

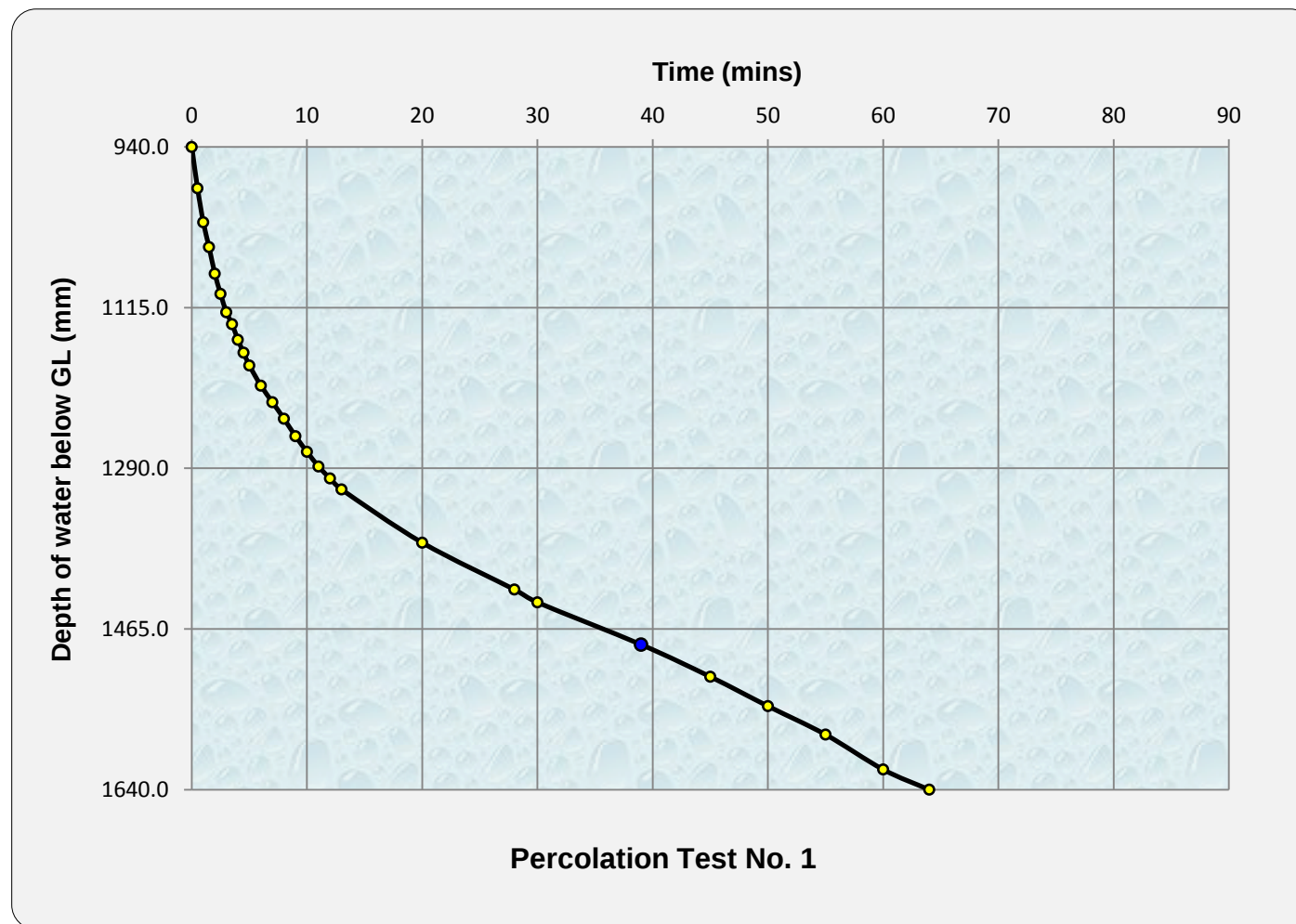
Time (mins)	Depth to Water Surface
0.0	940
0.5	985
1.0	1022
1.5	1049
2.0	1078
2.5	1100
3.0	1120
3.5	1133
4.0	1150
4.5	1164
5.0	1178
6	1200
7	1218
8	1236
9	1255
10	1272
11	1288
12	1301
13	1313
20	1371
28	1422
30	1436
39	1482
45	1517
50	1549
55	1580
60	1618
64	1640

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#1

North Paddock Area Percolation Test#1

1700mm Length x 500mm Width x 1840mm Depth



Non Reading Smoothing Points in BLUE

Soil infiltration rate: $f = \frac{0.383}{2.830 \times 33.1 \times 60} = 6.797\text{E-}05 \text{ m/s}$

