that part of the problem may be due to issues relating to the migration of topographic data to the Xian system on some of the maps. For the most parts such shifts are minor in the 10s of metres at most and are not considered material. However it will be prudent to review all map co-ordinate data to confirm that appropriate transformations have been made.

Drilling

There has been no new drilling reported on the property since the earthquake in 2008. However activity related to permit renewals in 2014 resulted in the collection of additional underground and surface trench samples. This information has been treated as equivalent to trench information by WGM. All surface and underground sample sites have been carefully surveyed to applicable PRC standards with sub-metre X and Y location Z elevation coordinates provided.

There are no changes to the current Cheng Qiang Yan geological dataset which contains records for thirteen trenches referenced in either reports or on drawings reviewed by WGM. The data set includes nineteen pre-2013 locations within the existing underground mine where organized production control samples were collected. Activities in 2013 and 2014 provided an additional 18 underground samples and six 2014 trench sampling data points.

There have been no updates to the Shi Sun Xi geological dataset which contains records for six drill holes and five trenches, some of which were reported from neighbouring properties. There are also two locations within the existing underground mine where organized production control samples were collected between 2006 and 2008.

Reference samples collected by WGM in November 2013 from both the Mine sites generally confirmed the grade and density of the reported mineralization.

There has been no reported drilling or sampling at FengTai other than historical data and sampling in 2013 and 2014 by the previous property owner was for barite in the north western part of the property. None of this data has been made available to WGM.

During WGM's 2014 site visit geological data and anecdotal information indicating the possible continuation of the phosphate bed onto the FengTai property was reviewed. Photos of the adit and samples provided, indicate the presence of an upper phosphate bed on the Cheng Qiang Yan property which plunges towards the FengTai property. WGM understands that this is further supported by projecting to the north east a similar zone currently being exploited on the Longman property southwest of the FengTai property. Tunnelling work commenced by AsiaPhos in 2015 is expected to provide underground access to this zone towards the end of 2016.

Sample Preparation Analyses and Security

PRC has well established standards for geological exploration and reporting requirements. The exploration, sampling and analyses procedures for Phosphate are contained in a number of standards which must be followed in order get approval to advance any projects. The detailed procedures have been presented in the previous WGM report entitled "*A 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 Private Limited*" dated February 18, 2013, by Donald H. Hains, P.Geol., G. Ross MacFarlane, P.Eng.

WGM understands that the program completed on December 23, 2013 as well as the subsequent 2014 data by the Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade was conducted according to the required PRC regulation. These procedures are considered by WGM to be acceptable.

Analyses for the 2013/2014 program for Cheng Qiang Yan (Mine 1) included whole rock analyses for 10 samples and trace elements for 7 samples, however specific assay techniques were not specified. Also 14 duplicate samples and 7 verification (check) samples were also analysed as part of the sample verification program. The number of duplicate and check samples is in accordance with good QA/QC procedures. No information was provided on the number of certified reference standards or blanks incorporated in the main sample assay program, or if standards and blanks were also placed in the duplicate and check assay sample batches.

The results of the duplicate and check assays show a very high degree of correlation, with correlation coefficient values (R^2) in excess of 99% for P_2O_5 , SrO and acid insoluble.

The bureau also analysed 10 water samples in 2014 to determine the nature of the runoff from the mines. WGM understand the sampling was required to meet Chinese regulations for discharge into local drainages. WGM understands regulated analytical procedures were applied for the samples and requisite standards were achieved.

Data Verification

WGM visited both the Cheng Qiang Yan and Shi Sun Xi sites in October 2015 to review the underground mining operations, and the status of the current access roads. No new samples were collected.

Previously in 2013, WGM collected six samples, 3 from Mine 1 and 3 from Mine 2, during its November 2013 site visit. Sample analyses confirm the overall mining grade, rock density and range of oxide minerals as well as accessory minerals content. These samples were analysed at SGS Tianjin Mineral Laboratory, Tianjin, PRC using standard analytical techniques for phosphate ores. The results of the analyses confirmed the general tenor of the grade and specific gravity of the ore as reported in the Chinese geological reports.

During its November 2013 and subsequent April 2014 visit, WGM also observed the various steps of this fully integrated Phosphate operation from mining through final processing. WGM personnel reviewed development and mining practises at Mines 1 and 2 as well as mine access roads, and mine site fixed facilities. WGM also toured the modern state-of-the-art 20,000 tonnes per annum P_4 Plant at the New Gongxing industrial zone which was operating at steady state during the visit. Both the 10,000 capacity furnaces were charged and operating. WGM visited the processing plant, stockpile, processing consumables storage, furnace control room and office facilities. During the visit, WGM observed the in-plant crushing process, including mucking, loading and ore handling.

The October 2015 site visit included New Well #1 at Mine 1 and 1709 Level at Mine 2. The WGM QP inspected the underground development, transportation system, and operation. The progress on ground control and transportation system is well noted.

WGM accompanied by Mr. Luo, Mine General Manager, visited Mine 1. WGM confirmed the rail system, which was observed as work in progress in a previous visit, has been completed and is in service in the lowest level of the mine. The electricity powered hauling system was able to load ore and waste at dropping points inside the headings and transport material to ore bin and waste dump outside the portal effectively and efficiently. The dropping points inside the heading connect to ore passes that connects most of the levels. This development replaced most of the cable tramways that were previously used as a main haulage system from each level. WGM also observed ramps and manways that connect levels. These developments allow personnel and equipment to access all levels from underground and avoid exposure to hazardous environment, such as steep slopes and falling rocks along the mountain side. This is considered as a major improvement since the last visit. Also observed at Mine 1 are the improved ground control measures. The portal was reinforced with solid concrete structure; the fractured areas were supported with rock bolts, mesh screen, steel arches with timber filling, and shotcrete. The quality of the ground support installation is above standard.

The previous site visit in April 2014 also included a review of available data for the upper phosphate bed and adjacent FengTai property. Although due to time constraints and the extremely steep terrain the QP was not able to personally visit the upper adit and trenches, WGM was provided with samples and photographs and geological data from the upper phosphate bed which is believed to extend onto the FengTai property.

WGM understands that operational manpower for Mianzhu including contract miners, company staff, camp maintenance personnel, and contract truckers at the two mines to be approximately 200 people, the plant manpower being extra.

Mineral Processing and Metallurgical Testing

No direct evidence of previous mineral processing and/or metallurgical testing has been presented for review. A report by the Sichuan Institute of Chemical Engineering and Geological Exploration indicated that “the “Shi Fang Type” mineralization, has been discovered and processed for over 40 years. The processing industry has considerable processing experience on handling this type of mineralization, and based on these experiences, the product from this site can be directly used as chemical reagents or fertilizer”.

Mianzhu Norwest produced, from 2002 until the Wenchuan Earthquake, a total of approximately 379,000 tonnes of phosphate rock that were fed to the electric furnace operations at Hanwang Town Mianzhu City to produce elemental phosphorous (P_4). This operating history demonstrates that end products (P_4 and related) can be produced economically and competitively with this type of operation. Based on records recovered after the earthquake, production averaged about 29.6% P_2O_5 and 2.9% Fe_2O_3 (dry). The average moisture content of each of these samples was about 4.6% H_2O .

There was no evidence that elements like arsenic had been tracked in the operation from the phosphate rock, waste products and possible releases to the environment which would be normal and required practice in western operations. Two WGM composite samples collected in November 2013 returned arsenic (As) results of 16 and 30 ppm respectively.

Mineral Resources

The two phosphorite deposits controlled by Mianzhu Norwest contain, as of March 2, 2016, an estimated Measured and Indicated ("M&I") Resources of 19.6 million in situ tonnes, at a grade of 29.38% P₂O₅ under mining licenses. A further 8.6 million in situ tonnes of M&I Resources at a grade of 25.82% P₂O₅ are controlled under exploration licenses on the two properties. The Inferred Resources are estimated to total 1.8 million in situ tonnes, at a grade of 30.02% P₂O₅ under the mining licenses and an inferred 16.1 million in situ tonnes are estimated under the exploration licenses at a grade of 29.74% P₂O₅. These estimates used are CIM compliant. Computer model design criteria included:

- Phosphorite Density – A constant 3.08 tonnes per cubic metre was used for Cheng Qiang Yan and 3.03 tonnes per cubic metre used for Shi Sun Xi; these are the same as for all past studies conducted and are supported by reports and WGM's recent 2013 sampling (six samples) showed a specific gravity range from 2.97 to 3.18 g/cm³. The 2014 results from 30 samples tested by the Bureau ranged from 2.88-3.42 g/cm³ with similar averages;
- Minimum Phosphorite Bed Thickness – 0.25 m; estimates by past PRC work use a minimum thickness of 1.6 m; (Thicknesses ranged from 0.67 m to 13.84 m);
- Phosphorite Subcrops – None were used. The geological history for the Shi Fang type deposit dictates that all weathering phenomena were emplaced millions of years ago and no recent activity accounts for changes;
- Phosphorite Analyses – The data which are contained in individual sample analyses contained in the dataset for each property are limited. The past PRC estimates used various grade cutoffs at various times all dictated by Provincial guidelines with such cutoffs not geologically warranted. WGM applied an effective 8% P₂O₅ cutoff basis (resource polygon grades ranged from 17.77% - 35.39%);
- Outside Estimate Boundary – The mining license boundary and the exploration license boundary are used for each property; and,
- Average bed thickness and average P₂O₅ content are weight averaged by tonnes from the various applicable polygons resulting from the estimating process.

The following tables summarize the Mineral Resources for Mianzhu Norwest's mines. The Mineral Resources of each property (asset) for the mining licence area and exploration license area have been combined. Note that the estimates account for the continuity, grades and bed thickness from drill holes and surface trenching as well as information from mine development and production mining which were used in computer models developed for each deposit.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Under NI 43-101 criteria, only Mineral Resources under the M&I classification may be considered for inclusion in any mine planning efforts which are required and to possibly elevate the categorization of that material to Reserve status. The demonstration of economic viability of the Resource and downstream processing must be established before the Mineral Resources can be classed as Reserves. No Inferred Resources may be included in these efforts. This document is the reporting of phosphorite Mineral Resources and Reserves only.

Summary of the Mineral Resources and Reserves for Mianzhu Norwest's Mines

Category	Mineral Type	Gross Attributable to licence		Net Attributable to Issuer Assumed at 100%			Remarks
		Tonnes (millions)	Grade (P ₂ O ₅ %)	Tonnes (millions)	Grade (P ₂ O ₅ %)	Change from previous update ⁸ (%)	
Reserves							
Proved	Phosphorite	1.1	27.96	1.1	27.96	N.A.	Initial Reserve
Probable	Phosphorite	0.5	29.11	0.5	29.11	N.A.	Initial Reserve
Total		1.5	28.31	1.5	28.31	N.A.	Initial Reserve
Resources							
Measured	Phosphorite	16.3	27.50	16.3	27.50	-9%	
Indicated	Phosphorite	<u>11.4</u>	<u>29.43</u>	<u>11.4</u>	<u>29.43</u>	-4%	
Total		27.7	28.30	27.7	28.30	-7%	
Inferred*	Phosphorite	17.9	29.77	17.9	29.77	0%	

Notes: Mineral Resources and Reserves effective December 31, 2015.

1. WGM Senior Associate Industrial Mineral Specialist, Donald Hains, is the Qualified Person for this Mineral Resource/Reserve estimate.
2. Mineral Resources are estimated at a cutoff value of 8% P₂O₅ (based on a price of US\$60/t P₂O₅), and a minimum phosphorite bed thickness of 0.25 m.
3. 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.
4. 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.
5. 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 May 10, 2014.
6. S.G. of 3.08 tonnes/m³ and 3.03 tonnes/m³ used for Cheng Qiang Yan and Shi Sun Xi respectively.
7. Indicated amounts may not precisely sum due to rounding.
8. Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.
9. Previous Mineral Resource estimate update was prepared 21 November 2014.
10. The decreased tonnages in the Measured and Indicated categories are attributed to the upgrading of portions of the resources to the Mineral Reserve category, and to a lesser extent, depletion due to ongoing mining. Note that Mineral Reserves are being reported for the first time for these mines, under NI 43-101 Standard.
11. Estimated Mineral Resources reported are in addition to Mineral Reserves.
12. "N.A." = Not applicable.

Mineral Reserves

Based on its review of production records and capital and operation cost from 2013 and 2014 WGM is of the opinion that Mineral Resources in the immediate vicinity of exploration and development drifts currently being mined and included in the AsiaPhos mine plan for the period 2016 through 2018 can be upgraded to reserves. This would include approximately 1.5 million tonnes in total for the two mines.

Conversion of other Mineral Resources to Mineral Reserves is contingent on additional underground exploration, preferably using underground drilling and the completion of a unified data base integrating all underground exploration, development and grade control sampling and surface trench and drill data.

Mining Method

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 ore vein.

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 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. Ore is hauled from the drawpoints with tractors to ore passes, which were redesigned from original mine design to allow ore and waste rocks to be collected at a series of loading points at the bottom level of the mine by an electric powered rail system with mine carts to the portal. This haulage system replaced the cable tramway used to haul ore and waste in the air across the valley.

Materials are directly unloaded from the carts into designated areas. Ore is loaded with loaders from chutes into trucks, which are provided and operated by third party trucking contractors. A scale near the office facility 1-2 km from the mine is used to weight the trucks before departure to the processing plant.

Recovery Method

Mine ore transported to the company's processing plant located in the Gongxing industrial zone is dumped in stockpiles, based on origin and analysed in the company assay lab to determine grade and moisture content. Based on the grade of the ore it is either sent to the processing facility or sold as raw ore.

Conveyors feed the ore stock piled in the courtyard, to two stages of rock crushing. Lower grade material is generally sold untreated as crushed rock for local consumption or to the fertilizer industry. The highest quality rock is utilized to meet the capacity of the Mianzhu Norwest Plant.

Production shortfalls from Norwest mining operations can be filled with the purchase of other production in the area and 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.

The new processing facility 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 now operational.

Project Infrastructure

The restoration of the adits remains a priority for Mianzhu Norwest. As such, Mianzhu Norwest has substantially completed the agreements with neighbouring mine operations to integrate three surplus tunnels into their handling of mine rock production. The development of the underground passage system at both Mines that connects all levels to allow equipment and personnel to enter and exit the Mines through well established and protected main portals at lower elevations where there is much reduced risk from further rock slides is well underway.

Cheng Qiang Yan or Mine #1 is the company's flagship mining operation with development and/or stoping in six adits or wells as of 2015. The six wells being developed and/or mined at Mine 1 are Wells #1, #3 #4, #8 #15 and 2140.

Shi Sun Xi or Mine #2 is the newer of the two mines and is mainly under development. As of October 2015, 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 of the new Level 1709, has been completed with an operational loading pocket and rail haulage system that provides a safe truck loading station to sustain production at Mine 2.

Process Plant and Facilities

The company has completed construction of its P4 Plant (which includes the construction of two (2) furnaces) at the New Gongxing industrial zone under Phase 1. Trial production was carried out and completed in FY2013. After some initial technical start up issues with the P4 furnaces AsiaPhos has now improved the operation leading to reduced costs.

Sales for 2015 included 248,530 tonnes of phosphate rock and 10,061 tonnes of P4. Minor STPP and SHMP sales were also reported. AsiaPhos will coordinate phosphate rock sales and plant production to maximize income.

The company expended approximately Rmb128.17 million, (approximately S\$26.75 million) on the construction of the New Gongxing Facilities.

The company completed the relocation from Hanwang to Gongxing and the upgrading of the STPP Plant in 2012, and other operating facilities (such as laboratories); and infrastructure for the factories (such as access roads), at the New Gongxing industrial zone.

Phase 2 of the Rebuilding Program

Construction of new office building was completed in October 2014. AsiaPhos has expended approximately Rmb7.54 million and (approximately S\$1.57 million) have been expended on Phase 2 of the Rebuilding Program. With the receipt of its land use certificate in April 2015, Mianzhu Norwest will now again review its plans to spend approximately S\$5.9 million for further downstream phosphate chemical processing plants. In the interim the company will prioritize expenditures for mine development during 2016.

Access Road

Mianzhu Norwest made a production forecast for their operations starting in 2012 of 40,000 tonnes and gradually building to 340,000 tonnes in 2015. Actual production achieved in 2015 was 280,809 tonnes [274,105 dry metric tonnes] more than 82% of the targeted amount showing that the company is well on its way to expanding its production. When the reconstruction of the northern section of the mine haulage road is completed the company expects to be able to increase production to its 1 Mt/yr target.

Since the extensive flooding in mid-2013, the government has changed its overall strategy on the Mian-Mao Highway. The current road is now under minimum maintenance to allow normal access without restoring it to original designed condition. A new highway, designed at a higher elevation to avoid flooding damage, is now under construction. The new design consists of underground tunnels and bridges. As of October 2015, a main bridge at Qing Ping Town was completed, and many tunnels are ready to be connected.

Road accessibility will be a critical factor until the construction is completed. Based on the latest information available to WGM construction of the north section was in progress

throughout 2015, but no completion date is available. WGM did observe a number of openings along mountain ridges for tunnel construction as well as many pillar foundations for bridge construction as part of the redesigned Mian-Mao Highway relocated to higher elevation to avoid future potential damage.

Market Studies Contracts

China is now the largest phosphorous ore producer in the world with an estimated 120 million tonnes of phosphate rock production in 2014, representing approximately 55% of world phosphate rock production. China is now also the world's largest producer of phosphate fertilizers (MAP, DAP and TSP), accounting for 50% of world production on a P₂O₅ basis in 2014. Production has increased rapidly in recent years and China is now self-sufficient in both phosphate rock and phosphate fertilizer production.

Southwest China accounts for the majority of China's phosphate ore reserves on both a tonnage basis (48.3%) and on a contained P₂O₅ basis (61.4%) Sichuan Province was the fourth largest producer of phosphate rock in China in 2014 and demonstrated the third largest growth (Based on industry research reviewed by WGM).

An Industrial Minerals ("Indmin") staff release 27, April, 2015 commented on the impending scarcity of high grade phosphate in China which has resulted in the implementation of greater measures to manage the market such as export quotas, tax measures and innovation to support its phosphate industry. Data from CCM (2015) indicate that the average P₂O₅ content of phosphorite rock in China is now just over 17% and only an estimated 1.7 Bn tonnes of high grade reserves ($\pm 30\%$ P₂O₅, remains in the country. Operating costs in China show costs ranging from about US\$31/t for 28% ore vs about US\$73/t for 22% ore. AsiaPhos falls near the lower cost end of the scale.

AsiaPhos is actively selling and marketing its current production and has established buyers for its products. The company is also actively maintaining its own marketing activities. The former CRU International Limited ("CRU") market review dated 21 June 2013 prepared for AsiaPhos, and as confirmed by CRU's 2014 review of Chinese phosphate rock resources and costs, as presented at the CRU Phosphates 2014 conference in Paris in March, 2014 remain generally valid.

The combined measured and indicated phosphate rock resources for Mine 1 and Mine 2 have an average P₂O₅ content of 29.62%. In addition, CRU noted in their 2013 report that 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 and more recent 2014 analyses of 10 samples by the geological bureau returned values in the range of 1.19-4.4 ppm.

The Mianzhu Norwest Operations will yield phosphate rocks with relatively high P₂O₅ 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 2015, Mianzhu Norwest produced an actual mine output of approximately 280, 000 tonnes (274,105 dmt) of phosphate rocks with an average P₂O₅ content of 30.89%.

The 2013 CRU report 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.

While growth peaked at about 22 Mt for rock and 17.9 Mt for P₄ in 2014, (Integer 2015), the market has been soft since then showing a modest decline for rock demand and a significant drop in P₄ (CCM Oct 2015). Although the near term forecast for both P₄ and for rock products is expected to continue in decline, the longer term outlook, especially given the Silk Road and Belt initiative is more positive.

The biggest unknown is the management policies China will implement to safeguard its high grade phosphate resources for the future. While current measures such as tax cuts to low grade producers may benefit some, increased taxes for higher grade ores and potential limits on the exploitation of high grade ores may provide some challenges for AsiaPhos, these however are expected to be offset by expected government incentives to improve mining and processing efficiencies. AsiaPhos has made significant headway in this regard.

Their modern state of the art facilities are expected to further benefit the company by allowing them to maintain and possibly increase market share as lower grade and non-integrated producers will face higher operating costs.

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. This conclusion respecting the development of the Chinese phosphate industry was confirmed by CRU in a presentation at the 2014 CRU phosphate conference in March 2014.

While considered small scale at present and faced with a fragmented local market, the company's objectives of growing the operation to 400,000 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.

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.

Environmental Studies

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.

The AsiaPhos Mianzhu Norwest operations are currently in compliance with all local requirements and current operating plans also provide for capital and operating budgets to maintain the operations in compliance with PRC regulations. The Plant commissioned in 2013 complies 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.

Mianzhu Norwest acknowledges that various current conditions and practices would not meet the standards of international best practice. Mianzhu Norwest has stated its desire to move their operations towards international best practices.

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.

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.

Capital and Operating Costs

The total unit operating cost in Y2013 based on approximately 128,000 tonnes was Rmb243 per tonne mined including amortisation and depreciation, compared to Rmb240 per tonne in 2012. For 2014 cost was Rmb242 and for 2015 cost was Rmb222 per tonne. The lower costs in 2015 were due in part to termination of the Dashan profit sharing agreement in July 2015 and the improved operating efficiency at the mines due to the recent upgrades.

Economic Analyses

WGM has reviewed Mianzhu Norwest's current proposed production plan and has completed an independent evaluation of the economics of the project until 2033. This review includes the gradual expansion of the mining capacity to 1.0 Mtpa (million tpa) following the

scheduled completion of the reconstruction of the haulage road. 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 basic assumptions in the Mianzhu Norwest model extend to the year 2033. WGM presents this model, with the annual production rate projected to increase from 400,000 tpa in 2016 to 1.0 Mtpa in 2022. Also, the WGM model is based on a zero rate of inflation of both prices and capital and operating costs and an exchange rate of 6.53:US per US\$ (March, 2016). While WGM believes that labour costs in the PRC will increase 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 to 2015 as sunk revenue and cost and has discounted the net cash flow. As the financial analysis demonstrates, the production plan of Mianzhu Norwest has robust economics over the discounted period that has been analysed. The project shows an NPV of ¥932 million or US\$142.8 million at a discount rate of 10%.

The sensitivity tested these variables from -25% to +25% of their Base Case values. 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.

WGM regards the greatest risk to this analysis is the potential impact of the haulage road from the mine to the Plant during the next three years until the haulage road reconstruction is expected to be completed.

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.

WGM has determined that the adjacent “neighbours” at Cheng Qiang Yan are Longman Phosphate Company to the north and Qing Ping Phosphate Mining Company to the east of the current mining license area. There appears to be some unpermitted ground between the Cheng Qiang Yan permits and the FengTai exploration property to the northeast. Likewise, at Shi Sun Xi the adjacent “neighbours” are the Longman Phosphate Company to the west and An Xian Shi Sun Xi Mining Company to the east.

Cooperation between the neighbouring companies and Mianzhu Norwest was taking place with provision of access during operations and there 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.

Other Relevant Data and Information

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.

Exploration work will be required to evaluate the potential of the recently acquired FengTai property. AsiaPhos has commenced an exploration program for the property details on budget and exploration schedule are being prepared for review and implementation in 2016.

To date no comprehensive project studies has been carried out other than those required for mining permit applications and renewals. Conversion of Mineral Resources beyond the limits of current development will require additional drilling as well as reviews and updates of metallurgical, environmental, market, economic and related studies.

Exploration work will be required to evaluate the potential of the recently acquired FengTai property. AsiaPhos has proposed an exploration program for the property but details on budget and exploration schedule pending successful conclusion of the transaction are not yet available.

Interpretation and Conclusions

The phosphorite Resources controlled by Mianzhu Norwest are higher grade than many of the nearby phosphorite deposits. The high grade and relatively low impurities are favoured by markets. The modern processing facility and vertically integrated operations provides greater operational flexibility.

The Resource estimates made in this report are based on the assumption that mineralization is continuous within each zone. There is a reasonable expectation that further exploration of the licence areas can contribute to increases in the Resources resulting from better understandings of the local structure and thickness of the mineralization.

From a phosphorite quality viewpoint, the phosphorite Resources controlled by Mianzhu Norwest are higher grade than many of the nearby phosphorite deposits 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.

Recommendations

In general WGM agrees with Mianzhu Norwest's post-Wenchuan Earthquake business plan that accommodates the current conditions of each of the Mines. This includes the scope, schedule and cost of the restoration and expansion of production as well as the long-term approach for the operations taking into consideration current and projected markets. The plan should also continue to 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, standards for listed companies and possibly required by the future market place standards for the industry such as ISO certifications.

With the extensive construction still ongoing for the northern portion of the route, haulage of mine production still needs to be planned during periods of reduced access to maintain a stockpile at the processing site to ensure continuous operations. Upgrading the road haulage capacity is seen as a critical element for achieving the planned 1 Mt/yr target.

Each of the Mines needs additional geologic definition through further drilling and sampling required for better mine planning with reduced risk to production shortfalls or grade variations. The current practices of "exploration through production" should be replaced with Reserve definition drilling prior to mining. Conversion of the current databases to a single comprehensive database is also required to raise the confidence level required to support a reserve to international standards.

In addition to analysing the samples for the phosphate grade, the program should also continue to track 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 2015 to 2022 when the planned mine production is scheduled to increase from 274,105 dmt to 1,000,000 tonnes with 1 Mtpy to be maintained thereafter, the requirement to establish Mineable Reserves to sustain that production level remains a priority. While considerable development of the footwall haulage has been completed at both mines increased mechanization and better Mineral Resource definition will be required.

Foremost is the conversion of the various existing reference systems and databases into a comprehensive unified database of all of the existing exploration, development and mining data. At present trenching data, mine planning and development and surface plans are not integrated which can be confusing and may lead to erroneous conclusions as to the location, and extent of mineralization.

WGM recommends establishing a database which should include all development and production plan and actual production and development data. Reconciliation at end of month should be easily accessible and auditable.

The current practices at both operations have very limited transparency of the amount of work that has been planned and/or completed in the past year. AsiaPhos should assign a dedicated mining engineer to be fully responsible to maintain such database up to date at all times.

The design and planning of the current program only focuses on meeting the government requirement or minimum standard. It is recommended that AsiaPhos extract the maximum value from this exploration work by designing the programs with the perspective to expand existing Mineral Resources and to facilitate their conversion to Mineral Reserves based on NI 43-101 or equivalent standards.

Estimated exploration expenditure requirements are based on the increased level of mine development and the exploration required to define the minimum portion of the Mineral Resource as Mineable Reserves.

**ESTIMATED ANNUAL REQUIREMENT
DEFINITION OF MINEABLE RESERVES/RESOURCES FOR MIANZHU NORWEST
MINES 1 AND 2**

	2016	2017	2018	2019
Annual Production (tonnes)	400,000	542,000	656,000	783,000
Number of Exploration samples based on subsequent year production	20	24	30	34
Number With Contingency	26	31	39	45
Drilling Required (metres)	1040	1200	1560	1800
Drilling Cost (US\$ x 1000)	\$124.80	\$148.80	\$187.20	\$216.0
Sampling Cost (US\$)	\$2,423	\$2,889	\$3,634	\$4,185
Footwall Drifting (metres)	200	300	300	300
Footwall Development (US\$)	\$34,000	\$51,000	\$51,000	\$51,000
Exploration Management and Administration	<u>\$41,900</u>	<u>\$56,800</u>	<u>\$67,800</u>	<u>\$67,800</u>
Total Exploration Cost (US\$ x1,000)	\$203.1	\$259.5	\$309.3	\$339.0

2. INTRODUCTION AND TERMS OF REFERENCE

2.1 INTRODUCTION

Watts, Griffis and McOuat Limited ("**WGM**") was engaged in 22 October 2015 by AsiaPhos Limited ("**AsiaPhos**") to update to its November 21, 2014 NI 43-101 Mineral Resource estimate report. The update describes the work completed since September 2014 and incorporates the as the result of exploration and development to December 31, 2015. Some of the Mineral Resources were also converted to Mineral Reserves in light of the recent development and production data. The report summarizes activities for both the Cheng Qiang Yan (Mine 1) and Shi Sun Xi (Mine 2) mining permits and exploration permits as well as incorporating exploration activities for the recently acquired FengTai exploration permit. The report includes all exploration and production data received from AsiaPhos to December 31, 2015 and observation of the WGM QP during the site visit in October 2015. The effective date of the updated technical report is December 31, 2015.

AsiaPhos was listed 7 October, 2013, on the Catalist board of the Singapore Exchange Securities Trading Limited ("**SGX-ST**"), (trading Symbol 5WV). The company has two operating properties, Cheng Qiang Yan, (Mine 1) and Shi Sun Xi (Mine 2) held by Sichuan Mianzhu Norwest Phosphate Chemical Co. Ltd ("**Mianzhu Norwest**"), a wholly owned subsidiary of AsiaPhos. During 2015 AsiaPhos also completed the acquisition of a 55% equity interest in 德阳市峰泰矿业有限责任公司 (Deyang FengTai Mining Co., Ltd. ("**FengTai**") which holds the FengTai exploration license located approximately 500 metres northwest of Cheng Qiang Yan, (Mine 1. The 17.91 km² FengTai property, is an exploration project.

All the properties are located in Sichuan Province, People's Republic of China ("**PRC**"). Mianzhu Norwest has been restoring its operations following the May 12, 2008 Wenchuan Earthquake. The report also updates the status of the current exploration, development and mining operations and improvements to the access roads, as part of the continuous reporting obligations of AsiaPhos.

WGM had originally been retained in 2010 by Norwest Chemicals Pte Ltd, the immediate holding company of Sichuan Mianzhu Norwest Phosphate Chemical Co. Ltd ("**Mianzhu Norwest**"), to provide technical assistance to the company and to prepare an independent technical report ("Technical Report") in compliance with the requirements of the Catalist Board of the Singapore Exchange Securities Trading Limited as specified by Practice Note 4C, Disclosure Requirements for Mineral, Oil and Gas Companies. Subsequently WGM has prepared updated reports for the two properties incorporating the 2013 and 2014 exploration and production results for the company's 2013 and 2014 annual reports.

WGM has extensive experience with these operations gained as a result of their six previous site visits since 2010. These include the most recent one by WGM Associate Mining Engineer, Jack Beichen Yue, P.Eng., October 23-25, 2015 to visit the active working and development areas at both the Chen Qiang Yan and the Shi Sun Xi mine as well as the access road. Underground access had not yet advanced sufficiently to reach the FengTai property at the time of the visit and surface visits were still not possible as earthquake debris still blocked the access road. Mr. Yue also reviewed the new exploration data from the Sichuan Province Geological Exploration and Development Bureau Geochemistry Team used as part of their applications for permit renewals. Previously in 2013, Mr. Yue had collected samples for verification sampling.

WGM's Senior Industrial Minerals Specialist, Donald Hains, P.Geo., visited the site from April 22 and 23, 2014, who to inspect the project advances and to hold extensive discussions with mine management and operational personnel. Visits by the QP to the FengTai property were not possible as all surface access routes were blocked due to the earlier earthquake in 2008. Mr. Hains relied on documentation and information from the geological bureau and held discussions with Mr. Luo and Mr. Wang respecting this property and advised on the design of an underground access.

WGM's visit also focussed on advising AsiaPhos on appropriate exploration parameters for upgrading more of the current Mineral Resources to Mineral Reserves, reviewing the current development advances in support of planned operational expansion, and the company's ongoing efforts to engage international best practices. The collection of additional independent reference samples during the October 2015 site visit was not warranted, the QP has relied on the production statistics provided by the company

This independent technical report has been prepared according to the reporting standards of the National Instrument 43-101 Standards of Disclosure for Mineral Projects, including Companion Policy 43-101, as promulgated by the Canadian Securities Administrators ("NI 43-101") for Reporting of Exploration Results, Mineral Resources and Ore Reserves and in compliance with the requirements of the Catalist Board of the Singapore Exchange Securities Trading Limited ("SGX-ST") as specified by Practice Note 4C, Disclosure Requirements for Mineral, Oil and Gas Companies.

AsiaPhos has provided WGM with production statistics and related information for the 2015 fiscal year ending December 31, 2015 and recent reports prepared by the Sichuan Province Geological Exploration and Development Bureau Geochemistry Team for Cheng Qiang Yan (Mine 1), exploration reports for the FengTai property dated June 2015. There was no new reporting available from the geological bureau for the Shi Sun Xi (Mine 2) mining or exploration permits other than the previous July 2014 report.

WGM has incorporated summary information from its previously published NI 43-101 compliant Technical Reports dated March 28, 2014 and November 21, 2014 the reader is referred to these reports for detailed description of the activities during those periods.

These are entitled “*An Updated Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, Mianzhu City, Sichuan Province, People’s Republic of China*” dated, November 21 2014, by Donald H. Hains, P.Geo., Senior Associate Industrial Mineral Specialist; and “*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 by Donald H. Hains, Jack Beichen Yue, and William Glover.

The data supporting the statements made in this report have been verified for accuracy and completeness by the authors. With due regard for the standards for documentation of resources in China, no meaningful errors or omissions were noted.

The effective date of this Technical Report is December 31, 2015 and this Technical Report is dated March 9, 2016. WGM confirms to the best of their knowledge, that there is no new material information that has arisen between the effective date and the date of the Technical Report which would be required to be included in the Technical Report for completeness.

2.2 TERMS OF REFERENCE

This report has been completed pursuant to the engagement executed between AsiaPhos and WGM, dated October 22, 2015. WGM’s scope of work included the update to the Mineral Resources for Mine 1 and Mine 2.

WGM, as part of its site visit in October 2015, also examined the data relating to the potential FengTai acquisition and reviewed the progress on the implementation of the proposed expansion plans and the work required to achieve conversion of Mineral Resources to Reserves. Available information related to the Mianzhu Norwest properties provided by AsiaPhos and results from the ongoing Sichuan Province Geological Exploration and Development Bureau Geochemistry Team exploration data was also reviewed.

The findings are summarized and presented with recommendations in a report prepared in compliance with Canadian Securities Administrators’ NI 43-101 and definitions of the Council of the Canadian Institute of Mining, Metallurgy and Petroleum (“**CIM**”) standards revised May 10, 2014. NI 43-101 and in compliance with the requirements of the Catalyst Board of the Singapore Exchange Securities Trading Limited as specified by Practice Note 4C, Disclosure Requirements for Mineral, Oil and Gas Companies.

WGM has assisted the company in a technical advisory capacity since 2010 and has completed six visits to the property. WGM also prepared several technical reports, which

summarized the status of the operations, geological exploration, and Mineral Resource estimates for the Cheng Qiang Yan and Shi Sun Xi properties of AsiaPhos Limited in connection with the initial public offering of its shares on the Catalist Board of the SGX-ST and more recently the preparation of its annual reports.

This report updates the Mineral Resources for the properties incorporating the 2015 exploration and production results to December 31, 2015 for:

- Cheng Qiang Yan Property;
- Shi Sun Xi Property; and,
- FengTai exploration property.

Mianzhu Norwest has been rehabilitating the previous operations of both the Mines and has substantially completed the new processing plant and related infrastructure. A sufficient amount of the required engineering, environmental and modifications have been completed to commence limited production which in conjunction with historical production data allows for the preparation of the conceptual financial model included with this report.

The current report reviews the advances made to date and additional exploration and detailed engineering work which is still required in order to meet international requirements for the definition of Reserves and demonstrate project feasibility. This work largely entails underground development, exploration drilling and more extensive mine planning to support estimation of Reserves and production forecasts both in short and long term mine plans.

2.3 SOURCES OF INFORMATION

AsiaPhos has provided WGM with production statistics and product sales data for the fiscal year ending December 31, 2015, and excerpts from an April 2014 report entitled, “*The Deepening Prospecting Implementation Plan of Shi Sun Xi (Mine 2) Phosphorite Mine, Mianzhu, Sichuan*” and the technical report of August 2014 by the “*Sichuan Mianzhu Norwest Phosphate Chemicals Company Limited (Cheng Qiang Yan mine)*”, prepared by the Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade for permit renewal applications and the FengTai report of October 2015.

WGM Associate Mining Engineer Jack Beichen Yue, P.Eng., visited the site from October 23-25, 2015. During the site visit Jack Yue inspected both sites to examine the mines and related infrastructure and held discussions with senior mine personnel. Mr. Yue was accompanied on the site visit by Mr. Luo Guangming, Mine Manager of AsiaPhos and Mr. Zhang Wei, Geology Manager of Sichuan Province Geological Exploration and Development Bureau (the Geological Bureau). Mr. Yue also had discussions with Mr. Wang Xuebo during the course of the site visit. This followed up the prior visit by WGM Senior Industrial Minerals Specialist, Don Hains, P.Geo., from April 22 and 23, 2014. Both

inspected the project advances and held extensive discussions with mine management and operational personnel.

WGM has relied on and accepted as reasonable, documentation and information from Mr. Luo and Mr. Wang respecting the property.

In conducting this updated study, WGM relied on its previously published NI 43-101 compliant Technical Reports entitled:

- WGM has also referenced its recent report entitled “*Site Visit Report, Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People’s Republic of China for AsiaPhos Limited*” dated November 14, 2014, by Donald Hains, P.Geo. Senior Associate Industrial Minerals Specialist.
- “*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, by Donald H. Hains, P.Geo., Senior Associate Industrial Mineral Specialist, Jack Beichen Yue, P.Eng., Associate Mining Engineer and William Glover, P.Eng., Senior Associate Mining Engineer; and
- “*A 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 Private Limited*” dated February 28, 2013, by Donald H. Hains, P.Geo., G. Ross MacFarlane, P.Eng., and the Offering documents filed with the SGX-ST.

WGM has relied on documentation and information from Mr. Luo and Mr. Wang respecting FengTai the property.

WGM also refers to its previous experience and visit to the property as noted in the following:

WGM Senior Associate Mining Engineer, William Glover, P.Eng., and WGM Associate Mining Engineer, Jack Beichen Yue, P.Eng., conducted a site visit from November 25 to 30, 2013. Two operating adits one at each mine, Level or Well 15 at Cheng Qiang Yan (Mine 1) and Level or Well 1950 at Shi Sun Xi (Mine 2), were visited to observe current practices. Extensive discussions with mine management and operational personnel were also undertaken as part of the operational review process.

Six independent reference samples were collected (three from each mine), these were assayed for both oxide and trace metals to provide a full base line profile.

Extensive information was also gathered during earlier site visits. The sites were originally visited by: James Spalding, WGM Senior Associate Geologist; Ross MacFarlane, WGM Senior Associate Metallurgical Engineer; and Jack Beichen Yue, WGM Associate Mining Engineer from February 23, 2010 to March 3, 2010. Subsequent site visits, were conducted by Ross MacFarlane and Mr. Yue on November 27 and 28, 2011, and then by Mr. Yue on May 31, 2012 and November 26 to 28, 2012. Donald Hains, Senior Associate Industrial Mineral Specialist reviewed the work previously completed by James Spalding (who retired from active practice for personal reasons in 2011) as well as all of the current results.

In addition to the earlier due diligence visits WGM visited the Mianzhu Norwest downstream processing facility and elemental phosphorous manufacturing facility under construction at the New Gongxing industrial zone in October 2013 and April 2014, as well as the Geological Institute charged with the past exploration programs and interviews were held with the primary Chinese geological consulting firm, the Sichuan Institute of Chemical Engineering and Geological Exploration, and with the Mianzhu Norwest personnel involved with the mining, transportation and processing operations.

Donald H. Hains, P.Geo., Senior Associate Industrial Mineral Specialist has reviewed all the new exploration data and Mineral Resource estimates.

In preparation of this report, the qualified person has taken into account all relevant information supplied by the company. WGM has also previously reviewed unpublished internal reports and other information supplied by Mianzhu Norwest and the geological publications of the government of PRC. While WGM is unable to verify some of the information presented in these reports, WGM has no reason to believe that the information is not representative. A list of documentation reviewed and other sources of information are provided in the "References" section at the end of this report.

