

Sensitive Area Determination Checklist

Williams Production RMT Company – Valley		
Person(s) conducting inspection	Ashlee Lane	5/3/10
Site Information		
Location:	GM 24-27	Time: 1400
Type of Facility:	Existing Well pad	
Environmental Conditions	Clear and breezy	
Temperature (°F)	60°	

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: Two small ephemeral drainages and Wheeler Gulch.

If yes, describe location relative to facility: The ephemeral drainages are on the north and south sides of the location and wheeler gulch is 589 feet east of the 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. The topography of the area slopes to the east towards the access road and Wheeler Gulch. A potential release if it were to migrate off of the north and south sides of the facility and enter the ephemeral drainages which lead to Wheeler Gulch.

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): Drilling Pit (Cuttings Trench), Emergency Flare Pit.
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 5(a) of this section.*)
 No (*If no, follow instructions provided in 5(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.
 - (iii) Drill a soil boring to determine depth to groundwater or
 - (iv) Model hydro geologic conditions to determine if the potential to impact groundwater is high or low.
7. Is the potential to impact ground water from the facility in the event of a release high or low?
 High Low

Additional Comments:

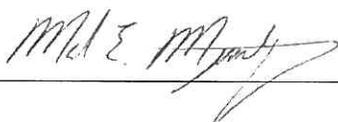
Wheeler Gulch in general has become an area of concern due to activities within the Canyon itself and activities on top of the Roan Plateau which has resulted in increased traffic and thus the potential for impacts to live surface water.

As stated in the surface water section of this determination, Wheeler Gulch is 589 feet to the east of the location. It is recommended that Best Management Practices (BMPs) in the form of a containment berm and straw bale barrier be installed around the north, east, and south boundaries of the facility in order to mitigate the potential for a release to impact Wheeler Gulch. Currently, the potential for a potential release to reach Wheeler Gulch is high. The topography of the area slopes to the east and the well pad has ephemeral drainages on the north and south sides. The ephemeral drainages lead directly to Wheeler Gulch. Adequate inlet and outlook protection on the culverts associated with these ephemeral drainages crossing the access road leading to Wheeler Gulch should be installed as well. All Best Management Practices (BMPs) should be maintained during drilling and completion activities to ensure site containment and prevent potential releases from migrating into Wheeler Gulch.

Due to the fact that the pad lies essentially in bedrock, the potential for any impacts to ground water are very low. The closest known permitted well is approximately 4,425 feet south of the facility with a depth to groundwater of 16 feet in alluvium. The depth to groundwater in this well may be influenced by irrigation water utilized in the vicinity of the well. In order to further mitigate any potential impacts to groundwater, if present, all personnel working on the facility should ensure that the only material that goes into the drilling pit is cuttings.

It should be noted that Wheeler Gulch has a spill prevention system that has been installed to aid in mitigating any potential releases to live water. All personnel working on the facility should know where the spill prevention devices are located and trained in the operation of these devices in the event of a potential release.

Due to the close proximity of Wheeler Gulch, which is perennial, the facility should be designated as being within a sensitive area

Inspector Signature(s):  Date: 6/5/2010

 Date: 06/04/10