

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	Jennifer Belcastro	03/21/2013
	<i>Environmental Scientist</i>	
Site Information		
Location:	RG 11-7-397	Time: 11:45
Type of Facility:	Existing Well Pad Expansion	
Environmental Conditions	Overcast and windy, melting conditions	
Temperature (°F)	45°	

Has the proposed, new or existing location been designated as a sensitive area?

☐ Yes ☒ No

SURFACE WATER

1. Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

☐ Yes ☒ No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands:

If yes, describe location relative to facility:

2. Could a potential release from the facility reach surface water features?

☐ Yes ☒ No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low.

3. Is the potential to impact surface water from a facility release high or low?

☐ High ☒ Low

GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?
☒ Yes ☐ No
 If yes, List the pit type(s): Cuttings Trench

2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?
☐ Yes ☒ No

3. Is the hydraulic conductivity of the underlying soil or geologic material $\leq 1.0 \times 10^{-7}$ cm/sec?
☐ Yes ☒ No

4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?
☐ Yes ☒ No

5. Is the proposed facility located within a 100 year floodplain?
☐ Yes (*Sensitive Area*) ☒ No (*If no, proceed to question #6.*)

6. Is the depth to groundwater known?
☐ Yes (*If yes, follow instructions provided in 6(a) of this section.*)
☒ No (*If no, follow instructions provided in 6(b) of this section.*)
 - (a) If yes, could a potential release from the proposed facility reach groundwater?
☐ Yes ☐ No
 If yes, explain:

 - (b) If no:
 - (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.
 - (ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.

7. Is the potential to impact ground water from the facility in the event of a release high or low?
☐ High ☒ Low

Additional Comments:

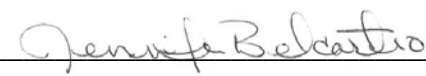
As stated in the surface water section of this sensitive area determination, there are no surface water features within a ¼ mile of the existing facility. The nearest surface water features are an unnamed USGS identified intermittent drainage located 1,468 feet to the southeast and an unnamed USGS identified intermittent drainage is located 1,690 feet to the northwest of the existing facility. The facility, as it is currently constructed and proposed to be expanded, limits the direction of a potential release to the northwestern side. If a potential release were to migrate off the facility, flow would be to the northwest following the natural contours of the area. During facility expansion, it is recommended Best Management Practices (BMPs) be installed in the form of an earthen perimeter berm along the graded edge of the fill slope sides. This would include the northwestern and portions of the northeastern and southwestern sides. A diversion ditch similar to the existing one should be constructed as well along the toe of the fill slope sides. All installed BMPs should be monitored and maintained to ensure site containment in the event of a release.

The State Engineer's Office and USGS records were reviewed and no records were revealed which would provide additional information pertaining to the depth of groundwater. However, the vegetative cover in the immediate vicinity of the facility, Piñon Juniper woodland and sage brush, does not suggest the presence of shallow groundwater.

Based on the information collected during the site investigation and desktop review, the potential to impact surface water features would be deemed low due to the distance a potential release would have to migrate in order to reach these features. In addition the topography in the immediate vicinity of the facility is relatively flat. Therefore if a potential release were to migrate off the facility, it would tend to spread out over a larger area and infiltrate into the underlying soils a short distance. The topographic setting of the location (ridgeline) and the vegetative cover does not suggest the presence of shallow groundwater as noted above. With the potential to impact actual flowing surface water and groundwater being deemed low, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 8/23/2013

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 Date: 03/21/2013

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