2.4 DETAILS OF PERSONAL INSPECTION OF THE PROPERTY

Jack Beichen Yue, P.Eng., Associate Mining Engineer with Watts, Griffis and McOuat Limited (“WGM”) conducted a due diligence review and assessment of the development of Cheng Qiang Yan (Mine #1) and Shi Sun Xi (Mine #2), the progress of the Mian-Mao Highway (the Haulage way); and the mine planning to update the Mineral Resource and reserve and potential of further exploration.

The October 2015 site visit included New Well #1 at Mine 1 and 1709 Level at Mine 2.

The WGM QP inspected the underground development, transportation system, and operation. The progress on ground control and transportation system is well noted. WGM accompanied by Mr. Luo, Mine General Manager, visited Mine 1. WGM confirmed the rail system, which was observed as work in progress in previous visit, has been completed and is in service in

the lowest level of the mine. The electricity powered hauling system worked effectively and efficiently. The dropping points inside the heading connect to ore passes that connect most of the levels. WGM also observed ramps and manways that connect levels. These developments allow personnel and equipment to access all level from underground and avoid exposure to hazardous environment, such as steep slopes and falling rocks along the mountain side. Also observed at Mine 1 are the improved ground control measures. The portal was reinforced with solid concrete structure; the fractured areas were supported with rock bolts, mesh screen, steel arches with timber filling, and shotcrete. The quality of the ground support installation is above standard.

Mr. Yue was accompanied on the site visit by Mr. Luo Guangming, Mine Manager of AsiaPhos and Mr. Zhang Wei, Geology Manager of Sichuan Province Geological Exploration and Development Bureau (the Geological Bureau). Mr. Yue also had discussions with Mr. Wang Xuebo during the course of the site visit.

During his previous visit WGM Senior Industrial Minerals Specialist, Don Hains, P.Geo., from April 22 and 23, 2014 the WGM QP visited active working or development areas at each of the two sites. The Cheng Qiang Yan mine was accessed through Adit #4 (2005 level) while the Shi Sun Xi mine was accessed through the adit at the 1709 level. The WGM QP also discussed details of the FengTai property but was unable to personally visit the property. Mr. Hains also visited the processing facilities at the New Gongxing industrial zone and held discussions with management respecting these facilities and plans for production and expansion.

Previously various WGM's team members including: WGM Senior Associate Mining Engineer, William Glover, P.Eng.; WGM Associate Mining Engineer, Jack Beichen Yue, P.Eng.; and Ross MacFarlane; P.Eng., had visited the property at various times between 2010 and 2013. Previous visits included underground operations at Mine 1 (Cheng Qiang Yan) and Mine 2 (Shi Sun Xi) to observe mining practices and, truck loading operations, ongoing development, assess the overall operational standards and safety practices, and collection of verification samples and to discuss and review the recommendations to further increase the development efficiency and safety standards.

The Qualified Persons and Joe Hinzer as well as other partners, 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 partners, 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 firm 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.

2.5 UNITS AND CURRENCY

Units of measurement used in this report conform to the SI (metric) system. Tonnages are presented in tonnes ("t") equivalent to 1,000 kilograms (kg), metric tonnes per annum ("tpa") or metric tonnes per day ("tpd"). Linear measurements in metres ("m"), square metres ("m²"), cubic metres ("m³"), kilometres ("km"), square kilometres ("km²").

Currencies in this report are quoted in United States of America dollars ("US\$"), Singapore dollars ("S\$"), and/or China Renminbi ("Rmb ¥"). The conversion rate from Rmb to S\$ was 0.218 as at December 30, 2015. The Conversion rate from Rmb to US\$ used in this report was 6.53 being the exchange rate as at March 2016. To complete the financial analysis of the AsiaPhos 2016 business plan, the above exchange rate was used.

2.6 DEFINITIONS

The following are the terms and their definitions used throughout the report.

**TABLE 1.
LIST OF DEFINITIONS**

Terms	Description
NI 43-101	National Instrument for the standards of disclosure for mineral projects for listing with Canadian regulators TSX/TSXV etc. (revised June 30, 2011).
JORC	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves that sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves (as revised).
CIM Standards	Standards, set by Canadian Institute of Mining Metallurgy and Petroleum, to establish definitions and guidelines for the reporting of Exploration Information, Mineral Resources and Mineral Reserves in Canada (last revised May 10, 2014).
Technical Report	This independent technical report dated November 21, 2014 prepared by WGM in accordance with NI 43-101 relating to the Mines.
Offer Document	The Offer Document dated 25 September 2013 issued by AsiaPhos Limited and the Vendors, including the Appendices thereto and the Application Forms in respect of the Initial Invitation for Listing on Catalist of the Singapore Exchange Securities Trading Limited.
Dashan	绵竹市大山矿业有限责任公司 (Mianzhu Dashan Mining Co., Ltd).
New Gongxing Facilities	The new facilities for Chemical Production Operations located at the New Gongxing Site.
New Gongxing Site	The new land premises located at Xiangliu Village, Gongxing Town, Mianzhu City, Sichuan Province, the PRC, comprising Phase 1 Land and Phase 2 Land.
Mine 1	The 四川绵竹华丰磷化工有限公司城墙岩磷矿 (Cheng Qiang Yan phosphate mine), located in Qing Ping Town, Mianzhu City, Sichuan Province, the PRC, details of which are set out in the section entitled "General Information on our Group – Mining Operations" of the Offer Document.
Mine 2	The 四川绵竹华丰磷化工有限公司石笋西磷矿 (Shi Sun Xi phosphate mine), located in Qing Ping Town, Mianzhu City, Sichuan Province, the PRC, details of which are set out in the section entitled "General Information on our Group – Mining Operations" of this Offer Document.
Mines	Mine 1 and Mine 2 collectively.
FengTai	The FengTai exploration property located northwest of Mine 1 and 55% owned by Sichuan Mianzhu Norwest Phosphate Chemical Co., Ltd (SMNPC)
Mianzhu Norwest Mines and Plant	四川绵竹华丰磷化工有限公司 (Sichuan Mianzhu Norwest Phosphate Chemical Co., Ltd. (SMNPC) and the New Gongxing Facilities.
The Wenchuan Earthquake	A Richter scale 8.0 magnitude earthquake on May 12, 2008 with epicenter in Wenchuan County, Sichuan, China.
Rebuilding Program	The construction of facilities for the Chemical Production Operations and offices at the New Gongxing Site following the Wenchuan Earthquake and the Relocation Exercise.
The Landslide	The landslide that occurred in August 2010 that damaged the access road to the mining activities of Mianzhu Norwest and neighbouring operations.
Rock slide	The falling of rocks down the side of the mountain due to slope instability, often caused by heavy raining or local shocks.
Mtpa	Million tonnes per annum.
Dmt	Dry metric tonne (bases on mine data the moisture content of the ore ranges from approximately 2-4%)
Net Cash Flow	The total cash minus the total liability over a given period of time.
Base Case	Financial model using most reasonable/conservative assumptions.
Phosphorite rock	A phosphate bearing sedimentary rock with a high enough content of phosphate minerals to be of economic interest.
Phosphorite Bed	A continuous layer or rock unit of phosphate bearing rock.
Phosphorite material	The chemical component, which is a part of phosphorite deposit that is used to form the final product.
Phosphorite, Phosphorite Resources, Phosphoritic Deposit and Phosphate Deposit	The rock unit that contains the Phosphorite rock with the description and economic context.
Reserve Definition Drilling	The type and extent of drilling including the procedures followed to identify Mineral Resources and Reserves.
Rehabilitating	The reconstruction and restoration of the infrastructures and installations to allow continuation of the exploration, development and mining operations.

TABLE 1.
LIST OF DEFINITIONS (continued)

Terms	Description
Exploration information	The geological, geophysical, geochemical, sampling, drilling, analytical testing, assaying, mineralogical, metallurgical and other similar information concerning a particular property that is derived from activities undertaken to locate, investigate, define or delineate a mineral prospect or mineral deposit.
Mineral Resource	See Section 14.2
Inferred Mineral Resource	See Section 14.2
Indicated Mineral Resources	See Section 14.2
Measure Mineral Resources	See Section 14.2
*Mineral Reserve	See Section 14.2
Probable Mineral Reserve	See Section 14.2
Proven Mineral Reserve	See Section 14.2
Feasibility study	a comprehensive study of a deposit in which all geological, engineering, operating, economic and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.
Preliminary feasibility study; “pre-feasibility study”	a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration in the case of an open pit, has been established, and which, if an effective method of mineral processing has been determined, includes a financial analysis based on reasonable assumptions of technical, engineering, operating, economic factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve.

* Mineral Reserve is defined by CIM definition (as mandated by NI 43-101) and Ore Reserve by JORC. In order to avoid confusion in this report the term Reserve or Reserves are used throughout with the meaning as described.

3. RELIANCE ON OTHER EXPERTS

Previous Technical Report has been prepared by WGM for AsiaPhos Limited, the holding company of Mianzhu Norwest. The information, conclusions, opinions, and estimates contained herein are based upon:

- WGM's most recent site visits;
- WGM's observations and independent samples collected from previous site visits;
- Information available to WGM at the time of preparation of this report;
- Translation of the parts of the exploration reports from Sichuan Province Geological Exploration and Development Bureau Geochemical Exploration Brigade for the FengTai Cheng Qiang Yan (Mine #1) and Shi Sun Xi (Mine #2, properties submitted in support of permit renewals;
- Data, reports, and opinions supplied by Mianzhu Norwest and third party sources listed as references; and
- Assumptions, conditions, and qualifications as set forth in this report.

WGM has relied on the AsiaPhos Offer Document dated September 25, 2013, and annual report for 2013 and 2014 respectively as well as press releases, regarding the status of permit renewals, legal title, property agreements, corporate structure, taxes, and required information concerning social, environmental and operational information and the status of related permits all of which have for the largest part had been prepared by independent counsel and are reportedly compliant with local regulatory requirements. WGM has relied on the information noted above presented as part of the listing application as well as any recent updates and news releases received and has not independently researched property title or mineral rights for the exploration permits and Mines under study and expresses no opinion as to the current title and ownership status of the Mianzhu Norwest Mines and Plant nor related permitting and compliance issues.

This NI 43-101 Technical Report on the phosphorite Resources on Cheng Qiang Yan and Shi Sun Xi in Sichuan Province and FengTai exploration property has also been completed with reliance on numerous geological and technical studies previously prepared by various government and related organizations in the PRC, the most recent of which being draft Cheng Qiang Yan geological reports dated April 2014 the proposed Shi Sun Xi work program in August 2014 respectively and for the FengTai property, the General Exploration Summary Report for the Yingxiongya Barite Mine, Mianzhu City, Sichuan Province dated 15 October 2015, prepared by Sichuan Metallurgical Geological Prospecting Bureau of Hydrology Project. While WGM has not been able to verify all of the data presented, WGM based on its own due diligence and reviews has no reason to believe that the information

presented in these reports pertaining to the current mining operations and development work in progress is not representative.

No updated information has been received for the Shi Sun Xi property. WGM has relied on the information from the 2014 report “*The Deepening Prospecting Implementation Plan of Shi Sun Xi Phosphorite Mine, Mianzhu, Sichuan*” by the Sichuan Bureau of Geology and Mineral Resources Exploration Development Team.

WGM assessed the project data and geology along with developing a computer model of each of the deposits to complete the deposit evaluation and the phosphorite resources assessment for this project. The most recent information as presented in this report has been prepared under the supervision of Donald Hains, Senior Industrial Minerals Specialist.

WGM had previously collected a number of independent verification samples from various operational sites at both Mine 1 and Mine 2 as part of its extensive visit in April 2014. WGM has relied on these sample results reported by independent SGS Laboratories, Tianjin, PRC. These results which confirm the assays reported for the previous field programs, local laboratory analytical results and historical drilling as previously reported by the Geological bureaus confirms that the geological work was completed by experienced and well-regarded exploration personnel and their conclusions can be relied upon.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The AsiaPhos Cheng Qiang Yan and Shi Sun Xi properties and FengTai properties are situated north of Chengdu in the west-central portion of Sichuan Province PRC, almost exactly on the physiological break between the extension of the Tibetan highlands and the Sichuan Basin. The properties are located in the district of Mianzhu City approximately 60 km northeast of Chengdu population 18 million. The topography in the immediate area of mines is extremely rugged with steep northeast to southwest trending mountains and valleys or canyons, with alpine vegetation cover. The elevations of the Mines range from 3,200 m to about 1,800 m. Each of the properties, Cheng Qiang Yan and Shi Sun Xi, and FengTai is defined by existing mining and/or exploration permits with surveyed coordinates.

The Mianzhu Norwest Mines are located about 45 km northwest (straight-line about 330°) of downtown Mianzhu City under the jurisdiction of Qing Ping Town, Mianzhu City, Sichuan Province. The properties are within a area of approximately 8 km and their geographic centre locations are:

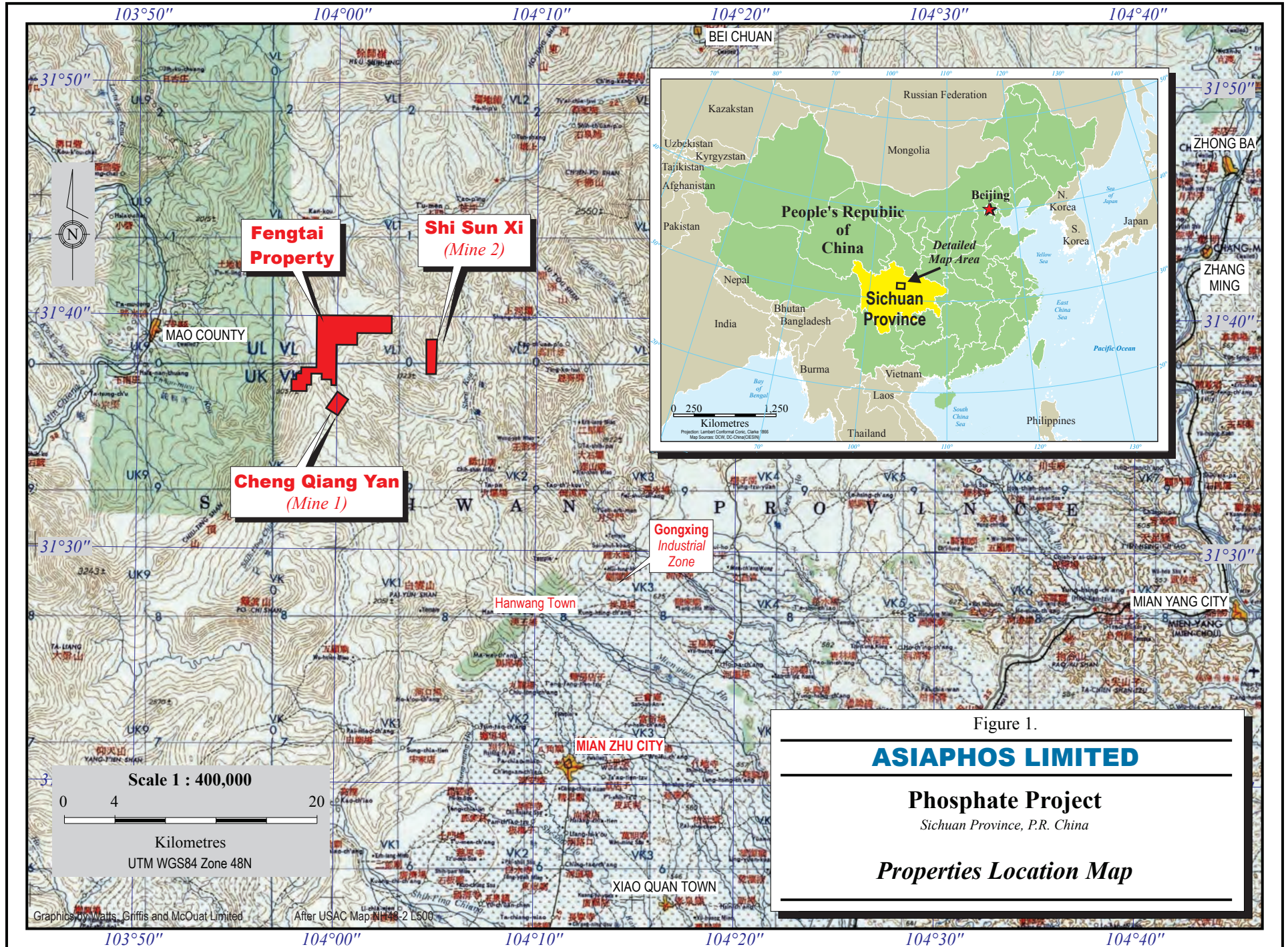
Cheng Qiang Yan	Shi Sun Xi	FengTai
N31°36'14.00"	N 31°38'37.00"	N 31°38'00.00"
E 104°00'14.00"	E 104°04'43.00"	E 103°59'30.00"

The Mianzhu Norwest processing plant is located in Gongxing Town (Figure 1).

4.2 PROPERTY DESCRIPTION

There is one phosphorite bed currently being mined in Mianzhu Norwest's area of interest and it occurs on both properties. The deposit type is known as the "Shi Fang" type. The main phosphorite bed at Cheng Qiang Yan currently being mined averages about 5.0 m in thickness with an average grade of about 28.7% P₂O₅. The bed strikes generally ENE -WSW and dips, generally, 43° to 57° to the NW. Recent geological updates have confirmed that the southwestern portion of the main bed has been upfaulted (Figure 2) however the exact location and extent of the north trending fault is difficult to trace on surface due to the steep terrain, several minor normal faults have also been encountered in the underground workings at various elevations in the past with no significant impact on the mining operations.

While no Mineral Resources have been confirmed on the FengTai property to the northwest of Mine 1, the phosphorite bed identified on the Longman property to the south west and mineralization on the Cheng Qiang Yan property is projected to plunge onto the southeastern-most portion FengTai property.



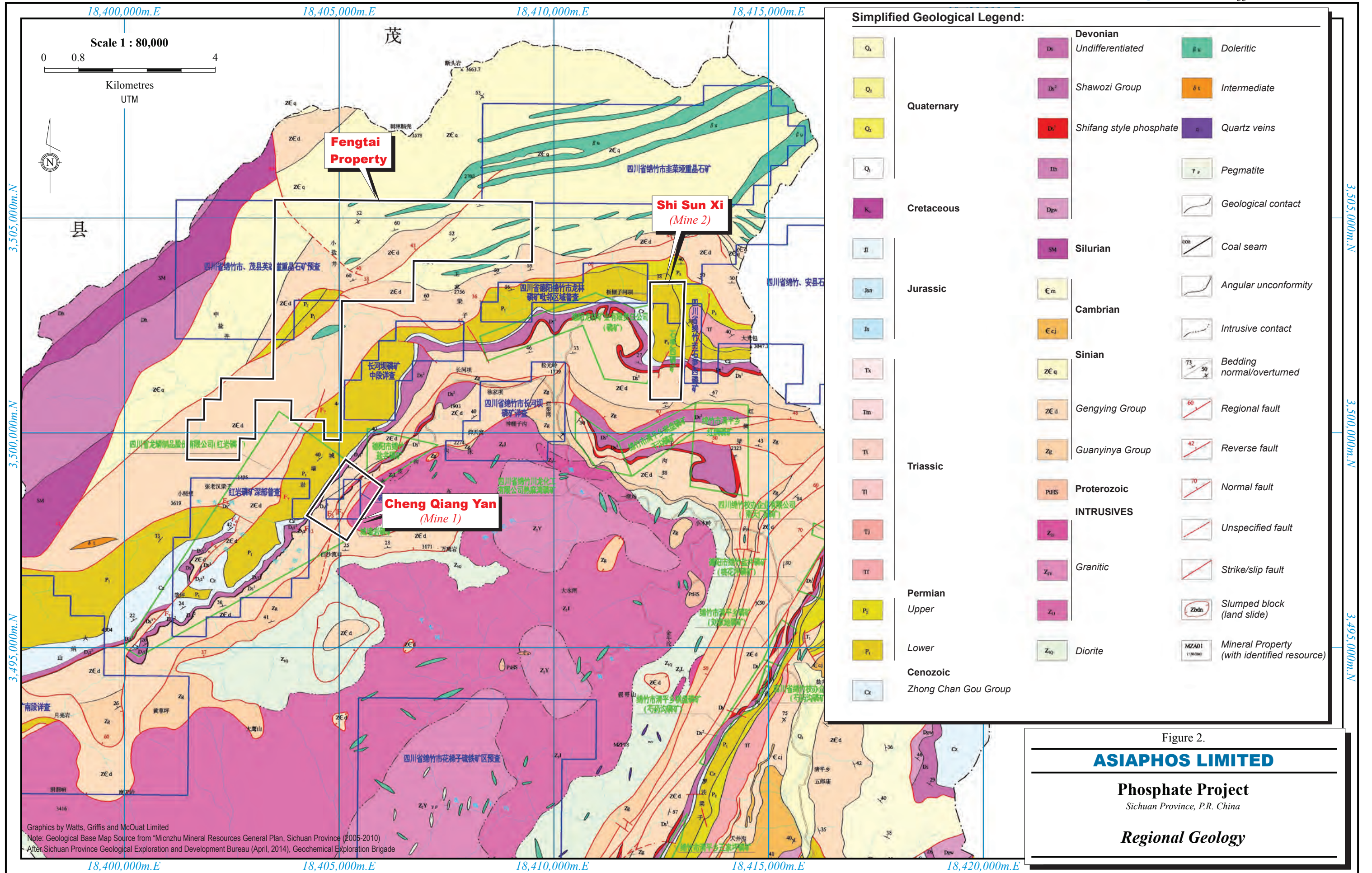


Figure 2.
ASIAPHOS LIMITED
Phosphate Project
 Sichuan Province, P.R. China
Regional Geology

Graphics by Watts, Griffis and McOuat Limited
 Note: Geological Base Map Source from "Mianzhu Mineral Resources General Plan, Sichuan Province (2005-2010)
 After Sichuan Province Geological Exploration and Development Bureau (April, 2014), Geochemical Exploration Brigade

The phosphorite bed for the Shi Sun Xi mining permit averages about 7.4 m in thickness with an average grade of about 29.6% P₂O₅. The thickness of the bed on the exploration permit is about 5.22 m with a grade of 28.97%. The phosphorite bed strikes generally about WSW-ENE and dips about 16-42° to the NNW.

The Mianzhu Norwest licences and permits are detailed in Tables 2 and 3, and Figure 1. The company also has a processing facility at the Gongxing industrial zone in Mianzhu City.

TABLE 2.
SUMMARY OF ASSETS

Asset name / Country	AsiaPhos's Interest (%)	Development Status	Licence Expiry Date	Licence Area	Type of Mineral, Oil or Gas Deposit	Remarks
Exploration Area						
Cheng Qiang Yan / PRC*	100	Development	9 April 2016	1.54 km ²	Phosphate	Exploration rights
Shi Sun Xi / PRC	100	Development	16 June 2016	1.28 km ²	Phosphate	Exploration rights
FengTai	55	Exploration	12 December 2015	17.91 km ²	Barite (Phosphate)	Application submitted renewal pending
Mining Area						
Cheng Qiang Yan / PRC	100	Development	25 December 2016	1.6491 km ²	Phosphate	Mining rights
Shi Sun Xi / PRC	100	Development	9 January 2020	2.02 km ²	Phosphate	Mining rights

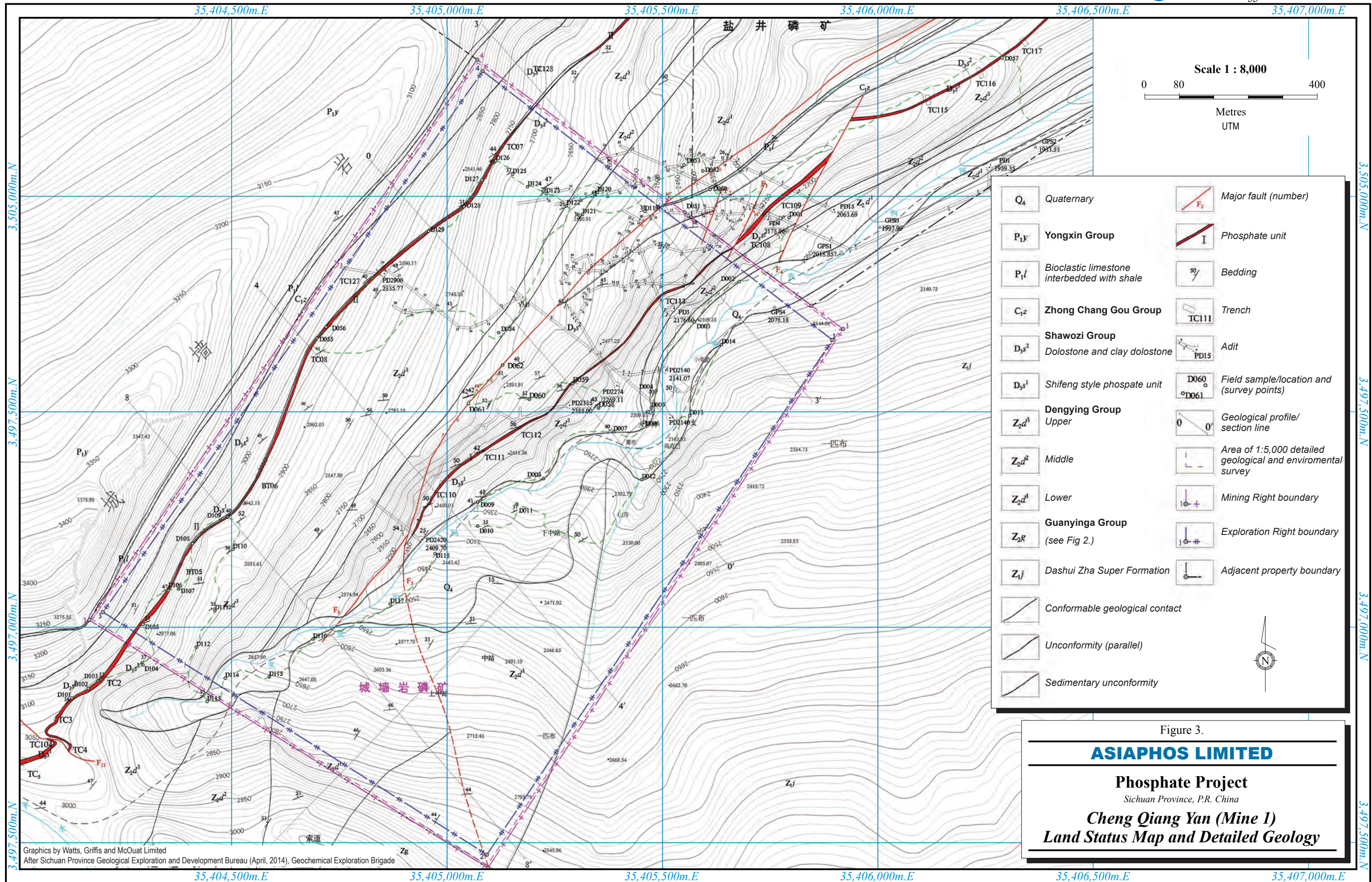
* Application submitted for conversion to mining permit.

The current mining permit for Cheng Qiang Yan is about 1.53 km wide E-W and is about 1.10 km long N-S. The area of the property, specified by the issued mining permit is approximately 1.6491 km². Topographic elevations range from 2,240 to 2,570 m. The license C5100002011036120107965 is in force until 12 December, 2016 with an approved production rate of 50 kt/a.

The exploration permit for the Cheng Qiang Yan mine (Mine 1) (T51520080403010704 valid until April 9, 2016) was granted in August 2014. The dimensions of the exploration permit were increased in area from the original 0.55 km² to the current 1.54 km² at the request of the company, to cover a similar area as the existing Mining License.

The company is currently in discussion with the MLR to renew the exploration permit and to replace it with a mining permit. WGM understands that the company has been encouraged to apply for an increased production volume when applying for the next permit renewal in 2016.

The existing mining permit for Shi Sun Xi (Figure 3) is about 0.76 km wide E-W and is about 2.74 km long N-S. The area of the property, specified by the issued mining permit is approximately 2.0237 km². The mineable depth approved with the new permit is between the elevation of 2,420 m and 1,600 m topographic elevations. The mining permit license C5100002010016120054374 granted January 22, 2010 (and re-approved in March 2011) is in force until January 9, 2020 with an approved production rate of 200 kt/a.



Q₄ Quaternary	Major fault (number)
P_{1y} Yongxin Group	Phosphate unit
P_{1l} Bioclastic limestone interbedded with shale	Bedding
C_{2z} Zhong Chang Gou Group	Trench
D_{3s2} Shawozi Group Dolostone and clay dolostone	Adit
D_{3s1} Shifeng style phosphate unit	Field sample/location and (survey points)
Z_{2d3} Dengying Group Upper	Geological profile/section line
Z_{2d2} Middle	Area of 1:5,000 detailed geological and environmental survey
Z_{2d1} Lower	Mining Right boundary
Z_{2g} Guanying Group (see Fig 2.)	Exploration Right boundary
Z_j Dashui Zha Super Formation	Adjacent property boundary
Conformable geological contact	
Unconformity (parallel)	
Sedimentary unconformity	

Figure 3.
ASIAPHOS LIMITED
Phosphate Project
 Sichuan Province, P.R. China
Cheng Qiang Yan (Mine 1)
Land Status Map and Detailed Geology

Graphics by Watts, Griffis and McOuat Limited
 After Sichuan Province Geological Exploration and Development Bureau (April, 2014), Geochemical Exploration Brigade

The renewed exploration permit, for Shi Sun Xi, is valid until 16, June 2016 and encompasses an area of approximately 1.28 km².

Mianzhu Norwest has 100% ownership of the property rights for Mines 1 and 2. Subject to the restructuring arrangement dated 6 July 2015, and receipt of stock exchange approval for related items 27 July 2015, AsiaPhos has effectively acquired 55% ownership of the FengTai exploration property and extinguished the former profit sharing operational agreements for various levels (adits) with various parties (collectively, the “**Dashan Co-operation Agreements**”), (see AsiaPhos news release of 6 July 2015 and 24 July 2015).

4.3 ENVIRONMENTAL AND REHABILITATION

Mianzhu Norwest has indicated that it is currently in compliance with all applicable local operating requirements and regulations. 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. The company has installed waste water treatment facilities at the mine sites. The company received its required local Mine safety permits granted January 26, 2014, valid until 2018.

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. The company has also budgeted for the improvement and maintenance of access roads (in conjunction with its neighbouring operations).

4.4 RISK FACTORS

Because of the steep terrain and tectonic activity, this area is prone to landslides and earthquakes, the most recent one affecting this area being the 2008 Wenchuan earthquake. Based on the recorded seismic history in the area along with the geologic features and structures, it is expected that earthquakes will continue in the future. The intensity of major earthquakes could again reach a Mercalli intensity VIII (equivalent to Richter scale between 6 and 7), and mining construction as well as other projects should be planned and designed accordingly.

**TABLE 3.
PERMIT COORDINATES**

Mine	Land Status	Permit Name	Permit Number	1980 Xi'an Coordinate System							
				Easting*	Northing*						
1	Mining Right	Cheng Qiang Yan	C5100002011036120107965	35405919.56	3498691.77						
				35405094.56	3497441.76						
				35404169.56	3498016.76						
				35405069.55	3499316.77						
2	Exploration Right	Cheng Qiang Yan	T51520080403010704	Latitude	Longitude						
				31°36'24"	104°00'30"						
				31°35'45"	104°00'00"						
				31°36'03"	103°59'26"						
2	Mining Right	Shi Sun Xi	C5100002010016120054374	1954 Beijing Coordinate System		1980 Xi'an Coordinate System					
				Inflexion No.	Easting	Northing	Easting	Northing			
				1	35412255	3500770	35412174.703	3500711.974			
				2	35412255	3503500	35412174.717	3503441.996			
2	Exploration Right	Shi Sun Xi	T51520080603010707	1954 Beijing coordinate system		1980 Xi'an Coordinate System					
				Inflexion No.	Longitude	Latitude	Longitude	Latitude			
				1	104°04'30"	31°39'00"	104°04'26.8981"	31°39'00.0611"			
				2	104°05'00"	31°39'00"	104°04'56.8984"	31°39'00.0607"			
				3	104°05'00"	31°38'45"	104°04'56.8989"	31°38'45.0609"			
				4	104°05'15"	31°38'45"	104°05'11.8992"	31°38'45.0609"			
				5	104°05'15"	31°37'45"	104°05'11.8994"	31°37'45.0594"			
				6	104°05'00"	31°37'45"	104°04'56.8991"	31°37'45.0594"			
					104°05'00"	31°38'30"	104°04'56.8989"	31°38'30.0605"			
					104°04'45"	31°38'30"	104°04'41.8986"	31°38'30.0604"			
					104°04'45"	31°38'45"	104°04'41.8985"	31°38'45.0608"			
					104°04'30"	31°38'45"	104°04'26.8982"	31°38'45.0608"			
				3	Exploration Right*	FengTai	T51120080403005349	Latitude	Longitude	Y	X
								31°40'00.0619"	103°58'56.8899"	35403501.7957	3505344.5406
31°40'00.0620"	104°02'41.8954"	35409429.4270	3505290.9712								
31°39'15.0613"	104°02'41.8956"	35409417.3040	3503904.8507								
31°39'15.0611"	104°00'56.8930"	35406650.7109	3503929.4171								
31°38'45.0603"	104°00'56.8931"	35406642.3833	3503005.3244								
31°38'45.0602"	103°59'56.8916"	35405061.3266	3503019.6926								
31°37'00.0576"	103°59'56.8920"	35405031.7036	3499785.3762								
31°37'00.0575"	103°59'41.8916"	35404636.3147	3499789.0018								
31°37'15.0579"	103°59'41.8916"	35404640.5642	3500251.0472								
31°37'15.0578"	103°59'11.8908"	35403849.8211	3500258.3473								
31°37'30.0582"	103°59'11.8908"	35403854.1064	3500720.3936								
31°37'30.0581"	103°58'41.8900"	35403063.3976	3500727.7545								
31°37'00.0574"	103°58'41.8901"	35403054.7598	3499803.6642								
31°37'00.0574"	103°58'26.8898"	35402659.3724	3499807.3683								
31°36'45.0570"	103°58'26.8898"	35402655.0353	3499345.3218								
31°36'45.0569"	103°57'41.8887"	35401468.8137	3499356.5206								
31°37'15.0576"	103°57'41.8886"	35401477.5915	3500280.6125								
31°37'15.0577"	103°57'56.8890"	35401872.9646	3500276.8660								
31°37'30.0580"	103°57'56.8890"	35401877.3380	3500738.9106								
31°37'30.0581"	103°58'11.8893"	35402272.6905	3500735.1789								
31°37'45.0584"	103°58'11.8893"	35402277.0468	3501197.2235								
31°37'45.0585"	103°58'56.8904"	35403463.0555	3501186.1118								

*Permit renewal pending

The steep terrain also leads to periodic access interruptions due to inclement or hazardous weather conditions that can cause flooding, mudslides and landslides. Therefore, in the winter the site operations are generally suspended from late December to mid March. Inclement weather at other times may delay access to the property if roads become washed out due to heavy rains.

Most of the exploration, development work and mining work is currently performed by contract labour. As the company implements production improvements and adopts international mining practices some of the work may shift from contract to in-house labour. This may lead to some temporary work disruption during the transition period.

5. ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

Mianzhu Norwest's mining operations and Mines are located about 45 km northwest (straight-line distance at 330°) from downtown Mianzhu City. It is approximately 40 km by road from Mianzhu Norwest's new downstream processing facility located in Gongxing Town Mianzhu City), to the Cheng Qiang Yan property and 42 km to Shi Sun Xi. The downstream processing facility ("plant") is very near the start of the Mian Yuan River canyon that leads to the Mines. The Mian-Mao Highway provides the main access from Mianzhu Norwest's Plant site via Hanwang Town to Qing Ping Town a distance of approximately 20 km. From there local access roads go further up the valley to access local communities and various mining operations. The final section is scheduled to connect with Mao County further to the Northwest of the mines once completed. Unimproved haul roads leading from the local access road for 3 km and 2 km respectively to provide access to Mine 1 and 2.

Practically the entire length of the road from Mianzhu Norwest's Plant site to Mianzhu Norwest's Mines, has been under extensive reconstruction to repair the damages caused by the earthquake and strong aftershocks. The Mian-Mao Highway was planned after the earthquake, and the Peoples Liberation Army ("PLA") was in charge of the rough preparatory work in this reconstruction process. Individual contractors are completing the final grading and reconstruction efforts. The Hanwang Town to Qing Ping Town section of Mian-Mao Highway completed in mid 2010, was damaged by a Landslide in August 2010 and subsequently by heavy rains and flooding in 2013. At the time of the WGM site visit in October 2015 major reconstruction work on the haulage road from the processing plant to Qing Ping Town paved and widened the road to two lanes throughout most of the distance, with single lane travel restricted only at certain narrower corners. Since the extensive flooding in mid-2013, the government has changed its overall strategy on the Mian-Mao Highway. The current road is under minimum maintenance to allow normal access without restoring it to original designed condition. A new highway, designed at a higher elevation to avoid flooding damage, is now under construction. The new design consists of underground tunnels and bridges. As of October 2015, a main bridge at Qing Ping Town was completed, and many tunnels are ready to be connected.

Most parts of the road north of Qing Ping Town and the last 3 km to access the Mines is currently being upgraded and maintained by the three companies operating the mines in the area.

WGM understands that the Deyang-Hanwang rail line (762 mm rail gage) is operational, providing the possibility of rail-freighting phosphate rock and phosphate-derived

manufactured products to distant locations. Apparently new stations were built and the old destroyed rail station and rail yards in Hanwang Town were turned into a memorial park to the Wenchuan Earthquake.

5.2 CLIMATE

This area is strongly divided by topographic features which affect the local micro-climates in any given area. In the western part of the area, which includes the Mianzhu Norwest Mines, the climate is a medium and alpine humid/cold climate. The annual precipitation is about 1,050 mm. The months from July to September are considered the rainy season (59% to 84% of annual average), and from November to February is the snow and frost season. The maximum recorded 24-hour rainfall event is about 255 mm. The highest temperature is 36°C (July) and the lowest temperature is -10°C (January). There are large diurnal temperature differences. The average annual evaporation rate is between 900 and 1,050 mm per year at the Mianzhu Weather Station. Hanwang Town (elevation ~700 m) sits in a subtropical humid climate zone and has a continental monsoon climate, which means no extreme temperatures in summer and winter. The average annual temperature is 15.7°C and the annual rainfall is about 1,053 mm.

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The entire Hanwang Town area of Mianzhu City is under massive reconstruction efforts to repair damages caused by the Wenchuan Earthquake. Complete towns and villages have been, or are being, relocated within the confines of Mianzhu City. Entire industries have been, or are being, relocated and at the time of the initial site visit in 2010, the area, around Hanwang Town resembled a single extremely large construction site. Mianzhu Norwest's processing facility was damaged during the Wenchuan Earthquake and has been substantially relocated to the new Gongxing industrial zone being developed approximately 3 km to the northeast in Mianzhu City.

One site contains all the operations from receiving the rock from the mine to collection and production and storage of the P₄. The Plant includes crushing and screening, drying, mine rock storage and reclaim, two 10,000 tpa P₄ furnaces and storage facilities. The Plant includes gas scrubbers and water treatment facilities to better control environmental issues. At the time of WGM's site visit in November 2013 the site work had been completed and normal operations were observed. Rock from both the Mine 1 operations and Mine 2 development work was being stockpiled on the site, crushed, selected high grades were fed to the furnaces and low grades were sold to other factories.

The second site, separated by a public access road, will contain all the operations associated with the SHMP, the STPP and a thermal phosphoric acid plant along with the product packaging, storage and handling facilities. At the time of the site visit in April 2014, the

STPP plant had been relocated from the original site and erected at the new site and mechanical and electrical installation was complete and operational. The office was situated in temporary buildings and a new permanent office building was being designed. The area for future expansion remains vacant. The original site had been reclaimed and turned over to the local government. The new site is located near a cement plant that takes the furnace slag and near a major power substation that supplies power for the site and electric arc furnaces. AsiaPhos has now received the approvals to proceed with the remaining site work.

