ASX Announcement

29 March 2022

EXCELLENT METALLURGICAL RESULTS CHAKETMA PILOT PLANT TESTING

HIGHLIGHTS

- PhosCo is pleased to announce results of advanced bulk tonnage metallurgical tests completed in 2017 from its flagship Chaketma Phosphate Project that have been reviewed as part of the ongoing Gap Analysis
- Chaketma phosphate ore can be upgraded to 30% P_2O_5 with recovery greater than or equal to 80% and with an excellent CaO/P_2O_5 ratio of between 1.55 and 1.60

Average Pilot Plant Grade and Recovery Results

P_2O_5 Head grade %	P_2O_5 concentrate grade %	MgO Grade in concentrate %	Cd Grade in concentrate ppm	Total P_2O_5 Recovery %	Mass Weight Recovery to Concentrate %
22.90	30.34	0.59	25.8	80.8	60.7

- Results indicate the potential to produce a commercial grade concentrate capable of conversion to high quality products, Mono Ammonium Phosphate (MAP) and/or Diammonium Phosphate (DAP), using conventional methods and reagents
- Pilot plant testing provides baseline data for the engineering of the processing plant and further optimisation test work
- The metallurgical test results and latest KEL resource provide a strong platform to progress technical studies and further resource expansion, allowing:
    - Conversion to Ore Reserves and commencement of mine feasibility work,
    - Potential 30 years mine life at an initial production rate of 1.5Mtpa,
    - Significant resource growth potential with only 47% of the surface area of known KEL mineralisation covered by drilling.
- A Gap Analysis to evaluate the work required to complete a bankable feasibility study (BFS) on KEL is nearing completion and is due in Q2-CY22

PhosCo's Specialist Processing Engineer, Michael Kelahan, confirmed:

"The Chaketma beneficiation test results are at an advanced stage, and very encouraging. The 28-tonne bulk sample test work confirms the ability to produce a high-quality product and lay down an excellent base line for producing phosphate rock concentrate. There is a clear path for further test work and process optimisation to provide further confidence in the project".

METALLURGICAL TEST WORK

PhosCo Ltd (**PhosCo** or **the Company**) (**ASX:PHO)** is pleased to announce results from advanced metallurgical testwork at the Chaketma Phosphate Project (**Chaketma** or **the Project**) located in Tunisia.

PhosCo is in the final stages of a Gap Analysis that incorporates an independent review of substantial metallurgy and processing test work carried out during the period from 2011 to 2017. The test work covered two zones of phosphate mineralisation at Chaketma, being the KEL deposit (**55.5 Mt @ 21.2% P_2O_5**) and the second GK deposit (**93 Mt @ 20.3% P_2O_5**), with the pilot plant test work completed in 2017 on a 28-tonne bulk sample from KEL.

Jacobs Engineering Group was engaged by Chaketma Phosphates SA (**CPSA**) to complete flotation tests in the laboratory and at pilot scale on Chaketma phosphate ore to develop a process flowsheet for the Project. This work targeted a marketable phosphate concentrate and established a material balance for the design of the future processing plant. The target parameters for the test work was: $P_2O_5 > 30\%$, $MgO < 0.8\%$ and recovery in $P_2O_5 = 80\%$. These specifications are considered acceptable for conversion to phosphoric acid using conventional wet processing technology.

Laboratory and semi-industrial pilot tests carried out on the bulk sample from the KEL deposit led to the development of a flotation processing flowsheet with two well-individualised sections:

- reverse flotation of carbonates (roughing + cleaning)
- reverse flotation of silica (roughing, cleaning + scavenging)

Laboratory and pilot scale tests indicate that Chaketma phosphate ore can easily reach a grade of 30% P_2O_5 with recovery greater than or equal to 80% and with an CaO/P_2O_5 ratio that varies between 1.55 and 1.60.

Overall, the operation of the pilot plant produced the following average data:

Key Pilot Plant Data	Unit	Amount
Feed rate to scrubber	kg/h	177.9
Scrubber discharge (% solids)	%	30.0%
P_2O_5 head grade	**%**	**22.9%**
Slimes losses (% by mass)	%	4.3%
Slimes P_2O_5 grade	%	15.2%

Flotation feed size (% passing 150µm)	%	93.0%
Total phosphate recovery	**%**	**80.8%**
Final P_2O_5 concentrate grade	**%**	**30.3%**
Final MgO concentrate grade	%	0.6%
Mass weight of concentrate (total)	%	60.7%
Flotation time	mins	16
Total sulfuric acid consumption (feed to flotation)	kg/t	2.98
Sodium tripolyphosphate (STTP) consumption (feed to flotation)	kg/t	1.64
Carbonate collector consumption (feed to flotation)	kg/t	2.42
Flocculent consumption	kg/t	0.006
Total amine collector consumption	kg/t	0.43

The chemical analyses of a representative sample of concentrate produced by laboratory tests are presented in the following table:

	Tunisian Chemical Group	Roullier Group	IFDC
P_2O_5 (%)	**31.56**	**31.20**	**30.98**
CaO (%)	50.45	49.40	48.94
MgO (%)	0.53	0.47	0.58
SiO_2 %	1.50	1.71	1.49
Al_2O_3 (%)	0.38	0.43	0.39
Fe2O3 (%)	0.81	0.87	0.83
Na2O (%)	-	1.52	1.40
K2O (%)	-	0.26	0.23
Cl (ppm)	400 ppm	-	-
F (%)	3.75	3.74	3.91
Cd (ppm)	20 ppm	31.7 ppm	29.5 ppm
CaO/P_2O_5 (%)	1.60	1.58	1.58

