Dynamic AGC methods for cost-effective Quality assurance and control

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Quality Assurance (QA) seeds are emplaced throughout the site boundaries to demonstrate the effectiveness of the Advanced Geophysical Classification (AGC) contractor’s quality system. These QA seeds are intended to confirm that the AGC quality system procedures are implemented properly and are not intended to test the system performance and limitations. Therefore, QA seeds must meet several requirements for emplacement that ensure the seed is within the AGC system operating envelope for target depth and density. The Quality Control (QC) process is implemented directly by the AGC contractor to verify that the planned AGC system operating envelope is achieved. This process typically involves emplacement of QC seeds that are blind to the AGC data collection and processing teams and are placed at or near the operating envelope boundaries. While QA/QC seeding is effective and a critical component of any AGC project, it can add significant costs. Our presentation will discuss methods for implementing dynamic AGC to reduce the costs of the QA/QC process and to increase its effectiveness. Specifically, we will present a dynamic AGC approach that third party QA seeding field teams have used to efficiently collect AGC data over emplaced QA seeds to ensure they are within the system operating envelope. We will also present a dynamic AGC approach for synthetic seeding that augments the QC seeding process with minimal added cost by significantly increasing the sample size to verify the operating envelope is achieved.