



Mineral Exploration and Agriculture Working Together

Exploration drilling to define a mineable resource can take several years but that does not mean that farmers and explorers cannot work together. Alkane Resources Ltd successfully undertakes exploration activities on productive agricultural land.



Background

The vast majority of exploration targets tested do not identify mineralisation and often no further work is required. However, where mineralisation is identified, it can take several years to finally determine whether the identified mineralisation is an economically recoverable ore body. In addition, the mining industry, like farming, suffers from fluctuating commodity prices and cashflows that may further delay and extend exploration activities. Understanding complex geology beneath deep soil cover and defining a mineable ore body can take a decade or more.

Getting off on the right foot

In light of the possible long-term relationship between explorer and landholder, the explorer needs to establish a cooperative working relationship with the landholder.

The explorer needs to understand what the farmer's business is (grazing or cropping), how the property works and changes with the seasons.

The explorer needs to explain to landholders such matters as who the people behind the company are who will be working on the property what equipment and methods they will be using, when access to the property is required and for how long and what measures the company will employ to ensure that contractors comply with all instructions and commitments.

Prior to accessing any property the explorer and landholder must negotiate a land access agreement which will clearly set out both parties' wants and needs, including how, when and where the explorer can access the property, and if and when particular activities can be undertaken. Several land access agreements may be negotiated during the life of an exploration project depending on what the explorer seeks to do. The explorer should be as flexible as possible to meet the landholder expectations.



Discussing land access with a landholder

Exploration and farming can co-exist

With a robust relationship between an explorer and landholder based on trust and respect, exploration and farming operations can co-exist.

Drilling can be undertaken with livestock in paddocks provided that the livestock are safe from machinery and earthworks associated with the program. Suitable barrier fencing may be required.



Drilling in an organic vineyard

Drilling in cultivation and growing crops requires prior agreement with the farmer around compensation for loss of production and contingencies. Access tracks through cultivation paddocks can become compacted and these need to be rehabilitated. The farmer may be willing to provide a fee for service in the rehabilitation works and may have the necessary equipment on hand.



Two drill rigs operating in a growing wheat crop at Tomingley



Drilling during harvest season and Tomingley

Drilling in crops nearing harvest is also feasible, however, explorers should be aware of heightened risks of loss for landholders, particularly in relation to fire as crops brown off. Contingencies and compensation agreements should be in place before the program begins. Consideration should be given to avoiding particular times of year if possible.

Drilling in high value and speciality cropping areas is also feasible, provided that the explorer has a sound understanding of the particular issues associated with the landholder’s activities and these are taken into account to the landholder’s satisfaction.

Alkane identified three ore bodies in wheat cropping land at Tomingley, and drilled them for 12 years, resulting in over 3,000 reverse circulation and diamond holes. These programs operated during droughts and floods and average seasons.

During those 12 years of resource definition drilling and feasibility study work, there was only very minor loss of production as the drilling footprint was minimised.

The landholders were compensated to a level where more drilling was not seen as a financial burden.

Alkane has also undertaken drilling operations in organic vineyards and high rainfall, steep terrain.

Each of these operations has been successfully implemented, with the landholders satisfied in each case that their particular concerns and issues were addressed and that they received appropriate compensation.



Exploration in a grazing paddock near Wellington

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