Supplementary Materials

Run 1:
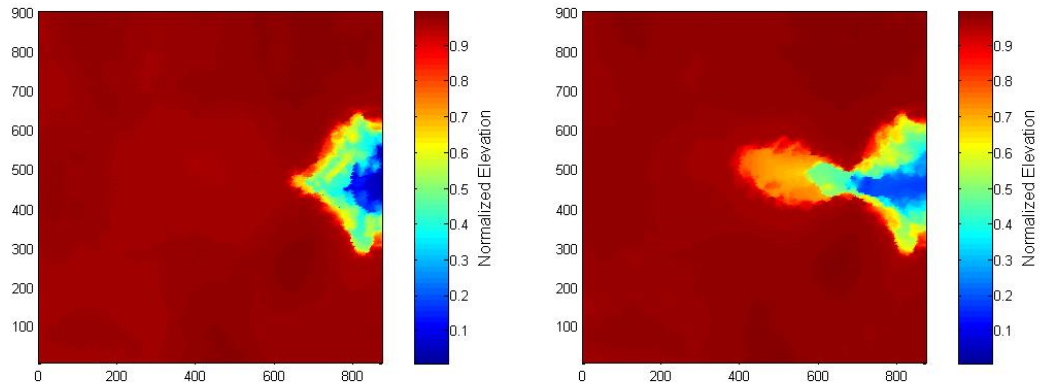
Scan 2: 15 min & 0.00409 m^3 removed

Scan 3: 30 min & 0.00657 m^3 removed
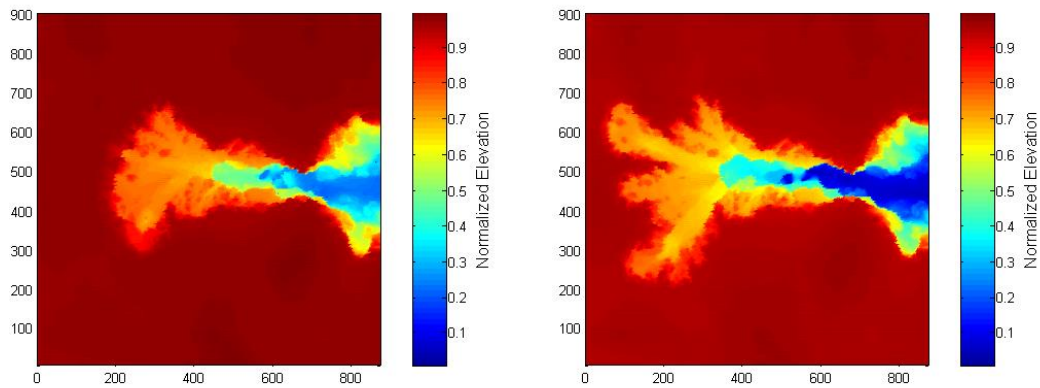
Scan 4: 45 min & 0.00981 m^3 removed

Scan 5: 60 min & 0.01192 m^3 removed

D_{50} = 12 μm

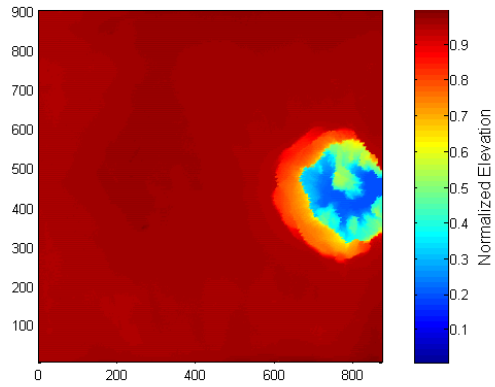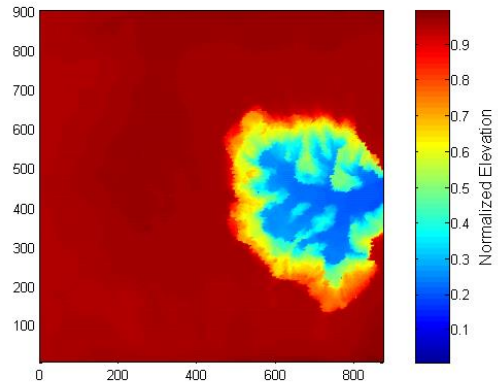Total Volume = 190 L

Total Run Time = 60 minutes
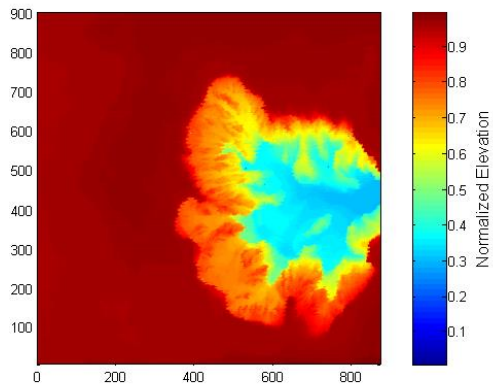
Flow Rate = 52.58 ml/sec

Total Volume Removed: 0.01192 m^3

Run 2:

Scan 2: 8 min & 0.00585 m^3 removed

Scan 3: 16 min & 0.01473 m^3 removed

Scan 4: 24 min & 0.01992 m^3 removed
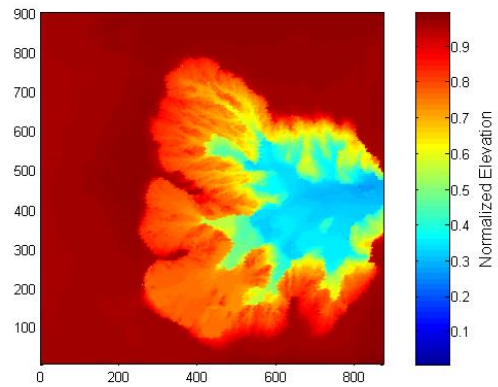
Scan 5: 32 min & 0.02451 m^3 removed

D_{50} = 12 μm
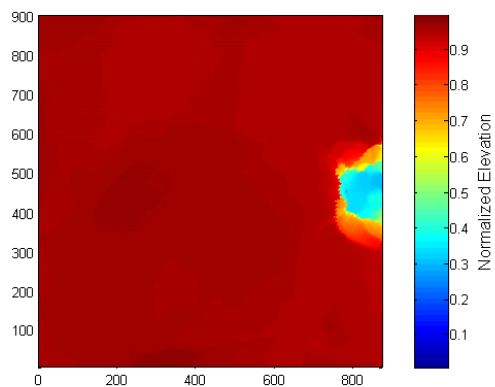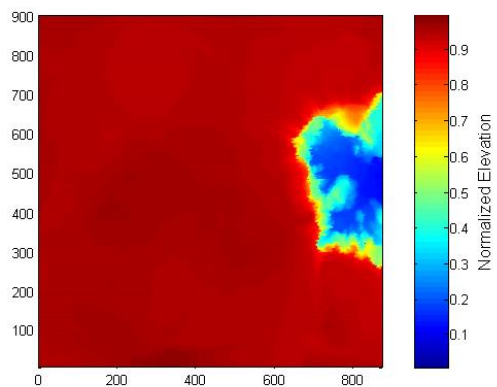
Total Volume = 190 L

Total Run Time = 32 minutes
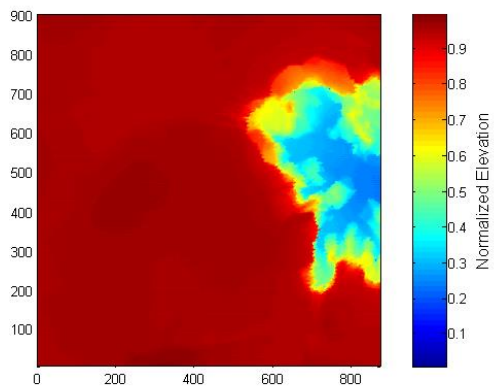
Flow Rate = 98.58 ml/sec

