

Sensitive Area Determination Checklist

WPX Energy Rocky Mountain, LLC (WPX)		
Person(s) Conducting Field Inspection	Ashlee Lane	10/25/12
Site Information		
Location:	Smith Gulch Cuttings Trench/SG 22-32	Time: 1400
Type of Facility:	Existing Well Pad	
Environmental Conditions	Windy, partly cloudy; snow flurries.	
Temperature (°F)	40°	

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: Smith Gulch, a USGS identified intermittent drainage; one USGS identified unnamed intermittent drainage.

If yes, describe location relative to facility: Smith Gulch is located approximately 769 feet to the southeast and the USGS identified unnamed intermittent drainage is located 792 feet to the west.

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, if it were to migrate off the facility, would tend to follow the topographical relief of the area which slopes to the southwest from the SG 22-32 well pad.

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:

The proposed Smith Gulch cuttings trench (facility) is proposed to be constructed on the eastern side of the existing SG 22-32 well pad. As stated in the surface water section of this sensitive area determination, one unnamed USGS ephemeral drainage is located approximately 792 feet to the southwest of the proposed facility. The facility, as it is currently proposed, would limit the direction of a potential release to the western and southern sides of the existing SG 22-32 pad. If a potential release were to migrate off the SG 22-32 pad, flow would be to the southwest slightly parallel to the unnamed intermittent drainage. However, it is not anticipated any flow would reach the drainage due to the vegetative cover, the distance between the location and the drainage, and the fact the cuttings will be in a semi-solid state meaning no free liquids should be associated with the trench. In addition, the unnamed intermittent drainage exhibits ephemeral characteristics in the immediate vicinity of the facility indicating it doesn't flow a majority of the time. It is not anticipated Smith Gulch would be impacted by a potential release from the proposed facility. There is a ridgeline which separates the proposed facility from Smith Gulch. The soil stock pile for the facility will also be on the east side creating an additional barrier between the facility and Smith Gulch. It would still be recommended Best Management Practices (BMPs) be installed along any fill slope sides of the proposed facility expansion as well as the western and southern sides of the SG 22-32 well pad. The BMPs should be in the form of an earthen perimeter berm around the graded edge of the facility and a diversion ditch, if feasible, along the toe of the fill slope sides. These BMPs should be monitored and maintained to ensure site containment in the event of a potential 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 to groundwater. The vegetation in the area consists of Greasewood and Sage Brush with no other indicators of shallow groundwater.

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

Inspector Signature(s):  Date: 10/26/2012
 Mark E. Mumby, *Project Manager/RPG*
 HRL Compliance Solutions, Inc.

 Date: 10/25/2012
 Ashlee Lane, *Biologist*
 HRL Compliance Solutions, Inc.