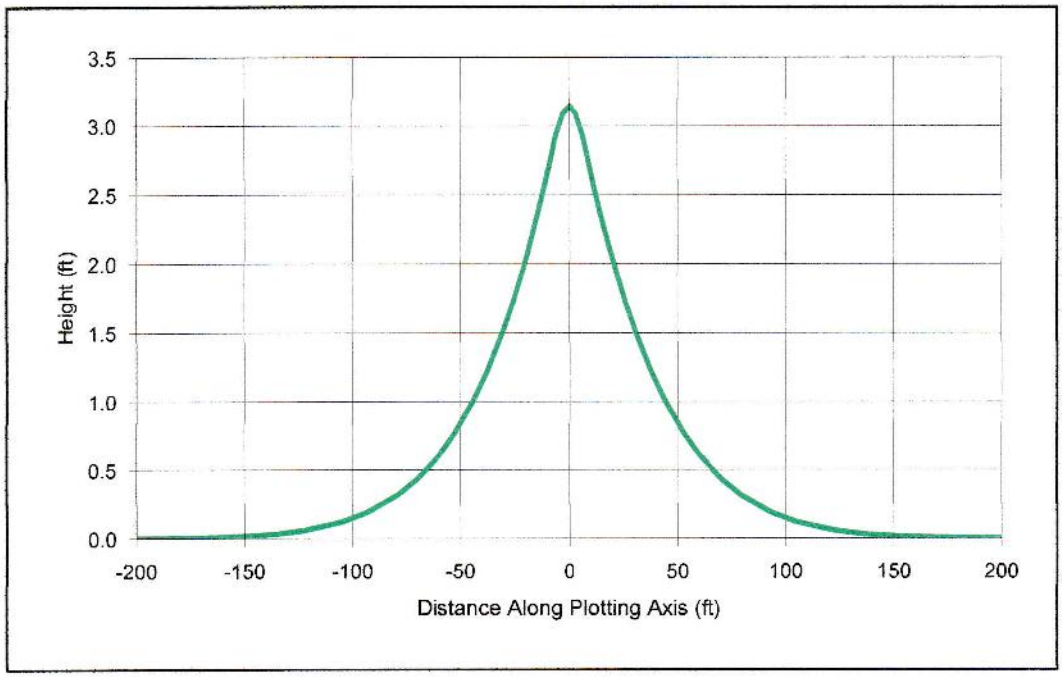
Groundwater Mounding Analysis (Hantush's Method using Glover's Solution)