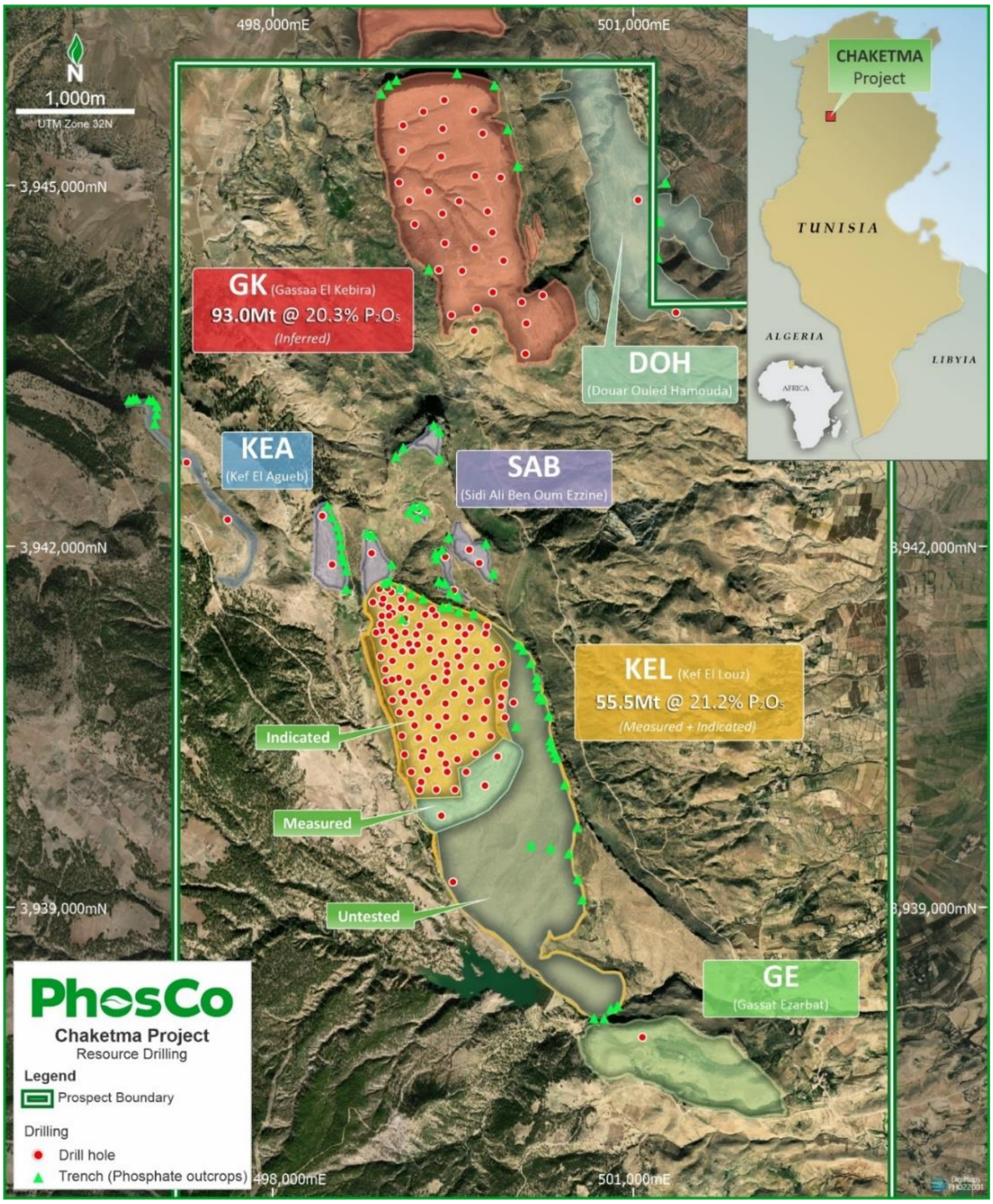
Pilot testing provides the baseline data for the engineering of the processing plant and for further optimisation.

Ore variability tests confirmed that concentrate with a P_2O_5 content ranging from 28.92% to 31.82% and P_2O_5 recoveries ranging from 79.6% to 89.1% can be obtained from ore with grades ranging from 18.90% P_2O_5. to 22.57% P_2O_5 from the KEL and GK prospects.

Complementary metallurgical test work is required to:

- Evaluate the potential for single stage flotation, including recent technological advances;
- Understand the metallurgical responses of each horizon (A + B + C) to consider if selective mining and processing might improve results;
- Test work to confirm how metallurgical variability can impact processing efficiency for the life of mine as compared with the composite bulk sample; and
- Phosphoric acid pilot plant testing of a representative samples of flotation concentrate to confirm the viability of producing phosphoric acid and ultimately commercial grade fertilizer products such as MAP and DAP.

Figure 1 – Chaketma Phosphate Project Prospect Locations



NEXT STEPS

The positive metallurgical results together with the recently released KEL Mineral Resource Estimate provides a strong basis for technical and financial assessments of Chaketma, which will be progressed following the completion of Gap Analysis. A large amount of technical work is currently being reviewed and validated for potential inclusion in project studies providing the opportunity to rapidly advance Chaketma towards production.

Key work programs anticipated by PhosCo to confirm and optimise the existing project studies include:

1. Metallurgical optimisation test work programs noted above, based on sampling guided by the different phosphate mineralisation layers which are planned to optimise recoveries specific to each layer.

2. These findings will be required to optimise mining extraction and pit design, as a key step toward conversion of Mineral Resources to Ore Reserves.

3. Further drilling is planned over the remainder of the KEL prospect with the aim of extending high confidence Resources over the entire prospect. Approximately 130 drill holes are estimated to be required to provide a similar drill density over the 53% of KEL that has not been drilled as exists over the established Resources. PhosCo intend to consider an Exploration Target prior to Resource drilling.

4. The GK MRE is in the process of being updated to include an additional 21 new holes, taking the total number of holes to 31 at that prospect from the 10 used in the 2013 MRE. Resource estimation methodologies applied in the 2022 update of KEL MRE will also be applied to GK.

