ASX Announcement

15 April 2014

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ASX CODE
PWN

OTC PINK CODE
PWNNY

CORPORATE INFORMATION
(14 April 2014)

114M Ordinary shares
36M Partly paid shares
5M Unlisted options
8M Listed options

BOARD OF DIRECTORS
Adrian Griffin
(Non-Executive Chairman)
Patrick McManus
(Managing Director)
George Sakalidis
(Non-Executive Director)
Gary Johnson
(Non-Executive Director)

POTASH WEST ACHIEVES SIGNIFICANT ECONOMIC IMPROVEMENTS AT DINNER HILL PHOSPHATE PROJECT

- **Significantly improved economics at Dandaragan Trough Phosphate Project due to new found ability to process chalk rich mineralisation.**
- **IRR of 30%, $NPV_{8\%}$ of A$331 million**
- **Low capital costs of A$144M, including indirect costs**
- **Robust project now even more robust**
- **Project has key advantages over other "greenfield" phosphate projects around the world**
- **Progressing towards Definitive Feasibility Study**

Potash West (the Company) (ASX: **PWN**) is pleased to announce the results of an updated economic model for the production of single superphosphate (SSP) at its wholly owned Dandaragan Trough Project, located 150 km north of Perth in Western Australia.

The results are an update of the Scoping Study announced in September 2013. The upgraded Scoping Study results (+/-35% accuracy) demonstrate the robust nature of Potash West's phosphate project. Major attributes include the advantageous location, low mining and start-up costs, simple processing route, acceptable recoveries and low-cost acid supply.

This announcement follows on from the re-estimation of the Dinner Hill Phosphate resource (see ASX release 20 March 2014) following the significant improvements to the metallurgical flowsheet, which enables the processing of the chalk .

The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

Unless otherwise stated all cashflows are in Australian dollars and are not subject to inflation/escalation factors.

The Company has concluded that it has reasonable basis for providing the forward looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and in particular in the Appendix A headed "Forward Looking and Cautionary Statements".

BACKGROUND

Nodular phosphate mineralisation at Dinner Hill occurs within the Poison Hill Greensand and the Molecap Greensand, and the interlaying chalk unit, the Gingin Chalk.

In September 2013, Potash West announced the results of an initial Scoping Study to produce single superphosphate on its Dandaragan Trough Project. However, initial testing and modeling showed that without selectively mining and removing the chalk from the process stream, commodity grade single superphosphate could not be produced due to the high calcite content in the phosphate concentrate. Based on this data, the calcite rich chalk layer was rejected at the mine.

With the chalk excluded from the geological model, the Dinner Hill Deposit was estimated to contain an Indicated Mineral Resource of 90Mt at 2.65% P_2O_5 above a lower cut-off grade of 1.85% P_2O_5 (ASX: 23 September 2013).

On February 12 2014, the Company announced a significant breakthrough in the metallurgical testwork program demonstrated the potential to recover phosphate from the chalk by implementing a selective flotation regime. Based on these results the Dinner Hill Phosphate Deposit was re-estimated to contain an Indicated Mineral Resource of 120Mt at 2.8% P_2O_5, 3.1% K_2O, and 8.2% CaO above a lower cut-off grade of 2.15% P_2O_5 (ASX: 20 March 2014).

OVERVIEW

Potash West is pleased to announce the results of its updated Scoping Study into the production of single superphosphate from its Dandaragan Trough Project. The updated results take into account the ability to process the chalk seam. A mine production rate of 3.8Mtpa to produce an average of 340ktpa SSP has been considered.

The project is based on the JORC compliant resource outlined at Dinner Hill, which is only a small part of the world class Dandaragan Trough project area. Potential exists to expand the resource to the north and northeast.

