

CUTTINGS GENERATION ON CAERUS LOCATION ID 416157

Caerus drilled 24 wells on the 697-26A well pad starting on January 1st, 2017 which generated approximately 6,656 yds³ of cuttings (~ 277 yds³ per well). During the drilling process, the cuttings were stabilized by dewatering through shaker tables and centrifuges. Once the cuttings were dewatered, they were temporarily staged against the northeast cut slope of the pad by utilizing a front-end loader. All cuttings were contained within perimeter berms to prevent stormwater runoff from leaving the temporary staging area. After drilling activities were complete, the cuttings were stacked approximately nine to ten feet tall within perimeter berms until relocation into a landfarm format.

LANDFARM INSTALLATION AND SITE INVESTIGATION ON CAERUS LOCATION ID 416157

After drilling and completion crews moved off location, cuttings were relocated into a landfarm format for remediation. The cuttings were stacked no greater than 36" deep in an even manner within perimeter berm containment. Due to restrictions caused by the installation of production equipment and limited working pad surface area, cuttings were laid out in two separate landfarms along the northeast cut slope and the southwest edge of the working pad surface. The landfarms were segregated into six land treatment cells which equaled approximately 1,100 yds³ per composite sample. Initial composite soil samples, comprised of 5 aliquots, were collected from each land treatment cell (CUT-N, CUT-MID, CUT-MID01, CUT-MID02, CUT-S, and CUT-E) on April 30th, 2018 at an approximate depth of six to twelve inches and analyzed for COGCC Table 910-1 analytes to characterize the extent of impact. Initial composite soil sample analytical results indicated benzene exceedances for all six land treatment cells. Please see the attached figure for details on the treatment cells.

SUBSEQUENT CUTTINGS SAMPLING ON CAERUS LOCATION ID 416157

Due to Table 910-1 Concentration Level exceedances for benzene found in the initial sampling event, all six individual land treatment cells within the two landfarms were turned/tilled monthly between May and July 2018 to allow for aeration causing contaminants to biodegrade and/or volatilize. Subsequent composite samples from all six land treatment cells were collected on a regular basis after the monthly turning/tilling events following the same sample collection SOP (standard operating procedure) as the initial composite samples. Final turning/tilling events occurred on July 24th and 25th, 2018 followed by subsequent composite sample collection. All six land treatment cells were compliant with COGCC Table 910-1 Concentration Levels for benzene (<0.17 mg/kg-dry) as of August 6th, 2018.

RECLAMATION PLANNING ON CAERUS LOCATION ID 416157

Due to the observed EC and SAR exceedances of COGCC Table 910-1 Concentration Levels, cuttings will be used as beneficial reuse during the interim reclamation process for the 697-26A well pad. Per FAQ 32, which addresses materials with elevated pH, SAR, and EC, the cuttings will be positioned under three feet of clean material, segregated soil horizons replaced to their original relative positions, fill and cut slopes recontoured to achieve erosion control/long-term stability, and top soil tilled adequately to establish a proper seedbed. A seed mix approved by the landowner will be used to re-seed all disturbed non-working pad surface areas during the next favorable season. Bare ground and noxious weed spraying programs will be utilized for weed prevention.