This ASX release was authorised on behalf of the PhosCo Ltd Board by:

Simon Eley, Managing Director

For further information, please contact:

Taz Aldaoud
Executive Director
T: + 61 473 230 558

Simon Eley
Managing Director
T: +61 (03) 9692 7222

COMPETENT PERSON'S STATEMENT

Metallurgical Studies

*The information in this report that relates to **Metallurgical Test Results** is based on, and fairly represents information and supporting documentation reviewed by Mr Michael Kelahan. Mr Kelahan is the owner and principal consultant at Phosphate Consulting LLC, he has over 42 years of phosphate beneficiation experience worldwide and is a "qualified person" pursuant to NI43-101. Mr. Kelahan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Kelahan consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

Exploration Results

*The information in this report that relates to **Exploration Results and Project Geology** is based on, and fairly represents information and supporting documentation prepared by Mr. Donald Thomson, a Competent Person who is a Member of Australasian Institute of Mining and Metallurgy. Mr. Thomson is an employee of Celamin Limited (PhosCo). Mr. Thomson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Thomson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

APPENDIX 1:

Prospect Geology

Chaketma is one of several known phosphate deposits in Northern Tunisia. Phosphate deposits in Northern Tunisia share a similar character and differ from the phosphate deposits of the Gafsa basin in the South. The Gafsa basin phosphates tend to be thicker, higher-grade, are free digging, and can be beneficiated by washing. Phosphate deposits in Northern Tunisia tend to be lower grade and require drill and blast mining and are beneficiated by flotation.

The Chaketma local geology consists of a sequence of transitional shallow water Eocene marine dolomitic limestone cover grading down through phosphatic sediments to deeper marine sandstones, clays, and marl. The upper phosphorite at Chaketma is a dolomitic phosphatic sandstone grading into a higher grade coarse coprolitic phosphate and finally fine grained phosphatic marls.

The basin was uplifted, tilted, and faulted. KEL is one of six prospects at Chaketma which are remnants of a once continuous phosphate rich basin that has been pulled apart. KEL and GK, the two largest prospects at Chaketma, now occupy prominent topographic mesas with phosphate exposed on the flanks. The high degree of exposure of the phosphatic geology makes exploration easy and is likely to make exploitation of the resources relatively straight forward.

The geological unit of economic interest at KEL is a stratified phosphate horizon composed of three distinct layers (A, B and C) that are chemically distinct. The chemical differences between layers reflect variations in mineralogy and will have an impact on metallurgy. The highest-grade Layer B comprises 58% of the total resource.

Metallurgical properties of each layer need to be individually established to generate a geometallurgical model of the project. The upper layers are sandy and therefore quartz rich while the lower most layer is clay rich. These contrasting mineralogies will behave differently in a processing plant and different regents will be required to remove them during beneficiation.

Results of Beneficiation Test Work

CPSA carried out preliminary test programs for the mineralogical and chemical characterization as well as the enrichment capacity of Chaketma ore. The results and conclusions of the work carried out during the period from 2011 to 2017 are presented in this announcement.

CPSA appointed Jacobs Engineering Group (now part of the Worley Parsons group) in 2016 to develop a viable flotation flowsheet for the processing of Chaketma phosphate.

Metallurgical studies on the Chaketma deposit were carried out during the period 2011-2017, including:

- Chemical and Mineralogical Characterization of the Chaketma Phosphate Ore. (Department of Geology at the Faculty of Sciences of Tunis and at COREM in Canada)
- Chaketma Mineral Characterization (Department of Geology at the Faculty of Sciences of Tunis and at COREM in Canada)
- Single stage flotation test work (Kemworks)
- Variability Test Work (Jacobs)
- Chaketma Locked Cycle Test Results (Jacobs)
- Pilot Plant Report (Jacobs)
- Process Design Basis Beneficiation (Jacobs)
- Report on Processing of Chaketma Ore (COREM)

Initial test work highlighted that the Chaketma ore is best suited towards flotation as mechanical separation by particle size wasn't possible. Flotation separates minerals as follows:

- grinding of the ore to a particle size from which its constituents are released.
- conditioning of the ore in contact with a given reagent for a fixed time.
- suspension of particles in water in the form of a pulp into which air is injected. Depending on their affinity-activated by the use of reagents for water or air, the particles either cling to air bubbles and float on the surface of the water or are wet by the water and fall to the bottom.

Flotation of phosphates has been practiced industrially since 1945 on phosphate ores with siliceous gangue. This technique is also successfully applied to phosphate ores of the same type as that of Chaketma, particularly in Saudi Arabia, China (Yunan Province), the United States (Florida) and Morocco. Phosphate treatment processes in North Africa mainly use chemical reagents such as oxyethylated phosphorus esters. Dolomitic phosphate processing plants in Florida use specific fatty acids manufactured on an industrial scale.

