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INTEROFFICE MEMORANDUM

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**TO:** JANET BINNS  
**FROM:** ROB ZUBER *Rob D. ZL*  
**SUBJECT:** BOWIE NO. 1 MINE, HYDROLOGY REVIEW FOR TR-64 (SECOND REVIEW)  
**DATE:** DECEMBER 5, 2018

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Janet -

These adequacy comments for TR-64 are based on the adequacy response from Stover and Associates, dated 11/29/2018.

1. The Division understands that Bowie Resources has reconsidered the East Roatcap Creek channel reconstruction and is no longer planning to armor the channel with riprap. However, we still require that reconstructed channels be designed, per Rule 4.05.4, which applies to both channel diversions and stream channel reconstruction. (We regret that this was not clearer in our preliminary adequacy review, but we were addressing the plan for a riprapped channel.) Please provide SEDCAD modeling results and a design drawing. Alternatively, Bowie Resources may provide another type of analysis to show that the reconstructed channel will likely remain stable during large runoff events. For example, calculations could be done with a simpler model or models than SEDCAD. The Division is available to discuss the details of a proposed alternative analysis.
2. No further response required.
3. It appears that the East Roatcap Creek Channel Profile that is drawn on the revised version of Map 8A-19 is only the endpoints of the channel reach. Please provide a more detailed profile showing elevations every 100 feet (at least).

Let me know if you need me to elaborate.

Thanks,  
Rob