



Fatality - worker drowned in dugout

March 18, 2019

The contents of this report

This document reports the Alberta Occupational Health and Safety (OHS) investigation of a fatal accident that occurred in March 2019. It begins with a short summary of what happened. The rest of the report covers this same information in much greater detail.

Incident summary

An equipment operator was operating an excavator on a snow covered, unmarked dugout when the ice broke, and the excavator sank below the ice surface into the water below. The equipment operator drowned as a result.

Background information

Medicine Lake Grazing Association

The Medicine Lake Grazing Association (Association) was formed June 23, 1976, for the purpose of providing its members with a common cattle grazing pasture area utilizing crown lands. There were eight elected board members at the time of the incident and 25 patron members of the Association. The Association was a registered non-profit society.

The Association only had three positions that workers were hired to during the operating year: the Secretary, the Pasture Manager and the Pasture Rider. At the time of the incident, only the Secretary position had been employed.

Monte Visa Farms Ltd.

Monte Visa Farms Ltd. (Farm) was, at the time of the incident, a registered corporation in Alberta and had two owners. The Farm operated solely for its own purposes consisting of cattle and feed grains/hay crops. The Farm also owned the excavator that was involved in the incident. The excavator was used solely for use on the Farm and not for commercial purposes.

Ridge Valley Trenching Ltd.

Ridge Valley Trenching Ltd. (Ridge Valley) was a registered company within the Province of Alberta and had, at the time of the incident, two equal shareholders. Ridge Valley had operated as an excavation company cleaning dugouts and installing and removing culverts.

Operator

The equipment operator (Operator) was one of the owners of Ridge Valley and the primary operator of equipment. The Operator had over 30 years' experience cleaning dugouts and installing/removing culverts.

In February 2017, the Crown and the Association entered into a written contract regarding the operation and maintenance of the grazing lands including dugouts.

In February 2019, the Association board members discussed various upcoming projects at its annual meeting and the cleaning of the specific dugout was approved to begin the same year. Prior to March 18, 2019, the Association's Pasture Manager contacted the owner of the Farm and entered into a verbal contract in order to secure the use of the excavator for the task of clean up on the dugout's sloughed banks.

An Owner of the Farm contacted the Operator of Ridge Valley and entered into a verbal agreement to operate the excavator for the Association's dugout cleaning project.

On March 17, 2019, the Farm hired a third party trucking company to transport the excavator from the Farm's property to the grazing lease entrance at the quarter section where the dugout was located.

On March 18, 2019, the Operator of Ridge Valley arrived at the grazing lease and operated the excavator onto the dugout.

Work site, equipment and materials

Work site

The dugout was used as a source of water for the grazing cattle to drink. The exact size and depth of the dugout was unknown at the time of the incident as there was no record available (Figure 1).