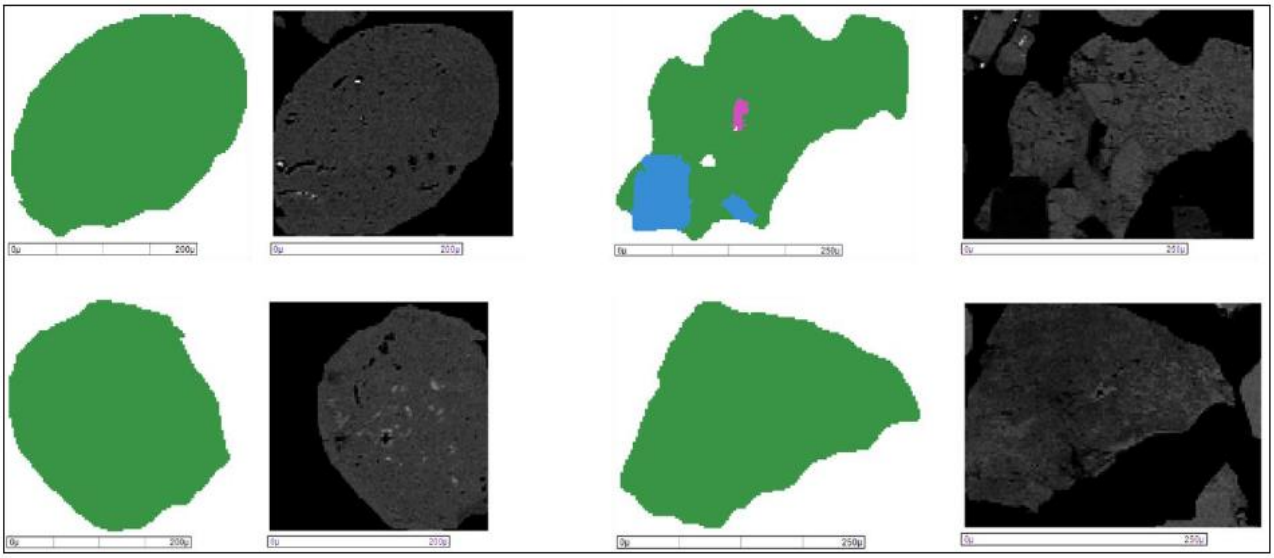
Mineralogical studies

Determining the optimal processing scheme requires precise knowledge of the minerals constituting the ore, and the degree and the mode of their associations. Studies carried out in the Department of Geology at the Faculty of Sciences University of Manar Tunis and at COREM in Canada highlighted that Chaketma ore consists of three main components:

- Phosphate elements in the form of pellets, oolites and bone debris,
- Exo-gangue composed of carbonates (calcite and dolomite), silicates (quartz and feldspar) and clays,

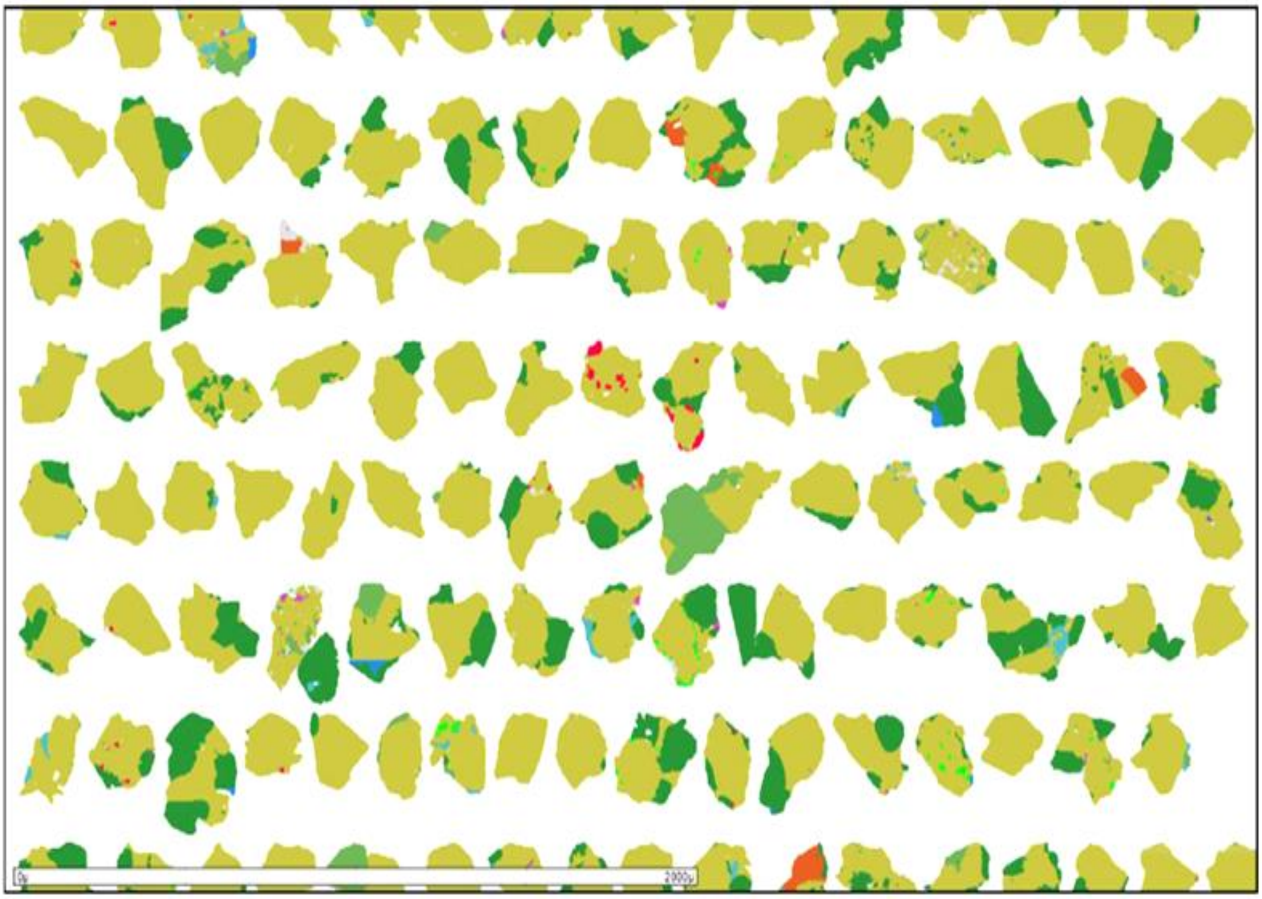
- Endo-gangue, i.e.fine inclusions within the phosphate elements, the proportion of which does not exceed 3%. The dimension of its inclusions is of the order of 10µm.

Figure 02 – Example of Micro Inclusions in Oolitic Apatites



Grinding to 125 µm releases the phosphate elements from the silico-carbonate gangue.

