The Tower Standard Site is located on fee land within the Lac du Flambeau Indian Reservation at the intersection of State Highway 70 and County Road D near Lac du Flambeau, Wisconsin. The Site is bordered on the north by State Highway 70, to the south by a small pond and Haskell Lake, to the east by a vacant property (formerly a restaurant) and to the southwest by the Haskell Lake Lodge motel. A fireworks shop was formerly located to the north across Highway 70. Homes with private wells, some on tribal trust land, lie on the east and west sides of Haskell Lake. (See figure for locations). Following closure of the site as a gas station, the building was used as a bait shop in the summer months until 2015. Site property covers about ½ acre.

The Tower Standard gas station was built in the early 1940's and operated until 1996. Six underground storage tanks were located on the property, five of which contained leaded or unleaded gasoline. One tank contained waste oil. All tanks were removed in 1997.

Investigations at the Site began with a preliminary site assessment in 1997. Contaminated soil was found beneath the tank pit and groundwater was found to be contaminated. Contaminated soil was removed from below and nearby the tank pit but removal ceased at the east property line (See highlighted excavation area in figure). The private well at the site and a well at the motel were replaced after benzene contamination was found. Subsequently, a monitoring well network and groundwater pump and treat system was installed at the Site. The site was closed by the State in 2006, although soil and groundwater contamination was still present. At that time, contamination was thought to be localized at and near site property.

An unrelated investigation performed under the Targeted Brownfields Assessment (TBA) program was begun in 2011 for the former fireworks stand property across highway 70. The fireworks stand burned down and the Tribe was concerned about perchlorate contamination leaching to groundwater and surface water. The purpose of the investigation was to identify the horizontal and vertical extent of perchlorate contamination in groundwater and assess potential routes of exposure to local residents or ecological receptors. Much of the work occurred on the south side of Highway 70, near the Tower Standard Site location because groundwater movement in this area is in-part toward Haskell Lake.

While performing vertical aquifer sampling for perchlorates during the TBA investigation, strong petroleum odors were noted by the field geologist at 30 feet in one boring and at 40 to 50 feet in another boring. Samples were not analyzed for petroleum compounds at this time due to the nature of the TBA investigation. Follow-up groundwater sampling at discrete elevations showed high levels of VOCs near and downgradient of the site toward Haskell Lake.

Based on this information and a review of the previous site work, the State reopened the site in 2014. Since that time, the State, the RP's contractor, the region, and the tribe have worked on various aspects of site investigation. To-date, private wells have been sampled twice, 16 wells have been installed (7 locations with nested wells), soil boring and sampling has been performed throughout the site and adjoining property to the east, vapor intrusion sampling has been

performed at the motel and Tower Standard site building, and MiP/HPT and LIF work have been performed at and downgradient of the site.

Current knowledge of the site- There is a source area of smear zone contamination, most of which lies on the restaurant property to the east of the former tank pit. This source is continuing to contaminate shallow groundwater. Although the reason is not certain (there is no strong downward gradient at the site, historic pumping of the recovery wells and/or nearby private wells may have moved contaminants but there is no definitive proof), contaminants have migrated deep into groundwater and are heading toward the lake, but the mass of the plume may lie below the lake bed. No exposures have yet been found to residents or ecological receptors. Private wells are not presently contaminated by the release at the site. VI sampling showed no unacceptable levels, and no one is currently exposed to contaminated site soils.

The region wants to complete the well network and investigate the lake bed pore water to see if contaminants are affecting ecological receptors. Also, the region would like to design and install a source control measure to prevent additional groundwater contamination. It is not yet known who (state petroleum fund, EPA, tribe) will share in the cost or participate in the field work activities to complete the investigation and site remediation.