

Sensitive Area Determination Checklist

Williams Production RMT Company – Valley		
Person(s) conducting inspection	Ashlee Lane	06/21/10
Site Information		
Location:	PA 313-33 well pad	Time: 1145
Type of Facility:	Proposed Tank Farm	
Environmental Conditions	Clear and breezy; soil conditions are dry.	
Temperature (°F)	92°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: Two unnamed ephemeral drainages, one of which drains into a large retention pond with a riparian ecosystem.

If yes, describe location relative to facility: A large unnamed ephemeral drainage is located approximately 550 feet east of the location, and the second, as noted on the USGS Topo map is located 446 feet south 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. A potential release would flow to the southeast, south, or west if it were to migrate off of the location.

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):
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:

As stated in the surface water section of this determination, the potential to impact surface water or surface water features is high. If a release were to migrate off the proposed facility a majority of flow would be to the southeast based on the topographic setting of the facility. It is very unlikely that any release would impact the large ephemeral drainage to the east of the proposed facility. It is more likely that a large release would impact the retention pond and be contained there rather than flowing down the drainage. Also note that even though the USGS Topo maps indicate the large drainage to the east flows to the Colorado River, it does not. It flows to the low lying retention pond


The smaller ephemeral drainage to the south of the proposed facility presents more of a concern than the larger drainage to the east. Although the USGS Topo maps indicate the drainage starts 446 feet to the south of the proposed facility, it does extend further to the north and is located approximately 145 feet to the west of the proposed facility. A large release if it were to migrate off the west side of the proposed facility could enter this drainage which is hydraulically connected to the Colorado River. In addition this drainage also flows into the Parachute Battlement Mesa 317B zone.

Best Management Practices (BMPs) should be installed to ensure site containment for the tank farm due to its proximity to the ephemeral drainage to the west of the proposed facility. The BMPs should be constructed so that if a release were to migrate off the facility it would be to the southeast away from the small drainage to the west.

The nearest permitted water well in proximity to this proposed facility is located 1,792 feet to the south with a known water depth of 55 feet. The proposed facility elevation is approximately 200 feet higher in elevation than the elevation of the water well to the south; and therefore with the higher elevation and greater distance from the Colorado River, it could be assumed that the depth to groundwater, if present, is greater than 50 feet making it unlikely that groundwater would be impacted from a potential release from the proposed facility.

Based on the above discussion in regards to the proposed facility and the close proximity of the ephemeral drainage to the west which flows into the Parachute Battlement Mesa 317B area the proposed facility should be designated as being in a sensitive area.

Inspector Signature(s):  Date: 7/28/2010

 Date: 7/27/2010