

Inspection Photos

2/20/2019

Operator: H & M PETROLEUM CORPORATION #
10032

Location ID: 458288

Inspection Doc. Number: 682504523
Logan County, CO

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COGCC

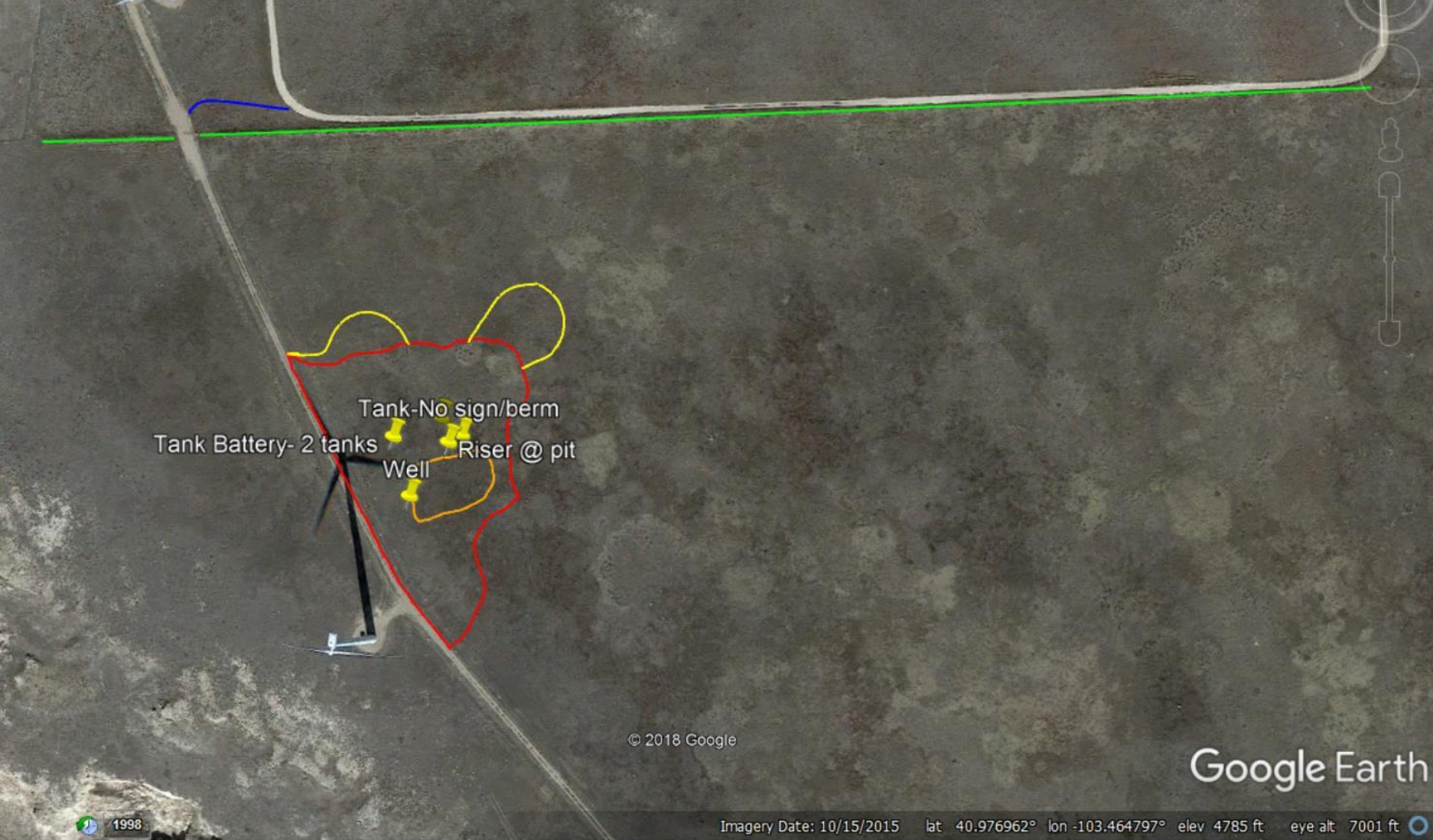


Photo 1: 2013 Google Earth aerial image. Photo shows location disturbance (red), areas where vehicles traveled onto adjacent lands (yellow), area of the pit (orange), additional access road created for location (blue), and the additional disturbance areas parallel to access road during construction (where soil was removed for pad, green).

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Photo 2: Photo taken from the south end of the location, facing north. Photo provides overview of the location.

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Photo 3: Photo taken from the south end of the location, facing northeast. Photo provides overview of the location.

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Photo 4: Photo taken from the south end of the location. Photo shows area where operator had brought soil to “build up” the pad. Operator previously stated that “~3 feet of soil will be placed on the location to build up the pad”. Photo shows vegetation (yucca, grass) is visible within the material brought on location suggestion either 1) Operator failed to stabilize the soils brought onto the pad and wind erosion has removed the material, or 2) Operator failed to import a sufficient amount of material to build to pad and protect the topsoil below. Regardless, operator has failed to take appropriate measures to protect the topsoil and the natural features.

