

**Response to March 8, 2019 Inspection
Document Number: 682504592**

COGCC conducted an inspection of the LD07-01 pad (Location ID 460414) on March 8, 2019 (Document 682504592) and submitted the inspection on March 13, 2019. During that inspection, COGCC made the following observations:

Comment 1: “At time of inspection, surface roughening BMP on the east end of the location has filled with sediment and is no longer in proper functioning condition. See attached photo document.”

Corrective Action 1: “Install or repair required BMPs per Rule 1002.f.”

Response 1: During operations a scraper pushed soil into the ripping when it was working nearby. Ripping is repaired each evening, or sooner if conditions warrant. There was no loss of sediment or potential loss of sediment, given the conditions on site that day and the additional BMP in place at the perimeter (Filtrexx). This repair is complete, and Noble will continue to evaluate and maintain ripping, as needed. Please refer to the photo log below.

Comment 2: “Operator has implemented slope roughening (tracking) on areas of the location. BMP has not been installed in accordance with good engineering practices on areas of the northeast corner, and east end of the pad. Soils have not been sufficiently stabilized and remain loose material. See attached photo document.”

Corrective Action 2: “Install or repair required BMPs per Rule 1002.f.”

Response 2: Noble tracks slopes and stockpiles as practicable and in accordance with best management practices. Noble has dedicated 2 hours per day, or approximately 20% of the operators’ working time to tracking loose soils. Unfortunately, the very dry, powdery nature of the soils in this area limits the effectiveness of the tracking. Once the soils are contoured to accommodate a water truck and a hydromulcher, both water and hydromulch are applied to further stabilize the soils. Despite the limited effectiveness of soil tracking, there are no other practicable alternatives, so Noble continues to employ this technique throughout construction.

Comment 3: “Topsoil stockpiles previously documented appear to have been removed from the locations. Operator has not submitted records marking or documenting location of the topsoil stockpile(s) in accordance with 1002.b(2).”

Corrective Action 3: None provided

Response 3: Rule 1002.b(2) requires Noble to document or mark where topsoil piles are kept, but does not require that Noble submit them. Noble has documented the location of the topsoil for this location. It has been placed on the west, south, and east cut and fill slopes to facilitate growth and stabilization.

Comment 4: “Previous inspections documented active wind erosion and sediment transport from location and soil stockpiles due to wind erosion. Topsoil stockpiles appear to have been removed from the location. Though wind erosion was not occurring at time of inspection, location remains at risk to erosion degradation as soils along the slopes of the east and southern ends of the location remain loose and unstabilized. In addition, Inspector did not observe sufficient erosion control BMPs in place, or BMPs such as a water truck as indicated by operator on location that would be available to immediately address erosion concerns as they arise”

Corrective Action 4: “Comply with rule 1002.e and 1002.f”

Response 4: Noble has implemented the available erosion control techniques as practicable, including equipment tracking and deploying a water truck. No topsoil has been removed from the location. Please refer to the photo log below.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 5. Photo taken from the northwest corner of the pad. Photo shows operator has implemented tracking along the cute slopes. Photo shows BMP has not been sufficiently installed. Soils remain loose material at risk to erosion degradation.

Noble Energy –3/18/2019



NBL Photo 1, West side of pad looking North. The photo above, taken on 3/31/2019, shows the current condition of this slope. Once grading was complete, Noble applied water to the slope, tracked in the soil, then covered it with hydromulch. The hydromulch was in place on or before 3/18/2019. Water and hydromulch could not be applied prior to this date, because the slope was actively being constructed and graded.

Noble made efforts to track the slope throughout construction (as shown in COGCC Photo 5); however, the very fine, powdery soils that are present at this location are not amenable to compaction. Nonetheless, vehicle tracking remains the best management practice available for these working conditions and Noble applied them as practicable. A water truck was also used on the pad, and evidence of the water application is shown COGCC Photo 7.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 6. Photo taken from the north end of the location. Photo shows area where topsoil stockpile was stored. Operator appears to have removed topsoil stockpiles from the location.

Noble Energy –3/18/2019

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This topsoil previously located where COGCC Photo 6 was taken was placed on the pad cut and fill slopes to facilitate growth and stabilization (west, south and east slopes). Topsoil that remains stockpiles on location will be used later for reclamation of the north side of the pad.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 7. Photo taken from the cut slopes on the northeast corner of the pad. Photo shows areas where operator appears to have sufficiently tracked and stabilized the slopes.

