

Sensitive Area Determination Checklist

Williams Production RMT Company		
Person(s) Conducting Field Inspection	Ashlee Lane	4/22/11
	Biologist	
Site Information		
Location:	MV 8-4	Time: 1200
Type of Facility:	Existing Well Pad	
Environmental Conditions	Clear and calm; soil conditions are drying out.	
Temperature (°F)	60s	

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 unnamed USGS identified intermittent drainages both of which are tributary to Riley Gulch.

If yes, describe location relative to facility: One unnamed intermittent drainage is located 356 feet southwest, and the other is located 733 feet northeast of the existing 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. If a potential release was to migrate off the southwest or southeast sides of the facility along the access road or the northwestern side of the facility.

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

Moderate to actual surface water features

Low to any 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): Drilling 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 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 two USGS identified unnamed intermittent drainages located within one quarter mile of the existing facility. The facility as it is currently constructed and proposed to be expanded, limits flow directions of a potential release primarily to the southwestern and northeastern sides along the access road. The greatest potential for impact would be to the unnamed drainage located 356 feet southwest of the facility. By COGCC decision this would classify the facility as being in a sensitive area. However, the site investigation revealed that the drainage exhibits more ephemeral characteristics in the immediate vicinity of the facility such as a poorly defined channel, no ordinary high water mark, and a vegetated bottom. In addition, the distance a release would have to migrate is over 2,000 feet: Therefore, the potential to impact Riley Gulch would be low given the transport of a release would be retarded due to high infiltration rates of the soils in the channel bottom. It is not anticipated that the drainage located to the northeast of the facility would be impacted by a potential release. If a potential release were to migrate off the northeastern side along the access road; flow would tend to migrate to the northwest following the natural contours of the area away from the drainage. It is recommended that when the pad is expanded, Best Management Practices (BMPs) should be installed in the form of a perimeter berm along the fill slope edges and access road of the facility and a diversion ditch, if feasible. The diversion ditch should be continued along the edges of the fill slope bottom along portions of the southwest and northeastern sides and along the entire northwestern side of the facility. In addition, it would be recommended that a diversion ditch be installed above the facility on the southeastern side to prevent storm water run-on. This recommendation is based on observations made during the site visit which identified that this may be an issue as there was historical evidence that storm water that had migrated onto the facility from the hillside above. This would also aid in preventing any potential sloughing of the facility due to saturation of the fill on the northwestern side of the facility.

The State Engineers Office and USGS records were reviewed and no records were revealed that would provide additional information pertaining to the depth to groundwater. The vegetative cover in the immediate vicinity of the existing facility (sage brush; Piñon juniper woodland and oak brush) does not suggest the presence of shallow groundwater.

Based on the information collected during the field investigation and desktop review, the potential to impact surface water features has been deemed moderate. However the potential to impact any flowing surface water and/or groundwater has been deemed low. Therefore the facility can be designated as being in a non-sensitive area.