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Photo 5: Photo taken from the northeast end of the location, facing east. Photo shows operator has implemented wattles/erosion logs on the eastern, and portions of the northern perimeter of the location. Erosion logs are temporary sediment control barriers and ponding BMPs that intercept sheet flow runoff from disturbed areas, and are required to be trenched and back-filled in order to be in proper functioning condition.

Photo shows Operator only placed/staked the erosion logs upon the surface of the soil; BMPs have not been trenched and back-filled in accordance with good engineering practices and are not in proper functioning condition.



Photo 6: Continued from photo 5. Photo shows Operator only placed/staked the erosion logs upon the surface of the soil; BMPs have not been trenched and back-filled in accordance with good engineering practices and are not in proper functioning condition.



Photo 7: Continued from photo 5. Photo shows Operator improperly installed erosion logs. See comments under photo 6.



Photo 8: Continued from photo 7. See comments under photo 6.



Photo 9: Photo taken from the south end of the pit soil stockpile, facing north. The previous inspection documented that the topsoil and subsoil horizons from the pit was not separated and stored in accordance with 1002.b. This photo continues that documentation. Additionally, rule 1002.c requires that "All stockpiled soils shall be protected from degradation due to contamination, compaction and, to the extent practicable, from wind and water erosion during drilling and production operations". Photo shows soil stockpile remains loose, unstabilized material at risk to wind and water erosion. Operator has failed to sufficiently stabilize the soil stockpile in accordance with 1002.c



Photo 10: Photo taken from the east end of the pit soil stockpile, facing west. See comments under photo 9.



Photo 11: Photo taken from the south end of the pit soil stockpile, facing west. See comments under photo 9.

