

Lateral and Orifice Spacing Worksheet "L"

Step 1. Determine Daily Design Flow L/day

L/Day

L-1

SPM Version 3 Section II- 5.1

Step 2. Determine Hydraulic Loading rate L/day/M2

*Use sand HLR if designing a sand mound, otherwise use soil HLR

SPM Table II- 22 or II- 23 or II- 24

L/Day/m²

L-2

Step 3. Determine Area of Infiltrative Surface M2

DDF (L/D)

from L-1

divided by

HLR (L/D/m²)

from L-2

=

AIS

m²

L-3

Step 4. Determine Total number of Orifices as per SPM V3 requirements

AIS (m²)

from L-3

divided by

per/m²

0.56 m²

from SPM V3

=

orifices

L-4

Step 5. Determine Minimum Contour Length SPM V3 - Section ii- 5.6

DDF (L/D)

from L-1

divided by

LLR (L/D/m)

SPM Table II- 27 or II- 28

=

MCL

m

L-5

Step 6. Determine Number of Runs

Step 6(a) $\frac{\text{Orifices}}{\text{from L-4}} \times \frac{\text{Meter spacing}}{\text{begin with 0.6M spacing}} = \frac{\text{Total lateral length}}{\text{m}}$ 6(a)

Step 6(b) $\frac{\text{Total lateral length}}{\text{from L-6 (a)}} \div \frac{\text{MCL (m)}}{\text{from L-5}} = \frac{\text{Always round up}}{\text{Runs}}$ 6(b)

Answer from 6(b) rounded up Runs **L-6**

Step 7. Determine Actual Orifice Spacing

Step 7(a) $\frac{\text{Minimum Contour length}}{\text{from L-5}} \times \frac{\text{Number of Runs}}{\text{from L-6}} = \frac{\text{m Total}}{\text{m Total}}$ 7(a)

Step 7(b) $\frac{\text{Total Length}}{\text{from 7 (a)}} \div \frac{\text{Total orifice number}}{\text{from L-4}} = \frac{\text{Always round up}}{\text{Spacing}}$ 7(b)

Answer from 7(b)

Summary

Total number of orifices from L4

Total Length of each run m from L5

Total number of Runs Final from L6

Orifice Spacing from L7

Number of Laterals each run **L 8** Select 2 or 4

Total number of laterals **L 9** **L6 X L8**

Length of each lateral **L 10** **L5 divided by L8**