The quality of construction at the Plant location, the site layout with more extensive gas scrubbing, and water containment and treatment has proven that the Plant provides Mianzhu Norwest with a substantial improvement in their operation and better control of any environmental impacts.

The processing plant sites were not visited as part of the October 2015 site visit as there were no substantive changes at either the number one or two sites since the previous visit.

5.4 PHYSIOGRAPHY

The immediate area of the Mines is located in the district of Mianzhu City near the regional junction of virgin forests in the alpine zone. The topography is extremely rugged with steep mountains, with some valleys/canyons, with vegetation cover. The Wenchuan Earthquake and strong aftershocks caused numerous large-scale landslides and slope failures which removed much of the slope vegetation along the access road from Qing Ping Town to the deposits. The overall trend of the mountains, is generally southwest to northeast. The terrain is defined as steeply sloping with multiple scree (loose rock) slopes and inherent instability from slopes close to failure. In addition to steep bare rock at the surface, the remaining parts of the vegetation are intact. The entire area is too steep to support any farming or animal husbandry industries. The chief employment in the area between Hanwang Town and Mianzhu Norwest's Mines is centered on state-run and private phosphate mining as well as a state-supported/directed timber industry. There are some small areas between Qing Ping Town and Gongxing Industrial zone that appear to support small familial gardening/farming.

6. HISTORY

In the mid 1960s, the Secondary Regional Geological Survey Team from Sichuan Bureau of Geological conducted a regional survey in the area. In 1970, they submitted 1:200,000 report titled “*Regional Geological Survey Report of P.R.C·Mianyang Region*”.

In 1968, the #101 Geological Team from the Sichuan Bureau of Geology conducted a 1:50,000 traverse geological survey in this region and collected some information about the distribution of the outcropped phosphorite ledge (“bed”) along with the attitude and the thickness of the bed.

From 1990 to 1994, the Chemical Prospecting Team from Sichuan Bureau of Geology and Mineral Resources carried out 1:50,000 regional survey in this region and submitted a report in 1995 entitled the “*Specification of Geological Map in P.R.C· Qing Ping Region*”.

At Shi Sun Xi in 1992, crews (affiliation unknown) constructed a mining adit at the upper part of the deposit. However, the operation was closed in 2000 due to consistently poor production and unsatisfactory profit caused by a poor adit location and design. Anecdotal evidence indicates that an open-pit mining operation was operating during this period.

Before foreign investment was introduced (Mianzhu Norwest), two mining adits were constructed at elevations 1841 m and 1872 m near the lower part of the deposit in 2001 and 2002, but they were abandoned because mineralization was not encountered at the expected locations.

The school-run Cheng Qiang Yan Phosphate Mine in Mianzhu City, was administratively owned by the Sichuan Mianzhu School-Run Enterprise Group Company Co. Ltd., a group-owned enterprise founded in 1994. It has been reported that the mine produced 150,000 tons of mineralized rock between 1994 and 1999 but the actual boundaries of the property are unknown. Anecdotal evidence indicates that an open-pit mine was operating during this period.

In 1996, Sichuan Institute of Chemical Engineering and Geological Exploration conducted a geological survey at Zai Ping Phosphorite Mine, which neighbours the Cheng Qiang Yan mine to the west. Subsequently, the Institute submitted the report entitled “*Census Survey of Geological Report of Zai Ping Phosphorite Mine in Mianzhu County, Sichuan Province*”.

In 1997, Sichuan Institute of Chemical Engineering and Geological Exploration conducted a geological survey of the Cheng Qiang Yan Mine and submitted a report entitled “*Census Survey of Geological Report for Jia Pi Gou Ore Block of Chang He Ba Phosphorite Mine in Mianzhu City, Sichuan Province*”.

In 1998, Sichuan Institute of Chemical Engineering and Geological Exploration conducted a geological survey of the Cheng Qiang Yan Mine and submitted a report entitled “*Census Survey of Geological Report for Cheng Qiang Yan Phosphate Mine at Qing Ping Town in Mianzhu City, Sichuan Province*”.

In 2002, operations of the mine were acquired by Mianzhu Norwest. From 2002 until the Wenchuan Earthquake, Cheng Qiang Yan produced and shipped approximately 379,000 tonnes of phosphate rock.

Although the property has been owned by Mianzhu since 2002, WGM has included all of the exploration work up until the time of the Wenchuan earthquake in 2008 in the history section since it is only after that time that efforts were made to advance the reporting for the project to international standards.

In 2005, with the hope to develop the local economy to effectively take advantage of the resources, increase mining capacity, and profit margins, Mianzhu Norwest (Shi Sun Xi) contracted the Coal Design & Research Institute of Sichuan Province to make a preliminary design for an increase in the production capacity from 100 kt/a to 200 kt/a.

Under the contractual commitment, the engineering technical personnel of the Institute together with their counterparts in Mianzhu Norwest in December 2005 developed the mine design criteria and operational parameters that resulted in a series of reports being issued. Based on this integrated work the following reports were issued:

- “*Mineral Resources Development and Utilization Solution for Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd (Shi Sun Xi Phosphate Mine)*” submitted by Coal Design & Research Institute of Sichuan Province in November, 2005. This report generally described the phosphate mineralization and location based on the early exploration work and Mianzhu Norwest’s exploitation activities at that time;
- “*Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd. (Shi Sun Xi Phosphate Mine) Initial Design of Expansion Program*” submitted by Sichuan Coal Design and Research Institute in February 2006. This was a mine redesign study to increase production to 200 kt/a; and
- “*Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd. (Shi Sun Xi Phosphate Mine) Initial Design of Expansion Program Safety Procedures*” submitted by Sichuan Coal Design and Research Institute in February 2006. This was the safety procedures for the expansion program, and it was introduced as a standalone report.

Arising from a restructuring exercise completed in 2013, AsiaPhos Limited became the ultimate holding company of Mianzhu Norwest.

Local exploration at the FengTai property was conducted on the property between 2008 and 2013 on behalf of the owner by the Hydrologic Engineering Brigade of Sichuan Metallurgic

Geology Bureau who completed reconnaissance and prospecting programs with a total expenditure of 0.7298 million Yuan. This included 34.5 km of geological mapping, 3,266 m of trenching and analyses of 170 samples with Barite being the main target. No analytical results were reported.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL, LOCAL AND PROPERTY GEOLOGY

The outcrops in the area of Mianzhu Norwest's Mines, Cheng Qiang Yan and Shi Sun Xi, and the FengTai property include Upper Sinian strata, local Cambrian and Silurian rocks in the northwest and Upper Devonian strata, Lower Carboniferous strata, Lower Permian strata and a small amount of Quaternary system. In general, the geologic structures strike NE to SW and dip to North and Northwest at 42°-58°.

This region is located in the middle part of the discordogenic faults at Longmen Shan Thrust Belt and earthquakes frequently occur with some in the strong to severe categories. Most of the stronger historical shocks in Sichuan Province were almost all located to the west of 104°East longitude, and this phosphorite-containing region lies right on this 104°E longitude line. This line also is generally located in the belt where the thickness of the earth's crust is rapidly changing. The Longmen Shan area marks the (rapid) transition from thick crust (60 km+) beneath the Tibetan Plateau (to the west) to continental crust with normal thickness (around 40 km) beneath the Sichuan Basin. This area is also the boundary point between Caledonian-age folding (Silurian Period) and Songpan-Ganzi geosynclines fold belt of Indosinian orogeny of the early Mesozoic Era (Late Triassic Period).

The Mianzhu Norwest's Mines, Cheng Qiang Yan and Shi Sun Xi, as well as the south eastern portion of the FengTai exploration property are located between the faults F1 and F2, which are the principal defining regional lineaments. This area is also very near the juncture of the Yangtzi meta-platform, the Longmen Shan - Da Ba Shan platform marginal depression, the fold belt of Longmen Shan, and the north-west wing of a large double-plunging anticline. Geologically, this area of Sichuan Province has been in the process of deformation for at least the last 600 million years (Figure 4).

7.2 GENERAL STRATIGRAPHY

The general stratigraphy of the area is presented in Table 4. Stratigraphic records for the Mines, Cheng Qiang Yan and Shi Sun Xi, and eastern portions of the FengTai property are very similar although there is still, seemingly, some confusion on the part of the local geological brigades as to the exact age of the phosphorite bed of interest on the two properties. Although the geological age for the phosphorite bed on the two properties is currently judged to be of Upper Devonian age, historically the bed has also been assigned to the Lower Cambrian and/or Upper Sinian (Pre-Cambrian) ages. Each of these assignments was complete with supporting geologic descriptions of the relevant strata.

The most recent geological reports available to WGM acknowledge the different interpretations, but have elected to maintain the Devonian age interpretation. The reports do

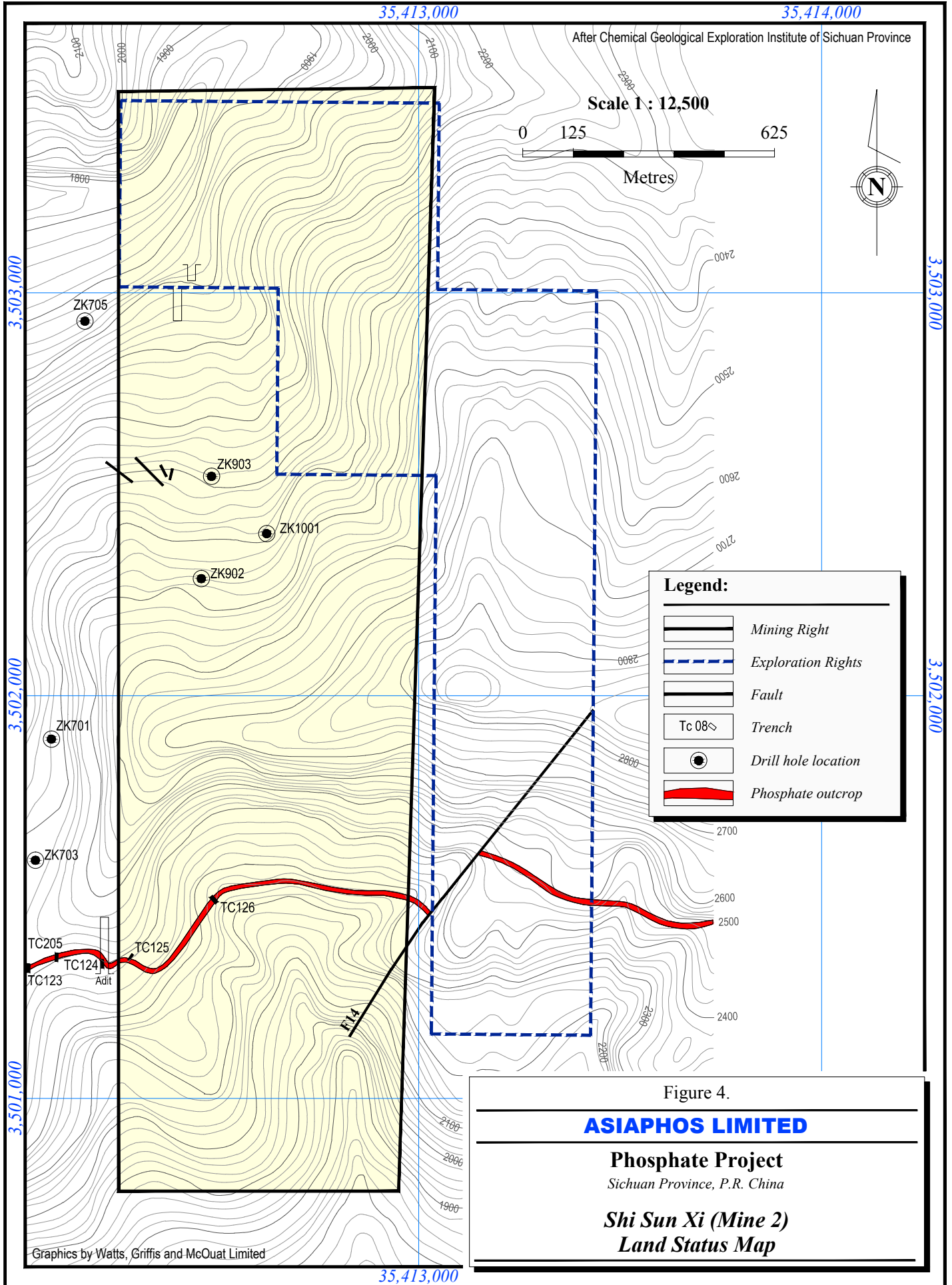


Figure 4.

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Phosphate Project

Sichuan Province, P.R. China

Shi Sun Xi (Mine 2)

Land Status Map

however recognize that the phosphate beds are associated with the major unconformity, which place the Upper Devonian in contact with the Lower Cambrian and/or Upper Sinian (Pre-Cambrian). Locally on a detailed scale a number of units or sub units have also been identified positioned between the Devonian and Sinian.

Although there is only one minable phosphorite bed in Mianzhu Norwest's area of interest and it occurs on Cheng Qiang Yan and Shi Sun Xi, properties it has also been projected to underly the southern portion of the FengTai property (Figure 5). Local faulting has repeated the unit on the Cheng Qiang Yan property and other repetitions are expected as more detailed geological mapping on nearby properties is completed.

Sichuan Institute of Chemical Engineering and Geological Exploration has placed this phosphorite bed in the Devonian Period of the geologic time scale and have assigned the bed a specific "deposit type". The deposit type is known as the "Shi Fang" type. As explained to WGM, the phosphorite bed is actually from the Lower Cambrian Period and was deposited originally as the Meishucun Formation as were most other phosphorite beds on other parts of the Mianzhu anticline area. There was a depositional hiatus from the Lower Cambrian to the Devonian Period at which time this phosphorite bed, in preference to others in the area, was severely weathered which created some internal structural changes and enrichment in P₂O₅ content. The internal structure changes and increases in P₂O₅ content are documentable. WGM questions whether this bed should be assigned to the Devonian Period or whether it should be more correctly assigned to the Lower Cambrian. This discussion has no relevance to the "resource statements" made herein. This discussion is extended in the geology sections of this report. However, there are no documentable traces of evidence, in readily accessible western literature, supporting a period of phosphogenesis and accumulation in the Devonian Period in Asia and very few from the rest of the world.

Given all of the above, this Technical Report will use the Upper Devonian Period age assignment for this phosphorite bed as it is currently accepted locally (Table 4).

7.3 STRATIGRAPHY OF CHENG QIANG YAN

At Cheng Qiang Yan, the major outcrops on the property, and described in detail, are Upper Sinian, Upper Devonian and a small amount of Quaternary strata. The descriptions presented below are as reported in previous bureau reports in ascending order from oldest to youngest. Recent more detailed geological mapping has provided more details for existing units and identified some additional local sub units on either side of the unconformity:

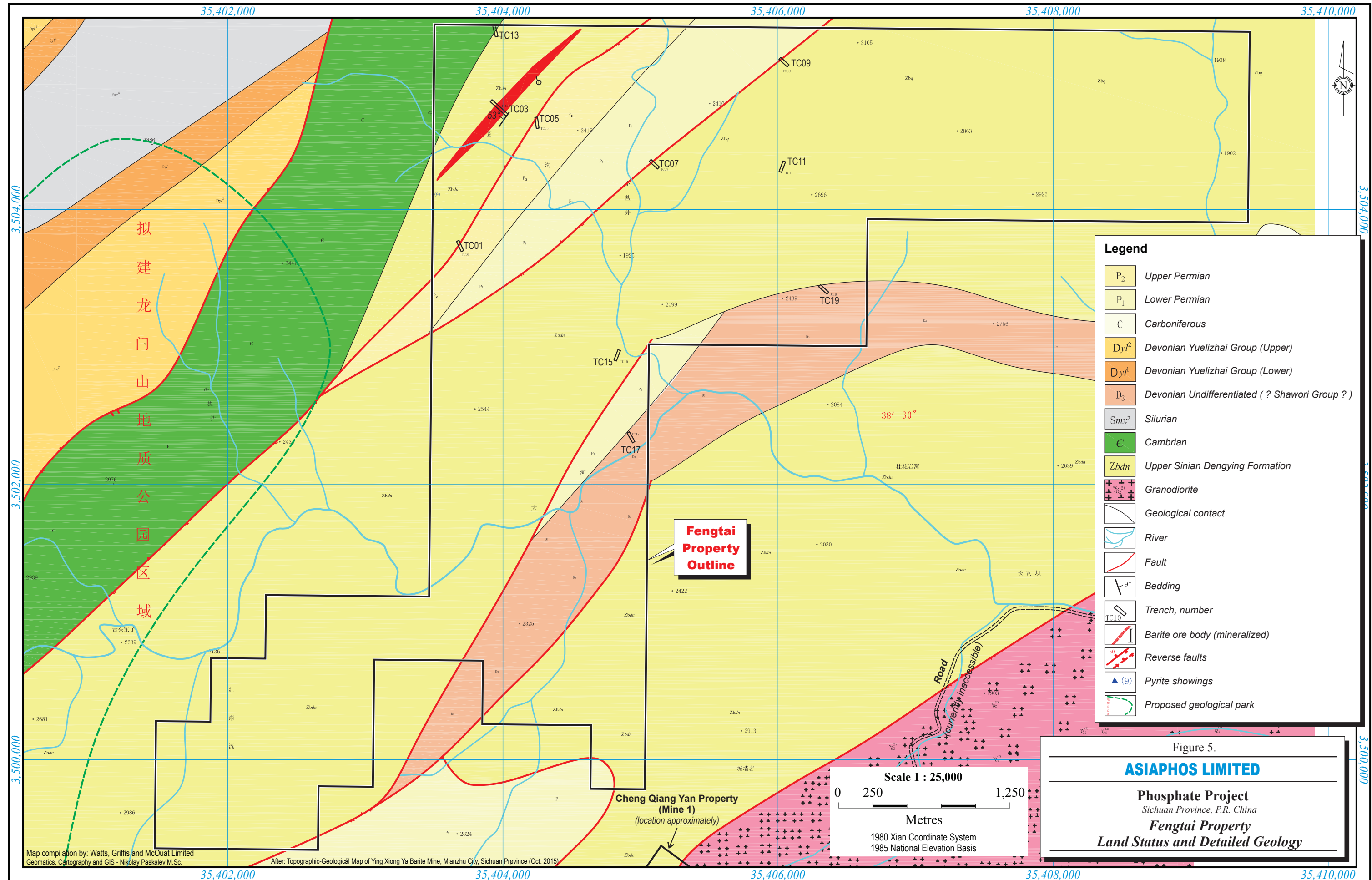


TABLE 4.
"SHI FANG" TYPE PHOSPHORITE DEPOSIT STRATIGRAPHIC COLUMN
SICHUAN PROVINCE, PEOPLES REPUBLIC OF CHINA

Era	System	Series	Group	Symbol	Thickness (m)	Rock and fossil description		
Cenozoic	Quaternary	Holocence		Q	0-41	Overburden, soil, sand gravel		
Mesozoic	Triassic	Upper	Xu Jia He	T ₃	114.8	Grey, greyish black, thin bedding of fine grained siltstone, sandstone, mudstone and carbonaceous shale		
		Middle	Tian Jing Shan + Lei Kou Po	T ₂	52 - 230	Yellowish grey to light grey, medium to thick bedding of very fine grained dolomite with muddy and calcareous texture, interbedded with yellowish grey siltstone		
		Lower	Jia Ling Jiang + Fei Xian Guan	T ₁	100 - 282	Purplish red thin to medium layered mudstone, siltstone, interbedded with light grey thin limestone		
Paleozoic	Permian	Upper	Chang Xing + Wu Jia Ping	P ₂	130-245.7	Grey to greyish black, thick layered limestone. Middle and lower portion is cherty limestone and interbedded with carbonaceous shale. Contains fossil: Synamulorla cf. endiea Wangen		
					150-125	Dark grey, medium to thick layered limestone, contains cherty. Purplish red iron containing kaolinic mudstone and coal mineralization at bottom		
		Lower	Mao Kou + Qi Xia + Liang Shan	P ₁	160-200	Grey to dark grey, thick layered and granular shape bioclastic limestone interbedded with shale. Contains fossil: Neoschwagerlina sp RerbeeRina		
					150-250	Light yellowish grey, dark grey, thick layered and granular bioclastic limestone		
	Carboniferous	Lower	Yan Guan	C _{1y}	5.19-55.55	Yellowish grey, greyish white, thin to thick layered limestone. Fine to coarse grained dolomite at lower portion, Dark red conglomerates at bottom.		
						C _{1z} *	Bioclasticmicrocrystalline limestone with siltstone and mudstone bands	
						D ₃ *	Undifferentiated	
	Devonian	Upper	Sha Wo Zi	D ₃ S ²	24.52-360.5	Grey to dark grey, thick layered fine grained dolomite. Interbedded with dark yellow, dark red bluish grey clay dolomite. Sandy dolomite at bottom. Contains fossil: Cyrtosprifer sinensis Grabau		
					D ₃ S ¹	0-75.3	Phosphate mineralization: Hydrous mica, claystone from top to bottom, phosphate containing kaolinite claystone, Parathion aluminum strontium mineralization, and phosphate rock. Contains fossil: Bcthrolepis sp and etc.	
		Silurian**					Undifferentiated	
	Cambrian**					Undifferentiated		
Neoproterozoic	Sinian	Upper	Deng Ying	Zdn	282.38-710.49	Greyish white, light grey, granular shape dolomite. Phosphate mineralization filled cracks at upper portion. Light grey thick layer dolomite at lower portion. Contains fossil: Renaleis sp, Praesolenopora minutus, Balics sp		
					Guan Yi	Zdg	480.11-580.20	Grey to dark grey, thick bedding, siliceous dolomite. Contains siliceous rock, top portion is shattered. Phosphate containing layer is on upper portion, consists of black shale, phosphate rock, siliceous phosphate rock, siliceous rock with phosphate content. Lower portion is purplish red thin layered shale, and greyish white medium to thick layered quartz sandstone interbedded with quartz siltstone. 144.56 m thick.
					Cheng Jiang Formation			

*present on Shi Sun Xi only

**Present on FengTai property only

Note: after Sichuan Institute of Chemical Engineering and Geological Exploration

7.3.1 UPPER SINIAN GUAN YIN YA GROUP (Zbg)

The lower portion is a gray to purplish-red and layered pebbly sandstone with medium thickness. The bottom is a granitic conglomerate. The upper portion is a purplish-red and layered metamorphosed packs and (fine-grained sandstone) with thin to medium thickness. This is interbedded with muddy siltite and with microlite dolostone and calcite dolostone. The thickness of this outcrop in the property area is 120 to 140 m. The bottom of this unit is in unconformable contact with stratum below, which is “two-mica” granite.

7.3.2 UPPER SINIAN DENG YING GROUP (Zbdn)

This unit is distributed over most of the area. The upper portion of this unit is grayish white to light grey dolostone with granular particles. The upper portion contains phosphate infilling of karstic cavities; lower portion is light grey thick layered dolostone. The thickness ranges from 332 to 710 m. In general, this unit is composed of thick-layered and agglomerated cryptocrystalline dolostone with colors ranging from hoary to grey and with a fossil karst erosion surface the top appearing at to be a piedmont.

Based on rock characteristics, the Deng Ying group can be divided into 3 general sequences, and the first sequence can also be divided into 3 layers. These same sequences can be traced far to the east – at least to the Three Gorges area of Hubei Province and beyond.

7.3.3 DENG YING GROUP 1ST SEQUENCE (Zbdn₁)

1st layer (Zbdn₁¹): grey to light grey dolomite with elegant trace, top is siliceous dolomite. Conformity contact with Guan Yin Ya group below. Thickness: 220 to 250 m.

2nd layer (Zbdn₁²): this layer contains phosphate mineralization; it is sandy mudstone or muddy fine grained sandstone with phosphate content, interbedded with grey to dark grey lens shape or granular dolostone. An area with high P₂O₅ was formerly defined as the Cheng Qiang Yan deposit. This was one of the former age assignments for the phosphorite bed.

3rd layer (Zbdn₁³): grey to light color dolomite with elegant trace, lower portion is siliceous dolomite. Contact with 2nd layer is siliceous dolomite. Thickness is 450 to 500 m, average around 480 m.

7.3.4 DENG YING GROUP 2ND SEQUENCE (Zbdn₂)

This is located at Northwest part of the property. Lower portion is grey thin layered marlite and purplish-red shale with collapse structures (karstic) locally. The upper portion is grayish-black, thin to medium thick microlitic dolomite and dolomitic limestone interbedded with black shale. The thickness is over 50 m.

7.3.5 DENG YING GROUP 3RD SEQUENCE (Zbdn₃)

Located at Northwest of the property. Light grey to dark grey color thick granular shape dolomite. The middle and lower portion is siliceous dolomite with a thickness of 100 to 120 m.

7.3.6 UPPER DEVONIAN SHAWOZI GROUP (D₃S)

Located in the northwest of the property.

Lower Sequence (D₃S¹)

This sequence which contains the phosphate mineralization is the current age assignment for the Cheng Qiang Yan phosphorite bed. The strata from the top to bottom, is clay layer, clay layer with phosphate content, and siliceous rock. There is granular phosphorite locally and is generally described as being composed of the grey or dark carbon hydromica claystone, phosphatic clays, siliceous phosphorite and phosphorite. It has a thickness from 0 to 26.19 m. Where the claystone is exposed at the surface, there is a risk of serious weathering. In addition, the claystone is vulnerable to being argillized, while svanbergite (strontium aluminum phosphate sulphate hydroxide) and phosphorite, on the other hand, are stable in thickness, hard in texture and good in stability.

The phosphorite bed is located at the top of the “speckle” dolostone fossil karst base of erosion of the Upper Sinian series Deng Ying Group, and below the Upper Devonian Series Shawozi Group dolomicrite.

Within the mining and exploration license areas of the Cheng Qiang Yan deposit, the thickness of the phosphorite bed ranges from 0.7 to 13.8 m with an average thickness 5.0 m. The P₂O₅ content of the bed ranges from 18.5% to 36.4% with an average of 28.7% P₂O₅. The strike of the phosphorite bed is generally NE-SW and the dip of the bed is about 50° in a northwesterly direction. The contact interface of the phosphorite and the bounding wall rock is clear and abrupt, both at the hanging wall and the footwall.

Upper Sequence (D₃S²)

Dolomite. The lower portion is a sandy-dolomite; the middle portion is yellowish-grey, grey, reddish fine to mid-sized granular dolomite, also interbedded with grey to light-bluish grey, thin layered clay and muddy dolomite. The upper portion is grey, light grey thin to thick microlite to crystallite dolomite, with visible black organic traces locally. The thickness is over 280 m with no visible upper limit. The Shawozi Group (D₃S²) contains abundant solution phenomena including crags and crevices that exemplify karstic terrane. The Upper Member is primarily composed of fine and medium-to-thick mesocrystalline dolostone of grey or dark grey color; this stratum is distributed at the top of the Cheng Qiang Yan mountain. According to the drilling information from adjacent properties, it is composed chiefly of solution

phenomena crags and crevices. This stratum developed these karstic features due to strong weathering during past geologic times.

7.3.7 QUATERNARY (Q)

This is scattered on the property; mainly as overburden and in valley-fill sediments. It consists primarily of poorly weathered dolomite and limestone fragments as well as clay; up to 30 m thick.

7.4 STRATIGRAPHY OF SHI SUN XI

At Shi Sun Xi, the major outcrops on the property, and described in detail, are Upper Sinian, Upper Devonian, Lower Carboniferous, Permian and a limited amount of Quaternary strata. The descriptions below are in ascending order from oldest to youngest:

7.4.1 UPPER SINIAN DENG YING GROUP (Zdn)

Upper-Mid Deng Ying Group (Zdn₃) - solution phenomena fracture features (Karst)

It is composed of thick-layered agglomerated cryptocrystalline dolostone from hoary to grey colors with a fossil karst erosion surface top appearing at piedmont. The thickness of this unit is directly related to the erosional surface. This superficial weathering feature has developed during various geologic times. According to the drilling information from adjacent properties, the superficial erosion phenomena and fractures were developed at the elevations where groundwater intensely fluctuated during its geologic history. The base Zd dolostone is dense and brittle, with karstic joint fissures well developed. When encountered by mining operations, the developed fracture/fissure sections, make it possible for wall caving and minor slumps to occur. The top of this group of strata is bounded by an unconformity.

Shuijing Group (Z₃S² and Z₃S³)

Locally this Group occurs above the upper part of the Deng Ying Group has been subdivided into two additional members in this area, consisting of intercalated limestone and sericitic phyllite and siliceous bands and an upper massive dolomite with thin limestone and slate interbeds.

Upper Devonian System Lower Shawozi Group (D₃S¹) Containing Phosphorite Bed

This unit is composed of the grey or dark carbon hydromica claystone, phosphatic clay, siliceous phosphorite and phosphorite; composed of carbon hydromica claystone, phosphatic kaolinite claystone, svanbergite and brecciated phosphorite. Where the claystone is exposed at the surface, there is a risk of serious weathering. In addition, the claystone is vulnerable to be argillized; while svanbergite (strontium aluminum phosphate sulphate hydroxide) and phosphorite, on the other hand, is stable in thickness, hard in texture and good in stability. The

strike of the phosphorite bed is generally E-W and the dip of the bed is about 30° in a northerly direction.

Within the mining and exploration license areas of the Shi Sun Xi deposit, the thickness of the phosphorite bed ranges from 1.1 to 13.8 m with an average thickness 7.4 m. The P₂O₅ content of the bed ranges from 17.8% to 32.2% with an average of 29.6% P₂O₅. The strike of the phosphorite bed is generally E-W and the dip of the bed is about 30° to 40° in a northerly direction. The contact interface of the phosphorite and the bounding wall rock is clear and abrupt, both at the hanging wall and the footwall.

Upper Devonian System Upper Shawozi group (D₃S²) - Solution Phenomena Fractures (Karst)

This is composed of fine and medium-to-thick mesocrystalline dolostone of grey or dark grey color. This stratum is distributed in the middle of the property. The top of the Shawozi Group is marked as an unconformity.

Lower Carboniferous Yanguan Group () - Solution Phenomena Fracture (Karst)

This is distributed in the middle and the northwest corner of the property and found as conglomeratic dolostone, limestone, politic dolostone with its thickness of 23.44-153.04 m. Locally a basal unit C_{1z} is also exposed consisting of bioclastic microcrystalline limestone, siltstone and shale bands

Permian system (P_{1q+m}) - solution phenomena fracture (Karst)

This is distributed in the middle and southern part of the property and found as a thick layer of biocalcarenite with grayish black or dark grey color and has a thickness >193.06 m.

Lower Permian System Liangshan Group (P_{1l})

This is distributed in the middle and north-west corner of the property. It is an intertwined stratum with dark grey layered marlstone from thin to medium-thick and medium-thick layered dark claystone. It is held between the lentoid dark grey gravel biocalcarenite with a thickness of 16.60-18.70 m, with the stratum being stable and consistent.

7.4.2 QUATERNARY SYSTEM (Q)

The brecciated sedimentation is composed of yellow clay, clayey loam with gravels, and is 0-82.06 m in thickness and deposited at slight grade with the terrain and on both sides of the valley.

7.5 STRATIGRAPHY OF THE FENGTAI PROPERTY

The property is underlain by two stratigraphic sequences, to the northwest and the Longmen division in the southeast. These divisions are fault bounded.

7.5.1 MAERKANG DIVISION

Cambrian unit (C) is a dark carbonaceous silty unit interbedded with dark siliceous slate and 1-2 m thick layers of massive calcareous sandstone and carbonaceous slate.

Devonian and Silurian rocks are exposed in the extreme northwest to the northwest consisting primarily of interbedded phyllites, and limestones.

7.5.2 LONGMEN DIVISION

The Upper Sinian Deng Ying unit is the dominant group underlying the property and host infaulted wedges of Devonian and Permian rocks. It is composed primarily of dolomite with local siliceous units, arenaceous shales and possibly phosphorite. Granodiorite is present in the southeast.

The Devonian D3 unit occurs as a central fault bounded block and is for the most part undifferentiated consisting of limestone, sandstone and carbonaceous shale with phosphorite at the base.

7.6 STRATIGRAPHY OF THE PHOSPHORITE BED

Only a detailed description of the phosphorite bed at Shi Sun Xi (Coal Design & Research Institute of Sichuan Province—2006) has been presented for review for this Technical report. No similar description for Cheng Qiang Yan has been found in the review materials. However, since the phosphorite bed at both locations is geologically the same and of the same age, the description below can be applied, in general, to the bed at Cheng Qiang Yan which is only 8 km distant.

The phosphorite bed has a clear lithological zonation. From the bottom to top there is brecciated phosphorite, dense phosphorite, lutaceous phosphorite, svanbergite, siliceous phosphorite, and phosphatic claystone.

The phosphorite bed often leads to vertical zoning that is not complete, or is partially missing, due to the constraints of variability of the karst base (floor material) at the top of the underlying Deng Ying Group of strata. However the position is stable and gradation is in a normal sequence, as identified in regional comparisons.

The mineral combination mainly includes apatite, collophanite, svanbergite, kaolinite and hydro-mica among other minerals. However, from top to bottom the content of apatite and collophanite decreases in the phosphorite bed, while that of kaolinite and hydro-mica increases. The svanbergite is generally found in the central portion of the property. Phosphorite

claystone (brecciated) is formed due to a sharp increase of kaolinite and hydro-mica. A partial section of the bed appears as siliceous phosphorite.

The phosphorite bed is generally featured, by positive corpuscle-order gradation, a grain-size change from coarse to fine going from the bottom to the top except for the mixed order and sizes of brecciated phosphorite at the bottom of the sequence.

Physical conformation of the phosphorite bed is strictly controlled by the erosional surface of karstic topography at the base of the bed. Usually the upper contact is regular and even, while the lower contact is irregular. Typical of the "Shi Fang Type" of phosphorite deposit, the phosphorite bed is located in the space formed by the erosion process as a point of accumulation and the bed has transverse thickness variations. The erosional aspects of deposition has a certain character of its own as the accumulation of phosphorite develops along with erosion, and the phosphorite is accumulated in the lower part of the erosional topography as a bed. The phosphorite bed is derived from the weathered and reworked material from the Lower Cambrian Meishucun Formation.

The phosphorite bed at Cheng Qiang Yan is similar. There has been no reported phosphorite bed encountered on the FengTai property to date, and considering the paucity of exploration this is not unexpected.

7.7 GEOLOGICAL STRUCTURE

7.7.1 STRUCTURE OF CHENG QIANG YAN

The Cheng Qiang Yan property is situated in between two major, and regional, fault systems, faults F1 and F2. Most of the faults specifically on the property are reverse faults, typical of overthrust and compressional terrains, and were identified as F201, F202, F203 and F205 in the original mapping prior to 2010 and are actually a series of fault systems. More recent mapping has changed the nomenclature of some of these faults, however their position remains generally unchanged. The following description refers to the earlier nomenclature as following:

7.7.2 F205 NORMAL – STRIKE SLIP FAULT

It is near the western boundary of the property, starting from the Southwest corner and 860 m long. The fault is Visible in TC103. The strike of the fault system is generally N-S with a dip toward the west at 55°. This fault appears to have up faulted the phosphorite bed resulting in the second appearance of the phosphorite bed at a higher elevation.

7.7.3 F202 NORMAL FAULT

The fault is located in northeast of the property and is around 230 m long. The brecciation zone is about 0.8 m wide. The strike of this fault system is generally toward the west with an azimuth of 259° and dipping at 16° in an unspecified direction.

7.7.4 F201 REVERSE FAULT

The fault system is located in northeast of the site and is about 140 m long with a visible 0.3 m wide brecciation zone in TC102. Fault strikes NW with an azimuth of 316°, dipping at 34° in an unspecified direction. The throw is about 30 m and the heave is 40 m.

7.7.5 F203 REVERSE FAULT

This fault is located northeast of the property about 100 m away from F201 and is 120 m long. It strikes N and NE with the dip towards the N and NW and the dip angle, throw and heave are unknown.

F206 in previous reports was not found in this survey (mapping and sampling in the trench and tunnels), so it is not included.

The locations and altitudes of Fault 201, 202, 203 have been adjusted based on the updated information obtained in the latest survey (2009). In conclusion, the faults on the property generally strike NE to SW with a monoclinical structure and dip toward NW to N at 43 to 58°.

The strike of the phosphorite bed is generally NE-NW and the dip of the bed is about 50° in a northwesterly direction.

7.8 STRUCTURE OF SHI SUN XI

The Shi Sun Xi property contains only one described fault. The fault zone strikes from SW to NE and dips to the NW at an unknown angle. The fault does not interfere with possible mining operations under the existing mining permit but does influence the phosphorite stratum under the exploration license to the east of the mining permit.

The strike of the phosphorite bed is generally E-W and the dip of the bed is about 30° in a northerly direction.

7.9 STRUCTURE OF THE FENGTAI PROPERTY

The property is located within the east branch of the Maowen Fault, a north branch of Jiuding Mountain Fault. The fault follows the south side of Moutuo-Shilipu NE striking anticlinorium

and is considered a compressive twist fault dissecting the Sinian and Permian formations, striking $45^{\circ}\sim 50^{\circ}$ and dipping NW-NNW at an angle range of $50^{\circ}\sim 80^{\circ}$. The Sinian dolostone shows a relative high degree of fragmentation. This major fault and structure and several subparallel minor faults dominate the area.

Jiuding Mountain Synclinorium is exposed in the northwest corner and consists of Silurian Maoxian Group and Devonian Yuelizhai Group. It is an isoclinal overturn synclinorium with the axis striking NE $40^{\circ}\sim 50^{\circ}$, both south and north limbs dipping to NW $310^{\circ}\sim 315^{\circ}$ at an angle range of $40^{\circ}\sim 48^{\circ}$ for the south limb, an angle range of $42^{\circ}\sim 78^{\circ}$ for the north limb, the axial plane dipping to 315° at an angle of 70° .

7.10 SEISMICITY

The Longmen Shan marks the tectonic contact between the Sichuan Basin to the east and the mountains of western Sichuan and the eastern Tibetan plateau to the west. Marked by fast *P*-wave (“primary” wave) propagation to at least 250 km depth, the low-elevation and topographically flat Sichuan Basin appears to be a deeply-rooted, mechanically strong unit underlain by craton-like lithosphere that has resisted Mesozoic and Cenozoic deformations that affected the surrounding regions. The slow seismic wave propagation west of the Longmen Shan fault zone suggests that the mechanical strength is much lower here than beneath the Sichuan Basin. The recurring earthquakes reflect tectonic stresses resulting from the relative motion between these tectonic units. Geological structures along the Longmen Shan suggest a total displacements of tens of kilometres since the Late Cenozoic and GPS measurements constrain active rates at a few millimetre per year.

The tectonic evolution of the Longmen Shan is complex and still only moderately understood. The Longmen Shan marks not only the present boundary between the high topography of the Tibetan Plateau to the west and the relatively undeformed Sichuan Basin to the east, but this region also marks the limit of deformation during the Mesozoic Indosinian orogeny. During the Late Triassic to Early Jurassic, a sequence of continental margin sediments and flysch were highly deformed and thrust eastward onto the rocks of the Yangtze craton while the Sichuan Basin was accumulating clastic sediments as a fore deep basin (Indosinian orogeny). The structures of the Longmen Shan region primarily reflect this Mesozoic deformation; Cenozoic faults and folds tend to parallel and often reactivate Mesozoic structures. Cenozoic deformation in the Longmen Shan is difficult to constrain, but there is evidence for right-lateral strike-slip, thrusting, and normal faulting on several different structures. The fault that appears to have broken on the Wenchuan Earthquake is at or very near the boundary between the Precambrian rocks of the Pengguan Massif and the Mesozoic fore deep sediments of the Sichuan Basin. The fault has a history of mostly right-lateral strike-slip and a smaller amount of thrust motion.

The Longmen Shan marks the (rapid) transition from thick crust (60 km+) beneath the Tibetan Plateau to continental crust with normal thickness (around 40 km) beneath the Sichuan Basin.