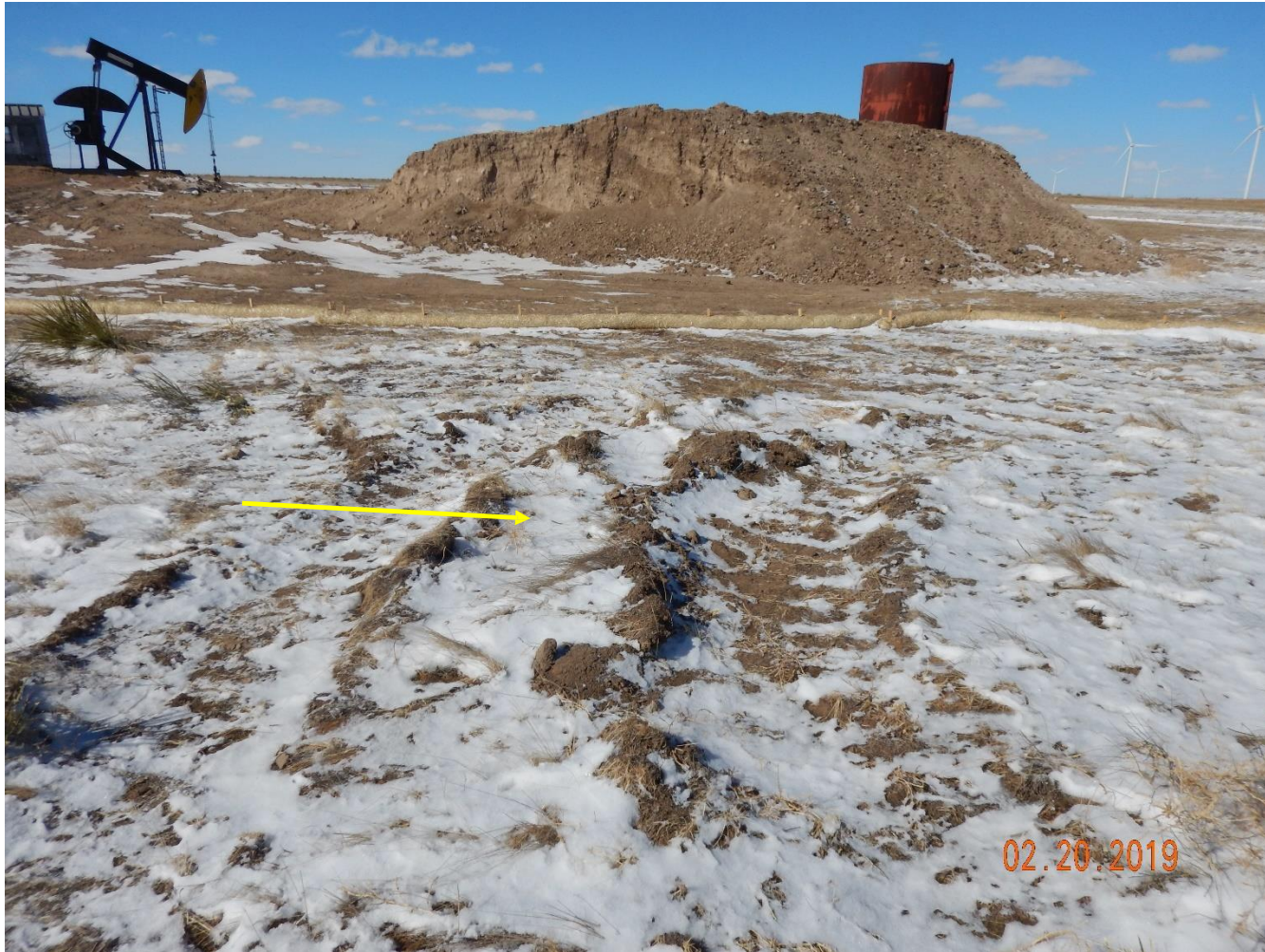


Photo 12: Photo taken from the southeast of the pit soil stockpile, facing northwest. See comments under photo 9. Photo also shows additional disturbances beyond location.

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Photo 13: Photo taken from the northeast of the location. Previous inspection documented that operator drove equipment/vehicles on areas off of the location.. Photos 13, and 17 through 25 continue to document the additional disturbance. Ruts due to compaction observed in photos as deep as 6 inches.



Photo 14: Photo taken from the northeast end of the location, facing south. Photo provides an overview of the location.



Photo 15: Photo taken from the northeast end of the location, facing west. Photo provides an overview of the location. Photo also shows areas where operator stored equipment/vehicles. No pad construction/topsoil salvage was conducted, nor was the topsoil protected.



Photo 16: Photo taken from the northeast end of the location, facing west. Photo provides an overview of the location. See comments under photo 15.



Photo 17: Photo taken from the northeast end of the location, facing east. See comments under photo 13.



Photo 18: Photo taken from the northeast end of the location, facing south. See comments under photo 13.

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Photo 19: Photo taken from the northeast end of the location, facing north. See comments under photo 13.



Photo 20: Photo taken from the northeast end of the location, facing west. See comments under photo 13.



Photo 21: Photo taken from the north end of the location, facing west. See comments under photo 13.



Photo 22: Photo taken from the north end of the location, facing northwest. See comments under photo 13.

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Photo 23: Photo taken from the north end of the location, facing southeast. See comments under photo 13.



Photo 24: Photo taken from the north end of the location, facing south. See comments under photo 13.

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Photo 25: Photo taken from the north end of the location, facing southwest. See comments under photo 13.

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Photo 26: Photo taken from the south end of the location, facing north. Photo shows pumpjack/well. Photo also shows unstabilized soils.



Photo 27: Photo taken from the south end of the location, facing north. Photo shows pumpjack/well and unstabilized soils. Photo also shows a 5 gallon oil bucket being improperly stored on the soil surface of the location.

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COLORADO
Oil & Gas Conservation
Commission
Department of Natural Resources

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Photo 29: Photo taken from the north end of the well, facing south. Photo shows sign is missing from wellhead in accordance with 210.b(1).



Photo 30: Photo taken from the west end of the drill pit, facing east. Photo of pit.



Photo 31: Photo taken from the north end of the location, facing north. Photo shows two (2) 300 bbl AST of “crude oil”. Photo also shows tanks/battery is missing the operator information/signage in accordance with 210.b(2). Berm around battery does not appear to be sufficient in size.



Photo 32: Photo taken from the north end of the location, facing east. Photo shows equipment.



Photo 33: Photo taken from the east end of the location, facing west. Photo shows what appears to be a 300 bbl AST. Tank is missing required signage/labeling in accordance with 210.d. Photo also shows tank is missing required secondary containment in accordance with 906.d(1).



Photo 34: Photo taken from the access road north of the location, facing east. Photo shows areas of disturbance (green) parallel to the access road (blue) where operator had removed soil to be brought onto the pad



Photo 35: Photo taken from the access road north of the location, facing south towards the location. Photo shows area show areas of disturbance (green) parallel to the access road where operator had removed soil to be brought onto the pad



Photo 36: Photo taken from the access road north of the location, facing west. Photo shows areas of disturbance (green) where operator had removed soil to be brought onto the pad



Photo 37: Photo taken from the point where the access road turns from north, to east. Photo shows the only area where operator needed to construct the access road for this location. The road beyond this area had been constructed previously.



Photo 38: Continued from photo 37. Photo shows vegetation on the area of the new section of access road. Operator does not appear to have constructed the road (salvaged topsoil, imported road base) but rather traveled over the surface until a road was created. This is not protective of topsoil.



Photo 39: Photo taken from the access road north of the location, facing east. Photo shows operator storing oil and gas equipment on the crop field to the north.



Photo 40: Photo taken from the access road north of the location, facing west. Photo shows areas of disturbance (green) parallel to the access road (blue) where operator had removed soil to be brought onto the pad



Photo 41: Photo taken from the access road north of the location, facing east. Photo shows areas of disturbance (green) parallel to the access road (blue) where operator had removed soil to be brought onto the pad