Key outcomes are:

- Processing rate 3.8 Mtpa
- Mine life 20 years
- Average revenue per year $124 million
- Operating cash costs per year (inclusive of royalties) $82.1 million ($241 / tonne of SSP)
- IRR 29.5%
- $NPV_{8\%}$ $331 million
- Payback period <4.0 years

Managing Director Patrick McManus said: “The ability to process the chalk has resulted in a significant improvement in the economic modeling outcomes for the project. The fact that the chalk can be processed simplifies the mining and significantly reduces those costs”.
“Excitingly, this recent work has made a very robust project, with good payback, IRR and NPVs even stronger”.
“Our studies have also identified that the phosphate mineralisation can be significantly upgraded relatively simply and cheaply, which allows for relatively small downstream processing units and significantly reduced start-up costs”.
“Importantly, the positive outcomes of the study provide Potash West with the confidence to move forward towards a Definitive Feasibility Study.”

THE DANDARAGAN TROUGH PHOSPHATE PROJECT

INTRODUCTION

Potash West NL is a mineral exploration company focused on developing phosphate and potassium-rich greensand deposits in West Australia's Perth Basin. The Company's flagship project is the Dandaragan Trough, which is one of the world's largest greensand deposits. The project has unique advantages in excellent connectivity to transport facilities, infrastructure and proximity to local markets.

The Company holds exploration licenses and applications in 11 tenements, covering an area of 2,333km^2 (see Figure 1).