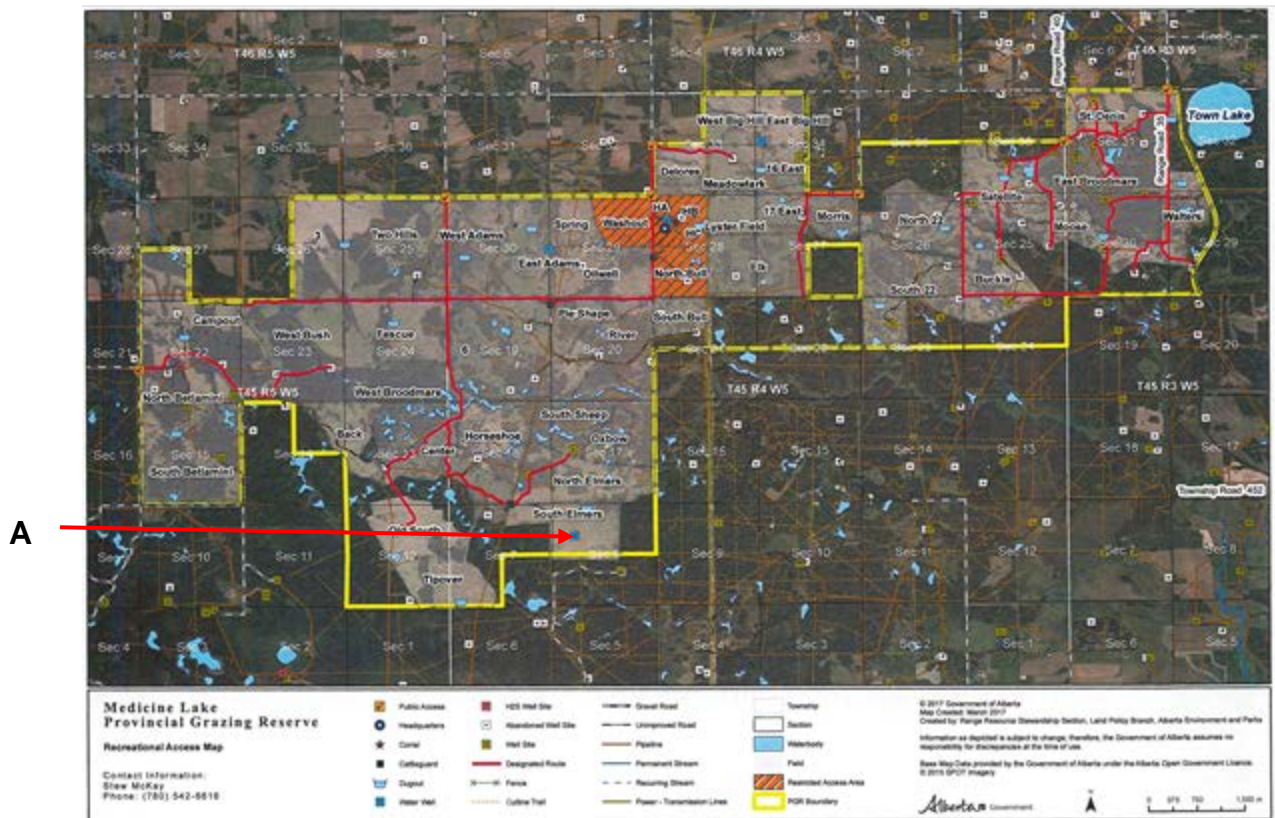


Figure 1. Medicine Lake Provincial Grazing Reserve – yellow border identifies the grazing lease.

A. The location of the dugout in the South Elmer's quarter section where the incident occurred in relation to the grazing lease.

Excavator

The Hitachi excavator was a Model EX270LC that was operated during the incident. The excavator was manufactured in Japan in 1997 by the Hitachi Construction Machinery Co. Ltd.

The excavator was owned by the Farm for approximately five to six years prior to the incident. The excavator was primarily used on the Farm property for farm use (Figure 2).



Figure 2. The excavator after extrication from the dugout.

Sequence of events

On March 18, 2019, the Pasture Manager met with the Operator at the work site to explain the scope of work to be completed.

The Pasture Manager oversaw the operation of the excavator for about half an hour prior to leaving the work site.

The Operator was left alone at the dugout work site to continue with the assigned task.

The Pasture Manager returned to the dugout work site between approximately 5:00 p.m. and 5:30 p.m. to check on the progress of the work performed.

The excavator was located approximately in the middle of the dugout with only the boom exposed above the ice (Figure 3).



Figure 3. South Elmer's quarter section dugout of the grazing lease on March 18, 2019 (Royal Canadian Mounted Police (RCMP) photo).

The Operator was not visible and assumed to be still inside the excavator.

The Pasture Manager stated that they called 911 as well as the owner of Farm.

A member of the RCMP from Breton Detachment was dispatched and responded to the incident location.

Emergency services were dispatched to assist and worked to remove the submerged excavator (Figure 4).



Figure 4. Submerged excavator in the dugout March 18, 2019 (RCMP photo).

The owner of the Farm contacted a construction company to bring in appropriate equipment to blade a vehicle path in the snow and assist with the extrication of the submerged excavator from the dugout.

Early in the morning of March 19, 2019, the submerged excavator was retrieved from the dugout in the South Elmer's quarter section, and the unresponsive Operator was recovered from inside the cab of the excavator.

The Operator had drowned as a result of being submerged inside the excavator and was taken to a nearby hospital.

Completion

A review for enforcement action was completed on May 13, 2020, and it was determined that prosecution or an administrative penalty were not appropriate based on the circumstances surrounding this incident.

This investigation was closed on April 12, 2023.

Signatures

ORIGINAL REPORT SIGNED

Lead Investigator

April 12, 2023

Date

ORIGINAL REPORT SIGNED

Manager

April 13, 2023

Date