Figure 03 – Association Quartz - Apatite

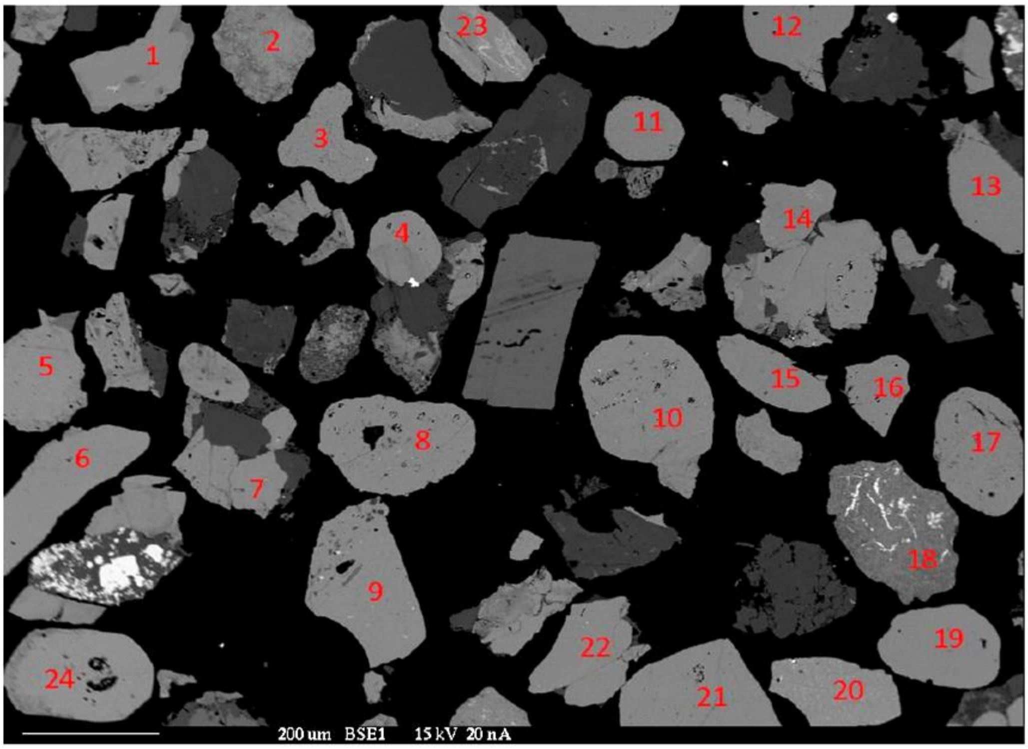


The phosphate elements are in the form of a calcium apatite, i.e. francolite as shown in the chemical analysis presented in Table 2 below. The CaO / P_2O_5 ratio is 1.5 while in fluorapatite the CaO / P_2O_5 ratio is 1.31. The maximum level that could be reached by physical separation is 34.2% P_2O_5 compared to that in the Gafsa basin which is of the order of 29 to 30% P_2O_5.

Table 02 – Chemical Analyses of the Pure Phase

Components	Content (%)
P_2O_5	34.2
CaO	51.31
SiO2	0.55
MgO	0.29
CaO/ P_2O_5 ratio	1.5

Figure 04 – Apatite Particles Analysed Under a Microscope



Treatment Trials

The results of the flotation tests on Chaketma ore showed that the use of the same fatty acids used for the flotation of Florida dolomitic phosphates would be optimal. Phosphoric esters, used for mainly calcitic gangue phosphates in Morocco, are not very selective for dolomitic phosphates of the Chaketma type.

As announced by PhosCo on 8 September 2014, independent exploratory bench scale test work performed by KEMworks in Florida on KEL material using single stage flotation produced a commercial grade concentrate (P_2O_5 >29%, 0.77%MgO, MER <0.08) and delivered metallurgical recoveries of over 90% and a mass pull of over 70%. This test work used a single stage reverse flotation process with a reagent specific to dolomitic phosphates. These KEMworks results were not followed up, with subsequent test work performed by Jacobs leading to the development of dual stage flotation processing flowsheet.

Jacobs Engineering performed ore characterization tests, validation tests of the process flowsheet, ore variability tests on core samples from KEL and GK prospects and pilot tests on bulk samples from the KEL prospect.

Pilot Plant Test Work

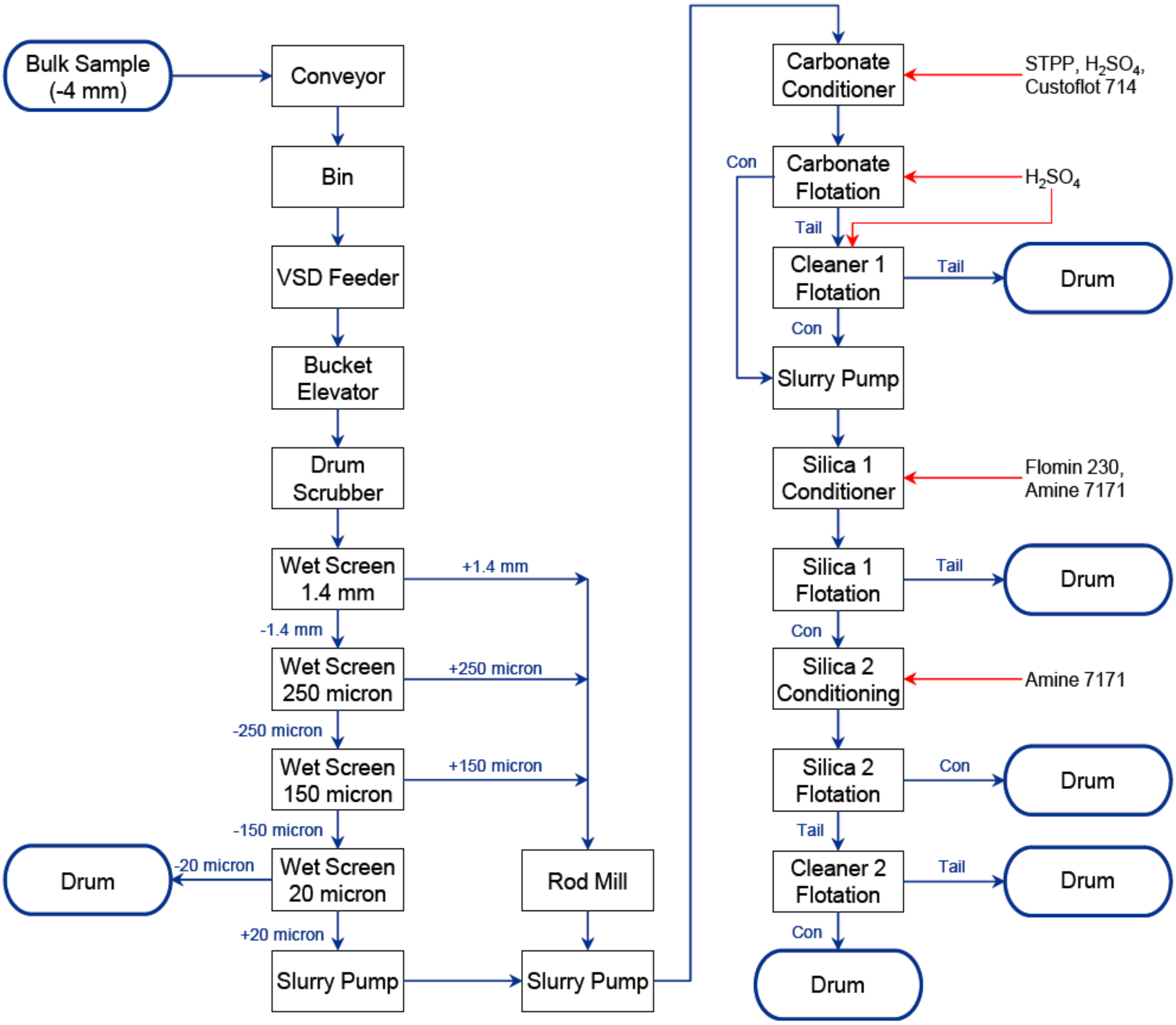
The preliminary mineralogy and metallurgical test work cumulated in the pilot plant stage test work processing a 28-tonne sample from the northern section of the KEL deposit.