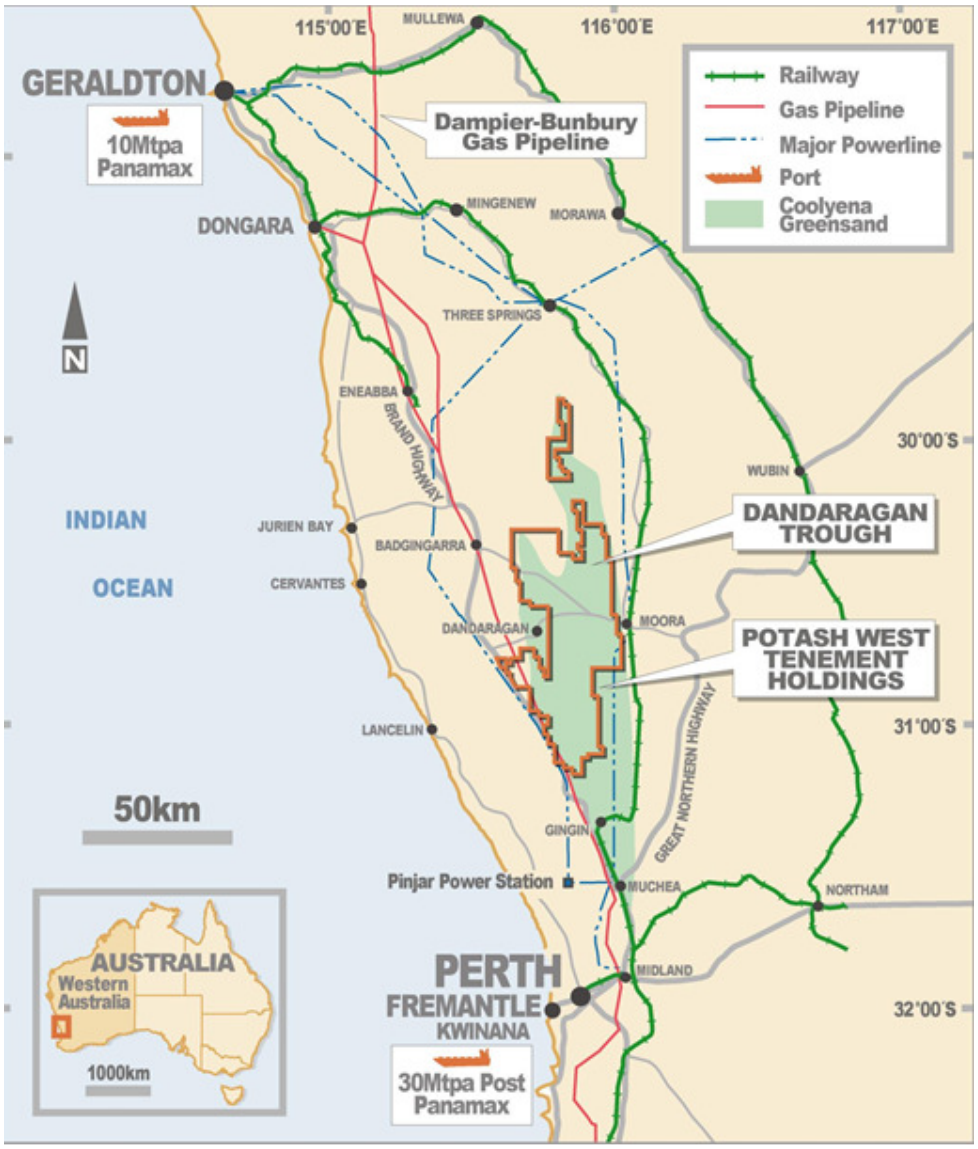

Figure 1: Land Tenure Dandaragan Trough Project

The Dinner Hill Deposit is located in the Mid-West wheat belt region of Western Australia, some 225km by road north of Perth. The deposit is easily accessed from Perth via the Brand Highway (Figure 2).

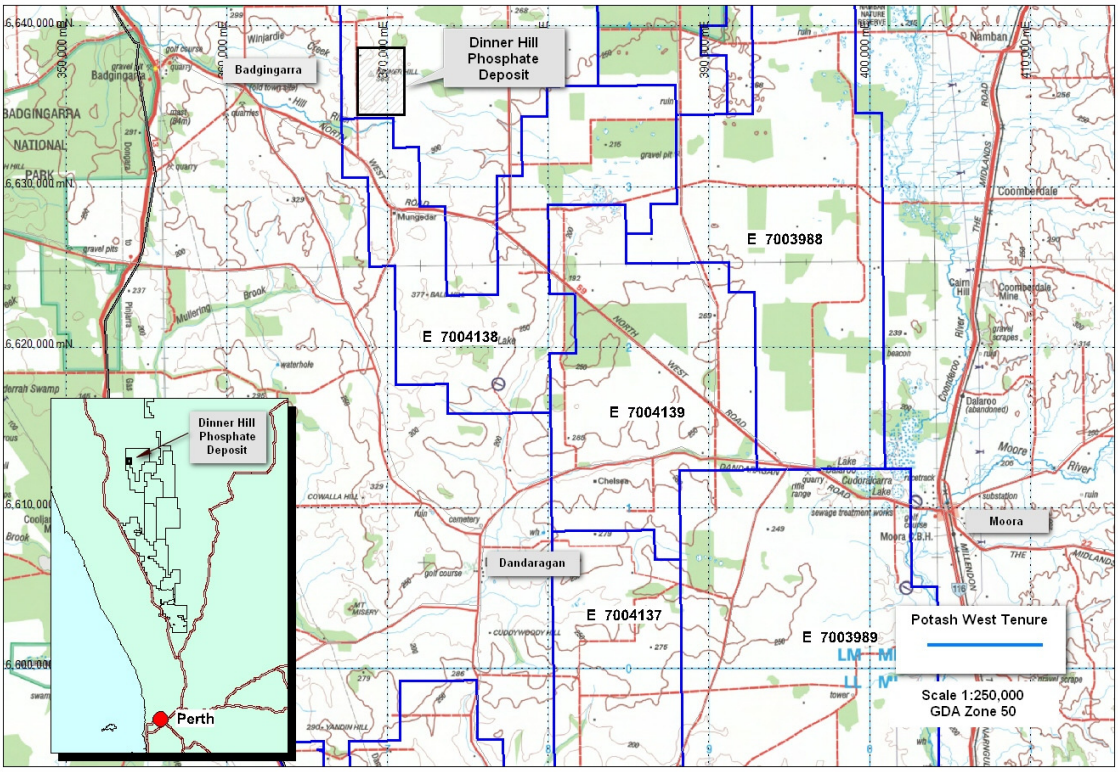

Figure 2: Dinner Hill Phosphate Deposit - tenure and infrastructure

Since listing in May 2011 the Company has been working on two parallel activities:

- Establishing a JORC compliant resource; and
- Developing a process flowsheet that extracts valuable commercial products from the greensands.