Total Volume Removed: 0.02451 m^3

Run 3:

Scan 2: 4 min & 0.00259 m^3 removed

Scan 3: 8 min & 0.00778 m^3 removed

Scan 4: 12 min & 0.01.33cm^3 removed
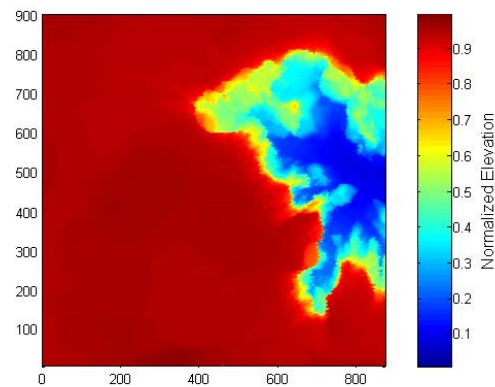
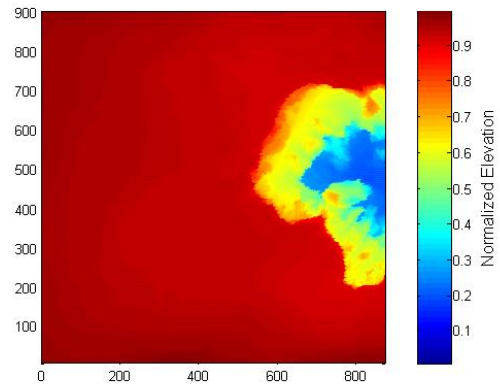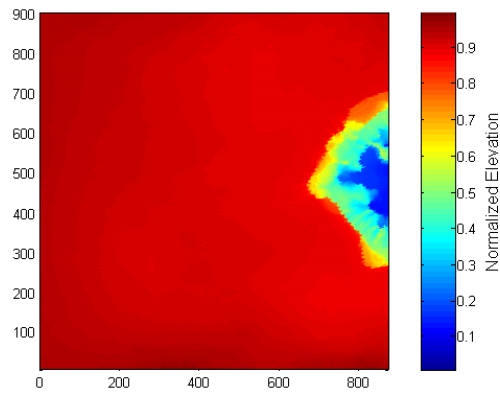**Scan 5:** 16 min & 0.01794 m^3 removed

D_{50} = 12 μm

Total Volume = 190 L
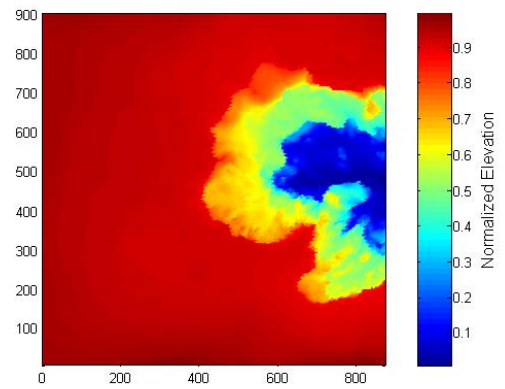
Total Run Time = 16 minutes

Flow Rate = 197.16 ml/sec

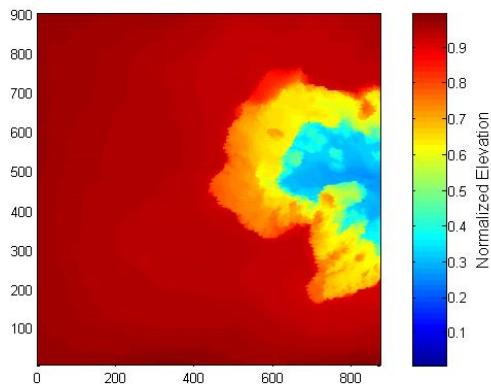Total Volume Removed: 0.01794 m^3

Run 4:

Scan 2: 6 min & 0.00404 m^3 removed

Scan 3: 12 min & 0.00908 m^3 removed

Scan 4: 18 min & 0.01256 m^3 removed

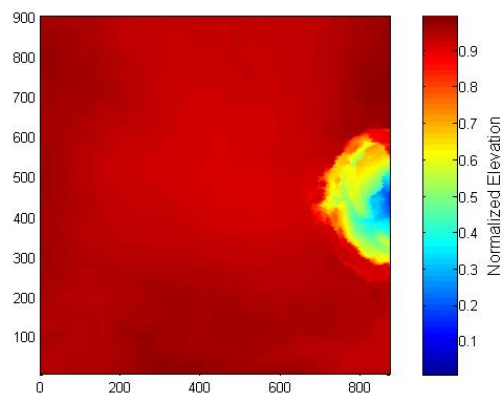**Scan 5:** 21.25 min & 0.01378 m^3 removed

D_{50} = 12 μm

Total Volume = 190 L
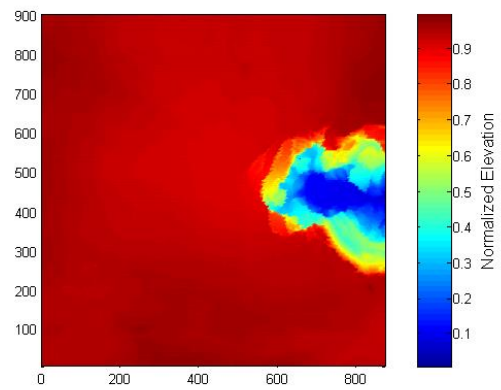
Total Run Time = 21.25 minutes
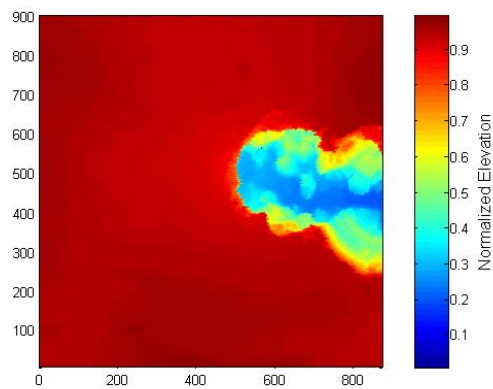
Flow Rate = 148.45 ml/sec

Total Volume Removed: 0.01378 m^3

Run 5:

Scan 2: 4 min & 0.00330 m^3 removed

Scan 3: 8 min & 0.00735 m^3 removed

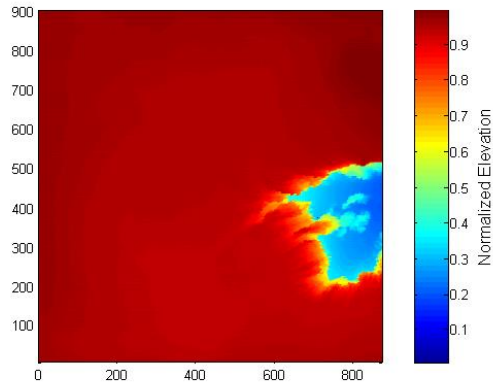

Scan 4: 11 min & 0.01038 m^3 removed

D_{50} = 12 μm

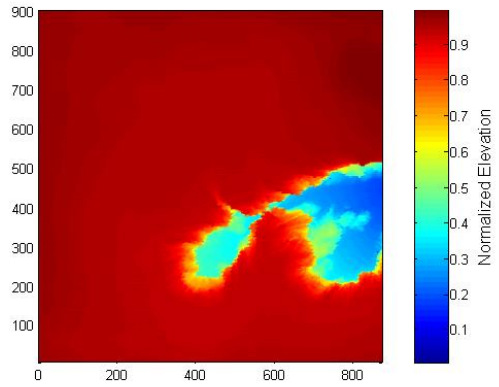Total Volume = 190 L

Total Run Time = 11 minutes
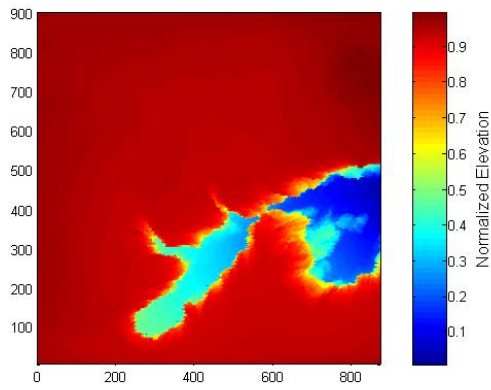
Flow Rate = 286.77 ml/sec

