Definitive Gas Migration Testing: Comparative Assessment of Different Gas Migration Testing Techniques and Field Instrumentation

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The proposed research program will use a phased approach to address the complex nature of the multiple interacting variables that can affect gas migration investigations in different and under changing environmental conditions. The first phase will use laboratory-based experimental studies targeting single variable control testing of the field instruments and techniques used in gas migration investigations. The experimental studies will be used to assess the relationship between the independent variables that can affect gas measurements and soil gas migration rates in the environment. The results of the laboratory study will be used to develop a matrix that will improve our understanding of the collective impacts that changing environmental conditions have on the reliability of gas migration investigations. The

knowledge gained in phase 1 will be applied in collaboration with our industrial partners to develop comprehensive field techniques to evaluate gas migration. The second phase will examine intrusive and non-intrusive soil gas monitoring techniques and assess the integration of new indicators to improve the quality and reliability of field-based gas migration investigations.

Q1 2019 Technical Report
Q2 2019 Technical Report