Both of these targets have been achieved. In October 2012, initial JORC compliant resources totaling 244Mt at 3.0% K_2O and 1.6% P_2O_5 were announced (ASX: 11 October 2012). A scoping study was completed in January 2013, which demonstrated the technical and financial viability for the proposed development of a facility (K-Max process) at the Dandaragan Trough Project, producing a range of commodities.

It was quickly realised by the Company that there was potential value in recovering the phosphate content present in the greensands in a stand-alone plant. This was identified after undertaking the Potash Scoping Study (ASX: 10 January 2013), which highlighted the value of the significant advantages of the location and geology of the resources. The relatively short distance to market, well-established infrastructure and friable mineralisation - which sits close to surface - were also seen as key advantages over most other "greenfields" phosphate projects.

Follow-up work carried out to define this value consisted of the following:

- Definition of a higher grade phosphate resource from Dinner Hill drill hole data
- Development of a processing flowsheet to produce a saleable phosphate product
- Conducting an initial economic assessment

Continental Resource Management Pty Ltd (CRM), conducted geological modeling and resource estimation at the Dinner Hill Phosphate Deposit which initially was estimated to contain an Indicated Mineral Resource of 90Mt at 2.65% P_2O_5 and 3.6% K_2O above a lower cut-off grade of 1.85% P_2O_5. Preliminary test work and economic modeling suggested saleable phosphate rock could be concentrated from the greensands by conventional processing steps and the production of single superphosphate had the most favorable economics. Based on this data, a scoping study to produce SSP from greensands at Dinner Hill was completed in September 2013.

Subsequently the resource tonnage was upgraded by 33% based on the metallurgical breakthrough enabling the processing of the chalk. The Indicated Mineral Resource increased to 120Mt at 2.8% P_2O_5 and 3.1 K_2O above a cut-off of 2.15% P_2O_5 (ASX: 20 March 2014). Further modifications to the Scoping Study have since been conducted, which take into consideration the processing of the chalk.

GENERAL

Potash West commissioned Strategic Metallurgy to develop a process to produce single superphosphate from Dandaragan greensands. Several samples from the Dinner Hill resource were subject to a series of tests to determine the amenability of the mineralisation for phosphate recovery. These samples were tested as composites of the individual lithologies that exist in the deposit and as hole-composites that included all lithologies.

The phosphate component in the samples was identified as flourapatite, which appeared relatively liberated. The apatite was nodular in nature and as such proved easy to concentrate to the coarser fractions. Phosphate concentrates responded well to conventional anionic flotation and high recoveries and grades >30% P_2O_5 were achieved.

Strategic Metallurgy provided a process package, which formed the basis of this scoping study, based on the results of the test work programs. The documentation included process flow diagrams, process design criteria, mass balance, process description and capital and operating estimates for a project treating 3.8 Mtpa of Poison Hill and Molecap Greensands. This scale of operation produces an average of 340,000 tpa of single superphosphate. Recent testwork, focusing on the chalk zone, has demonstrated the potential to recover phosphate from the chalk by implementing a selective flotation regime.

CRU had previously been commissioned to investigate potential sale volumes and prices for single superphosphate for the Potash Scoping Study. These values were utilized in this study. A discount on sales revenue was applied for the first 5 years of operation, in recognition of a discount considered necessary to gain market penetration.

The updated Scoping Study is based upon the new JORC Indicated Resource quoted for Dinner Hill (ASX: 20 March 2014). The Company has planned further drilling to the north and northeast of the current resource.

MINERAL RESOURCES and MINING INVENTORY

The Scoping Study is based on the Dinner Hill Indicated Mineral Resource announced to the ASX on 20 March 2014 and summarized below in Table 1.

