Benchmarking Results

1728 cores Predicted

	ns/day	hr/ns	timestep/s
1 Hole	4.549	5.276	105.295
2 Holes	4.172	5.752	96.579
3 Holes	5.602	4.284	129.678
4 Holes	6.334	3.789	146.615
5 Holes	5.224	4.594	120.932
Average	**5.1762**	**4.739**	**119.8198**

960 cores

	ns/day	hr/ns	timestep/s
Pristine	5.565	4.312	128.826
5 holes	5.804	4.135	134.345

576 cores

	ns/day	hr/ns	timestep/s
5 holes	5.881	4.081	136.139

288 cores

	ns/day	hr/ns	timestep/s
5 holes	4.865	4.933	112.616

96 cores

	ns/day	hr/ns	timestep/s
5 holes	5.459	4.396	126.37

48 cores

	ns/day	hr/ns	timestep/s
5 holes	3.053	7.861	70.677

24 cores

	ns/day	hr/ns	timestep/s
5 holes	3.302	7.269	76.433

Cores (#)	Performance (hr/ns)	
1728	4.594	
960	4.135	
576	4.081	
288	4.933	
96	4.396	(Optimal)
48	7.861	
24	7.269	

Benchmarking trials determine 96 cores (4 nodes) are optimal for each trial.

50,000 SUs scale to ~150 nanoseconds of total simulation time

Can achieve 3 trials of 10 ns per (5) porosity increments