

# Interim Reclamation and Stormwater Inspection

January 9, 2018

Operator: NOBLE ENERGY INC- #100322

Location ID: 433936

Inspection Document #: 682403202

Weld County, CO

SWSE Section 11 T9N R59W

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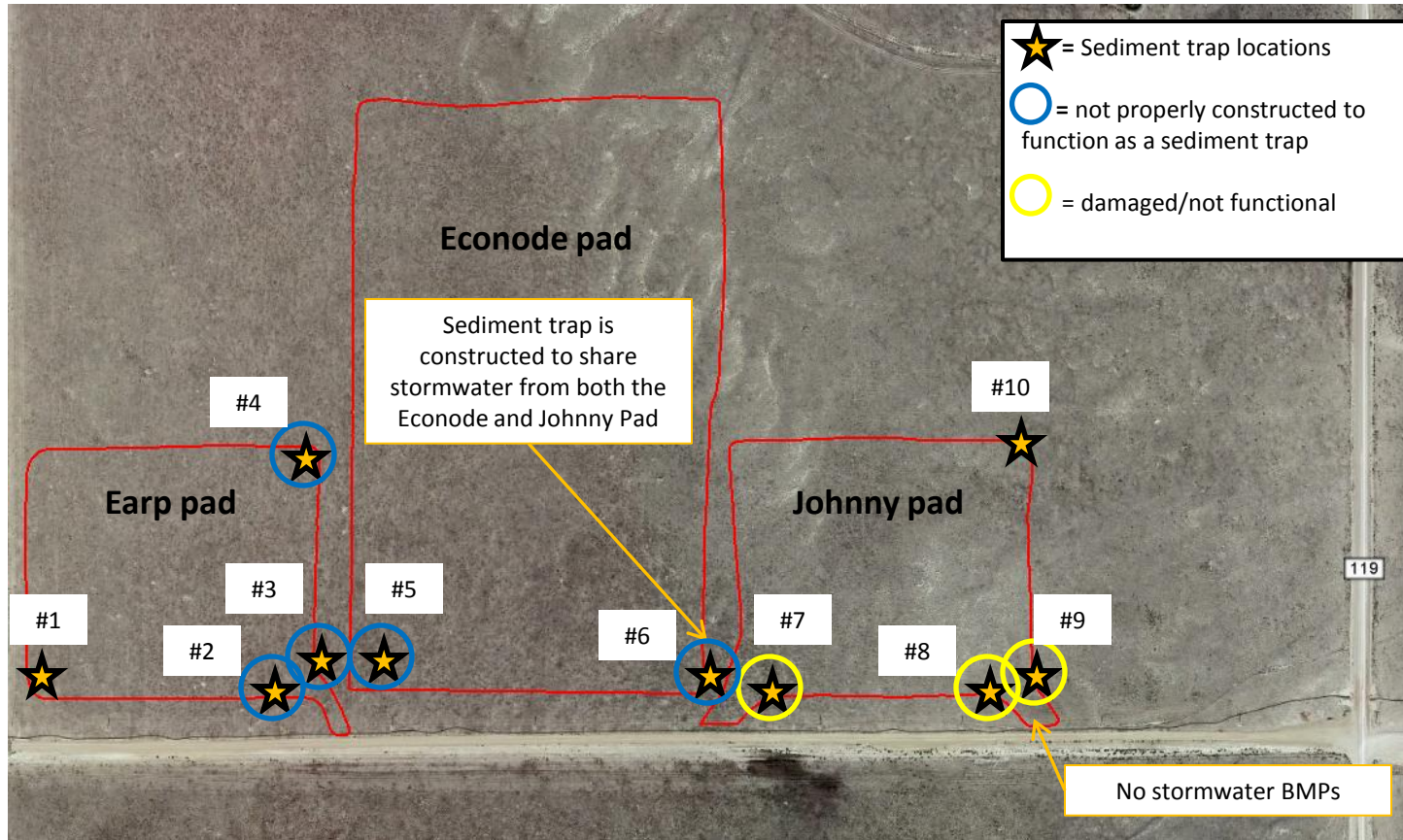