Lower Cut-off Grade (% P_2O_5)	Million Tonnes	Grade (% P_2O_5)	Grade (% K_2O)	Grade (% CaO)
3.25	21	3.65	3.30	8.12
3.00	35	3.44	3.23	8.15
2.75	54	3.24	3.23	8.09
2.50	77	3.05	3.21	8.04
2.25	106	2.87	3.14	8.11
2.20	113	2.83	3.12	8.15
2.15	**120**	**2.79**	**3.10**	**8.17**
2.10	128	2.75	3.09	8.20
2.05	136	2.71	3.07	8.24
2.00	143	2.67	3.05	8.30
1.75	184	2.49	2.97	8.48
1.50	222	2.35	2.90	8.56
1.25	246	2.25	2.91	8.45
1.00	257	2.21	2.95	8.27
0.00	258	2.20	2.96	8.24

Table 1: Dinner Hill Indicated Mineral Resource (phosphate) by cut-off grade

The Indicated Mineral Resource of 120Mt at 2.8% P_2O_5, 3.1% K_2O, and 8.2% CaO above a lower cut-off grade of 2.15% P_2O_5 formed the basis for a mining inventory after the application of modifying factors including minimum thickness, cut-off grade and recovery. The mining inventory used as the basis for the Scoping Study comprises 77Mt at grades of 2.78% P_2O_5, 2.69% K_2O and 8.22% CaO.

MINING AND PRIMARY BENEFICIATION

The greensand units of the Dandaragan Trough are an unconsolidated mixture of silica, glauconite and apatite, not dissimilar in physical characteristics to mineral sand deposits that are mined close by at Cataby and Eneabba. Mining will be carried out by techniques that are well established in those deposits. Topsoil and overburden will be mined by scrapers, with topsoil being replaced as soon as practical.

Mineralisation will be mined by a bulldozer, which feeds an in-pit slurry unit. The slurry will be pumped to a concentrator, where material will be screened and de-slimed. Plus 0.5 mm material contains the bulk of the phosphate and will be milled prior to being fed to the flotation plant.

As part of the rehabilitation process, flotation tailings and slimes will be de-watered and returned to the mine void, covered with overburden and then contoured and covered with topsoil. It is estimated that it will take approximately 5 years from mining to return to end-use, although this might be slightly longer as operations are established.

PROCESSING

The mined phosphate rich greensands will be treated in a superphosphate processing plant consisting of conventional unit operations, including scrubbing, screening, de-sliming, magnetic separation and flotation to produce phosphate rock containing >30% P_2O_5. The phosphate rock will be acidulated using purchased sulfuric acid to produce SSP containing >18% P_2O_5. A diagram of the process is presented in Figure 3.