Total Volume Removed: 0.01038 m^3
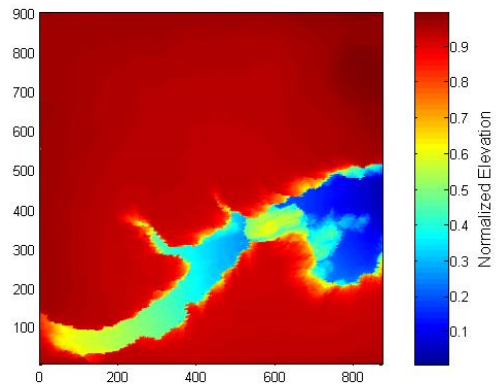
Run 6:

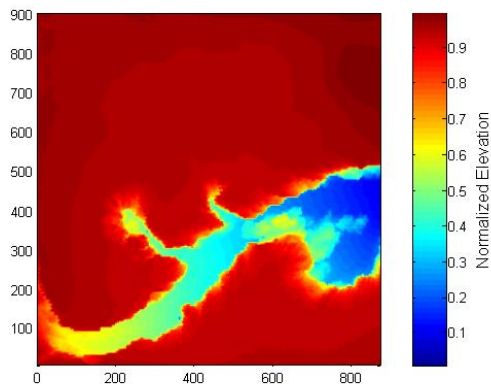**Scan 2:** 30 min & 0.00638 m³ removed

Scan 3: 60 min & 0.00901 m³ removed
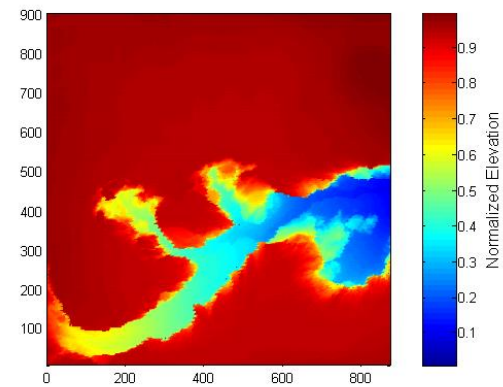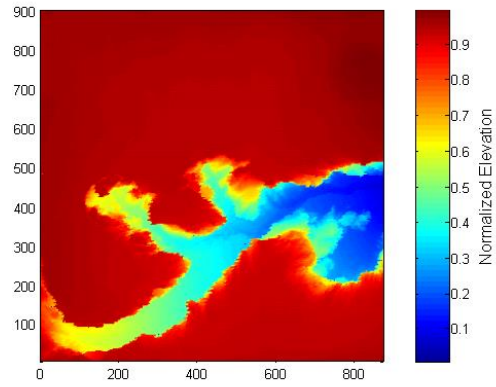

Scan 4: 90 min & 0.01056 m³ removed
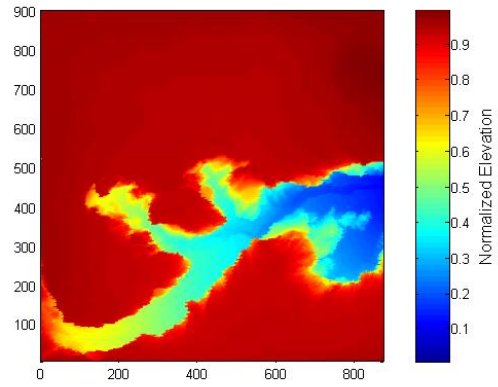

Scan 5: 120 min & 0.01185 m³ removed

Scan 6: 150 min & 0.01255 m³ removed

Scan 7: 360 min & 0.01390 m³ removed

Scan 8: 738 min & 0.01490 m³ removed

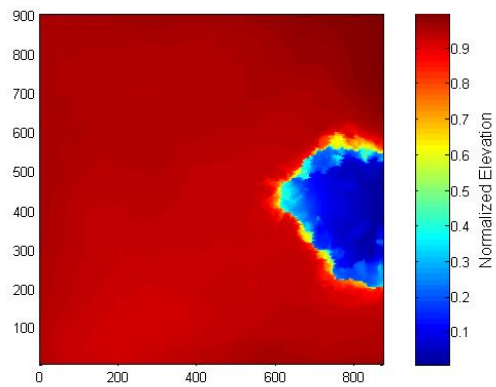**Scan 9:** 872 min & 0.01490 m³ removed

D_{50} = 12 μm

Total Volume = 190 L

Total Run Time = 872 minutes

Flow Rate = 3.62 ml/sec

Total Volume Removed: 0.01490 m³

Run 7:

Scan 2: 10.13 min & 0.00891 m^3 removed
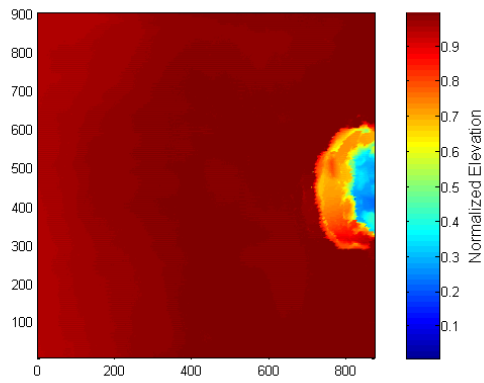
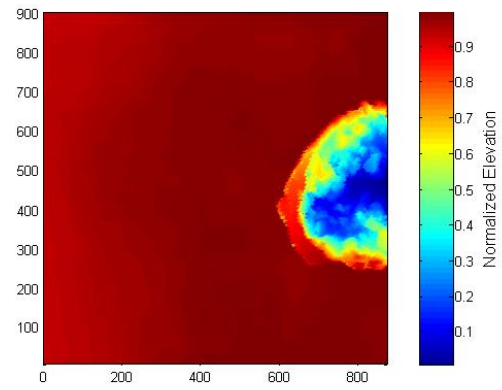D_{50} = 12 μm

Total Volume = 190 L

Total Run Time = 10.13 minutes
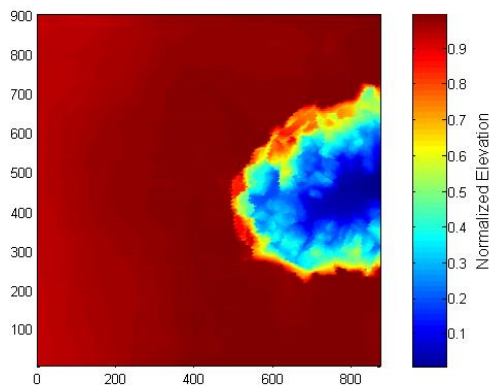
Flow Rate = 311.40 ml/sec

Total Volume Removed: 0.00891 m^3

Run 8:

