

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC		
Person(s) Conducting Field Inspection	Jennifer Belcastro	04/06/12
	<i>Environmental Scientist</i>	
Site Information		
Location:	SG 42-22	Time: 1145
Type of Facility:	Proposed Well Pad	
Environmental Conditions	Windy; dry ground conditions	
Temperature (°F)	56°	

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: One unnamed USGS identified intermittent drainage.

If yes, describe location relative to facility: The unnamed USGS identified intermittent drainage is located approximately 119 feet to the east of the proposed location.

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. If a release were to migrate of the eastern edge of the finality flow would be directly into the drainage.

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

High to actual surface water features Low to actual flowing surface water

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):

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 is one USGS identified intermittent drainage located 119 feet to the east of the proposed facility. The facility, as it is currently proposed, limits the direction of a potential release to the eastern and a portion of the southern sides of the facility. If a release were to migrate of the eastern side of the facility, flow would directly towards the unnamed intermittent drainage. The drainage in the immediate vicinity of the proposed facility does have a well-defined channel but does not appear to flow a majority of the time based on the vegetative cover in the bottom which includes several woody species. If a release were to impact the unnamed intermittent drainage it would migrate towards the south and would congregate in a catchment basin which has been constructed north of Interstate 70 (I-70). In addition, if a potential release were to fill the catchment basin it would have to migrate an additional 3,000 feet in manmade diversions in order to impact any receiving waters (Colorado River). It is highly recommended that Best Management Practices (BMPs) be installed in the form of an earthen perimeter berm, on the graded surface, along the eastern and portions of the southern edges of the proposed facility. In addition, it is recommended that a diversion ditch be installed along the base of the fill slopes edges along the above mentioned sides if possible. If not, consideration should be given to installing a culvert along the eastern side of the facility to prevent a potential release from entering the drainage. 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 that would provide additional information pertaining to the depth of groundwater respective to the flow regime of the existing facility. The vegetative cover in the immediate vicinity of the facility (sage brush and scattered Juniper woodland) does not suggest the presence of shallow groundwater.

Based on the information collected during the site visit and desktop review, the greatest potential for impacts is to the unnamed USGS identified intermittent drainage located less than 500 feet to the east of the proposed facility. By COGCC decision this would classify the facility as being in a sensitive area. However, it is not anticipated flowing surface water would be impacted due to the fact a release would tend to congregate in the catchment basin north of I-70, as noted above, and would not impact any flowing surface water. The potential to impact groundwater water has been deemed as being low. Therefore, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s): Mark E. Mumby Date: 6/18/2012

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Jennifer Belcastro Date: 4/06/2012

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