Our review of the area around the pond at the base of the slopes, showed no sign of oil, water, or oil/water mixture and hence we conclude that the integrity of the liner, has been maintained. There were no tears or ruptures in the liner observed.

There was no sign of any settlements or seepage, at the base of the soil structures forming the dykes.

The structure is considered to be stable in its present condition.

Recommendations

The performance of the structure has been tested since 2009 with the ponding of water. The observations noted during past inspections have supported the conservative design of the structure. We have no recommendations at this time.

4.03 Existing Polishing/Waste Stabilization Pond

General Conditions

This particular pond is the original PWSP that was constructed prior to 2008, is associated with the original sewage plant, and is servicing the man camp that is still in place.

The PWSP was designed as storage and polishing of effluent from the man camp that could not be immediately released to the environment.

The camp was occupied with a large construction crew and the sewage plant was operating as designed. The PWSP was not being utilized to contain additional effluent at the time of our review.

There was considerable capacity remaining in the PWSP at the time of our inspection.

Currently the PWSP conforms to the design basis for the facility.

Stability

With the PWSP constructed as it is, the structure is considered stable for long term use.

There was no sign of seepage at the bottom of the dyke. There were no signs of settlement or cracking, which are signs of stress in the structure.

Recommendations

Currently, the Milne Inlet PWSP conforms to the design intent and we have no recommendations.

4.04 Barrel Fuel Storage

General Conditions

This particular structure is constructed as a two cell structure.

This structure was originally intended for use as barrel fuel storage. However with time, this structure's use changed to that of storing lubricant cubes as well as barrel storage.

For continuity, we continue to refer to this storage/containment structure as Barrel Fuel Storage.

The structure around these two cells conforms to standardized drawings, prepared by our office for such a structure.

At the time of our inspection, there were two cells in use with minor water ponding in the bottom of the two cells.

Stability

Our review of the area around the ponds, at the base of the slopes, showed no signs of seepage.

The structures are considered stable in their present conditions.

Recommendations

We have no recommendations with respect to this structure at this time.

4.05 Hazardous Waste Storage

General Conditions

This particular structure is constructed as a 2 cell structure.

The structure conforms to the design basis for the facility.

At the time of our last inspection, this structure was utilized to store hazardous waste contained in barrels.

Since last year, the waste has been tested and hazardous materials have been removed and are in the process of being shipped out off site. Materials that have proven to be non-hazardous are currently in barrels adjacent to the structure awaiting disposal.

This containment structure, is now used as containment for barrel fuel and lubricant cubes.

The minor ponding of water in the bottom of the cells confirms the integrity of the liner.

Stability

Our review of the area around the dykes, at the base of the slopes, showed no sign of seepage.

There were no signs of stress noted in the structure. The structure is considered stable in its present condition.

Recommendations

Currently, this containment structure conforms to the design intent and we have no recommendations.

4.06 Oil and Antifreeze Containment

General Conditions

This particular structure is located between the air strip and the Bulk Fuel Storage.

The structure around this containment area conforms to standardized drawings prepared under my direction in the past.

Stability

Our review of the area around the structure at the base of the slopes, showed no signs of seepage.

There was no signs of stress in the dykes and the structure is considered stable.

Recommendations

We have no recommendations with respect to this structure.

4.07 Jet "A" Pump Containment

General Conditions

This small cell on the north side and adjacent to the Bulk Fuel Storage Containment is to control spillage during refuelling.

There was water ponding above the sand cover which confirms the integrity of the liner.

Stability

Our review of the area around the base of the dykes, showed no sign of seepage.

There was no cracking or settlement observed in the dyke structures.

Recommendations

We have no recommendations at this time with respect to this structure.

4.08 Fuel Tank Farm

General Conditions

This particular structure was discussed in the 2012 Annual Geotechnical Report as "5M litre Steel Fuel Storage Tank Containment".

The fuel storage facility has been considerably expanded since 2012.

There has been a second 5m litre tank constructed and two 12M litre tanks are under construction.

Pads have been constructed for one more 12 M litre tank and 3 more 0.75 M litre tanks which were being delivered as the report was being written.

We noted the following:

1. The containment structure was put in place prior to the construction of the tanks and the pads for the tanks were constructed with the containment dykes.

2. The dykes that had been constructed as containment for the initial 5 M litre tank, were incorporated into the overall dyke construction for the entire tank farm.

3. The drainage of the tank farm structure now utilizes the sump constructed for the initial tank.

4. The dykes incorporate rip-rap on the exterior of the dyke.

5 We would classify the quality of the work in the construction of the dykes and pads, including the base of the structure as exceptionally good and of a quality that should last for decades.

Stability

We noted no sign of weakness in any of the construction.

Design

We attach a copy of the design drawings of the fuel storage site being the following Hatch drawings:

2613-10-35-001
2613-10-035-002
2613-10-035-004

These drawings set out the plan, section, and details of the containment structure. The construction conforms to these drawings.