



KAFB BFFS  
ST-106/SS-111  
Soil Vapor Sampling

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**Subject:** [EXT] RE: KAFB BFFS shallow soil vapor work plan and comments

Hello Kevin,

I have looked at KAFB's revised conceptual shallow soil gas sampling proposal by Noblis, dated February 1, 2021, and maintain that our previous comments are still applicable to the investigation of the potential VI pathway north of the base. In summary, we recommended the following:

1. KAFB develop a VI Conceptual Site Model (CSM) to guide further evaluation of the VI pathway and completing the CSM before making final risk management decisions, and
2. Collect shallow soil gas samples adjacent to the VA hospital and near certain homes in the Siesta Hills subdivision before excluding the pathway from further consideration.

Historical soil gas data has shown that there was a soil gas plume present near the VA hospital and the Siesta Hills neighborhood, so it is not implausible that soil gas could migrate to those areas through preferential pathways. Studies have shown that VOC migration through preferential pathways may occur over much greater distances and may also result in higher vapor concentrations inside buildings than would be expected based on advection or diffusion forces alone. Our guidance recommends a careful evaluation of potentially impacted buildings if such conduits exist. We agree that collecting soil gas samples over utility lines north of the base would provide another useful line of evidence to add to the CSM, but it shouldn't preclude the collection of soil gas samples near the VA hospital and Siesta Hills residential area.

Thanks  
Rick

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