Soil Infiltration Rate is
6.797E-05 metres/second

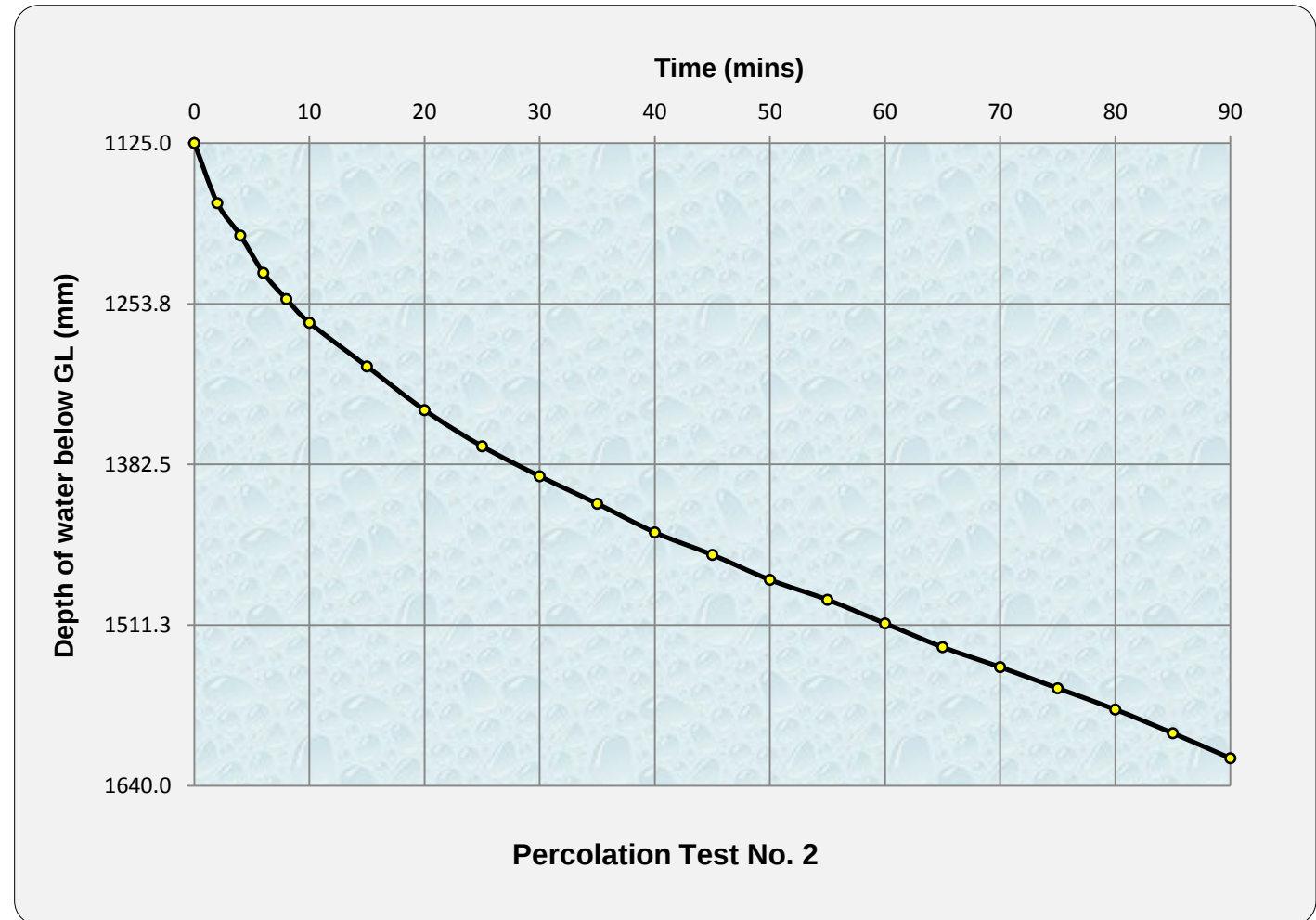
Time (mins)	Depth to Water Surface
0	1125
2	1173
4	1199
6	1229
8	1250
10	1269
15	1304
20	1339
25	1368
30	1392
35	1414
40	1437
45	1455
50	1475
55	1491
60	1510
65	1529
70	1545
75	1562
80	1579
85	1598
90	1618

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#1

North Paddock Area Percolation Test#2

1700mm Length x 500mm Width x 1840mm Depth



Soil infiltration rate:

$$f = \frac{0.219}{1.983 \times 52.0 \times 60} = 3.540\text{E-}05 \text{ m/s}$$

**Soil Infiltration Rate is
3.540E-05 metres/second**

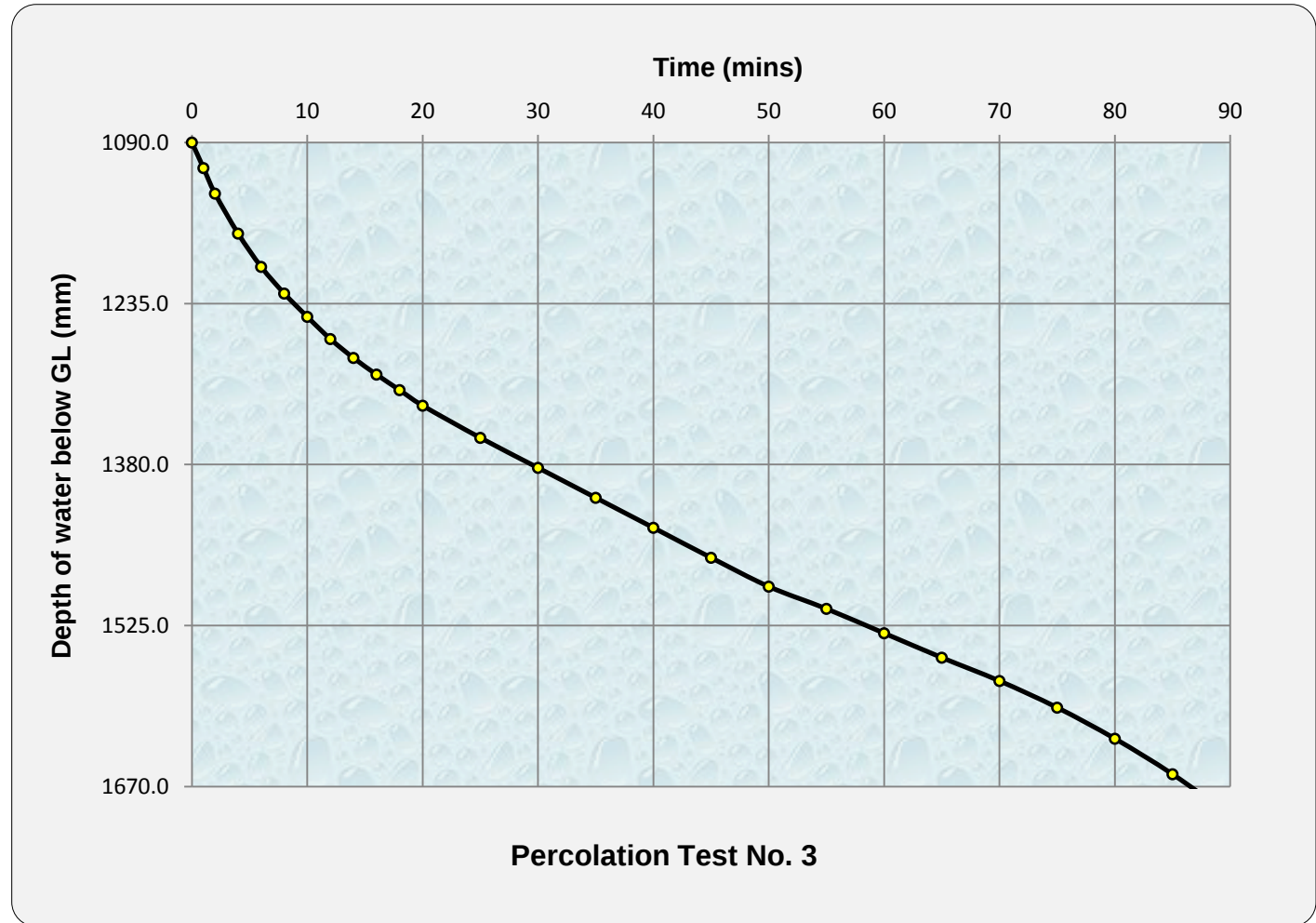
Time (mins)	Depth to Water Surface
0	1090
1	1113
2	1136
4	1172
6	1202
8	1226
10	1247
12	1267
14	1284
16	1299
18	1313
20	1327
25	1356
30	1383
35	1410
40	1437
45	1464
50	1490
55	1510
60	1532
65	1554
70	1575
75	1599
80	1627
85	1659
90	1696

