SVE Pilot Testing Reporting Requirements Guidance

The SVE Pilot Testing Reports must be reviewed and signed by a NM PE. This document is meant as guidance and is attended to be modified as appropriate.

- The Field Data Sheet should include the following:

  Recorded/Measured data:

  - Date
  - Time
  - Elapsed Time
  - Screened intervals for both the test well and the observation wells
  - Depth to water and depth to NAPL (if present) in test well at start of pilot test and end of pilot test.
  - Ambient Temperature
  - Well effluent temperature
  - Vacuum at Blower Inlet if performing a multi-well SVE pilot test
  - Test well vacuum
  - Test well effluent flow
  - Flow at inlet of blower
  - Dilution air contribution flow via subtracting the measured test well effluent flow from the flow that was measured at the inlet of the blower.
    - *All flow values must be reported in scfm. The Field Data Sheet should be used to record the raw measurements made from flow meters such as differential pressure across pitot tube or orifice plate, absolute atmospheric pressure, gas temperature at the flow meter, gas density (considering hydrocarbon concentration) and pipe geometry. The observed, recorded field data should be used to report flow values in SCFM.*

  - Barometric pressure reported in absolute atmospheric air pressure or upper air sounding at the site surface elevation. Barometric pressure should not be reported as a value corrected to sea level as commonly shown on aneroid barometers or weather forecasting reports.
  - Well effluent VOCs concentrations by field instrument – as well, note the time and location of samples taken for lab analysis of VOC concentrations.
  - Well effluent fixed gas concentrations by field instrument – as well, note the time and location of samples taken for lab analysis of relevant fixed gas concentrations.
  - Well effluent vapor % Lower Explosive Limit (%LEL)
  - Measured vacuum response at observation wells
  - Volume and composition (water/NAPL) of accumulated liquids (if applicable)
  - Include date and results of last known calibration on instruments
  - Nominal inside diameter and materials of piping used in pilot test, especially at sampling and measurement locations. Include length of straight run pipe up- and downstream of flow meters.
  - Comments –observations noted during pilot test

- Provide an example of the flow rate calculation including a description of the parameters.

- Provide an example of hydrocarbon recovery rate (lbs/hr) calculation for each test well.

- Graphs of SVE Pilot Test Data (for each test well) :
  - Well effluent hydrocarbon concentration data based on field instrument measurements versus time
  - Well effluent GRO hydrocarbon concentrations based on lab analysis versus time using field instrument measurements to interpolate between lab samples if there is a good correlation between lab data and field measurements.
  - Relevant individual well effluent fixed gas concentrations versus time
  - Applied vacuum versus time
  - Flow rate versus applied vacuum
  - Vacuum response at observation wells depicting vacuum vs. distance from the test well or a graph of normalized vacuum vs. distance from the test well.
  - Flow in scfm versus time for each test well
  - Well effluent vapor temperature versus time
  - On-site absolute atmospheric air pressure versus time
  - On-site ambient temperature versus time

- Maps:
  - Isopleths depicting vacuum responses:
    - Include isopleths for inferred no vacuum response; 0.1" H_2O; 1" H_2O, 3% applied vacuum; and others as appropriate.
    - Annotate with individual well vacuum response data.

- Discussion of results of pilot tests describing efficacy of SVE as a remediation strategy for this site including recommendations