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Mining Sector
Core activities: Mining
Core area of activity: Guinea-Bissau, West Africa
Listing: TSX Venture (PCP.V)

Plains Creek Phosphate

Plains Creek Phosphate offers investors exposure to a development phosphate project near Farim in the West African nation of Guinea-Bissau. The company has mining licences and permits in place and is advancing the project toward bankable feasibility with an eye to achieving production during 2013.

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Initiation Report

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I certify that this report represents my own opinions.

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About Objective Capital:

Objective Capital is a leading UK provider of objective corporate research.

We offer investors two levels of insight – a regular survey of the complete small and mid-cap segment, highlighting those stocks where attention should be focused, and our detailed institutional-quality, sponsored research coverage. As always, our research doesn't offer trading recommendations or advice but an objective uptodate assessment of the prospects, and risks, of the companies we cover.

While the companies we cover sponsor our research, it is always written on behalf of our readers. It is of the essence of our research that it be **independent** — that is opinions, estimates and valuations be solely those of Objective's analyst; **objective** — that is based upon verifiable data; and **transparent** — that is based upon explicit assumptions.

Our research complies with all FSA recommendations as may arise out of CP172 and CP176, i.e., that it be independent of any broking or trading interests; and CP205, i.e., that it comply with standards for objectivity.

Plains Creek Phosphate is a Canadian-based mining and exploration company listed on the TSX Venture Exchange that is focused on advancing the Farim Phosphate Project in Guinea-Bissau to production. The deposit is considered by management to be a high quality, world class deposit capable of supporting a long-term mine.

- ***Farim hosts a substantial measured and indicated resource***
  The Farim deposit contains a measured and indicated resource of 84 million tonnes, averaging 29.9 percent phosphorous pentoxide (P_2O_5), with a further inferred resource of 44 million tonnes, averaging 29.6 percent P_2O_5.

- ***Farim has cleared prefeasibility and a mining licence is in hand***
  The Farim project is fully permitted and Plains Creek has a Production Agreement, obtained in 2009 by GB Minerals AG, now a Plains Creek subsidiary, from the Guinea-Bissau Government. The project has received favourable terms from the government, including 100 percent ownership, a ten-year tax holiday and a production royalty of just 2 percent. Plains Creek is currently conducting work leading to a bankable feasibility study to be completed late this year.

- ***Plains Creek envisages a long-term profitable mining operation at Farim***
  The current mining plan calls for mining operations to extract 2 million tons of phosphate rock per year over the next 25 years using a conventional and simple method. Dredging will remove an average of 39 metres of unconsolidated clay-sand overburden, followed by further dredging of the phosphate ore. A phosphate slurry will be pumped from the dredge to a processing plant. No drilling or blasting will be required. A simple and efficient three stage beneficiation process has been designed. Following processing, the material will be transported to port via an 80-kilometre slurry pipeline.

- ***Farim lies in northeast Guinea-Bissau in West African***
  Although the Farim Phosphate Project offers considerable economic potential, its location in West Africa carries considerable political and sovereign risk. Although Plains Creek currently enjoys favourable royalty and taxation rates, there is a likelihood these may be renegotiated, and even a possibility of the government or its agents acquiring a stake in the project once profitable mining ensues.

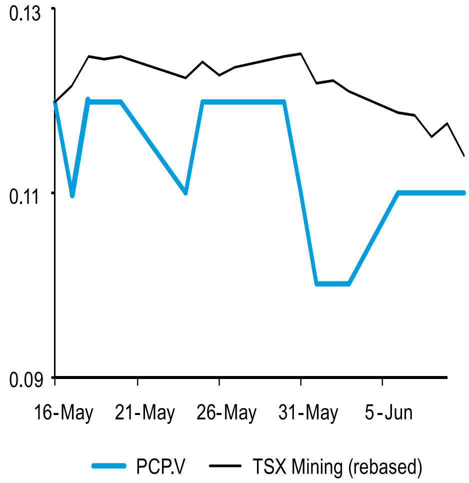
- ***The Farim project offers considerable blue-sky potential***
  Plains Creek believes the Farim project offers strong potential for a substantial increase in available phosphate resources, to the north, west and south of the main area. Drilling is under way to increase tonnage and upgrade the resource classifications. As well, more of the delineated resource may be included in the mine plan by increasing the stripping ratio beyond the current plan. Further, exploitation of a lower zone, which contains an estimated 450 million tonnes of material that averages between 10 percent and 15 percent P_2O_5 is an option.

- ***Our valuation of Plains Creek yields a valuation of C$0.35 per share***
  Based on our valuation of the Farim phosphate project, we arrive at a base-case valuation of C$0.35 per share, with an optimistic valuation, based on higher probabilities of success, of C$0.50 per share.

Key Points

14 Jun 2011
Price: C$0.11

Price chart (C$)



Value of equity	
Expected Value	C$122.6m
Value per share	**C$0.35**
Optimistic Scenario	C$170.7m
Value per share	**C$0.50**

Company details	
Quote	
Shares	
- TSX Venture	PCP.V
Hi-Lo last 12-mos. (C$)	0.22 - 0.09
Shares issued (m)	344.6
Fully diluted (m)	386.4
Market Cap'n (C$m)	37.9
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Overview

Plains Creek Phosphate is a Canadian domiciled, TSX Venture Exchange-listed resource sector company developing the Farim phosphate deposit in Guinea-Bissau, a small West African nation. The deposit is a high quality, development project containing a substantial phosphate resource, capable of supporting a long-life mining operation. Farim is an advanced exploration project that has successfully cleared prefeasibility and is being advanced to bankable feasibility later this year.

Farim hosts a substantial phosphate resource

Based on drill hole data spanning over 30 years, Farim hosts a NI 43-101-compliant measured and indicated phosphate resource of 84 million tonnes, averaging 29.9 percent P_2O_5. The deposit also hosts an inferred phosphate resource of 44 million tonnes, averaging 29.6 percent P_2O_5.

Of these resources, an area containing 68 million tonnes at an average grade of 29.9 percent P_2O_5 has been delineated as suitable for mining, based on a maximum stripping ratio of 20 to 1. This material lies an average of 40 metres below surface and is an average of 3.3 metres thick.

Plains Creek proposes a major, long-term mining operation at Farim

Based on the substantial resource, Plains Creek proposes to mine Farim at a rate of approximately 8,000 tonnes per day, or an annual rate of 2.76 million tonnes per year. The phosphate rock would be dredged to the surface, upgraded to approximately 32.5 percent P_2O_5, and transported via slurry pipeline to port, some 80 kilometres distant.

Based on the resource within the proposed mining area, the operation has an estimated life of 25 years. This lifespan could be increased significantly if additional resources can be included in the mining plan through an increase in the stripping ratio, or if additional resources can be delineated.

Farim successfully cleared prefeasibility last year

In 2010, Plains Creek received a successful preliminary economic assessment based on the company's proposed mine plan. Pre-production capital costs were estimated at US$288m, spread across a two-year construction period, with additional sustaining and closure costs of US$275m over the life of mine. Mining costs were estimated at US$25 per tonne, treatment costs at US$15 per tonne, power, water and administrative costs at US$15 per tonne, and transportation and port charges of US$5 per tonne.

Against total operating costs of US$60 per tonne, the preliminary economic assessment assumed phosphate revenues of US$100 per tonne, a reasonable expectation given the current price, which is in the neighbourhood of US$170 per tonne.

The preliminary economic assessment achieved a positive outcome, with a pre-tax net present value of US$1.5bn. Discounted at 10 percent, the study achieved a pre-tax net present value of US$254m.

Planning progresses with a bankable feasibility study expected by end 2011

With successful preliminary economic assessment in hand, Plains Creek is proceeding to bankable feasibility later this year, based on its existing plan to mine an area of the Farim phosphate deposit which lies on the northern side of the River Cacheu.

The company has hired GBM Minerals Engineering of the UK to conduct the bankable feasibility study, which is expected to lead to a positive production decision within the year. In tandem with the feasibility study, Golder Associates of London has been subcontracted by GBM to update the existing resource model for Farim, with the intent of developing a definitive mine plan for the operation.

Drilling crews have been mobilised to undertake geotechnical drilling and where necessary, infill resource drill holes, which is expected to increase the calculated resource and upgrade the inferred and indicated portions to higher classifications. Preliminary metallurgical samples have been taken from existing cores for bench-scale testing. Additional large-diameter drilling has commenced on site to collect a representative sample of phosphate ore weighing approximately five tonnes for metallurgical pilot tests and the production of product samples for potential off-take partners.

Engineering work has also recommenced on the slurry pipeline, beneficiation plant design, infrastructure and roads.

The study is expected to be completed in the fourth quarter of 2011.

Plains Creek has a favourable agreement with the Guinea-Bissau government, but there is still considerable political and sovereign risk

Plains Creek Phosphate currently has a favourable agreement with the Government of Guinea-Bissau that calls for a production royalty of 2.0 percent and a 10-year tax holiday, and 100-percent ownership of the project. The terms of the company's licences are held for a 25-year term and upon expiry may be renewed for another 25-year term.

Nevertheless, in a climate of political turmoil and sudden upheavals, we believe there is considerable risk that the current government, or possible successor governments, may unilaterally act to substantially increase the royalties and taxation rates imposed on the project.

Guinea-Bissau has one of the lowest gross domestic products in the world, currently less than US$1.0bn. This is just two-thirds of the undiscounted net present value of the Farim project, as determined in the preliminary economic assessment. This clearly exacerbates the temptation to raise government funds through taxation of, or acquisition of a substantial ownership interest in profitable mining ventures, especially by a government with no direct link to the original agreement signed with GBM.

Not withstanding the risks of operating in Guinea-Bissau, the attractive economics of the Farim Phosphate Project make it a candidate for acquisition by a larger mining company or end user. Companies based in Asia, notably China and India, are more likely candidates as they are generally more amenable to assuming such risks. A takeover bid from a mining major could prove beneficial to Plains Creek's shareholders compared with the potentially dilutive impact of the company proceeding with project financing on its own.

Valuation

Our valuation approach

We have valued Plains Creek Phosphate based on assessing the economic potential of the company's key property, the Farim Phosphate Project in Guinea Bissau. In so doing we have accounted for: the likelihood that an economic resource will ultimately be proven; the likelihood that feasibility will be established, after considering metallurgical, social and financing issues etc; and the likely economics if actual mining were to occur, considering parameters such as tax, operating costs, revenues etc.

