

Case Study

Spray in Liner Spectra Energy



STRAYCAT
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Project: Spray in Liner

Location of project: Midwinter Gas Processing Facility, 300 KM's NE of Fort Nelson, British Columbia.



Description of Application: Substrate was uneven compacted dirt with a polyethylene liner that had failed. Stray Cat cleaned all penetrations and prepared the steel before any coatings were applied. We removed pile boots that had come apart from weld seams; steel preparation was done with a bristle blaster to achieve a near white profile of approximately 3 mils. Geo-textile fabric was laid and all walls and pilings were coated and encapsulated to create a seamless monolithic liner. Polyurea's ability to flex and stretch addressed the underlying cause of damage to the existing liner, which was due to shifting of the ground because of thermal cycling in the extreme climate conditions of northern Canada.

Quality Assurance / Quality Control: Stray Cat monitored weather for humidity, dew point, temperatures, wind speeds, etc. before and during work each day. Daily QA/QC reports were filled out and handed into the client that included the products' batch numbers and manufacture date, all environmental conditions, blast profile, etc. Stray Cat did various thickness tests throughout the project to verify proper and uniform thickness. Once the project was completed Stray Cat representatives and the Construction Manager did a walk-through of the job before handing over to client.

Details



Manufacturers: Rhino liner for the polyurea and US Fabrics for the Geotextile

Size: 20,000 ft²

Length of project: 2 weeks

Crew size: 4 technicians, 1 Foreman

Equipment on site: Gusmer FF1818 proportioner, Graco Fusion AP gun with a 2929 mixing chamber, on site air compressor and dryer as well as on site shore power. MBX Bristle blaster for surface preparation on steel penetrations

Type of Structure: Failed polyethylene liner retrofit for secondary containment for (4) separate containment areas for condensate tanks. Approximately 200 pilings and penetrations through liner.

Condition of Structure: Uneven ground with puddles, new steel containment system, old rusty and contaminated steel pilings, failed polyethylene liner

Date of Application: March 2015

Product Used: Rhino Extreme pure polyurea, black colored

Warranty: 5-year manufacturer and 2-year installation warranty

Unique Conditions or Experiences during project: The Spectra Midwinter Plant, located in the muskeg of remote northeastern British Columbia, is only accessible by road during the winter months when the ground is frozen. As the work took place during the summer, Stray Cat transported all coating and geotextile material to the site the previous winter, where it was kept in heated storage. For the duration of the project, the crew flew to and from the site every day in a helicopter. The helicopter was limited to carrying 2 drums (containing a total of approximately 1000 lbs.) at a time, which required careful planning of equipment and material requirements. Stray Cat supplied lightweight air driven equipment to apply the coatings.

Opinion of Project Owner - Product, Applicator Performance and Projected Future Use: Stray Cat had in the past done other successful projects for Spectra Energy and was referred to the maintenance planning team from another division. Since this project, Stray Cat has done many other projects for the client including coatings for a large water treatment plants floor and various other spray in liners.



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