**COLORADO**

**Oil & Gas Conservation  
Commission**

Department of Natural Resources

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Overview of Location ID 433936 and the associated well pads. In total, 'sediment traps' #2-#6 on the Earp and Econode pad were not properly constructed to function as a sediment trap. Sediment traps #7-#9 on the Johnny pad were damaged and not functional. Sediment traps #1 & #10 did not have a stabilized outlet. Stormwater BMPs were not maintained or in some cases did not exist during interim reclamation activities. Sediment traps were not properly constructed per Noble's own Stormwater BMP Manual or in accordance with good engineering practices.

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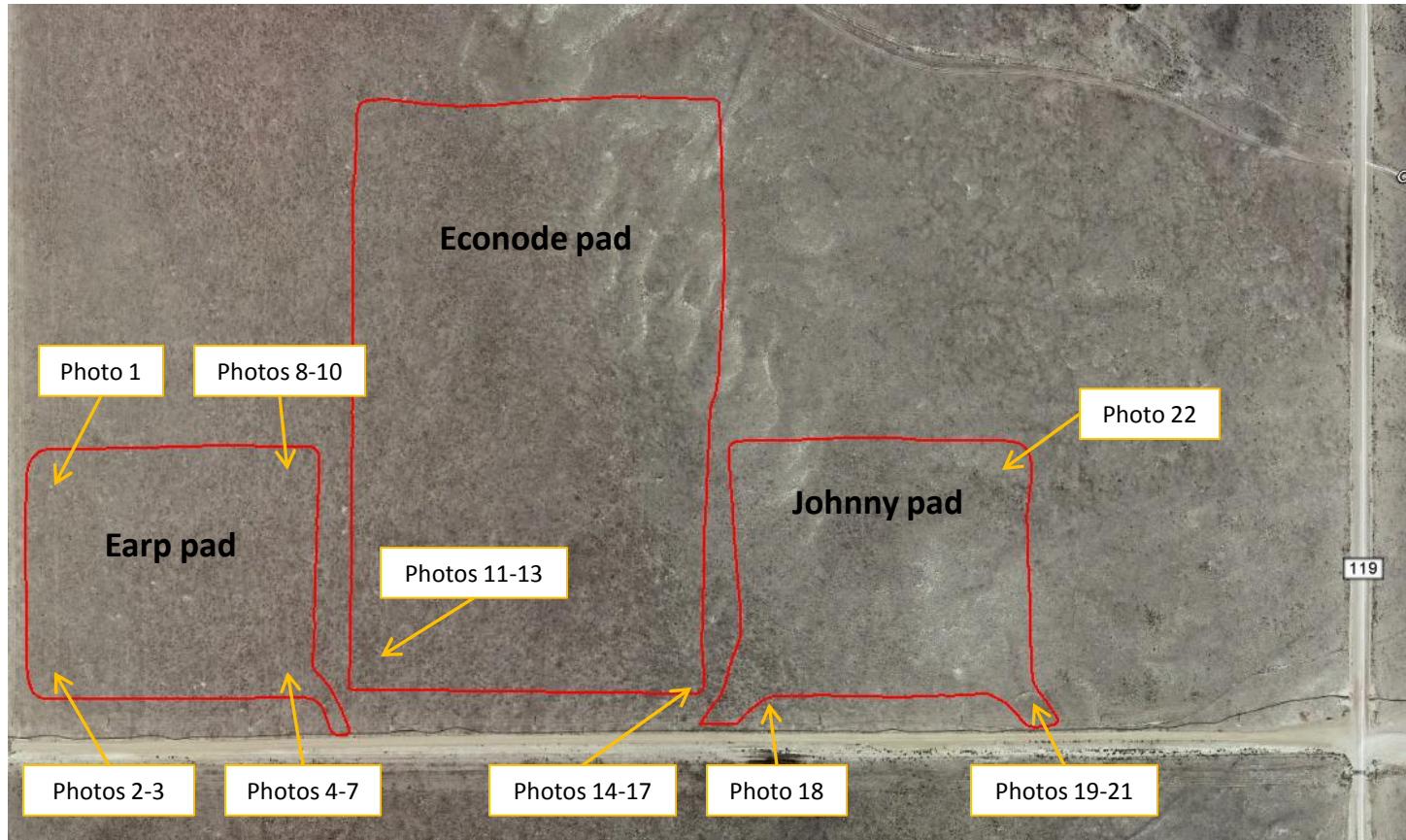