The region is located in the middle part of the discordogenic fault at Longmen Shan, where earthquakes frequently occur and often very strongly. The strongest shocks to have ever occurred in Sichuan province were almost all located in the west of 104° east longitude, and this region lies right on this line. The borderline is generally located in the belt where the thickness of the earth's crust is changing as mentioned above. It is also the border point between Caledonian folding (Silurian Period) and the Mesozoic Songpan-Ganzi geosynclines fold belt in the Indosinian orogeny.

According to GB18306-2001 "China's earthquake motion peak acceleration division map" (PRC "National Standard Amendment No.1", June 11th, 2008), the earthquake motion peak acceleration in this region is 0.20g, the basic earthquake intensity is Mercalli VIII, the earthquake response spectrum eigenperiod is 0.35. According to the Sichuan Province tectonic system and earthquake distribution maps in 1980, Mianzhu county annals and the quartz mine ESR age results explored in the fault zone of this region confirm that this region is located in a later structured active belt, where minor shocks have frequently occurred during geologic times. It was recorded that there were more than 10 earthquakes that affected this region; such as on March 22, 1983, when an earthquake occurred in Qing Ping Town in Mianzhu City, the epicentre was located at 104°17'E longitude and 31°34'N latitude with a magnitude of 4.2. Fortunately it caused little damage due to its mild intensity. However, Qing Ping Town became a severely damaged area after the Wenchuan Earthquake. Most of the buildings were destroyed and other damage was devastating. Based on the recorded seismic history in the area along with the geologic features and structures, it is expected that earthquakes will continue in the future. The intensity of major earthquakes could again reach a Mercalli intensity VIII (equivalent to Richter scale between 6 and 7, and mining construction as well as other projects should be planned and designed accordingly.

As an added note, during the first site visit to Cheng Qiang Yan in late February 2010, an inspection of the "Level #15" drift was conducted by the WGM project team. While all surface facilities at the mine were destroyed, the underground workings on level #15 showed little impact from the Wenchuan Earthquake. Inspection of Levels #9 and #4 by other members of the Mianzhu Norwest mine operating personnel revealed that these underground operations were also minimally affected by the earthquake. This has been confirmed by recent visits and exploration, development and mining activities since that time.

7.11 MINERALIZATION

The phosphorite particles are mainly granular in shape but also arenaceous "through recrystallization" processes. While the phosphorite is mainly granular, there are visible "washing marks" (brecciation) at the base of the bed. The phosphorite mineral exists mainly of

argillaceous phosphorite, siliceous phosphorite, “dense” phosphorite and brecciated phosphorite. The phosphorite occurs in brecciated structure, secondarily in arenaceous form with individual particles and “dense” structure. The latter is developed as recrystallized and metasomatic in texture. The phosphorite is chiefly “lumpy” in structure and occasionally there are scour marks found at the base of the bed.

The phosphorite bed mainly includes four natural types, which are lutaceous phosphorite, siliceous phosphorite, dense phosphorite and brecciated phosphorite.

The phosphorite mineral composition consists chiefly of fluoroapatite and collophanite (70 to 80%) and of clay minerals (3-10%) with an accompanying 1 to 10% quartz and 1-10% zirlite (an amorphous aluminum-hydrate encrustation) as well as small amounts of pyrite, fragments of carbonate, ferric oxide, and chlorite. The recent study in 2014 of 5 thin sections has confirmed the nature of the mineralization.

The key element of commercial interest in the phosphorite mineral is phosphorus (P), which occurs in the natural oxidized form as P₂O₅. According to the current statistics from the trenches, mine underground development and core drilling, the average P₂O₅ content of the Resource at Cheng Qiang Yan is 27.8 percent. The similar value at Shi Sun Xi is 29.4 percent. Prior to 2014 no systematic analyses of the oxides had been completed on the individual exploration and development samples so no detailed analysis of chemical variations or particle-analysis was available in the literature. The August 2014 report by the geological bureau included trace element and whole rock analyses as shown in Tables 5 and 6.

TABLE 5.
TRACE ELEMENT ANALYSES

Ore Type	Phosphate Rock						Parathion aluminum strontium ore	
Lab Sample No.	14001773	14001774	14001776	14001778	14001779	14001780	14001777	14001775
Field Sample No.	PD4-Q1	PD4-Q2	PD2140-Q2	PD3-Q2	PD15-Q1	PD15-Q2	PD3-Q1	PD2140-Q1
Elements	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Cu	20	40	40	30	30	60	40	40
Zn	50	20	20	20	20	20	20	20
Pb	30	10	10	20	20	50	30	30
Sn	<5	<5	<5	<5	<5	8	<5	10
Cr	30	60	60	40	20	100	40	60
Ni	30	30	80	40	30	70	40	50
Mo	<2	<2	<2	<2	<2	<2	<2	<2
V	10	40	50	40	30	80	40	<10
Co	5	10	20	<5	<5	5	<5	<5
Ag	<0.1	0.8	0.7	0.2	0.5	0.2	<0.1	0.3
Li	300	300	300	50	20	300	<10	300
Be	10	10	10	10	<2	50	<2	30
Zr	<10	<10	<10	<10	<10	20	<10	<10
B	20	30	100	20	30	150	50	1000
Ba	500	300	1250	200	200	1000	400	8000
Sr	600	600	600	1000	400	>2000	300	>2000
Mn	<200	<200	<200	<200	<200	<200	<200	<200
Ti	<200	<200	<200	<200	<200	<200	<200	<200
Bi	<2	<2	<2	<2	<2	<2	<2	<2

Description: ">" greater than , "<" below detection limit

TABLE 6.
WHOLE ROCK ANALYSES

Sample Number	Field Number	Sample	Ore type	(P ₂ O ₅)/10 ⁻²	(TREO)/10 ⁻²	(SiO ₂)/10 ⁻²	(TFe ₂ O ₃)/10 ⁻²	(CaO) /10 ⁻²	(MgO) /10 ⁻²	(Al ₂ O ₃) /10 ⁻²	(F) /10 ⁻²	(SrO) /10 ⁻²	
14001765	PD2140-ZH1		Parathion aluminum strontium ore	26.43	0.088	4.96	1.59	30.53	0.21	18.00	1.62	4.20	
14001767	PD3-ZH1			14.83	0.173	13.88	1.27	6.39	0.23	32.83	0.37	5.84	
		Max		26.43	0.173	13.88	1.59	30.53	0.23	32.83	1.62	5.84	
		Min		14.83	0.088	4.96	1.27	6.39	0.21	18.00	0.37	4.20	
		Mean		20.63	0.130	9.42	1.43	18.46	0.22	25.42	1.00	5.02	
		Mean Square		5.80	0.040	4.46	0.16	12.07	0.01	7.42	0.63	0.82	
		Coefficient of variation		28.12	30.690	47.35	11.19	65.40	4.65	29.20	63.09	16.35	
14001763	PD1-ZH1		Phosphate rock	33.21	<0.04	5.13	1.48	47.24	1.06	4.04	2.84	0.17	
14001764	PD1-ZH2			24.70	<0.04	3.87	1.53	42.72	6.06	3.07	2.13	0.14	
14001766	PD2140-ZH2			31.69	<0.04	5.28	2.13	45.84	1.46	5.40	2.90	0.082	
14001768	PD3-ZH2			28.34	<0.04	2.94	3.24	44.86	3.63	2.90	2.78	0.32	
14001769	PD4-ZH1			28.48	<0.04	4.92	2.68	43.67	2.65	4.40	2.61	0.11	
14001770	PD4-ZH2			34.21	<0.04	2.89	1.35	49.53	1.52	2.40	3.28	0.10	
14001771	PD15-ZH1			34.25	<0.04	4.01	0.93	47.61	0.38	5.61	3.09	0.46	
14001772	PD15-ZH2			29.12	0.060	8.11	1.97	40.34	0.95	10.47	2.36	0.37	
		Max		34.25	0.060	8.11	3.24	49.53	6.06	10.47	3.28	0.46	
		Min		24.70	0.060	2.89	0.93	40.34	0.38	2.40	2.13	0.08	
		Mean		30.50	0.060	4.64	1.91	45.23	2.21	4.78	2.75	0.22	
		Mean Square		3.18	0.000	1.57	0.71	2.77	1.74	2.41	0.35	0.13	
		Coefficient of variation		10.43	0.000	33.82	37.09	6.12	78.71	50.37	12.73	59.77	
						(Cd) /10 ⁻⁶	(As) /10 ⁻⁶	Acid insoluble /10 ⁻²	(CO ₂) /10 ⁻²	(Cl) /10 ⁻²	(I) /10 ⁻²	CaO/(P ₂ O ₅)	F/(P ₂ O ₅)
14001765	PD2140-ZH1		Parathion aluminum strontium ore			1.62	14.7	20.95	0.53	181	35.7	1.15	0.0532
14001767	PD3-ZH1					3.38	11.9	48.62	0.18	27.1	14.1	0.43	0.0584
		Max				3.38	14.67	48.62	0.53	180.50	35.69	1.15	0.06
		Min				1.62	11.94	20.95	0.18	27.10	14.06	0.43	0.05
		Mean				2.50	13.31	34.78	0.36	103.80	24.88	0.79	0.06
		Mean Square				0.88	1.37	13.84	0.17	76.70	10.81		
		Coefficient of variation				35.27	10.30	39.79	47.70	73.89	43.45		
14001763	PD1-ZH1		Phosphate rock			1.91	22.4	5.39	0.53	186	48.6	1.42	0.0601
14001764	PD1-ZH2					1.19	18.6	4.62	13.6	206	40.1	1.73	0.0497
14001766	PD2140-ZH2					2.49	21.3	7.42	3.28	218	59.8	1.45	0.0633
14001768	PD3-ZH2					1.46	8.86	3.65	9.19	244	53.6	1.58	0.0620
14001769	PD4-ZH1					4.40	12.6	6.60	6.27	212	58.2	1.53	0.0599
14001770	PD4-ZH2					2.10	11.9	3.12	3.97	269	61.0	1.45	0.0663
14001771	PD15-ZH1					1.46	7.69	7.44	1.45	240	59.7	1.39	0.0648
14001772	PD15-ZH2					2.17	8.35	13.54	1.04	248	40.0	1.39	0.0585
		Max				4.40	22.36	13.54	13.61	269.40	61.02	1.73	0.0663
		Min				1.19	7.69	3.12	0.53	186.20	40.02	1.39	0.0497
		Mean				2.15	13.96	6.47	4.92	227.93	52.61	1.49	0.0606
		Mean Square				0.94	5.57	3.08	4.26	25.22	8.19		
		Coefficient of variation				43.81	39.90	47.60	86.63	11.07	15.57		

The values for Mine 1, as seen from the above tables are consistent with the results from the samples independently collected by WGM (see Table 6) as part of its November 2013 site visit. WGM's samples were collected from the phosphorite beds within the two mines. Samples 1 to 3 were obtained from Mine 1, while samples 4 to 6 were obtained from Mine 2. Samples 4 to 6 were channel samples but did not cross the full extent of the mineralization. The locations of the samples collected by WGM are shown in Table 7.

**TABLE 7.
LOCATIONS OF WGM DUE DILIGENCE SAMPLES**

Mine 1 level 15	
1	Stope 1 Draw pt 2
2	Stope 2 Draw pt 1
3	Stope 1 Draw pt 3
Mine 2 Level 1950	
4	Development ore pt1
5	Development ore pt2
6	Development ore pt3

The WGM samples were analysed SGS Tianjin Mineral Laboratory, Tianjin, PRC using method ICP95A. This method provides for analysis of all major oxides and the typical range of accessory minerals affecting phosphate ore quality, including uranium and thorium. It is noted that method ICP95A has an upper limit of detection for P₂O₅ of 25 %. Samples 1,2,3,5 and 6 assayed in excess of 25% P₂O₅ and were re-assayed using a gravimetric method to determine the P content in apatite. Summary assays for the samples are detailed in Table 8.

**TABLE 8.
SUMMARY ASSAY DATA – WGM DUE DILIGENCE SAMPLES**

Method	ICP95A P ₂ O ₅ %	Apatite_P P ₂ O ₅ %	ICP95A									PHY01K LOI %
			Al ₂ O ₃ %	CaO %	Cr ₂ O ₃ %	Fe ₂ O ₃ %	K ₂ O %	MgO %	MnO %	Na ₂ O %	TiO ₂ %	
Limit of Detection												
Lower	0.01	0.0001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Upper	25	100	75	60	10	75	25	30	10	30	25	100
Sample No.												
1	>25	31.84	8.34	45.27	0.01	1.94	0.86	0.23	0.03	0.20	0.38	3.81
2	>25	34.89	3.32	43.90	<0.01	1.10	0.25	0.08	<0.01	0.14	0.15	2.19
3	>25	36.52	4.33	49.23	<0.01	1.69	0.28	0.19	0.02	0.13	0.19	2.93
4	18.66	n/a	0.87	39.12	<0.01	2.42	0.22	12.10	0.31	0.07	0.05	24.04
5	>25	29.53	2.98	40.91	<0.01	3.53	0.96	0.42	0.18	0.08	0.14	4.54
6	>25	29.29	1.47	46.65	<0.01	1.69	0.37	4.41	0.18	<0.01	0.08	9.20

Trace element assays for composite samples are detailed in Table 9.

TABLE 9.
TRACE ELEMENT ASSAYS – COMPOSITE SAMPLES, WGM DUE DILIGENCE SAMPLES

Method	ICP95A Ba ppm	ICP95A Sr Ppm	ICP95A Zr Ppm	ICP95A Nb Ppm	ICP95A Y Ppm	ICP95A Zn Ppm	ICM12B Ag Ppm	ICM12B Al %	ICM12B As Ppm	ICM12B Ba Ppm	ICM12B Bi ppm	ICM12B Ca %	ICM12B Cd ppm	ICM12B Ce ppm	
LDL	10	10	10	10	10	5	0.01	0.01	1	5	0.02	0.01	0.01	0.05	
UDL	10000	10000	10000	10000	10000	10000	10	15	10000	10000	10000	15	10000	1000	
Mine 1 level 15															
1	Stope 1 Draw pt 2	418	2380	168	12	148	123								
2	Stope 2 Draw pt 1	175	3470	59	<10	89	261								
3	Stope 1 Draw pt 3 composite 1-2-3	207	6122	94	<10	86	153	0.30	1.33	16	291	0.21	>15	2.99	16.70
Mine 2 Level 1950															
4	Dvlpmnt ore pt1	107	244	19	<10	18	93								
5	Dvlpmnt ore pt2	230	314	44	<10	53	974								
6	Dvlpmnt ore pt3 composite 4-5-6	196	374	31	<10	33	157	0.32	0.82	30	267	0.11	>15	2.12	26.80
Method	ICM12B Co ppm	ICM12B Cr Ppm	ICM12B Cu Ppm	ICM12B Fe %	ICM12B Ga Ppm	ICM12B Hg Ppm	ICM12B K %	ICM12B La ppm	ICM12B Mg %	ICM12B Mn Ppm	ICM12B Mo ppm	ICM12B Na %	ICM12B Ni ppm	ICM12B P ppm	
LDL	0.1	1	0.5	0.01	0.1	0.01	0.01	0.1	0.01	5	0.05	0.01	0.5	50	
UDL	10000	10000	10000	15	10000	10000	25	10000	15	10000	10000	10	10000	10000	
Mine 1 level 15															
1	Stope 1 Draw pt 2														
2	Stope 2 Draw pt 1														
3	Stope 1 Draw pt 3 composite 1-2-3	14.2	33	35.3	0.99	4.9	0.08	0.35	10.9	0.08	158	7.49	0.13	63.4	>10000
Mine 2 Level 1950															
4	Dvlpmnt ore pt1														
5	Dvlpmnt ore pt2														
6	Dvlpmnt ore pt3 composite 4-5-6	3.7	40	19.8	1.57	5.6	0.09	0.52	26.1	3.26	1663	4.78	0.11	22.7	>10000
Method	ICM12B Pb ppm	ICM12B Rb Ppm	ICM12B Sb Ppm	ICM12B Sc Ppm	ICM12B Sn Ppm	ICM12B Sr Ppm	ICM12B Th Ppm	ICM12B Ti %	ICM12B Tl Ppm	ICM12B U Ppm	ICM12B V ppm	ICM12B W ppm	ICM12B Y ppm	ICM12B Zn ppm	
LDL	0.2	0.2	0.05	0.1	0.3	0.5	0.1	0.01	0.02	0.05	1	0.1	0.05	1	
UDL	10000	10000	10000	10000	1000	10000	10000	15	10000	10000	5000	10000	10000	10000	
Mine 1 level 15															
1	Stope 1 Draw pt 2														
2	Stope 2 Draw pt 1														
3	Stope 1 Draw pt 3 composite 1-2-3	23.1	11.8	3.12	3.8	1.6	2616.3	4.4	<0.01	0.53	45.91	29	0.7	93.51	176
Mine 2 Level 1950															
4	Dvlpmnt ore pt1														
5	Dvlpmnt ore pt2														
6	Dvlpmnt ore pt3 composite 4-5-6	34.7	15.2	5.03	2.3	0.8	300.0	2.5	<0.01	1.43	16.81	143	0.4	33.64	416

The SGS assays for the six samples collected by WGM show P₂O₅ values of 29.29% to 36.52% except Sample 4, which assayed 18.66% P₂O₅. The assayed values for the major gangue elements are in general agreement with the reported historic assay values except for Sample 4. Sample 4 was collected outside of the main ore zone and is representative of the lower grade zones. Trace element assays show very low levels for all elements of interest.

The only comments on the chemical components of the phosphorite material which were presented for review for WGM's original Technical report came from a report on Shi Sun Xi (Coal Design & Research Institute of Sichuan Province-2006). The recent 2014 report provides a similar review of the chemical components for Mine 1 as seen in the above tables, which shows similar results.

The Coal Design & Research Institute of Sichuan Province determined that the major gangue mineralization in this phosphorite includes MgO, Fe₂O₃, Al₂O₃, and CO₂. These gangue minerals will have no impact on the P₂O₅ quality or production and will report to the slag from the furnace operation. Recent August 2014 analyses including P₂O₅, CaO, F, Fe₂O₃, Al₂O₃, SiO₂, MgO, and CO₂, as well as trace element analyses can be summarized as follows;

- The content variation of MgO is between 0.05% and 3.32% and 0.72% in average; with a high degree of variance. The MgO content in the phosphorite is not uniform and is negatively correlated with P₂O₅. It is closely related with the content of CO₂, which is 2.68%; lower than the requirement (MgO/P₂O₅<8) of the industrial indexes, thus being a low magnesium phosphorite. The WGM samples reported MgO values ranging from 0.08% to 4.41%, exclusive of Sample 4, which assayed 12.10%. The WGM samples confirm the low MgO characteristics of the ore;
- Fe₂O₃ assays range between 0.74% and 6.75% and average 3.24%; with a high variance. The iron content in the phosphorite is not uniform and is negatively correlated with P₂O₅. Iron content is positively correlated with Al₂O₃. The ratio of Fe₂O₃/P₂O₅ is 12%, which is higher than the Fe/P requirement of the industrial indexes. The WGM samples exhibited a Fe₂O₃ range of 1.10% to 3.53%, with Sample 4 reporting an Fe₂O₃ content of 2.42%. The Fe₂O₃/P₂O₅ ratio ranged from 3.15% to 12.97% (sample 4). These values are consistent with the reported Chinese results.
- Al₂O₃ assays range from 1.2% and 8.79% and average 4.01%; with a high variance. The alumina content in the phosphorite is variable and negatively correlated with P₂O₅. Alumina content is positively correlated with the content of Fe₂O₃. The ratio of Al₂O₃: P₂O₅ is 15%, which is higher than the Al/P requirement of the industrial indexes. The WGM samples reported Al₂O₃ values ranging from 0.87% to 8.34%, with A/P ratios of 4.66% (sample 4) to 26.19% (sample 1), with the remaining samples reporting less than 12%;

- CO₂ assays range from 0.64% and 6.28% and average 1.59% with a high variance. The level of CO₂ is not related to the content of P₂O₅, but it is positively correlated with MgO, indicating dolomite as the prime CO₂ containing mineral. The CO₂ content is lower than the requirement (CO₂ of 4%) in the industrial indexes. The WGM samples reported LOI values ranging from 2.19% to 24.04% (sample 4). Sample 6 had a reported value of 9.20%, with the other samples reporting less than 4% LOI. WGM does not consider the relatively low CO₂ content a detriment in processing.

Overall, the WGM grab samples confirm the quality of the ore and as represented by both the historic sampling result and current analytical results. WGM is satisfied that the historic assay data are representative of the ore and that the historic assay data can be used in reporting resources.

7.12 MINERALIZATION AT FENGTAI

While the upper Sinian Dengying Formation is extensively exposed on the property exploration has been very limited.

Barite mineralization has been noted as well as a local pyrite occurrence, both in the Upper Sinian Dengying Formation in the NW portion of the property.

The barite mineralization zone striking NE and dipping It occurs in the “granophytic” dolostone of the Upper Sinian Dengying Formation, with a bedding consistent with the strata. The trench TC03 indicated that the mineralization zone was 140 m long and 15 m wide, and offered some samples which returned a set of assay result of 8%~12% BaSO₄.

Phosphate has not been discovered on surface to date. However based on the Phosphate beds at ChengQuan Yan and the adjacent Longman properties to the south it is expected that the phosphate bed underlies at least part of the property as well.

8. DEPOSIT TYPES

The primary phosphorite bed of economic interest at both Cheng Qiang Yan and Shi Sun Xi is of sedimentary origin. From the work reviewed and interviews conducted for this report, it is believed that the phosphorite beds are of different geologic ages. The geology reports from the two deposits differ as to the geologic age of the phosphorite bed with the bed at Shi Sun Xi being of Devonian age. WGM takes exception with this assignment believing that the phosphorite bed at Shi Sun Xi is more likely of Lower Cambrian age and equivalent to the Meishicun Formation similar to the deposits on the east flank of the very large anticline that forms the basis of most of Mianzhu's phosphorite production. However, whatever the age of the phosphorite, that determination has no impact on the Resources estimated for the two properties which are separated by approximately 8 km.

The regional geologic map of the phosphorite production area of Mianzhu, supplied by the Sichuan Institute of Chemical Engineering and Geological Exploration, indicates that the bed on both properties is the same Devonian age. The geology report for Cheng Qiang Yan, with accompanying stratigraphic descriptions, also written by the Sichuan Institute of Chemical Engineering and Geological Exploration, indicates that the phosphorite bed is Sinian (Upper Precambrian) age and located in the Deng Ying Formation. The stratigraphic descriptions of the strata lying above the phosphorite bed at Cheng Qiang Yan do not match the description of the equivalent strata from Shi Sun Xi. The "Devonian" age assignment from the regional geologic map places the preferred stratigraphic location for the bed on both properties as disconformably resting on the Deng Ying Formation, a position and circumstance similar to the Meishucun Formation on the eastern flank of the anticline and the stratum from which the state-run Qing Ping phosphorite mine operated, at rates approaching 1,000,000 tpa until the Wenchuan Earthquake.

Current data reviewed indicate that there was no significant sedimentary phosphogenesis and accumulation event in the Devonian anywhere in Asia and only minor occurrences elsewhere in the world are assigned to this age. To WGM's knowledge, with the exception of Shi Sun Xi and one other, all other producing phosphorite occurrences in Sichuan are reported as Upper Sinian or Lower Cambrian in age (either Deng Ying Formation or Meishucun Formation). However, scientific journals from the PRC on this subject are difficult to find and evaluate.

Current regional geologic data and reports indicate that a more likely age for the Shi Sun Xi phosphorite bed (if, in fact, it is different from Cheng Qiang Yan) is Lower Cambrian and it should be assigned, in general, to the Meishucun Formation of that age which lies stratigraphically above the Deng Ying Formation of the same age (approx). WGM has no doubts that the roof material for the Shi Sun Xi bed is Devonian and there is a significant unconformity between the two strata just as there is an unconformity between the phosphorite bed and the underlying Upper Sinian strata identified as the Deng Ying Formation.

The “Devonian” age assignment for the phosphorite bed at Shi Sun Xi, as explained by personnel from the Sichuan Institute of Chemical Engineering and Geological Exploration, requires a special designation as to the type of the deposit. This type of “Devonian phosphorite deposit” is designated as the "Shi Fang Type” in Sichuan Province. As explained, the phosphogenesis and accumulation events for this type of deposit occurred originally in the Lower Cambrian age as the Meishucun Formation. During the depositional hiatus and erosional events that occurred between the Middle Cambrian and Devonian ages the phosphorite bed was severely weathered which increased the quality of the bed significantly compared to the Meishucun Formation. This is a natural “beneficiation” process. During the initial depositional events during the sea on-lap in the Devonian age, the "Shi Fang Type” beds were displaced somewhat and incurred internal structural changes to the bed which was subsequently covered with mid- to upper shelf Devonian marine sediments.

The August 2014 report issued by Sichuan Institute of Geology and Mineral Development Geochemistry Team, positions the phosphorite bed within Upper Devonian, Sha Wo Zi Formation.

9. EXPLORATION

9.1 PROCEDURES/PARAMETERS OF SURVEYS AND INVESTIGATION

The Cheng Qiang Yan and Shi Sun Xi properties after being acquired in 2002 Mianzhu Norwest produced and shipped approximately 379,000 tonnes of phosphate rock until the Wenchuan Earthquake in 2008. Since that time the company has been working on re-establishing and upgrading its operations to international standards. That has included extensive underground development work and related activities as well as limited production.

Details of the exploration prior to 2013 and up until November 2014, for both properties, has been detailed in WGM's previous technical reports.

Activities since November 2014 at the Cheng Qiang Yan property included production, monitoring and resource assessments for the mining permit as well applications for mining and exploration permit renewals and related engineering and geodetic studies. Exploration in 2015 was limited to underground development (1,566.2 m) work and exploration access tunnels (4,177.1 m) related to production planning.

For the Shi Sun Xi mining permit and exploration permit work in 2015 was limited to production related development work (1,816.5 m) and related exploration access for resource definition (7,169.3 m). Work on the exploration permit was limited to planning and tunnel preparations for the underground drilling program proposed –in 2016.

For the FengTai property the geological bureau completed an assessment report and proposed surface exploration program and Mianzhu has commenced tunnelling from the Cheng Qiang Yan property to reach the projected phosphate zone from underground. Access tunnel development work in 2015 totalled 116 m.

WGM understands that some of the proposed underground development work in preparation for proposed drilling at Shi Sun Xi was started during 2015. WGM assisted with the search for and arranging a site visit for a potential drilling company capable of drilling from underground, as surface based drilling was not considered feasible for the selected targets.

Exploration at FengTai completed during the 2014 and 2015 was limited to local mapping and emplacement of 9 scattered trenches, data compilation and review by the bureau as well as AsiaPhos initiation of underground access to the projected target zone on the property from the adjacent Cheng Qiang Yan property.

The following tables summarize the activity at FengTai from 2014 to 2015.

**TABLE 10.
FENGTAI WORK COMPLETED (2014-2015)**

Work completed		Unit	2015 Qty.
Development	Access tunnel advance	m	116 m
Geology	1:2,000 geological mapping	km ²	2.0
	1:10,000 hydrology/environmental mapping	km ²	5.0
	Trenching	m	1,017
Sampling		Pcs	60

* As per draft report by Sichuan Institute of Geology and Mineral Development Geochemical Exploration Brigade

9.2 SAMPLING METHODS AND SAMPLE QUALITY

While WGM was not present during the recent exploration work, the Sichuan Institute of Geology and Mineral Development Geochemistry Team is well respected and would have conducted its work in conformity with currently required procedures in China. Based on WGM's experience these are generally in conformity with current international procedures.

The Chinese government has recently mandated that all survey data be referenced to the 1980 Xian co-ordinate system instead of the former Beijing 1954 reference. To this end the some of the Cheng Qiang Yan mine workings were updated in 2015 Model 9600 static GPS receiver units (accuracy of $\pm 1 \text{ mm} + 5 \text{ ppm}$) calibrated to the Class D embedded survey control point (GD01) at the Mianzhu Qingping Township Airport. The WGM understands that not all of the underground workings have been converted but this work is in progress. Previous elevation, topographic control point surveying was carried out on surface with a real-time GPS system to update the existing topographic map with the new survey results. The topographic survey is compliant with National Standard of People's Republic of China GB/T 18314-2001. In 2013/2014 a total of 6 Level E GPS points were recorded, and suitable spacing for level E was selected according to the National Standard. Each Level E GPS point was marked with cement and 12 mm steel cable at center point and a number assigned. The coordinate system used was Xi'an 1980 and elevation was 1985 National Elevation Datum. Trimble Geomatics Office software was used for data interpretation, and Hgenuis 1.0 software was used for elevation calculation. The accuracy in X, Y and Z is to 0.001 m and angle is to 1 second. Traverse survey was done based on the Level E GPS points.

Previous underground surveying of existing mining areas included verification of the previous drill hole coordinates for use as reference points for the future underground development work in the exploration permit area. The survey were carried out by total station, TOPCON 3002LN. The verification on drill holes showed the error in offset is 0.12 m in plane and 0.15 m in elevation.

Thirty percent (30%) of the survey points are checked for quality assurance purpose.

Underground geological mapping is tied to survey points and allows for the updating of previous survey data and to update the distribution of the mineralization both within the current mining permit levels and in the exploration permit area below the current mining areas.

The section plans reviewed by WGM in 2014 were extremely detailed and presented both the geology as well as the orientation (dip and strike) of the phosphorite bed and any other pertinent structural details encountered. Detailed underground geological mapping was completed along the entire 4,521.5 m of underground workings surveyed for mine 1. Rock descriptions symbols are recorded on adit long section plots, as well as underground sample locations and survey points. All information is entered into an AutoCAD drawing file with appropriate orientation details. WGM understands that the underground mapping is being updated in 2016 in conformity with the conversion to the Xian 1980 co-ordinate system.

WGM was not provided with the sample description or analytical results for the FengTai property exploration carried out in 2014 and 2015. However since most of this work was related to Barite exploration by the former property owner it was not considered as material to the search for the phosphate mineralization. WGM understands that the field mapping and trench sampling and analyses was conducted in accordance with existing Chinese standards, National Standard of People's Republic of China DZ/T 0209-2002 "Specific for phosphorous mineral exploration", which includes standard sampling procedures. It is specified that all sampling shall be continuous through the entire sample length; channel sample cross section shall be 10 cm by 5 cm and the size shall increase in brecciation zone; sample length shall not exceed mining width and length shall be limited between 0.5 m to 1 m when seam interbedded with gauge. All samples taken in field for assaying were channel sampling.

9.3 RELEVANT INFORMATION

WGM notes some discrepancy between the alignment of topographic features between the 1:10,000 FengTai geology map and the adjacent more detailed 1:5,000 Cheng Qiang Yan property maps provided by the geological bureau.

WGM notes that as part of the transition of all geodetic data for mining and exploration permits to the Xian 1980 co-ordinate system from the former Beijing 1954 system there are some small displacements noted between maps of different dates. We believe that part of the problem may be due to issues relating to the migration of topographic data to the Xian system on some of the maps. For the most parts such shifts are minor in the 10s of metres at most and are not considered material. This is further exacerbated by the steep terrain. However it will be prudent to review all map co-ordinate data to confirm that appropriate transformations have been made.

Most underground exploration activity is conducted as pre development work along the mineralized structure with drifts usually spaced 15 m apart to cross cut the mineralized structure. Historically underground drilling has not been used on these types of operations as cost for drifting is often equivalent to that of drilling.

Data collected by the Sichuan Institute of Geology and Mineral Development Geochemistry Team in 2014 has been incorporated into a Mineral Reserve estimate based on current PRC reporting standards to support the application for a new mining permit. WGM has incorporated the sample information and analytical results in their Mineral Resource estimate.

9.4 RESULTS AND INTERPRETATION OF EXPLORATION

The work completed by the Sichuan Institute of Geology and Mineral Development Geochemistry Team in 2014 has generally confirmed the strike and dip of the phosphorite bed. The closer spaced sampling has identified a number of minor faults which displace the bed locally however these offsets were limited to several 10's of metres at the most.

The steep terrain and poor satellite coupling in the northwestern portion of the Cheng Qiang Yan property have resulted in some difficulties in determining accurate elevation measurements and surface locations for some of the sample points in these areas.

Surface mapping and sampling of the FengTai property were focused on the search for barite mineralization which the bureau has confirmed in the northwestern edge of the property. These results have not been seen or reviewed by WGM.

During WGM's 2014 site visit geological data and anecdotal information indicating the possible continuation of the phosphate bed onto the FengTai property was reviewed. Photos of the adit and samples provided, confirmed the presence of the upper phosphate bed on the Cheng Qiang Yan property and its plunge towards the FengTai property. WGM understands that this is further supported by projecting to the north east a similar zone currently being exploited on the Longman property southwest of the FengTai property.

Tunnelling to access the southeastern portion of the property from the Cheng Qiang Yan property has not yet advanced sufficiently to reach the projected phosphorite bed.

No new material geological or Mineral Resource information has been discovered in 2015 and WGM has retained an average strike of 320° and dip of 50° for its resource estimates at Mine 1 based primarily on the main bed data for Mine 1. WGM believes that the dip measurements for the up-faulted bed (second phosphorite bed, or upper bed) exposed on the property, which are based on surface samples only may not reflect the true dip. Furthermore WGM believes that the average dip of the stratigraphy which is approximately 50° is more reflective of the general dip of the phosphorite bed as exposed in the mine workings.

10. DRILLING AND TRENCHING

Other than production related development work no drilling or surface sampling for phosphate was completed in 2015. There are no changes to the current Cheng Qiang Yan geological dataset which contains records for thirteen trenches referenced in either reports or on drawings reviewed by WGM. The data set includes nineteen pre-2013 locations within the existing underground mine where organized production control samples were collected. Activities in 2013 and 2014 provided an additional 18 underground samples and 6, 2014 trench sampling data points.

The trenches identified as TC101, TC102, TC103, TC104, TC105 and TC106 and the dates of the field work that excavated and sampled the trenches are unknown. However, it is believed that the Sichuan Institute of Chemical Engineering and Geological Exploration, or its predecessors, conducted the field work sometime between 1990 and 2000, more likely during the mid-1990s. Due to file storage problems at the Institute, none of the field records were available for review, or subsequent copying, during the WGM site-visit interviews. The geological bureau as part of the 2013/2014 field work re-numbered these trenches and the current data set include these as TC, 108, 109, 110, 111, 112, and 113.

The pre 2013 underground samples were surveyed and all samples were collected in a similar manner. This work was completed by the Mianzhu Norwest geologists and the samples analyzed at the company laboratory in Hanwang Town Mianzhu City. These are from the lowest elevation to upper elevations as follow: Level #15 (elevation 2,060 m) four samples; Level #9 (elevation 2,106 m) two samples; Level #4 (elevation 2,169 m) three samples; Level #3 (elevation 2,211 m) three samples; Level #8 (elevation 2,281 m) three samples; and Level #5 (elevation 2,385 m) four samples. These sample data contain information regarding location, “true” thickness, elevation, %P₂O₅ and %Fe₂O₃ (13 points only). This work was conducted between 2002 and 2008 and the sample sites are contained, with appropriate information, on company AutoCAD drawings of each working level.

The 2013 underground samples and additional 2014 trench samples were surveyed and all samples were collected in a similar manner. This work was completed by the Sichuan Institute of Geology and Mineral Development Geochemistry Team and the samples analyzed at Sichuan Deyang Institute of Geological Engineering and Exploration Mineral Testing Center, which is an independent laboratory in Deyang City. The channel samples are, from the lowest elevation to the uppermost as follows: Level 1 (elevation 1953 m), 2 channels; Level 15 (elevation 2058 m), 4 channels; Level 2140 (elevation 2143 m), 3 Channels; Level 4 (elevation 2165 m), 4 Channels; Level 3 (elevation 2208 m), 5 channels. The analytical results for two channel samples collected on Level 2420 (elevation 2420) were apparently taken from an old mine area outside of the actual permit boundary and were not available to WGM.

Samples collected in 2014 include samples from an (artisanal) adit on the up faulted bed at the 2900 m elevation level. These sample data contain information regarding location, “true” thickness, elevation, %P₂O₅ and %SrO. This work was conducted in the last quarter of 2013 and first two quarters of 2014. Sample sites are contained, with appropriate information, on company AutoCAD drawings of each working level and updated surface plans dated August 2014.

These forty seven (47) sample locations have been treated as “trench” locations for the work conducted by WGM.

There have been no updates to the Shi Sun Xi geological dataset which contains records for six drill holes and five trenches referenced in either the reports or on drawings. The drill holes are ZK701, ZK703, ZK705, ZK902, ZK903 and ZK1001. Drill holes ZK701, ZK703 and ZK705 are located on neighboring properties and, as such, no detailed information was transmitted by the Sichuan Institute of Chemical Engineering and Geological Exploration. However, summarized data from these holes regarding the phosphorite bed appear on drawings that were transmitted. Drill holes ZK902, ZK903 and ZK1001 are located on the Mianzhu Norwest mining permit and, as such, detailed geologic logs and “basic” analyses were transmitted by the institute. The drill holes by Mianzhu Norwest were completed between May and September 2005. The average drilling rate for the three holes was 14.3 m per day (7-day weeks).

At Shi Sun Xi, the five trenches are TC123, TC124, TC125, TC126 and TC205. Trenches TC123, TC124 and TC205 are located on a neighboring property near the western extent of the mining license. However, the Institute transmitted graphic logs with “basic” analyses for these trenches. Trenches TC125 and TC126 are located in the SW part of Mianzhu Norwest’s mining license and the graphic logs, with analyses, were also transmitted by the Institute.

At Shi Sun Xi, there are two locations within the existing underground mine where organized production control samples were collected. Each of these locations was surveyed and both samples were collected in a manner similar to the Cheng Qiang Yan underground samples. This work was completed by Mianzhu Norwest and the samples analyzed at the company laboratory in Hanwang Town Mianzhu City. This work was conducted between 2006 and 2008 and the sample sites are contained, with appropriate information, on company AutoCAD drawings of each working level. There is one location at the 1950 m level and one at the 2,050 m level. These two sample locations, in the NW corner of the mining license, have been treated as “trench” locations for the work conducted by WGM.

Although no field operating records for the Shi Sun Xi drilling campaign were submitted for review, it is assumed that the program was conducted in accordance with the typical “Standards” mandated by the PRC National and Provincial governments and their guidelines.

It is WGM opinion based on other references that the PRC works to standards that are satisfactory to the purposes of this review.

Also standard in the PRC is the process to ascertain the variability of drill hole inclination where the azimuth and dip of borehole direction were surveyed for every 150 m of drilling with any problems corrected promptly and good results attained.

Previous representative samples collected by WGM at three locations from Level 1950 at Shi Sun Xi, confirmed the overall tenor and S.G of the mineralization, but since these samples were only collected in part of the mineralized zone and they were not considered for inclusion in the channel database.

There has been no reported drilling or sampling at FengTai other than historical data and sampling in 2013 and 2014 by the previous property owner for barite in the north western part of the property. None of the barite sampling data has been made available to WGM. While WGM believes the upper (upfaulted) Cheng Qiang Yan phosphorite bed extends onto the FengTai property previously planned drilling to sample the bed was postponed as rehabilitation of the access road has been delayed and underground access from Cheng Qiang Yan currently in progress has not yet reached the zone.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 SAMPLING METHOD AND APPROACH

Sichuan Institute of Geology and Mineral Development Geochemistry Team, who carried out the 2013/2014 exploration program, followed National Standard of People's Republic of China DZ/T 0209-2002 "Specific for phosphorous mineral exploration", which includes standard sampling procedures. It is specified that all sampling shall be continuous through the entire sample length; channel sample cross section shall be 10 cm by 5cm and the size shall increase in brecciation zone; sample length shall not exceed mining width and length shall be limited between 0.5 m to 1 m when the seam is interbedded with gauge. All samples taken in field for assaying were channel sampling.