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#1

North Paddock Area Percolation Test#3

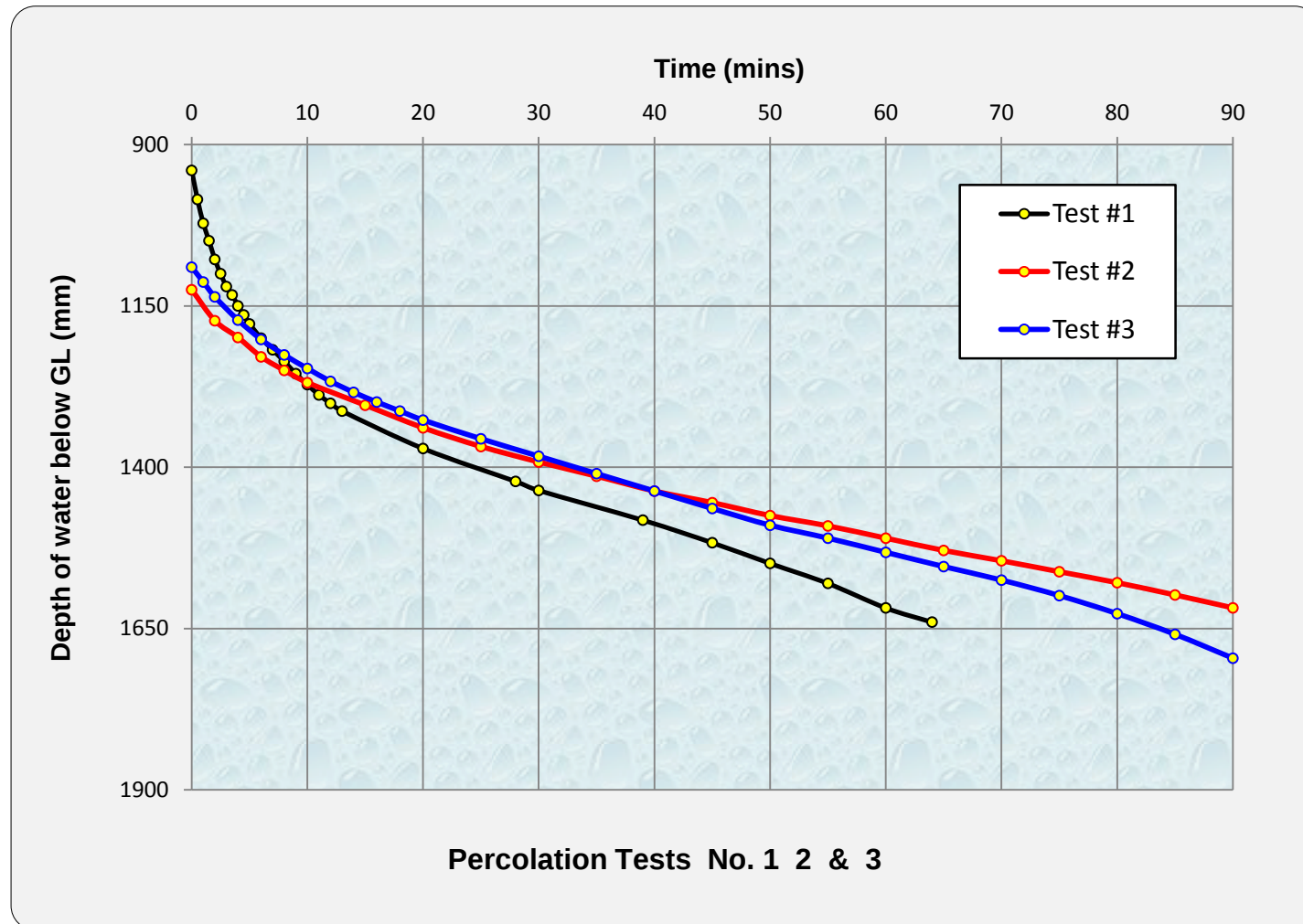
1700mm Length x 500mm Width x 1840mm Depth



Soil infiltration rate:

$$f = \frac{0.219}{1.983 \times 49.6 \times 60} = 3.709\text{E-}05 \text{ m/s}$$

**Soil Infiltration Rate is
3.709E-05 metres/second**



Time (mins)	Depth to Water Surface
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0	1230
1.3	1430

