



DIRECT INJECTION FOR SOIL AND GROUNDWATER REMEDIATION



Geotechnical Engineering Limited (GEL) is able to offer direct injection capabilities for the in-situ remediation of contaminated land and groundwater alongside its specialist ground investigation services.

GEL has added the Geo-Probe GS2000 pump and injection equipment to our specialist drilling fleet.

This equipment is ideal for the injection of chemical remediates such as ORC[®], ORC-A[®], HRC[®], MRC[®], and chemical oxidants such as Regenox[®] and is recommended by the manufacturers of these, and similar, products.

Designed specifically for shallow (<10m) subsurface injection the pump is driven by two hydraulic pistons which have been specially designed to pump high viscosity liquids, grouts and vigorous oxidisers. Capable of a flow rate of 16/litres per minute and operating pressures of up to 1850 PSI. Powered by a 9HP Honda petrol engine [with spark arrestors/Chalwyn valve].

The pump can deliver sufficient head at distances of up to 20m away. The GS 2000 pump is field-serviceable, easy to clean and has few replacement parts.

Injection is carried out using hollow stem injection probes [see below] which are driven into the ground using dynamic methods. Using our Terrier 2000 tracked dynamic sampling rig a standard SPT weight of 63.5kg is used to "drive" in injection probes. The rig is capable of "driving" to depths of up to 10m below ground level depending on the ground conditions.

Using a specially designed pressure activated injection probe ensures accurate placement of remediate compounds to the required injection depth. The probe also has a backflow preventer that keeps the material in the ground.



For more difficult geological conditions and deeper drilling we are able to utilise one of our dual-purpose Pioneer rigs.

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Or visit our website www.geoeng.co.uk