Sichuan Institute of Geology and Mineral Development Geochemistry Team also claimed a standard of "Sampling procedure for phosphorous mineral exploration" was followed during sampling process. However, WGM was not able to verify this standard.

Coring procedures used during field campaign at Shi Sun Xi focused on the recovery of "HX" sized core or equivalent. The core was recovered and placed into core boxes and then described in detail in the field. The core was then transported to the geological team headquarters for further description and confirmation of both sets of descriptions. The chemical analyses of selected samples were probably conducted by the 21st Laboratory of Chemical Geology and Mine of Sichuan Province, considered to be independent of the issuer, which is apparently associated with the Sichuan Institute of Chemical Engineering and Geological Exploration. It has been assumed that the laboratory followed the guidelines of the National Standard of People's Republic of China "GB/T 1871.1-1995--Assaying for Phosphorus Pentoxide in Phosphorus Ore and Phosphorus Ore Concentrate, Phosphomolybdic Acid and Quinoline Gravimetric Method and Volumetric Method". These guidelines also include standards for the analysis of iron, aluminum, calcium, and magnesium in "phosphorus ore concentrate and phosphorus ore". These methods must be followed or the laboratory could lose its accreditation.

It is assumed that no core preservation techniques were employed for any of the core (PRC standard practice) and, as such, future detailed analytical tests of the core will yield results which are not necessarily representative of the unweathered phosphorite material. The moisture content of the unweathered phosphorite material is sufficiently low so that the core will nominally acquire atmospheric moisture and "accelerate" the weathering process on the mineralization exposed by the coring process. This process affects the chemistry as well as the physical attributes of the cored material.

All phosphorite core and trench samples as appropriate from the various field programs, were hand-washed and put into the core box (or bagged in PVC containers) in sequence. All core-log forms were completed and well kept in the field, which meets the requirements for assay, photography, and sampling standards. For drill hole sealing, mortar was prepared by ratio of 1:0.7:2 of 425# cement with water and fine sands used to place a surface seal in the drill collars. All boreholes were marked with permanent cement stakes buried at the collar with hole number, date and drilling team marked on the stake.

All original records were completed in accordance with stipulations and PRC standard practices, with their contents and forms retained to keep an accurate, complete, clear and timely record of events and results. The drilling-shift records were accepted upon inspection by 3 levels of supervision and management. Other original records that were completed include procedures for compilation, inspection and proofreading. The quality of original records is reliable and provides for a precise reliable firsthand source of basic information for the preparation of the geological report.

Core was taken from the field operations to the geological team core-storage facilities where it was further described and processed. Detailed core descriptions were completed and various samples selected for chemical analysis. The core intervals selected for chemical analysis were split lengthwise by a core-splitter with one-half being retained for reference and the other half submitted to the laboratory for evaluation. Samples were defined by lithology and bed identification but never exceeded 2.0 m in length in the phosphorite bed.

For the samples derived from the several sampling campaigns at both Mines, sample collection was conducted on the premise of recording detailed records of depth, thickness and core length, along with statements of the physical properties of the phosphorite bed and overburden material, macrolithotype and core conditions. The phosphorite bed was wholly sampled as an independent seam. Samples were weighed on site to ensure their representativeness. Core that was reduced to fines in the drill operation or contaminated were not sampled. With the intact “cylinder core” recovered from drilling, *intervals with gangue of 10 mm, or more, were rejected as were intervals of core in very small fragments or powder form.* Collected phosphorite samples were washed and dried, placed into core boxes and then sent to the 21st Laboratory of Chemical Geology and Mine of Sichuan Province for assay using the National Standard of People’s Republic of China “GB/T 1871.1-1995--Assaying for Phosphorus Pentoxide in Phosphorus Ore and Phosphorus Ore Concentrate, Phosphomolybdic Acid and Quinoline Gravimetric Method and Volumetric Method” within the set transportation time limit established by Provincial standards. Collection, packaging and transportation of all types of samples were in accordance with the Ministerial criteria and the design for detailed survey. In total, over several campaigns, samples from 13 trenches and six drill holes were sent to the Provincial chemical laboratory for analysis. In addition, 21 samples from underground mining locations were sent to the chemical laboratory of the Mianzhu Norwest in

Hanwang Town Mianzhu City for assay using the National Standard of People's Republic of China GB/T 1871.1-1995.

Samples collected for rock strength analysis are sent to one of several laboratories which specialize in such specific analytical work. Water samples collected for analyses are also sent to laboratories which specialize in such work.

References to various guidelines for data verification are found throughout this report especially in Sections 11, 12 and 13. Specific and general criteria and guidelines for conducting fieldwork, and data verification by the Institute, are briefly listed below:

- “Classification on Solid Mineral Resources/Reserves” (GB/T17766-1999);
- “Evaluation Guidelines for Mining Rights” (The Amendment Act in 2006);
- The No. 18 announcement on implementing “The Revised Evaluation Methods for the Assessment Ways of Mining Revenue” issued in 2006 by Ministry of Land and Resources;
- “Interim Measures for Prospecting and Mining Rights Assessment”; and
- “Evaluation Guidelines for Mining Rights” (The Amendment Act in 2006).

For the samples derived from the multiple field programs at both Mianzhu Norwest Mines, it has been assumed that the 21st Laboratory of Chemical Geology and Mine of Sichuan Province provided the testing and analytical results according to the protocols set forth in the National Standard of People's Republic of China “GB/T 1871.1-1995. As explained in Section 13 of this report there is an intense and extensive data verification protocol that is dictated by internal, Provincial and National set of standards. It has been reported that this facility holds both a “China Authorization Certificate” and a National “Metrology Accreditation Certificate” which were in force at the appropriate times.

11.2 SAMPLE PREPARATION AND ASSAYING

Sichuan Institute of Geology and Mineral Development Geochemistry Team, who carried out the 2013/2014 exploration program, followed National Standard of People's Republic of China DZ/T 0209-2002 “Specific for phosphorous mineral exploration”, which includes standard samples preparation. It is specified that all sampling shall be prepared in four stages, which are grinding, screening, mixing and quartering; Using Qeqott formula, the K value shall be 0.1 to 0.2; the loss during grinding shall be less than 5%; Error in quartering shall be less than 3%. The samples were sent to at Sichuan Deyang Institute of Geological Engineering and Exploration Mineral Testing Center for sample preparation and assaying. WGM understands but has not confirmed that this laboratory is independent from the Company and holds the required accreditation. No specific certified reference standards used by the laboratory were identified.

Prior to Mianzhu Norwest's establishment of operations in 2002, all sample preparation and all analytical routines were conducted at the 21st Laboratory of Chemical Geology and Mine of

Sichuan Province which was independent of the company. Later sampling in the 2002 to 2008 period was completed by Mianzhu Norwest with the analysis completed at the chemical laboratory of Mianzhu Norwest in Hanwang Town Mianzhu City. While all sampling and assaying that was used was not independent of the company, WGM has relied on its accuracy based on the more than 10 years of successful production history by Mianzhu Norwest.

All assaying was completed using the National Standard of People's Republic of China "GB/T 1871.1-1995--Assaying for Phosphorus Pentoxide in Phosphorus Ore and Phosphorus Ore Concentrate, Phosphomolybdic Acid and Quinoline Gravimetric Method and Volumetric Method" with further implementation of appropriate Provincial and/or current industrial standards for assay procedures. All tasks of sample collection, packaging and assay determination were under the guidance of the appropriate Ministerial, Provincial and/or National standards and rules.

According to Provincial and National guidelines, after typical sample preparation procedures, individual analytes were quantified using wet chemical methods, atomic adsorption and other testing as required. During the analytical procedures, quality control and quality assurance were checked on a continuing basis. Internal laboratory checking, which is actually a reanalysis of the individual samples, was completed on 5% of the samples received. "Standard" samples (knowns) were inserted into the set of samples being tested. These "standards", inserted about once every day, were used for internal laboratory procedure control and checking of the analytical accuracy. In addition to checking overall laboratory performance, about once per year a National Standard is analyzed by all "phosphate" laboratories in China and the results compared. Such actions and reforms as necessary are completed immediately under both Provincial and National supervision. This facility is authorized and certified by both the National and Provincial governments. All differences accounted for in the QA/QC programs are rectified either through re-analysis or through mathematical procedures which account for analytical "drift."

In general, two types of analyses were prepared from the samples from the deposits:

- Basic ["Fundamental"]; and
- Group ["Combinatory"].

The "Group" sample analysis reported for this report is assumed to be based on the report by the Coal Design & Research Institute of Sichuan Province in 2005. However, no analyses have been presented for review in this Technical report.

In the PRC, it is common to composite various exploration/development samples for "group assays". While this methodology and approach provides some limited information, the approach does not offer any insights into the vertical variability of the phosphorite bed or the areal variability of the phosphorite bed between sampling points. In the exploitation of the

phosphorite, particularly on large properties, the variability of the phosphorite can, and often does, change the performance of the “ore” in whatever processing flowsheet is used.

Normally, in phosphorite exploration and development work in the “western world” a number of constituents are analyzed on each and every sample without physically compositing the material. Generally these constituents include: P₂O₅, CaO, SiO₂, MgO, Fe₂O₃, Al₂O₃, and CO₂ (LOI) “Fundamental”. Other constituents are often analyzed on composited “Combinatory” samples – either whole-bed analysis (preferred) or groups of holes. Those constituents can include, but are not limited to: Na₂O, K₂O, SO₃⁻, C, F, Cl⁻, Cd, As, Hg, Se, etc. Each of these analytes plays a role in evaluating the success of a process flowsheet and/or determination of harmful constituents in various waste streams from the process or in the final product being produced.

Analyses for the 2013/2014 program for Cheng Qiang Yan (Mine 1) included whole rock analyses for 10 samples and trace elements for 7 samples, however specific assay techniques were not specified. Also 14 duplicate samples and 7 verification (check) samples were also analysed as part of the sample verification program. The number of duplicate and check samples is in accordance with good QA/QC procedures. No information was provided on the number of certified reference standards or blanks incorporated in the main sample assay program, or if standards and blanks were also used placed in the duplicate and check assay sample batches.

The results of the duplicate and check assays show a very high degree of correlation, with correlation coefficient values (R²) in excess of 99% for P₂O₅, SrO and acid insoluble (Table 11).

**TABLE 11.
DUPLICATE AND CHECK ASSAY RESULTS**

Duplicate Samples	P ₂ O ₅	SrO	Acid Insolubles
R ²	0.99977	0.9987	0.9993
Regression Line	y=1.0007x	y=0.9952x	y=1.0018x
Check Samples			
R ²	0.9978	0.9995	0.9988
Regression Line	y=0.9855x	y=0.9004x	y=0.9896x

For the Shi Sun Xi drill holes only the “basic” analysis group was run on each sample and consists of results for only P₂O₅, acid insolubles (H.P.) and SiO₂. With regard to all of the trench samples from both properties, only the P₂O₅ analyses have been presented for review. The analyses for the samples collected underground on both properties, only P₂O₅ and Fe₂O₃ were completed by Mianzhu Norwest. The same analytical standards and methods were applied as used for the trench and drill hole samples.

Phosphorite bed densities were determined using the displacement method on selected samples. These individual densities were then weight averaged for the property. A single average density was used for the bed on each property to determine the contained tonnage. A total of 28 samples collected in 1997 were used at and a total of 16 samples from Shi Sun Xi were used for that property.

Additional Mine 1 density samples (12) were collected by the geological bureau in 2013 and 30 samples were tested in 2014. The results for the most recent testing indicated an average density of 3.07 t/m³ for the main zone at Mine 1 and 3.09 t/m³ for the up-faulted unit.

The use of an “averaged” density for resource calculations is not unwarranted in this type of geologic environment although some actual minor variations must be expected due to the differing contributions of the individual phosphate layers at different locations.

Values for approximately the same density is used for both of Mianzhu Norwest’s Mines: WGM’s channel sampling results returned specific gravity values of 2.97 t/m³ (sample 4) to 3.18 t/m³. The average specific gravity value, was 3.09, which is in general agreement with the historic reported values.

WGM has elected to use an average of 3.08 t/m³ for both the main and up-faulted zone at Cheng Qiang Yan and 3.03 t/m³ at Shi Sun Xi.

Several groups (sets; phosphorite roof and floor) of rock samples were collected from both the trenches and drill holes to examine the rock mechanics of the rock strata which form the roof and floor of phosphorite bed. In addition, several “tests” were completed on the phosphorite material itself. As appropriate, samples were marked with the orientation of top and bottom, the block number, the specifications and sampling depth. The individual samples were then packed in wax paper and kraft paper, wax sealed and sent to the lab in a timely fashion.

The phosphorite and rock samples are not considered “high value” assets and as such do not require the extra precautions of physical security that other more valuable minerals might require. However, the QA/QC procedures implemented by the laboratories do provide “security” for the accuracy of the analyses and the results which are reported. The following are a few of the steps employed by the QA/QC system:

- Every sample is analyzed in duplicate and retests are completed by two technicians in parallel;
- The results of the analyses are rechecked by the assayer, by the group leader and finally by the “technician-in-charge” for a total of three checks;
- For results in dispute, the re-analysis must be conducted simultaneously with a standard to verify accuracy;
- “Standard” samples are all certified as are the sub-level standards;

- Implementation of assay results verification is organized by the person in charge of techniques at the lab and in accordance with existing protocols and appropriate standards;
- Duplicate assays are by the same or different analytical methods as required; and
- The person in charge (see above) is to complete a statistical analysis of the verification data to discover trends and to appraise the results with statistical measures.

The bureau also analysed 10 water samples in 2014 to determine the nature of the runoff from the mines. Table 12 summarizes the results of the water samples. WGM understand the sampling was required to meet Chinese regulations for discharge into local drainages. WGM understands regulated analytical procedures were applied for the samples.

WGM has reviewed the results of the samples and finds that the results appear to be within limits considered acceptable in most jurisdictions, Phosphate, total suspended solids, total alkalinity, pH, turbidity and other measures meet or exceed US EPA Safe Drinking Water Act and AWWA standards as of 2002. Nitrate/nitrite levels are within acceptable industry standard discharge limits.

TABLE 12.
RESULTS OF WATER SAMPLES

Analysis Project	Unit	Water Sample No.														
		PD01			HL02			HL03			HL04			PD05		
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
K ⁺	mg/l	1.2	1.1	1.1	0.8	0.8	0.8	0.6	0.6	0.6	0.8	0.8	0.8	1.7	1.7	1.7
Na ⁺	mg/l	3.0	3.0	3.0	6.0	6.0	6.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
Ca ²⁺	mg/l	70.14	70.14	76.15	42.08	44.09	44.09	38.08	34.07	44.09	40.08	42.08	42.08	64.13	60.12	60.12
Mg ²⁺	mg/l	34.05	35.26	35.26	15.81	12.16	9.73	13.38	15.81	6.08	17.02	18.24	17.02	31.62	32.83	34.05
TFe	mg/l	<0.05	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fe ²⁺	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NH ⁴⁺	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Total	mg/l	108.4	109.5	115.6	64.7	63.0	60.6	53.1	51.5	51.8	59.9	63.1	61.9	99.4	96.7	97.9
Cl ⁻	mg/l	4.25	4.25	4.25	4.25	5.67	6.38	4.25	4.25	3.55	3.55	3.55	4.96	6.38	6.38	3.55
SO ₄ ²⁻	mg/l	140.4	151.2	147.2	28.00	28.40	28.24	12.96	13.12	13.04	25.20	25.44	16.40	92.00	90.80	92.40
HCO ₃ ⁻	mg/l	195.3	201.4	219.7	164.7	152.5	146.4	158.6	158.6	146.4	183.1	183.1	183.1	225.8	225.8	225.8
CO ₃ ²⁻	mg/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OH ⁻	mg/l	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NO ₃ ⁻	mg/l	8.01	7.6	6.83	7.35	7.30	0.87	1.39	2.94	2.63	2.91	1.17	1.14	<0.04	<0.04	1.17
NO ₂ ⁻	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.06	<0.004	<0.004	<0.004	<0.004	<0.004
HPO ₄ ²⁻	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total	mg/l	347.9	364.4	377.9	204.4	193.9	181.9	177.3	179.0	165.7	214.8	213.2	215.6	324.1	322.9	322.9

		Water Sample No.														
		PD01			HL02			HL03			HL04			PD05		
		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Total Hardness	mg/l	315.3	320.3	335.3	170.2	160.1	150.1	150.1	150.1	135.1	170.2	180.2	175.2	290.3	285.3	290.3
Permanent hardness	mg/l	155.2	155.2	155.1	35.1	35.1	30.0	20.0	20.0	15.0	20.1	30.1	25.1	105.1	100.1	105.1
Temporary hardness	mg/l	160.1	165.1	180.2	135.1	125.1	120.1	130.1	130.1	120.1	150.1	150.1	150.1	185.2	185.2	185.2
Negative Hardness	mg/l	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total alkalinity	mg/l	160.1	165.1	180.2	135.1	125.1	120.1	130.1	130.1	120.1	150.1	150.1	150.1	185.2	185.2	185.2
Total soluble solids	mg/l	364.9	379.9	389.9	196.7	190.4	178.8	158.1	158.4	151.7	190.0	191.7	193.2	316.9	313.0	313.9
Insoluble CO ₂	mg/l	8.58	12.86	17.15	8.58	8.58	8.58	4.28	6.43	6.43	8.58	8.58	8.58	36.45	17.15	12.86
Oxygen consumption	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H ₂ SiO ₃	mg/l	8.10	8.63	8.00	13.04	12.61	12.30	9.27	9.48	9.75	8.96	9.01	9.48	8.1	8.15	7.89
F	mg/l	0.82	0.74	0.79	0.22	0.22	0.22	0.10	0.10	0.10	0.11	0.11	0.11	2.08	2.06	2.08
Al	mg/l	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
PH Value		7.5	7.6	7.1	7.9	7.7	7.8	7.7	7.8	7.8	7.8	7.9	7.8	7.7	7.5	7.6
Odor		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Chroma	Degree	< 5	< 5	10	< 5	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Suspended Solids	NTU	0.9	2.2	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Water temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

12. DATA VERIFICATION

WGM visited both the Cheng Qiang Yan and Shi Sun Xi sites in October 2015 to review the underground mining operations, and the status of the current access roads. No new samples were collected.

Previously WGM had collected six verification samples, 3 from Mine 1 and 3 from Mine 2, during its November 2013 site visit (see Tables 7 and 8). Samples were collected to confirm the overall mining grade, rock density and range of oxide minerals as well as accessory minerals, as part of its Mineral Resource review and planning purposes and the upgrading, modernization of operational standards and expansion at the two mine sites. These samples were analysed at SGS Tianjin Mineral Laboratory, Tianjin, PRC using standard analytical techniques for phosphate ores. The results of the analyses confirmed the general tenor of the grade and specific gravity of the ore as reported in the Chinese geological reports.

No additional samples were collected by WGM during the April 2015 and October 2015 site visits as production data was considered sufficient.

In November and December 2013, the Sichuan Institute of Geology and Mineral Development Geochemistry Team completed a program of sampling and assaying of Mine 1 primarily from the exploration levels below the current mine. The locations of the samples are detailed in Table 8. The samples were assayed for SrO, P₂O₅ and acid insolubles according to the standard Chinese protocols. The assay results confirm the historic reported phosphate grades and the quality of the phosphorite mineralization.

During its November 2013 visit and again in April 2014, and 2015 WGM observed the various steps of this fully integrated Phosphate operation from mining through final processing. WGM personnel reviewed development and mining practises at Mines 1 and 2 as well as mine access roads, mine site fixed facilities and discussed the operation of the new process plant.

WGM accompanied by Mr. Luo, Mine Manager, visited Mine 1. WGM was able to confirm that development and production stoping was underway on 6 levels or wells at Mine 1, employing 118 contract miners at this underground operation.

The safety condition of the access path to the portal was noted. The ground condition underground was as observed in previous site visits. Newly purchased loading equipment was inspected. However, no actual loading operations were observed to verify the productivity. The three WGM samples were taken at three stope preparation locations. A drilling crew was also interviewed at a development face, and the drillers proved skilled and experienced.

The previous site visit in April, 2014 also included a review of available data for the upper (upfaulted) phosphate bed and adjacent FengTai property. Although due to time constraints and the extremely steep the QP was not able to personally visit the upper adits and trenches WGM was provided with samples and photographic support as well as geological data from the upper phosphate bed which is believed to plunge onto the FengTai property.

WGM accompanied by Mr. Meng, Assistant Mine Manager also visited Level 1950 at Mine 2 in 2013. At Mine 2, there were 5 levels or wells under development employing an additional 60 contract miners for a total of 168 total contract miners employed at the two mines. Three samples were taken where mineralization was intersected in the drift. The ground conditions were examined, and a rockfall damaging utility installation was observed at an unsupported intersection. The safety condition for the access path to enter the adits was noted to be improving, but still requires additional attention. Detailed discussions were also conducted regarding the development rate, possible underground drilling options and additional ground control measures to be put in place to ensure the safety and well being of personnel and equipment.

The April 2014 site visit to Mine 2 included entry to the mine via the 1709 level, with underground inspection to the 1950 level. Mining operations were concentrated on completion of development work in the upper levels to permit full internal haulage of ore. A track system was being developed for ore haulage but had not been installed as of the date of the site visit. Operations were observed to be generally quite good, with progress being made in health and safety standards to better match western standards.

In addition to the contract miners on site there were the company staff, camp maintenance personnel, and contract truckers which reportedly brought the total manpower at the two mines to approximately 200 people, the plant manpower being extra.

The October 2015 site visit included New Well #1 at Mine 1 and 1709 Level at Mine 2. The WGM QP inspected the underground development, transportation system, and operation. The progress on ground control and transportation system is well noted.

WGM accompanied by Mr. Luo, Mine General Manager, visited Mine 1. WGM confirmed the rail system, which was observed as work in progress in previous visit, has been completed and is in service in the lowest level of the mine. The electricity powered hauling system was able to load ore and waste at dropping point inside the headings and transport material to ore bin and waste dump outside the portal effectively and efficiently. The dropping points inside the headings connect to ore passes that now connect most of the levels. This development replaced most of the cable tramways that were previously used as a main haulage system from each level. WGM also observed ramps and manways that connect levels. These developments allow personnel and equipment to access all level from underground and avoid exposure to hazardous environment, such as steep slopes and falling rocks along the

mountain side. This is considered as a major improvement since the last visit. Also observed at Mine 1 are the improved ground control measures. The portal was reinforced with solid concrete structure; the fractured areas were supported with rock bolts, mesh screen, steel arches with timber filling, and shotcrete. The quality of the ground support installation is above standard.

At Mine 2, similar transportation system, manways and ore passes were observed. No ground support was noticed due to better ground condition.

During the October 2015 visit, damages on the paved road section 1 of the Main-Mao highway due to heavy rainfall during the raining season were noticed again, similar to observation from previous visits,. The observation on the latest government effort on building the Mian-Mao highway includes providing minimum maintenance on current road to provide access; while a re-design of the highway to elevate the infrastructure with tunnels and bridges throughout the mountain ridges was being constructed. Installations, such as bridge pillars, tunnel breakthroughs and foundations, were observed being constructed.

WGM had previously (in 2014) toured the modern state-of-the-art 20,000 tonnes per annum P₄ Plant at the new Gongxing industrial zone processing facility which was operating at steady state during the visit. Both of the 10,000 capacity furnaces were charged and operating. WGM paid special attention to the ore stockpile, crushing circuit and ore handling process. WGM observed the process of haulage truck weighting at the scale, tonnage and time being recorded and ore being dumped in designated stockpiles. It is also noted that grab samples were taken from each of the stockpiles as soon as the truck finishes unloading. The grab sampling procedure was observed to be up to standard. Two loaders were feeding ores from stockpiles to crushers during the visit, and the process was continuous without much interruption. The two stage crushing circuit was set up to batch process and to differentiate high grade, which is fed to the furnace, and low grade, which is stockpiled for sale to other factories.

TABLE 13.
MINE 1

Location	Sample Number	Sample Length (m)	Assay Results		
			$\omega/(SrO)10^{-2}$	$\omega/(P_2O_5)10^{-2}$	$\Omega/(Acid\ Insoluble\ Content)10^{-2}$
PD1 (Well 1)	PD1-1H1	1.5	<0.1	0.98	0.75
	PD1-1H2	1.9	<0.1	32.33	4.89
	PD1-1H3	1.9	<0.1	15.4	2.4
	PD1-1H4	1.9	<0.1	0.41	4.68
	PD1-2H1	1.9	<0.1	0.51	0.49
	PD1-2H2	1.9	<0.1	0.32	0.4
	PD1-2H3	1.9	0.18	24.85	3.73
	PD1-2H4	1.2	<0.1	0.61	3.28
PD3 (Well 3)	PD3-1H1	1.7	<0.1	20.06	4.66
	PD3-1H2	1.6	<0.1	21.38	5.7
	PD3-1H3	1.8	<0.1	22.32	6.45
	PD3-1H4	1.9	0.11	31.01	2.23
	PD3-1H5	1.8	0.12	36.99	1.59
	PD3-1H6	1.7	0.13	37.26	0.96
	PD3-1H7	1.8	<0.1	10.54	0.72
	PD3-1H8	1.3	0.16	32.95	2.48
	PD3-2H1	1.2	<0.1	6.1	1.39
	PD3-2H2	1.8	0.32	33.33	5.05
	PD3-2H3	1.2	0.22	34.59	3.98
	PD3-2H4	1.8	0.27	29.77	2.76
	PD3-2H5	1.2	0.4	27.53	3.27
	PD3-3H1	1.8	<0.1	5.59	1.15
	PD3-3H2	1.3	0.36	33.84	6.44
	PD3-3H3	1.8	0.36	31.49	5.2
	PD3-3H4	1.8	0.84	29.75	12.47
	PD3-3H5	2	0.3	37.3	2.6
	PD3-3H6	1.8	0.24	38.21	2.38
	PD3-3H7	1.5	0.22	24.36	3.8
	PD3-4H1	1.6	<0.1	4.13	3.39
	PD3-4H2	2	<0.1	20.82	8.48
	PD3-4H3	2	<0.1	19.91	5.61
	PD3-4H4	2	0.24	23.71	11.6
	PD3-4H5	2	<0.1	1.73	1.52
	PD3-4H6	1.2	0.13	12.52	16.18
	PD3-0H1	1.2	<0.1	0.5	0.32
	PD3-0H2	1.8	3.66	27.22	12.63
PD3-0H3	1.8	4.88	12.77	46.92	
PD3-0H4	1.8	5.2	13.6	44.42	
PD3-0H5	1.8	5.93	14.64	34.42	
PD3-0H6	1.8	0.31	36.21	4.43	
PD4 (Well 4)	PD4-1H1	1.2	0.13	35.35	3.32
	PD4-1H2	1.2	0.17	33.46	7.79
	PD4-1H3	1.5	0.14	28.61	5.7
	PD4-1H4	1.5	0.1	28.81	5.42
	PD4-2H1	1.4	<0.1	6.14	1.27
	PD4-2H2	2	<0.1	24.34	1.85
	PD4-2H3	1.2	<0.1	13.85	2.34
	PD4-3H1	2	0.13	40.33	0.95
	PD4-3H2	2	0.13	22.27	26.53
	PD4-3H3	2	0.18	35.1	8.17
	PD4-3H4	2	0.15	38.34	3.36
	PD4-3H5	2	1.55	27.93	18.02
	PD4-3H6	1.9	0.15	35.12	3.72
	PD4-3H7	2	0.11	34.18	2.96
	PD4-3H8	2	<0.1	33.97	1.63
	PD4-4H1	1.2	<0.1	3.25	1.99
	PD4-4H2	1.1	0.24	30.05	7.54
	PD4-4H3	1.6	0.3	32.51	8.41
PD4-4H4	2	0.28	26.59	7.83	
PD4-4H5	1.8	0.27	25.63	7.84	
PD15 (Well 15)	PD15-1H1	1.85	<0.1	19.54	3.52
	PD15-1H2	2	0.11	35.65	2.35
	PD15-1H3	2	0.12	32.49	3.82
	PD15-1H4	2	<0.1	18.96	3.35
	PD15-1H5	2	<0.1	3.55	1.05
	PD15-2H1	1.5	<0.1	1.51	0.6
	PD15-2H2	1.4	<0.1	2.23	0.78
	PD15-2H3	1.4	<0.1	1.81	1.05
	PD15-2H4	1.3	1.85	22.2	16.62
	PD15-2H5	1.5	1.47	17.82	26.3
	PD15-3H1	1.7	0.13	10.82	3.48
	PD15-3H2	1.6	0.24	35.82	2.59
	PD15-3H3	1.2	0.29	33.87	6.82
	PD15-3H4	2	0.27	35.33	4.48
	PD15-3H5	1.3	0.32	31.93	4.4
	PD15-3H6	1.6	1.15	35.09	4.37
	PD15-3H7	1.3	0.45	31.88	10.28
	PD15-4H1	1.8	0.35	28.52	11.82
PD15-4H2	1.6	0.44	29.95	11.35	
PD15-4H3	1.5	0.4	32.5	8.78	
PD15-4H4	1.8	0.65	31.23	8.75	
PD15-4H5	1.8	0.56	27.79	14.3	
PD2140 (Ele 2140)	PD2140-1H1	1.5	0.17	14.12	3.95
	PD2140-1H2	1.9	0.2	32.3	8.03
	PD2140-1H3	1.9	0.18	37.04	4.34
	PD2140-1H4	1.9	0.16	37.87	3.67
	PD2140-1H5	1.9	0.24	33.59	6.32
	PD2140-1H6	1.9	4.88	25.28	14.31
	PD2140-1H7	1.9	3.21	27.86	10.43
	PD2140-1H8	1.2	0.93	31.99	8.17
	PD2140-1H9	1.2	4.87	29.15	12.41
	PD2140-1H10	1.4	0.8	9.18	25.5
	PD2140-1H11	1.5	0.38	3.91	51.84
	PD2140-2H1	1.5	<0.1	12.89	6.16
	PD2140-2H2	1.3	<0.1	28.11	9.23
	PD2140-2H3	1.3	<0.1	32.84	4.8
	PD2140-2H4	1.6	<0.1	31.19	5.65
	PD2140-2H5	1.8	<0.1	28.39	7.43
	PD2140-3H1	1.4	<0.1	0.84	0.56
	PD2140-3H2	1.2	0.15	35.39	5.32
PD2140-3H3	1.5	1.76	7.21	68.86	
PD2420 (Ele 2420)	PD2420-1H1	1.4	0.21	28.99	3.91
	PD2420-1H2	1.2	0.94	16.31	13.86
	PD2420-2H1	1.5	<0.1	5.03	2.9
Level PD2900	PD2420-2H2	1.5	0.23	33.29	3.58
	PD2420-2H2	1.5	0.23	33.29	3.58
	PD2900-H1	1.00	<0.1	<0.2	0.44
	PD2900-H2	2.00	0.14	34.67	1.75
	PD2900-H3	1.80	0.13	36.58	0.32
PD2900-H4	1.00	<0.1	<0.2	0.34	

WGM as part of its due diligence for the previous Technical Report of November 2014 had completed five previous site visits to both surface and underground facilities at Cheng Qiang Yan. Access to Shi Sun Xi was not possible in 2010 due to blockage of the access road but access to the new underground development adit was re-habilitated in November 2011. Extensive interviews were conducted with the personnel of Mianzhu Norwest Interviews in 2010 were primarily focused on data handling procedures, data storage and data transfer among other items of importance. In 2010, WGM had also interviewed personnel of the Sichuan Institute of Chemical Engineering and Geological Exploration. WGM also inspected about 5% of the production quality control laboratory sheets and such files as were available that included all aspects of the data collected from the drill holes and trenches as well as individual interpretations resulting from those data. WGM was satisfied with its review of available technical information and saw no reason for the collection of independent verification samples.

Normally, the field work is conducted by the Institutes. Both the Sichuan Institute of Chemical Engineering and Geological Exploration and the Coal Design & Research Institute of Sichuan Province, has many internal and external checks for data verification for each task being performed and protocols in place for rectifying any discrepancies. The same is true for the laboratory procedures employed by the 21st Laboratory of Chemical Geology and Mine of Sichuan Province. Interviews were limited in time and scope at the Sichuan Institute of Chemical Engineering and Geological Exploration because appropriate personnel and files were not available. However WGM was satisfied that the information reviewed and presented reasonably reflects what was presented and observed.

WGM also notes that verification of the west borderline of the Shi Sun Xi's mining license was in dispute until August 2005 due to an overlapping of the west boundary line of the Shi Sun Xi Phosphorite Mine and east boundary line of the Long Lin Phosphorite Mine. The resolution, in summary, moved the west boundary line of the Shi Sun Xi Phosphorite Mine, in parallel, 60 m towards the east. However, in the report "*Additional Exploration of Geological Report for Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd (Shi Sun Xi Phosphorite Mine)*" submitted by Sichuan Institute of Chemical Engineering and Geological Exploration in October, 2005, the phosphorite reserves that were reported were still based on the previous boundary line definition.

The report entitled "*Additional Exploration of Geological Report for Sichuan Mianzhu Norwest Phosphate Chemical Company Ltd (Shi Sun Xi Phosphorite Mine)*" was submitted by Sichuan Institute of Chemical Engineering and Geological Exploration in October, 2005 which contained a "reserves summary" (resources) developed using PRC standards of classification. The reference above indicates an incorrect western boundary line was used in this estimation.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

Historical evidence of previous mineral processing and/or metallurgical testing for this property is limited. In a report (1998) on the Cheng Qiang Yan property, the Sichuan Institute of Chemical Engineering and Geological Exploration indicated that little or no testing had been completed in the preparation of their report. The report stated that, for the Cheng Qiang Yan property, “the mineral type is called “Shi Fang Type”, which has been discovered and processed for over 40 years. The processing industry has considerable processing experience on handling this type of mineralization, and based on these experiences, the product from this site can be directly used as chemical reagents or fertilizer”.

A similar reference to metallurgical testing was found in the data (Coal Design & Research Institute of Sichuan Province-2006) presented for the review of the Shi Sun Xi property. The phosphorite mine is of the “Shi Fang Type” (the ore in the mine belongs to “Shi Fang Type” phosphorite mine) and has claimed over 40 years history from prospecting to exploitation and has accomplished a lot of research and testing work on mineral processing and utilization. Based on the current situation that the phosphate fertilizer plants and yellow phosphorus plants both in and out of the province make direct use of the phosphate rock, the phosphate rock in this mine is similar to other ore types, which can be directly used in fertilizer or in chemical engineering material processing”.

As stated in the direct quotation above, no direct evidence of testing or testing results was made available for review for this Technical report.

The mining operations at Cheng Qiang Yan, under the administration of Mianzhu Norwest, produced, from 2002 until the Wenchuan Earthquake, a total of approximately 379,000 tonnes of phosphate rock that were fed to the electric furnace operations at Hanwang Town Mianzhu City to produce elemental phosphorous (P_4). This operating history demonstrates that end products (P_4 , and related) can be produced economically and competitively with this type of operation. Since access to Cheng Qiang Yan was re-established in 2010 until the end of 2015 the mine has produced approximately 716,000 dmt.

Production records that survived the Wenchuan Earthquake constitute coverage of about 80% of the approximately 183,000 tonnes produced, from mining operations at Cheng Qiang Yan, between 2006 and the Wenchuan Earthquake. This surveyed tonnage averaged about 29.6% P_2O_5 and 2.9% Fe_2O_3 (dry) no other analytes were tracked through these quality control measures at that time. The average size of each of these quality control samples represented about 148 tonnes of mine production. The average moisture content of each of these samples was about 4.6% H_2O . The current continued production of P_4 , should be considered a successful metallurgical demonstration for this processing option.

Two composites from the samples collected by WGM in November 2013 returned arsenic (As) results of 16 and 30 ppm for the Cheng Qiang Yan and Shi Sun Xi respectively.

Whole rock and trace element analytical results reported by the bureau in their August 2014 report indicated an arsenic content in the range of 7.7-22.2 ppm for the Cheng Qiang Yan mine consistent with WGM's findings.

14. MINERAL RESOURCE ESTIMATES

14.1 GENERAL

In keeping with the practice of USGS Bulletin 1450-B, Bulletin 831 and Bulletin 891, for these types of mineral deposits and by NI 43-101 standards, WGM has applied the following parameters to its Mineral Resource/Reserve definitions for this Technical Report in addition to CIM definitions.

Mineral Resources

All phosphate bearing material with a P₂O₅ content greater than 8% and a thickness greater than 25 cm are considered. Primary focus is concerned with phosphorite bed D₃S¹ on both Mianzhu Norwest's properties. For the two deposits, no outcrop barriers, no boundary buffers, no buffers along faults, no areas of past minor production, and no areas of low-quality or thin material were omitted from the Resource estimates.

Mineral Reserves

The company has now completed more than two full years of mining operations since its listing on the SGX Catalist board. Based on its review of production records and capital and operation cost from 2014 and 2015 WGM is of the opinion that Mineral Resources in the immediate vicinity of exploration and development drifts currently being mined and included in the AsiaPhos Cheng Qiang Yan and Shi Sun Xi mine plan for the period 2016 through 2018 can be upgraded to reserves. This is reflected in the Mineral Reserve estimates that follow.

These reserves are limited to mineralization exposed in underground adits within a maximum of 50m of existing sample points and are limited to those resources outlined in the company's mine plan and targeted for extraction from the respective levels during the next three years.

Conversion of other Mineral Resources to Mineral Reserves is contingent on additional underground exploration, preferably using underground drilling and the completion of a unified data base integrating all underground exploration, development and grade control sampling and surface trench and drill data.

Measured Resources

For the Cheng Qiang Yan deposit, where continuity has been established, those tonnes found within 400 m of a sampling point whether it is a drill hole or a trench is categorized as Measured. The 400 m radius provides a maximum area around each sample point of 50.92 hectares.

For the Shi Sun Xi deposit, where the continuity is much less well established, the radius was set at 200 m which provides a maximum area around each sample point of 12.57 hectares that contain tonnes of this category. This conservative approach to the Shi Sun Xi deposits does not alter the total estimated tonnage of the deposit but reduces the Resource tonnage considered Measured on a partially explored/defined and geologically complex property. The definition used as a basis for the above specifies that the true extent of the phosphate has been sufficiently measured so that the estimated tonnage is judged to be accurate within 20% of the true tonnage.

Indicated Resources

These tonnages are computed partly from specified measurements and partly from projection of data to a reasonable distance. The recommended maximum projection distance is 800 m for Cheng Qiang Yan deposit and 500 m for the less well defined, and more geologically complex, Shi Sun Xi deposit. Thus, for the Cheng Qiang Yan deposit, the Indicated tonnages fall into a belt that is from 400 m to 800 m around a sampling point. For the Shi Sun Xi deposit, this belt is from 200 m to 500 m around a sampling point.

Inferred Resources

The classification of these tonnages is based largely on broad knowledge of the geologic character of the deposit (bed) and where few measurements are available. The estimates are based primarily on assumed continuation of Indicated areas from which there is geologic evidence. At Shi Sun Xi, the Inferred tonnage is beyond the 500 m radius that defines the Indicated tonnage. Due to the relatively dense sampling at Cheng Qiang Yan, and the updated geological interpretation there are now no Inferred resources.

The estimated Resources for the two properties are further divided based on the ramifications of restrictions contained within the mining and exploration licenses of each. The mining license for the Cheng Qiang Yan deposit restricts control of the resource to elevations between 2,570 and 2,240 m. The mining license for the Shi Sun Xi deposit restricts control to elevations between 2420 and 1,600 m. The exploration license for Cheng Qiang Yan contains no restrictions based on elevations of the phosphorite bed. The same is true for the Shi Sun Xi exploration license.

Within each of the definitions presented above, there are categories, or levels of definition, which depend upon the density of sampling points used to examine the property and quantify the tonnage. These categories are, in decreasing sample-point density (increased sample spacing).