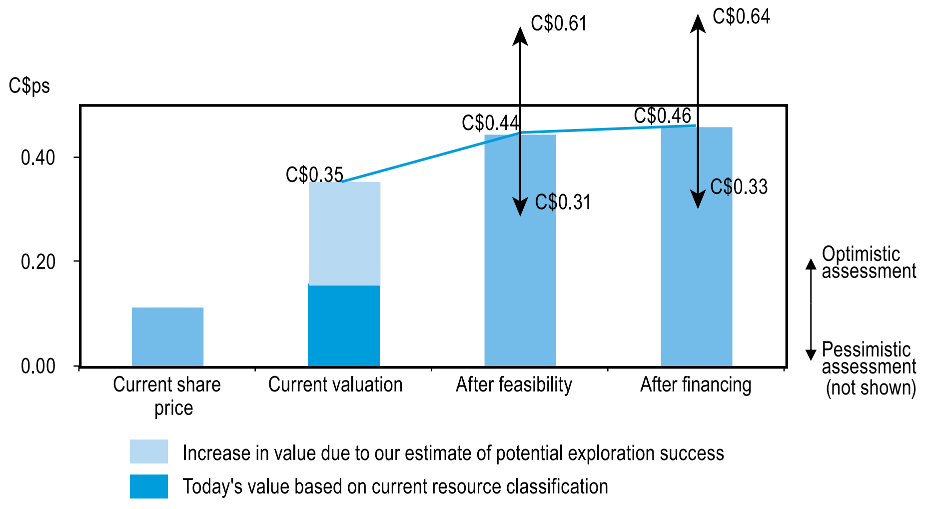
One of the key issues that any mining analysis must consider is the problem posed by the dependence of our assessment on commodity prices. This issue takes two forms – what will be the price environment when mining eventually occurs; and the operating dynamics in response to changing mining prices.

From a valuation perspective, the aspect of operational dynamics that is of interest is the ability to "mothball" operations during periods when the commodity price is below the marginal cost of extraction. This creates what is frequently referred to as "optionality" – something that traditional NPV fails to capture. Intuitively this can most easily be understood by thinking of NPV as assuming that positive and negative deviations from our mid-case have a similar likelihood of occurring and hence balance each other – however, in mining, the downside is capped at the cost of "mothballing" the site.

We capture these aspects by valuing each year's production as an option assuming that prices revert to mean over the long run – that is, the mine will only operate if the commodity price is above the extraction cost. In essence, rather than valuing that year's production as we would in an NPV model as the discounted value of the cash-flow estimated using the mid-case for the commodity price we value the probability that the price is above the extraction cost.

In valuing the economic potential of resource projects, we assume that while commodity prices are volatile they return to an inflation-adjusted, long-run mean. For example, phosphate rock has historically traded at approximately US$60 per tonne in current dollars since the 1950s, with deviations from mean normally correcting over 12 years with a volatility of 27 percent.

What Plains Creek could be worth - now and in the future



Source: Objective Capital

Fair value summary (US$m)

Scenario	Base	Pessimistic	Optimistic
Property portfolio			
- Farim Phosphate Project*	130.6	92.2	184.4
- other	0.0	0.0	0.0
Total	130.6	92.2	184.4
Less: overhead	4.8	4.8	4.8
Expected value of portfolio	125.8	87.4	179.6
Add: other investments	2.0	2.0	2.0
Add: starting cash + new funds	6.4	6.4	6.4
Total current value for firm	134.1	95.7	187.9
Less: bank & other debt	0.0	0.0	0.0
Total value to equity claims	134.1	95.7	187.9
Less: warrants and options	11.5	7.4	17.2
Ordinary equity holders	122.6	88.3	170.7
Value per share (US$)	**0.36**	**0.26**	**0.51**
Value per share (C$)	**0.35**	**0.26**	**0.50**

* note, we assume the current agreement on taxes and royalty rates will be renegotiated to higher rates after 10 years

Expected fair value of Plains Creek

Scenario	Risked mineable resources (m tonnes)	Farim property value (US$m)	PCP Valuation (C$m)	Value per share (C$)
Base case outlook	**48.4**	**130.6**	**119.8**	**0.35**
Value for scenarios of further exploration success				
Full proved up	61.1	141.8	132.6	0.38
Optimistic outlook	61.1	184.4	170.7	0.50
Pessimistic outlook	38.3	92.2	88.3	0.26
Value with no further exploration success				
Current resource estimate	37.3	58.0	57.4	0.17

Notes:

- *'fully proven up' scenario assumes that current mineable resource estimates are upgraded to 'Proven' status*
- *for further details see Farim property section*

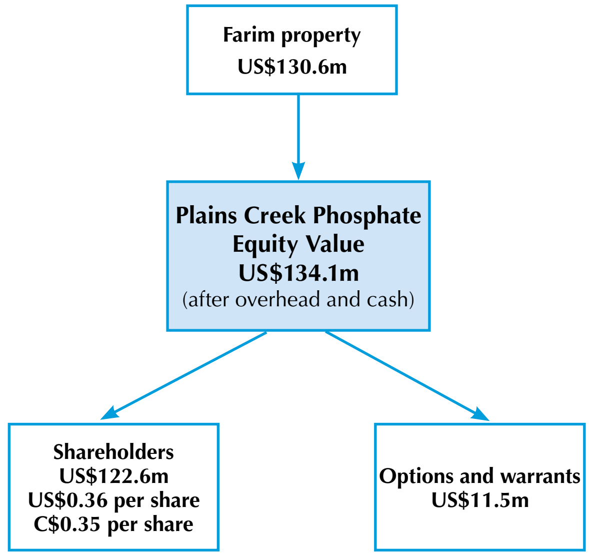
Sensitivity to market assumption on...

Long run real phosphate price (US$/t)	40	50	**60**	70	80
Value (C$/share)	0.04	0.20	**0.35**	0.45	0.54
Change in value (%)	*-89%*	*-43%*		*+28%*	*+54%*
Time for phosphate price to revert to mean (years)	10	11	**12**	13	14
Value (C$/share)	0.25	0.30	**0.35**	0.39	0.44
Change in value (%)	*-29%*	*-14%*		*+13%*	*+26%*
Volatility of phosphate price (%)	*22%*	***27%***	*32%*	*37%*	*42%*
Value (C$/share)	0.29	**0.35**	0.41	0.50	0.60
Change in value (%)	*-15%*		*+19%*	*+43%*	*+72%*
Interest rate (%)	*2.8%*	*3.0%*	***3.2%***	*3.4%*	*3.6%*
Value (C$/share)	0.36	0.35	**0.34**	0.33	0.32
Change in value (%)	*+3%*		*-3%*	*-6%*	*-9%*
Sovereign risk premium (%)	*0.00%*	*5.00%*	***10.00%***	*15.00%*	*20.00%*
Value (C$/share)	1.57	0.74	**0.35**	0.15	0.04
Change in value (%)	*+352%*	*+111%*		*-56%*	*-88%*

Sensitivity to operating assumption on ...

Change in recovery rate (%)	*70%*	*73%*	***75%***	*78%*	*80%*
Value (C$/share)	0.26	0.31	**0.35**	0.39	0.42
Change in value (%)	*-25%*	*-12%*		*+11%*	*+22%*
Operating Costs (US$ per mined tonne)	41.80	**44.00**	46.20	48.40	50.60
Value (C$/share)	0.37	**0.35**	0.32	0.28	0.24
Change in value (%)	*+8%*		*-9%*	*-19%*	*-30%*
Increase in Capital Cost (%)	***+0%***	*+10%*	*+20%*	*+30%*	*+40%*
Value (C$/share)	**0.35**	0.32	0.29	0.26	0.24
Change in value (%)		*-8%*	*-16%*	*-24%*	*-32%*

Components of Plains Creek's entity value



Farim Phosphate Project valuation (US$m)

Scenarios for exploration success	Base	Optimistic	Pessimistic
Net value of production	**432.7**	432.7	432.7
Expected mining success*	***74%***	*90%*	*62%*
Expected net value of production	**319.5**	390.4	269.1
Add: tax shield on depreciation charge	**19.1**	19.1	19.1
Less: development & operational capex	**155.9**	155.9	155.9
Value of mining operations	**182.8**	253.6	132.3
Probability of putting into production **	**76%**	*76%*	*76%*
Expected value of deposit	**138.9**	192.7	100.5
Less:			
- expect pre-development costs***	**3.7**	3.7	3.7
- further exploration costs ****	**4.6**	4.6	4.6
Expected value of project	**130.6**	184.4	92.2
effective risk haircut	***53%***	*35%*	*66%*
Ownership	***100%***	*100%*	*100%*
Plains Creek Phosphate's share	**130.6**	184.4	92.2

* portion of reserve/resource expected to be converted to a mineable resource, probability-weighted for our confidence they will be proven-up

** probability of successfully completing pre-feasibility, full feasibility and required permitting and actual construction in realistic timeframe

*** shown as expected value of being incurred after allowing for liklihood of reaching each development stage

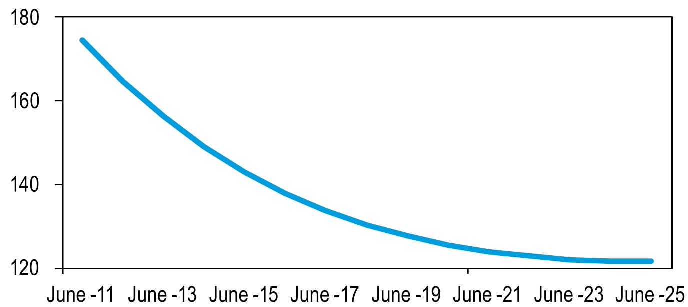
**** present value

Commodity assumptions

Phosphate rock prices are assumed to be mean reverting based on:

Historic long run real level (shown at current prices)	60 US$/t
Avg time to revert to mean	12 years
Volatility	27%
Inflationary price growth	2.5%

Expected phosphate rock price (inflation adjusted) (US$/t)



Our key assumptions

We model Plains Creek's Farim project based on the following key assumptions:

- the property currently has an NI 43-101 measured and indicated resource of 84 million tonnes of 29.9 percent P_2O_5, of which 68 million tonnes will be incorporated into the mine plan.
- we envisage a mining rate of 8,000 tonnes per day, averaging some 2.76 million tonnes per annum at an average recovery rate of 79.5 percent, sufficient for a 25-year mine life.
- we assume capital costs of US$300m, sustaining and closure capital costs of US$275m and mining, processing and transportation costs of US$45 per tonne of mined ore (US$60 per tonne of shipped concentrate).
- we assume a success probability of 80 percent for the proposed bankable feasibility study to model inherent risk remaining in the project.
- we assume the initial favourable terms of the company's agreement with the government of Guinea-Bissau, but assume that as the Country re-establishes its credibility in the international community that the government will take the opportunity to renegotiated at some point. We consequently make key changes throughout the life of our model to account for what we expect will be higher royalties, and taxes enacted by the current or successor governments. We assume that, after the first ten year, the royalty rate will increase to 5 percent and the effective taxation rate to 40 percent.