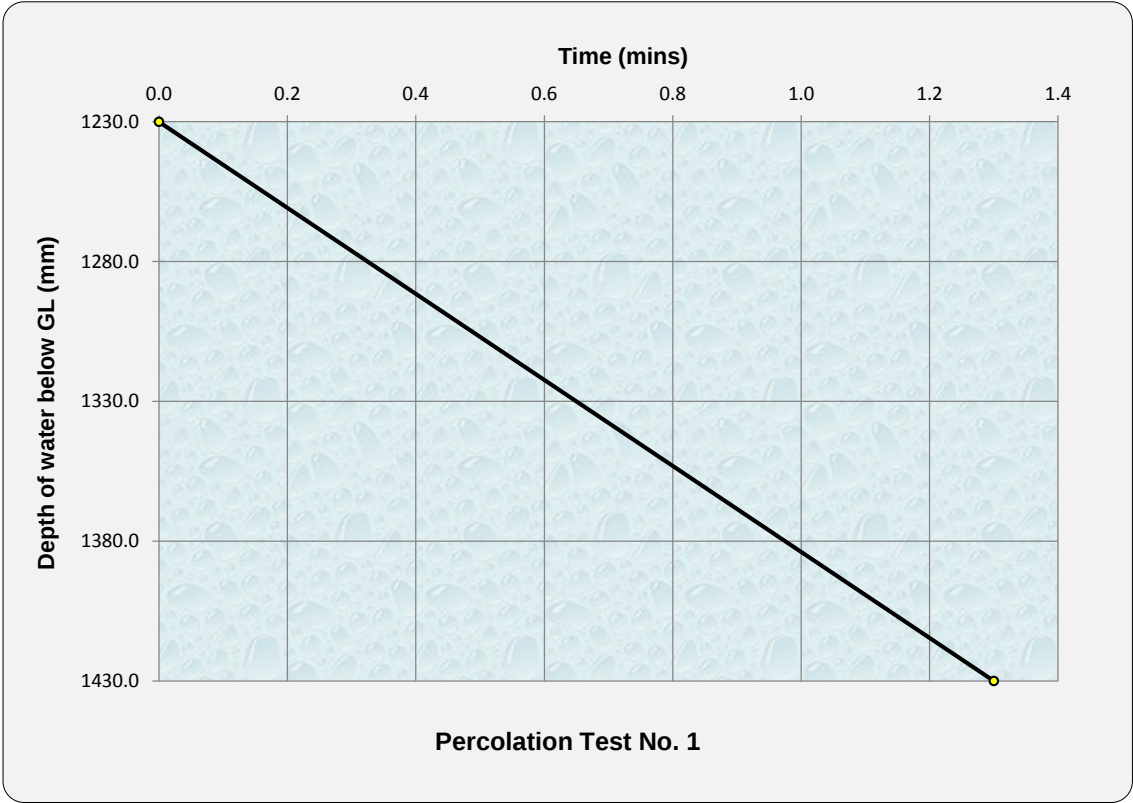
"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#2

N/E Area Adj GWP#2 -- Percolation Test#1

2000mm Length x 1200mm Width x 1430mm Depth

Ellipsoidal Tial Pit



Soil Infiltration Rate is
5.168E-03 metres/second

Soil infiltration rate: $f = \frac{0.377143}{1.885714 \times 0.645 \times 60} = 5.168\text{E-}03 \text{ m/s}$

Area approximation if $a \gg c$ and $b \gg c$

Used 10 Containers each filled with 90 litres of water giving a total of 900 litres or 0.90 cu.metre >> effective volume outflowing of 0.450 cu.metre

Volume of an Ellipsoid $4\pi a^2 b c$
Volume of lower half of an Ellipsoid $(4\pi(22/7)a^2 b c)/2$
Volume of water outflowing is $(4\pi(22/7)a^2 b c)/2/2$ **0.377143**

Surface Area of an Ellipsoid $2\pi a^2 b$
Surface Area of lower half of an Ellipsoid $(2\pi a^2 b)/2$
Area of water outflow is $(2\pi a^2 b)/2$ **1.885714**

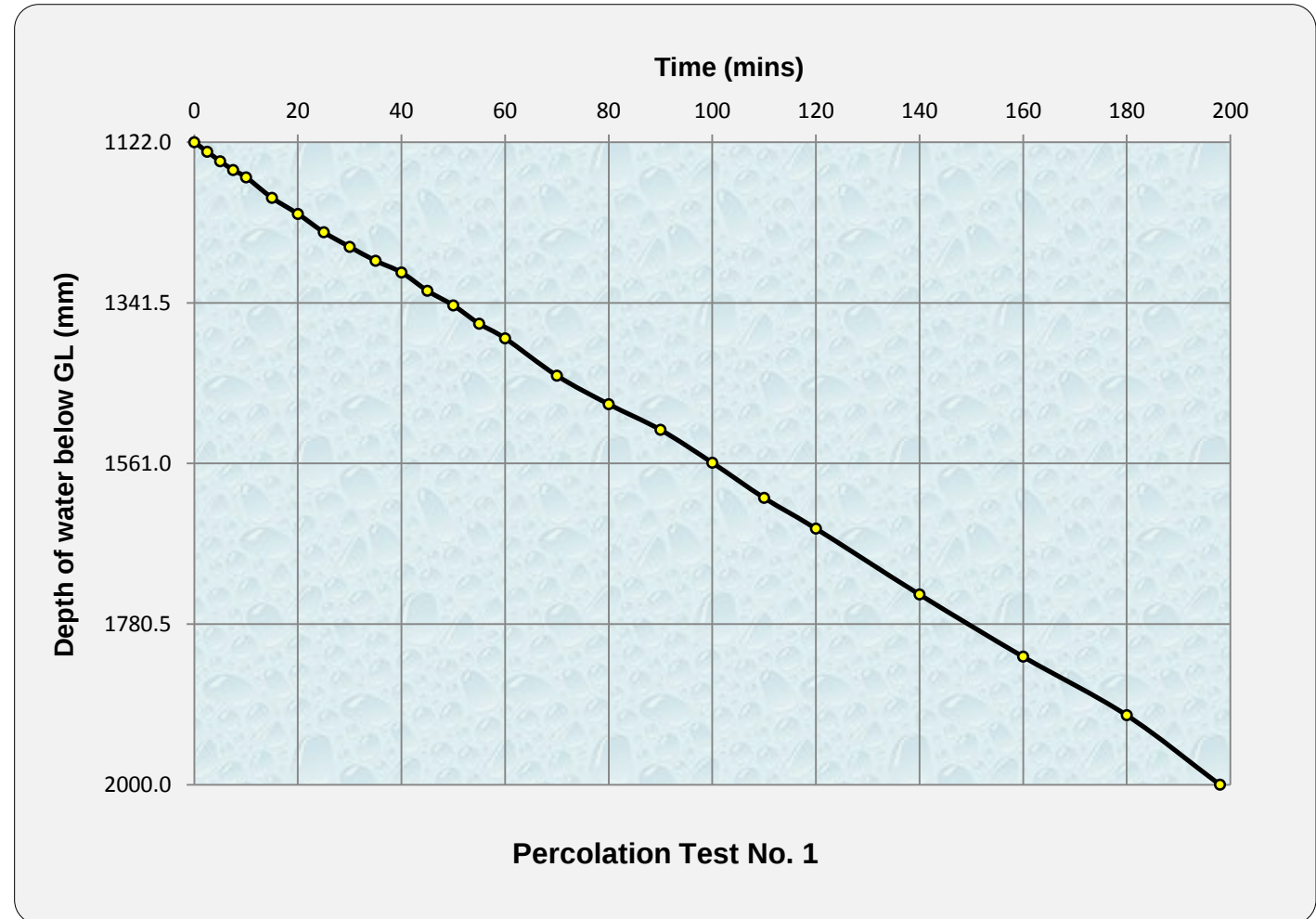
Time (mins)	Depth to Water Surface
0	1122
2.5	1135
5	1148
7.5	1160
10	1170
15	1198
20	1220
25	1245
30	1265
35	1284
40	1300
45	1325
50	1345
55	1370
60	1390
70	1441
80	1480
90	1515
100	1560
110	1608
120	1650
140	1740
160	1825
180	1905
198	2000