The flowsheet shown in Figure 5 on the following page shows the different equipment of the semi-industrial pilot unit of Jacobs.

The 28-tonne bulk composite sample from KEL underwent primary crushing and secondary crushing in Tunisia. The particle size of the crushed product was 95% passing the sieve 40 mm.

The raw ore with a particle size of 95% less than 40 mm, was crushed to 4 mm, homogenized and divided at the Jacobs facilities.

Figure 5 – Semi-Industrial Pilot Testing - Flowsheet



The raw samples, crushed at 4 mm and whose chemical analyses are presented above, underwent the same mechanical preparation as that applied for the variability tests.

The pilot tests were conducted at Jacobs' semi-industrial/pilot scale facility in Lakeland, Florida-USA.

Figure 06 – Feed Conveyor to Ore Bin

Figure 07 – Scrubber and Flotation

Figure 08 – Scrubber Discharge

Figure 09 – Rod Mill Discharge

Figure 10 – Carbonate Rougher Flotation

Figure 11 – Silica 1 Flotation

Conclusion:

Laboratory tests and semi-industrial pilot tests have led to a flowsheet characterized by its flexibility of adaptation to variations in feed levels as well as production requirements and its efficiency for the concentration of fine particles of less than 20 µm size.

This flowsheet has two well-individualized flotation sections: a reverse flotation of carbonates and a reverse flotation of silica. Carbonate flotation is the most efficient operation of the entire flowsheet, it allows excellent recovery with high selectivity. The structure of the carbonate flotation makes it flexible enough to accept variations in feed material put through the plant.

The chemical analyses of a representative sample of the concentrate produced by laboratory tests are presented in the following table:

Test Number	P_2O_5 Head grade %	P_2O_5 concentrate grade %	MgO Grade in concentrate %	Cd Grade in concentrate ppm	Total P_2O_5 Recovery %	Mass Weight Recovery to Concentrate %
P1	22.8	30.20	0.64	26	76.1	57.8
P2	23	30.30	0.65	26	89.5	72.7
P3	22.6	30.20	0.52	29	84.5	60.5
P4	22.7	30.40	0.6	23	74.6	54.9
P5	22.3	30.90	0.5	25	76.2	55.4
P6	23.5	30.00	0.66	26	83.7	63.1
P7	23.4	30.40	0.55	26	80.8	60.6
Average	**22.90**	**30.34**	**0.59**	**25.8**	**80.8**	**60.7**

APPENDIX 3: JORC CODE, 2012 EDITION - TABLE 1

KEL – Chaketma Project Tunisia

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	CPSA shipped the batches of samples to JACOBS for bench scale test work programs: • 3 composite samples on 13 April 2016 (for flow sheet development) • 8 core samples on 1 July 2016 (for variability tests), • 12 crushed samples on 1 August 2016 (additional ones for variability tests). The **28t Bulk Sample for Pilot Plant** testing originated from the Trial pit at KEL. The results of the Pilot Plant tests were compared with drill hole CHDD-2015-122 supplied for variability work. The bulk left Tunis port on Tuesday 9 November 2016 and was received by Jacobs 05-Jan-2017.
Drilling techniques	Not relevant - bulk sample of phosphorite unit mined from KEL.
Drill sample recovery	NR – bulk sample
Logging	NR
Sub-sampling techniques and sample preparation	NR
Quality of assay data and laboratory tests	Metallurgy sampling see body of report: 1. Jacobs reviewed existing test work data including all size-by-size analyses of the ore, mineralogy test work and reports to confirm liberation, all metallurgical test work reports describing feed preparation and flotation results and a detailed metallurgical flow sheet for the proposed test program with all operating parameters. Jacobs reviewed all the data and in collaboration with CPSA confirmed the flow sheet to see if there are any potential issues with the test work and results to date.

