

Sensitive Area Determination Checklist

Williams Production RMT Company		
Person(s) Conducting Field Inspection	Jennifer Belcastro <i>Environmental Scientist</i>	6/20/2011 revised 4/2/2014
Site Information		
Location:	Juhan 14-26H	Time: 1330
Type of Facility:	Existing Well Pad Expansion	
Environmental Conditions	Overcast; dry soil conditions	
Temperature (°F)	65°	

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: Porcupine Creek, a perennial/intermittent stream, two (2) unnamed USGS identified intermittent drainages.

If yes, describe location relative to facility: Porcupine Creek is located 474 feet to the west; one unnamed USGS identified intermittent drainage is located approximately 70 feet to the west and the second unnamed USGS identified unnamed intermittent drainage is located approximately 290 feet to the east 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.

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): Cuttings Trench

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, Porcupine Creek and two (2) unnamed USGS identified intermittent drainages are located within ¼ mile of the existing facility. The facility, as it is currently constructed and proposed to be expanded, limits the direction of a potential release to a very small area near the access road on the northeastern side. If a potential release were to migrate off the facility, flow would be to the north northeast into a non-irrigated field where it would infiltrate into the underlying soils. Extensive Best Management Practices (BMPs) are currently installed in the form of a large earthen perimeter berm which surrounds nearly the entire facility with the exception of the small area on the northeastern side. All currently installed BMP's should be monitored and maintained to ensure site containment in the event of a release.

The State Engineers office and USGS records were reviewed and it was revealed that there is one permitted water well located 543 feet southeast of the facility with a known depth of 80 feet to groundwater. The well is located upgradient from the facility and would not be impacted by a potential release. Further review of the well records indicates that the actual pumping level from the well is at a depth of greater than 100 feet. Therefore it could be assumed that the actual depth to the water bearing zone is greater than 100 feet. Although the depth to groundwater is noted to be 80 feet or greater, the cuttings trench should be closely monitored to ensure no other materials, especially liquids, are placed into it to eliminate any potential impact to groundwater.

By COGCC decision, the close proximity of both drainage features noted above would classify the facility as being in a sensitive area. However, based on the information collected during the site investigation and desktop review, the potential for impacts to the above noted drainages, especially the drainage to the west, is non-existent due to the construction of the facility and the current BMP's in place. The unnamed intermittent drainage feature to the northeast of the facility no longer exists due to man-made modifications to the land surface. If a potential release were to migrate off the facility on the northeastern side it is not anticipated it would impact a large area due to the fact a release would tend to be short in duration, the topography is relatively flat, the thick vegetative cover, and the high infiltration rates of the Olney Loam. With the potential for impacts to surface water features, actual flowing surface water, and groundwater being deemed as very low, the facility can be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 4/2/2014

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 Date: 6/17/2011

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