Photo reference points to help illustrate approximate locations of the subject photo during the January 9, 2018 inspection.



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**Photo 1.** Photo taken from the northwest Earp Pad, facing East. Operator in-process of performing interim reclamation activities. Stormwater BMPs were not maintained or in some cases did not exist during interim reclamation activities.



**Photo 2.** Photo taken from the southwest Earp Pad, facing East. See comments under Photo 1.

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**Photo 3.** Photo taken from sediment trap #1, facing East. Operator has installed the above sediment trap since the previous inspection. Rock material from the sediment trap has been removed; therefore, the sediment trap has no stabilized outlet. Interim reclamation activities were occurring during the time of the inspection but stormwater BMPs were not maintained. Also, this does not appear to be built to Noble's own Stormwater BMP Manual (i.e., side slopes not 2:1) or in accordance with good engineering practices.



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**Photo 4.** Photo taken from 'sediment trap' #2, facing West. Operator has enlarged the above 'sediment trap' since the previous inspection; however, it is not constructed properly. The outlet area appears to be higher than the inlet ditch and the outlet rock material has been removed. Based on the above description, this would not be considered a constructed sediment trap. This would be considered an enlarged ditch with no stabilized outlet. Photo also indicates unmanaged weed debris on location.

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**Photo 5.** Photo taken from the southeast perimeter of the Earp Pad, facing West. Ditch BMP appears to be filled from wind erosion sediment deposition. Ditch BMP has not been properly installed and does not appear to be installed to Noble's own Stormwater BMP Manual (i.e., not parabolic ditch). Photo also indicates unmanaged weed debris on location.



**Photo 6.** Photo taken from the southeast perimeter of the Earp Pad, facing West. Surface roughening BMP in need of maintenance, as it appears to be filled from wind erosion sediment deposition. Photo also indicates unmanaged weed debris on location.



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**Photo 7.** Photo taken from 'sediment trap' #3, facing North. See comments under Photo 4- all comments apply to this 'sediment trap' and weed debris.



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**Photo 8.** Photo taken from 'sediment trap' #4, facing North. See comments under Photo 4- all comments apply to this 'sediment trap' and weed debris. See photos 9 & 10 to further illustrate how the sediment trap has not been constructed properly.



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**Photo 9.** Photo taken from the ditch inlet area of 'sediment trap' #4, facing East. Inlet ditch is approximately 2' in height. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the inlet.



**Photo 10.** Photo taken from the outlet area of 'sediment trap' #4, facing North. Outlet is approximately 3' in height which is higher than the inlet ditch; therefore, this would not function as a sediment trap. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the outlet.



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**Photo 11.** Photo taken from 'sediment trap' #5, facing East. See comments under Photo 4- all comments apply to this 'sediment trap'. Outlet material per good engineering practices should be a combination of coarse aggregate and angular rip rap. The above outlet has not been constructed in accordance with good engineering practices. If it was to discharge from the outlet, it would discharge back onto location which could cause other stormwater issues, for example ponding and vehicle tracking. See photos 12 & 13 to further illustrate how the 'sediment trap' has not been constructed properly.

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**Photo 12.** Photo taken from the ditch inlet area of 'sediment trap' #5, facing East. Inlet ditch is approximately 1.5' in height. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the inlet.