Criteria	Commentary
	2. CPSA submitted core samples representative of the deposit, and Lakeland conducted metallurgical test work using finalized flow sheet, sample preparation methods and reagent regime. These results were used to confirm the test work results and finalize the flow sheet. a. **<u>Reasons for this test</u> –** Conducting metallurgical test work on the accepted flow sheet and reagent regime provide important metallurgical data which in turn can be compared with existing test work data and provide information such as but not limited to: i. Head grade ii. Mass losses and grade to slimes iii. Feed grade to flotation iv. Flotation grade and recovery v. Overall mass balance vi. Determine if flow sheet is acceptable 3. CPSA provided 10 core samples from other areas within the deposit for variability test work. These tests excluded variability test work on the three identified sub-layers A, B and C. The results provide important data to validate the flow sheet and size equipment and to determine if the flow sheet is robust enough to handle entire deposit or define limitations. a. **<u>Reasons for this test</u>-** Metallurgical test work on core samples from different locations within the deposit provided significant data on the potential metallurgical variability of the deposit. This data provides additional metallurgical data to complement existing metallurgical data. The data was used used to design a robust flow sheet and to establish equipment sizes for rate sensitive equipment. Lakeland conducted the metallurgical test work to determine the variability of the deposit, this test work was for each core sample provided and included the following tests: i. Bond mill work index ii. Crushing work index iii. Abrasion index iv. UCS (Unconfined Compression Strength v. Head assay vi. Size by size analysis vii. Specific gravity SG viii. Bulk density ix. Metallurgical bench scale tests tested agreed flow sheet, and included but not limited to; 1. Stage crushing

Criteria	Commentary
	2. Scrubbing 3. Attritioning 4. Milling 5. Classification 6. Flotation 7. Thickening and de-watering 4. CPSA provided a 28 metric ton bulk sample that is representative of the deposit. 5. Lakeland conducted pilot plant beneficiation tests based on the agreed flow sheet. This further validated the flow sheet in a continuous process. a. **Reasons for this test -** The pilot plant provided real time metallurgical data based on timed samples and assays. This data was used to generate an overall mass balance of the process. This information was used to test the robustness of the flow sheet and provide the necessary engineering information. In addition to this; samples of slimes, tailings and flotation concentrate were tested by an independent laboratory to provide information such as settling rates, underflow densities and thickener sizing, flocculent type and consumption, and filtration rates and filter sizing. 6. Concentrate produced by the pilot plant was be subjected to a phosphoric acid pilot plant operation all the way to granular fertilizer. This test provided performance of the concentration the phosphoric acid plant including acid consumption, P_2O_5 losses, and filtration rates. This test demonstrated the ability to make commercial grades of fertilizers (DAP, MAP and TSP).
Verification of sampling and assaying	Multiple test runs
Location of data points	Topography of surface and drill-hole collars was surveyed in UTM – WGS84 by DGPS. Topographical surface is representative of actual topography with sufficient details for resources. Several issues were noted: precision of collar surveys, overall precision of the terrain model, and future work for mining purpose should include re-survey of the area. However, the errors are minor compared to the scale of the deposit and it is the opinion of the author that the errors are not considered as a critical flaw for the resources estimate although it may locally affect the precision of the model.
Data spacing and distribution	Not Relevant to this report

Criteria	Commentary
Orientation of data in relation to geological structure	Bulk sample extracted from the margin of the KEL prospect.
Sample security	The bulk sample was extracted from the trial pit at KEL and transported to Bougrine where it was crushed to -4mm. The crushed sample was placed in bulka-bags and containerised for storage and shipping to Jacobs Engineer in Florida.
Audits or reviews	The results have been reviewed by Mr Michael Kelahan, an independent expert with over 42 years in phosphate beneficiation experience worldwide and is a "qualified person" pursuant to NI43-101. Mr. Kalahan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves".

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Note that some these sub-sections are not relevant anymore, the project being at a resource estimate stage, and all data being assessed and reviewed for 3D resources estimate. These sections have been quoted "NR"

Criteria	Commentary
Mineral tenement and land tenure status	KEL is fully located within the Chaketma exploration licence. Chaketma is held by a joint venture company Chaketma Phosphate SA (CPSA). PhosCo has a 50.99% interest in CPSA. CPSA holds the Chaketma Exploration Permit. CPSA applied to convert the Chaketma Exploration Permit to a Mining Concession in late 2017, ahead of the February 2018 deadline. As at the date of this report, the Chaketma mining concession had not been granted, and application is under consideration by the Tunisian regulatory authorities. The Chaketma Exploration Permit remains valid and in good standing whilst the application is being considered by the Tunisian regulatory authorities. The Company has made representation to the national government and local authorities to ensure good standing. It was not part of ARETHUSE Scope to make a legal Due diligence, but there is no element to our knowledge that should construe the validity of this license. The possibility to technically convert the license to a mining license has been positively assessed in the Scoping Study.

Criteria	Commentary
Exploration done by other parties	Several surveys of the deposits have been conducted since its discovery, including geological mapping. The results of this resources estimate is fully based on modern exploration by drilling carried out by Chaketma Phosphate Project during Celamin and TMS time.
Geology	The KEL deposit, as the whole Chaketma project, is a marine sedimentary deposit of upper Paleocene (Lower Ypresian). It is a single continuous monoclinal level sub-horizontal (bedding < 20°), with a thickness varying from a few meters till 42 meters. It is overlain by a thick Eocene numilitic dolomitic limestone. The deposit is limited by a major NNW-SSE normal fault on it west margin, and is well faulted (E-W and NE-SW) in its northern end. Faulting seems to control the thickness of the deposit, suggesting a structurally controlled subsidence.
Drill hole Information	*NR – 28 tonne bulk sample*
Data aggregation methods	*NR*
Relationship between mineralisation widths and intercept lengths	*NR*
Diagrams	Process Flow Diagram as shown in Figure 5 of this report
Balanced reporting	*NR*
Other substantive exploration data	Beneficiation test work was conducted by Jacobs Engineering between 2015-17 on both drill core and bulk samples. **The following Bench scale test work was carried out:** 1. Size distribution on sub sample of as received sample 2. Bench scale test work carried out on representative sample of crushed -4mm material: 3. Size distribution of crushed -4mm material 4. Size by size analysis of flotation feed 5. Head assay 6. Heavy liquid tests on 2 size fractions 7. Triplicate bench scale flotation tests for the current CPSA process, the modified CPSA process and the

