

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)		
Person(s) Conducting Field Inspection	Jake Forsman <i>Environmental Scientist</i>	05/10/2013
Site Information		
Location:	WPX 100 Compressor	Time: 4:30
Type of Facility:	Proposed compressor station	
Environmental Conditions	Sunny, mild, dry soil conditions	
Temperature (°F)	71°F	

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 (1) USGS identified unnamed intermittent drainage; Battlement Mesa/Parachute Surface Water Supply Area (SWSA).

If yes, describe location relative to facility: The USGS identified unnamed intermittent drainage is located approximately 375 feet to the East of the proposed facility. The proposed facility is located within the external buffer zone of the Battlement Mesa/Parachute SWSA (317B Area).

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.

2. 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):

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 (1) USGS identified unnamed intermittent drainage located approximately 375 feet to the east of the proposed facility. The facility, as it is currently proposed, limits the direction of a potential release to the southern side. If a potential release were to migrate off the facility flow would be to the south following the natural contours of the area. Therefore, it is not anticipated the unnamed intermittent drainage to the east would be impacted as flow would be parallel to the drainage. In addition, any flow from the unnamed intermittent drainage is captured in two catchment basins, both of which are located upstream from the proposed facility. The remaining portion of the drainage below the southernmost catchment basin exhibits ephemeral characteristics such as a poorly defined channel, no ordinary high water mark, and a vegetated bottom indicating flow does not occur a majority of the time. The soils in the vicinity of the proposed facility have moderate to high infiltration rates and the area is heavily vegetated further reducing any potential impacts to the unnamed drainage to the east. During facility construction, it is recommend that adequate Best Management Practices BMP's be installed and maintained to ensure site containment in the vent of a potential release.

The State Engineer's office and USGS records were reviewed and it was revealed that there is one permitted well located within ¼ mile of the proposed facility which would provide some information pertaining to the depth to groundwater. The depth to water in the well was noted to be at 55 feet. In addition, the vegetative cover in the immediate vicinity of the facility rabbit brush, greasewood, and sagebrush, does not suggest the presence of shallow groundwater.

As stated above, the potential to impact surface water features has been deemed to be low. The topographic setting of the proposed facility, the fact flow from the intermittent drainage is captured in catchment basins, and the moderate to high infiltration rates of the underlying soils would prevent flow from reaching and potentially impacting the unnamed drainage to the east of the proposed facility. In addition, the potential for impacts is further reduced due to the fact the facility will not store large volumes of liquid. Liquids that are stored will be in lined SPCC containment structures. This will greatly reduce the potential to impact groundwater due to the fact groundwater is at sufficient depth to where impacts are not anticipated. Therefore, the potential to impact groundwater would be deemed low as well.

However, the facility is located within the external buffer zone of the Battlement Mesa/ Parachute SWSA (317B area). Although impacts to both surface water and groundwater have been deemed low; by COGCC rule, facilities located within a SWSA are to be designated as being in a sensitive area. Therefore, by rule, the facility will need to be designated as being in a sensitive area.

Inspector Signature(s): Mark E. Mumby Date: 5/23/2013

Mark E. Mumby, *Project Manager/RPG*
HRL Compliance Solutions, Inc.

Jacob Forsman Date: 5/10/2013

Jacob Forsman, *Environmental Scientist*
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