Quick Guide to ArcNLET-Py Vadose Zone Profile Output

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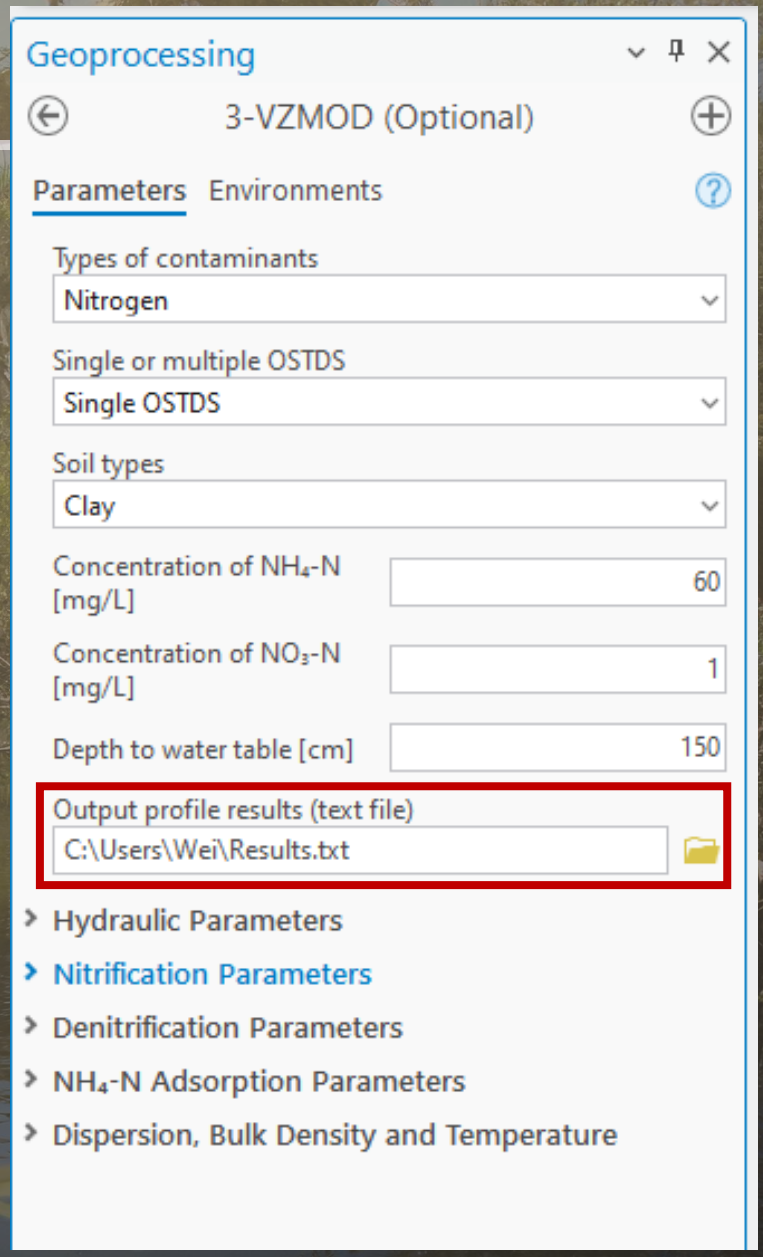
VZMOD Module

- The VZMOD module generates an output profile file that contains detailed information about vadose-zone processes.
- These profile results provide valuable insights into how water and nutrients move and transform within the vadose zone.
- The text file includes,
  - Unsaturated soil water content
  - Correction factors of nitrification and denitrification rates
  - Concentrations of NH_4-N, NO_3-N, and PO_4-P