Scan 2: 6 min & 0.00310 m^3 removed

Scan 3: 12 min & 0.00738 m^3 removed

Scan 4: 21.5 min & 0.01391 m^3 removed

D_{50} = 12 μm
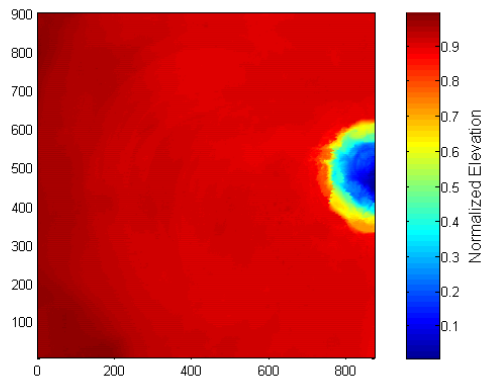
Total Volume = 190 L
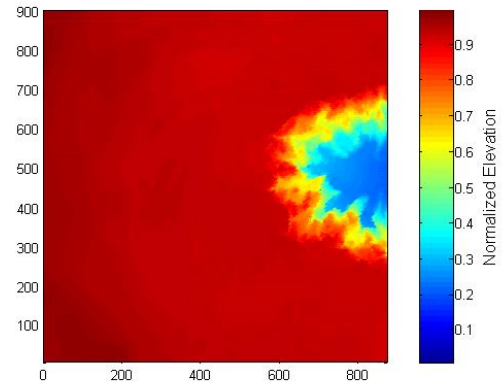
Total Run Time = 21.5 minutes
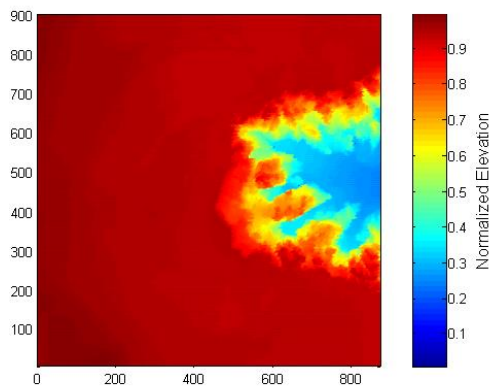
Flow Rate = 146.72 ml/sec

Total Volume Removed: 0.01391 m^3

Run 9:

Scan 2: 3 min & 0.00203 m^3 removed

Scan 3: 6 min & 0.00720 m^3 removed

Scan 4: 9 min & 0.01139 m^3 removed
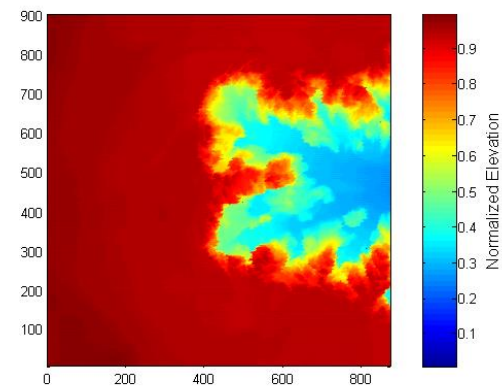
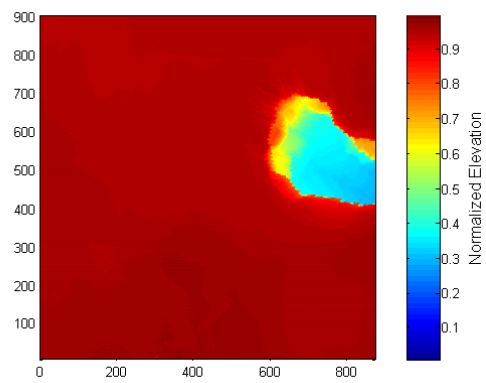
Scan 5: 15.5 min & 0.01865 m^3 removed

D_{50} = 12 μm

Total Volume = 190 L
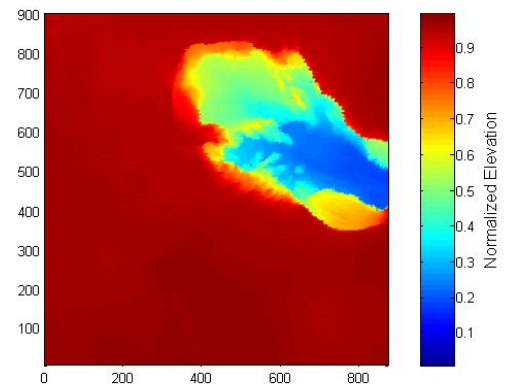
Total Run Time = 15.5 minutes
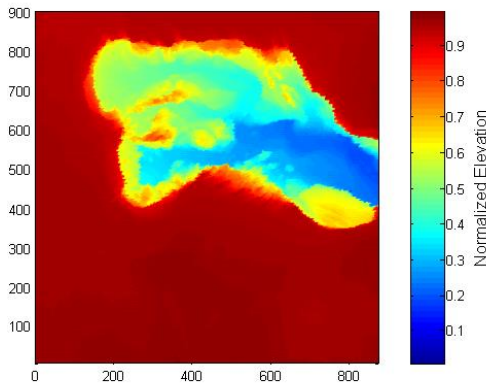
Flow Rate = 203.52 ml/sec

Total Volume Removed: 0.01865 m^3

Run 10:

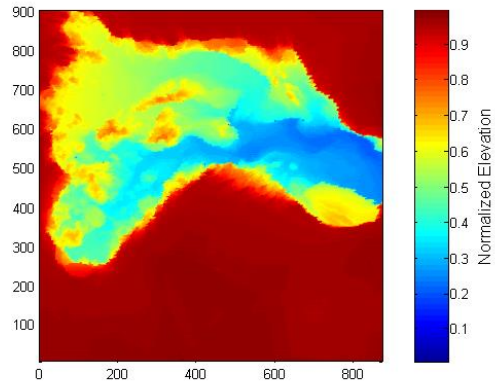**Scan 2:** 15 min & 0.00688 m^3 removed
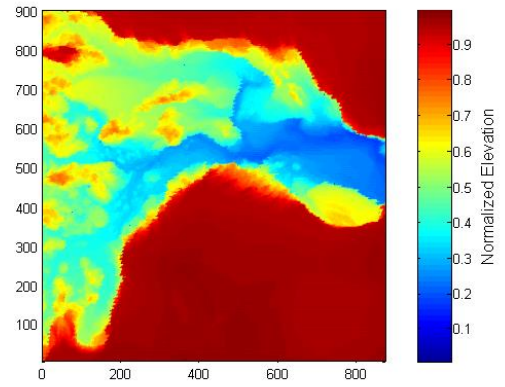

Scan 3: 30 min & 0.01542 m^3 removed

Scan 4: 44 min & 0.02316 m^3 removed

Scan 5: 59 min & 0.03200 m^3 removed

Scan 6: 74 min & 0.03795 m^3 removed
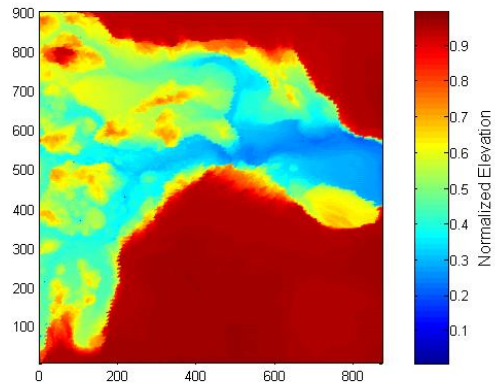
Scan 7: 91.5 min & 0.03905 m^3 removed

D_{50} = 12 μm

Total Volume = 380 L
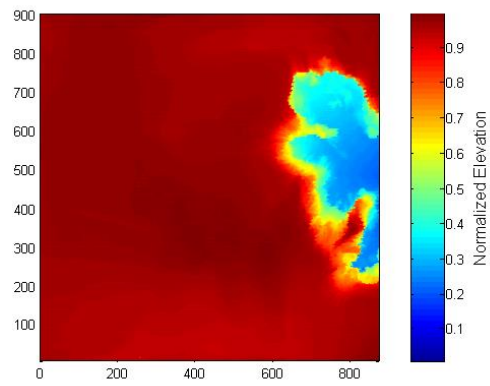
Total Run Time = 91.5 minutes