Our results

After allowing for likely economics, exploration potential and development risk our analysis suggests an expected value of C$130.6m for the Farim Phosphate Project. We ascribe current nominal book values of C$8.4m for the company's remaining assets, primarily cash and prepaid expenses. After allowing for corporate overhead and outstanding warrants, our assessment of Plains Creek's ordinary equity results in a base-case current valuation of C$122.6m, or C$0.35 per share, with an optimistic current valuation of C$0.50 per share, assuming higher probabilities of development success.

Our analysis suggests that Plains Creek's current value is based largely on the expectation of development and production success at Farim. Should the bankable feasibility study fail to demonstrate an acceptable cost vs. revenue ration, the project economics may not be sufficient to justify extraction. Our base-case and optimistic outlooks, assuming success at all stages through financing, result in valuations of C$0.46 and C$0.64 per share respectively. Successful delineation of additional resources beyond our hypothesised estimates could add further value.

Operating in Guinea-Bissau presents special risks, including the possibility of sharply higher royalty rates, or of outright expropriation of an interest in the project. We have modelled the effects of these possibilities in our assessment of the Farim phosphate project, the results of which are presented in tabular form herein. For instance, an increase in the royalty from 2 percent to 10 percent in the year 2020 would decrease our base-case valuation to C$0.32 per share.

Senstivity to renegotiation of royalty rate

Valuation (C$ps)	**Renegotiated royalty rate**		
Starting from year	*7.5%*	*10.0%*	*12.5%*
2020	0.33	0.32	0.30
2022	0.34	0.32	0.30
2025	0.33	0.32	0.30

If no renegotiation then the valuation would be C$0.36

Plains Creek Phosphate's Farim phosphate project offers excellent potential for development and exploitation, but it currently is a prefeasibility project with continuing risks to successful development.

Realising the company's potential will depend on the ability of Plains Creek to achieve a successful bankable feasibility study, arrange necessary financing and construct and operate a Farim mine within the cost and revenue parameters assumed in the preliminary economic assessment. Therefore, the Farim project still carries significant risk.

Plains Creek's success depends upon...

...the company operating harmoniously in a politically unstable region

Plains Creek's project is in northeastern Guinea-Bissau, a West African nation that has experienced political turmoil since gaining independence in the 1970s. Just over two years ago, the country's President was assassinated and several predecessors were removed from office suddenly, by undemocratic means. As a result, there are no guarantees that Plains Creek's permits will remain in good standing, or that the current government royalty and tax policy, which strongly favour the company, will remain in effect. Further, there is always the risk of profitable mining ventures being expropriated or nationalised, in part or in whole.

...the company completing a bankable feasibility study without substantial cost increases

Plains Creek's successful preliminary economic assessment resulted from comparatively low capital and operating costs for what is a substantial mining proposal. Failure to constrain these costs during the detailed engineering required at the bankable feasibility stage could impair the project economics and render Farim uneconomic. Based on existing information, this risk appears suitably low.

...major geotechnical, dilution, mining and processing issues having manageable solutions

The phosphate ore has only been observed in diamond drill core and unconsolidated overburden. The topsoil has been examined in a box cut and shaft excavated by GB Minerals. It is considered that ground conditions will be manageable in both the phosphate ore layer and the overlying unconsolidated clayey sand layers. It remains an assumption that mining can successfully be carried out using conventional shallow open pit and dredge mining methods, based on the soft nature of the ore examined in drill core.

Similarly the observation of the unconsolidated overburden indicates that this material would generally be amenable to dredging. The application of dredge mining and the design of the mining layout and geotechnical issues are now being studied further, in preparation of the bankable feasibility study. There is the risk that these investigations could add complexities to the operation, and hence increase costs.

A 10-percent-dilution factor and ore loss factor of 10 percent was used to account for waste mined by a production dredge, because these are undulating surfaces and because of the inter layer bands of sand and clay, and other calcareous material that could occur within the phosphate layer. There is a risk that higher factors will be required, although in practice elsewhere, dredge operators normally achieved sufficient levels of operating skill that enabled dilution to be kept to a minimum.

...phosphate rock prices remaining strong

Plains Creek's preliminary economic assessment was based on a price of US$100 per tonne for phosphate rock production. This value is well below the current price of approximately US$170 per tonne, but it is significantly higher than the long-term, inflation-adjusted mean of US$60 per tonne. We expect the price to revert toward its long-term average, but our modelling shows reasonable agreement with the price assumption of the Farim PEA. Nevertheless, there is a risk that falling prices will render Farim uneconomic.

...Plains Creek being able to successfully raise capital to construct a mine

The success of the Farim project ultimately depends upon the company being able to raise funds for construction and working capital for the proposed mine. Ideally, the majority of the required cash would be raised through debt, but if large amounts of equity capital are required, existing shareholders would suffer substantial dilution. Further, it may be necessary to bring in a major partner, transferring a majority interest in the project as a result.

Plains Creek Phosphate, a Canadian-domiciled, TSX Venture Exchange-listed junior resource company was created in 2007 and initially listed as a capital pool shell named Resource Hunter Capital Corp., following an initial public offering of 3.5 million shares at C$0.10.

In 2008, Resource Hunter attempted an acquisition of Turnagain River Exploration Inc as its qualifying transaction, but the agreement fell through as the financial crisis deepened in late summer, 2008. Resource Hunter ultimately completed its qualifying transaction in 2010, acquiring an option on the Dora gold project. This project has recently been dropped.

A 10-percent-dilution factor and ore loss factor of 10 percent was used to account for waste mined by a production dredge, because these are undulating surfaces and because of the inter layer bands of sand and clay, and other calcareous material that could occur within the phosphate layer. There is a risk that higher factors will be required, although in practice elsewhere, dredge operators normally achieved sufficient levels of operating skill that enabled dilution to be kept to a minimum.

PCML had an agreement to purchase up to 100 percent of the issued and outstanding shares of GBM AG, a Switzerland-based company that held a valid production agreement covering the Farim project , including licences, with the Government of Guinea-Bissau.

The licences gave GBM the right to use the Farim Phosphate Project for mineral mining and allow the company to develop, mine, produce, treat, commercialise and sell minerals, mining products and derivatives produced in the Farim Phosphate area. As part of the Production Agreement there are also guarantees and financial incentives provided by the Government of Guinea Bissau.

The production agreement has an initial validity for 25 years and may be extended for a second period of 25 years. The agreement sets out the company's rights and obligations in respect of exploitation and regulates the amount of taxes and royalties to be paid. It also sets out rights of access, use, the building of infrastructure including ports roads and pipelines, equipment and instruments, the manufacturing of fertiliser products, medical assistance, personnel, transport, telecoms etc.

As PCML had no revenues and insufficient working capital, it could not acquire GBM or carry out a work programme on the Farim Phosphate Project. It therefore sought further capital by becoming a public listed company through an amalgamation with Resource Hunter.

The transaction closed early this year, with the company issuing 331 million shares to the shareholders of Plains Creek. Concurrently, the company completed a private placement, raising C$24m through the sale of 184.8 million shares at C$0.13.

Resource Hunter changed its name to Plains Creek Phosphate in April 2011. The company currently has 344.6 million shares issued and outstanding. As of March 31 2011, Plains Creek had 1.9 million stock options outstanding, exercisable at a weighted average of C$0.11, and 18.1 million share purchase warrants, exercisable at C$0.10. In April 2011, the company issued a further 22 million options to employees and insiders, exercisable at 13 cents.

Summary of agreements with the Government of Guinea Bissau

The concession area for the Production Agreement is defined as the area in which the Farim deposit is located. If the deposit extends beyond the present boundaries the production agreement may be modified to include the extension area. The construction of buildings, roads the port is at the discretion of GBM and no taxes, licence fees or other costs will be levied by the Guinea Bissau government.

Plains Creek has acquired GBM and operates the company as a subsidiary. GBM in turn continues to hold its 100-percent interest in the Farim Phosphate Project, through the production agreement finalised with the Guinea-Bissau government in May 2009.

The agreement negotiated by GBM is that there will be no government participation, an agreement duration of 25 years, with the option to renew for a successive period of 25 years. There will also be no taxes, license fees or other costs for a 10-year tax holiday from the start of commercial operations.

The Government will only earn a 2-percent tax deductible royalty from production startup.

Rights and obligations in the agreement relate to access and use of the concession, the building of infrastructure, the employment of expats and conditions relating to imports of equipment and the exporting of phosphate products.

Agreements on infrastructure

The company will be responsible for the construction of its own infrastructure including the port, roads, pipeline and warehousing and loading facilities. The World Bank is planning to finance construction and upgrading of an existing paved road from Farim to Mansoa (56 kilometres) and an existing road (14 kilometres) from Mansoa to Dugal at the turnoff to the port. Plains Creek will remain responsible for building the road from Dugal to Port Chegue.

Power requirements will be met by the company at first with diesel or heavy oil generators at mine site where about 10-15 MW will be needed. Also, it has been announced recently that a 130 MW oil fired power station will be built at Bissau and a power line will be planned at a later stage to supply the mine. This power project is to be funded by the World Bank and operated by a US company. Plains Creek are not expecting to rely on this development.

The company will build an 80-kilometre pipeline from Farim to the port at Pointe Chuguewhich, which is 18 kilometres east of the capital city of Bissau. The depth at low tide is 12 metres and this will allow vessels of 35,000 to 40,000 tonnes vessels to load and access the Atlantic Ocean.

Introduction

Phosphates are the naturally occurring form of the element phosphorus, which is found in many phosphate minerals. In mineralogy and geology, phosphate refers to a rock or ore containing phosphate ions.

Inorganic phosphates are mined to obtain phosphorus for use in both agriculture and industry. Rock phosphate occurs in Algeria, Egypt, Israel, Morocco, Mauritania, Senegal, Tunisia, Togo, Jordan, China and the USA. These countries have, or are developing, phosphate mining operations.

Rock phosphate (phosphorus pentoxide – P_2O_5) is one of three nutrient products or fertilisers, which are used extensively throughout the world in agricultural food production. The other two are potash, in the form of potassium chloride (KCl) and nitrogen, in the form of ammonium nitrate (NH_4NO_3). Currently, world demand for fertiliser is supplied 61 percent by nitrogen, 23 percent by phosphates and 16 percent by potash.

The fertiliser industry is the primary market for phosphate rock and the primary driver in this market is the need for food, which in turn is driven by the size and wealth of the population.