14.2 DEFINITIONS

The classification of Mineral Resources and Mineral Reserves used in this report conforms with the definitions of the Canadian Institute of Mining Metallurgy and Petroleum ("**CIM**")

Council adopted on May 10, 2014. We have followed the guidelines and standards provided in the final version of National Instrument 43-101, which first came into effect on February 1, 2001, was revised on December 11, 2005, and further changed effective June 30, 2011. We further confirm that, in arriving at our classification, we have followed the relevant definitions for the CIM Standards/NI 43-101, as follows:

A **Mineral Resource** is a concentration or occurrence of diamonds, natural solid inorganic, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

A **Mineral Reserve** is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a

Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

The previous Mineral Resource estimates prepared for each of Mianzhu Norwest's Mines used data from each of the properties presented for review. WGM cross checked, and verified data from all known sources available. A portion of the original data was lost in the destruction caused by the Wenchuan Earthquake and other data was "lost" in the archives of the institution that performed most of the field programs and wrote historical reports for the two properties. These missing data were not included in the Resource estimate.

The estimation of the updated Resources used routines from Geovia's GEMS 6.6 software and are described in Section 14.3.

Other computer model design criteria are as follow, and are unchanged from the previous estimate methodology:

- Phosphorite Density – A constant 3.08 tonnes per cubic metre was used for Cheng Qiang Yan and 3.03 tonnes per cubic metre used for Shi Sun Xi; these are the same as for all past studies conducted and are supported by reports and WGM's recent 2013 sampling (six samples) that showed a specific gravity range from 2.97 to 3.18 g/cm³. The 2014 results from 30 samples tested by the Bureau ranged from 2.88-3.42 g/cm³ with similar averages;
- Minimum Phosphorite Bed Thickness – 0.25 m; estimates by past PRC work use a minimum thickness of 1.6 m; (Thicknesses ranged from 0.67 m to 13.84 m);
- Phosphorite Subcrops – None were used. The geological history for the Shi Fang type deposit dictates that all weathering phenomena were emplaced millions of years ago and no recent activity accounts for changes;
- Phosphorite Analyses – The data which are contained in individual sample analyses contained in the dataset for each property are limited. The past PRC estimates used various grade cutoffs at various times all dictated by Provincial guidelines although; such cutoffs are not geologically warranted. WGM applied an effective 8% P₂O₅ cutoff basis (resource polygon grades ranged from 17.77% to 35.39%); and,
- Outside Estimate Boundary – The mining license boundary and the exploration license boundary are used for each property.

Table 14 presents the updated M&I Mineral Resource estimate for each property as prepared by WGM for Mianzhu Norwest's license holdings. Average bed thickness and average P₂O₅ content are weight averaged by tonnes from the various applicable polygons resulting from the estimating process.

TABLE 14.
TOTAL ESTIMATED M&I PHOSPHORITE RESOURCES FOR MIANZHU NORWEST

		Tonnes (million)	Bed Thk (m)	P ₂ O ₅ (%)
<u>Mining License Area</u>				
Cheng Qiang Yan				
M & I Resource	Measured	2.7	5.91	28.18
	Total	2.7	5.91	28.18
Shi Sun Xi				
M & I Resource	Measured	6.6	6.83	29.26
	Indicated	<u>10.0</u>	<u>7.07</u>	<u>29.79</u>
	Total	16.6	6.98	29.58
Total				
M & I Resource	Measured	9.3	6.57	28.94
	Indicated	<u>10.0</u>	<u>7.07</u>	<u>29.79</u>
	Total	19.4	6.83	29.38
<u>Exploration License Area</u>				
Cheng Qiang Yan				
M & I Resource	Measured	7.0	6.04	25.61
	Total	7.0	6.04	25.68
Shi Sun Xi*				
M & I Resource	Measured	0.03	1.37	19.76
	Indicated	<u>1.3</u>	<u>6.18</u>	<u>26.71</u>
	Total	1.4	6.06	26.55
Total				
M & I Resource	Measured	7.0	6.02	25.59
	Indicated	<u>1.3</u>	<u>6.18</u>	<u>26.71</u>
	Total	8.3	6.04	25.77

Notes: Mineral Resources effective December 31, 2015.

1. WGM Senior Associate Industrial Mineral Specialist, Donald Hains, is the Qualified Person for this Mineral Resource estimate.
2. Mineral Resources are estimated at a cutoff value of 8% P₂O₅ (based on a price of US\$ 60/t P₂O₅), and a minimum phosphorite bed thickness of 0.25 m.
3. 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.
4. 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.
5. 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 May 10, 2014.
6. S.G. of 3.08 tonnes/m³ and 3.03 tonnes/m³ used for Cheng Qiang Yan and Shi Sun Xi respectively.
7. Indicated amounts may not precisely sum due to rounding.
8. Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.
9. Previous Mineral Resource estimate update was prepared 21 November, 2014.
10. Mineral Reserves are in addition to estimates of Mineral Resources.

Table 15 presents the updated Inferred Resources estimate for the Shi Sun Xi property as prepared by WGM for Mianzhu Norwest's license holdings. Average bed thickness and average P₂O₅ content are weight averaged by tonnes from the various applicable polygons resulting from the estimating process. Details of the updated resource estimate for each zone are tabulated in Appendix 2.

TABLE 15.
ESTIMATED INFERRED* PHOSPHORITE RESOURCES FOR MIANZHU NORWEST

		Tonnes (million)	Bed Thk (m)	P ₂ O ₅ (%)
<u>Mining License Area</u>				
Shi Sun Xi	Inferred	<u>1.8</u>	<u>6.79</u>	<u>30.02</u>
Total		1.8	6.79	30.02
<u>Exploration License Area**</u>				
Shi Sun Xi	Inferred	<u>16.1</u>	<u>8.07</u>	<u>29.74</u>
Total		16.1	8.07	29.74

* Note: Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.

Table 16 presents the summary of the Mineral Resources/Reserves for Mianzhu Norwest Mines.

TABLE 16.
SUMMARY OF THE MINERAL RESOURCES/RESERVES FOR MIANZHU NORWEST MINES

Category	Mineral Type	Gross Attributable to licence		Net Attributable to Issuer Assumed at 100%			Remarks
		Tonnes (millions)	Grade (P ₂ O ₅ %)	Tonnes (millions)	Grade (P ₂ O ₅ %)	Change from previous update ⁸ (%)	
Reserves							
Proved	Phosphorite	1.1	27.96	1.1	27.96	N.A.	Initial Reserve
Probable	Phosphorite	0.5	29.11	0.5	29.11	N.A.	Initial Reserve
Total		1.5	28.31	1.5	28.31	N.A.	Initial Reserve
Resources							
Measured	Phosphorite	16.3	27.50	16.3	27.50	-9%	
Indicated	Phosphorite	<u>11.4</u>	<u>29.43</u>	<u>11.4</u>	<u>29.43</u>	-4%	
Total		27.7	28.30	27.7	28.30	-7%	
Inferred*	Phosphorite	17.9	29.77	17.9	29.77	0%	

Notes: Mineral Resources and Reserves effective December 31, 2015.

- WGM Senior Associate Industrial Mineral Specialist, Donald Hains, is the Qualified Person for this Mineral Resource/Reserve estimate.
- Mineral Resources are estimated at a cutoff value of 8% P₂O₅ (based on a price of US\$60/t P₂O₅), and a minimum phosphorite bed thickness of 0.25 m.
- 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.
- 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.
- 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 May 10, 2014.
- S.G. of 3.08 tonnes/m³ and 3.03 tonnes/m³ used for Cheng Qiang Yan and Shi Sun Xi respectively.
- Indicated amounts may not precisely sum due to rounding.
- Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.
- Previous Mineral Resource estimate update was prepared 21 November 2014.
- The decreased tonnages in the Measured and Indicated categories are attributed to the upgrading of portions of the resources to the Mineral Reserve category, and to a lesser extent, depletion due to ongoing mining. Note that Mineral Reserves are being reported for the first time for these mines, under NI 43-101 Standard.
- Estimated Mineral Resources reported are in addition to Mineral Reserves.
- "N.A." = Not applicable.

Under NI 43-101 criteria, only Resources under the M&I classification may be considered for inclusion into any mine planning efforts which are required to possibly elevate the categorization of that material to **Reserve** status. The demonstration of economic viability of the tonnage and processes must be established before the category of reserves is used. No Inferred Resources may be included in these efforts.

This document is the reporting of phosphorite Resources only. No associated mining, metallurgical, economic, marketing or environmental studies have been referenced in the preparation of these Resources. The further conversion of the phosphorite Resource to Reserves will require closer spaced drilling and sampling to more accurately define the deposit boundaries and thicknesses as well as the grades. This conversion must be supported by the application of economic factors and mining factors to define the cutoff grade for the portion of phosphorite Resource that is economic and can be classified as reserves. The Mianzhu Norwest mining operation currently operates with very localized knowledge of grade and thickness based on progressing from the active mining areas. This operating practice can be exposed to changes in grade or production due to geologic factors that may change as the mining is advanced putting production plans at risk. Based on the history to date of the Mianzhu Norwest operations, WGM believes that completion of the necessary drilling and sampling will be successful in conversion of a high proportion of the remaining resources being classified as reserves after application of the modifying factors.

Although the WGM Mineral Resource estimates are based on one continuous mineralized zone across the licensed areas, it is possible that more complete knowledge of the phosphorite bed thickness and local structure could result in increased or decreased Resources to those currently estimated.

Further development efforts which may include underground development to allow drilling and sampling, are required to elevate the Inferred Resources, or any portion thereof, to the Measured and Indicated categories. This work may take place any time in the future as dictated by Mianzhu Norwest's long-term business planning.

14.3 CHENG QIANG YAN AND SHI SUN XI RESOURCE ESTIMATION **METHODOLOGY**

For estimating the phosphorite Resources on Mianzhu Norwest's Mines, WGM utilized the software routines contained within the GEMS module (version 6.7) distributed and maintained by Geovia. GEMS permits the management of drill hole data and other measurement information to create plots, maps, model surfaces and solids, and employ sophisticated geostatistics to quantify, visualize and analyze mineral deposits. It places data points into a transformed space in which the correct spatial relationship is maintained for

analysis and interpolation purposes. It then transforms the estimates back into their original space.

For each of the two Mianzhu Norwest Mines, WGM followed a stepwise progression through the GEMS software to manage the data, and the project, while developing a computer model for both Cheng Qiang Yan and Shi Sun Xi. The models are a 3D representation of the geology for each site and the interactions of the geology with the mining and exploration licenses. The steps followed, in general, the grouping of activities outlined below:

Project Setup

Project setup with data “workspaces” for the following data elements:

- Polylines (for topography contours, license boundaries, faults, surface outcrops);
- Polygons (for polygonal estimates);
- Wireframes (for faults, topography, mining and exploration license boundaries); and
- Point Areas (for surface trench, drill hole, and underground channel samples).

Data Import and Validation

- Topography contours (digitized from supplied drawings) imported into Polyline workspace;
- Trench locations and drill hole intercepts imported as points into Point Area workspace; and
- Fault lines, surface outcrops and license boundaries imported to Polyline workspace.

Wire-framing

- Solids generated from license boundaries – mine licenses extended to vertical limits as defined. Exploration licenses extended in vertical to deepest extent of seam;
- Topography surface generated from digitized topography contours; and
- Fault lines projected from surface downwards according to strike and dip and fault. Fault surface generated from two lines. In the case of Shi Sun Xi, no attitude data was available for fault F14, so was assumed to be vertical fault.

Inclined Plane Generation

- Fault lines and surface outcrops projected to 3D topography surface; and
- Best-fit inclined plane generated from surface outcrop lines, trench locations, underground channel samples, and drill hole locations.

Geostatistics

Variograms were generated for each deposit to determine if grade distribution trends exist. Currently there are insufficient data to produce meaningful conclusions about sample dependence at either deposit. Consequently, general rules of sample dependence, based on the aforementioned U.S.G.S. Bulletins and years of world-wide experience with sedimentary phosphorite deposits, were used. Basic statistics run on composite sample population and the sample frequency distribution curves are presented in Figures 6 and 7.

Although there is a slight bi-modal distribution in both cases (Table 17), the relatively low coefficient of variation suggests that no high grade capping is required at this stage.

TABLE 17.
BASIC STATISTICS OF COMPOSITES

Mine	Number of Composites	Minimum (opt Au)	Maximum (opt Au)	Mean (opt Au)	Coefficient of Variation
Mine 1	50	5.87	36.35	28.39	0.19
Mine 2	13	17.77	32.25	27.70	0.15

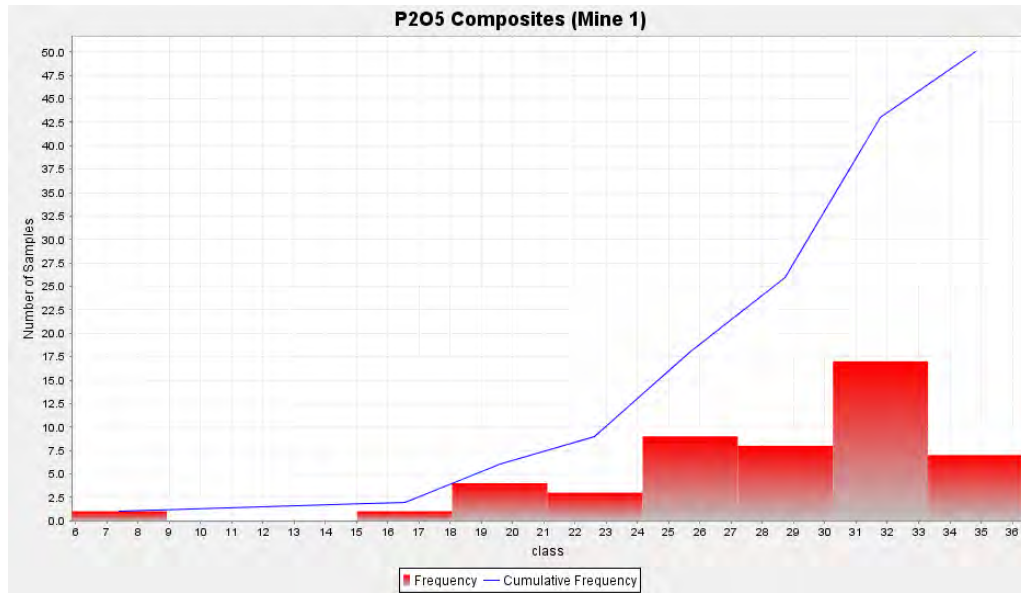


Figure 6. Cheng Qiang Yan Frequency Distribution Curve

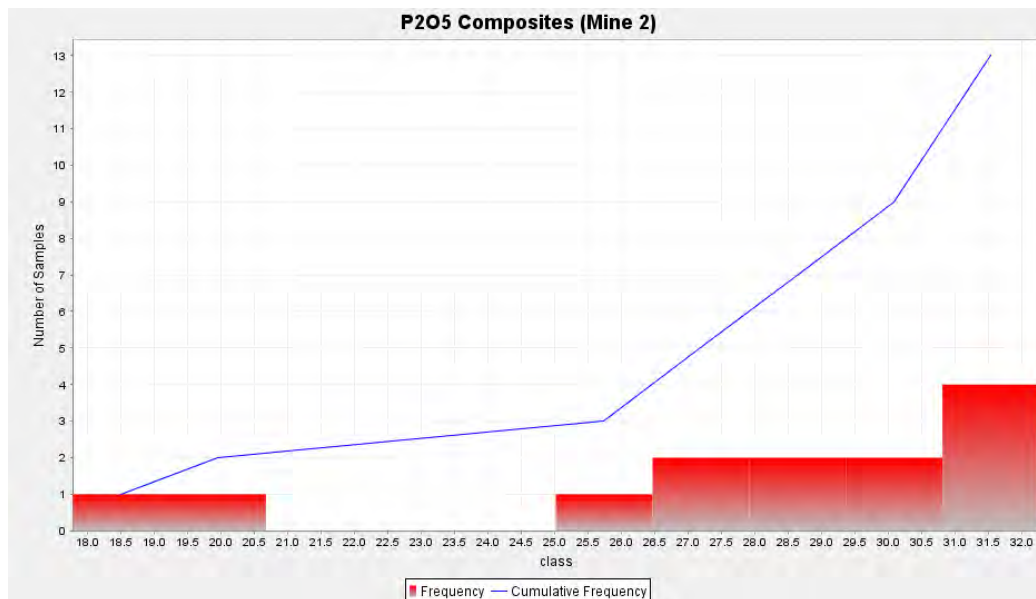


Figure 7. Shi Sun Xi Frequency Distribution Curve

Polygonal Modelling

- License-boundary polygons were generated by intersecting license boundary wireframes with inclined planes. Mine license boundaries were clipped at surface, and below the lowest allowable elevation as follows:

Cheng Qiang Yan: maximum depth 2,240 m

Shi Sun Xi: maximum depth 1,600 m

- Grade polygons were generated from trench samples, underground channel samples and drill hole intercepts, and projected to inclined plane. Polygons for “Measured”, “Indicated” and “Inferred” categories generated as per the following polygon radii of influence:

	<u>Measured</u>	<u>Indicated</u>	<u>Inferred</u>
Cheng Qiang Yan	400 m	400 m to 800 m	>800 m
Shi Sun Xi	200 m	200 m to 500 m	>500 m

- Final resource polygons were generated by clipping grade polygons against the license boundaries.

Density

As previously described, the bulk density for each deposit was determined by the Geological Institute based on at least 16-30 sample measurements per property.

- Constant densities for all rock were coded as follows:
 Cheng Qiang Yan: 3.08 tonne/m³
 Shi Sun Xi: 3.03 tonne/m³

Density determinations by WGM in March 2014 on six samples, 3 from Mine 1 and 3 from Mine 2 confirm these density averages.

Mineral Resource Estimate Summary

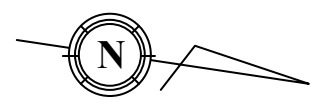
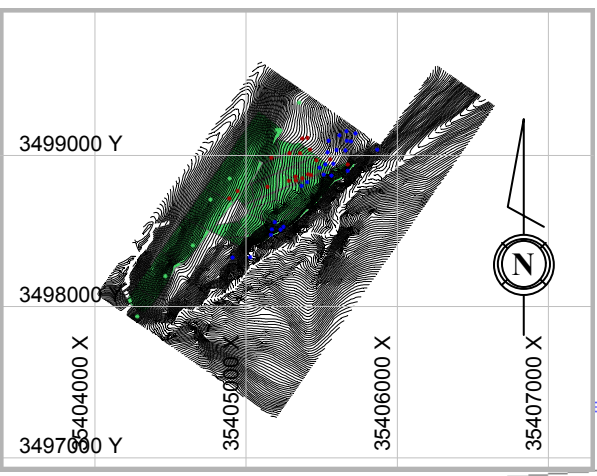
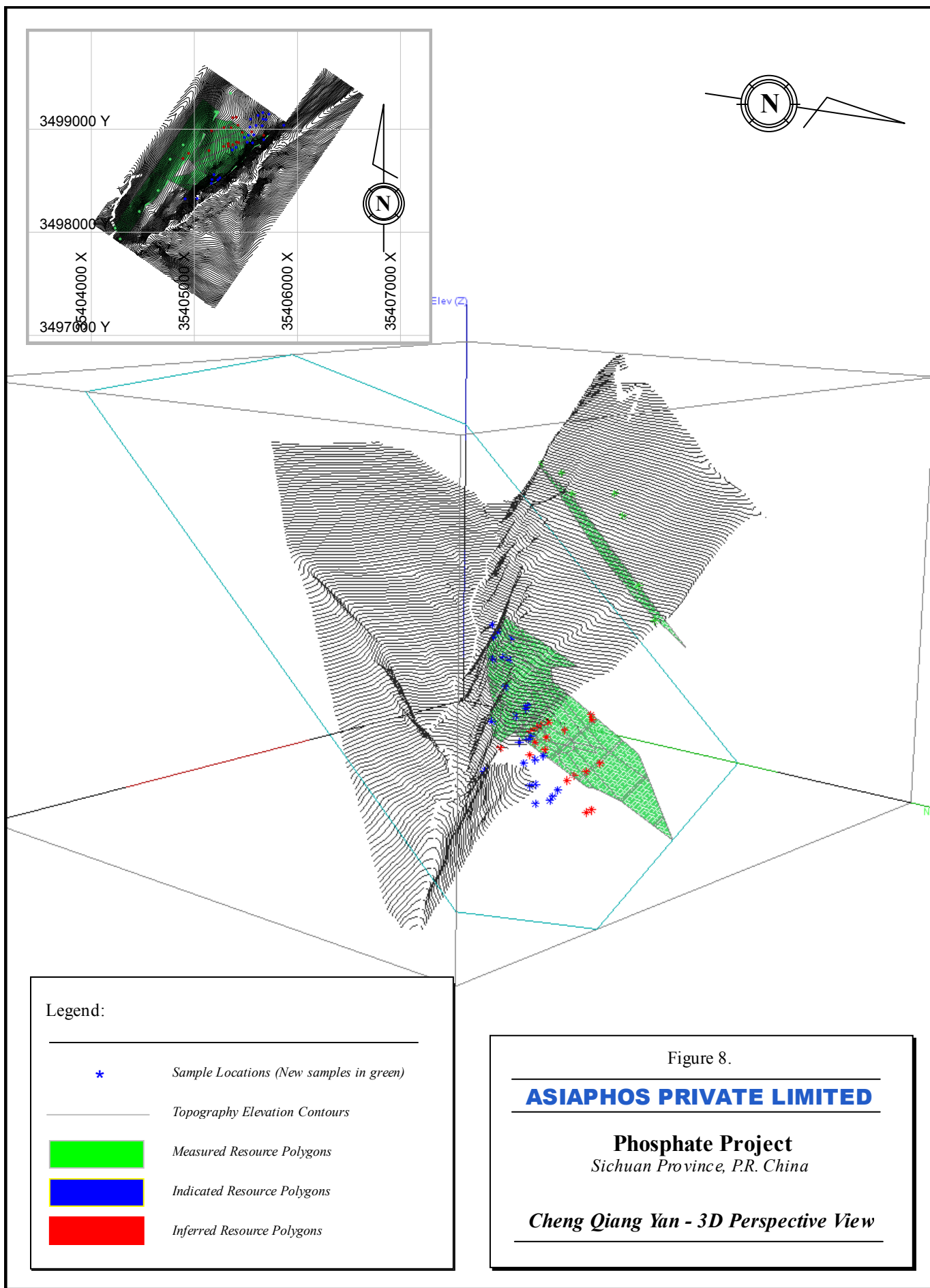
Since the specific locations of mined material (through 2014 and 2015) were not detailed, the amounts subtracted from the Measured and Indicated Resources of the Cheng Qiang Yan and Shi Sun Xi deposits were done so proportional to the tonnes in each category. Thus, the total tonnes in the Inferred category are unchanged.

Similarly, Mineral Reserves for both deposits were deducted proportionally from the Measured and Indicated tonnes only.

The phosphorite Mineral Resource estimates for the Cheng Qiang Yan and Shi Sun Xi deposits are presented, in various formats, on the table in the Summary, Tables 14, 15 and 16 in Section 14, and Table 22 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 8 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 9 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 10 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 10 may become more clear; and
- Figure 11 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.



Legend:






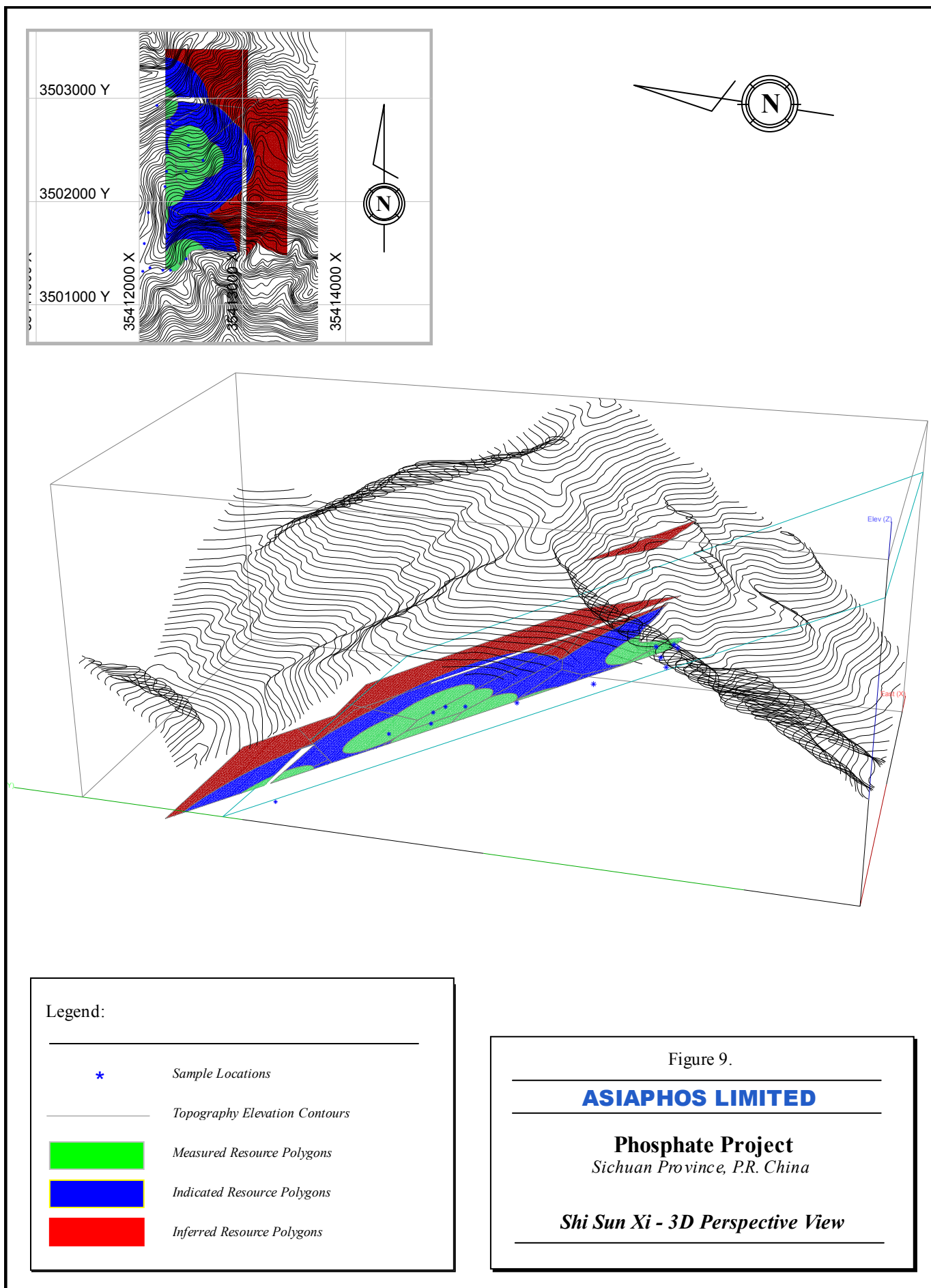
	Sample Locations (New samples in green)
	Topography Elevation Contours
	Measured Resource Polygons
	Indicated Resource Polygons
	Inferred Resource Polygons

Figure 8.

ASIAPHOS PRIVATE LIMITED

Phosphate Project
Sichuan Province, P.R. China

Cheng Qiang Yan - 3D Perspective View



Legend:






-  *Sample Locations*
-  *Topography Elevation Contours*
-  *Measured Resource Polygons*
-  *Indicated Resource Polygons*
-  *Inferred Resource Polygons*

Figure 9.

ASIAPHOS LIMITED

Phosphate Project
Sichuan Province, P.R. China

Shi Sun Xi - 3D Perspective View

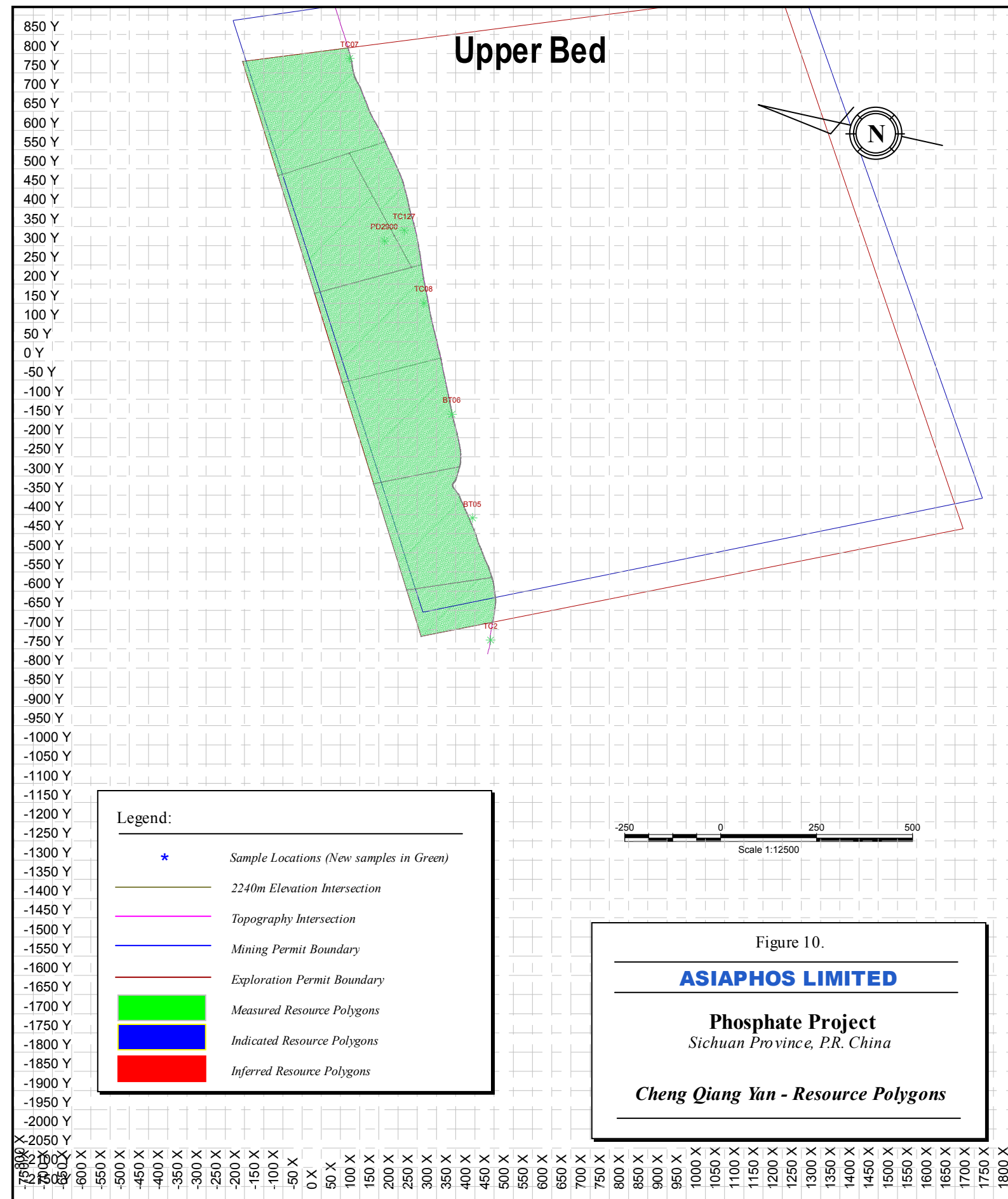
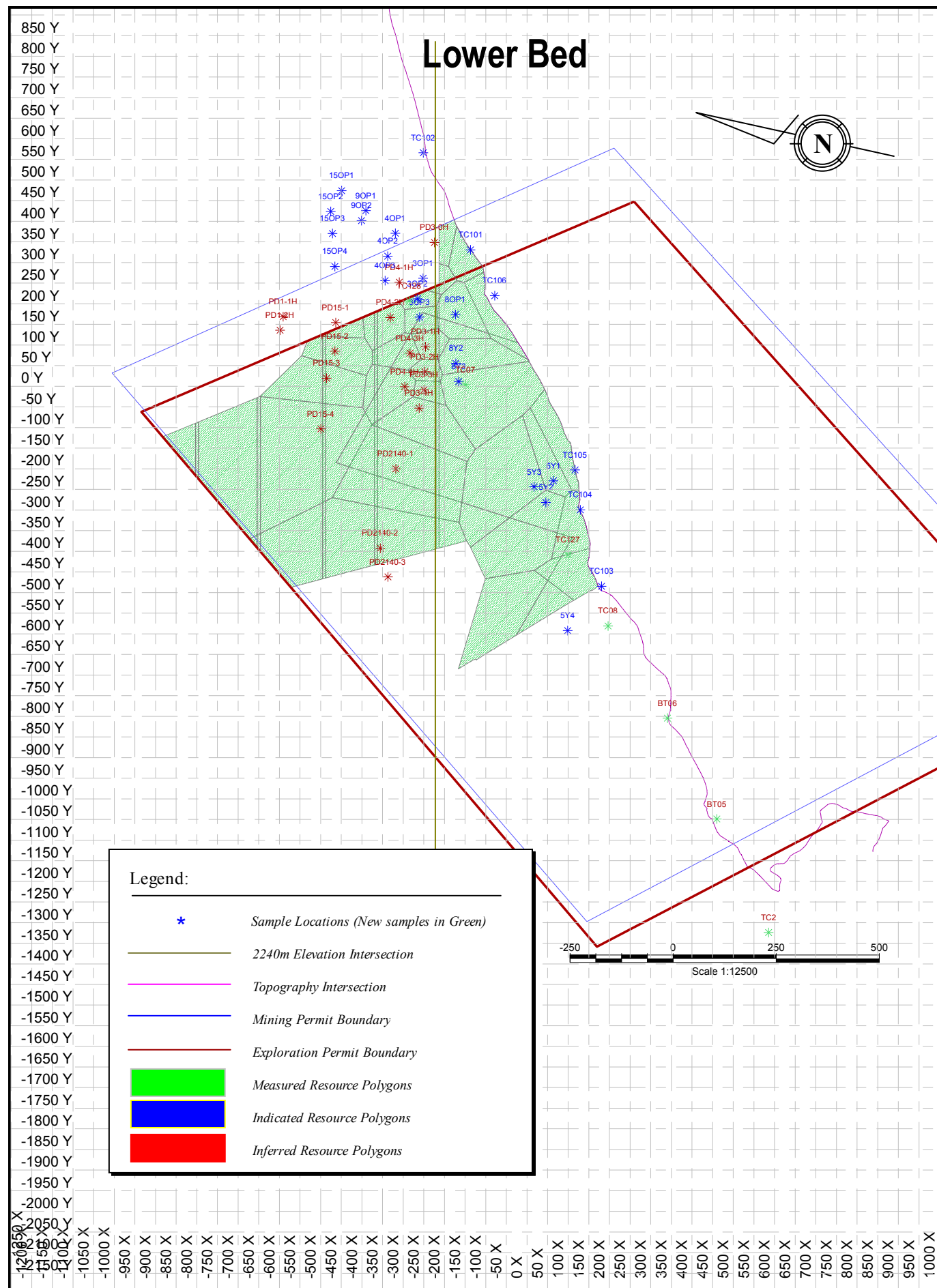
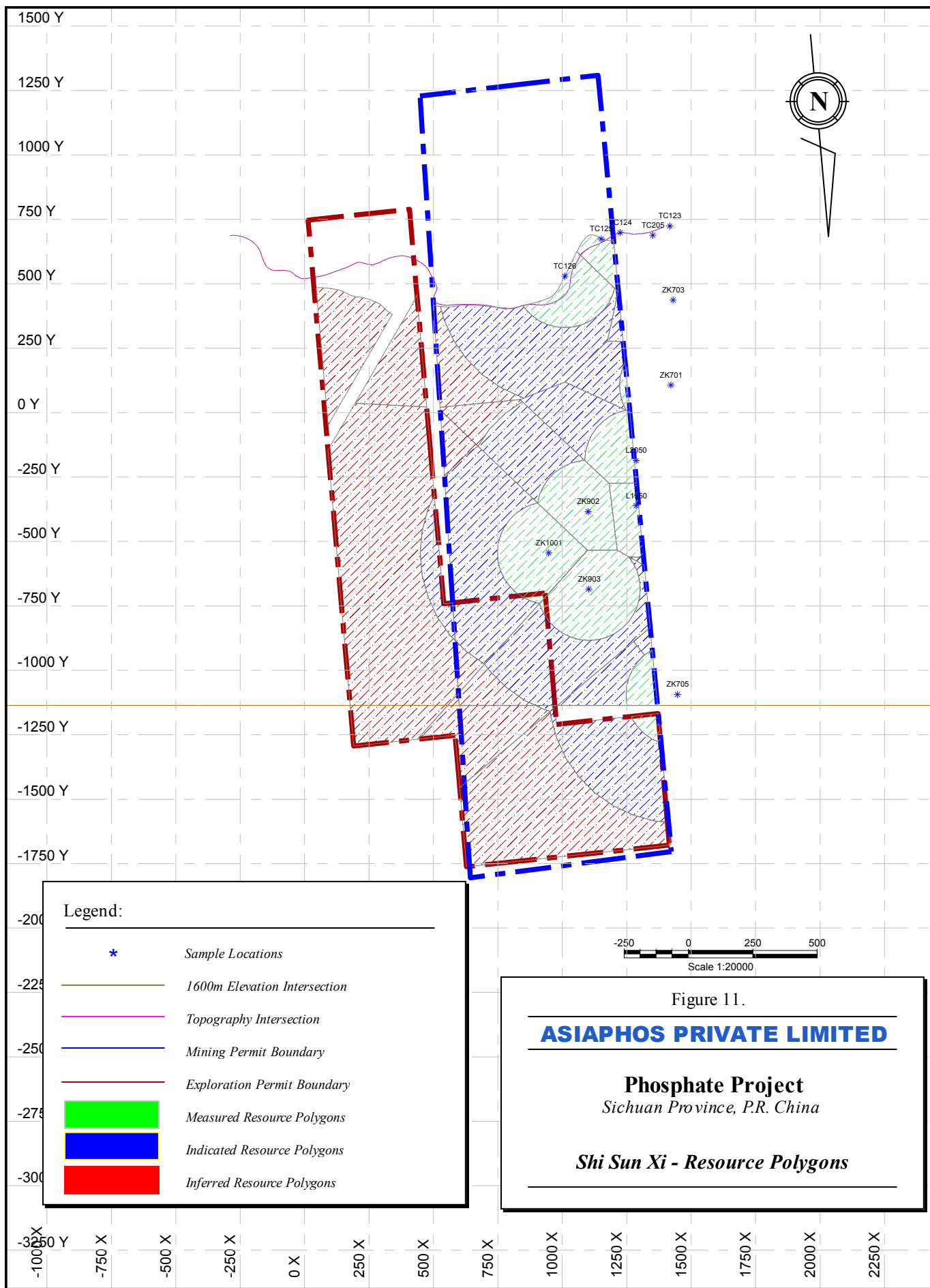


Figure 10.

ASIAPHOS LIMITED

Phosphate Project
Sichuan Province, P.R. China

Cheng Qiang Yan - Resource Polygons



15. MINERAL RESERVE ESTIMATES

The Mineral Reserve tonnage as defined in National Instrument 43-101 is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study including adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. The CIM Best Practice Guidelines for reporting industrial minerals resources and reserves provide that producing industrial minerals operations can classify and report resources and reserves without having completed a Preliminary Feasibility Study if the company has demonstrated profitable production in prior years.

AsiaPhos (Mianzhu Norwest) was a small vertically integrated miner and producer for more than 6 years prior to the 2008 earthquake. Since 2010 the company has rebuilt and modernized its processing facility and has been re-habilitating and upgrade the former mining operations. Limited mining was restarted in 2010 and has now reached a production level of more than 200,000 tpa for 2014 and 2015.

This NI 43-101 report contains an updated economic analysis incorporating the operational results of both the mining and upstream processing since the company's stock exchange listing in 2013 and forecasts based on the Mineral Resources estimated by WGM. The company has demonstrated profitable operations in 2015 confirming that its integrated operation is economically viable. Based on the operational results for 2014 and 2015 WGM believes that the Mineral Resources outlined in the company's mine planning for extraction during the next three years can be classified as Mineral Reserves as defined by NI 43-101. These reserves as presented herein represent only approximately 5% the total estimated Measured and Indicated Mineral resources.