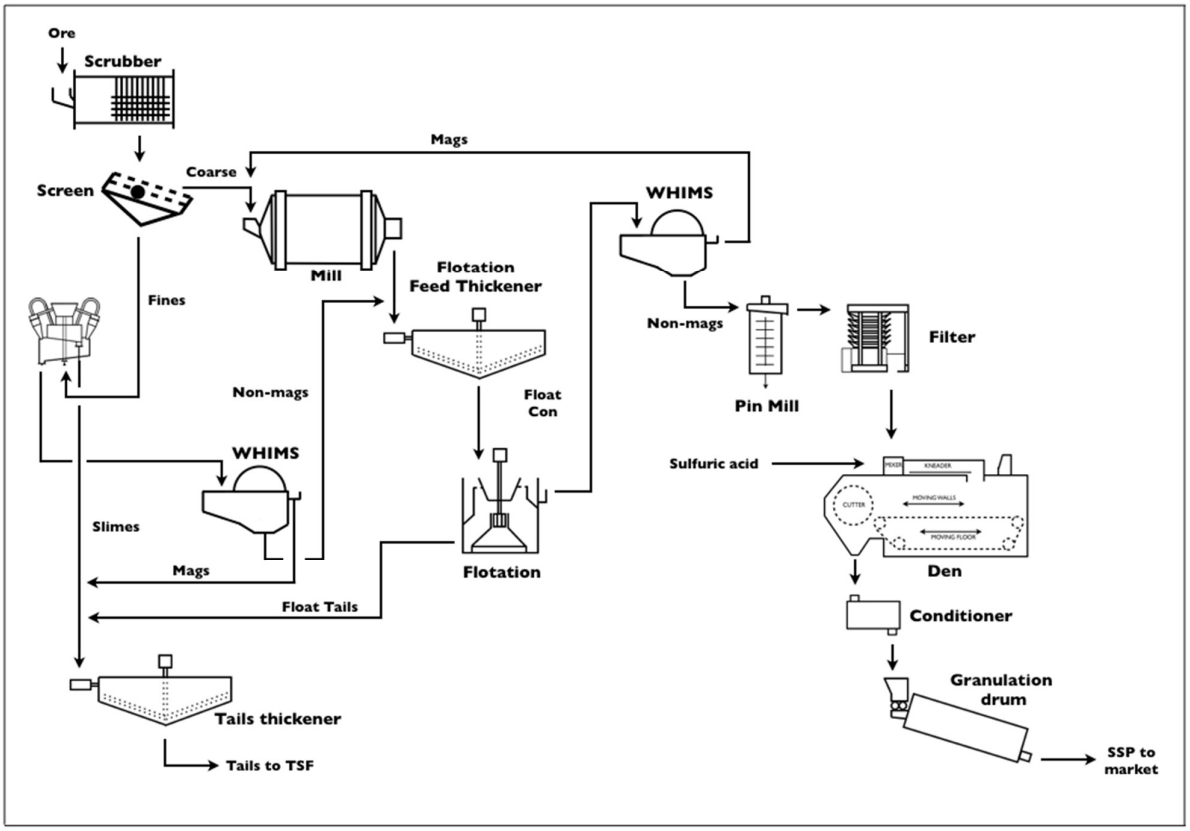

Figure 3: Process Flowsheet

The key operating parameters include:

- Screening at 0.5mm recovers approximately 63% of the contained phosphate for direct feed to the flotation plant.
- De-sliming and magnetic separation recovers a further 7% of the contained P_2O_5 for direct feed to the flotation plant.
- Flotation, reverse flotation (for calcite removal) and magnetic separation recovers 83% of the phosphate from the flotation feed to the phosphate concentrate.
- Acidulation recovers 100% of the phosphate from the phosphate concentrate to the SSP product
- An overall recovery of 58.1%.

The major attributes of the processing plant include the relatively simple and cheap upgrade of the phosphate mineralisation from an average head grade of 2.8% P_2O_5 to approximately 5.4% P_2O_5 for feed to the flotation plant. This involves a phosphate recovery of 70% to only 36% of the mass. These processing steps, which include screening, de-sliming and magnetic separation, are low cost and relatively easy to operate. The significant upgrade allows for relatively small downstream processing units.

The main reagents required include sulfuric acid, for the acidulation process, and fatty acid, for flotation. It was assumed that the reagents will be delivered to site by road from Kwinana. Slimes will contain a significant fraction of calcite present in the mineralisation. Neutralization of excess gas scrubber water will be effectively managed by reaction with part of the slimes material.

TAILINGS

Tailings from the process are benign consisting of un-reacted calcite, goethite, silica and glauconite. A small volume of acidic liquor, generated from the acidulation plant off-gas scrubber, will be neutralized with limestone tailings prior to disposal. Tailings from the plant will be pumped to a tailings storage facility. Tailings will be dewatered, and then returned to the pit as back fill.