Criteria	Commentary
	flocculent with lower amine addition process. These results will be discussed with CPSA and a single process test work plan will be finalized for the pilot plant testing. 8. Locked cycle flotation test using the chosen process. Bench scale flotation test work was carried out on the crushed -4mm bulk sample. The sample preparation prior to flotation was as per all the other bench scale tests. Three different bench scale flotation test flow sheets were tested with the intent to review the results and make a decision on the appropriate flow sheet to be used for the locked cycle bench scale flotation test. Below are schematics of the three flow sheets that were tested, namely: **1.** – **2 stage silica flotation**. This is the original flow sheet developed by CPSA that was tested in the metallurgical test work – preliminary report CHK-008-0003. The flow sheet consists of a carbonate rougher stage and cleaner carbonate stage. Concentrate from these two stage are subjected to two stages of silica flotation, i.e. silica 1 concentrate is fed to the silica 2 stage producing a final concentrate. **2.** – **Non-ionic flocculent**. This is a modified flow sheet with the same carbonate flotation stages except a non-ionic flocculent is added to silica 1 flotation stage with lower amine collector added. The concentrate from silica 1 is floated in silica 2 but with a higher amine collector compared to the original flow sheet. Allowance was made for a further silica cleaning stage which takes the tail from silica 2 and refloats the material in silica 3. **3.** – **CPSA flow sheet**. This flow sheet is identical to **Flow Sheet 2** but CPSA used starch instead of non-ionic flocculent. **The purpose of the Pilot Plant Test was to:** •Obtain process data for use in the engineering part of the study •Confirm technical data for thickening and filtration of concentrate and tailings from the pilot plant •Provide concentrate for phosphoric acid testing The initial pilot plant runs commenced on the 8th of May 2017, comprised of two four hour runs per operating day. A total of 12 runs were carried out which allowed for plant modifications and resolution of process issues. The analytical results were reviewed and depending on the results some changes were made to the pilot plant. These 12 runs are not reported and were carried out to ensure that the pilot plant operated correctly. The official pilot plant runs commenced on the 23rd May 2017 and 7 runs are reported. The last run was carried out on the 19th June 2017. At the end of the timed run, the samples were prepared for analysis. The following day the test results were reported. These results were reviewed and depending on the results some minor

Criteria	Commentary
	changes were implemented. The operation of the pilot plant was good with very little operational problems. The silica 2 tail followed by a recleaner stage resulted in an overall lower P_2O_5 concentrate grade and slightly increased the MgO grade in the concentrate. However, this stage did increase the overall P_2O_5 recovery and concentrate mass weight recovery. It appears that the ore tested does not warrant this additional flotation stage, however it may be required when processing ore from a different location within the deposit. From an engineering perspective this additional flotation stage should remain and only be used as required. The average feed rate was slightly lower than the initial runs resulting in a longer scrubbing time; however, this did not affect the amount of natural slimes produced. The scrubbing stage produced consistent slime (-20 micron) mass. The milling stage did generate some +150micron material. Attempts were made to reduce this amount of +150 micron but these attempts (additional grinding rods and increased mill residence time) produced excess slimes resulting in poor flotation response. The 7 pilot plant runs and their subsequent results indicated that the feed to flotation averaged 93% passing 150micron and 13.5% -20 micron material. Even with these size fractions present in the flotation feed, targets were met. Rougher carbonate flotation performed well but the carbonate cleaner did not operate properly occasionally resulting in high MgO values reporting to the silica flotation stage. It was concluded that the carbonate cleaner flotation stage would benefit with additional residence time. The last two pilot plant runs incorporated an additional flotation cell operating in parallel with the existing carbonate cleaner flotation stage, which proved successful. Silica flotation operated well but froth removal on the silica 2 flotation was difficult due to excessive frothing and overflow launders too small to adequately remove the froth. Even with these issues the targets were achieved. Overall, the majority of reagent consumption was slightly higher compared with the locked cycle bench scale flotation, with the exception of sulfuric acid consumption. Sulfuric acid consumption was almost 50% lower when compared with the locked cycle bench scale flotation. This lower consumption is attributed to the fact that no water was used to make up the level in the flotation circuit as was practiced during the bench scale tests. The overall pilot plant results are deemed to be conservative and will likely improve on a full scale plant due to

Criteria	Commentary
	better instrumented process control. Overall the operation of the pilot plant produced the following average data: • Feed rate to scrubber – 177.93kg/h • Scrubber discharge % solids – 30% • $P2_{O5}$ head grade – 22.90% • Slimes losses (% by mass) – 4.33% • Slimes grade – 15.16% $P2_{O5}$ • Flotation feed size % passing 150micron – 93.0% • Total Phosphate recovery – 80.8% • Final concentrate grade – 30.34% • Final Concentrate grade MgO – 0.59% • Mass weight of concentrate (total) – 60.7% • Flotation time – total 16 minutes • Total Sulfuric acid consumption (feed to flotation) – 2.98kg/t • STPP consumption (feed to flotation) – 1.64kg/t • Carbonate collector consumption (feed to flotation) – 2.42kg/t • Flocculent consumption – 0.006kg/t • Total amine collector consumption –0.43kg/t
Further work	The metallurgical results in this report provide baseline data on the recoveries of P_2O_5 from Chaketma ores by floatation, PhosCo and its consultants are of the opinion that these recoveries and concentrate grade can be increased and the process route optimised by further study and analysis. The results reported here provide confidence in the viability of the project. Key work programs anticipated by PhosCo to confirm and optimise the existing project studies include: 1. Metallurgical optimisation test work programs noted above, based on sampling guided by the different phosphate mineralisation layers which are planned to optimise recoveries specific to each layer. 2. These findings will be required to optimise mining extraction and pit design, as a key step toward conversion of Mineral Resources to Ore Reserves.

Criteria	Commentary
	3. Further drilling is planned over the remainder of the KEL prospect with the aim of extending high confidence Resources over the entire prospect. Approximately 130 drill holes are estimated to be required to provide a similar drill density over the 53% of KEL that has not been drilled as exists over the established Resources. PhosCo intend to consider an Exploration Target prior to Resource drilling. 4. The GK MRE is in the process of being updated to include an additional 21 new holes, taking the total number of holes to 31 at that prospect from the 10 used in the 2013 MRE. Resource estimation methodologies applied in the 2022 update of KEL MRE will also be applied to GK.