

GEOWEB®

OIL & GAS HAUL ROADS

Project Location

Conklin AB Canada

Timeframe

July 2018

Project Partners

Owner: Harvest Energy

Engineer: Drifter Projects

Materials Supplier: Layfield Canada



SAGD Haul Road

Hwy 881, Encana By-Pass Road
Alberta, Canada



GEOWEB® 3D Soil Confinement.

Roads built with GEOWEB® 3D geocells and aggregate infill are extremely stable and well-suited to support heavy truck and equipment access.

Immediately after infilling and surface compaction, GEOWEB® roads are ready for traffic.

GEOWEB® 3D System and High-Strength Geotextile Combine Forces to Create Upgraded, High-Performing Haul Roads Over Challenging Subgrades.

Project Background and Challenges

In fall of 2016, Harvest Energy contacted Presto's Canadian distributor Layfield to discuss options for the rehabilitation and upgrade of an existing access road to handle the rigors of a new plant expansion and commissioning. The modifications were being made to Harvest Operations Black Gold In-Situ Thermal SAGD plant located south of Conklin, Alberta Canada. The existing Encana By-pass road was 11.5 KM (7.1 Mile) long and, originally served as a secondary access road into the facilities in the region including Cenovus Christina Lake, Devon Pike, Jackfish and Kirby. The access road had not been in use for several years and became **almost impassable during spring and summer rain events due to neglect**. Layfield was requested to recommend load support options to drastically improve the performance of the road.

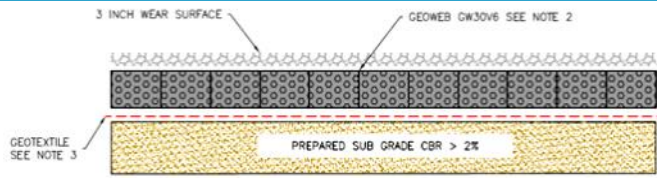
One of the challenges was to keep the road operational during initial subgrade preparation and to stage reinforcement material and gravel in advance of the road being closed for repairs. Layfield's execution plan called for the road to be closed for less than 2 weeks.

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GEOWEB® Haul Road Cross-Section



The Solution

The decision was made to deploy the Presto Geosystem GEOWEB® 3D load support system with Mirafi's enhanced woven geotextile. **The materials were chosen due to their performance and speed of deployment** as the construction timeline was critical to the success of the project. Presto GEOWEB® GW30V6 panels and Mirafi HP270 were specified and supplied for the project.

Several sections of the access road were in such poor condition that additional sub-base reinforcement was required and consisted of a second GEOWEB® layer and geotextile to further stabilize the weak road base. These areas identified during sub grade preparation consisted of ~650 linear meters (.4 miles) of additional deployment.

Layfield's experienced team provided on-site technical support and installation training for the general contractor. They worked closely with the contractor and drifter project's on-site manager to ensure a smooth and timely deployment of the materials.

The logistics required to stage 335 pallets of GEOWEB® panels and over 12 km (7.5 miles) of custom sewn HP270 enhanced geotextile were easily accomplished by the Layfield shipping department.

Project Results

The project was successfully completed as designed during a very wet construction season. The initial deployment of GEOWEB® panels and Mirafi enhanced woven geotextile in the areas initially identified as very poor were so successful that a second layer was not required. A key to installation speed was the use of the patented ATRA® Key device to connect GEOWEB® panels side to side and end to end. Corrosion-resistant ATRA® keys are the strongest and safest connection method-dramatically speeding deployment of the GEOWEB® panels. The road is now in service awaiting final plant commissioning in early 2019.



Beneficial Use of Local, Low-Cost Fill



Final Stabilized Haul Road

GEOWEB® Benefits for Roads & Pads:

- Ability to use local, low-cost fill
- Low maintenance surface with minimal rutting
- Ability to utilize local labor & materials
- Fast installation; no weather restrictions

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An Idea that
will work for
your Project?

Request **FREE**
Project Evaluation

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