

Mosaic Potash Colonsay
Colonsay Expansion

Environmental Impact Statement
Volume I – Main Document
May, 2009



Prepared For: Mosaic Colonsay
PO Box 1500
Colonsay, SK S0K 0Z0

Prepared By: MDH Engineered Solutions Corp.
232-111 Research Drive
Saskatoon, SK S7N 3R2

1.0 EXECUTIVE SUMMARY

Mosaic Potash is planning a \$500 million CDN, mine and mill expansion at the Mosaic Potash Colonsay ULC mine that will raise annual production capacity at the Colonsay mine to 2.72 million tonnes by 2015. This expansion is referred to as the Colonsay Expansion. The components of the expansion are detailed in this document and generally consist of:

1. Mill and facility upgrades;
2. Upgrades for additional hoisting and mining capacity; and,
3. Tailings Management Area (TMA) expansion (coarse and fine tailings).

An ongoing mine and mill de-bottlenecking program will increase rated capacity from the rated 1.5 to 1.72 million tonnes per year by the end of 2009. The mill and facility upgrades are planned to occur in two phases. The Phase 1 mill expansion will involve increasing mining capacity to 2.27 million tonnes by 2012. The Phase 2 mill expansion will raise total annual potash capacity to 2.72 million tonnes by 2015.

The expansion will result in an increased output of tailings to the TMA. The current TMA has a capacity at current production rates for approximately 3 years of additional fine tailings deposition. With the expanded production beginning at the end of 2009, the current TMA is expected to reach full capacity in 2012. Future fine and coarse tailings disposal to accommodate the expected mine life is proposed for tailings storage within a 390 ha area west and north of the existing TMA. Mosaic currently owns all lands proposed for the expanded TMA. The proposed new TMA provides the area necessary to accommodate at least 79 years of additional coarse and fine tailings storage, including brine storage. A “phased” approach will be utilized for the proposed 390 ha TMA, as required, so that not all areas are immediately used and impacted. Details of construction and use of each phase are provided. Construction of the 210 ha, Phase 1 area is proposed to commence in 2009. The area will be used first for brine, coarse and fine tailings storage. The Phase 1 area will accommodate approximately 8 years of fine tailings storage and will eventually be retrofitted for brine and coarse tailings storage. Phase 2 and Phase 3 areas (north of the TMA) will be used for storage of fine tailings

following filling of the Phase 1 area. The expected life of the Phase 2 and Phase 3 fine tailings area, including technology to create stackable tailings, is approximately 68 years following completion of the mill expansion. Existing fine tailings storage and the construction of the Phase 2 and Phase 3 areas will accommodate approximately 79 years of fine tailings storage. The Phase 4 area will be required after 2035 to create additional coarse tailings storage. The Phase 1 and Phase 4 areas as well as the current tailings pile area will accommodate 79 years of coarse tailings storage.

Mosaic Colonsay has provided employment and substantial taxation revenue to the Province of Saskatchewan for several decades. While the mine will directly employ an additional 150 persons, it is anticipated that many more employment opportunities will be created indirectly in the communities surrounding the mine site, as well as across Saskatchewan. Enhancements to the mill operations will help to minimize raw water requirements, plant emissions, and energy requirements, while improving the overall performance and increasing production capacity.

Mosaic is committed to preventing or reducing adverse environmental effects associated with the project wherever possible. A significant amount of work has been completed by, and on behalf of Mosaic Colonsay, to identify potential environmental impacts and requisite mitigation plans. General mitigation measures planned for this project include the following:

- Obtaining all required permits and approvals prior to construction;
- Using best practice, environmentally sound construction methods (i.e. minimal clearing, salvaging topsoil, etc.);
- Construction of appropriate containment systems (i.e. dykes, perimeter French drain, etc.);
- Use of best available technology to reduce water, power and energy use;
- Use of best available technology to reduce air emissions; and,
- Continuation of the site Environmental Monitoring program.

These measures are intended to provide effective long-term containment and mitigation of environmental impact. There are expected to be some residual effects following the mitigation measures; however, the majority of these effects have an environmental consequence rating of low to minor.

Residual impacts, with respect to the proposed expansion, are predicted to occur to terrain, air emissions, soils, vegetation, water use, land use and socio-economics. A summary of the predicted environmental effects is provided in the EIS.

Mosaic Colonsay maintains and operates an environmental monitoring program to monitor the impact of the mining operation on the surrounding environment, and to evaluate the performance of its environmental protection systems. The new facilities associated with the expansion will be included in this monitoring program. A Decommissioning and Reclamation Plan was submitted to the MOE in 2006. Procedures for decommissioning are not expected to change due to the proposed expansion.

Mosaic acknowledges responsibility for all aspects of its operation. In keeping with this commitment, stakeholder meetings and an open house public meeting were held to discuss the proposed expansion. Overall, the project has been received favourably.