CHROMIUM VI REMEDIATION TRIALS	
Description:	First and second phases of field evaluations
Form of Contract:	Client Specific
Duration:	n/a
Contract Value:	Confidential
Client:	Glasgow City Council
Clients Representative:	URS

I & H Brown have been working with Glasgow City Council and URS, undertaking field trials to determine the most suitable treatment options for the toxic chromium VI waste widespread across the southeast of Glasgow. Previous trials in the United States identified that Calcium Polysulphide (CPS) has the capability to convert the toxic chromium VI to the less toxic and insoluble chromium III.

During the first phase of trials, contaminated soils were taken to a secure off site treatment area. The objective of the first trial was to determine the most suitable concentration of CPS to be added to successfully and efficiently treat the chromium VI. The contaminated soils were divided up into batches, to which varying concentrations of CPS were added. A monitoring programme was then undertaken by URS with soils samples taken at defined intervals for chemical analysis. Treatment works took place over a 3 month period.

The results of the first phase proved to be very successful and allowed the determination of the most suitable concentration of CPS solution to treat the chromium VI contamination.

The second phase of the trials involved the in-situ application of 24,000 litres of the CPS solution at a specified concentration to impacted soils at a site in Shawfield in Glasgow. The objective was to assess the effectiveness of the CPS solution in actual site conditions. A number of boreholes within the site and down gradient of the site were monitored and sampled on a daily basis to model the flow of the CPS solution, and to assess the effectiveness of treatment.

Initial results from these trials have been encouraging, and will be taken forward to subsequent phases of this ongoing project. Both phases of work were undertaken by I & H Brown using our Mobile Plant Licence and we liaised closely with URS to ensure that the methodology of the trials received approval from SEPA.