LNAPL Transmissivity Calculator Example

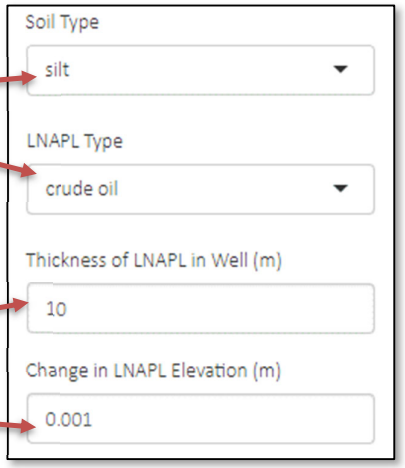
Example Description

Site Description

A new well has been installed in **silt** within an LNAPL body comprised of **crude oil**. A consultant needs to determine whether the new well is a good location to recover LNAPL based on the LNAPL transmissivity.

The observed LNAPL thickness and LNAPL gradient at the location are **10 m** and **0.001**, respectively.

Inputs and Outputs in Toolbox



Output and Interpretation

The values in the output table show the characteristics of the LNAPL at the location, assuming default characteristics for the soil type and LNAPL type.

Transmissivity from Calculator

Parameters	*Values*
LNAPL Transmissivity (m^2/d)	**0.0016**
Key threshold for LNAPL recoverability: LNAPL Transmissivity above this range (numbers *within* this range are in a grey zone for recoverability)	0.0093 to 0.074 m^2/day

Additional Results from Calculator

Parameters	*Values*
Maximum LNAPL Height (m)	11
Height of LNAPL/ Air Interface above Water (m)	10
Relative density (unitless)	0.84
van Genuchten M (unitless)	0.083
LNAPL Specific Volume (m^3/m^2)	0.22
LNAPL Mobile Specific Volume (m^3/m^3)	0.15
LNAPL Average Relative Permeability (unitless)	0.17
LNAPL Average Hydraulic Conductivity (m/d)	0.00014
LNAPL Darcy Flux (m/d)	1.6E-05
Average LNAPL Volumetric Content (unitless)	0.05
LNAPL Average Seepage Velocity (m/d)	0.00032