Gold King Mine Spill

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How did it happen?

- The EPA was working to clean up the abandoned Red Bonita Mine in Silverton,Colorado, in August of 2015.

- While working on this, contaminated water breached out of the wall unstoppably into the Animas River Watershed.

Before and After the Spill

What was the Animas River Watershed contaminated with?

- The water was contaminated with lead, arsenic and copper, among other heavy metals.

Why does this spill matter?

- Most people that live around the area depend on water from the Animas for agriculture, to drink, and to bathe in.

- Many animals also live around the area and rely on the river in order to survive.

What were the consequences?

- People were unable to shower
- Many farmers' crops died because of pollution/contamination.
- People on the Navajo Nation had no drinking water
- Some people claim that many animals that live around the area were poisoned from the water.

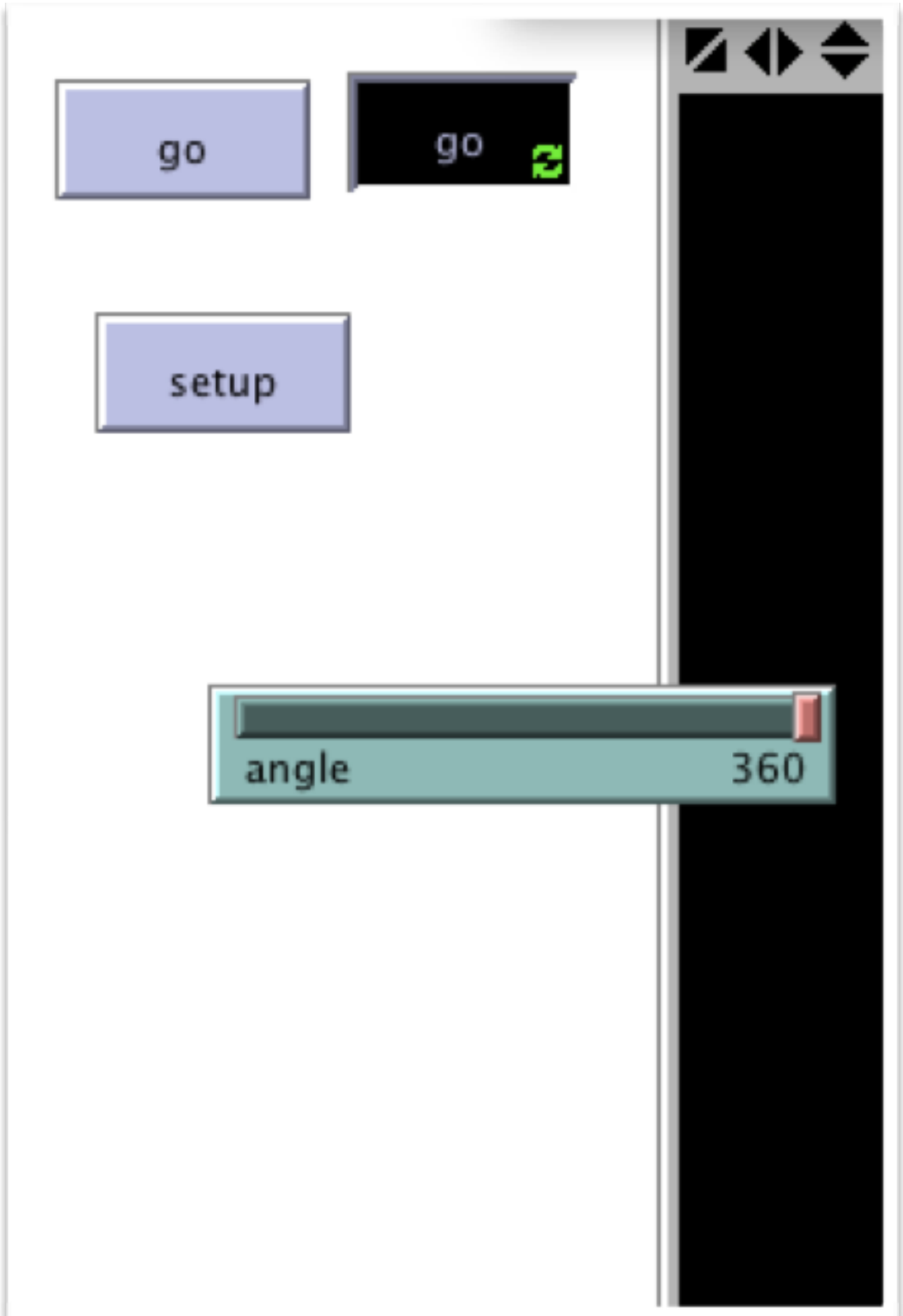
Where did it happen?

