

## Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC		
<b>Person(s) Conducting Field Inspection</b>	None conducted	
<b>Site Information</b>		
Location:	RWF 21-18 Drilling Pit	Time:
Type of Facility:	Existing Well Pad with Proposed Expansion	
<b>Environmental Conditions</b>	N/A	
Temperature (°F)	N/A	

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 (2) unnamed USGS intermittent drainages.

If yes, describe location relative to facility: One intermittent drainage is located approximately 150 feet to the northeast and the other unnamed intermittent drainage is located approximately 210 feet to the southwest of the proposed facility expansion.

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 were to migrate off the facility, flow would be to the southwest along the access road.

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 on the northwestern side of the facility
  
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 portion of this sensitive area determination; there are two (2) unnamed USGS identified intermittent drainages located within a ¼ mile of the existing facility. The facility, as it is currently proposed to be expanded, limits the direction of a potential release to the access road which enters the facility on the southwestern side. If a potential release were to migrate off the facility, flow would be to the southwest along the access road. Based on the topography, adjacent to the access road, fluids from a potential release would most likely migrate off the southeastern side of the road where they would be contained in a low lying area to the southeast. During facility expansion, Best Management Practices (BMP's) should be installed in the form of a raised pad entrance just to the east of where the excess soil from the pit will be stockpiled. Earthen perimeter berms may not be required as the excess soils from the drilling pit will be staged on the southwestern side of the facility and would prevent any fluids from migrating off the facility edge. In addition, the top soil stock pile will prevent any fluid from migrating off the facility on the southeastern side. Any existing or newly constructed BMPs should be monitored and maintained to ensure total site containment in the event of a potential release.

The State Engineer's Office and USGS records were reviewed and no records were revealed which would provide additional information pertaining to the depth to groundwater. The closest permitted water well is located 8,420 feet (1.6 miles) to the southeast and would not provide accurate information on the depth to groundwater. Based on aerial photography review, the vegetative cover in the immediate vicinity of the existing facility consists of primarily bunch grasses, sage, and Juniper which does not indicate the presence of shallow groundwater. There was no visual evidence of any springs or seeps. In addition, the existing facility is constructed on a fairly narrow ridgeline where the depth to bedrock (Wasatch Formation) is, most likely, fairly shallow (<50 feet). Therefore, based on the topographic setting of the proposed facility it could be assumed that the depth to groundwater, if present, would be in excess of 100 feet if not greater.

Based on the information collected during this desktop review, the potential to impact groundwater has been deemed as low. With the current plan for the facility expansion, the potential for impacts to the unnamed intermittent drainage southwest of the existing facility would be deemed to be low. As noted above; a raised pad entrance, the topography in the immediate vicinity, and the placement of the soils stockpiles will mitigate the potential for fluids to reach the drainage. It is not anticipated that the unnamed drainage to the northeast of the facility would be impacted by a potential release as it is separated by an existing topographic high on the northeastern and a portion of the southeastern sides. With the low potential for impacts to reach surface water features and actual flowing surface water the facility can be designated as being in a non-sensitive area.



Inspector Signature(s): Mark E. Mumby Date: 8/1/2018

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