

Range 19 may be characteristic of naturally occurring background concentrations of arsenic; therefore, it is not a COPEC in surface soil at Range 19. Silver was detected in one surface soil sample and the HQ_{screen} value was 1.8. Since silver was infrequently detected in surface soil and the maximum concentration only slightly exceeded the ESV, it was concluded that silver is not a COPEC in surface soil at Range 19.

2.1.5 Surface Soil in Range Safety Fans

Lead was detected in surface soil samples within the IMR range safety fans at concentrations that were within the range of lead concentration for background soil at FTMC. Additionally, the concentrations of lead in surface soil within the range safety fans are not expected to be toxic to most ecological receptors. Japanese quail fed 5,000 milligrams per kilograms (mg/kg) lead in their diets showed no effects on survival or food consumption (Hill and Camardese, 1986). Lambs fed 400 mg/kg lead in their diets showed some weight loss but were otherwise normal (Demayo, et al., 1982). American kestrel fed 50 mg/kg lead in their diets showed no effects on survival, egg laying, fertility, or eggshell thickness (Pattee, 1984). Because the mean lead concentration in surface soil in the IMR range safety fans was determined to be 43.7 mg/kg (which is less than the levels discussed above), lead toxicity is not expected from exposure to surface soils in the IMR range safety fans. Therefore, the safety fans at the IMR ranges were not considered areas that have the potential to pose significant ecological risk.

2.2 Surface Water

Lead was the only COPEC detected in surface water from Remount Creek and its tributaries in the vicinity of the IMR ranges (Table 2-5). Four surface water samples from the Skeet Range exhibited lead concentrations that were greater than the ESV. Surface water samples from the other IMR ranges did not exhibit elevated concentrations of any constituent. Since lead was identified as a COPEC in surface soil and is associated with small arms training activities, it has been identified as a COPEC in surface water at the IMR ranges, although the extent of lead contamination in surface water appears to be limited to the Skeet Range. The surface water sample locations and COPEC concentrations are presented in Figure 2-5. Downstream surface water sample locations and COPEC concentrations are presented in Figure 2-6.

2.3 Sediment

In addition to copper and lead, sediment samples from Remount Creek and its tributaries exhibited elevated concentrations of a number of other constituents (Table 2-6). Barium, beryllium, iron, manganese, thallium, and vanadium were initially identified as COPECs because there are no sediment ESVs associated with these constituents and HQ_{screen} values could not be calculated. None of these constituents have been identified as constituents that are characteristic

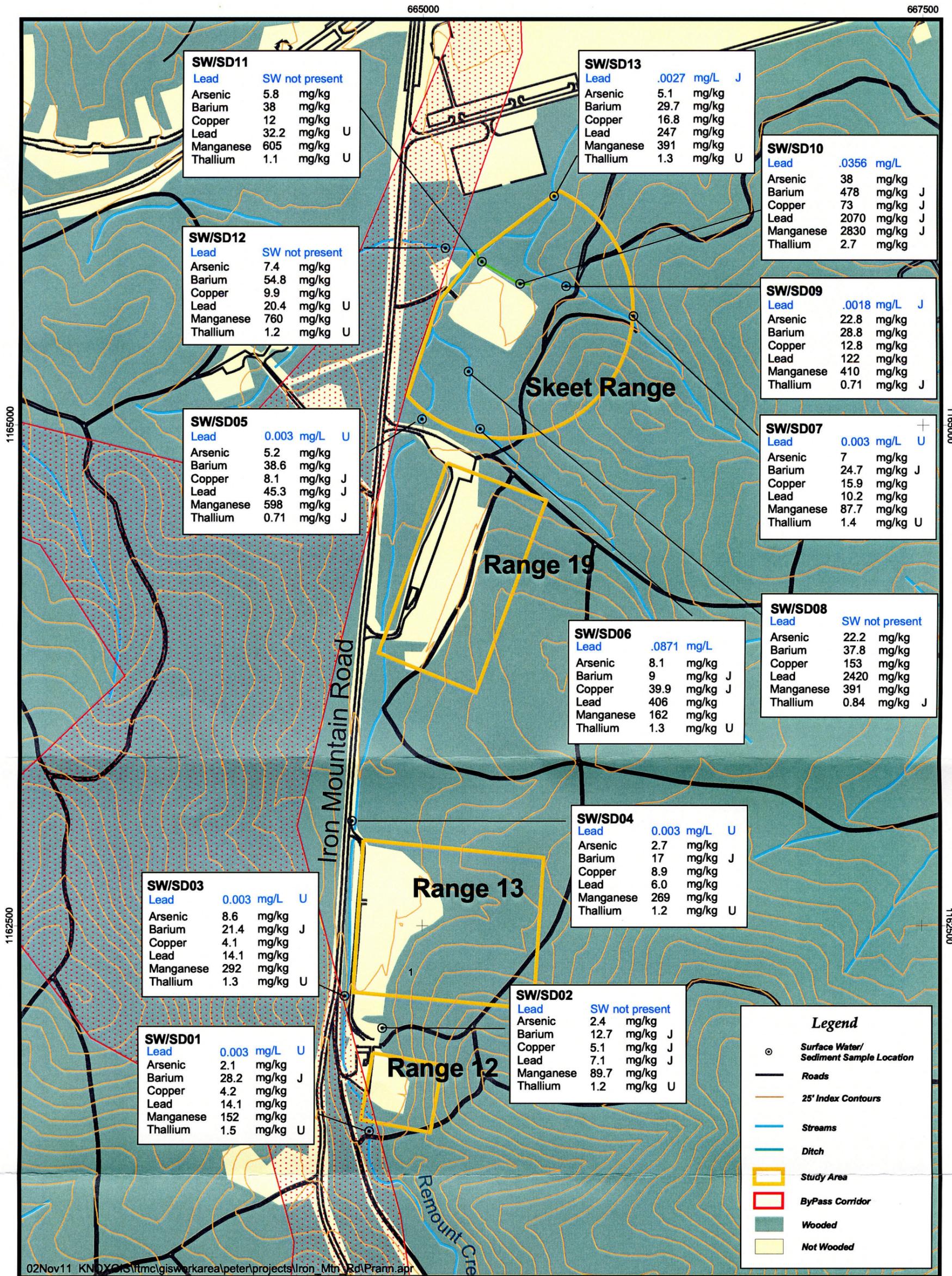
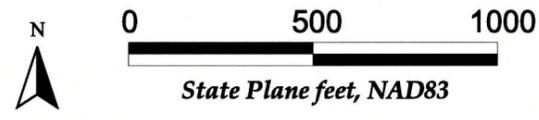


