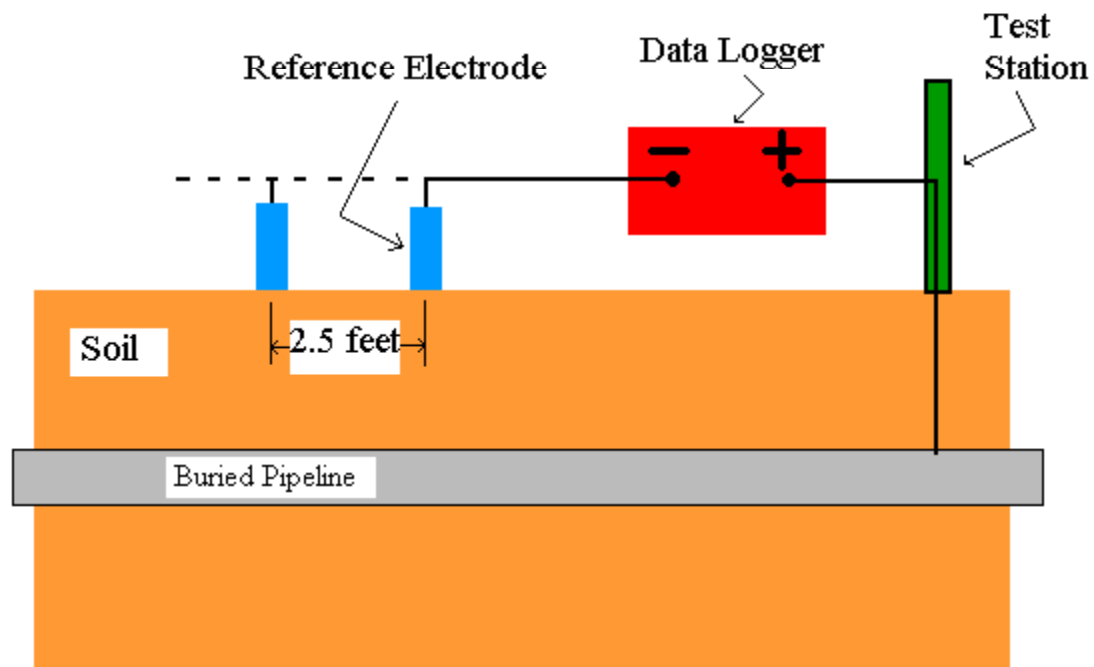


CIPS TECHNIQUE

- The CIPS surveys will allow the potential measurement of structures with respect to a Copper - Copper Sulfate Reference Electrode (CSE) every meter.
- This information can be used for the detection of areas where there is not enough CP in order to get the minimum potential required by the NACE standard RP-0169-02. The potential of a pipeline vs. the CSE must be between -850 mV and -1150 mV.
- With the CIPS survey it is also possible to find areas where Interference Current exists.
- The information can be used in conjunction with other surveys such as resistivity, DCVG, pH, Smart Pig, among others.
- The risk assessment analyses can be performed with the use of software like the Proactive of MCMiller. This analyses uses the information of all the inspection techniques used for pipelines in order to know the maintenance or reparation program of a pipeline.

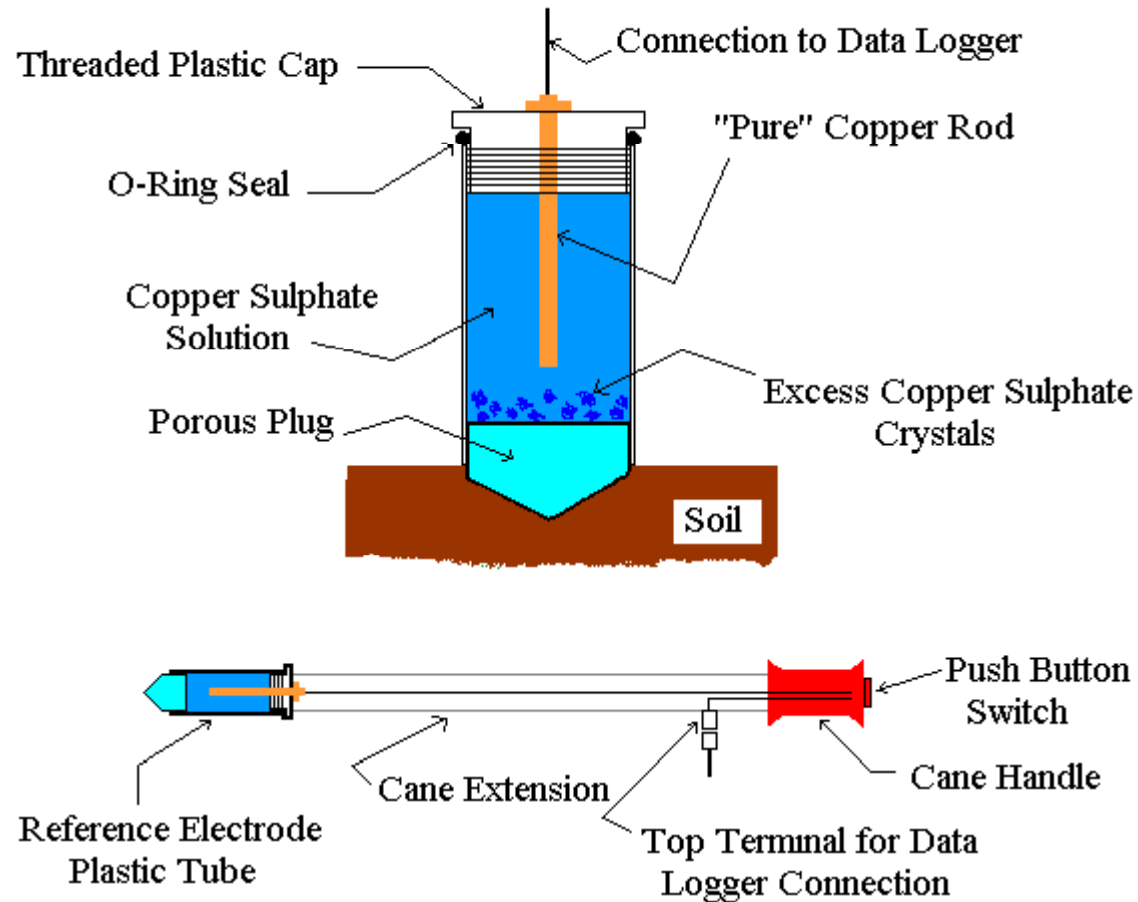




Key Components of a CIPS Survey



- The data probes used for the CIPS surveys will allow to the inspector to measure the potentials every step during the survey.



MCMiller Reference Electrode for Pipeline Surveys

