

<b>Department</b>		
<b>Names/type of persons involved</b> Postgraduate group (experiment), Lab. Technicians and cleaners secondary		
<b>Procedure description</b> Soxhlet extraction of Crude Oil from contaminated soil samples. Weigh out 50g of air-dried sample into Soxhlet thimbles. Solvent (Toluene) extraction (250 ml per thimble) by reflux on heating mantle for 1 hour. Subsequent evaporation to dryness before reweighing of receiver flask and thimble.		
<b>Substances used (including amounts)</b>	<b>Hazards identified + the exposure routes, and the estimated risk when using all controls as specified</b>	<b>Exposure Limit/toxicity</b>
Toluene (as substitute for Benzene)	Harmful by inhalation, defatting of skin if splashed, severe eye irritation (splash or vapour), narcotic vapour: Highly Flammable	<b>OES: 50/150 ppm (8hr/15min)</b>
Crude Oil	Carcinogenic by skin contact	<b>LD<sub>50</sub> to be investigated</b>
Residues	Potentially toxic and carcinogenic by skin contact (and inhalation of thimble contents)	<b>Not determinable</b>
<b>Control/containment measures</b> Sample preparation (air-drying) to be carried out on bench in prep room B12. Fume cupboard to be used for all analytical procedures, sash lowered during heating. Use of glassware and heating mantles according to Dept. rules (see Good Lab Practice). PPE: Safety specs. throughout; heavy neoprene gloves for sample-handling and preparation, disposable Nitrile gloves for analytical stage.		
<b>Emergency procedures (not otherwise covered by Departmental Good Lab Practice)</b> Soak up any sample or liquid spillages with 'granules'; bulk these with used thimbles for incineration. Be aware of location of nearest Fire extinguisher/blanket, eye-wash, and 1 <sup>st</sup> Aid kit.		<b>Changes to the Fire Risk Assessment</b>  <b>None Required</b>
<b>Health surveillance/Monitoring required</b> Daily self-inspection of skin (hands, forearms, face) for any unusual blemishes or abnormalities. Possible contaminants in the soil samples may cause chloracne, warty growths, or skin cancers. Continue the inspections on a periodic basis after project ends.		
<b>Special training requirements</b> Post Grad's and unit staff only,		
<b>Access restrictions/Signage</b> Authorised unit staff only (as signed on lab doors). Cleaners to attend only to floors and waste bins. Any Undergraduate student observers must be supervised at all times. Sample drying trays in prep room must be clearly labeled 'Toxic-do not touch'. Fume cupboard must not be left unattended during reflux period.		
<b>Special waste/decontamination requirements</b> Unused dried sample must be carefully double-bagged (polythene) with the paper tray-liners. This should be kept for bulking with any spilled materials and used thimbles. Used solvent bulked in 'non-chlorinated' container kept in Fume Cupboard 3. Researcher to remove bulk of flask residues (i.e. solvent to waste) before passing safely to lab steward		
<b>Name/signature of assessor</b>		
<b>Head of Department/Departmental Safety Advisor/Supervisor</b>		<b>Date</b>