

WASTE MANAGEMENT PLAN

SUNMARKE PAD #19-28

Purpose

The purpose of the plan is to name the types of waste that will be generated through drilling operation of this pad and to detail the management and disposition of such waste. The plan will further outline the onsite storage and disposal of all types of waste generated during the drilling operations.

Types of Waste

1. **Drill Cuttings:** Drill cuttings will be removed from the drilling mud with the use of a shaker and further settling treatment and the liquid mud will be reused. The solids will be temporarily stored in a self-contained, steel dumpster tank placed next to the settling tank. The cuttings will be removed from location spread offsite at a farmer's land with prior agreement. Dump trucks will pick up this waste daily with the use a front end loader trucks, or as required by the drilling operations.
2. **Drilling Water:** Waste water along with any other waste fluids will be stored in 3-500 bbl frac tanks. Water will be hauled in 120 bbl tanker trucks every other day or when required by the drilling operations. One empty tank will be kept onsite at all times. The produced water will be disposed of at Wattenberg Disposal Facility located on Weld County Road 19 and Highway 52.
3. **Tank Bottoms:** The drilling operation is not expecting tank bottoms, since only fresh water will be stored on location. In the event that tank bottoms were present, these will be handled in the same manner as the drill cuttings.
4. **Human Waste:** Two portable toilets will be on location at all times. Related waste will be handled by a certified entity that will remove waste on a daily basis from location.
5. **Paper waste:** Paper waste will be stored in a screened trash trailer which will be emptied as needed and waste will be disposed of at an certified disposal location.

Re-use and Recycling

The closed-loop drilling process will start with the use of fresh water which will be constantly recycled and conditioned in order to minimize waste water.