1st 190L Flow Rate = 71.69 ml/sec

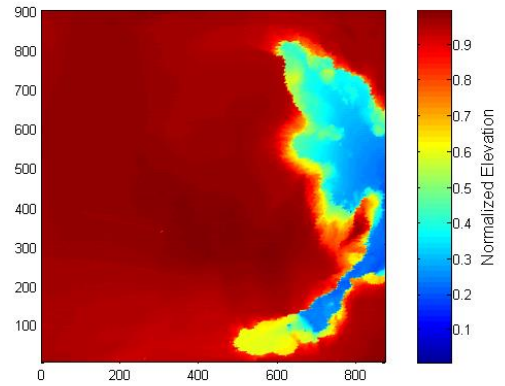2nd 190L Flow Rate = 66.41 ml/sec

1st Half Total Volume Removed = 0.02316 m^3
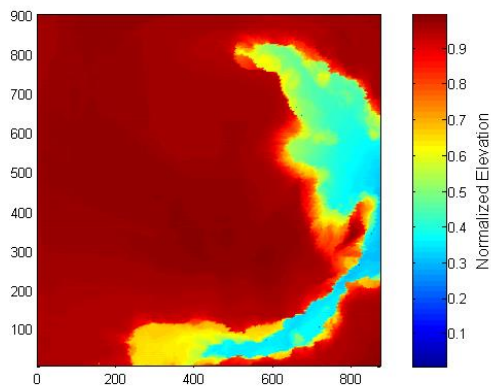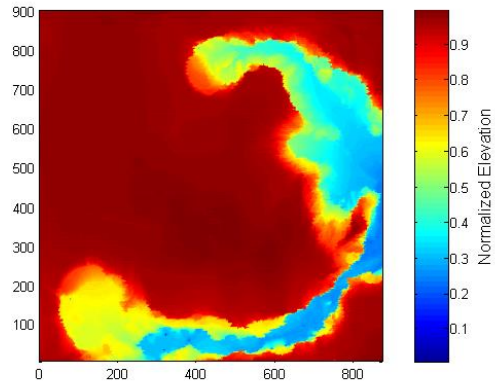
Total Volume Removed: 0.03905 m^3

Run 11:

Scan 2: 15 min & 0.01031m^3 removed

Scan 3: 30 min & 0.01390 m^3 removed

Scan 4: 43 min & 0.01712 m^3 removed

Scan 5: 51 min & 0.02218 m^3 removed   **Scan 6:** 59 min & 0.02739 m^3 removed
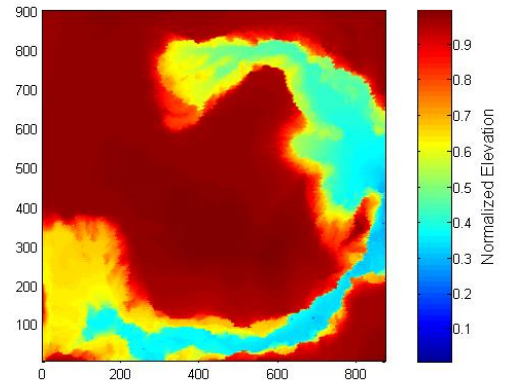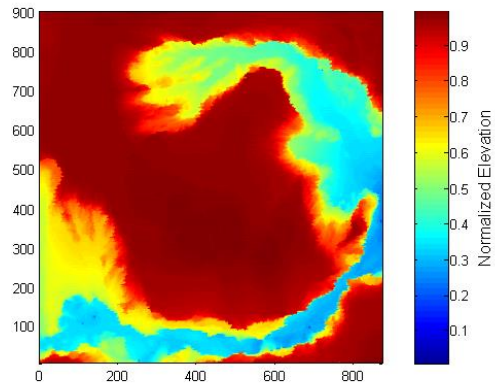
Scan 7: 65 min & 0.03016 m^3 removed

D_{50} = 12 μm

Total Volume = 380 L
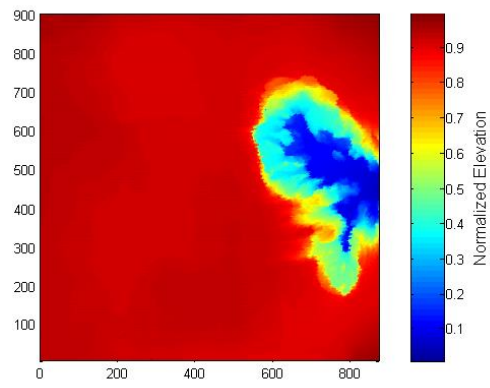
Total Run Time = 65 minutes

1st 190L Flow Rate = 73.36 ml/sec

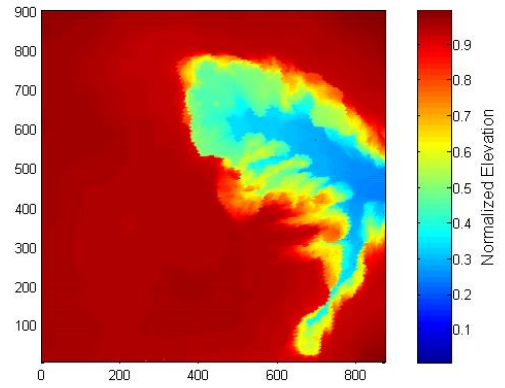2nd 190L Flow Rate = 143.39 ml/sec

1st Half Total Volume Removed = 0.01712 m^3

Total Volume Removed: 0.03016 m^3

Run 12:

Scan 2: 15 min & 0.01096 m^3 removed

Scan 3: 30 min & 0.01917 m^3 removed

Scan 4: 41 min & 0.02338 m^3 removed

Scan 5: 45 min & 0.02665 m³ removed

Scan 6: 49 min & 0.03012 m³ removed

Scan 7: 53 min & 0.03385 m³ removed

Scan 8: 54.5 min & 0.03553 m³ removed

D_{50} = 12 μm

Total Volume = 380 L

Total Run Time = 54.5 minutes

1st 190L Flow Rate = 76.94 ml/sec

2nd 190L Flow Rate = 233.67 ml/sec

1st Half Total Volume Removed = 0.02338 m³
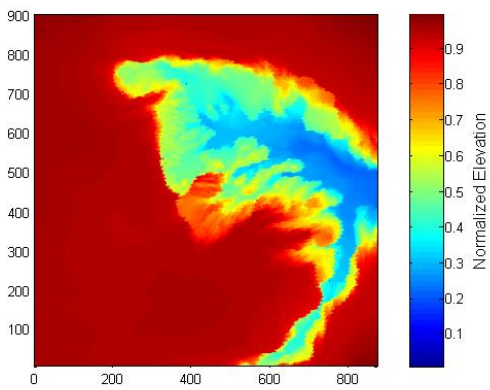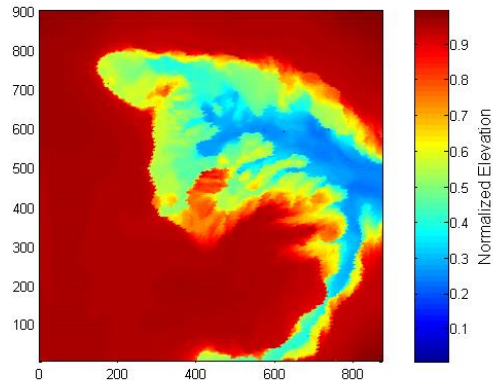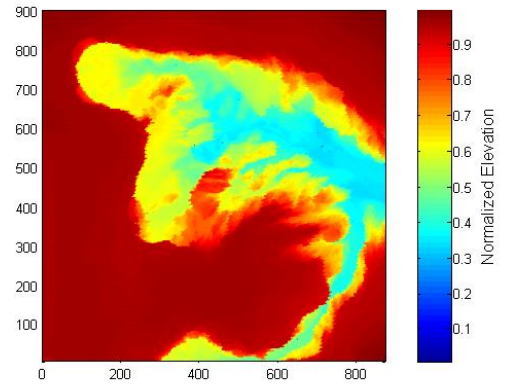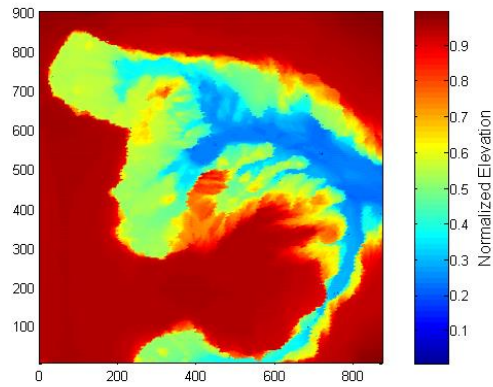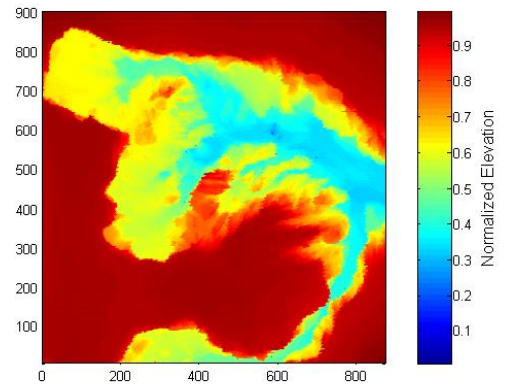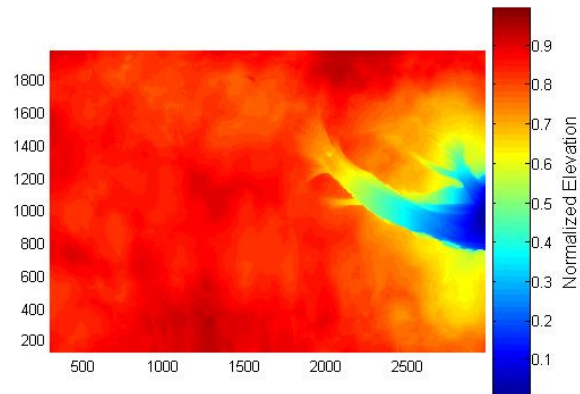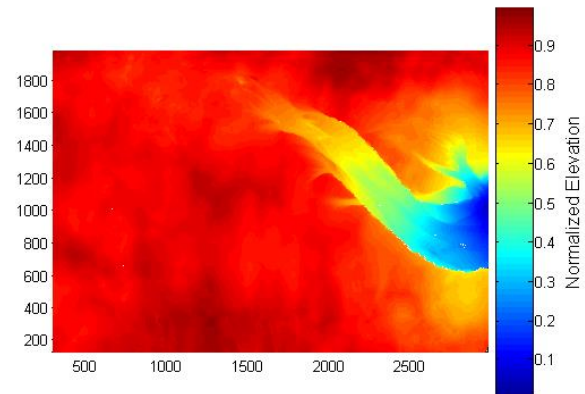
Total Volume Removed: 0.03553 m³

Run 13:

Scan 2: 6.5 min & 0.01002 m³ removed   **Scan 3:** 25.25 min & 0.01776 m³ removed
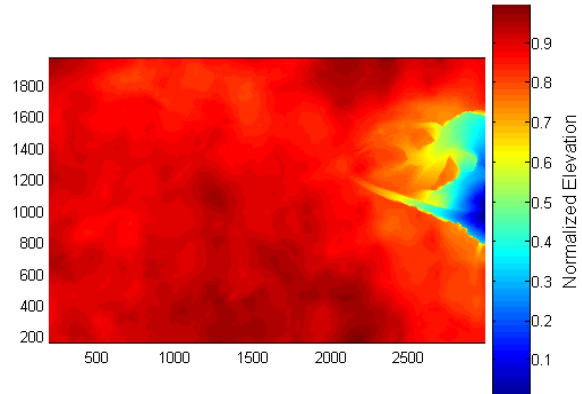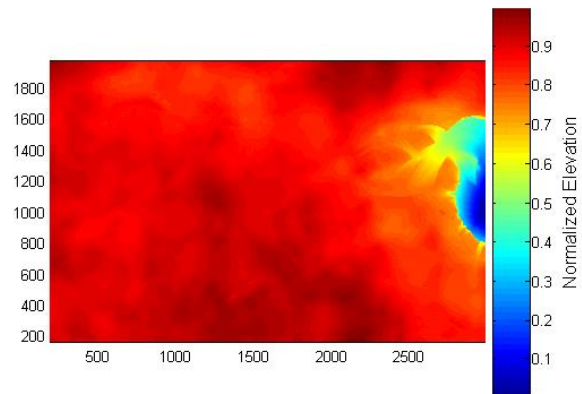
D_{50} = 96 μm

Total Volume = 190 L

Total Run Time = 25.25 minutes
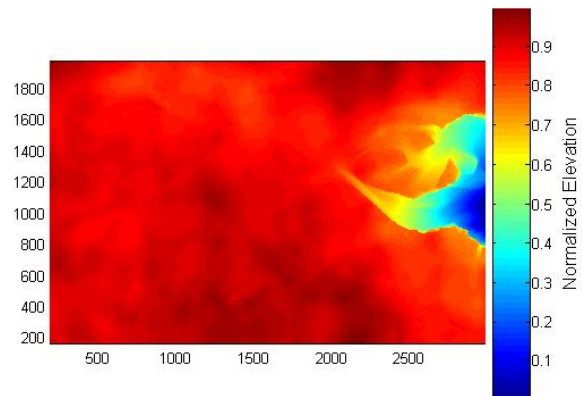
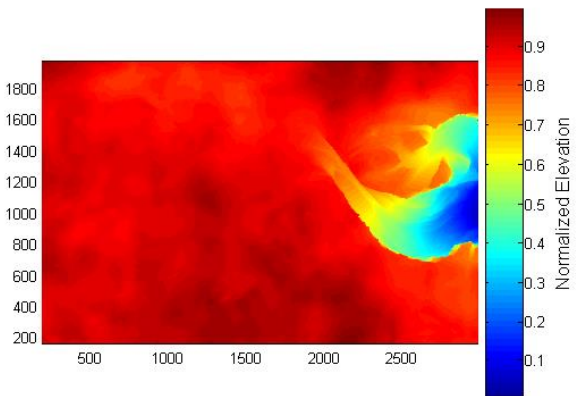Flow Rate = 124.93 ml/sec

Total Volume Removed: 0.01776 m³

Run 14:

Scan 2: 10 min & 0.00506 m^3 removed

Scan 3: 20 min & 0.00877 m^3 removed

Scan 4: 30 min & 0.01067 m^3 removed

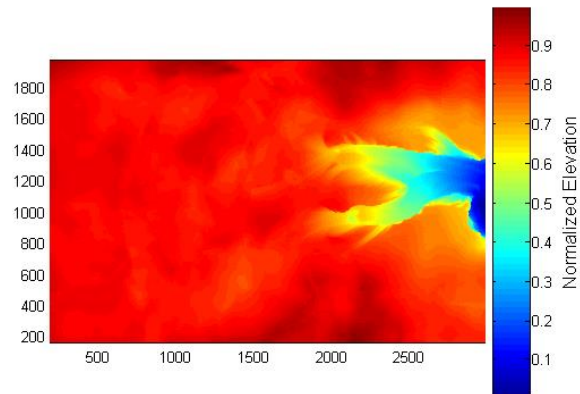**Scan 5:** 56.5 min & 0.01865 m^3 removed

D_{50} = 96 μm

Total Volume = 190 L
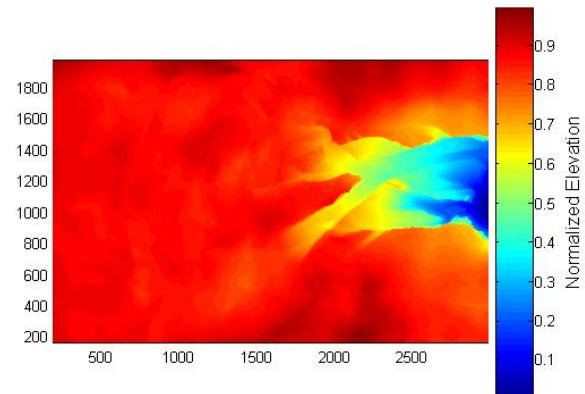
Total Run Time = 56.5 minutes