COMPANY: DDA

PROJECT: 25 Rockwood LC- 1

ANALYST: DDA

DATE: 9/22/2017 TIME: 1:51:42 PM

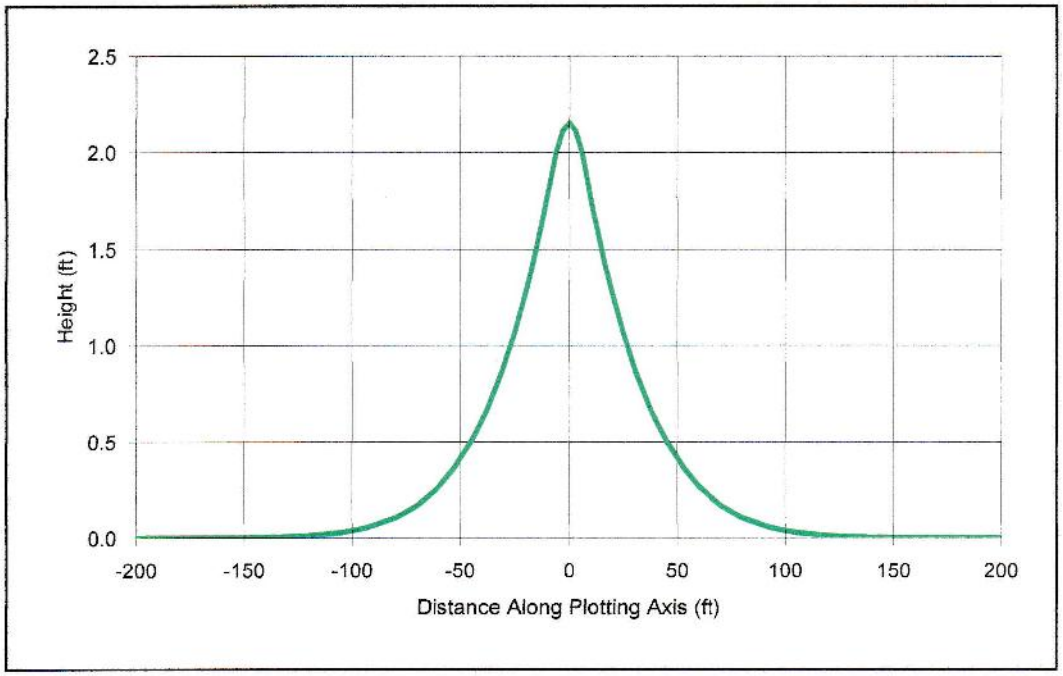
INPUT PARAMETERS

Application rate: 3.47 c.ft/day/sq. ft
Duration of application: 1 days
Fillable porosity: 0.15
Hydraulic conductivity: 22 ft/day
Initial saturated thickness: 13.3 ft
Length of application area: 84.75 ft
Width of application area: 14.5 ft
No constant head boundary used
Plotting axis from Y-Axis: 89 degrees
Edge of recharge area:
positive X: 7.2 ft
positive Y: 0.1 ft
Total volume applied: 4264.196 c.ft

MODEL RESULTS

X (ft)	Y (ft)	Plot Axis (ft)	Mound Height (ft)
-200	-3.5	-200	0
-168.2	-2.9	-168	0.01
-136.4	-2.4	-136	0.03
-104.6	-1.8	-105	0.12
-79.6	-1.4	-80	0.31
-60.2	-1.1	-60	0.61
-44.4	-0.8	-44	1
-31	-0.5	-31	1.49
-19.4	-0.3	-19	2.07
-11.6	-0.2	-12	2.56
-6.3	-0.1	-6	2.94
0	0	0	3.14
6.3	0.1	6	2.94
11.6	0.2	12	2.56
19.4	0.3	19	2.07
31	0.5	31	1.49
44.4	0.8	44	1
60.2	1.1	60	0.61
79.6	1.4	80	0.31
104.6	1.8	105	0.12
136.4	2.4	136	0.03
168.2	2.9	168	0.01
200	3.5	200	0

Groundwater Mounding Analysis (Hantush's Method using Glover's Solution)