WGM has only converted those resources to reserves which have been accessed by current development work and those areas in the immediate vicinity slated for development work in the mine plans for the next three years as provided by AsiaPhos because of the company's reliance on exploration by development.

Proven Reserves are derived from the Measured Resources, Probable Reserves from Indicated Resources. For conversion to reserves, mining losses in stopes are estimated to be 30% based on estimated mine recovery ratios from the mine for the first 10 months of 2015. This includes approximately 2-4% loss due to moisture content in the rock and internal pillars which account for an additional 6.3%. The company uses contract miners that are paid on the basis of tonnes and grade and since the phosphate rock is visually very distinct dilution is minimal as miners tend to undermine stopes and dilution has therefore not been included. WGM has applied the same cut off and product pricing criteria as per the Mineral Resource

section. Available data on planned ore grade by stope and produced ore grade confirm that ore grade dilution is insignificant.

SUMMARY OF THE MINERAL RESOURCES/RESERVES FOR MIANZHU NORWEST MINES

Category	Mineral Type	Gross Attributable to licence		Net Attributable to Issuer Assumed at 100%			Remarks
		Tonnes (millions)	Grade (P ₂ O ₅ %)	Tonnes (millions)	Grade (P ₂ O ₅ %)	Change from previous update ⁸ (%)	
Reserves							
Proved	Phosphorite	1.1	27.96	1.1	27.96	N.A.	Initial Reserve
Probable	Phosphorite	0.5	29.11	0.5	29.11	N.A.	Initial Reserve
Total		1.5	28.31	1.5	28.31	N.A.	Initial Reserve
Resources							
Measured	Phosphorite	16.3	27.50	16.3	27.50	-9%	
Indicated	Phosphorite	11.4	29.43	11.4	29.43	-4%	
Total		27.7	28.30	27.7	28.30	-7%	
Inferred*	Phosphorite	17.9	29.77	17.9	29.77	0%	

Notes: Mineral Resources and Reserves effective December 31, 2015.

1. WGM Senior Associate Industrial Mineral Specialist, Donald Hains, is the Qualified Person for this Mineral Resource/Reserve estimate.
2. Mineral Resources are estimated at a cutoff value of 8% P₂O₅ (based on a price of US\$60/t P₂O₅), and a minimum phosphorite bed thickness of 0.25 m.
3. 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.
4. 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.
5. 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 May 10, 2014.
6. S.G. of 3.08 tonnes/m³ and 3.03 tonnes/m³ used for Cheng Qiang Yan and Shi Sun Xi respectively.
7. Indicated amounts may not precisely sum due to rounding.
8. Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.
9. Previous Mineral Resource estimate update was prepared 21 November 2014.
10. The decreased tonnages in the Measured and Indicated categories are attributed to the upgrading of portions of the resources to the Mineral Reserve category, and to a lesser extent, depletion due to ongoing mining. Note that Mineral Reserves are being reported for the first time for these mines, under NI 43-101 Standard.
11. Estimated Mineral Resources reported are in addition to Mineral Reserves.
12. "N.A." = Not applicable.

The resources and reserves are estimates made to the best ability of the company and WGM at the effective date, but forward-looking development involves many factors that may cause results to differ materially from expectations. A full account of these factors is contained in the subsequent sections of this report. Nevertheless, WGM and the Qualified Person, D. Hains, P. Geo., confirm that as of the date of this report, there are no legal, political, environmental or other risks known to them that could materially affect the potential development of the Mineral Reserves.

WGM has now made six visits to site since 2010 and has reviewed all aspects of the operation and can verify that at the time of reporting that economic extraction is progress and that the planned production targets for the next three years are reasonable and justified. With the planned increase in production over the next 3-4 years the company is planning to update its current underground process of exploration by development to one of exploration by underground definition drilling. As this process advances the company will be able to accelerate its conversion of Mineral Resource 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 the end of 2015, approximately 716,000 dmt were produced and shipped. Mine output for 2015 totalled approximately 280, 809 tonnes (274,105 dmt).

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 lowest level through ramps and manways, which connect most of the levels.

Access is from mountainside adits at 100 metre vertical intervals and plus 3% grade for water control are used as secondary access.

Development headings are driven with handheld jacklegs powered by compressed air. Ground supports are installed where ground condition is weak. Standard ground support includes rock bolts and mesh, steel arches and timber fillings, and shotcrete.

Portal areas are reinforced with concrete.

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 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.

Blast Hole Drilling

In order to optimise the recovery of high-quality phosphate rocks with high P₂O₅ 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.

Initially a backhoe-conveyor mucking arrangement mucks ore from the drawpoint into a small three wheeled, diesel powered mine cart. The truck or cart hauled 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.

Ore is now hauled from the drawpoints with tractors to ore passes, which were redesigned from original mine design to allow ore and waste rocks to be collected at a series of loading points at bottom level of the mine by an electric powered rail system with mine carts to the portal. This haulage system replaced the cable tramway used to haul ore and waste in the air across the valley.

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 has been upgraded to effectively utilize the rail system. Ore chutes and waste dumps are located outside the portal of the lowest level.

Materials are directly unloaded from the carts into designated areas. Ore is loaded with loaders from chutes into trucks, which are provided and operated by third party trucking contractors. A scale near office facility 1-2 km from the mine is used to weight the trucks before departure to the processing plant.

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 substantially completed 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 2015 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 are established at lower elevations in areas where there is much reduced risk from further rock slides. The adits are constructed 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/or stoping in six adits or wells as of 2015. The six wells being developed and/or mined at Mine 1 are Wells #1, #3 #4, #8 #15 and 2140.

Shi Sun Xi or Mine #2 is the newer of the two mines and is mainly under development. As of October 2015, 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 of the new at Level 1709, has been completed with an operational loading pocket and rail haulage system that provides a 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.

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 had 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. After some initial technical start up issues with the P4 furnaces, AsiaPhos has now improved the situation, leading to reduce costs. Sales in 2014 totalled approximately 177,399 tonnes of phosphate rock and 3,509 tonnes of P4, 889 tonnes of STPP and 165 tonnes of SHMP Sales for 2015 included 248,530 tonnes of phosphate rock and 10,061 tonnes of P4. Minor STPP and SHMP sales were also reported. AsiaPhos will continue to coordinate phosphate rock sales and plant production to maximize income.

The company expended approximately Rmb128.17 million (approximately S\$26.75 million) in 2014 on the construction of the New Gongxing Facilities.

Plans are in place to build a storage facility to collect flue gas, which is a by-product generated from the production of P4. The flue gas is used in the production of STPP.

The company has completed relocation of all the plant facilities from Hanwang to Gongxing and upgrading of the STPP Plant in 2012. Other operating facilities (such as laboratories); and infrastructure for the factories (such as access roads), at the New Gongxing industrial zone have also been advanced.

Phase 2 of the Rebuilding Program

Construction of new office building was completed in October 2014. AsiaPhos has expended approximately Rmb7.54 million and (approximately S\$1.57 million) have been expended on Phase 2 of the Rebuilding Program. With the receipt of the land use certificate in April 2015 Mianzhu Norwest will now again review its plans to spend approximately S\$5.9 million for a new thermal phosphoric acid plant and food grade SHMP plant. In the interim the company will prioritize expenditures for mine development in 2016.

Access Road

Mianzhu Norwest made a production forecast for their operations starting in 2012 of 40,000 tonnes and gradually building to 340,000 tonnes in 2015. Actual production achieved in 2015 was 280,809 tonnes more than 82% of the targeted amount showing that the company is well on its way to expanding its production. When the reconstruction of the northern section of the mine haulage road is completed the company expects to be able to increase production to its 1 Mt/yr target.

Major reconstruction work on the haulage road from the processing plant to Qing Ping Town paved and widened the road to two lanes throughout most of the distance, with 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

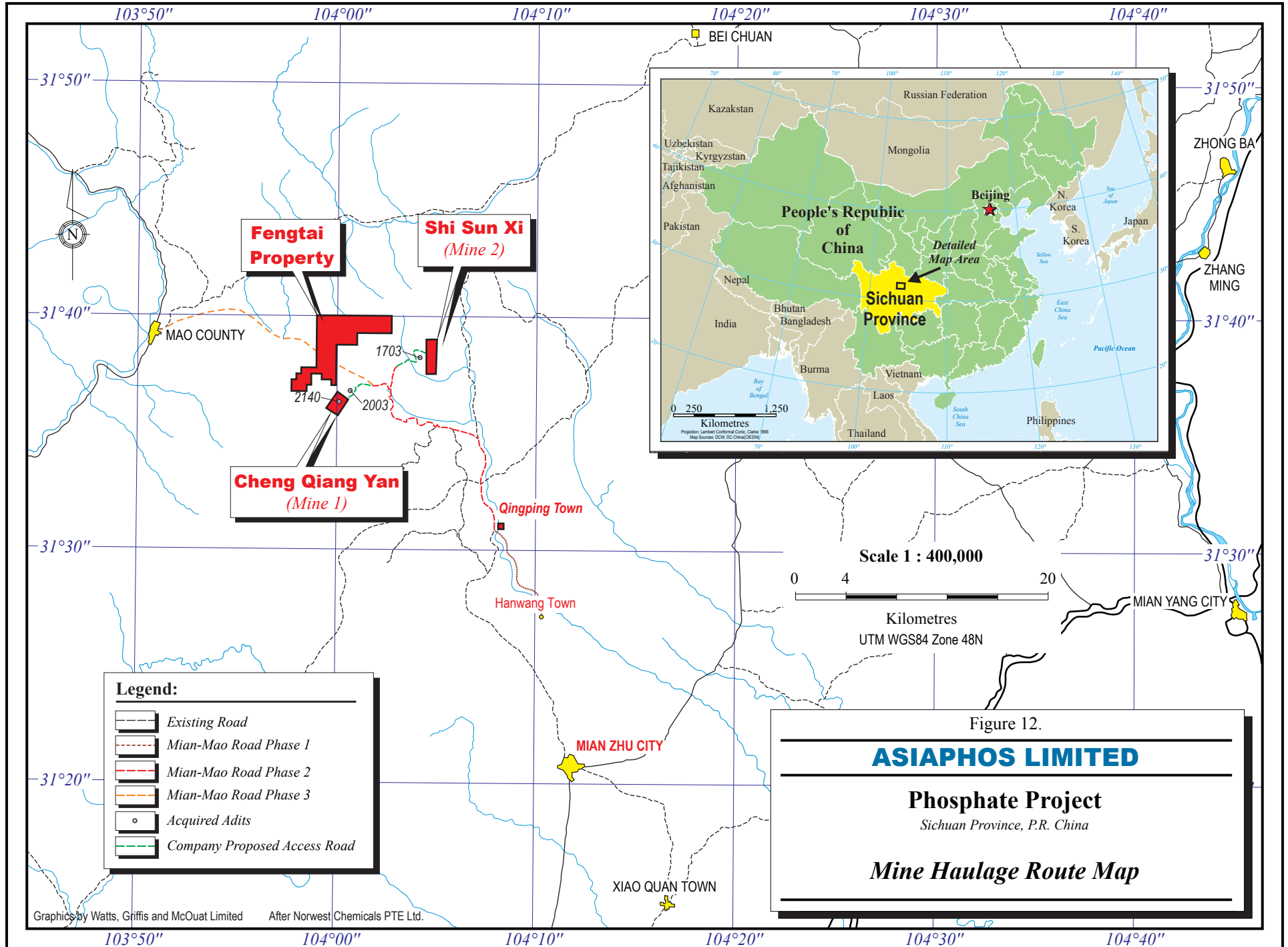
installations, such as bolting of screen mesh, and planting of vegetation, had also been completed to reduce the risk of further rock slides. The river channel was also cleared throughout this section. Since the extensive flooding in mid-2013, the government has changed its overall strategy on the Mian-Mao Highway. The current road is under minimum maintenance to allow normal access without restoring it to original designed condition. A new highway, designed at a higher elevation to avoid flooding damage, is now under construction. The new design consists of underground tunnels and bridges. As of October 2015, a main bridge that at Qing Ping Town was completed, and many tunnels are ready to be connected.

The conditions on the section north of Qing Ping Town to both mines or Section 2 of Mian-Mao Highway are also being improved with plans to construct a series of tunnels and bridges. This northern section of the road (Figure 12) currently requires major work to establish a safe and reliable haulage route for the transport of Mianzhu Norwest mine production as well as that of two other mine operations in the area. Road accessibility will be a critical factor until the construction is completed. Based on the latest information available to WGM construction of the north section is in progress throughout 2015, but no completion date is available. WGM did observe a number of openings along mountain ridges for tunnel construction as well as many pillar foundations for bridge construction as part of the redesigned Mian-Mao Highway relocated to higher elevation to avoid future potential damage.

Most parts of the road north of Qing Ping Town and the last 3 km to access the Mines is currently being upgraded and maintained by the three companies operating the mines in the area. Due to its higher elevation, this section of the road received less damage from flooding than the lower section of the highway from Hanwang town to Qing Ping town.

Most damage to this secondary gravel road is from the loaded ore trucks from the three mining companies. Their collective maintenance effort however has provided sufficient support to allow for continuous haulage.

The section north of the mines or Section 3 of the Mian-Mao Highway was also observed to be under construction. This section requires heavy ground control installation to ensure the stability of the slopes and tunnel construction required steel structures to reinforce the slope and walls at their entrance. Shotcrete operations were observed on a section of the wall, that had been bolted and screened with mesh.



19. MARKET STUDIES AND CONTRACTS

China is now the largest phosphorous ore producer in the world with an estimated 120 million tonnes of phosphate rock production in 2014, representing approximately 55% of world phosphate rock production. China is now also the world's largest producer of phosphate fertilizers (MAP, DAP and TSP), accounting for 50% of world production on a P₂O₅ basis in 2014. Production has increased rapidly in recent years (Figure 13) and China is now self-sufficient in both phosphate rock and phosphate fertilizer production.

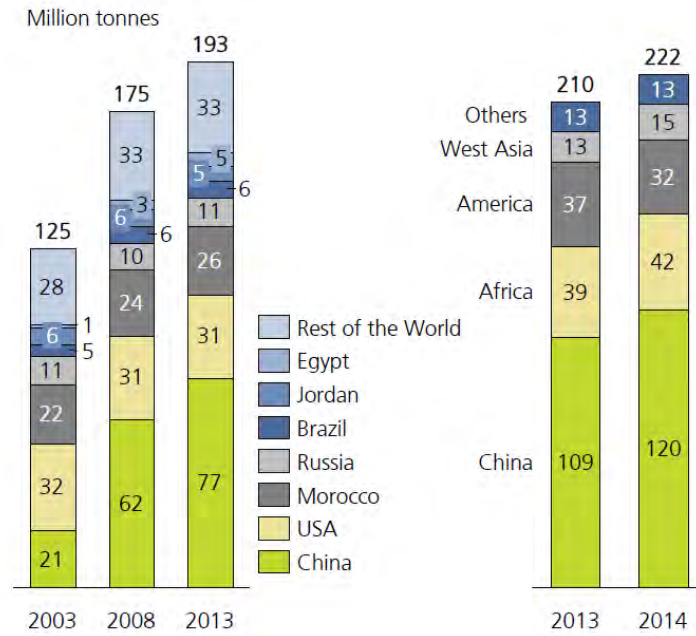
Phosphate fertilizer production and consumption within China are expected to remain balanced in the future, with market growth coming from increased exports to developing Asian Markets. Phosphate rock prices have declined somewhat in the past two years and are expected to remain soft for the near term. Producers with the access to both raw materials and markets as well as low cost operations are best placed to profit from the business.

Southwest China accounts for the majority of China's phosphate ore reserves on both a tonnage basis (48.3%) and on a contained P₂O₅ basis (61.4%). Sichuan Province was the fourth largest producer of phosphate rock in China in 2014 and demonstrated the third largest growth (based on industry data viewed by WGM)

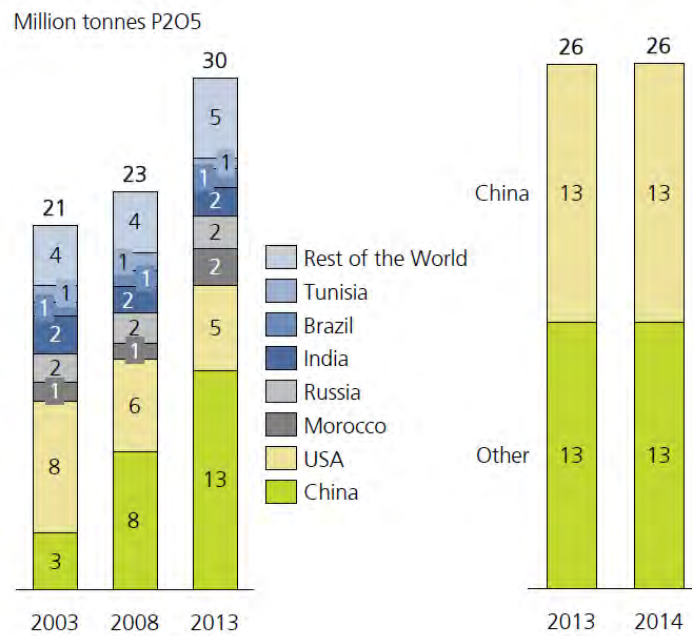
An Industrial Minerals staff release 27, April, 2015 commented on the impending scarcity of high grade phosphate in China which has resulted in the implementation of greater measures to manage the market such as export quotas, tax measures and innovation to support its phosphate industry. Data from CCM (2015) indicate that the average PO content of phosphorite rock in China is now just over 17% and only an estimated 1.7 Bn tonnes of high grade reserves ($\pm 30\%$ P₂O₅), remains in the country. Operating costs in China show costs ranging from about US\$31/t for 28% ore vs about US\$73/t for 22% ore. AsiaPhos falls near the lower cost end of the scale.

AsiaPhos is actively selling and marketing its current production and has established buyers for its products. The company is also actively maintaining its own marketing activities and as such has not found a need to update the former CRU International Limited ("CRU") market review dated 21 June 2013 prepared for AsiaPhos which indicates that their phosphate rock are of relatively higher quality than other phosphate rock mined in the PRC. WGM believes that the general observation by CRU as noted herein remain valid. The 2013 CRU observations were also confirmed in a presentation made by CRU at the 2014 CRU Phosphate conference in Paris in March 2014 attended by WGM QP, D. Hains, P.Geo.

According to the 2013 CRU report, the industry preference is for phosphate rocks with a minimum P₂O₅ content of 29% to 32%.



Phosphate Rock



Source: Integer Research, 2015 (2016 webcast)

Phosphate Fertilizer (MAP, DAP, TSP)

Figure 13. World Phosphate Rock and Phosphate Fertilizer Production Trends

The combined measured and indicated phosphate rock resources for Mine 1 and Mine 2 have an average P₂O₅ content of 29.62%. In addition CRU noted in their report that phosphate rock with a 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 and more recent 2014 analyses of 10 samples by the geological bureau returned values in the range of 1.19-4.4 ppm.

The CRU Industry Report, notes the P₂O₅ 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 P₂O₅ 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 2015, Mianzhu Norwest produced an actual mine output of approximately 280,000 tonnes of phosphate rocks with an average P₂O₅ content of 30.89.

In addition, the phosphate rocks obtained from the Mining Operations have relatively low arsenic content levels. External samples collected by WGM in 2013 ranged from 16-30 ppm, more recent analyses of 10 samples by the geological bureau returned values in the range of 7.7-22.2 ppm, all in the relatively low range.

AsiaPhos believes that the phosphate rocks with relatively high P₂O₅ content and low contaminants offer production and cost efficiencies in Chemical Production Operations.

The 2013 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. While growth peaked at about 22 Mt for rock and 17.9 Mt for P₄ in 2014, (Integer 2015), the market has been soft since then showing a modest decline for rock demand and a significant drop in P₄ (CCM Oct 2015). Although the near term forecast for both P₄ and for rock products is expected to continue in decline, the longer term outlook, especially given the Silk Road and Belt initiative is more positive.

The biggest unknown is the management policies China will implement to safeguard its high grade phosphate resources for the future. While export restrictions are anticipated, CCM/Industrial Minerals expects China will try to balance its internal supply and demand. Any increased domestic demand will therefore support higher prices for both rock and P₄ products.

While current measures such as tax cuts to low grade producers may benefit some, increased taxes for higher grade ores and potential limits on the exploitation of high grade ores may provide some challenges for AsiaPhos, these however are expected to be offset by expected government incentives to improve mining and processing efficiencies. AsiaPhos has made significant headway in this regard and has benefited from these measures.

Their modern state of the art facilities are expected to further benefit the company by allowing them to maintain and possibly increase market share as lower grade and non-integrated producers will face higher operating costs.

Vertically integrated operations will continue to be 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. This conclusion respecting the development of the Chinese phosphate industry was confirmed by CRU in a presentation at the 2014 CRU phosphate conference in March 2014.

While still considered small scale and faced with a fragmented local market, the company has grown production to 280,000 tonnes in 2015 and is targeting 400,000 tonnes for 2016 and to 1 million tonnes annual production over the longer term which 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 the main raw material, phosphate rock, 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, the 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 optimize profit margins and achieve business strategy.

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 to the end of December 2015. The drift advancement on most of the existing mine levels to create production faces and to connect levels with rock passes and ventilation raises has advanced well. The underground development work 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 contracted, annual 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 still require major revisions to reach and 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.

An initial capital cost allowance of US\$18.8 million was estimated in 2013 to complete mine development and purchase the necessary mobile equipment to sustain the 1.0 Mtpa production. 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 13 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 maintained to avoid potential injuries to the workforce as well as potential damage to equipment. Production has now commenced from the main portal that was under construction during the previous site visit resulting in a much reduced risk from potential rock slides.

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 18 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 18.
SUMMARY OF 2015 OPERATING AND CAPITAL COSTS
MIANZHU NORWEST'S OPERATIONS**

Description		
ECONOMIC PARAMETERS		
Exchange Rate	¥6.53:US\$1.00 (March, 2016)	
Inflation Rate	0.0%	
OPERATING COSTS		
Operating Costs per Tonne Product		
Phosphorous Rock	¥222/mt	\$34
P4	¥10,036/mt	\$1548
STPP	¥6,306/mt?	\$973
CAPITAL INVESTMENT (2016)	¥18 - ¥25 million (estimate)	

Operating Costs for Y2015

The total unit operating cost for phosphate rock 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. For 2014 costs were Rmb242 and for 2015 cost were Rmb222 per tonne. The lower costs in 2015 were due in part to termination of the Dashan profit sharing agreement in July 2015 and the improved operating efficiency at the mines due to the recent upgrades.

TABLE 19.
OPERATING COSTS 2015

(RMB per tonne)	Actual		Budget FY2015	Variance Actual v Budget	Forecast 2016
	FY2015	% to total			
Labour	96	43%	97	(1)	99
Transport	51	23%	56	(5)	53
Maintenance	6	2%	6	-	6
Production cost	16	7%	16		17
Profit share / Co-operation costs	12	5%	-	12	-
Government taxes and surcharge	22	10%	44	22	22
Production incentive	3	1%	3	-	4
Amortization /Depreciation	15	7%	10	5	11
Salary/wages of mining supervisors	2.5	1%	2	0.5	2
Total Unit Cost	222	100%	232	(10)	213

22. ECONOMIC ANALYSIS

22.1 FUTURE PRODUCTION PLANNING/MINE PLAN AND FINANCIAL EVALUATION

As at 31 December, 2015, Mianzhu Norwest has produced approximately 716,000 dmt of Phosphate ore since the Wenchuan Earthquake. With the start-up of the 20,000 tpa Plant in mid-2013, mine production was expanded and production forecasts were revised to annual levels of 400,000 tonnes, or more. Production for 2015 was 280,802 tonnes. 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 on going road reconstruction and frequent heavy rains maintaining an inventory of mined rock at the plant site will be important. The company currently has approximately 8,900 tonnes of rock in their stockpile. 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 has seen extensive development and increased capacity at the two Mianzhu Norwest mining sites. Over this expansion period the number of producing levels, have now increased to 11 levels in order to achieve mine and production of 400,000 tpa or more. The expanded mine production is based on achieving approximately 30,000 tpa from each mine production level. The production build-up is as shown in Table 20.

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 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.

TABLE 20.
MIANZHU NORWEST MINE PRODUCTION, MIANZHU NORWEST PHOSPHORITE
OUTPUT (Tonnes per year)

	2012	2013	2014	2015	2016	2017	2018	Total
Mine 1								
Adit #1	-	70	23,673	25,494	47,000	55,000	60,000	211,237
Adit #15	30,389	46,988	67,517	42,656	60,000	65,000	65,000	377,550
Adit#4	18,230	42,092	58,187	42,813	55,000	65,000	65,000	346,321
Adit#3	5,829	22,185	30,526	37,521	50,000	55,000	60,000	261,060
Adit#8	-	6,458	15,104	19,411	27,500	35,000	40,000	143,473
Level 2140	-	-	-	9,162	25,000	40,000	50,000	124,162
New Wells	=	=	=	=	=	<u>12,000</u>	<u>28,000</u>	40,000
Total	54,448	117,793	195,006	177,057	264,500	327,000	368,000	1,503,804
Mine 2								
Level 1815	4,800	4,825	12,290	14,454	25,000	40,000	50,000	151,369
Level 1950	2,618	2,542	298	197	7,500	15,000	20,000	48,155
Level 2050	-	3,126	12,566	33,893	40,000	45,000	50,000	184,584
Level 2150	-	-	500	11,476	18,000	23,000	28,000	80,976
Level 1709	-	-	5,780	37,030	45,000	55,000	60,000	202,810
New Wells	=	=	=	=	=	<u>37,000</u>	<u>80,000</u>	117,000
Total	7,418	10,493	31,435	97,049	135,500	215,000	288,000	784,895
GRAND TOTAL	61,866	128,286	226,441	274,106	400,000	542,000	656,000	2,288,698

WGM has reviewed Mianzhu Norwest's current proposed production plan and has completed an independent evaluation of the economics of the project until 2033. This review includes the gradual expansion of the mining capacity to 1.0 Mtpa (million tpa) over a seven year period following the scheduled completion of the reconstruction of the haulage road. WGM understands that the scheduled completion has been pushed back, but no time lines are given.

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 until 2033 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 analysis is largely based on operating costs from 2013 through December 2015. A summary of this financial analysis is shown (Table 21) 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 (except for a small amount of opening working capital which is recovered in the last year, i.e. 2033) and all previous costs are sunk). The basic assumptions in the Mianzhu Norwest model extend to the year 2033 starting from 2016. WGM presents this model, with the annual production rate projected to increasing from 400,000 tpa in 2016 to 1.0 Mtpa in 2022. Also, the WGM model is based on a zero rate of inflation of both prices and capital and operating costs and an exchange rate of Rmb6.53 per US\$ (March, 2016). While WGM believes that labour costs in the PRC will increase 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, 2014 and 2015 as sunk revenue and cost and has discounted the net cash flow. As the financial analysis demonstrates, the production plan of Mianzhu Norwest has robust economics over the 18 years (the discounted period) that have been analysed. The project shows an NPV of ¥932 million or US\$142.8 million (Appendix 1 and in Table 21 below) at a discount rate of 10%. WGM regards the greatest risk to this analysis is the potential impact of the haulage road from the mine to the Plant during the next three years when the haulage road reconstruction is expected to be completed.

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 14, 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.

TABLE 21.
SUMMARY OF FINANCIAL ANALYSIS OF ASIAPHOS'S OPERATIONS,
2016-2033

Description		
Economic Parameters		
Exchange Rate	¥6.53:US\$1.00 (March, 2016)	
Inflation Rate	0.0%	
Analysis period		
Phosphorous Rock Mined	18 Years	
	18,994,500 tonnes	
Products Sold		
Phosphorous Rock	15,508,720 tonnes	
P4 - Elemental Yellow Phosphorus	387,309 tonnes	
STPP - Sodium Tripolyphosphate	44,309 tonnes	
REVENUE		
Sales Prices (per tonne product)		
Phosphorous Rock	¥350	US\$53.60
P4	¥12,882	US\$1972.75
STPP	¥8,738	US\$1,338.12
Gross Revenue over 18 years		
Phosphorous Rock	¥6,150,100,000	US\$941,800,000
P4	¥4,989,300,000	US\$764,100,000
STPP	¥387,200,000	US\$59,300,000
Total Gross Revenue	¥11,526,600,000	US\$1,756,200,000
OPERATING COSTS		
Operating Costs per Tonne Product		
Phosphorous Rock	¥207	\$31.69
P4	¥9,536	\$1460.39
STPP	¥6,490	\$993.92
Total Costs		
Phosphorous Rock	¥3,836,300,000	US\$587,500,000
P4	¥3,553,400,000	US\$544,200,000
STPP	¥286,600,000	US\$43,900,000
Total Direct Operating Costs	¥7,676,300,000	US\$1,175,600,000
Plus: Selling Expenses	¥136,300,000	US\$20,900,000
General & Administration	¥300,800,000	US\$46,100,000
Total Operating Costs	¥8,113,400,000	US\$1,242,600,000
EBITDA	¥3,413,200,000	US\$522,700,000
Less: Depreciation & Amortization	¥250,700,000	US\$38,400,000
Corporate Taxes	¥790,600,000	US\$38,400,000
Net Cash Operating Profit	¥2,371,900,000	US\$363,200,000
Net Cash Flow to Project		
Net Cash Operating Profit	¥2,371,900,000	US\$363,200,000
Plus: Depreciation	¥250,700,000	US\$38,400,000
Less: Capital Investment	(¥109,550,000)	US\$16,800,000
Plus: Changes in Working Capital	¥15,200,000	US\$2,300,000
Net Cash Flow to Project	¥2,528,250,000	US\$387,100,000
Internal Rate of Return (IRR)	Na	
Net Present Value of NCF disc. At 5%	¥1,482,000,000	US\$227,000,000
Net Present Value of NCF disc. At 10%	¥932,200,000	US\$142,800,000
Net Present Value of NCF disc. At 15%	¥623,700,000	US\$95,500,000
Payback Period	Na	
Working Capital Time Delays		
Accounts Receivable	45	
Accounts Payable	30	
Product Inventory	60	

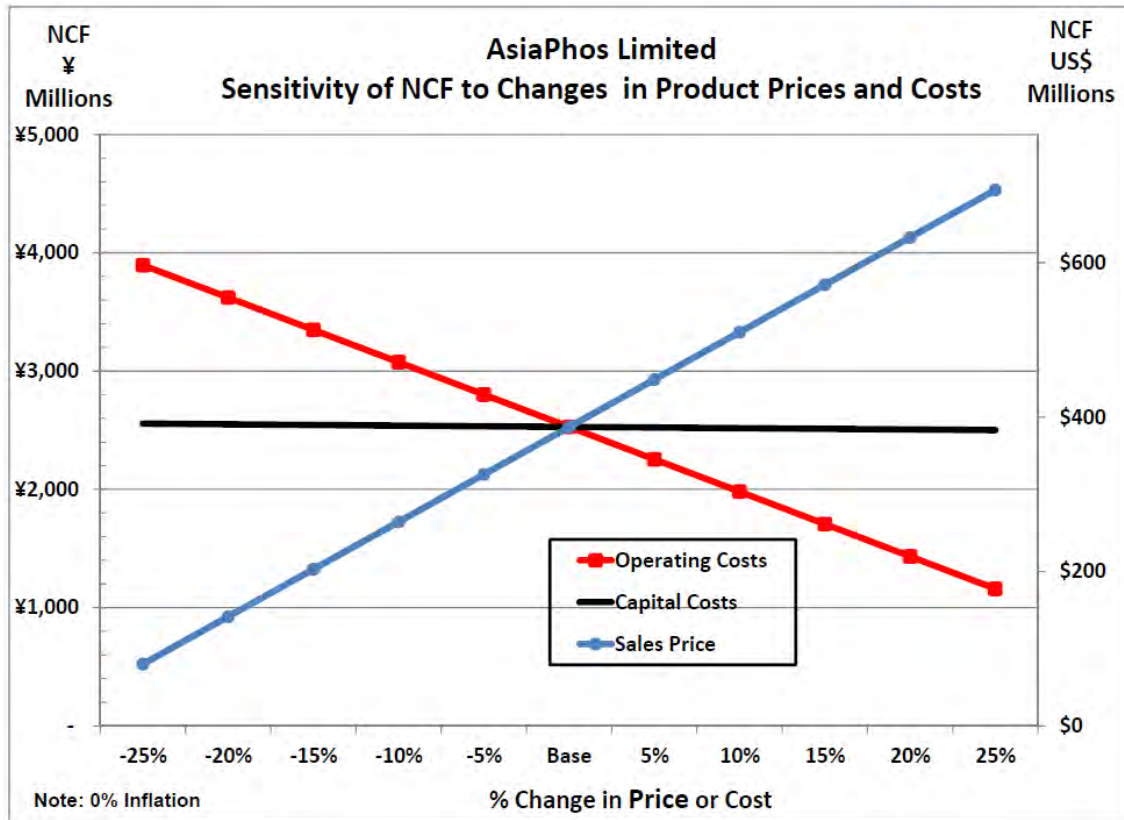


Figure 14. Sensitivity analysis of Mianzhu Norwest net cash flow

23. ADJACENT PROPERTIES

The Mianzhu Norwest Mines, Cheng Qiang Yan and Shi Sun Xi, and the more recent FengTai pending acquisition, are all 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 Longman 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 Longman Phosphate 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 2015, Mianzhu Norwest has restored production capability on six levels at Cheng Qiang Yan and from five levels at Shi Sun Xi. A total of six levels are being developed and mined at Cheng Qiang Yan. At Shi Sun Xi five levels are being developed and mined with all production being brought out from one level.

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 maintain the existing roads common to all the operations. This work continues to require a high degree of caution by all users to facilitate haulage truck movement in the narrow areas and awareness of the numerous safety hazards to prioritize reconstruction work and would benefit from the installation of warnings and traffic controls and geotechnical measurements for the highest risk areas.

24.1 ADDITIONAL REQUIREMENTS

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

Exploration work will be required to evaluate the potential of the recently acquired FengTai property. AsiaPhos has commenced an exploration program for the property and details on budget and exploration schedule are being prepared for review and implementation in 2016.

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. The collection of

geologic data for this study (drilling, sampling, analytical results), and complete chemical evaluation of each sample was started in 2014. 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 profitability of the overall operations and better control possible environmental impacts.

To date no comprehensive project studies has been carried out other than those required for mining permit applications and renewals. Conversion of Mineral Resources beyond the limits of current development will require additional drilling as well as reviews and updates of metallurgical, environmental, market, economic and related studies.

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 "D₃S¹" 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 be designed accordingly.

WGM, using computer modelling, has estimated the phosphorite Resources for Mianzhu Norwest's Mines in west-central Sichuan Province. Table 22 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 P₂O₅ content are weight averaged by tonnes from various applicable polygons resulting from the estimating process.

**TABLE 22.
ESTIMATED PHOSPHORITE RESOURCES FOR
CHENG QIANG YAN and SHI SUN XI**

		Tonnes (million)	Bed Thk (m)	P ₂ O ₅ (%)
<u>Mining License Area</u>				
Cheng Qiang Yan				
M & I Resource	Measured	2.7	5.91	28.18
	Total	2.7	5.91	28.18
Shi Sun Xi				
M & I Resource	Measured	6.6	6.83	29.26
	Indicated	<u>10.0</u>	<u>7.07</u>	<u>29.79</u>
	Total	16.6	6.98	29.58
Total				
M & I Resource	Measured	9.3	6.57	28.94
	Indicated	<u>10.0</u>	<u>7.07</u>	<u>29.79</u>
	Total	19.4	6.83	29.38
<u>Exploration License Area</u>				
Cheng Qiang Yan				
M & I Resource	Measured	7.0	6.04	25.61
	Total	7.0	6.04	25.68
Shi Sun Xi*				
M & I Resource	Measured	0.03	1.37	19.76
	Indicated	<u>1.3</u>	<u>6.18</u>	<u>26.71</u>
	Total	1.4	6.06	26.55
Total				
M & I Resource	Measured	7.0	6.02	25.59
	Indicated	<u>1.3</u>	<u>6.18</u>	<u>26.71</u>
	Total	8.3	6.04	25.77

Notes: Mineral Resources effective December 31, 2015.

1. WGM Senior Associate Industrial Mineral Specialist, Donald Hains, is the Qualified Person for this Mineral Resource estimate.
2. Mineral Resources are estimated at a cutoff value of 8% P₂O₅ (based on a price of US\$60/t P₂O₅), and a minimum phosphorite bed thickness of 0.25 m.
3. 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.
4. 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.
5. 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 May 10, 2014.
6. S.G. of 3.08 tonnes/m³ and 3.03 tonnes/m³ used for Cheng Qiang Yan and Shi Sun Xi respectively.
7. Indicated amounts may not precisely sum due to rounding.
8. Inferred Resource cannot be included in total Resource calculation under NI 43-101 Standard.
9. Previous Mineral Resource estimate update was prepared 21 November, 2014.
10. Mineral Reserves are in addition to estimates of Mineral Resources.

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.

Future production forecasts will need to be reviewed in concert with allowed mining permit production quantities as permits are renewed. We understand that an increased production capacity for Mine 1 is being sought when it is renewed in December 2016. Further increases will need to be sought to allow more production over the next three to four years as underground mining capacity improves.

Based on its initial assessment of the data reviewed for the FengTai property WGM believes that the upper (up-faulted) phosphorite bed on the Cheng Qiang Yan property extends onto the nearby FengTai property. Tunnelling from the existing workings at the Cheng Qiang Yan (Mine 1) is considered to be the most appropriate and cost effective way in which to access the bed in order to assess its full potential.

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 also 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 reduction of 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 still ongoing for the northern portion of the route, haulage of mine production still needs to be planned during periods of reduced access to maintain a stockpile at the processing site to ensure continuous operations. Upgrading the road haulage capacity is seen as a critical element for achieving the planned 1 Mt/yr target.

The truck loading operation at ore bins and waste dump is now carried out with front loading excavator which is both effective and efficient.

WGM learned that there is plan to construct a dropping chute that requires personnel to pull on a handle to allow rocks to slide into the truck. While this setup will save the cost of using the loader, WGM recommends a trade off study first be conducted to analyze the cost vs efficiency on the loader and especially to include the safety aspects, as a concern that the dropping chute would expose workers to injury from falling rocks.

WGM also recommends the initiation of new exploration methods to replace current practices of exploration through production by utilizing more extensive exploration drilling to remove more of the risk from 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 and 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.

Foremost is the conversion of the various existing reference systems and databases into a comprehensive unified database of all of the existing exploration, development and mining data. At present trenching data, mine planning and development and surface plans all use different reference systems which can be confusing and may lead to erroneous conclusions as to the location, and extent of mineralization.

WGM recommends establishing a database which should include all development and production plan and actual production and development data. Reconciliation at end of month should be easily accessible and auditable.

The current practices at both operations have very limited transparency of the amount of work that has been planned and/or completed in the past year. AsiaPhos should assign a dedicated mining engineer to be fully responsible to maintain such database up to date at all times.

However, the design and planning of the current program only focuses on meeting the government requirement or minimum standard. It is recommended that AsiaPhos extract the maximum value from this exploration work by designing the programs with the perspective to expand existing Mineral Resources and to facilitate their conversion to Mineral Reserves based on NI 43-101 or equivalent standards.

With the current government programs to manage the exploitation of low grade and high grade phosphate more detailed data of the grade distribution will allow Mianzhu Norwest to selectively mine the resources for maximum market benefit.

Fully involving a QP/CP at the planning stage of such exploration program, would assure the results of the work will be suitable for Mineral Resource or Reserve estimation.