Flow Rate = 55.83 ml/sec

Total Volume Removed: 0.01865 m^3

Run 15:

Scan 2: 6 min & 0.01496 m^3 removed   **Scan 3:** 13.5 min & 0.02380 m^3 removed
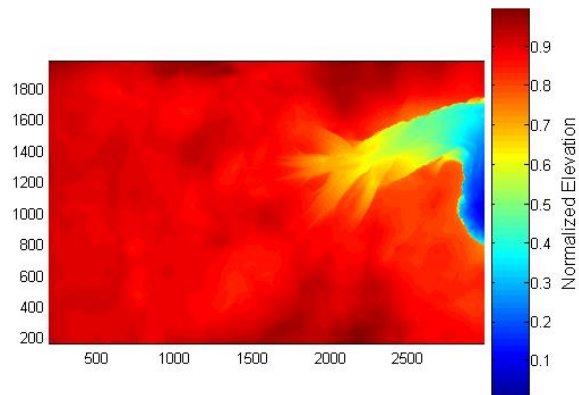
D_{50} = 96 μm

Total Volume = 190 L

Total Run Time = 13.5 minutes

Flow Rate = 233.67 ml/sec

Total Volume Removed: 0.02380 m^3

Run 16:

Scan 2: 12 min & 0.01659 m^3 removed
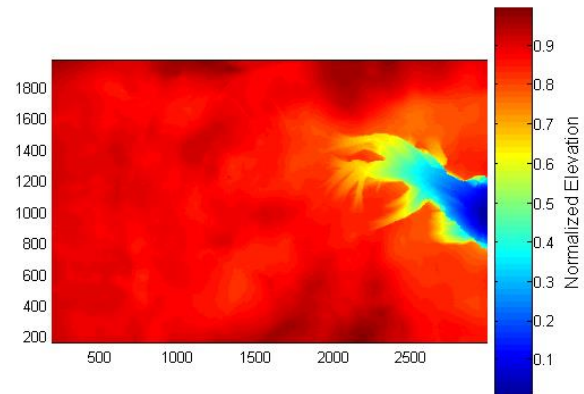
D_{50} = 96 μm

Total Volume = 190 L
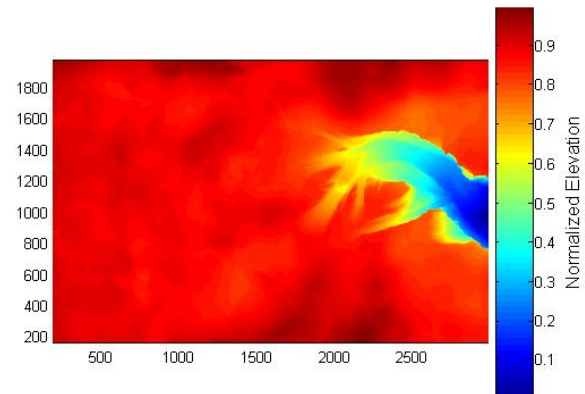
Total Run Time = 12 minutes
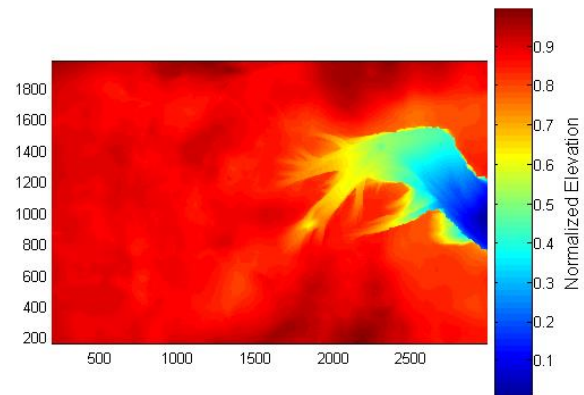
Flow Rate = 262.88 ml/sec

Total Volume Removed: 0.01659 m^3

Run 17:

Scan 2: 7 min & 0.01459 m³ removed

Scan 3: 14min & 0.02007 m³ removed

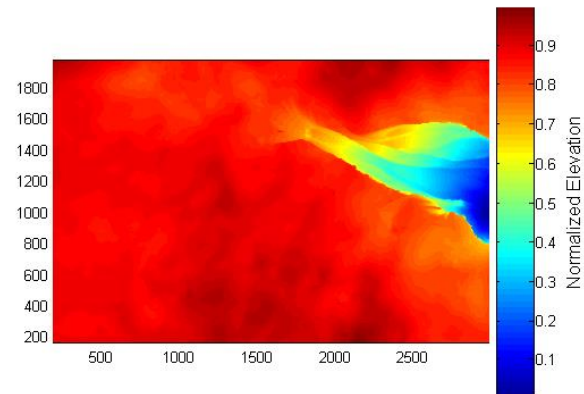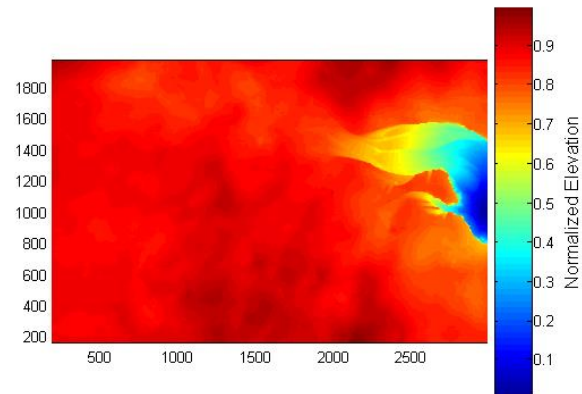**Scan 4:** 20.25 min & 0.02357 m³ removed

D_{50} = 96 μm

Total Volume = 190 L

Total Run Time = 20.25 minutes

Flow Rate = 155.78 ml/sec

Total Volume Removed: 0.02357 m^3

Run 18:

Scan 2: 15 min & 0.01221 m^3 removed
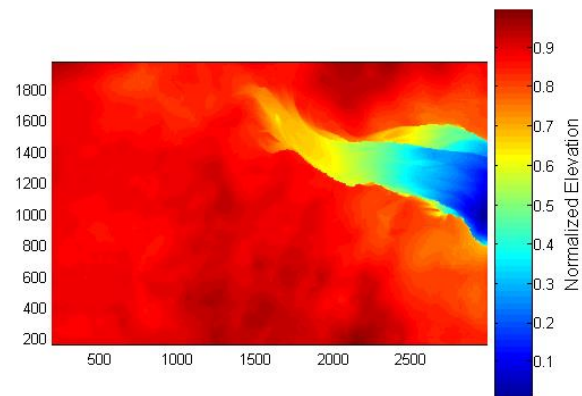
Scan 3: 39 min & 0.01999 m^3 removed
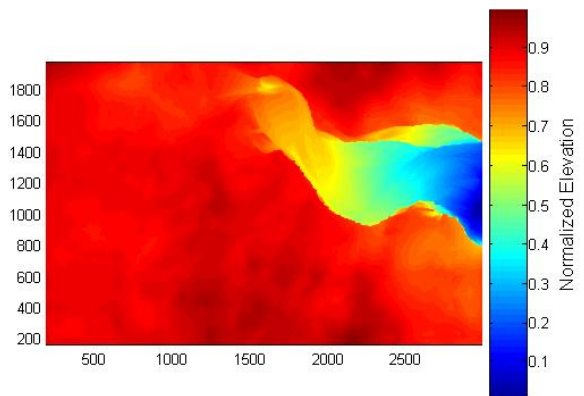
Scan 4: 45 min & 0.02508 m^3 removed