The three main factors impacting on this demand are:

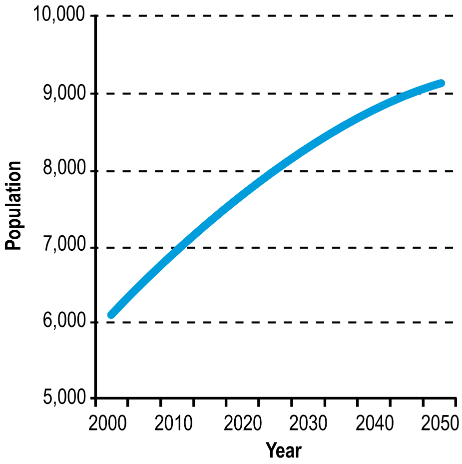
- increases in world population at a rate of about 75 million per year
- increasing wealth in emerging economies such as India, China and Brazil
- decreases in arable land worldwide as population grows

The world's population stands at 6.92 billion people and projections indicate that it will surpass seven billion next year and rise to over nine billion by 2045. Asia accounts for 60 percent of the world's annual population growth. The world population increase consistently raises the demand for fertiliser, at a rate of about 2 percent per year.

Two other factors play an important role in the demand for phosphate fertiliser. As the emerging economies industrialise and the wealth of people in those countries increases, there develops an appetite for a more varied diet and more food. This leads to an increase in food production in those countries. Also, across the world the amount of arable land per person has decreased by almost 50 percent since the 1960s.

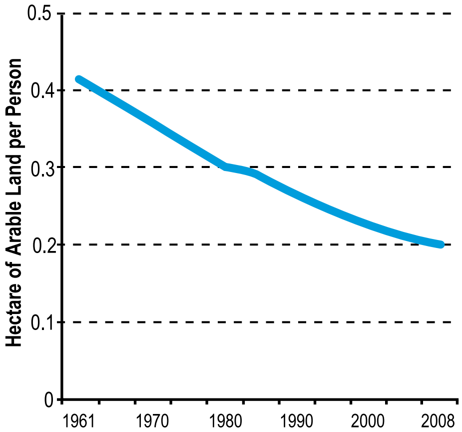
Current forecasts indicate that the decline in arable land is accelerating as population increases worldwide. As arable acreage reduces the demand for fertilisers is increased enabling the remaining land to be farmed more productively.

World population growth (m)



Source: International Fertiliser Association

Arable land per person



Source: International Fertiliser Association

Uses of phosphorus

Some 90 percent of mined rock phosphate is used to produce fertilisers but there are many other industrial processes which need rock phosphate as a raw material to produce phosphate compounds. Phosphorus as a nutrient is vital to human, animal, and plant life. It is one of the most common substances in the environment, occurring naturally in food, water and the human body. In the body, phosphorus is present in the genes, teeth, bones and even muscles which work because of the phosphorus in adenosine triphosphate.

A single phosphorus compound can have a broad range of applications. For example, sodium tripolyphosphate (STPP), a critical ingredient to the performance capabilities of automatic dishwasher detergents, is also used to preserve the moisture and flavour of shrimp and ham. It is also used in mineral processing applications.

Calcium added to phosphorus compounds produces monocalcium phosphate, a leavening agent in baking to make biscuits tender. Dicalcium phosphate is used as a polishing agent in toothpaste, and tricalcium phosphate is the conditioning agent in salt that keeps it flowing freely.

Phosphoric acid is a phosphorus derivative in common use. Many soft drinks contain phosphoric acid, which adds tartness to their flavour. In many water bodies, phosphorus is the limiting nutrient and controlling its level is an important step in preventing eutrophication.

There are a few characteristics that define phosphate properties, mainly molecular structure and pH (generally in a 1-percent solution). These determine the functionality of phosphates that in turn determine how the phosphates are used. They contribute buffering strength, sequestering (or chelating) power, dispersion and absorptive capabilities, and solubility. Phosphates are usually used as compounds of phosphate ions in combination with one or more common elements, such as sodium, calcium, potassium, and aluminium.

Mine production

Some 90 percent of phosphate rock resources occur as sedimentary marine phosphorites, whilst 10 percent occurs in igneous deposits. The sedimentary deposits contain contaminants such as uranium, thorium and cadmium, which must be separated during processing.

The largest sedimentary deposits are found in northern Africa, China, the Middle East, and the United States whilst significant igneous occurrences are found in Brazil, Canada, Russia, and South Africa. For the long-term future, large phosphate resources have been identified on continental shelves and on seamounts in the Atlantic and Pacific Oceans.

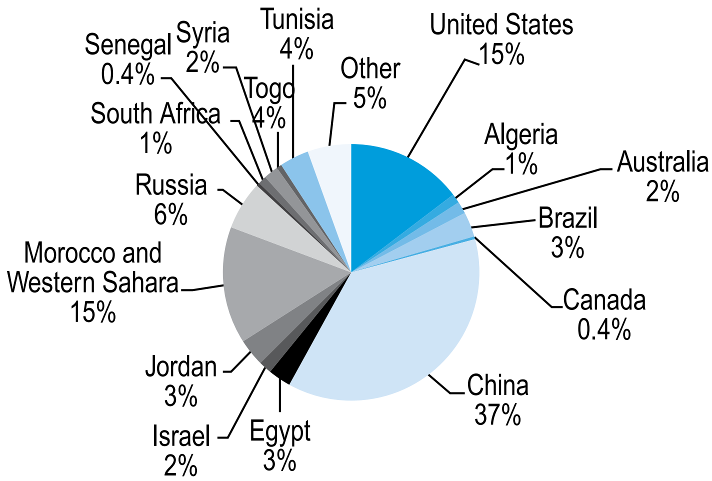
World phosphate rock mine production & reserves, t 000's 2009, 2010.			
	Mine production		
	2009	2010 est.	Reserves
United States	26,400	26,100	1,400,000
Algeria	1,800	2,000	2,200,000
Australia	2,800	2,800	82,000
Brazil	6,350	5,500	340,000
Canada	700	700	5,000
China	60,200	65,000	3,700,000
Egypt	5,000	5,000	100,000
Israel	2,700	3,000	180,000
Jordan	5,280	6,000	1,500,000
Morocco and Western Sahara	23,000	26,000	50,000,000
Russia	10,000	10,000	1,300,000
Senegal	650	650	180,000
South Africa	2,240	2,300	1,500,000
Syria	2,470	2,800	1,800,000
Togo	850	800	60,000
Tunisia	7,400	7,600	100,000
Other countries	8,620	9,500	620,000
World total (rounded)	166,000	176,000	65,000,000

Source: USGS

The sedimentary deposits start with a relatively high concentration of phosphate, but they can only be processed to about 32 percent end-use concentrate. In contrast, the much rarer and comparatively "cleaner" igneous deposits start with a lower in-ground grade but can be concentrated to up to 40 percent. Because it is easier to separate and treat igneous deposits, it is possible to recover more than 90 percent of the total phosphate from these sources, while recovery of around 80 percent is the maximum for sedimentary deposits.

Following declines in output in 2008 – 2009, phosphate rock consumption and trade increased worldwide in 2010. Producers maintained production at about the same level as in 2009, endeavouring to lower stocks of phosphate rock which built up during the recession. As stocks decreased, the pricing of phosphoric acid began to rise from around US$90 per ton to about US$150 per ton during the third quarter.

World phosphate rock production



Worldwide phosphate production in 2010 was roughly 176 million tonnes of which China, Morocco and the United States represent roughly 67% of the global phosphate rock supply.

Source: USGS

Phosphate rock processing to manufacture fertiliser

Mining operations process the phosphate rock to remove waste material and to prepare a product which contains 32% to 33% P_2O_5. This material is then transported to a chemical plant for fertiliser production. The phosphate rock is transformed in the following process stages:

1. in the plant, molten sulphur is burned to produce sulphuric acid
2. the phosphate rock is crushed and milled
3. in a phosphate reactor, the phosphate rock is mixed and reacts with the sulphuric acid to create concentrated phosphoric acid from which fertiliser is manufactured
4 the phosphoric acid is then mixed with ammonia in a second reactor to form diammonium phosphate (DAP) or monammonium phosphate (MAP). This solid product is then granulated and dried before passing to stores for distribution to markets
5. the phosphate fertiliser may also be mixed with potassium chloride, KCl

Phosphate fertiliser chemistry

Phosphates are excellent fertilisers. The presence of phosphorus in the soil is vital for successful plant propagation. There are two important phosphoric fertilisers, Super Phosphate and Triple Phosphate. Super phosphate is the most important fertiliser, which is a mixture of calcium dihydrogen phosphate and calcium sulphate (gypsum).

This fertiliser is produced by treating rock phosphate or phosphorite [$Ca_3(PO_4)_2$] with sulphuric acid in special reactors:

$$Ca_3(PO_4)_2 + 2H_2SO_4 \text{®} 2Ca(H_2PO_4)2 + 2CaSO_4$$

Since rock phosphate is insoluble in water it cannot serve as an effective source of phosphorus for plants. To be accessible it has to be converted into the more soluble form: $Ca(H+PO_4)_2$. Mixed with gypsum it is known as super phosphate and contains 18 percent to 20 percent of assimilable P_2O_5. Rock phosphate is decomposed by phosphoric acid to produce triple phosphate. This product contains 48 percent of assimilable P_2O_5.

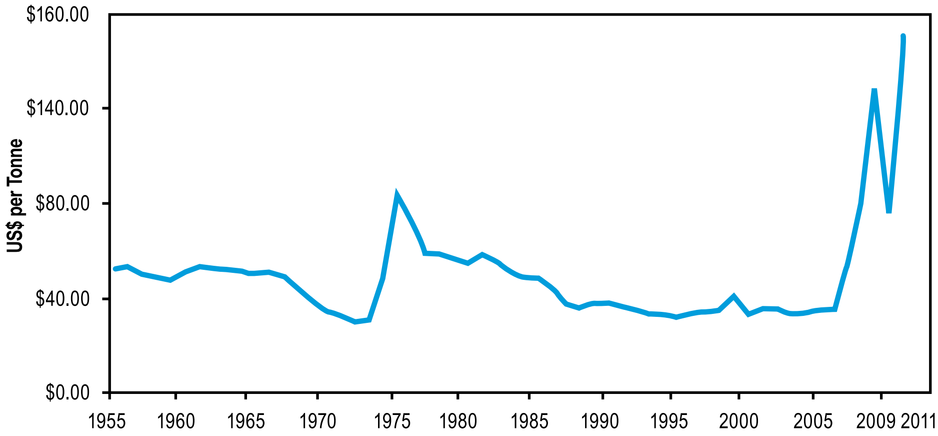
$$Ca_3(PO_4)_2 + 4H_3PO_4 \text{®} 3Ca(H_2PO_4)_2$$

Prices

Moroccan phosphate rock concentrate is typically used by the industry as the benchmark for worldwide phosphate pricing. Current phosphate pricing, based on 32 percent to 33 percent P_2O_5, FOB Morocco, is roughly US$150 per tonne.