SYNERGIES

Synergies exist for the production of phosphate, potash and other commodities with the implementation of side-by-side phosphate and K-Max plants. Recovering phosphate from the coarse mineralisation, which is waste to the K-Max plant, and recovering potash and other valuable commodities from the magnetic concentrate and slimes, which are waste to the phosphate plant, maximizes the revenues from the mined greensands. It is expected that the overall phosphate production would be higher (>50%) compared to that produced from a stand-alone K-Max plant, and the downstream processing costs to produce SSP from the K-Max plant are expected to be lower. The economics will be verified in due course.

INFRASTRUCTURE

For the purpose of the scoping study, the processing facility is assumed to be located between the towns of Moora and Dandaragan in Western Australia. Both towns are approximately 170km north of Perth. It will be well positioned with respect to road and rail access and located within 30km of the electricity utility corridor. The following infrastructure has been accounted for in the capital and operating cost estimates:

- The processing plant power demand, of 5.1MW will be supplied from the South West Interconnecting Network (SWIN). The site can be serviced from existing transmission infrastructure at Moora or Cataby.
- Western Power's Mid-West Energy Project (MWEP) will increase electrical capacity in the Mid-West from the current 150MW to 680MW by 2018. This will provide for the power draw required in future plant expansions.
- Make-up water will be supplied from local borefields. Water will be recovered from the tailings facility.
- The main imported reagents will be delivered to site in bulk on sealed roads.
- It was assumed that SSP final product would be delivered to Moora on sealed roads and delivered to Geraldton or Kwinana on the existing rail network.

CAPITAL COST

The capital cost for the project was estimated by Strategic Metallurgy based on information contained in the Dandaragan Trough Potash Project Scoping Study Report (Potash Scoping Study), budget quotations and process design criteria provided by Strategic Metallurgy in early 2013. Equipment costs were factored using standard industry techniques. The costing was based on a design package prepared by Strategic Metallurgy Pty Ltd with a nominal throughput rate of 3.8 Mtpa of ore. The design package comprised:

- A complete set of flowsheets for the process;
- Process design criteria based on the nominal throughput rate; and
- A report detailing the testwork supporting the process design.

The accuracy of the estimate is considered to be +/- 35%, which is appropriate for a scoping study. A summary of the capital costs is provided in Table 2.

	A$ millions
Mining plus mobilisation	$4.9
Process Plant	$64.6
Infrastructure	$38.7
Indirect costs (including contingency)	$35.2
TOTAL	$143.4

Table 2: Capital Cost Estimate

OPERATING COSTS

The operating costs for the projects were estimated from first principles based on the process design criteria in Strategic Metallurgy's design package. Contained in the operating costs are estimates for:

- Personnel Requirements;
- Reagent Consumption and Consumables;
- Power Consumption; and
- Maintenance Materials.

The friable nature of the greensands and low stripping ratio allows for very low mining costs and the well-established infrastructure and relatively short distance to market allows for low transportation costs. These significant advantages more than off-set the relatively low in-situ grade.

The operating costs are summarised in Table 3.

	A$/tonne of feed	A$/tonne of product
Mining and Rehabilitation (including overburden)	$4.16	$46.49
Process Plant (including transport of reagents)	$12.12	$135.32
Railing and Shipping	$3.60	$40.16
Royalties	$1.71	$19.15
TOTALS	$21.59	$241.12

Table 3: Operating Cost Estimate

ENVIRONMENT AND PERMITTING

Land use in the Dandaragan Trough region is principally farming, and the Company's tenements are exclusively within freehold land and road reserves.

A desktop study was completed over the Dinner Hill area (proposed mine site) and a broader region in the east of the Project Area (proposed plant site). The study objectives were to identify any key environmental issues associated with the sites.

Environmental constraints consistent with the locality were identified as typical for an agricultural region of Western Australia. As most of the mining site land use is agricultural and pastoral, constraints are likely to be localised to stands of remnant vegetation. These are typically managed by rehabilitation methods well established at other mining operations in the region.

There is flexibility in the processing plant site, so it can be located to manage the environmental impacts, consistent with good planning practice.