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#3

S/W Corner (Made-Up) Percolation Test#1

1400mm Length x 500mm Width x 2000mm Depth



Soil infiltration rate:

$$f = \frac{0.307}{2.368 \times 100.2 \times 60} = 2.158\text{E-}05 \text{ m/s}$$

**Soil Infiltration Rate is
2.158E-05 metres/second**

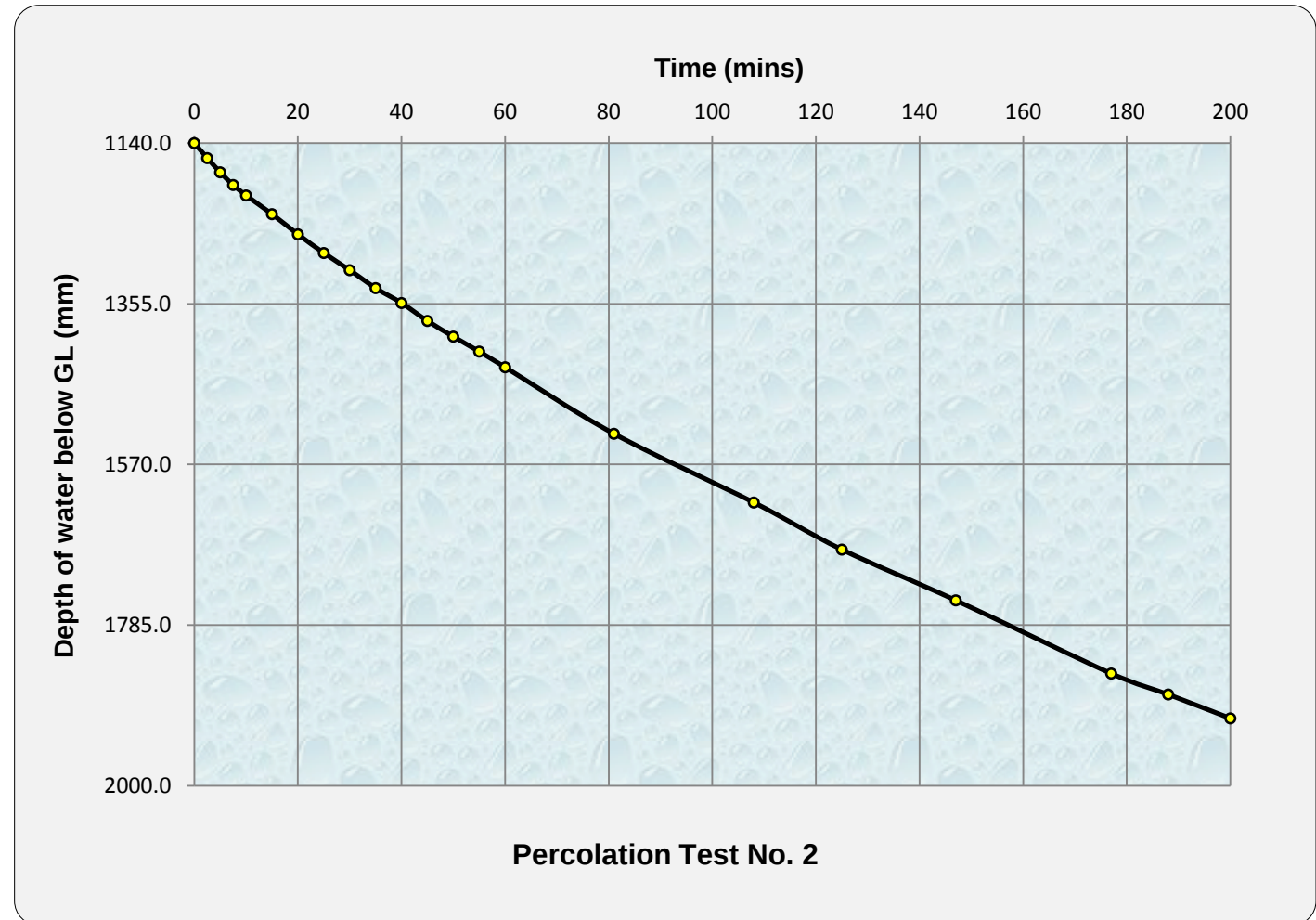
Time (mins)	Depth to Water Surface
0	1140
2.5	1160
5	1179
7.5	1196
10	1210
15	1235
20	1262
25	1287
30	1310
35	1334
40	1354
45	1378
50	1399
55	1419
60	1440
81	1529
108	1621
125	1684
147	1752
177	1850
188	1878
200	1910

