

Sensitive Area Determination Checklist

Williams Production RMT Company		
Person(s) Conducting Field Inspection	Ashlee Lane	03/21/11
	<i>Biologist</i>	
Site Information		
Location:	GV 18-23	Time: 1400
Type of Facility:	Existing Well Pad	
Environmental Conditions	Cloudy and windy	
Temperature (°F)	62°	

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.

If yes, describe location relative to facility: The first unnamed intermittent drainage is located 629 feet northwest and the second intermittent drainage is located 1,067 feet 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. If a potential release was to migrate of the eastern and southern edges of the facility.

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
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:

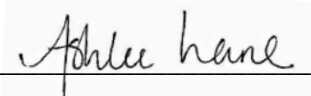
As stated in the surface water section of this sensitive area determination, there are two USGS identified intermittent drainages located within a quarter mile of the existing facility. The facility, as it is proposed to be expanded, limits the flow directions of a potential release to the eastern and southern sides. If a potential release were to migrate of the eastern and southern edges of the facility, flow would tend to be to the southeast following the natural contours of the area and along small rills southeast of the facility. Liquids from a potential release would then tend to congregate in a low lying area north of Interstate 70 (I-70). There would have to be a significantly large release and large amounts of residual storm water in the low lying area north of I-70 for a release to impact the drainage feature east of the facility. It is not anticipated that a potential release would impact the drainage to the southwest of the facility due to the fact there hill separating this drainage from the facility. It is highly recommended that Best Management Practices (BMPs) be installed in the form of a perimeter berm along the fill slope edges of the facility (i.e. southern and eastern side). In addition it is recommended that a diversion ditch be installed along the base of the fill slopes along the above mentioned sides. These BMPs should be monitored and maintained to ensure site containment in the event of a release.

The State Engineer's Office and USGS records were reviewed and no records were revealed that would provide additional information pertaining to the depth of groundwater respective to the flow regime of the existing facility. The vegetative cover in the immediate vicinity of the facility (sage brush and scattered Juniper woodland) does not suggest the presence of shallow groundwater. There is one permitted water well identified on the hydrology map; located 2,593 feet southeast of the facility and south the Colorado River. However it should be noted that this well is located in a different flow regime and would not be impacted by any potential release from the facility. Therefore, it is not anticipated that groundwater would be impacted by a potential release from the facility.

Based on the limited information collected during the site visit and the desktop review phase of this determination, the potential to impact both surface water and groundwater has been deemed as being low. Therefore, the facility should be designated as being in a non-sensitive area.

Inspector Signature(s):  Date: 04/04/2011

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

 Date: 04/04/2011

Ashlee Lane, *Biologist*
HRL Compliance Solutions, Inc.