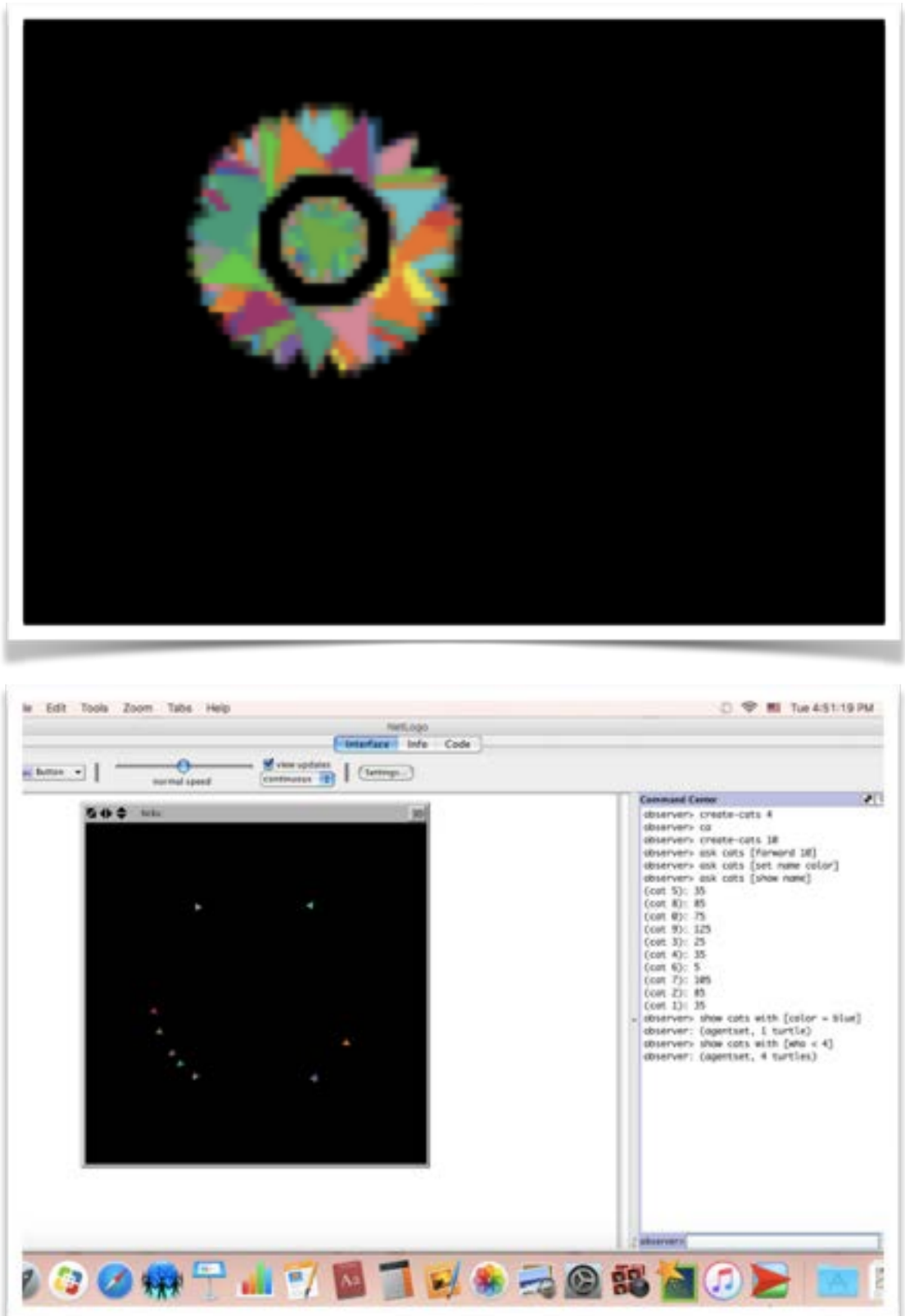
- The Gold King Mine Spill occurred from Silverton, Colorado to Lake Powell, located in Utah and Arizona

JERRY MOBRIDE/THE DURANGO HERALD/AP

```
) setup
 clear-all
 reset-ticks
 create-turtles 1 [
   pen-down]
nd

) go
 tick
 ask turtles [
   set heading (heading + (angle / 2) - (random angle))
   forward 1
 ]
nd
```


