

Approved by Director: Dr. Guy Vallaro

- A. Purpose: To describe an analysis scheme for the identification of unknown substances submitted as evidence.
- B. Responsibility: Section chemist or designee
- C. Safety: Always handle unknowns with proper safety equipment –lab coat, gloves etc. and good laboratory practices.
- D. Procedures:
- 1.. Microchemical:
 - a. perform solubility tests using water and methylene chloride and/or additional solvents as needed. Record results on worksheet QR Cherm 02.
 - b. pH-if water soluble, check pH using pH paper. Record result on worksheet as above.
 - c. spot tests-perform spot tests per CH SOP-30.
 2. Analytical:
 - a. GC/MS –if soluble in organic solvent, run on GC/MS using instrument parameters determined by the analyst. Document and save data.
 - b. FT/IR-if necessary, have trace section perform FT/IR analysis. Document and save spectra.
 - c. SEMIEDS-if water soluble or insoluble (probably inorganic), perform SEMIEDS analysis per CH SOP-25. Document and save spectra. E.

References:

CH SOP-25

CH SOP-30