Q & A (4)

find grid index & plume containment/control

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CEE 696

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Find row, column of a point in model coordinates

How can we find the index (lay, row, col) of a spatial point in the grid?

using DIS (discretization) package

Let's run my_first_flopy_example.py

use dis.get_rc_from_node_coordinates(x,y)

```python
# from my_first_flopy_example
# Create the discretization object
dis = flopy.modflow.ModflowDis(mf, nlay, nrow, ncol,
                               delr=delr, delc=delc,
                               top=ztop, botm=botm[1:])


x = 50, y = 9500
[row, col] = dis.get_rc_from_node_coordinates(x, y)
print(row,col)
```

See https://modflowpy.github.io/flopydoc/mfdis.html
for more functions

Pump & Treatment

Please download `https://www2.hawaii.edu/~jonghyun/`
`classes/S18/CEE696/files/mymf_v4.py`

- You can optimize pumping rates and/or the location of pumping wells using MODFLOW-MT3DMS.
- You can even use MODFLOW alone to capture the contaminant plume without time-consuming MT3DMS - how?