go
go
setup
angle
360


Edit Tools Zoom Tabs Help
Tue 4:51:19 PM
NetLogo
Interface Info Code
normal speed
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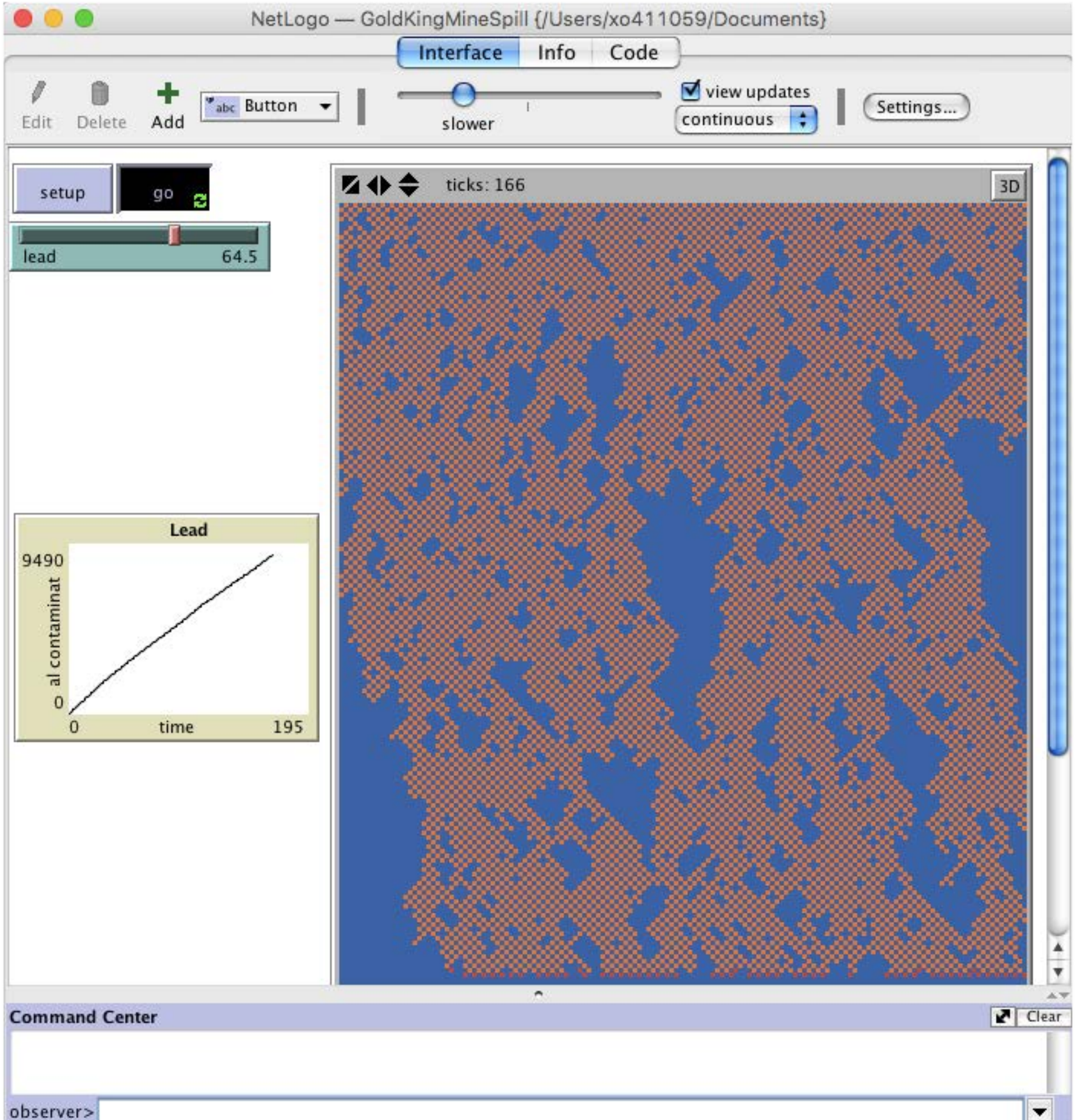
continuous
Settings...
Command Center
observer> create-cats 4
observer> cs
observer> create-cats 10
observer> ask cats [forward 10]
observer> ask cats [set name color]
observer> ask cats [show name]
(cat 5): 35
(cat 8): 85
(cat 0): 75
(cat 9): 125
(cat 3): 25
(cat 4): 35
(cat 6): 5
(cat 7): 105
(cat 2): 85
(cat 1): 35
observer> show cats with [color = blue]
observer: (agentset, 1 turtle)
observer> show cats with [who < 4]
observer: (agentset, 4 turtles)
observer:

```
globals [
  current-row
  total-oil

]

to setup
  clear-all
  set total-oil 0

  ask patches [
    reset-color
  ]

  ;; set up top row
  set current-row patches with [pycor = max-pycor]
  ask current-row [
    if pxcor mod 2 = 1
      [ set pcolor red ]

  ]
  reset-ticks
end


to reset-color
    ifelse (pxcor + pycor) mod 2 = 1
      [ set pcolor blue ]
      [ set pcolor blue ]
end

to go
  if not any? current-row with [pcolor = red]
    [ stop ]
  percolate
```

```
  ask current-row with [pcolor = red] [

    ask patches at-points [[-1 -1] [1 -1]]
      [ if (pcolor = blue) and (random-float 100 < 70)
          [ set pcolor red ] ]
    set pcolor orange
    set total-oil total-oil + 1
  ]

  set current-row patch-set [patch-at 0 -1] of current-row
end


to wrap-oil
  if [pycor = min-pycor] of one-of current-row
  [
    ask current-row [
      ask (patch-at 0 -1)
        [ set pcolor [pcolor] of myself ]
    ]
    ask patches with [ pycor < max-pycor ] [
      reset-color
    ]
    set current-row patch-set [patch-at 0 -1] of current-row
  ]
end
```


NetLogo — GoldKingMineSpill {/Users/xo411059/Documents}
Interface
Info
Code
Edit
Delete
Add
Button
slower
view updates
continuous
Settings...
setup
go
lead
64.5
ticks: 166
3D
Lead
9490
al contaminat
0
0
time
195
Command Center
Clear
observer>