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#3

S/W Corner (Made-Up) Percolation Test#2

1400mm Length x 500mm Width x 2000mm Depth



Soil infiltration rate: $f = \frac{0.301}{2.334 \times 116.9 \times 60} = 1.839\text{E-}05 \text{ m/s}$

Soil Infiltration Rate is
1.839E-05 metres/second

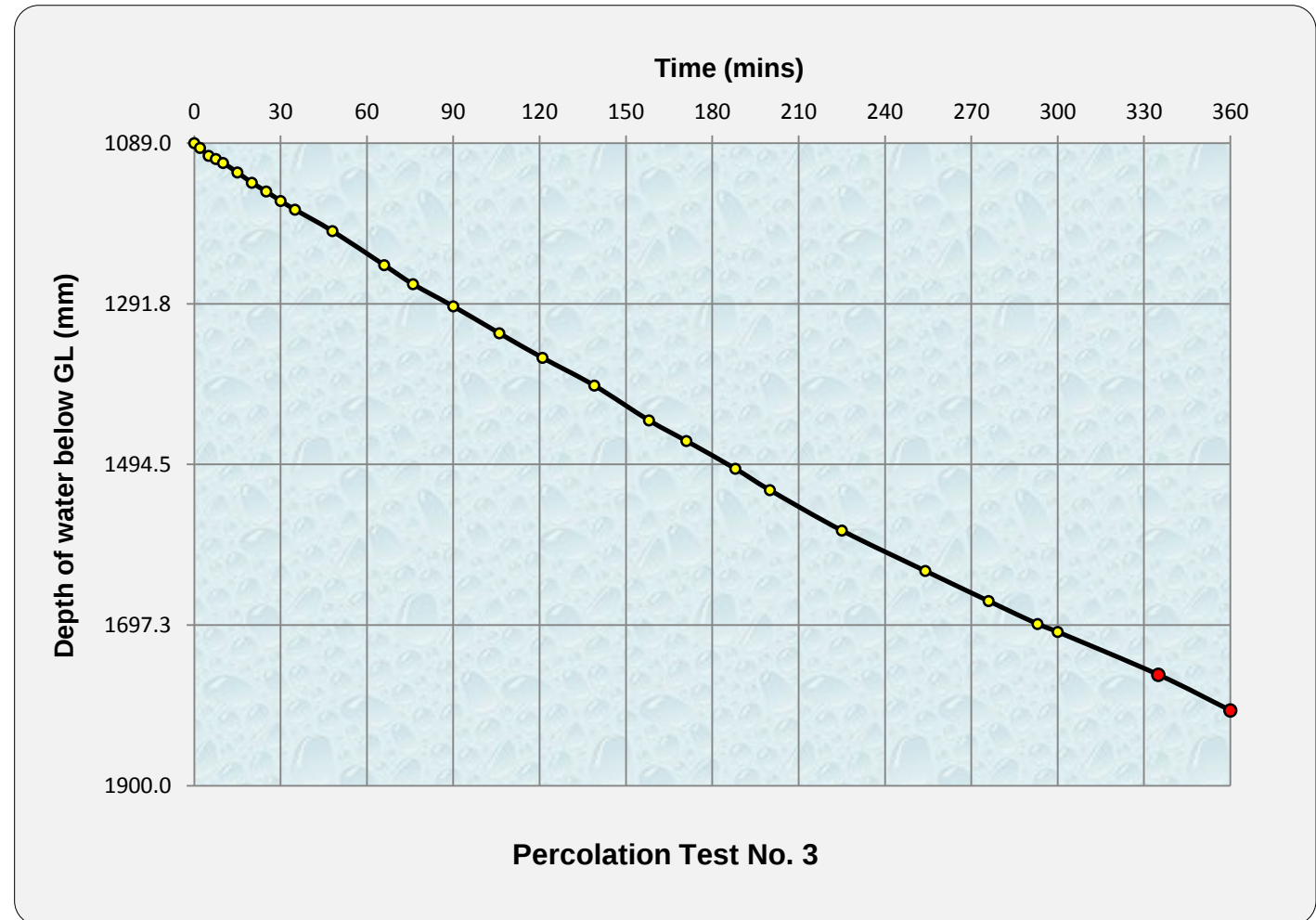
Time (mins)	Depth to Water Surface
0	1089
2	1095
5	1105
7.5	1109
10	1114
15	1126
20	1139
25	1150
30	1162
35	1173
48	1200
66	1243
76	1267
90	1295
106	1329
121	1360
139	1395
158	1439
171	1465
188	1500
200	1527
225	1578
254	1629
276	1667
293	1696
300	1706
335	1760
360	1805