Noble Energy –3/18/2019

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COGCC Photo 7 shows an area where grading and contouring were complete and water had been applied to the slope prior to tracking. COGCC Photo 7 also shows evidence of the water truck that was used at this location. Note the darker “stained” soils located between the dark brown road base being spread and the tracked slope.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 8. Photo taken from the east end of the location. Photo shows surface roughening (ripping) BMP has filled with sediment and is not longer in proper functioning condition.

Noble Energy – 3/8/2019



NBL Photo 2, East side of pad looking South. The photo above, taken on 3/31/2019 shows the current condition of this ripping.

Ripping is maintained at this location at the end of each day, or sooner, if conditions warrant. The scraper visible in COGCC Photo 8 had pushed material onto the ripping during active construction and the repair was made promptly that same day. There was no loss of sediment or potential loss of sediment, given the conditions on site that day and the additional BMP in place at the perimeter (Filtrexx). Noble will continue to evaluate and maintain ripping, as needed.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 9. Photo taken from the east end of the location, facing southwest. Photo shows operator has implemented tracking along the slopes. Photo shows BMP has not been sufficiently installed. Soil remain loose material at risk to erosion degradation.

Noble Energy – 3/18/2019



NBL Photo 3, East side of pad looking South. The photo above, taken on 3/31/2019 shows the current condition of this stockpile. Once construction and grading of this topsoil pile was completed, Noble applied water to it, tracked the soil, then covered it with hydromulch. The hydromulch was in place on or before 3/18/2019. Water and hydromulch could not be applied prior to this date, because the pile was actively being constructed and graded.

Noble made efforts to track the pile throughout construction (as shown in COGCC Photo 9); however, the very fine, powdery topsoil that is present is not amenable to compaction. Nonetheless, vehicle tracking remains the best management practice available for these working conditions and Noble applied them as practicable. A water truck was also used on the pad, and evidence of the water application is shown COGCC Photo 7.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 10. Photo taken from the east end of the location, facing southwest. Photo shows unstabilized soils on location at risk of erosion degradation.

Noble Energy – 3/18/2019



NBL Photo 4, East side of pad looking Southwest. The photo above, taken on 3/31/2019 shows the current condition of this stockpile. Once constructed and graded, water was applied to the pile, the soils were tracked, and hydromulch was applied. The hydromulch was in place on or before 3/18/2019.

During this inspection, this pile was actively being built. It is not practicable for operators to track soils before they are pushed into position. See additional comments under NBL Photo 5.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 11. Photo taken from the east end of the location, facing south. Photo shows unstabilized soils on location at risk to erosion degradation.

Noble Energy – 3/18/2019



NBL Photo 5, East side of pad looking South. The photo above, taken on 3/31/2019 shows the current condition of this stockpile.

In COGCC Photo 11, this pile was actively being constructed. The differing elevations and track marks can be seen where the operator is pushing material into position. During these activities, it is not practicable for operators to track soils. However, stockpiles are tracked once material is in place and roughly shaped.

Once the stockpile contouring was completed, water was applied to the stockpile, the stockpile was tracked, and hydromulch was applied. The hydromulch was in place on or before 3/18/2019.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 12. Photo taken from the south end of the location, facing north. Photo shows unstabilized soils on location at the risk to erosion degradation.

Noble Energy – 3/18/2019



NBL Photo 6, South fill slope looking North. The photo above, taken on 3/31/2019 shows the current condition of this stockpile

During the COGCC inspection, this pile was actively being constructed. In COGCC Photo 12 the differing elevations and track marks can be seen where the operator is pushing material into position. During these activities, it is not practicable for operators to track soils. However, stockpiles are tracked once material is in place and roughly shaped.

Once the final stockpile contouring was complete, water was applied to the stockpile, the stockpile was tracked, and hydromulch was applied. The hydromulch was in place on or before 3/18/2019.

Name: LD07-01 Pad
Location ID: 460414

COGCC – 3/8/19



COGCC Photo 13. Photo taken from the south end of the location, facing west. Photo shows unstabilized soils on location at risk to erosion degradation.

Noble Energy – 3/18/2019



NBL Photo 7, Southeast corner looking West. The photo above, taken on 3/31/2019 shows the current condition of this stockpile.

During the COGCC inspection, this pile was actively being constructed. In COGCC Photo 12 the differing elevations and track marks can be seen where the operator is pushing material into position. During these activities, it is not practicable for operators to track soils. However, stockpiles are tracked once material is in place and roughly shaped.

Once the final stockpile contouring was complete, water was applied to the stockpile, the stockpile was tracked, and hydromulch was applied. The hydromulch was in place on or before 3/18/2019.