MARKETING AND PRODUCT PRICING

CRU was commissioned by Potash West in November 2012 to undertake a marketing and pricing study for products generated from the K-Max study, which included data for SSP. CRU is a respected, independent research company with deep expertise in the fertiliser industry and in the supply, demand and pricing of fertiliser products.

At a mining rate of 3.8Mtpa and metallurgical recovery of 58.1%, an average of 340,550tpa SSP, at a grade of 18.1% P_2O_5, will be produced annually. The CRU recommended sales prices (US$/tonne) for SSP over the duration of the project starting in the latter part of this decade are listed in Table 4 and are based on SSP containing 18-20% P_2O_5. These prices are listed as CFR and, as such, domestic and international transportation costs have been taken into account in the economic analysis.

In addition, a discount on sales revenue was applied for the first 5 years of operation, in recognition of a discount considered necessary to obtain market penetration. It is anticipated that sales volumes and prices will be refined and better defined as part of the feasibility study. For this study, it was assumed that 100,000tpa SSP would be sold on the domestic market, with the remainder to be sold on the international market.

Year	Sales price (US$/t)	Discount	Exchange rate	Sales Price A$/t
1	$350	10%	0.90	$350
2	$350	8%	0.90	$358
3	$350	6%	0.90	$366
4	$350	4%	0.90	$373
5	$350	2%	0.90	$381
6-20	$350	0%	0.90	$389
AVERAGES	$350	-	0.90	$383

Table 4: Single Superphosphate, sales prices and discounts

FINANCIAL MODEL

A high level production model was developed based on yields achieved in testwork, operating and capital costs estimates from Strategic Metallurgy and selling prices and volumes from CRU. Capital and operating costs and sales revenues have been derived in A$. Financial results are presented in Table 5:

$NPV_{8\%}$	$331 million
Capital costs	$144 million
Opex, per tonne of product	$241
Revenue, per tonne of product	$383
Capital Payback, yrs	< 4.0
IRR%	29.5
Mine Life, based on current Dinner Hill Mineral Resource	+20 years

Table 5: Financial results, summary

This analysis shows a robust project, with significant potential to increase scale as market acceptance and penetration is achieved.

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Appendix A – Additional Information

Forward Looking and Cautionary Statement:
The scoping referred to in this report is based on low-level technical and economic assessments and is insufficient to support any estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

The use of the word "ore" in the context of this report does not support the definition of "Ore Reserves" as defined by the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. The word 'ore' is used in this report to give an indication of quality and quantity of mineralized material that would be fed to the processing plant and it is not to be assumed that 'ore 'will provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the scoping study will be realized.

Certain statements contained in this announcement, including information as to the future financial or operating performance of Potash West and its projects, are forward-looking statements. Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Potash West, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and assumptions in respect of potash and phosphate production and prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions.

Forward-looking statements are necessarily based upon a number of estimates and assumptions related to future business, economic, market, political, social and other conditions that, while considered reasonable by Potash West, are inherently subject to significant uncertainties and contingencies

Potash West disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and other similar expressions identify forward-looking statements. All forward-looking statements made in this announcement are qualified by the foregoing cautionary statements. Investors are cautioned that forward looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

The Company is of the opinion that it has reasonable basis for providing the forward looking statements included in this announcement, including with respect to production targets, based on the information contained in this announcement and in particular the JORC 2012 Mineral Resource for Dinner Hill as of March 2014. This estimate was compiled by Continental Resource Management Pty Ltd. Additional independent metallurgical studies, determination of mining inventory, mine design and scheduling, external commodity price and operating cost data were undertaken by industry consultants.

Competent Person's Statement:

The production targets and other information in this announcement that relate to Mineral Resources are based on, and fairly represent, the Mineral Resource and information and supporting documentation extracted from the report which was prepared by a Competent Person in compliance with the JORC Code (2012) and released to ASX by the Company on 20 March 2014. Potash West confirms that it is not aware of any new information or data that materially affect the information included in the original announcement. All material assumptions and technical parameters underpinning the Mineral Resource estimate in that previous ASX release continue to apply and have not materially changed.