COMPANY: DDA

PROJECT: 25 Rockwood LC- 2B

ANALYST: DDA

DATE: 9/22/2017 TIME: 1:54:59 PM

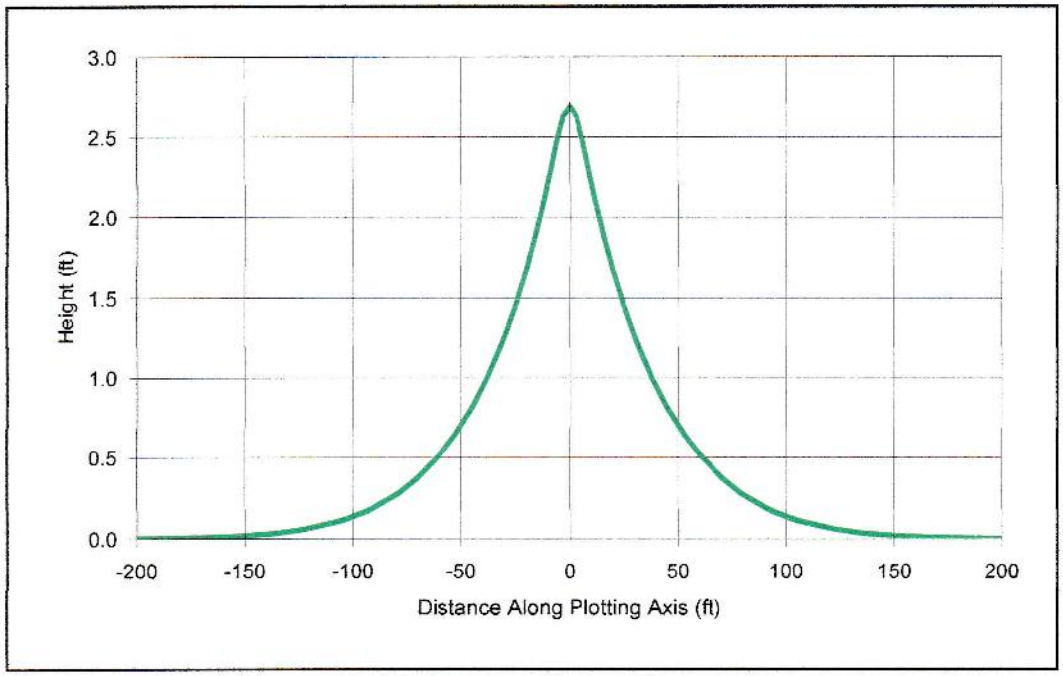
INPUT PARAMETERS

Application rate: 1.73 c.ft/day/sq. ft
Duration of application: 1 days
Fillable porosity: 0.15
Hydraulic conductivity: 22 ft/day
Initial saturated thickness: 8.3 ft
Length of application area: 79.5 ft
Width of application area: 15.17 ft
No constant head boundary used
Plotting axis from Y-Axis: 89 degrees
Edge of recharge area:
positive X: 7.6 ft
positive Y: 0.1 ft
Total volume applied: 2086.406 c.ft

MODEL RESULTS

X (ft)	Y (ft)	Plot Axis (ft)	Mound Height (ft)
-200	-3.5	-200	0
-168.2	-2.9	-168	0
-136.4	-2.4	-136	0
-104.6	-1.8	-105	0.03
-79.6	-1.4	-80	0.11
-60.2	-1.1	-60	0.26
-44.4	-0.8	-44	0.52
-31	-0.5	-31	0.86
-19.4	-0.3	-19	1.3
-11.6	-0.2	-12	1.69
-6.3	-0.1	-6	1.99
0	0	0	2.15
6.3	0.1	6	1.99
11.6	0.2	12	1.69
19.4	0.3	19	1.3
31	0.5	31	0.86
44.4	0.8	44	0.52
60.2	1.1	60	0.26
79.6	1.4	80	0.11
104.6	1.8	105	0.03
136.4	2.4	136	0
168.2	2.9	168	0
200	3.5	200	0

Groundwater Mounding Analysis (Hantush's Method using Glover's Solution)