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#3

S/W Corner (Made-Up) Percolation Test#3

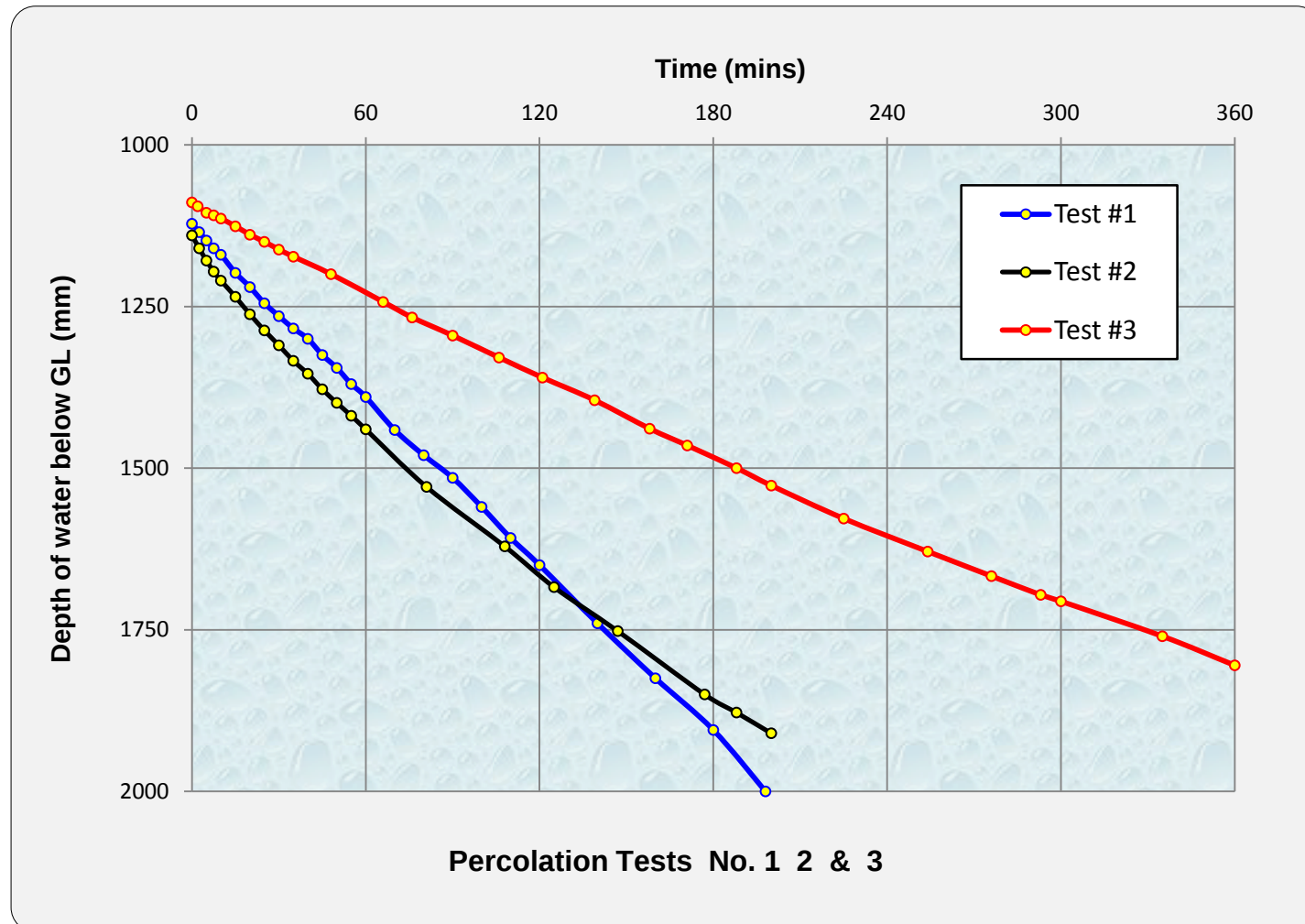
1400mm Length x 500mm Width x 2000mm Depth



Non Reading Extrapolated Points in RED

Soil Infiltration Rate is
1.028E-05 metres/second

Soil infiltration rate: $f = \frac{0.284}{2.241 \times 205.4 \times 60} = 1.028\text{E-}05 \text{ m/s}$



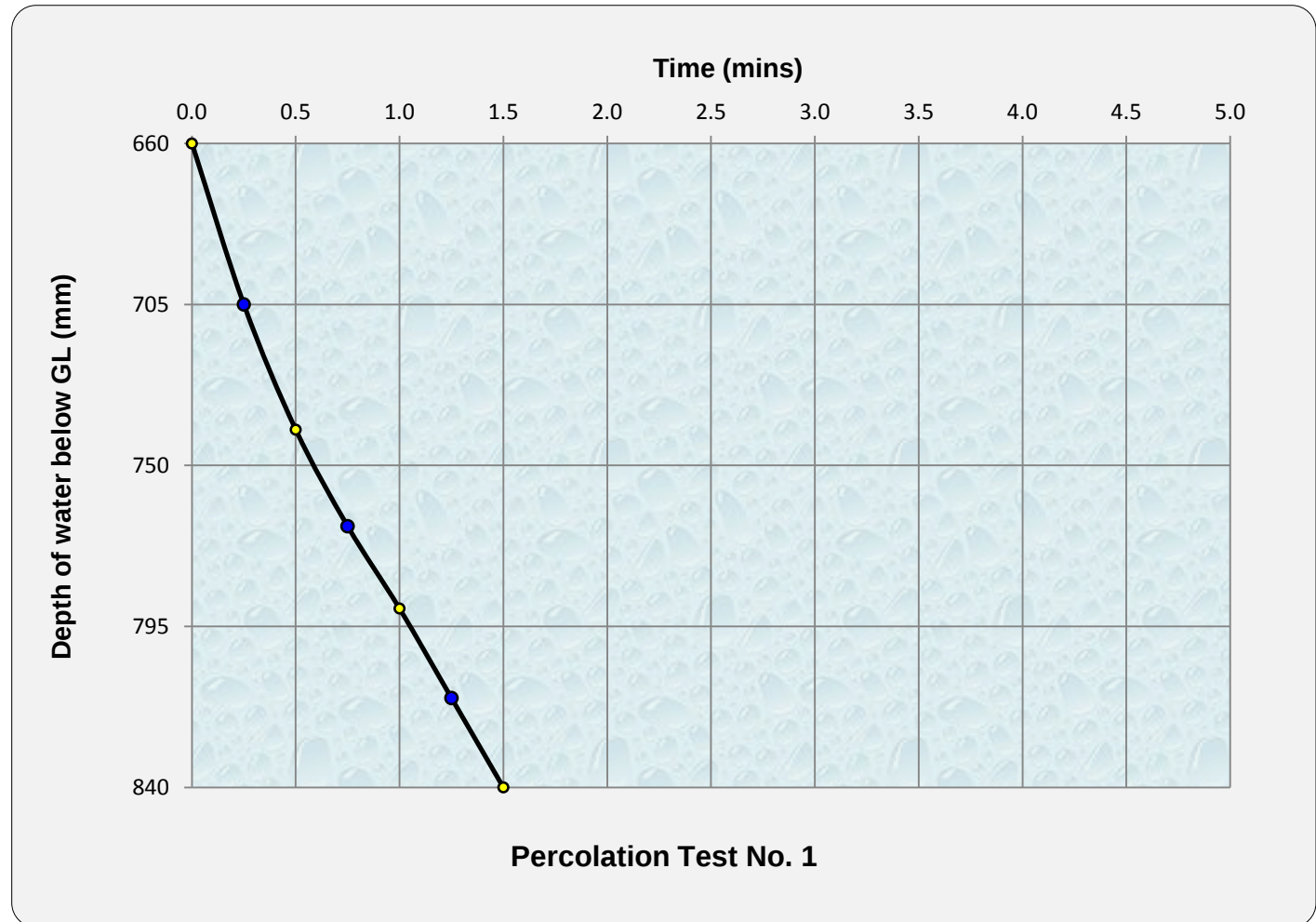
Time (mins)	Depth to Water Surface
0.00	660
0.25	705
0.50	740
0.75	767
1.00	790
1.25	815
1.50	840

