

**Table A-5.B. Evaluation factors for multi-phase extraction**

Remedial time frame	Concern	Moderate
	Discussion	Medium. Depends on soil type, LNAPL type, release size, footprint, and end point (e.g., LNAPL thickness, sheen, or oil transmissivity goal). Low-permeability soils and heavier LNAPL require more time to remediate.
Safety	Concern	Moderate
	Discussion	The remediation equipment is either placed in a compound or trailer mounted. There are moving parts, piping under pressure and vacuum, and potential for vapor accumulation in remediation trailers.
Waste management	Concern	Moderate
	Discussion	Recovered LNAPL and water need to be properly recycled or disposed. Recovered vapors have to be managed or destroyed. LNAPL/water/air emulsion may be difficult to break and manage.
Community concerns	Concern	Moderate
	Discussion	Although equipment is usually out of sight, there is a potential for concerns with noise, potential odors, volatile emissions, aesthetic, and access issues.
Carbon footprint/energy requirements	Concern	Moderate
	Discussion	Remediation runs continuously or cycles. Recovered vapors may need treatment.
Site restrictions	Concern	Moderate
	Discussion	Typically all equipment is in a compound and piping is below ground. Equipment can typically be deployed in manner to accommodate many site restrictions. Power needs to be supplied to the system, and produced water needs treatment.
LNAPL body size	Concern	High
	Discussion	The size of the LNAPL body directly affects the cost and extent of the well network required to implement MPE. MPE ROI affects the number of wells required to address the LNAPL body.
Other regulations	Concern	Moderate
	Discussion	May need permits to discharge water and vapors.
Cost	Concern	Moderate
	Discussion	Capital costs are higher than skimmer pumps, and operation and maintenance are much higher to maintain the system.
Other	Concern	
	Discussion	