**Photo 13.** Photo taken from the outlet area of 'sediment trap' #5, facing North. The outlet is approximately 2.5' in height which is higher than the inlet ditch; therefore, this would not properly function as a sediment trap. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the outlet.

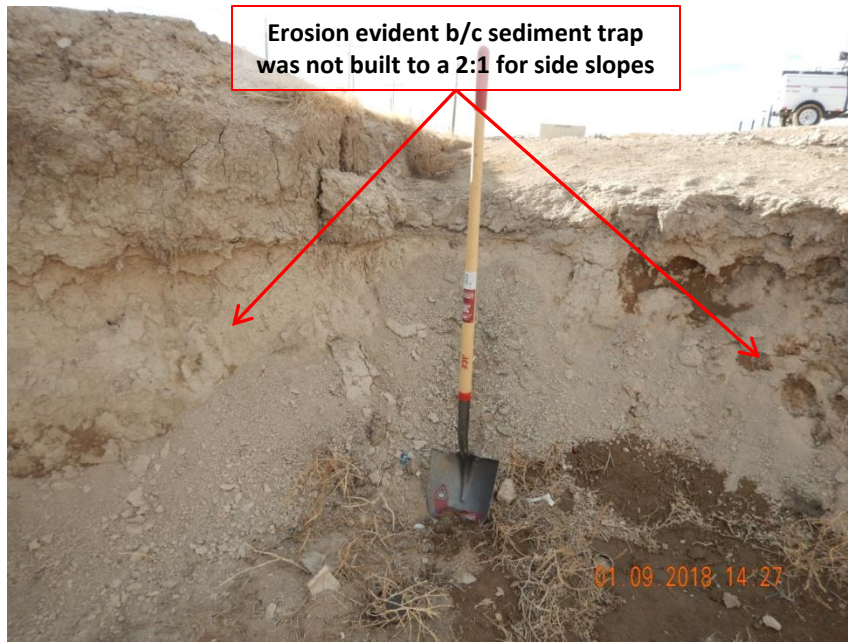


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**Photo 14.** Photo taken from 'sediment trap' #6, facing West. See comments under Photo 4- all comments apply to this 'sediment trap'. See comments under Photo 11 for outlet material. The above outlet has not been constructed using good engineering practices. See photos 15 & 16 to further illustrate how the 'sediment trap' has not been constructed properly.

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**Photo 15.** Photo taken from the ditch inlet area of 'sediment trap' #6, facing East. Inlet ditch is approximately 3.5' in height. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the inlet.



**Photo 16.** Photo taken from the outlet area of 'sediment trap' #6, facing South. The outlet is approximately 4.5' in height which is higher than the inlet ditch; therefore, this would not properly function as a sediment trap. Shovel is at the bottom of the 'sediment trap' area which was used to measure the height of the outlet.



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**Photo 17.** Photo taken from 'sediment trap' #6, facing North. Photo illustrates this 'sediment trap' is being shared with the adjacent Johnny Pad to the east. Ditch BMPs have not been properly installed and does not appear to be installed to Noble's own Stormwater BMP Manual (i.e., not parabolic ditch).



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**Photo 18.** Photo taken from sediment trap #7, facing East. Stormwater BMP has been damaged and not functional. Rock material from the sediment trap has been removed; therefore, the sediment trap has no stabilized outlet. Interim reclamation activities were occurring during the time of the inspection but stormwater BMPs were either removed or not maintained.



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**Photo 19.** Photo taken from sediment trap #8, facing North. Stormwater controls have been removed- see comments under Photos 18.



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**Photo 20.** Photo taken from the eastern entrance to the Johnny Pad, facing Northwest. No stormwater BMPs installed around this area during interim reclamation activities.



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**Photo 21.** Photo taken from sediment trap #9, facing North. Stormwater controls have been removed- see comments under Photo 18.



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**Photo 22.** Photo taken from sediment trap #10, facing East. See comments under Photo 3.