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 metres 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 continue to track 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 2015 to 2022 when the planned mine production is scheduled to increase from 280,000 tonnes to 1,000,000 tonnes with 1 Mtpy 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 estimate (Table 23) of the exploration requirements considers the increased level of mine development and is based on the site visit of November 2015. 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 23.
ESTIMATED ANNUAL REQUIREMENT
DEFINITION OF MINEABLE RESERVES/RESOURCES FOR MIANZHU NORWEST
MINES 1 AND 2

	2016	2017	2018	2019
Annual Production (tonnes)	400,000	542,000	656,000	783,000
Number of Exploration samples based on subsequent year production	20	24	30	34
Number With Contingency	26	31	39	45
Drilling Required (metres)	1040	1200	1560	1800
Drilling Cost (US\$ x 1000)	\$124.80	\$148.80	\$187.20	\$216.0
Sampling Cost (US\$)	\$2,423	\$2,889	\$3,634	\$4,185
Footwall Drifting (metres)	200	300	300	300
Footwall Development (US\$)	\$34,000	\$51,000	\$51,000	\$51,000
Exploration Management and Administration	<u>\$41,900</u>	<u>\$56,800</u>	<u>\$67,800</u>	<u>\$67,800</u>
Total Exploration Cost (US\$ x1,000)	\$203.1	\$259.5	\$309.3	\$339.0

27. DATE AND SIGNATURE PAGE

This report titled "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People's Republic of China*" dated March 9, 2016 was prepared and signed by the following author:

Dated effective as of December 31, 2015.

“signed by Donald H. Hains”

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

“signed by Jack B. Yue”

Jack Beichen Yue, P.Eng.
Associate Engineer

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

The principal author of this report titled "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People's Republic of China*" dated March 9, 2016. Donald Hains and Jack Beichen Yue are associates of Watts, Griffis and McOuat Limited (the "Qualified Person"), completed the work under the direct supervision of Joe Hinzer, P.Ge., the President and Director of Watts, Griffis and McOuat Limited.

The Qualified Person 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 Person 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 Person in connection with the Qualified Person's report.

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

Dated March 9, 2016.

"signed by Joe Hinzer"

Joe Hinzer, P.Ge.
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 "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People's Republic of China*" dated March 9, 2016.
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 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 visited the Cheng Qiang Yan Phosphate and Shi Sun Xi Phosphate properties April 22-23, 2014.
 10. I am fully responsible for all Sections of this report.
 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.

“signed by Donald H. Hains”

Donald H. Hains
March 9, 2016

CERTIFICATE

I, Jack Beichen Yue, hereby certify that:

1. I reside at 6231 Dunsmuir Crescent, Richmond, British Columbia, V7C 5R6, Canada.
2. I am an Associate 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 "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People's Republic of China*" dated March 9, 2016.
4. I am a graduate from the University of Toronto, Ontario with a B.A.Sc. (Mine Engineering), 2008.
5. I am a Professional Engineer licensed by Professional Engineers Ontario (#100148667).
6. I have practised my profession as an engineer continuously since 2008. My experience with phosphate mining and processing projects includes the following:
 - NI 43-101 reports on AsiaPhos Cheng Qiang Yan Phosphate and Shi Sun Xi Phosphate mining properties on February 23-March 3, 2010, November 27-28, 2011, May 31, 2012, November 26-28, 2012, November 25-30, 2013, April 22-23, 2014, and October 23-25, 2015;
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. My most recent visit to the Cheng Qiang Yan Phosphate and Shi Sun Xi Phosphate properties was on October 23-25, 2015.
10. I am co-responsible for Sections 16, 17, 18, 21 and 26 of this report.
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.

“signed by Jack B. Yue”

Jack Beichen Yue, P.Eng.
March 9, 2016

CONSENT OF QUALIFIED PERSON

Dear Sirs/Mesdames:

Re: AsiaPhos Limited (the “Company”)

I, Donald H. Hains, P.Ge., Senior Associate Industrial Mineral Specialist of Watts, Griffis and McOuat Limited, do hereby consent to the filing of the technical report entitled "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People's Republic of China*" dated March 9, 2016 (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.

I confirm that I have reviewed the information and confirm that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated this 9th day of March 2016.

Yours truly,

“signed by Donald H. Hains”

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

CONSENT OF QUALIFIED PERSON

Dear Sirs/Mesdames:

Re: AsiaPhos Limited (the “Company”)

I, Jack Beichen Yue, P.Ge., Associate Engineer of Watts, Griffis and McOuat Limited, do hereby consent to the filing of the technical report entitled "*Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, and FengTai Exploration Property, Mianzhu City, Sichuan Province, People’s Republic of China*" dated March 9, 2016 (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.

I confirm that I have reviewed the information and confirm that the information presented therein is accurate, balanced, complete and not inconsistent with the WGM Technical Report.

Dated this 9th day of March 2016.

Yours truly,

“signed by Jack B. Yue”

Jack Beichen Yue, P.Eng.
Associate 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).
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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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- Watts, Griffis and McOuat Limited
Nov.21,2014 *An Updated Technical Review of AsiaPhos Limited Cheng Qiang Yan and Shi Sun Xi Phosphate Deposits, Mianzhu City, Sichuan Province, People’s Republic of China*. Prepared by Donald H. Hains.
- Nov.14, 2014 *Site Visit Report, Cheng Qiang Yan Phosphate Deposit and Shi Sun Xi Phosphate Deposit, Mianzhu City, Sichuan Province, People’s Republic of China for AsiaPhos Limited*. Prepared by Donald Hains.

- Mar.28. 2014 *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.* Prepared by Donald H. Hains, Jack Beichen Yue, and William Glover.
- Feb.28, 2013 *A 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 Private Limited.* Prepared by Donald H. Hains and G. Ross MacFarlane.
- June 15, 2010 *A 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 Sichuan Mianzhu Norwest Phosphate Chemical Company Limited.* Prepared By James Spalding and Ross MacFarlane.
- April 5, 2010 Letter Report Re *Trip Report To Norwest Phosphate Chemical Operations, China* by Ross MacFarlane.

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

APPENDICES

**APPENDIX 1:
FINANCIAL ANALYSIS**

AsiaPhos Limited
Cheng Qiang Yan and Shi Sun Xi Phosphate Projects

	Units	¥/t	Total	2016	2017	2018	2019	2020	2021	2022	2023
PRODUCTION											
Phosphorous Rock											
Tonnes Mined	t		18,994,500	400,000	542,000	656,000	783,000	858,000	928,000	1,000,000	1,065,000
External Sales											
Tonnage	t	¥/t rock	15,508,720	265,000	400,250	507,163	626,721	693,907	755,702	819,087	878,660
Sales Price	¥/t	¥350.0	¥350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0
External Sales Revenue	k¥	¥350.0	5,428,052	92,750	140,088	177,507	219,352	242,867	264,496	286,680	307,531
Internal Sales (to P4)											
Tonnage	t		3,485,780	135,000	141,750	148,838	156,279	164,093	172,298	180,913	186,340
Sales Price (at cost)	¥/t	¥207.1	¥207.1	212	211	209	208	208	208	208	208
External Sales Revenue	k¥	¥207.1	722,033	28,683	29,853	31,092	32,555	34,167	35,849	37,611	38,690
Total Phosphorous Rock Revenue	k¥	¥323.8	6,150,086	121,433	169,940	208,599	251,907	277,034	300,345	324,292	346,221
Operating Costs											
Subcontract labour	k¥	¥98.6	1,873,048	39,444	53,447	64,688	77,212	84,607	91,510	98,610	105,020
Transportation	k¥	¥52.8	1,003,100	21,124	28,623	34,643	41,350	45,311	49,008	52,810	56,243
Maintenance	k¥	¥17.0	322,337	6,788	9,198	11,132	13,288	14,560	15,748	16,970	18,073
Resource tax	k¥	¥22.3	423,197	8,912	12,076	14,616	17,445	19,116	20,676	22,280	23,728
Depreciation & Amortization	k¥	¥5.0	94,461	4,272	4,790	4,674	5,120	5,510	5,800	6,060	6,148
Production incentive	k¥	¥4.4	84,173	1,400	2,110	2,680	3,315	3,690	4,040	4,400	4,725
Salary & wages of mining dept	k¥	¥1.1	20,517	729	766	804	844	886	931	977	1,026
Repairs and maintenance of mining eq	k¥	¥5.8	109,978	2,316	3,138	3,798	4,534	4,968	5,373	5,790	6,166
Total Operating Cost Phosphorous	k¥	¥206.9	3,930,810	84,985	114,147	137,036	163,107	178,649	193,086	207,897	221,129
Net Operating Revenue	k¥	¥116.8	2,219,276	36,447	55,794	71,562	88,799	98,385	107,259	116,394	125,093
P4 - Elemental Yellow Phosphorus											
Tonnes Produced	t	¥/t P4	387,309	15,000	15,750	16,538	17,364	18,233	19,144	20,101	20,704
Sales Price	¥/t	¥12,882	12,882	11,538	11,538	11,538	11,538	11,538	13,248	13,248	13,248
Revenue	k¥	¥12,882	4,989,332	173,077	181,731	190,817	200,358	210,376	253,620	266,301	274,290
Operating Costs											
Raw materials											
Phosphorous rock	k¥	¥1,864.2	722,033	28,683	29,853	31,092	32,555	34,167	35,849	37,611	38,690
Coke	k¥	¥1,759.8	681,598	26,397	27,717	29,103	30,558	32,086	33,691	35,375	36,436
Silica dioxide	k¥	¥300.8	116,491	4,512	4,737	4,974	5,223	5,484	5,758	6,046	6,227
Electrodes	k¥	¥414.6	160,594	6,220	6,531	6,857	7,200	7,560	7,938	8,335	8,585
Water	k¥	¥3.5	1,359	53	55	58	61	64	67	71	73
Total raw materials	k¥	¥4,343.0	1,682,075	65,864	68,893	72,084	75,597	79,361	83,303	87,438	90,012
Labour	k¥	¥116.7	45,199	1,751	1,838	1,930	2,026	2,128	2,234	2,346	2,416
Maintenance	k¥	¥37.1	14,381	557	585	614	645	677	711	746	769
Electricity	k¥	¥4,677.8	1,811,767	70,168	73,676	77,360	81,228	85,289	89,554	94,031	96,852
Depreciation	k¥	¥361.7	140,077	13,038	13,623	14,237	14,881	15,558	16,269	17,015	17,485
Total Operating Cost	k¥	¥9,536.3	3,693,499	151,377	158,615	166,224	174,377	183,013	192,070	201,576	207,533
Net Operating Revenue	k¥	¥3,345.7	1,295,833	21,700	23,116	24,593	25,982	27,363	61,550	64,725	66,757

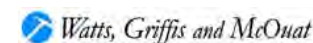
Cheng Qiang Yan and Shi Sun Xi Phosphate Projects

	Units	¥/t	Total	2016	2017	2018	2019	2020	2021	2022	2023
STPP - Sodium Tripolyphosphate											
Tonnes Produced	t	¥/t STPP	44,309	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216
Sales Price	¥/t	¥8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738
Revenue	k¥	¥8,738	387,165	13,762	14,450	15,173	15,932	16,728	17,565	18,443	19,365
Operating Costs											
Raw materials											
Phosphoric Acid	k¥	¥3,487.8	154,541	5,493	5,768	6,056	6,359	6,677	7,011	7,362	7,730
Alkali	k¥	¥1,466.2	64,963	2,309	2,425	2,546	2,673	2,807	2,947	3,095	3,249
Water	k¥	¥9.1	402	14	15	16	17	17	18	19	20
Coal	k¥	¥92.9	4,116	146	154	161	169	178	187	196	206
Natural Gas	k¥	¥651.4	28,863	1,026	1,077	1,131	1,188	1,247	1,309	1,375	1,444
Total raw materials	k¥	¥5,707.4	252,885	8,989	9,439	9,910	10,406	10,926	11,473	12,046	12,649
Labour	k¥	¥397.6	17,616	626	657	690	725	761	799	839	881
Maintenance	k¥	¥108.4	4,804	171	179	188	198	208	218	229	240
Electricity	k¥	¥255.3	11,312	402	422	443	465	489	513	539	566
Depreciation	k¥	¥21.6	958	34	36	38	39	41	43	46	48
Total Operating Cost STPP	k¥	¥6,490.3	287,575	10,222	10,733	11,270	11,833	12,425	13,046	13,699	14,384
Net Operating Revenue STPP	k¥	¥2,247.6	99,590	3,540	3,717	3,903	4,098	4,303	4,518	4,744	4,981
REVENUE SUMMARY											
		¥/t rock									
Phosphorous Rock	k¥	¥323.8	6,150,086	121,433	169,940	208,599	251,907	277,034	300,345	324,292	346,221
P4	k¥	¥262.7	4,989,332	173,077	181,731	190,817	200,358	210,376	253,620	266,301	274,290
STPP	k¥	¥20.4	387,165	13,762	14,450	15,173	15,932	16,728	17,565	18,443	19,365
Total Revenue	k¥	¥606.8	11,526,583	308,272	366,122	414,589	468,197	504,138	571,530	609,036	639,876
Less: Operating Costs	k¥	¥416.5	7,911,884	246,584	283,495	314,531	349,318	374,087	398,202	423,172	443,046
Selling Expenses	k¥	¥7.2	136,301	3,941	4,120	4,307	4,504	6,039	6,847	7,296	7,665
General & Administration	k¥	¥16.6	316,014	17,755	17,199	17,240	17,283	17,329	17,376	17,426	17,463
Total Operating Costs	k¥	¥440.3	8,364,200	268,280	304,813	336,078	371,105	397,455	422,425	447,894	468,174
Less: Depreciation and Amortization	k¥	¥13.2	250,744	18,800	19,310	19,811	20,903	21,971	22,974	23,982	24,542
Net Operating Costs	k¥	¥427.1	8,113,456	249,479	285,504	316,268	350,203	375,484	399,451	423,912	443,632
EBITDA	k¥	¥179.7	3,413,127	58,792	80,618	98,321	117,994	128,655	172,079	185,124	196,244
Less: Depreciation and Amortization	k¥	¥13.2	250,744	18,800	19,310	19,811	20,903	21,971	22,974	23,982	24,542
Corporate Taxes	k¥	¥41.6	790,596	9,998	15,327	19,628	24,273	26,671	37,276	40,285	42,925
Operating Profit after Taxes	k¥	¥124.9	2,371,787	29,994	45,981	58,883	72,818	80,013	111,828	120,856	128,776
Net Cash Flow to Project											
Operating Profit after Taxes	k¥	¥124.9	2,371,787	29,994	45,981	58,883	72,818	80,013	111,828	120,856	128,776
Plus: Depreciation	k¥	¥13.2	250,744	18,800	19,310	19,811	20,903	21,971	22,974	23,982	24,542
Less: Capital Investment	k¥	¥-5.8	-109,550	-17,850	-25,450	-6,150	-6,150	-4,150	-4,150	-4,150	-4,150
Changes in Working Capital	k¥	¥0.8	15,230	-43,045	-10,166	-8,526	-9,468	-6,467	-10,291	-6,676	-5,436
Net Cash Flow to Project	k¥	¥133.1	2,528,212	-12,101	29,675	64,017	78,103	91,367	120,362	134,012	143,733
Accum NCF to Project	k¥	¥133.1	2,528,212	-12,101	17,575	81,592	159,694	251,061	371,423	505,435	649,168
Net Present Value of NCF	¥			5%	¥1,482,000,000			10%	¥932,200,000		
	US\$				\$227,000,000				\$142,800,000		

AsiaPhos Limited
Cheng Qiang Yan and Shi Sun Xi Phosphate Projects

	Units	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PRODUCTION											
Phosphorous Rock											
Tonnes Mined	t	1,125,000	1,185,000	1,240,000	1,290,000	1,310,000	1,322,500	1,322,500	1,322,500	1,322,500	1,322,500
External Sales											
Tonnage	t	933,069	987,312	1,036,381	1,080,272	1,093,981	1,100,000	1,093,325	1,086,450	1,079,368	1,072,074
Sales Price	¥/t	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0	350.0
External Sales Revenue	k¥	326,574	345,559	362,733	378,095	382,893	385,000	382,664	380,257	377,779	375,226
Internal Sales (to P4)											
Tonnage	t	191,931	197,688	203,619	209,728	216,019	222,500	229,175	236,050	243,132	250,426
Sales Price (at cost)	¥/t	207	207	206	206	206	206	206	206	206	206
External Sales Revenue	k¥	39,739	40,864	42,033	43,230	44,488	45,790	47,158	48,586	50,058	51,588
Total Phosphorous Rock Revenue	k¥	366,313	386,423	404,766	421,325	427,381	430,790	429,822	428,844	427,837	426,814
Operating Costs											
Subcontract labour	k¥	110,936	116,853	122,276	127,207	129,179	130,412	130,412	130,412	130,412	130,412
Transportation	k¥	59,411	62,580	65,484	68,125	69,181	69,841	69,841	69,841	69,841	69,841
Maintenance	k¥	19,091	20,109	21,043	21,891	22,231	22,443	22,443	22,443	22,443	22,443
Resource tax	k¥	25,065	26,402	27,627	28,741	29,187	29,465	29,465	29,465	29,465	29,465
Depreciation & Amortization	k¥	5,810	5,688	5,573	5,370	5,163	4,963	4,863	4,863	4,863	4,935
Production incentive	k¥	5,025	5,325	5,600	5,850	5,950	6,013	6,013	6,013	6,013	6,013
Salary & wages of mining dept	k¥	1,078	1,131	1,188	1,247	1,310	1,375	1,444	1,516	1,592	1,672
Repairs and maintenance of mining eq	k¥	6,514	6,861	7,180	7,469	7,585	7,657	7,657	7,657	7,657	7,657
Total Operating Cost Phosphorous	k¥	232,930	244,949	255,971	265,901	269,785	272,169	272,137	272,210	272,285	272,437
Net Operating Revenue	k¥	133,383	141,474	148,795	155,425	157,596	158,622	157,685	156,634	155,551	154,377
P4 - Elemental Yellow Phosphorus											
Tonnes Produced	t	21,326	21,965	22,624	23,303	24,002	24,722	25,464	26,228	27,015	27,825
Sales Price	¥/t	13,248	13,248	13,248	13,248	13,248	13,248	13,248	13,248	13,248	13,248
Revenue	k¥	282,519	290,994	299,724	308,716	317,977	327,517	337,342	347,462	357,886	368,623
Operating Costs											
Raw materials											
Phosphorous rock	k¥	39,739	40,864	42,033	43,230	44,488	45,790	47,158	48,586	50,058	51,588
Coke	k¥	37,529	38,655	39,815	41,009	42,240	43,507	44,812	46,156	47,541	48,967
Silica dioxide	k¥	6,414	6,607	6,805	7,009	7,219	7,436	7,659	7,889	8,125	8,369
Electrodes	k¥	8,842	9,108	9,381	9,662	9,952	10,251	10,558	10,875	11,201	11,537
Water	k¥	75	77	79	82	84	87	89	92	95	98
Total raw materials	k¥	92,600	95,310	98,113	100,992	103,983	107,070	110,277	113,598	117,020	120,560
Labour	k¥	2,489	2,563	2,640	2,719	2,801	2,885	2,972	3,061	3,153	3,247
Maintenance	k¥	792	816	840	865	891	918	945	974	1,003	1,033
Electricity	k¥	99,758	102,750	105,833	109,008	112,278	115,647	119,116	122,689	126,370	130,161
Depreciation	k¥	10,304	292	260	227	194	159	124	87	-63	6,388
Total Operating Cost	k¥	205,942	201,731	207,686	213,813	220,147	226,679	233,434	240,409	247,483	261,390
Net Operating Revenue	k¥	76,577	89,263	92,038	94,903	97,830	100,837	103,908	107,053	110,403	107,233

AsiaPhos Limited
Cheng Qiang Yan and Shi Sun Xi Phosphate Projects



	Units	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
STPP - Sodium Tripolyphosphate											
Tonnes Produced	t	2,327	2,443	2,566	2,694	2,828	2,970	3,118	3,274	3,438	3,610
Sales Price	¥/t	8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738	8,738
Revenue	k¥	20,333	21,350	22,417	23,538	24,715	25,951	27,248	28,611	30,041	31,543
Operating Costs											
Raw materials											
Phosphoric Acid	k¥	8,116	8,522	8,948	9,395	9,865	10,359	10,876	11,420	11,991	12,591
Alkali	k¥	3,412	3,582	3,761	3,950	4,147	4,354	4,572	4,801	5,041	5,293
Water	k¥	21	22	23	24	26	27	28	30	31	33
Coal	k¥	216	227	238	250	263	276	290	304	319	335
Natural Gas	k¥	1,516	1,592	1,671	1,755	1,842	1,935	2,031	2,133	2,240	2,352
Total raw materials	k¥	13,281	13,945	14,642	15,374	16,143	16,950	17,798	18,688	19,622	20,603
Labour	k¥	925	971	1,020	1,071	1,125	1,181	1,240	1,302	1,367	1,435
Maintenance	k¥	252	265	278	292	307	322	338	355	373	391
Electricity	k¥	594	624	655	688	722	758	796	836	878	922
Depreciation	k¥	50	53	55	58	61	64	67	71	74	78
Total Operating Cost STPP	k¥	15,103	15,858	16,651	17,483	18,358	19,276	20,239	21,251	22,314	23,430
Net Operating Revenue STPP	k¥	5,230	5,492	5,766	6,055	6,357	6,675	7,009	7,359	7,727	8,114
REVENUE SUMMARY											
Phosphorous Rock	k¥	366,313	386,423	404,766	421,325	427,381	430,790	429,822	428,844	427,837	426,814
P4	k¥	282,519	290,994	299,724	308,716	317,977	327,517	337,342	347,462	357,886	368,623
STPP	k¥	20,333	21,350	22,417	23,538	24,715	25,951	27,248	28,611	30,041	31,543
Total Revenue	k¥	669,165	698,767	726,907	753,579	770,073	784,258	794,413	804,917	815,764	826,980
Less: Operating Costs	k¥	453,975	462,538	480,308	497,197	508,290	518,123	525,811	533,870	542,082	557,256
Selling Expenses	k¥	8,016	8,371	8,708	9,028	9,225	9,395	9,517	9,643	9,772	9,907
General & Administration	k¥	17,501	17,541	17,582	17,625	17,670	17,716	17,764	17,813	17,865	17,865
Total Operating Costs	k¥	479,492	488,450	506,598	523,850	535,185	545,234	553,091	561,326	569,720	585,028
Less: Depreciation and Amortization	k¥	17,026	6,894	6,750	6,518	6,280	6,048	5,916	5,882	5,736	11,401
Net Operating Costs	k¥	462,466	481,557	499,848	517,332	528,905	539,186	547,175	555,444	563,984	573,627
EBITDA	k¥	206,699	217,210	227,059	236,247	241,168	245,071	247,237	249,473	251,780	253,354
Less: Depreciation and Amortization	k¥	17,026	6,894	6,750	6,518	6,280	6,048	5,916	5,882	5,736	11,401
Corporate Taxes	k¥	47,418	52,579	55,077	57,432	58,722	59,756	60,330	60,898	61,511	60,488
Operating Profit after Taxes	k¥	142,255	157,737	165,232	172,297	176,166	179,268	180,991	182,693	184,533	181,464
Net Cash Flow to Project											
Operating Profit after Taxes	k¥	142,255	157,737	165,232	172,297	176,166	179,268	180,991	182,693	184,533	181,464
Plus: Depreciation	k¥	17,026	6,894	6,750	6,518	6,280	6,048	5,916	5,882	5,736	11,401
Less: Capital Investment	k¥	-4,150	-4,150	-4,150	-4,150	-4,150	-4,150	-4,150	-4,150	-4,150	-
Changes in Working Capital	k¥	-4,509	-4,353	-4,930	-4,676	-2,945	-2,557	-1,884	-1,957	-2,012	145,130
Net Cash Flow to Project	k¥	150,621	156,128	162,902	169,989	175,351	178,609	180,873	182,468	184,107	337,996
Accum NCF to Project	k¥	799,790	955,918	1,118,820	1,288,808	1,464,159	1,642,768	1,823,641	2,006,109	2,190,216	2,528,212
Net Present Value of NCF	¥	15%	¥623,700,000								
	US\$		\$95,500,000								

March 8, 2016

**APPENDIX 2:
DETAILS OF RESOURCE CALCULATION**

DETAILS OF RESOURCES CALCULATIONS

	Rockcode	Level	HoleID	Dilution	Tonnage	P ₂ O ₅ %	Thickness (m)
Cheng Qiang Yan							
MAIN BED	E1_MEAS	1750-1845	PD15-4		6,000	29.91	0.31
Subtotal					6,000	29.91	0.31
Mined in 2014					-		
Mined in 2015					-		
Mined Total					-		
Difference					6,000	29.91	0.31
Proven Reserves				0	-	29.91	0.31
Meas	E1_MEAS				6,000	29.91	0.31
MAIN BED	E1_MEAS	1850-1945	PD15-4		36,000	29.91	0.31
MAIN BED	E1_MEAS	1850-1945	PD2140-2		3,000	26.61	1.57
Subtotal					39,000	29.68	0.40
Mined in 2014					-		
Mined in 2015					-		
Mined Total					-		
Difference					39,000	29.68	0.40
Proven Reserves				0	-	29.68	0.40
Meas	E1_MEAS				39,000	29.68	0.40
MAIN BED	E1_MEAS	1950-2051	PD15-1		-	26.8	1.46
MAIN BED	E1_MEAS	1950-2051	PD15-2		5,000	19.85	0.63
MAIN BED	E1_MEAS	1950-2051	PD15-3		159,000	30.48	4.42
MAIN BED	E1_MEAS	1950-2051	PD15-4		43,000	29.91	0.31
MAIN BED	E1_MEAS	1950-2051	PD2140-2		110,000	26.61	1.57
Subtotal					317,000	28.88	2.81
Mined in 2014					24,000		
Mined in 2015					26,000		
Mined Total					50,000		
Difference					267,000	28.88	2.81
Proven Reserves				48600	162,000	28.88	2.81
Meas	E1_MEAS				56,000	28.88	2.81
MAIN BED	E1_MEAS	2056-2135	PD15-1		12,000	26.8	1.46
MAIN BED	E1_MEAS	2056-2135	PD15-2		17,000	19.85	0.63
MAIN BED	E1_MEAS	2056-2135	PD15-3		114,000	30.48	4.42
MAIN BED	E1_MEAS	2056-2135	PD15-4		15,000	29.91	0.31
MAIN BED	E1_MEAS	2056-2135	PD2140-1		443,000	26.47	12.03
MAIN BED	E1_MEAS	2056-2135	PD2140-2		102,000	26.61	1.57
MAIN BED	E1_MEAS	2056-2135	PD3-4H		1,000	21.48	3.13
MAIN BED	E1_MEAS	2056-2135	PD4-2H		11,000	20.41	1.47
MAIN BED	E1_MEAS	2056-2135	PD4-3H		12,000	33.39	8.61
MAIN BED	E1_MEAS	2056-2135	PD4-4H		17,000	28.37	1.42
Subtotal					745,000	27.09	8.29
Mined in 2014					69,000		
Mined in 2015					44,000		
Mined Total					113,000		
Difference					632,000	27.09	8.29
Proven Reserves				57000	190,000	27.09	8.29
Meas	E1_MEAS				385,000	27.09	8.29
MAIN BED	E1_MEAS	2140-2235	PD2140-1		989,000	26.47	12.03
MAIN BED	E1_MEAS	2140-2235	PD2140-2		77,000	26.61	1.57
MAIN BED	E1_MEAS	2140-2235	PD3-1H		83,000	26.41	7.11
MAIN BED	E1_MEAS	2140-2235	PD3-2H		26,000	31.35	2.56
MAIN BED	E1_MEAS	2140-2235	PD3-3H		31,000	32.76	3.61
MAIN BED	E1_MEAS	2140-2235	PD3-4H		117,000	21.48	3.13
MAIN BED	E1_MEAS	2140-2235	PD4-2H		25,000	20.41	1.47
MAIN BED	E1_MEAS	2140-2235	PD4-3H		178,000	33.39	8.61
MAIN BED	E1_MEAS	2140-2235	PD4-4H		38,000	28.37	1.42
MAIN BED	E1_MEAS	2140-2235	3OP1		5,000	30.99	4.59
MAIN BED	E1_MEAS	2140-2235	3OP2		49,000	31.24	5.46
MAIN BED	E1_MEAS	2140-2235	3OP3		71,000	29.9	4.95
MAIN BED	E1_MEAS	2140-2235	8OP1		3,000	34.38	4.52
Subtotal					1,691,000	27.31	9.13
Mined in 2014					91,000		
Mined in 2015					92,000		
Mined Total					183,000		
Difference					1,508,000	27.31	9.13

DETAILS OF RESOURCES CALCULATIONS

	Rockcode	Level	HoleID	Dilution	Tonnage	P ₂ O ₅ %	Thickness (m)
Proven Reserves				151500	505,000	27.31	9.13
Meas	E1_MEAS				852,000	27.31	9.13
UPPER BED	E1_MEAS		BT05		780,000	26.07	4.04
UPPER BED	E1_MEAS		BT06		564,000	34.33	2.60
UPPER BED	E1_MEAS		PD2900		652,000	22.14	2.85
UPPER BED	E1_MEAS		TC07		1,050,000	28.83	4.30
UPPER BED	E1_MEAS		TC08		1,272,000	22.21	6.13
UPPER BED	E1_MEAS		TC127		444,000	32	6.06
UPPER BED	E1_MEAS		TC2		859,000	17.16	10.93
Meas	E1_MEAS				5,621,000	25.19	5.49
MAIN BED	M1_MEAS	gt2240	PD2140-1		342,000	26.47	12.03
MAIN BED	M1_MEAS	gt2240	PD2140-2		16,000	26.61	1.57
MAIN BED	M1_MEAS	gt2240	PD3-0H		8,000	20.89	0.8
MAIN BED	M1_MEAS	gt2240	PD3-1H		19,000	26.41	7.11
MAIN BED	M1_MEAS	gt2240	PD3-2H		2,000	31.35	2.56
MAIN BED	M1_MEAS	gt2240	PD3-3H		6,000	32.76	3.61
MAIN BED	M1_MEAS	gt2240	PD3-4H		68,000	21.48	3.13
MAIN BED	M1_MEAS	gt2240	TC101		259,000	32.2	13.84
MAIN BED	M1_MEAS	gt2240	TC103		165,000	25.38	5.04
MAIN BED	M1_MEAS	gt2240	TC104		161,000	33.03	5.76
MAIN BED	M1_MEAS	gt2240	TC105		148,000	18.51	4.85
MAIN BED	M1_MEAS	gt2240	TC106		114,000	33.32	4.35
MAIN BED	M1_MEAS	gt2240	3OP1		28,000	30.99	4.59
MAIN BED	M1_MEAS	gt2240	3OP2		1,000	31.24	5.46
MAIN BED	M1_MEAS	gt2240	5Y1		110,000	28.84	3.93
MAIN BED	M1_MEAS	gt2240	5Y2		341,000	28.83	3.94
MAIN BED	M1_MEAS	gt2240	5Y3		476,000	26.87	4.02
MAIN BED	M1_MEAS	gt2240	5Y4		366,000	26.77	3.86
MAIN BED	M1_MEAS	gt2240	8OP1		165,000	34.38	4.52
MAIN BED	M1_MEAS	gt2240	8Y2		40,000	34.09	1.04
MAIN BED	M1_MEAS	gt2240	8Y3		67,000	29.99	0.67
Subtotal					2,903,000	28.18	5.91
Mined in 2014					15,000		
Mined in 2015					20,000		
Mined Total					35,000		
Difference					2,868,000	28.18	5.91
Proven Reserves				30750	103,000	28.18	5.91
Meas	M1_MEAS				2,735,000	28.18	5.91
Mined Total					346,000		
Difference					2,452,000	27.47	8.06
Proven Reserves	M1_MEAS			287,850	857,000	27.56	7.75
Meas	E1_MEAS				6,959,000	25.61	6.04
Dilution				30%			
Shi Sun Xi							
	M2_MEAS	gt1945	L1950		159,000	28.6	7.6
	M2_MEAS	gt1945	L2050		496,000	29.5	4
	M2_MEAS	gt1945	TC124		1,000	27.01	7.08
	M2_MEAS	gt1945	TC125		69,000	17.77	1.24
	M2_MEAS	gt1945	TC126		169,000	31.65	1.08
	M2_MEAS	gt1945	ZK701		73,000	32.25	5.77
	M2_MEAS	gt1945	ZK902		462,000	31.94	4.94
Subtotal Meas					1,430,000	30.02	4.32
	M2_IND	gt1945	L2050		646,000	29.5	4
	M2_IND	gt1945	TC126		489,000	31.65	1.08
	M2_IND	gt1945	ZK1001		1,171,000	30.84	9.02
	M2_IND	gt1945	ZK701		588,000	32.25	5.77
	M2_IND	gt1945	ZK703		145,000	28.26	7.96
	M2_IND	gt1945	ZK902		1,123,000	31.94	4.94
Subtotal Ind					4,161,000	31.13	5.71
Subtotal M+I					5,591,000	30.85	5.36
Mined in 2014					14,000		
Mined in 2015					47,000		
Mined Total					60,000		
Remaining Meas					1,414,000		

DETAILS OF RESOURCES CALCULATIONS

	Rockcode	Level	HoleID	Dilution	Tonnage	P ₂ O ₅ %	Thickness (m)
Remaining Ind					4,116,000		
Remaining M+I					<u>5,531,000</u>	<u>30.85</u>	<u>5.36</u>
Total Reserves				73950	247,000	30.85	5.36
Proven Reserves				18914.06	63,000	30.85	5.36
Probable Reserves				55035.94	183,000	30.85	5.36
MP Resources Meas					1,332,000	30.02	4.32
MP Resources Ind					3,878,000	31.13	5.71
	M2_INF	gt1945	TC126		163,000	31.65	1.08
	M2_INF	gt1945	ZK1001		471,000	30.84	9.02
	M2_INF	gt1945	ZK902		<u>380,000</u>	<u>31.94</u>	<u>4.94</u>
MP Resource Inf					1,014,000	31.38	6.21
	E2_IND	gt1945	ZK1001		<u>2,000</u>	<u>30.84</u>	<u>9.02</u>
Ex Resource Ind					2,000	30.84	9.02
	E2_INF	gt1945	TC126		195,000	31.65	1.08
	E2_INF	gt1945	ZK1001		<u>3,723,000</u>	<u>30.84</u>	<u>9.02</u>
Ex Resource Inf					3,917,000	30.88	8.63
	M2_MEAS	lt1775	ZK1001		5,000	30.84	9.02
	M2_MEAS	lt1775	ZK705		78,000	19.76	1.37
	M2_MEAS	lt1775	ZK903		<u>876,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Meas					959,000	26.05	6.23
	M2_IND	lt1775	ZK1001		1,387,000	30.84	9.02
	M2_IND	lt1775	ZK705		165,000	19.76	1.37
	M2_IND	lt1775	ZK903		<u>2,443,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Ind					3,995,000	27.78	7.25
Subtotal M+I					4,954,000	27.44	7.06
Mined in 2014					6,000		
Mined in 2015					38,000		
Mined Total					44,000		
Remaining Meas					951,000		
Remaining Ind					3,960,000		
Remaining M+I					4,910,000	27.44	7.06
Total Reserves				83100	277,000	27.44	7.06
Proven Reserves				16086.58	54,000	27.44	7.06
Probable Reserves				67013.42	223,000	27.44	7.06
MP Resources Meas					881,000	26.05	6.23
MP Resources Ind					3,669,000	27.78	7.25
	M2_INF	lt1775	ZK1001		294,000	30.84	9.02
	M2_INF	lt1775	ZK903		<u>473,000</u>	<u>26.58</u>	<u>6.65</u>
MP Resource Inf					767,000	28.21	7.56
	E2_MEAS	lt1775	ZK705		<u>32,000</u>	<u>19.76</u>	<u>1.37</u>
Ex Resource Meas					32,000	19.76	1.37
	E2_IND	lt1775	ZK1001		200,000	30.84	9.02
	E2_IND	lt1775	ZK705		492,000	19.76	1.37
	E2_IND	lt1775	ZK903		<u>20,000</u>	<u>26.58</u>	<u>6.65</u>
Ex Resource Ind					712,000	23.06	3.67
	E2_INF	lt1775	ZK1001		5,703,000	30.84	9.02
	E2_INF	lt1775	ZK705		1,052,000	19.76	1.37
	E2_INF	lt1775	ZK903		<u>1,506,000</u>	<u>26.58</u>	<u>6.65</u>
Ex Resource Inf					8,262,000	28.65	7.61
	M2_MEAS	1775-1810	ZK1001		374,000	30.84	9.02
	M2_MEAS	1775-1810	ZK903		<u>631,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Meas					1,005,000	28.16	7.53
	M2_IND	1775-1810	ZK1001		612,000	30.84	9.02
	M2_IND	1775-1810	ZK903		<u>49,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Ind					661,000	30.53	8.84

DETAILS OF RESOURCES CALCULATIONS

	Rockcode	Level	HoleID	Dilution	Tonnage	P ₂ O ₅ %	Thickness (m)
Subtotal M+I					1,666,000	29.10	8.05
Mined in 2014					-		
Mined in 2015					-		
Mined Total					-		
Remaining Meas					1,005,000		
Remaining Ind					661,000		
Remaining M+I					1,666,000	29.10	8.05
Total Reserves				0	-	29.10	8.05
Proven Reserves				0	-	29.10	8.05
Probable Reserves				0	-	29.10	8.05
MP Resources Meas					1,005,000	28.16	7.53
MP Resources Ind					661,000	30.53	8.84
Ex Resource Ind	E2_IND	1775-1810	ZK1001		<u>160,000</u>	<u>30.84</u>	<u>9.02</u>
					160,000	30.84	9.02
Ex Resource Inf	E2_INF	1775-1810	ZK1001		<u>843,000</u>	<u>30.84</u>	<u>9.02</u>
					843,000	30.84	9.02
	M2_MEAS	1815-1945	L1950		503,000	28.6	7.6
	M2_MEAS	1815-1945	ZK1001		1,906,000	30.84	9.02
	M2_MEAS	1815-1945	ZK902		600,000	31.94	4.94
	M2_MEAS	1815-1945	ZK903		<u>469,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Meas					3,478,000	30.13	7.79
	M2_IND	1815-1945	L1950		21,000	28.6	7.6
	M2_IND	1815-1945	ZK1001		1,837,000	30.84	9.02
	M2_IND	1815-1945	ZK903		<u>42,000</u>	<u>26.58</u>	<u>6.65</u>
Subtotal Ind					1,900,000	30.72	8.95
Subtotal M+I					5,377,000	30.34	8.20
Mined in 2014					13,000		
Mined in 2015					15,000		
Mined Total					27,000		
Remaining Meas					3,460,000		
Remaining Ind					1,890,000		
Remaining M+I					5,350,000	30.34	8.20
Total Reserves				36000	120,000	30.34	8.20
Proven Reserves				23285.85	78,000	30.34	8.20
Probable Reserves				12720.85	42,000	30.34	8.20
MP Resources Meas					3,359,000	30.13	7.79
MP Resources Ind					1,835,000	30.72	8.95
Ex Resource Ind	E2_IND	1815-1945	ZK1001		<u>467,000</u>	<u>30.84</u>	<u>9.02</u>
					467,000	30.84	9.02
Ex Resource Inf	E2_INF	1815-1945	ZK1001		<u>2,792,000</u>	<u>30.84</u>	<u>9.02</u>
					2,792,000	30.84	9.02
Ex Resource Inf (Fault)	E2_INF		TC126		268,000	31.65	1.08
Mined Total					132,000		
Remaining M+I					17,457,000	29.57	6.96
Total Reserves				193050	644,000	29.29	6.62
Proven Reserves				58286.48	194,000	29.70	6.96
Probable Reserves				134770.2	449,000	29.11	6.47
MP Resources Meas					6,577,000	29.26	6.84
MP Resources Ind					10,043,000	29.79	7.07
MP Resources M+I					16,620,000	29.58	6.98
MP Resource Inf					1,781,000	30.02	6.79
Ex Resource Meas					32,000	19.76	1.37
Ex Resource Ind					1,341,000	26.71	6.18
Ex Resource M+I					1,373,000	26.55	6.06
Ex Resource Inf					16,081,000	29.74	8.07
Dilution				30%			