We model the price of phosphate assuming a tendency to revert toward its long-term, inflation adjusted average price of US$60 per tonne, with a mean time to revert of 12 years and a volatility of 27 percent.

Inflation adjusted (2011 $) phosphate rock price -1955 to 2011



Source: International Fertiliser Association

Markets

In 2010 the phosphate rock concentrate market reached 176 million tonnes per year, of which 70 percent was sold to the integrated segment and 30 percent to the merchant market. Plains Creek plans to sell into the merchant market. In terms of global reserves, forecasts indicate that in the US, phosphate rock will deplete over the next thirty years, with global reserves lasting for a maximum period of only 100 years.

The worldwide economic downturn of 2008-2009 had an adverse impact on demand and ultimately led to reduction in the production of phosphates in 2009 by major miners. The financial crisis adversely affected the purchasing power of farmers, resulting in substantial decreases in fertiliser prices, such as that of mono-ammonium phosphate (MAP) and di-ammonium phosphate (DAP), which saw a substantial drop of 75 percent in 2009 when compared with 2008 price levels. The severe demand crunch and excess inventory stockpiles further aggravated the situation.

To minimise inventories, fertiliser companies, specifically non-integrated producers with lower margins and higher costs, reduced production capacity. The price of DAP phosphates, recorded at US$1200 per ton in 2008, suffered a major slump to just US$300 per ton in 2009. In the midst of the economic crisis, only two regions, Central and South Asia and Eastern Europe increased their fertiliser consumption, while Africa remained at a stable level. However, production of fertilisers, in sharp contrast to the consumption pattern, continued to display an upward trend through the recession period, spurred by capacity expansions and new plant installations.

The Asia-Pacific region, driven by China, India, Australia, Vietnam and Sri Lanka remains the single largest regional market. Latin America, Europe and the US are the other significant global phosphate markets. In terms of growth rate, Asia-Pacific is poised to display the highest compound annual growth rate of 3.8 percent through 2015, driven by growth in the fertiliser segment which is projected to reach a CAGR of 3.0 percent through 2015.

Phosphate production and consumption projections (millions of tonnes), 2010 - 2017

Region	Production (in mt) 2010	2017	Growth	Consumption (in mt) 2010	2017	Growth	Surplus - Deficit
Europe	15.5	19.6	3.4%	23.8	28.1	2.4%	(8.5)
Africa	46.7	47.6	0.3%	26.9	30.5	1.8%	17.1
North America	29.2	28.5	(0.4%)	32.1	31.3	(0.4%)	(2.8)
Latin America	9.2	16.3	8.5%	12.8	17.2	4.3%	(0.9)
Middle East	12.1	19.5	7.0%	7.0	15.8	12.4%	3.7
Asia-Pacific	68.3	84.6	3.1%	78.2	93.2	2.5%	(8.6)
World	181.1	216.0	2.6%	180.8	216.1	2.6%	(0.1)

Source: British Sulphur Consultants, Phosphate Rock, 10 Year Outlook Report. Growth based on 2010-2017 annual growth rate

New phosphate rock projects

There are many active prospecting, exploration drilling and production expansion projects in progress for rock phosphate. The listing below shows that they are ubiquitous, and vary from early stage to production expansion. Two conclusions might be drawn from this high level of activity. First, significant increases in mine production may lead to oversupply during the period after 2015. Second, if many of the projects mature, it is possible that prices will soften or at best remain at current levels.

Algeria

- Victorian Gold Mines NL: Heads of Agreement to acquire 100% of all shares in Celamin Limited. Phosphate and base metals projects.

Angola

- Minbos Resources Limited: Mongo Tando ore body; Cabinda, Angola; Inferred 117 million tonnes.

Australia

- Eagle Nickel Limited and Golden Century Mining Limited: Exploration for phosphate; W. Australia.
- Flinders Exploration: Phosphate U/G mine start up 2011; South Australia.
- Legend International Phosphate: Queensland Phosphate Project
- GBM Resources and Swift Venture Holdings Corporation: phosphate assets; North Queensland.
- National Mine Development Corporation, India: Takes 50% stake in Minemakers' Wonarah phosphate; Northern Territory.
- NuPower Resources Ltd: Lucy Creek Phosphate exploration project; Northern Territory.
- Rox Resources Limited: Marqua exploration project; Northern Territory.
- Rum Jungle Resources Ltd: Barrow Creek 1 Resource; Ammaroo phosphate; Northern Territory.

Brazil

- Aguia Resources Limited: Mata Da Corda; samples show 25.7% and 28.4% phosphate.
- Amazon Mining: Apatita phosphate project; Minas Gerais State.

- MBAC Fertilizer Corp: Santana exploration project; Pará State.
- MBAC Fertilizer Corp. with Chemex Ltd (ALS): Itaf Arraias SSP Project; Tocantins.
- Newport Mining: Mata da Corda Phosphate Project; Minas Gerais.
- Terreno Resources Corp.: Jatuarana Phosphate Project; Amazonas.

Canada

- Arianne Resources: Lac à Paul Phosphate Project; Quebec; Indicated 78 million tonnes; Inferred 260 million tonnes.
- Canada Phosphate Inc.: Definition drilling; Lac à Paul deposits; Quebec.
- Glen Eagle Resources Inc: Lac Lisette Phosphateproject; Quebec.
- PhosCan Chemical Corp: Martison Phosphate Project; Igneous ; Hearst, Ontario; up to 120 million tonnes of phosphate rock.
- Stonegate Agricom: Mantaro Phosphate Property; Huancayo; Peru's Junin District. Measured and indicated deposits 40 million tonnes; Inferred 376 million tonnes.

China

- EastBridge Investment Group (EBIG): Possible JV with Jinkuizi (JKZ); Foshan;
- Sterling Group Ventures: JV at Gaoping phosphate mine; Chenxi County; Hunan Province.

Eritrea

- South Boulder Mines: Phosphate exploration project.

Kazakhstan

- British Sunkar Resources: Chilisai project expansion; North West Kazakhstan.

Mali

- Great Quest Metals Ltd.: Tin Hina and Tarkint Est phosphate concessions; Mali, W. Africa.

Namibia

- Minemakers Limited, Union Resources Limited and Tungeni Investments: Sandpiper Project with Namibian Marine Phosphate.

New Zealand

- Widespread Energy: funding two mining concept; offshore phosphate rock mining project.

Peru

- Focus Ventures Ltd: Phosphate exploration; Tarma and La Oroya; Peru.

Tanzania

- Peak Resources: Exploration at Ngualla Project.

Tunisia

- Celamin Holdings: Salsala prospect and Bir El Afou prospect; Tunisia.

USA

- Stonegate Agricom: Paris Hills Project; Idaho; Inferred resource 120 million tonnes of phosphate rock.

Zimbabwe

- TWP Investments (TWPI): Exploration agreements; rock phosphate project.

Guinea-Bissau

Political

The political history of Guinea Bissau has shown some instability since the country became independent from Portugal in 1974. Periods of political and military upheaval have characterised the country's progress towards political and economic stability.

In 1980, a military coup established the authoritarian dictator Joao Bernardo 'Nino' Vieira as President. Whilst publicly setting a path to a market economy and the establishment of a multiparty democratic system, President Vieira's regime became characterised by the suppression of political opposition and the purging of political rivals. After several unsuccessful coup attempts to unseat him through the 1980s and early 1990s failed, he was re-elected President in the country's first free elections during 1994.

In 1998, a military mutiny and resulting civil war eventually led to his expulsion in May 1999. In February 2000, a transitional government turned over power to opposition leader Kumba Yala, after he was elected President in transparent polling. In September 2003, after only three years in office, President Yala was ousted by the military and businessman Henrique Rosa was sworn in as interim President.

In 2005, former President Vieira was re-elected president on a pledge to pursue economic development and national reconciliation. He was assassinated in March 2009 and Malam Bacai Sanha was elected in an emergency election held in June of that year. He will remain in office until new elections in 2014.

Terrain and ecology

Guinea Bissau lies between Senegal in the North and Guinea in the south bordering the North Atlantic Ocean in Western Africa. Its coordinates are 12°N, 15°W and the territorial area is 36,125 square kilometres.

The terrain of Guinea-Bissau is mostly low coastal plain with mangrove swamps rising to forest savannah mosaic in the east. The lowest point on Guinea-Bissau is at sea level, at the Atlantic Ocean. The highest point is 300 metres above sea level, at an unnamed point in the northeast of the country.

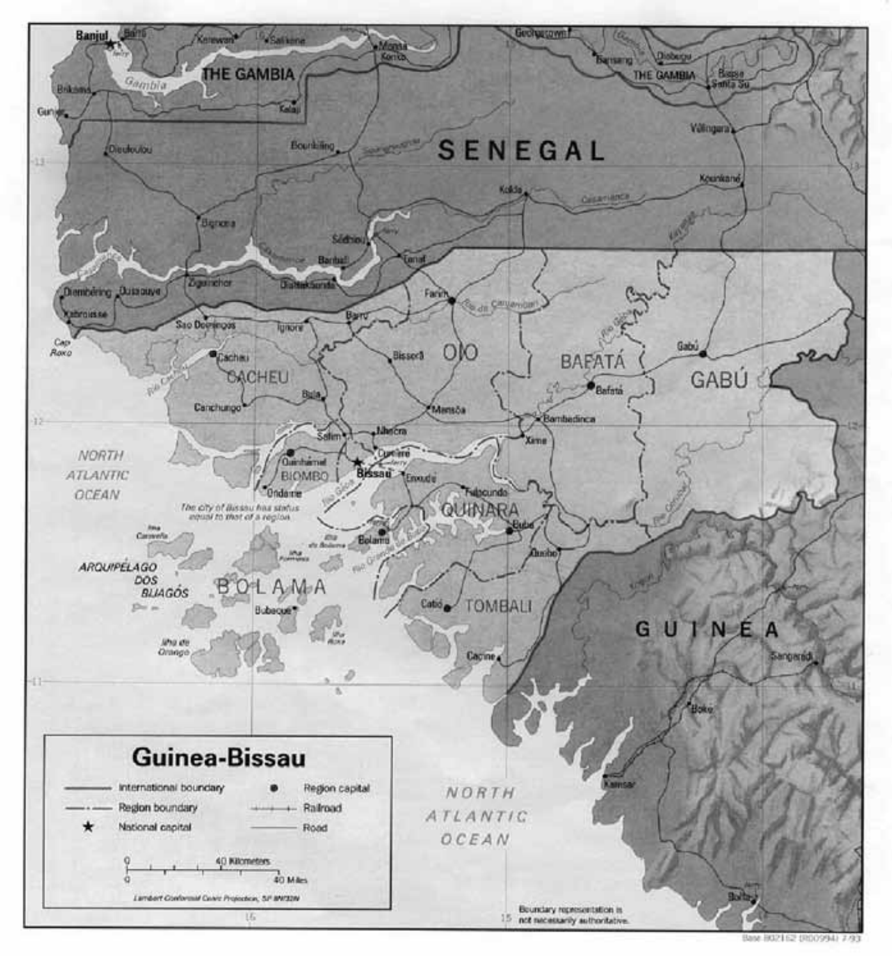
Natural resources found in Guinea-Bissau include fish, timber, bauxite, phosphates, clays, granite, limestone and unexploited deposits of petroleum. Arable land occupies 8.3 percent of the territory and about 250 square kilometres are irrigated.