Scan 5: 56 min & 0.03117 m^3 remove

$D_{50} = 96$ μm

Total Volume = 380 L

Total Run Time = 56 minutes

1st 190L Flow Rate = 80.88 ml/sec

2nd 190L Flow Rate = 185.56 ml/sec

1st Half Total Volume Removed = 0.01999 m^3

Total Volume Removed: 0.03117 m^3

Run 19:
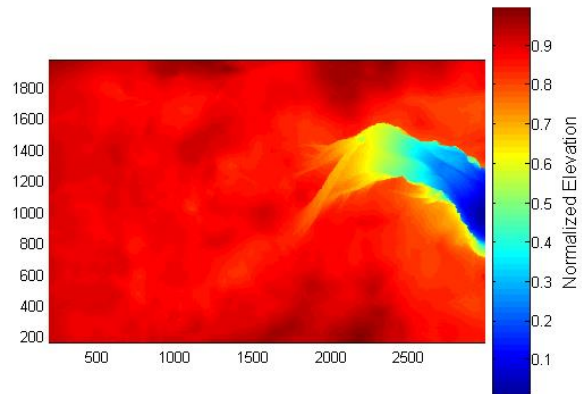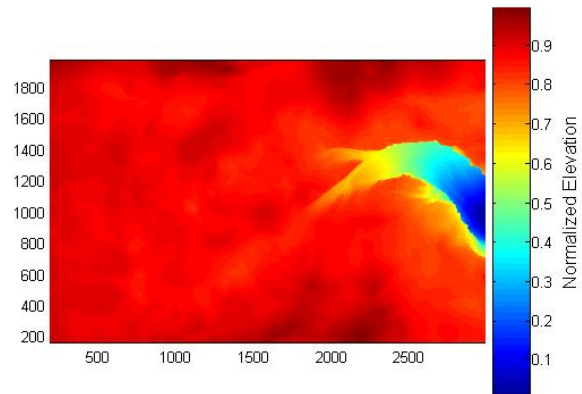
Scan 2: 26 min & 0.01109 m^3 removed
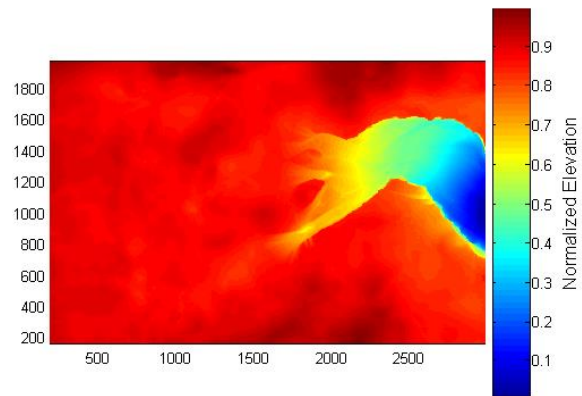
Scan 3: 57 min & 0.01566 m^3 removed
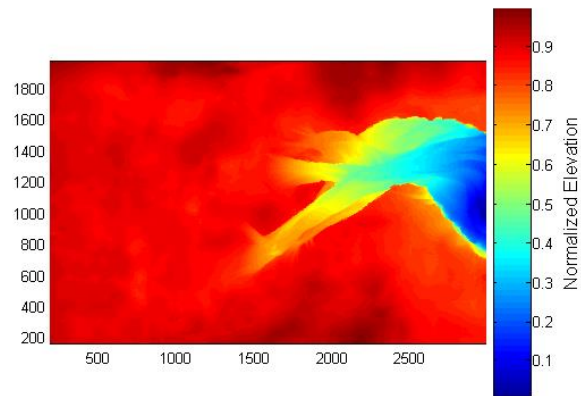
Scan 4: 64 min & 0.02415 m^3 removed

Scan 5: 71.5 min & 0.03059 m^3 removed

D_{50} = 96 μm

Total Volume = 380 L

Total Run Time = 71.5 minutes

1st 190L Flow Rate = 55.34 ml/sec

2nd 190L Flow Rate = 217.55 ml/sec

1st Half Total Volume Removed = 0.01566 m^3

Total Volume Removed: 0.03059 m^3

Run 20
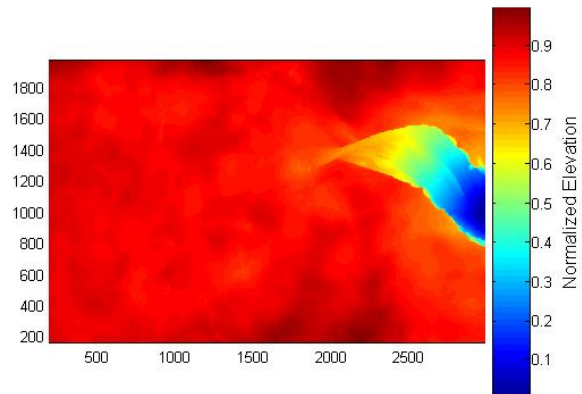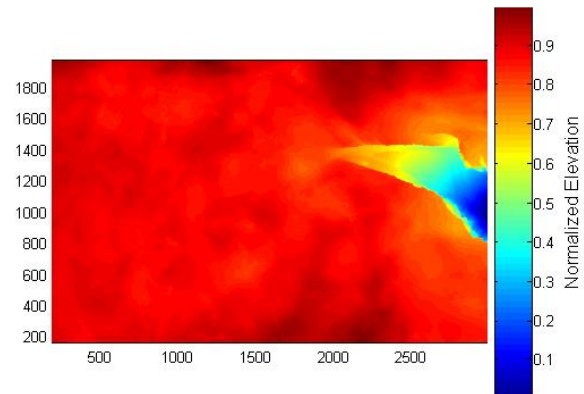
Scan 2: 25 min & 0.00925 m^3 removed
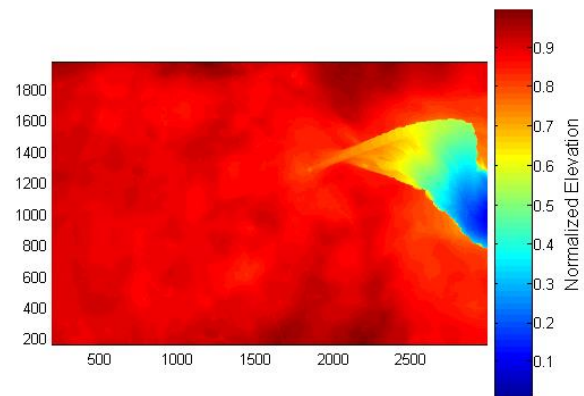
Scan 3: 50 min & 0.01368 m^3 removed
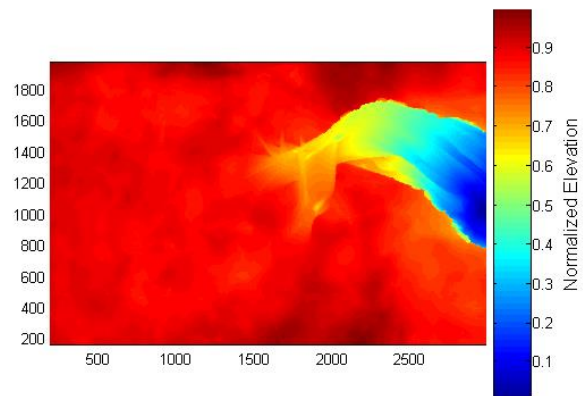
Scan 4: 75 min & 0.01587 m^3 removed

Scan 5: 89 min & 0.02803 m^3 remove

D_{50} = 96 μm

Total Volume = 380 L

Total Run Time = 42.06 minutes

1st 190L Flow Rate = 55.34 ml/sec

2nd 190L Flow Rate = 225.32 ml/sec

1st Half Total Volume Removed = 0.01587 m^3

Total Volume Removed: 0.02803 m^3