

ERE Pneumatic Pump & Treat Package System Principal of Operation



ERE Pump & Treat Turnkey System

Filtration Separation Process



Oil Recovery



PLC Control Panel

ERE's Pneumatic Pump & Treat System operates by pumping contaminated groundwater to the surface from the same well using **ERE's Pneumatic BOSS™ Pumps**. The recovered contaminated groundwater is then typically treated to desired levels through various established treatment technologies. Selection of remedial action plans are dependent on factors such as solubility, strippability, adsorbability and biodegradability as well as air and water discharge criteria. Oil/Water Separators such as ERE's **Olio-Sep™**, are used to separate the two phases allowing hydrocarbons to be captured in a storage recovery tank. The effluent proceeds into other means of treatment such as ERE's **V.O.Cease™** Air Stripper and or conventional carbon treatment methods such as ERE's vast line of **UltraSorbers™**. Once contaminants are separated, filtered and/or treated, the clean water can then be recharged into the ground or discharged to the surface water body or municipal sewage plant.

ERE's Pump and Treat Systems can be designed to meet two very different objectives: (1) Containment, to prevent the contamination from spreading, and (2) Restoration, to remove the contaminant mass. In pump and treat systems designed for containment, the extraction rate is generally established as the minimum rate sufficient to prevent enlargement of the contaminated zone. In systems designed for restoration, the pumping rate is generally established to be much larger than that required for containment so that clean water will flush through the contaminated zone at an expedited rate. Because of their reduced pumping requirements, pump and treat systems designed for containment are much less costly to operate than systems designed for restoration. In all other fundamental ways, the two types of systems are identical.

The BOSS Pneumatic Pump manufactured by ERE is a mechanically operated, controller less, air lift pump typically used for this application. These pumps are designed to transfer fluids to the surface for further treatment from depths of up to 200 ft (61 m). BOSS Pumps are available in top or bottom loading configurations, allowing it to be used for pumping total fluids, dissolved phase, DNAPL and Leachate. The pump has the capacity of up to 13 gpm (49.2 L/m).