INTRODUCTION

**Inyan Kara Formation** (7-20 ft) underlain by strata that are slightly higher elevated sandstone deposits at an elevation of approximately 700 feet above sea level. The Williston Basin of North Dakota has an ideal sequence of geologic units (Dakota Group) present at an optimal depth for produced water disposal. The lower Cretaceous Dakota Group consists of four formations interbedded across the Mohall 100K area.

**THE DAKOTA GROUP**

Geology of the area is the major factor in determining if injection is a viable option for produced water disposal. The Dakota Group in North Dakota consists of the Dakota Sandstone Formation, the Green River Formation, the Dakota Shale Formation, and the Pithon Shale Formation. These formations are interbedded and are typically found in the Mohall 100K area. The Dakota Group is approximately 50-150 bbls of produced water disposed annually in spray beds and injection wells.

**CONTROL WELL TYPES/RESERVOIR QUALITY**

Inyan Kara sandstone, deposited in these valley fills, is a 20-30 ft thick, very fine sandstone unit with a porosity of 20-30%. The Dakota Group consists of four formations interbedded across the Mohall 100K area. The Dakota Group is approximately 50-150 bbls of produced water disposed annually in spray beds and injection wells.

**ISOPACH OF INYAN KARA FORMATION SANDSTONES**

This map presents thickness contours (isopachs) of interpretable sandstone bodies present within the Inyan Kara Formation at the Mohall 100K area. The map is a result of interpreting 2D seismic data, well log data, and outcrop information. The map is a tool for identifying areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal. A contour line on the map represents the isopach value at a specific depth. The isopach value represents the thickness of the sandstone unit in feet. The map is used to identify areas where the potential for successful injection wells for produced water disposal is optimal.