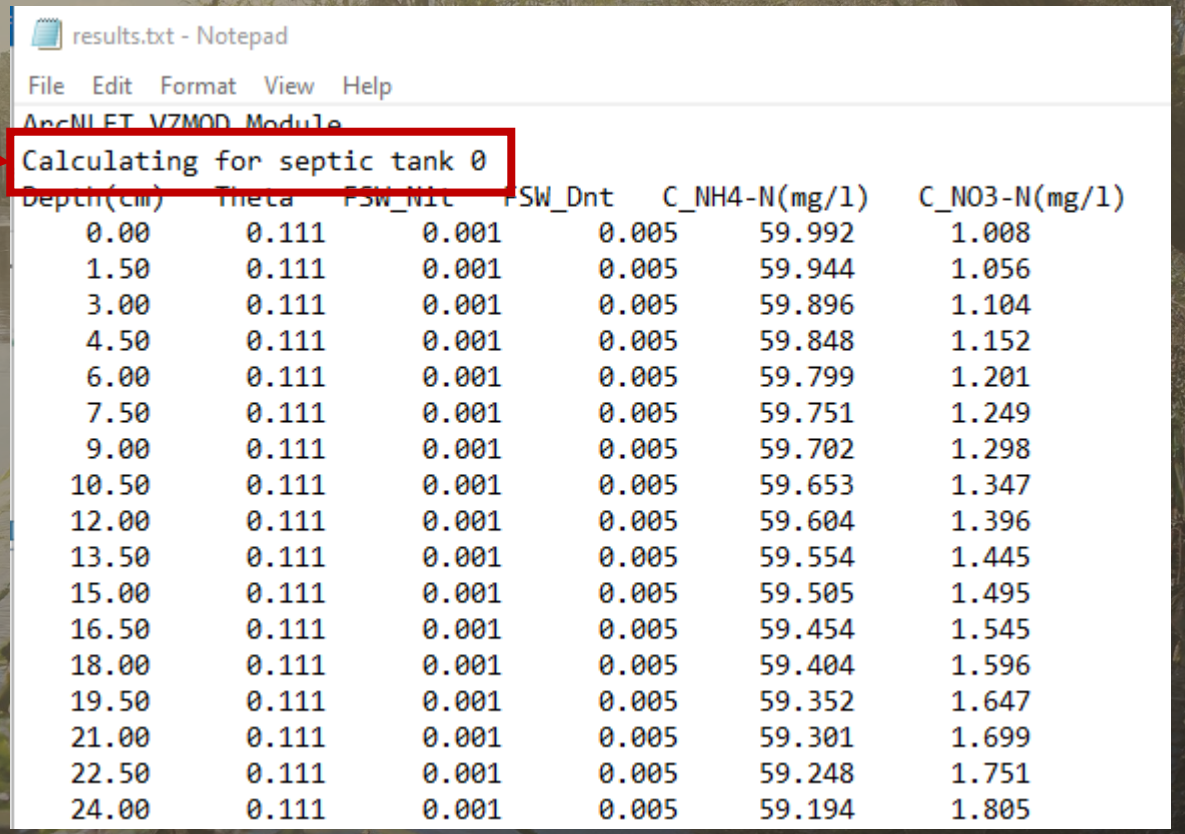


VZMOD Module

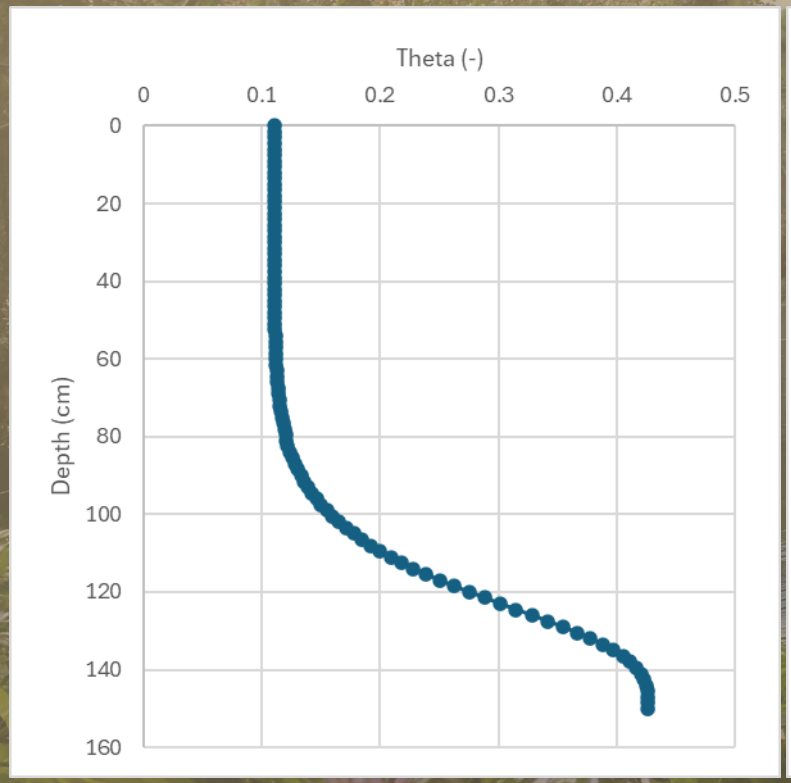
- OSTDS shapefile

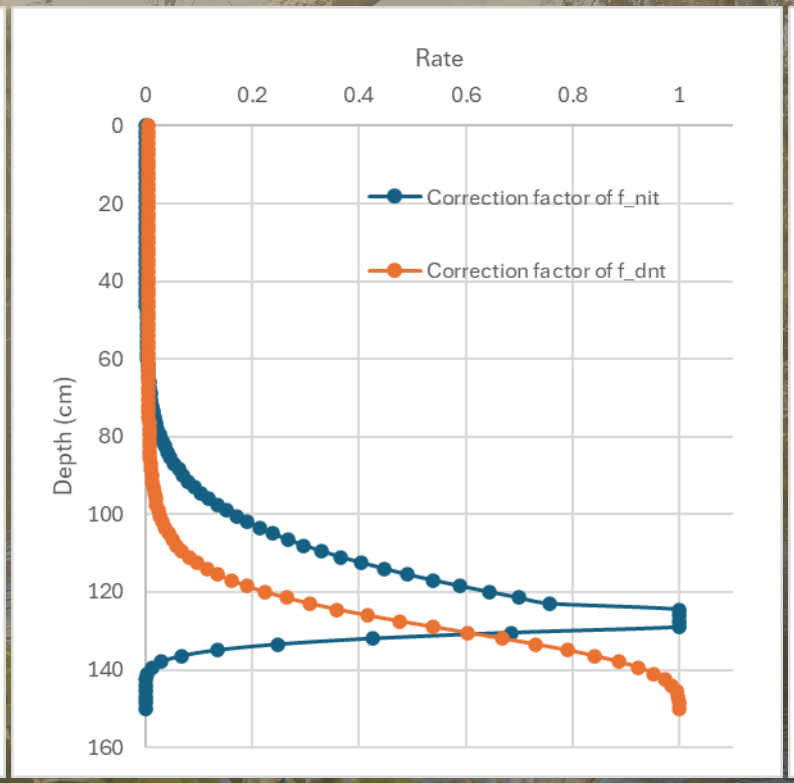
	FID	Shape *	OSTDS_ID
1	0	Point	0
2	1	Point	1
3	2	Point	2
4	3	Point	3
5	4	Point	4
6	5	Point	5
7	6	Point	6
8	7	Point	7
9	8	Point	8
10	9	Point	9
11	10	Point	10

