Sensitive Area Determination Checklist

TEP Rocky Mountain, LLC			
Person(s) Conducting Field Inspection	None conducted		
Site Information			
Location:	RU 23-17	Time:	
Type of Facility:	Proposed well pad		
Environmental Conditions	Location inaccessible due to distance from any existing development.		
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:

   If yes, describe location relative to 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 ≤ $1.0x10^{-7}$ 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 (SAD), there are no USGS identified drainage features located within a quarter mile of the proposed facility. The facility, as it is currently proposed to be constructed, limits the direction of a potential release to the northeastern fill slope side. If a potential release were to migrate off this side, flow would be to the northeast following the natural contours of the area into a heavily vegetated moderately sloping hill side. During facility construction, it is recommended that Best Management Practices (BMPs) be installed in the form of an earthen perimeter berm along the graded edge of the fill slope side of the facility (northeastern side). If feasible, a diversion ditch should be installed along the toe of the above mentioned fill slope side as well. All installed 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 it was revealed that there are no permitted water wells within a ¼ mile radius of the proposed facility which would provide any additional information pertaining to the depth to groundwater. The vegetative cover in the immediate vicinity of the proposed facility (primarily oak brush and sagebrush) and the topographic setting does not suggest the presence of shallow groundwater. The nearest observed water source is a spring located 3,539 feet to the west at an elevation approximately 120 feet higher than the proposed facility elevation. The feature is visible on the arterial imagery however no such features can be identified in the immediate vicinity of the proposed facility. Wells drilled further to the east in relatively the same topographic settings exhibit water levels ranging from 88 to greater than 100 feet. Therefore it could be assumed that the depth to groundwater from the proposed facility surface could be in excess of 100 feet as it at a higher elevation than the permitted wells to the east. Since no field visit was conducted and as noted in the groundwater section of this SAD, the proposed facility will have a cuttings trench on the southwestern side. Even though it is assumed the depth to groundwater could be greater than 100 feet, the cuttings trench should be closely monitored to ensure no materials (especially fluids) other than cuttings are placed in the trench to eliminate any potential impacts to groundwater

Based on the information collected during the desktop review, the potential for impacts to any surface water features would be deemed to be very low. A potential release, if it were to migrate off the northern or a portion of the eastern and western sides, would tend to flow to the northwest following the natural contours of the area. In addition, it is not anticipated that potential flow off the facility would migrate any great distance due to the short duration of time involved, the vegetative cover, and the moderately high infiltration rates of the underlying soils.

Due to the topographical setting of the proposed facility, the potential to impact groundwater and surface water features has been deemed to be low. With the low potential for impacts to groundwater and surface water features the proposed facility can be classified as being in a non-sensitive area.

Inspector Signature(s):  Date: 6/21/2016

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