Natural hazards include a hot, dry, dusty harmattan haze that reduces visibility during the dry season and exacerbate the severity of brush fires, common during the dry season. Severe environmental issues plaguing the country include deforestation; soil erosion; overgrazing and overfishing.

The climate in Guinea-Bissau is tropical. This means it is generally hot and humid. It has a monsoon type rainy season from June until November with southwesterly winds and a dry season from December to May with northeasterly harmattan winds. Guinea-Bissau is warm all year around and there is little temperature fluctuation, averaging 26 °C (79°F). The average rainfall for Bissau, the capital, is 2,024 millimetres (79.7 inches) per year. Most rain falls during the season between June and September, or early October. From December until April, the country is normally subjected to drought conditions.

The Farim Phosphate Project

Location of Plains Creek's Farim Phosphate Project



Source: Perry-Castanada map collection - CIA

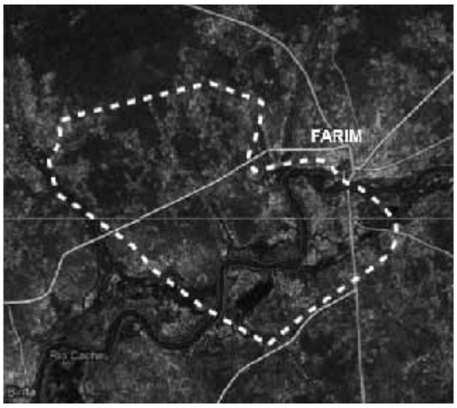
Property location and description

The Farim Phosphate Project is located north of the capital city of Bissau, a distance of 120 kilometres by paved highway. A ferry across the Cacheu River, which ranges from 300 metres to 500 metres wide, provides access to the town of Farim, on the north bank of the river. The majority of the phosphate resource at Plains Creek's property occur to the north of the Cacheu River and are accessed by some five kilometres of unimproved gravel road running west from the town of Farim. Cacheu is a tidal river and Farim, which is about 150 kilometres distant from the open Atlantic Ocean, may be accessed by barge.

The area around Farim is open, semi-arid savannah woodland. The topography of the project area is flat, with the land rising by about 20 metres in a northwesterly direction over a distance of four kilometres from the Cacheu River. The entire project area drains into the Cacheu River and the average elevation of the property varies between five metres and 50 metres above mean sea level.

The climate is tropical with a mean annual temperature of 25°C. Farim has little infrastructure that is capable of supporting a mining operation of the scale proposed for the project. The company will have to construct housing, medical and associated infrastructure to accommodate the impact that the project will have

Satellite view



Satellite view showing location of Farim and River Cacheu

Plains Creek property is outlined by broken white line

Source: Plains Creek

on the town of Farim. The local labour pool is focused on agricultural production. As a result, interstate and expatriate labour will be required to service the proposed mining operations.

There is no local power supply. As a result, a 15-20 Megawatt diesel or oil fired power station is proposed. The company will be responsible for building required access roads, an 80-kilometre-long pipeline to the port and a 40,000-tonne capacity port warehouse, as well as 2,000-tonne-per-hour loading facilities. A smaller diesel or oil fired power station will also be built at the port to support the power requirements there.

Regional geology

The Farim phosphate deposit occurs within the Middle Eocene Lutetian formation which is a part of the southern margin of the Mauritania-Senegal-Guinea Cenozoic sedimentary basin[1] which extends south from Morocco in the north through Mauritania, Senegal, Guinea-Bissau and into Guinea.

The Mid-Eocene and particularly the Lutetian portion of the basin contains known phosphate horizons and hosts at least four important economic phosphate deposits, including Bofal in Mauritania, and Taïba, Thiès and Matam in Senegal. These deposits account for almost 25 percent of the world's current rock phosphate production.

The sediments in this basin were formed in the palaeo-gulf of Casamance, which stretched from the southeast of Mauritania towards the south-west into the Atlantic Ocean.

The Eocene is condensed and/or reduced over elevated zones. Boreholes located on the Rio Jumbembem high contain all the lithologic units of the lower-to-upper Eocene, which are, however, extremely condensed at 39 metres. The thickness of these units in the subsidence zone is over 70 metres.

Abrupt sequential condensing occurs in the Farim area near the phosphate deposit. This is particularly evident in the calcareous and phosphatic sequence. Only the lower to basal middle Eocene, composed of argillaceous and micritic laminite, is present in the elevated zone. The calcareous-phosphatic middle Eocene and the calcareous-dolomitic upper Eocene are notably absent the Binta high. The middle and upper Eocene are, however, well developed to the north of the high.

Throughout this area of the Senegal-Guinea sedimentary basin, the Eocene, Palaeocene and Maastrichtian are respectively unconformably overlain south-eastwards by an Oligo-Mio-Pliocene and Quaternary sandyargillaceous sequence, displaying black lignitic clay at the base. This is locally overlain by a greensand sequence, probably Miocene in age, containing thin limestone beds. These units underlie a sandy-argillaceous sequence assigned to the late Continental.

[1] Prian, 1987

The thickness of post Eocene sandy-argillaceous cover ranges from 15 metres to 35 metres in the Farim area, and from 50 metres to 64 metres in the basin subsidence zone.

Property geology

The Farim area lies at the southern margin of the former Casamance gulf and is located 60 kilometres northwest of the southern edge of the Senegal-Mauritania-Guinea sedimentary basin, in which Maastrichtian strata unconformably overlie the Devonian pelite sequence.

Here, the Mesozoic and Cenozoic formations become gradually thinner from northwest to southeast, towards the Devonian bedrock. Abrupt condensing and wedging out of the Eocene sedimentary units occurs in the Farim area around an elevated structure known as the Rio Jumbembem ridge, which gives way southwestwards to the Binta high.

The Rio Jumbembem ridge strikes 50-to-60 degrees east of north and is positioned over a basement fold. Immediately south-west of Farim, between the high points of Rio Jumbembem and Binta, is the smaller Saliquinhé bay, a feature three kilometres wide from northwest to southeast and five kilometres long from southwest to northeast. The feature is open to the northeast and closed to the southwest.

A subsidence zone at the southeast edge of the Casamance gulf lies to the northwest of this zone of highs, which is marked by sequential condensing and frequent thinning and disappearance of the Palaeocene and Eocene sedimentary units. The late Palaeocene occupies an elevated position and forms the greater part of the Rio Jumbembem ridge, in which it is composed of nummulitic (coin shaped fossils) limestone, becoming argillaceous and marly towards the Palaeocene subsidence zone in the northwest.

Stratigraphy

The geological sequence at Farim contains the following lithological units from surface to a bed of limestone at bottom:

- sandy-argillaceous overburden with soft, alternating sandy, clayey and sandy-clayey layers;
- phosphatic interval (FPO);
- upper layer of dolomitic limestone;
- decarbonised phosphate unit (FPA) corresponding to the Saliquinhé phosphate deposit;
- calcareous phosphate member (FPB);
- limestone at the footwall of the phosphate sequence (This is white, soft and porous).

Of the three phosphate-bearing horizons:

The FPO:

The FPO is a clayey dolomitic limestone that is weakly phosphatic and has little economic potential. It consists of laminated green clays and alumina-phosphate and is 0.5 metre to 1 metre thick. In higher zones at the surface some laterite with a ferruginous cover occurs in some areas.

The FPA:

The FPA is localised within the Saliquinhé bay sub-basin and is the potentially economic phosphate bed. The sub-basin is bounded to the south and east by carbonate platform rocks against which the FPA thins out and the north-western limit of the FPA has not yet been identified. To the north, the Tambato submarine bar, which formed a barrier between the Saliquinhé bay and the deeper Casamance basin, is currently expected to form the northern limit of the FPA unit, but this has not yet been demonstrated by drilling.

The FPA is a soft, poorly cemented unit of phosphatic sand, which includes phosphatised shell and bone material, teeth, faecal pellets and crustacean coprolites. It is mildly indurated and includes siliceous layers 50 millimetres to 200 millimetres thick, which comprise an average of 6 percent of the unit. A mixture of saprolitic fine sand and clays, which are generally unconsolidated, overlies the FPA. The immediate hanging wall to the FPA is a 200-millimetre-to-600 millimetre-thick band of unconsolidated sand.

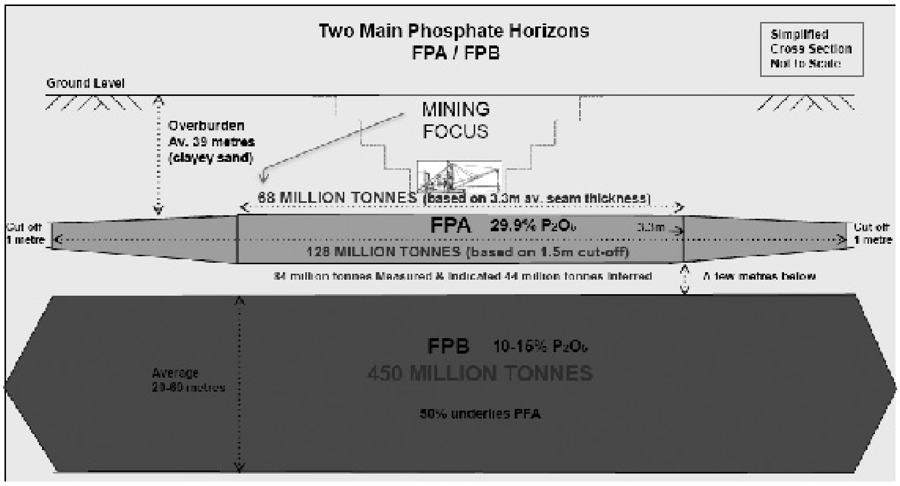
The hanging wall rocks are oxidized reddish brown to an elevation of about 10 metres below sea level. The FPA is grey to beige and brown and lies in a generally reducing environment below the oxidized interval. This is important because iron oxide, which is soluble in sulphuric acid, is a contaminant in phosphate deposits, whereas iron sulphide, which is insoluble in sulphuric acid, is not.

