



# CASE STUDY

## Agricultural Lagoon Secondary Cell Cover System



- ▼ **LOCATION:** Killarney, Manitoba
- ▼ **PROJECT TYPE:** Technical Design Support, Supply and installation
- ▼ **PRODUCT USED:** 40mil LLDPE Geomembrane

### ▼ **PROBLEM:**

A new barn operation in Southwestern Manitoba required a negative air pressure cover system for a lagoon secondary cell. This was needed to slow down the release of gases in the atmosphere that create unpleasant odors to help alleviate disturbances to neighbours.

### ▼ **THE TITAN SOLUTION:**

Titan worked with the customer and design engineer on material recommendations. As the primary cover material, we recommended using 40mil LLDPE SST (single sided textured) geomembrane due to its excellent elongation and durability qualities. This also enabled safe and dependable access to the cover to drain any water buildup on top.

Negative air pressure blowers were also recommended and incorporated in this design of this to keep the cover tight to the interior of the lagoon. This eliminates the need for ballast and prevents displacement of the cover in windy conditions, creating a seal effect. Polypropylene blowers were used as they are the most resistant to gas corrosion and UV exposure while in service.

A network of 6" floats were installed beneath the cover for support, and provide paths for the gases to rise allowing the blowers to collect the gases. To allow access for manure pump out and/or agitation, concrete ramps were also installed beneath the cover.



Contact us for more information:

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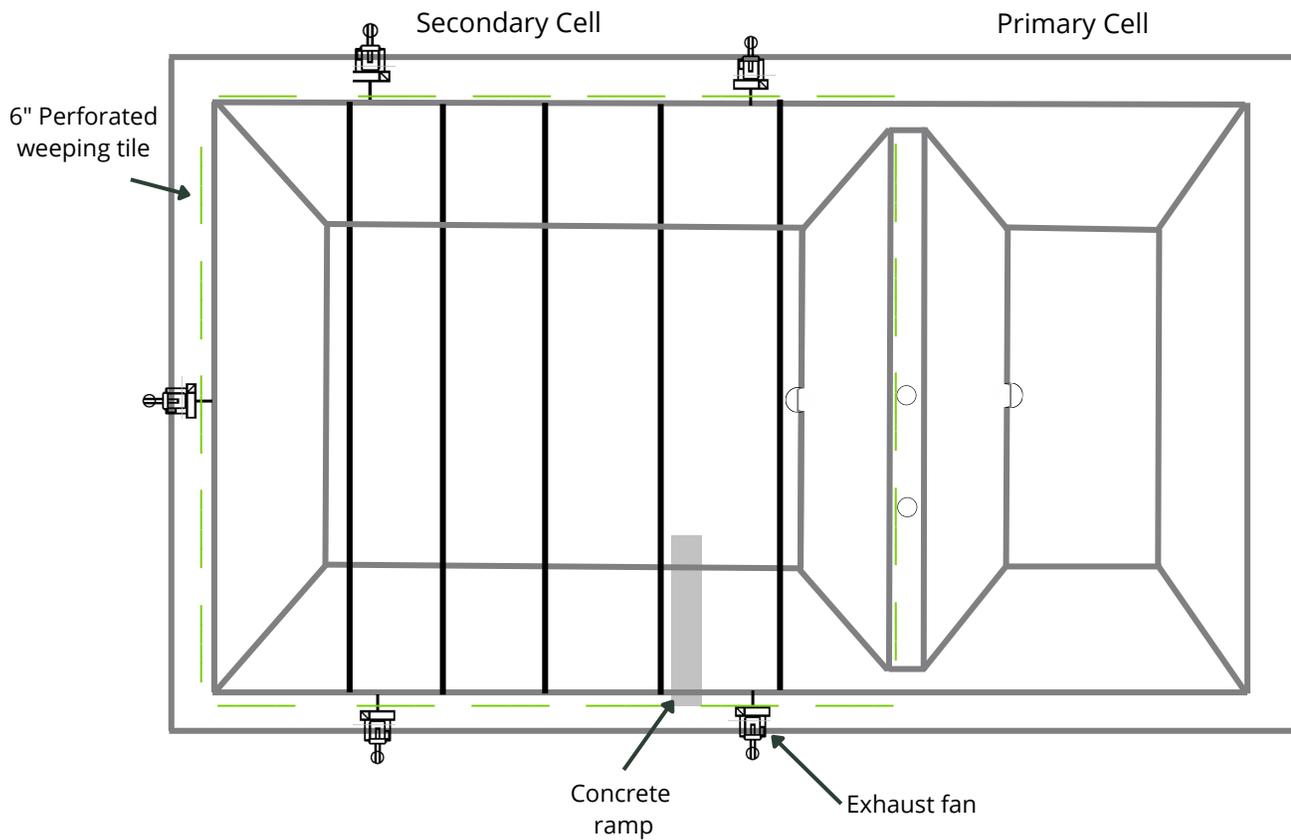
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### ACHIEVEMENT:

Titan provided turn-key service for this project from technical assistance during the engineering design and engineering phases to material supply and installation. Our expertise helped achieve the most effective, long-lasting, and affordable cover for the client. And our field crew completed the cover installation ahead of time while working under challenging weather conditions.

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