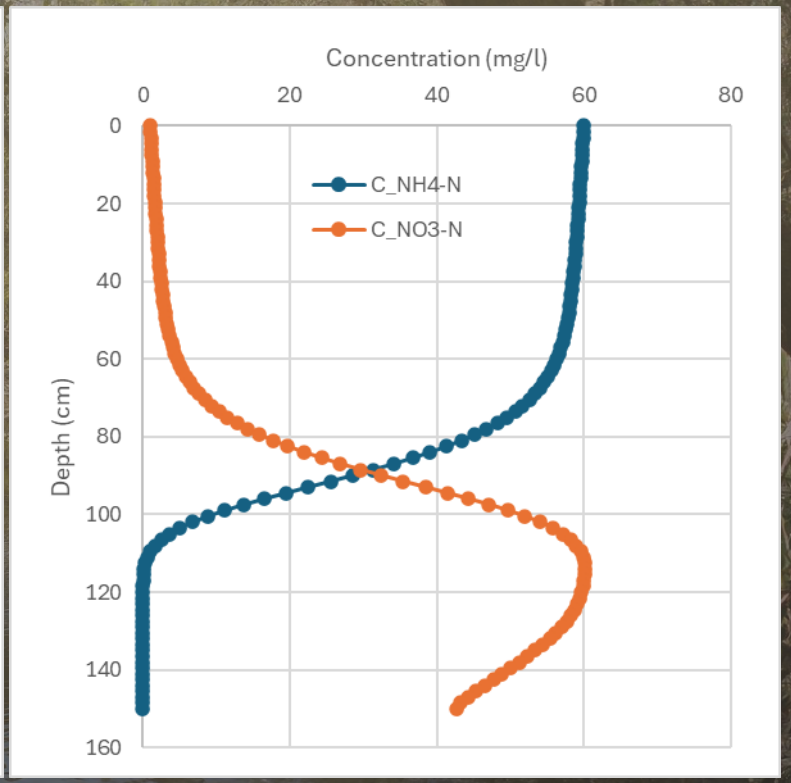
- Results.txt



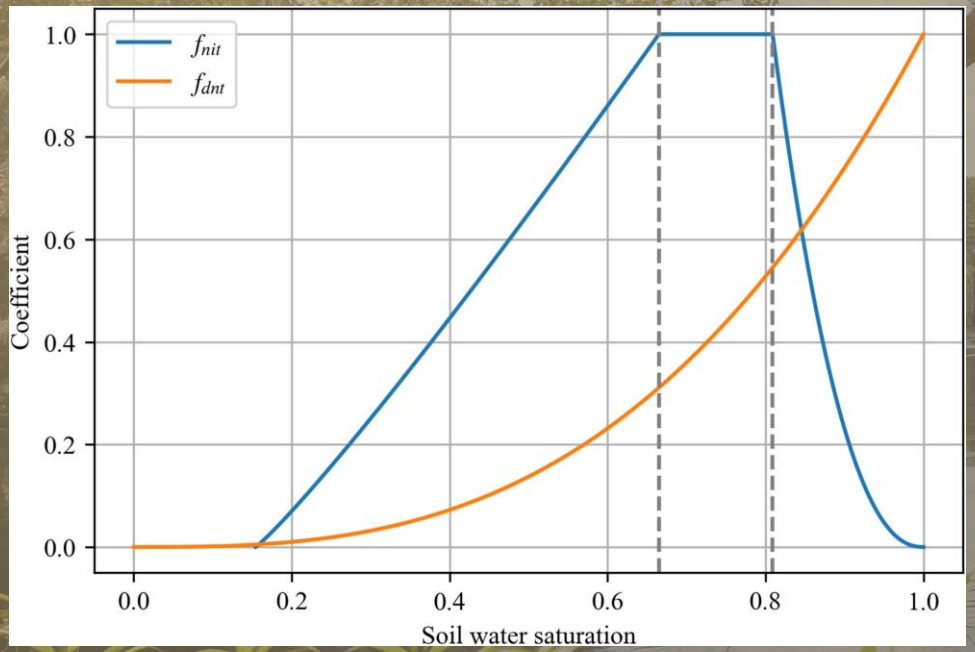
VZMOD Module







VZMOD Module



Relations between correction factors for nitrification rate and denitrification rate with soil water saturation in sandy soil (McCray et al., 2010)

https://atmos.eoas.fsu.edu/~mye/VZMOD/users_manual.pdf

McCray, J., Geza, M.G., Lowe, K., Tucholke, M., Wunsch, A., Roberts, S., Drewes, J., Amador, J., Atoyan, J., Kalen, D., Loomis, G., Boving, T., Radcliffe, D., 2010. Quantitative tools to determine the expected performance of wastewater soil treatment units: guidance manual. Water Environment Research Foundation. Alexandria, VA.