The FPA unit has an average width of about three metres to four metres (in the resource area) and underlies an area of about 40 square kilometres. In the northern part of the basin, north of the village of Saliquinhé, a north-easterly trending area about 4.5 kilometres long and one kilometre wide has FPA thickness typically greater than 4.0 metres and is up to 6.2 metres thick in places. A smaller area to the south of Saliquinhé, near the Cacheu River, also exceeds 4.0 metres in width, reaching a maximum 5.0 metres in width.

The FPB:

The FPB is a calcareous phosphate unit that is 20 metres to 60 metres thick with marginal economic potential. It consists of alternating soft phosphate strata with carbonaceous gangue and thinner, hard strata of slightly phosphatic bioclastic limestone. This horizon is known to extend 20 kilometres north-south and 50 kilometres east-west, with thickness variable from less than 1 metre to tens of metres, with cover varying from 40 metres to over 100 metres.

The two main phosphate horizons at the Farim Phosphate Project



Source: Plains Creek

History

The Farim phosphate deposit has been extensively drilled during the past 30 years. The deposit was first observed in one geotechnical drill hole, drilled as part of a water survey in 1950. In 1965 the feature was identified again by a geological exploration team from Esso.

In 1977 the Department of Geology and Mines (DGM) of Guinea Bissau drilled four holes totalling 707 metres. Subsequently Bureau de Recherches Géologiques et Minières (BRGM) from France, drilled 101 holes totalling 5,672 metres between 1981 and 1983, establishing an historic resource of 113 million tonnes grading 29.8% P_2O_5.[2] These results were used by the French agency Sofremines to prepare a prefeasibility study which indicated that the project was economically viable.

In 1998, Champion Resources completed a 13-hole, 560-metre diamond drill programme which it followed with a further 21 holes totalling 1,250 metres. Champion Resources focused on testing the north and northwest extensions of the phosphatic units located in the BRGM programmes. The average depth of the Champion Resources drill holes was about 57 metres. Using the previous BRGM drill hole records and their new data Champion completed an historic resource estimate that contained an estimated 166.2 million tonnes grading 29.1% P_2O_5 in the measured and indicated categories. The classical polygonal plan view method for resource estimation was used by Champion Resources. Again, this does not represent a current, NI 43-101-compliant resource and should not be relied upon.

More recently, in 2008-9, GB Minerals of Switzerland drilled 30 holes totalling 1,564 metres, of which 423 metres was completed by core drilling in the phosphate zone. Gamma ray logging was carried out on 30 holes. At the conclusion of this work, the Farim drillhole database contained information from 165 diamond drill holes totalling 9,046 metres.

GB's work was managed and supervised by Geologie, Exploitation, Environnement, Expertise Mine (GEEEM), a France-based independent geological consulting company contracted to manage and supervise exploration activities and conduct exploration work programmes including drilling at the project. An independent

[2] This resource does not represent a NI 43-101-compliant resource and should not be relied upon.

qualified person estimated the mineral resources at Farim in accordance with the requirements of NI 43-101 and the definitions set out by the CIM Definition Standards for Mineral Resources and Ore Reserves.

Resources

The current resource estimate is based on diamond core drilling and core sample data. The measured and indicated phosphate ore resources total 84 million tonnes, averaging 29.9 percent P_2O_5, with a cut-off thickness of 1.5 metres and a stripping ratio of less than 20 to 1. The corresponding resource area is about 18 square kilometres, with the core drilling completed primarily on a 500-metre grid, and in a few places a 1,000-metre grid. The average thickness of the mineralisation is 3.3 metres.

An additional inferred resource of phosphate ore stands at 44 million tonnes, at a grade of 29.6 percent P_2O_5, with a cut-off thickness of 1.5 metres. The average thickness within the inferred resource is 2.63 metres and the maximum stripping ratio is 20 to 1.

Risked mineable resource assumptions

Reserves		**Probability**	**Tonnes** (m)
Proven		*90%*	0.8
Probable		*50%*	0.2
Total		***82%***	**1.0**
Resources	**Conversion**	**Probability**	**Tonnes** (m)
Measured	*60%*	*90%*	40.0
Indicated	*60%*	*50%*	44.0
Inferred	*38%*	*10%*	44.0
Hypothesised	*70%*	*0%*	0.0
Total	***52%***	***49%***	**128.0**
Mineable resource			**Tonnes** (m)
Mineable resource			**67.9**
Risked mineable resource			**Tonnes** (m)
Current classification			37.3
Scenarios for exploration success			
- base case			48.4
- optimistic case			61.1
- pessimistic case			38.3

Notes:
- *mineable resource have been estimated as reserves plus the portion of resources that would be expected to convert to reserves considering deposit type and likely grade variability*
- *risked mineable resource refers to the various classes of resource/reserve weighted by their assumed confidence level*

Proforma Farim operation profit and loss

	Year ending June							
Proforma P&L (US$m)	**'13**	**'14**	**'15**	**'16**	**'17**	**'18**	**'19**	**'20**
Gross revenues	**0.0**	**0.0**	**214.4**	**285.4**	**276.8**	**269.7**	**264.1**	**259.7**
Operating costs	0.0	0.0	99.1	139.8	142.9	146.2	149.6	160.9
Operating profit	**0.0**	**0.0**	**115.4**	**145.7**	**133.8**	**123.5**	**114.4**	**98.7**
Depreciation	0.0	0.0	25.6	28.7	29.0	29.3	29.5	29.8
Administrative costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**0.0**	**0.0**	**89.8**	**116.9**	**104.8**	**94.2**	**84.9**	**68.9**
Assumptions								
Capital costs (US$m)	165.0	120.0	7.6	10.7	11.0	11.3	11.5	11.8
Tonnes ore mined (millions pa)	0.0	0.0	2.0	2.8	2.8	2.8	2.8	2.8
Payable metal/minerals								
- Phosphate	0	0	1,500	2,070	2,070	2,070	2,070	2,070

Source: Objective Capital

Mining

Plains Creek has developed a 25-year mining plan for its phosphate deposit at Farim. The company plans to recover 68 million tonnes of P_2O_5 at an average grade of 29.9 percent and an average strip ratio of 11.8-to-1. The deposit at Farim is in the form of a flat lying tabular block that ranges in thickness from 1.5 metres to over six metres, averaging 3.3 metres thick. It covers an area of 40 square kilometres spanning a length of approximately eight kilometres and a width of five kilometres. The deposit lies at a depth varying between 28 metres to 53 metres below surface, averaging about 38m.

The mining system proposed will produce 7,885 tonnes ore per day or 2,760,000 tonnes per year. This will be recovered by first removing overburden of average thickness 39m, composed mainly of soft clayey sand, which will require no drilling or blasting. The top 7-10m of overburden above the water table will be removed by conventional truck and shovel means. The material below the water table will be mined using stripping dredges to reach the hanging wall of the upper FPA phosphate layer. Below that layer, smaller different production dredges will excavate the 3.3 metre thick FPA phosphate layer producing a slurry of very fine liberated phosphate particles, Ø 1 mm. This mining method will also facilitate progressive rehabilitation of the concession area as mining proceeds. Topsoil replacement and re-vegetation will follow contouring of the replaced unconsolidated sandy clayey material.

The dredge mining will be carried out in progressive strips. After the first strip or cut has been excavated the unconsolidated sandy clayey material from subsequent strips will be placed in the void created from the first strip. The strip mining process will commence with the removal of topsoil and dry material above the water table for all areas to be disturbed for the mining strip. A slot will be opened from the initial box cut that is excavated in each mining strip and then the overburden dredge will be "floated" within the enlarged slot into which water from the River Cacheu will be pumped. The slot will then be extended to the full width of the strip by the dredger.

Overburden dredging operations will then progress the entire length of the mining strip in a series of seven-metre benches until the phosphate zone is reached at about 33 metres below the water table. Once the hanging wall of the phosphate layer has been exposed, beneath the lagoon, by the overburden dredge, the production dredge will be floated into place above a slot that has been excavated in the phosphate layer. Phosphate ore will then be excavated by the production dredge and pumped to the treatment plant.

October 2010 Preliminary Economic Assessment	
Physical parameters	
Mine life	25 years
Construction period	2 years
Operation	350 days per year
Production rate	2,760,000 tonnes per year (7,885 tonnes per day)
Total plant feed	68 million tonnes @ 29.75% P_2O_5 and 7% FeAl
Recovery	72.5% by weight (79.6% P_2O_5)
Concentrate grade	32.5% P_2O_5 and 3.5% FeAl
Revenue	US$100 per tonne of concentrate
Operating Costs	
Mining	US$ 25 per tonne
Treatment	US$ 15 per tonne
Power and water	US$ 10 per tonne
General expenses	US$ 5 per tonne
Slurry pipeline to port	US$ 3 per tonne
Port	US$ 2 per tonne
Total	**US$ 60 per tonne**
Capital costs (life of mine)	
Pre-production	US$ 288.13 million
Sustaining	US$ 250 million
Closure	US$ 25 million
Total capital Costs US$	**563.13 million**
Royalties	**2%**
Discount Rate Pre-tax NPV (US$)	
0% (Undiscounted)	$ 1,505 million
5%	$ 636 million
10%	**$ 254 million**
15%	$ 104 million
20%	$ 33 million
25%	($ 2.5 million)

Source: Plains Creek

Beneficiation process

The phosphate ore slurry will be pumped to a beneficiation plant about three kilometres from the lagoons being mined. This phosphate ore slurry will be kept in buffer storage ponds before being fed to the ore preparation section of the beneficiation plant. The oversize material (+1 mm) will be washed in scrubbers and removed by screening whilst the fines (-50 μm) will be removed by classification in hydrocyclones.

Hydraulic classifiers will produce two streams (-1,000 +200 μm and -200 +50 μm) before being passed through a wet high-intensity magnetic separator (WHIMS). After removal of the ultrafines (-10 μm) the fine stream (10-50 μm) will then be subjected to wet high-gradient magnetic separation (WHGMS). The three non-magnetic streams will be the final phosphate rock concentrate product containing 32.5 percent P_2O_5 and 3.5 percent Fe + Al.

