## Designing a Meaningful Baseline for Reclamation Monitoring<sup>1</sup>

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Abstract: Monitoring for mining-related impacts to the environment means looking for change. In order to identify a change, we must establish a baseline. The problem is, baselines are not always consistent. Natural conditions vary, and over the life of a mine the natural variation can be significant. Baseline data must, above all, be representative of the undisturbed condition of the target area. Undisturbed does not mean static. In order to fully represent the undisturbed condition, baseline data must include the range of natural variation and any regional trends unrelated to mining disturbance. Particularly when comparison to a baseline determines acceptability for bond release or violation of a rule, it is critical to understand the nature of the entire baseline dataset. New challenges appear from time to time. When baseline data is being collected before a mine is open, every effort is made to address all reasonable issues. Standards change, practices change, conditions change, and we may need to adapt to meet unforeseen problems. In reclamation, baseline is our goal, but if it keeps moving it can be challenging to meet it.

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