COMPANY: DDA

PROJECT: 25 Rockwood LC- 3

ANALYST: DDA

DATE: 9/22/2017 TIME: 1:56:16 PM

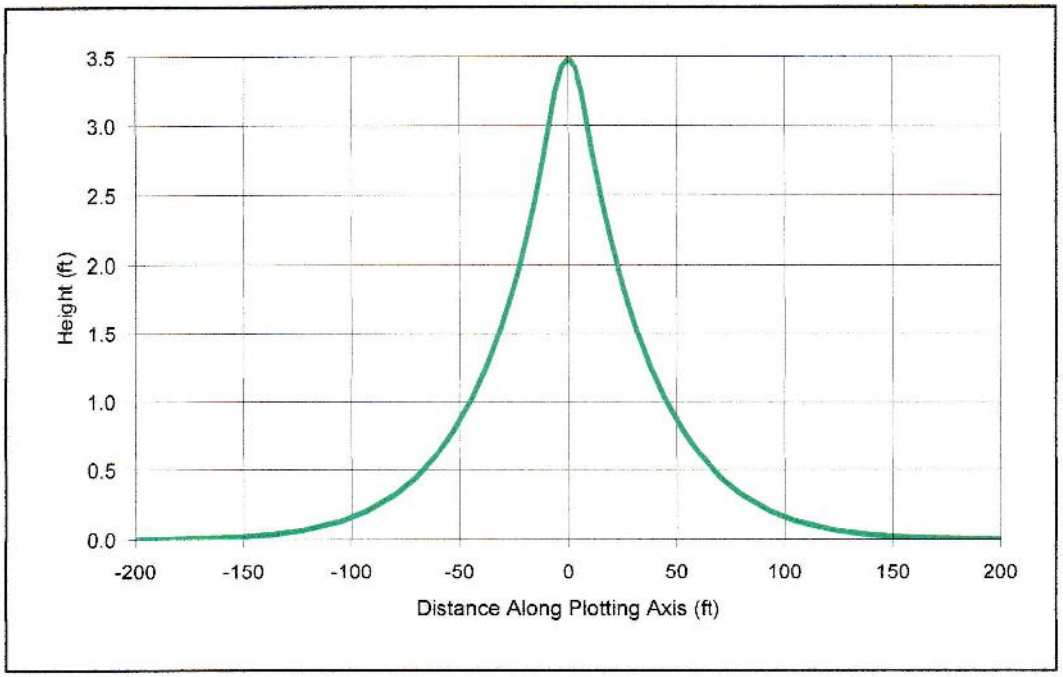
INPUT PARAMETERS

Application rate: 4.25 c.ft/day/sq. ft
Duration of application: 1 days
Fillable porosity: 0.15
Hydraulic conductivity: 22 ft/day
Initial saturated thickness: 15.1 ft
Length of application area: 65.25 ft
Width of application area: 12.25 ft
No constant head boundary used
Plotting axis from Y-Axis: 89 degrees
Edge of recharge area:
positive X: 6.1 ft
positive Y: 0.1 ft
Total volume applied: 3397.078 c.ft

MODEL RESULTS

X (ft)	Y (ft)	Plot Axis (ft)	Mound Height (ft)
-200	-3.5	-200	0
-168.2	-2.9	-168	0.01
-136.4	-2.4	-136	0.03
-104.6	-1.8	-105	0.12
-79.6	-1.4	-80	0.28
-60.2	-1.1	-60	0.51
-44.4	-0.8	-44	0.83
-31	-0.5	-31	1.23
-19.4	-0.3	-19	1.71
-11.6	-0.2	-12	2.13
-6.3	-0.1	-6	2.46
0	0	0	2.68
6.3	0.1	6	2.46
11.6	0.2	12	2.13
19.4	0.3	19	1.71
31	0.5	31	1.23
44.4	0.8	44	0.83
60.2	1.1	60	0.51
79.6	1.4	80	0.28
104.6	1.8	105	0.12
136.4	2.4	136	0.03
168.2	2.9	168	0.01
200	3.5	200	0

Groundwater Mounding Analysis (Hantush's Method using Glover's Solution)



COMPANY: DDA

PROJECT: 25 Rockwood LC- 4A

ANALYST: DDA

DATE: 9/22/2017 TIME: 1:58:27 PM

INPUT PARAMETERS

Application rate: 4.69 c.ft/day/sq. ft
Duration of application: 1 days
Fillable porosity: 0.15
Hydraulic conductivity: 22 ft/day
Initial saturated thickness: 14.2 ft
Length of application area: 56 ft
Width of application area: 15.25 ft
No constant head boundary used
Plotting axis from Y-Axis: 89 degrees
Edge of recharge area:
positive X: 7.6 ft
positive Y: 0.1 ft
Total volume applied: 4005.26 c.ft

MODEL RESULTS

X (ft)	Y (ft)	Plot Axis (ft)	Mound Height (ft)
-200	-3.5	-200	0
-168.2	-2.9	-168	0.01
-136.4	-2.4	-136	0.04
-104.6	-1.8	-105	0.13
-79.6	-1.4	-80	0.32
-60.2	-1.1	-60	0.62
-44.4	-0.8	-44	1.03
-31	-0.5	-31	1.54
-19.4	-0.3	-19	2.19
-11.6	-0.2	-12	2.78
-6.3	-0.1	-6	3.24
0	0	0	3.48
6.3	0.1	6	3.24
11.6	0.2	12	2.78
19.4	0.3	19	2.19
31	0.5	31	1.54
44.4	0.8	44	1.03
60.2	1.1	60	0.62
79.6	1.4	80	0.32
104.6	1.8	105	0.13
136.4	2.4	136	0.04
168.2	2.9	168	0.01
200	3.5	200	0