

**Grynberg Petroleum Company
Operator ID No. 36200**

**Chivington 1
Pit Remediation Action Plan
Facility ID No. 100600**

Powder Wash Field
Moffat County, Colorado

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Introduction

Grynberg Petroleum Company (Grynberg) completed soil remediation activities for a pit facility ID number 100600 located at their Chivington 1 (API 05-081-05709) and proposes the following additional remediation activities to meet COGCC regulations before requesting final closure of the pit. If COGCC approves the following remediation action plan, once remediation tasks are complete, Grynberg will submit a remediation report and final pit closure plan for facility ID number 100600 as a separate document before backfilling and final reclamation.

Site Location

The site is located in SESE, Section 20, T12N-R97W, 6th PM, Moffat County, Colorado. Coordinates for the location are 40.980178, -108.309032 according to the COGCC website. See Figures 1 and 2 for site location information. USDA dominant soil type in this area is Talamantes loam, with a 0-6 percent slope.

Timeline and Proposed Remediation Activities

Grynberg proposes the following pit remediation activities for facility ID number 100600. This includes a description of activities followed by Table 1 that lists estimated timeframes for work completion. A diagram of the approximate site layout and depth profile of facility ID number 100600 is represented in Figures 3 and 4.

Site Stabilization

Once soil conditions dry enough to operate equipment, the pit area will need to be stabilized before remaining soil excavation can be completed. Soil erosion has occurred to the pit walls over the 2015-2016 winter months and must be stabilized by re-sloping in order to safely continue remediation activities. Once the pit is stabilized, accumulated stormwater will be removed and transported to Great Divide Water Disposal.

Transportation of Backfill Material

Back-fill material within parameters of COGCC Table 910-1 will need to be transported to the site to complete the eventual pit closure since there is not enough material on location due to contaminated soil disposal. Transportation of necessary additional fill material to the site would begin at the time of COGCC approval of this remediation action plan, so that there is enough material on location to timely backfill the pit within the 2016 growing season.

Additional Soil Removal

After the site has been stabilized and stormwater removed, additional VOC field measurements will be taken using a MiniRAE Model 3000. Contaminated soil will be removed until VOC levels do not exceed 100 ppm. Contaminated soil will be sent to Lapoint Disposal located in Vernal, Utah. Uncontaminated soils removed that are necessary to continue remediation activities will be stockpiled separately from contaminated soils to avoid cross contamination.

Soil Sampling for Laboratory Analysis

Once VOC field measurement levels are below 100 ppm, soil samples will be taken for laboratory analysis. A total of 27 samples will be taken from the pit for analysis. Twenty-three (23) samples will be analyzed for BTEX and TOC only. Four (4) samples will be analyzed for criteria listed in COGCC Table 910-1. COGCC will be verbally notified at least 24 hours before sampling event occurs.

The 27 grab soil samples will be taken from large pit area from approximate locations listed on Figure 5. The four (4) samples being analyzed for criteria listed in COGCC Table 910-1 will be taken from the anticipated most prone areas for contamination. All sample locations will be marked and located by survey stakes and no disturbances will be made until laboratory results are received.

Additional Excavation if Needed

If samples indicate contamination outside of acceptable ranges, COGCC will be verbally notified before continued excavation and disposal of contaminated soils. New samples will be processed when the estimated additional excavation is complete. Once all excavation is complete and additional samples are in compliance with COGCC Table 910-1, a remediation report will be submitted to the COGCC through Form 27 for approval before any backfilling operations commence.

Future Actions Pending Additional COGCC Approval

Pit Backfill

If the remediation report is approved by the COGCC, Grynberg will submit a backfill and final reclamation plan through COGCC Form 27 for approval before beginning the backfilling process.

Final Reclamation

Once the pit has been fully backfilled, the location will be graded to surrounding contours to blend with the existing landscape. Pending the landowner's preference, the area may have bio-sol and/or hydro-mulch applied to the location to stabilize the soil and prepare the seedbed. Once the seedbed is prepared, the area will be seeded at the landowner's discretion.