Figure 2-5 Remount Creek - Surface Water/Sediment Sample Locations with COPEC Results

J - estimated concentration
 U - not detected above reporting limit

**Surface Water Results in Blue,
 Sediment Results in Black**

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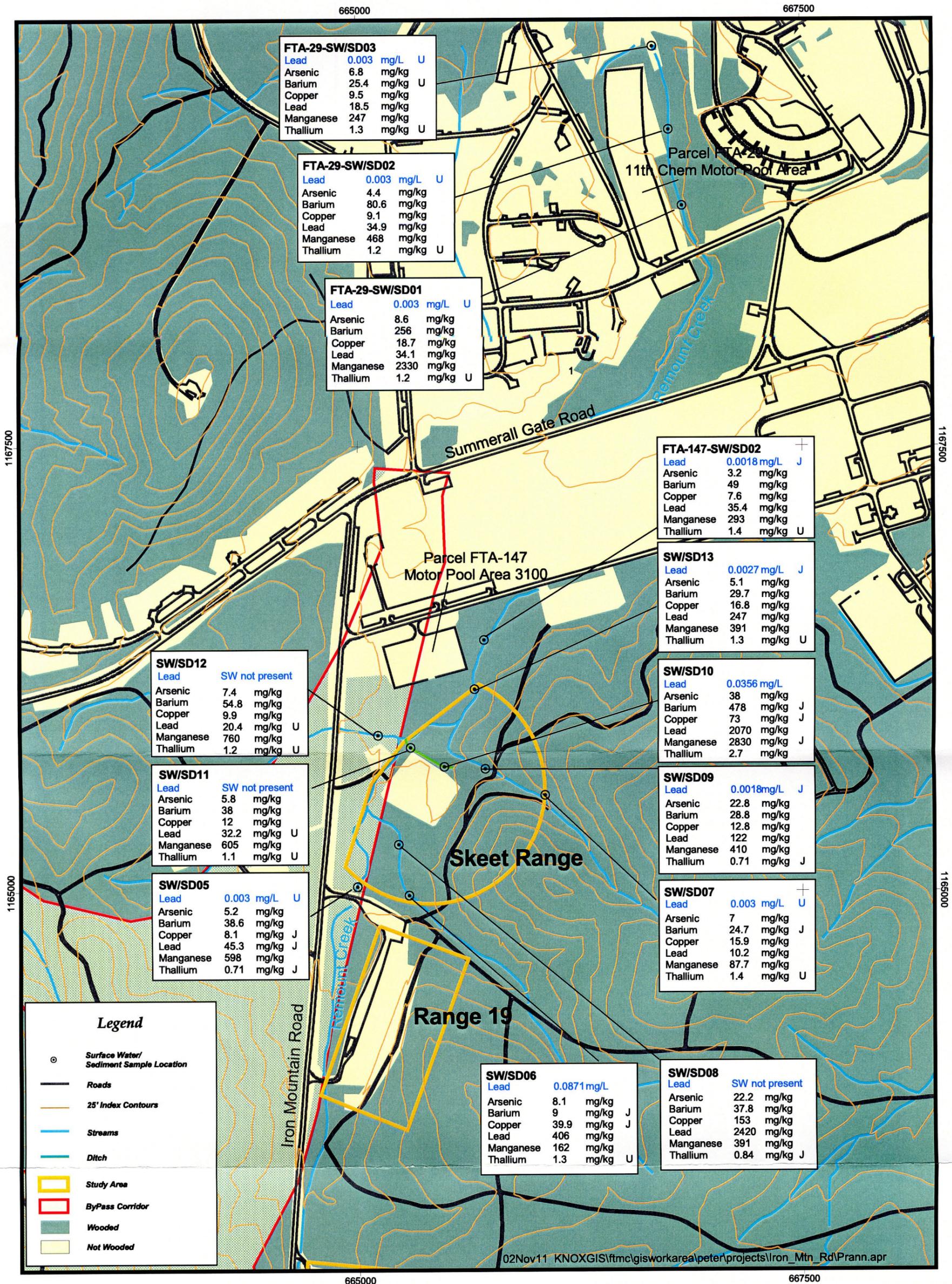
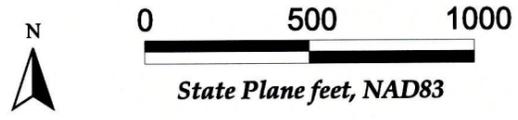


Figure 2-6 Remount Creek (Down Gradient) - Surface Water/Sediment Sample Locations with COPEC Results

J - estimated concentration
 U - not detected above reporting limit



**Surface Water Results in Blue,
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