The three streams of magnetic products will be thickened before deposition in a tailings facility, with the -10 mm slimes potentially being co-deposited with the +1 mm rejects. This tailings facility will be located within a three-square-kilometre area at the process site. No tailings site has been selected for the project as yet.

The tailings disposal area will require capacity for approximately 25 percent of the total tonnage to be ultimately treated, that is, 25 percent of 80 million tonnes, or approximately 20 million tonnes capacity. Infrastructure costs at the beneficiation plant site are expected to include the costs for pumping and piping the tailings and reclaim water. The disposal area selected will be a suitable higher-lying site where it is possible to locate a level area to impound the tailings. Some tailings may also be backfilled into the voided mining pits.

The concentrate will be pumped to the port at Pointe Chugue, along an 80-kilometre pipeline. To control the particle size distribution and slurry density at the optimum values for pumping, the concentrate will be milled and thickened prior to pumping. Tests have shown that recovery from the beneficiation process will be 72.5 percent by weight and 79.6 percent of P_2O_5 content of the ore.

At the port discharge the concentrate slurry will be filtered and dried to about 8 percent moisture content. The dried product will be stockpiled before loading into ships on a conveyor system. The port warehouse will have capacity to hold about 40,000 tonnes of phosphate rock. The loading capacity is envisaged at 2,000 tonnes per hour, sufficient to load ships of 35,000 tonnes within a 24-hour period.

The mining system proposed above is based on the model adopted at Mosaic Fertiliser's Wingate Creek Mine at Manatee County in Florida, USA.

Profit and Loss

Year ending June (C$m)	2010A	2011E	2012E	2013E	2014E	2015E	2016E
Revenues	**—**	**—**	**—**	**—**	**—**	**209.6**	**279.0**
COGS	—	—	—	—	—	(96.8)	(136.6)
Gross profits	—	—	—	—	—	112.8	142.4
Administrative Costs	(0.1)	(5.0)	(5.1)	(5.3)	(5.4)	(5.5)	(5.7)
EBITDTA	**(0.1)**	**(5.0)**	**(5.1)**	**(5.3)**	**(5.4)**	**107.3**	**136.7**
Depreciation & amortisation	—	—	—	—	—	(25.0)	(28.1)
EBIT	(0.2)	(5.0)	(5.1)	(5.3)	(5.4)	82.3	108.7
Interest	—	—	0.3	(2.9)	(10.9)	(15.0)	(12.3)
EBT	(0.2)	(5.0)	(4.8)	(8.2)	(16.3)	67.3	96.3
Tax paid	—	—	1.0	1.6	3.3	(13.5)	(19.3)
Earnings	**(0.2)**	**(5.0)**	**(3.9)**	**(6.5)**	**(13.0)**	**53.8**	**77.1**
Dividends	—	—	—	—	—	(17.9)	(25.7)
Retained earnings	**(0.2)**	**(5.0)**	**(3.9)**	**(6.5)**	**(13.0)**	**35.9**	**51.4**

Cashflow

Year ending June (C$m)	2010A	2011E	2012E	2013E	2014E	2015E	2016E
EBIT	(0.2)	(5.0)	(5.1)	(5.3)	(5.4)	82.3	108.7
Depreciation	—	—	—	—	—	25.0	28.1
Stock-based Compensation	0.1	—	—	—	—	—	—
Gains & Writedowns	—	—	—	—	—	—	—
(Increase) decrease in receivables	(0.4)	(0.1)	—	—	—	(31.4)	(10.4)
(Increase) decrease in inventory	—	(1.9)	—	—	—	(11.6)	(4.8)
Increase (decrease) in payables	0.1	(1.0)	—	—	—	14.5	6.0
Net cash from Ops	**(0.4)**	**(8.0)**	**(5.1)**	**(5.3)**	**(5.4)**	**78.7**	**127.5**
Tax paid	—	—	1.0	1.6	3.3	(13.5)	(19.3)
Dividends	—	—	—	—	—	(17.9)	(25.7)
Net interest recieved (paid)	—	—	0.3	(2.9)	(10.9)	(15.0)	(12.3)
New equity	0.3	73.1	25.0	100.0	—	—	—
New (deposits) borrowings	—	—	—	100.0	100.0	—	(50.0)
Capital expenditure	(0.1)	(60.9)	(14.7)	(161.3)	(117.3)	(7.4)	(10.5)
Net cash from financing	**0.2**	**12.2**	**11.6**	**37.4**	**(24.9)**	**(53.8)**	**(117.7)**
Net increase (decrease) in cash	**(0.2)**	**4.2**	**6.5**	**32.2**	**(30.3)**	**24.9**	**9.8**

Balance sheet

Year ending June (C$m)	2010A	2011E	2012E	2013E	2014E	2015E	2016E
Fixed assets at NAV	0.1	61.0	75.7	237.0	354.3	336.7	319.1
Cash	0.0	4.2	10.7	42.9	12.6	37.5	47.3
Receivables	0.3	0.5	0.5	0.5	0.5	31.9	42.3
Inventory	0.1	2.0	2.0	2.0	2.0	13.6	18.4
Less Payables	(0.1)	0.8	0.8	0.8	0.8	(13.7)	(19.7)
Net current assets	**0.3**	**7.5**	**14.0**	**46.1**	**15.8**	**69.3**	**88.3**
Less loans	—	—	—	(100.0)	(200.0)	(200.0)	(150.0)
Capital employed	**0.4**	**68.5**	**89.7**	**183.1**	**170.1**	**206.0**	**257.4**
Represented by							
Shares in issue	0.9	74.0	99.0	199.0	199.0	199.0	199.0
Add retained profit							
Prior periods	(0.3)	(0.4)	(5.4)	(9.3)	(15.9)	(28.9)	7.0
This period	(0.2)	(5.0)	(3.9)	(6.5)	(13.0)	35.9	51.4
Shareholders' funds	**0.5**	**68.6**	**89.7**	**183.1**	**170.1**	**206.0**	**257.4**

Source: Objective Capital

Appendix: Management

Glenn Laing, BSc Eng., MSc – CEO & President

Mr. Glenn Laing has over 30 years experience in the mining and financial industries including over 25 years as a senior officer of mining and exploration companies. Mr. Laing was President and CEO of St. Andrews Goldfields from 2001 to 2007, where he raised in excess of C$100m for its gold mines and exploration assets. Today, St. Andrews is on its way to being a 200,000-ounce-per-year gold producer based on assets put together by Mr. Laing. Over the span of his career Mr. Laing has raised in excess of C$1bn for mining exploration and development projects.

John Reynolds – Chairman & Director

Mr. Reynolds has substantial experience in venture capital development, consumer products marketing, resource sector development and elected political office, both federally and provincially. Mr. Reynolds began his career in the sales and marketing field, but spent the last 35 years in the political arena, with a career as Member of Parliament, Minister of the Environment for British Columbia, and Leader of the Opposition for the Conservative Party. Mr. Reynolds was appointed as a senior strategic advisor to the Lang Michener law firm in Vancouver, and has been appointed as a member of the Queen's Privy Council for Canada.

Paul C. Jones, BSc, P. Eng - Director

Mr. Paul Jones has served in numerous engineering, operations, senior management, consulting positions and as director in public and private companies active in the Americas, Africa and Asia during his more than 40 years in the mining industry. Mr. Jones is a Legion of Honour member of the Society of Mining Engineers, where he has been a member since 1958, and is a member and officer of the Mining and Metallurgical Society of America. In February 2004, Mr. Jones received the William Lawrence Saunders Gold Metal from the American Institute of Mining, Metallurgical and Petroleum Engineers in recognition of his service to the public and the minerals industry.

Guocai Liu – Independent Director

Since 2006, Mr. Liu has been the Chairman, Chief Executive Officer, President and a Director of Migao Corporation, a producer of fertilisers for the high-value agricultural Chinese market. Since 2000, Mr. Liu has also been the General Manager and Chief Executive Officer of Liaoning Yongcheng Economic Trade Development Co., Ltd. He was previously a Director of IND Dairytech Ltd from 2007 to August 2010. Mr. Liu has been engaged in the chemical import and export trade, research and development, and construction of chemical products for more than 16 years. He graduated from the Jianghan Petroleum Institute of China (formerly Changjiang University) in 1987 and holds a Master's degree in economics from Liaoning University. From 1987 to 1992, Mr. Liu was an architectural engineer and an interpreter at the Ministry of Petroleum Industry of PRC. Mr. Liu was the Vice-General Manager of the Liaoning Chemical Industry Import and Export

Company from 1993 to 2000. On April 20, 2009, Mr. Liu was appointed principal of a joint venture between Migao and SQM, a large international producer of specialty plant nutrients, iodine and lithium.

James Xiang – Independent Director

Mr. Xiang is the President of China Mineral Resources Ltd ("CMRL") and President of CNX Consulting Inc. which provides accounting and financial advisory services to Chinese companies that are seeking listing, financing and M&A opportunities in North America. CMRL holds 31 million common shares of the company. From December 2008 to April 2010, Mr. Xiang served as the Chief Financial Officer of IND DairyTech Limited. Since August 2010, Mr. Xiang has been a director of Black Birch Capital Acquisition II Corp, a capital pool company. From January 2006 to May 2009, Mr. Xiang served as the Chief Financial Officer of GobiMin Inc. Prior to that, he worked in corporate finance management in various TSX-listed companies, including COM DEV International Ltd, ATS Automation Tooling Systems Inc and CFM Corp. Mr. Xiang holds a Bachelor of Arts from Huazhong University of Science & Technology in China and a Masters of Business Administration from York University. Mr. Xiang is a Certified Management Accountant (Ontario) and a Certified Public Accountant (Delaware).

Carson Phillips - Corporate Development & Director

Mr. Phillips is also a director of Ecuador Capital Corp, a private company focused in Ecuador. He has management experience both domestically and internationally having previously had a tenure with the International Chamber of Commerce in 2004 located in Paris, France. Mr. Phillips has a degree in Business Administration from UBC Okanagan as well as a degree in International Business from the Netherlands.

We are pleased to bring you this report on **Plains Creek Phosphate.**

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Gabriel Didham, CFA
Objective Capital

Will Purcell

Will has been involved in the resource sector for 30 years in a variety of roles. Since the late 1990s, he has been active in assessed mineral resource investment projects. Will has a B. Math degree from the University of Waterloo in Ontario.

Richard Thompson

Richard Thompson is a graduate mining engineer (Camborne) and has worked for over 40 years in the mining industry. His expertise covers mining techniques, the application of mining equipment, mine project evaluation, mining investment promotion and project management.

About our relationship with Plains Creek Phosphate

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