



Noble Energy, Inc. Waste Management Plans Summary

The following describes Noble Energy, Inc.'s (Noble) general plan for proper handling and disposal of Exploration and Production (E&P) waste, including produced water, drill mud, and cuttings and tank bottoms.

- E&P waste will be stored onsite in compatible containers, e.g. frac tanks, three sided tanks, bermed areas, etc. Containers will be inspected on a regular basis to ensure they are in good condition and free of severe rust, bulging and/or structural defects.
- E&P wastes will be transported offsite by a licensed transporter via truck. Truck transport frequency will vary from site to site based on waste volumes.
- E&P petroleum impacted soils, drill cuttings, and drill mud will be disposed of at licensed third party disposal facilities (landfills). Tank bottoms will be disposed of at E&P licensed third party disposal facilities (landfills). Liquid wastes, including flowback and produced water will be disposed of at licensed third party injection facilities.
 - Third Party Disposal Facilities
 - Waste Management
 - Buffalo Ridge Landfill
 - North Weld County Landfill
 - Denver Regional Landfill
 - Allied Waste
 - Tower Landfill
 - Third Party Injection Facilities
 - High Sierra Injection Facilities
- Per Colorado Oil and Gas Conservation Commission (COGCC) Rule 907.a.(3), Reuse and Recycling of E&P waste, Noble with prior approval from the COGCC will potentially recycle and reuse produced water/flowback to be used in downhole frac operations.

- Noble may use the first one hundred feet of drill cuttings for spill prevention and/or stormwater management best management practices per approved beneficial reuse waste management plan: COGCC document number 400764671.
- Per Colorado Oil and Gas Conservation Commission (COGCC) Rule 907.a.(3), Reuse and Recycling of E&P waste, Noble with prior approval from the COGCC will potentially recycle and reuse drill cuttings and bentonitic fluids by utilizing HydroLoc (a composting agent).
- E&P drilling wastes, including bentonitic drilling fluids will be re-used by land spreading on Noble spread fields per COGCC Rule 907.d.(3). No other E&P waste will be deposited at these locations.
 - Noble Spread Fields

Site Name	Legal Description	Latitude/ Longitude	Driving Directions
Sandau # 1	Sec. 24, T4N, R66W	40.278634, -104.729513	NE of CR35 and CR 40
Moser III	Sec 28 T3N R65W	40.199951, -104.664102	SW of the corner of WCR 30 and WCR 43
Grover/Konig	Sec 10 T10N R62W	40.850461, -104.312578	1 mile South of WCR 120 and WCR 79
Miller I North	Sec 11 T6N R62W	40.497715, -104.293745	NE WCR 70 and WCR 81

Oil Based Mud Waste Management Plan Noble Energy, Inc.

Noble Energy, Inc. (Noble) will dispose of oil based mud (OBM) in accordance with the Colorado Oil and Gas Conservation Commission's (COGCC) Rule 907 Management of E&P Waste. Noble will transport OBM as E&P Waste to an offsite disposal facility in Colorado which is approved by the Colorado Department of Public Health and Environment.

Noble will transport OBM under proper waste manifest and will retain each manifest for not less than five years. The criteria on the manifest will include A) The date of transport B) The identity of the waste generator C) The identity of the waste transporter D) The location of the waste pick up site E) The type and volume of waste, and F) the name of the location of the disposal site.

Noble will follow COGCC Rule 907.d (2) Treatment and Disposal of Drilling Fluids. Noble will dispose of drilling fluids by Injection into a Class II well permitted in accordance with COGCC Rule 325 or disposal at a commercial solid waste disposal facility.