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#4

Main Entrance Roadway Percolation Test#1

1800mm Length x 650mm Width x 840mm Depth



Non Reading Smoothing Points in BLUE

Soil infiltration rate: $f = \frac{0.105}{1.611 \times 0.8 \times 60} = 1.329\text{E-}03 \text{ m/s}$

Soil Infiltration Rate is
1.329E-03 metres/second

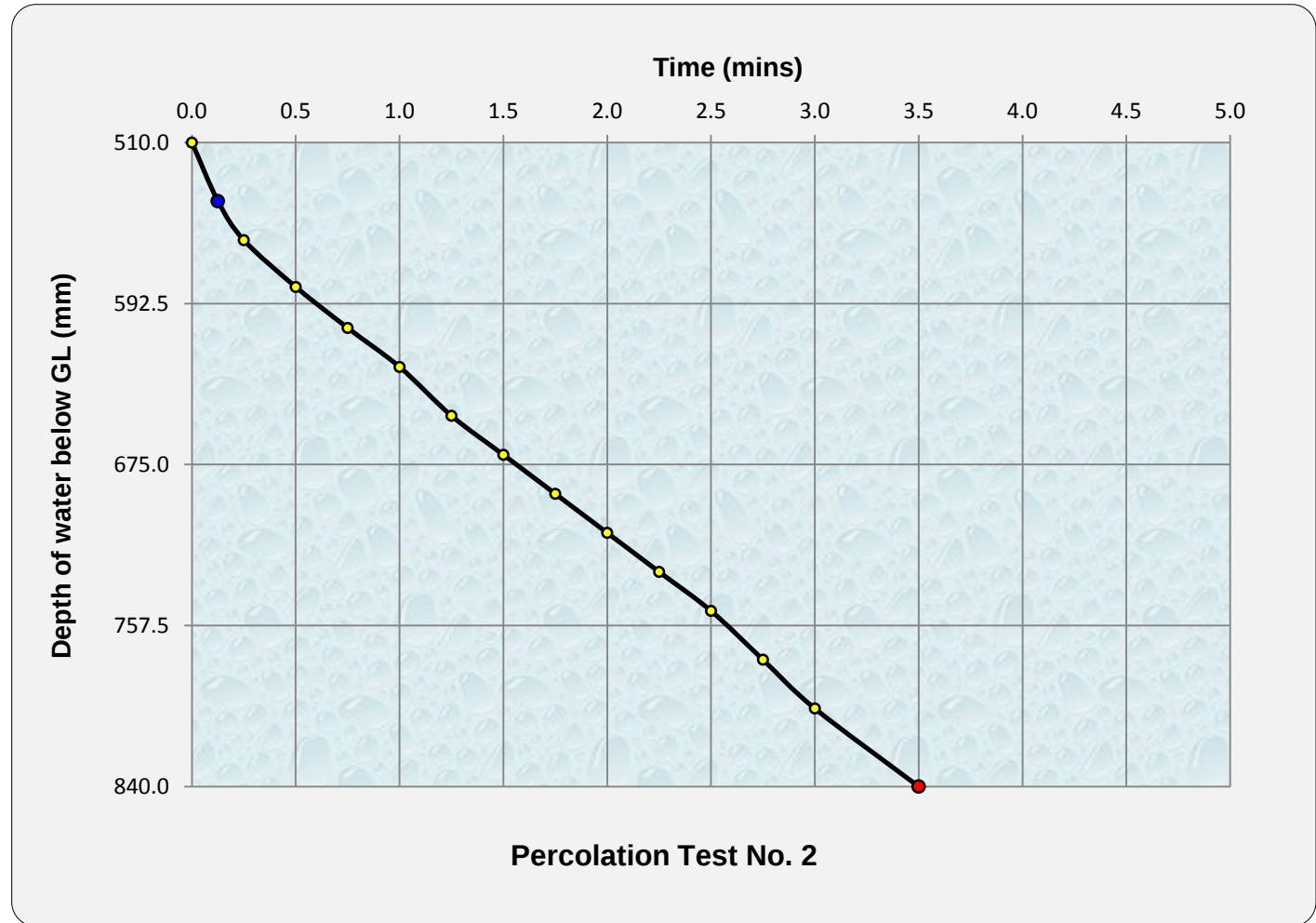
Time (mins)	Depth to Water Surface
0.00	510
0.125	540
0.25	560
0.50	584
0.75	605
1.00	625
1.25	650
1.50	670
1.75	690
2.00	710
2.25	730
2.50	750
2.75	775
3.00	800
3.50	840

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#4

Main Entrance Roadway Percolation Test#2

1800mm Length x 650mm Width x 840mm Depth



Non Reading Smoothing Points in BLUE
Non Reading Extrapolated Points in RED

Soil Infiltration Rate is
5.587E-04 metres/second

Soil infiltration rate: $f = \frac{0.105}{1.611 \times 2.0 \times 60} = 5.587E-04 \text{ m/s}$

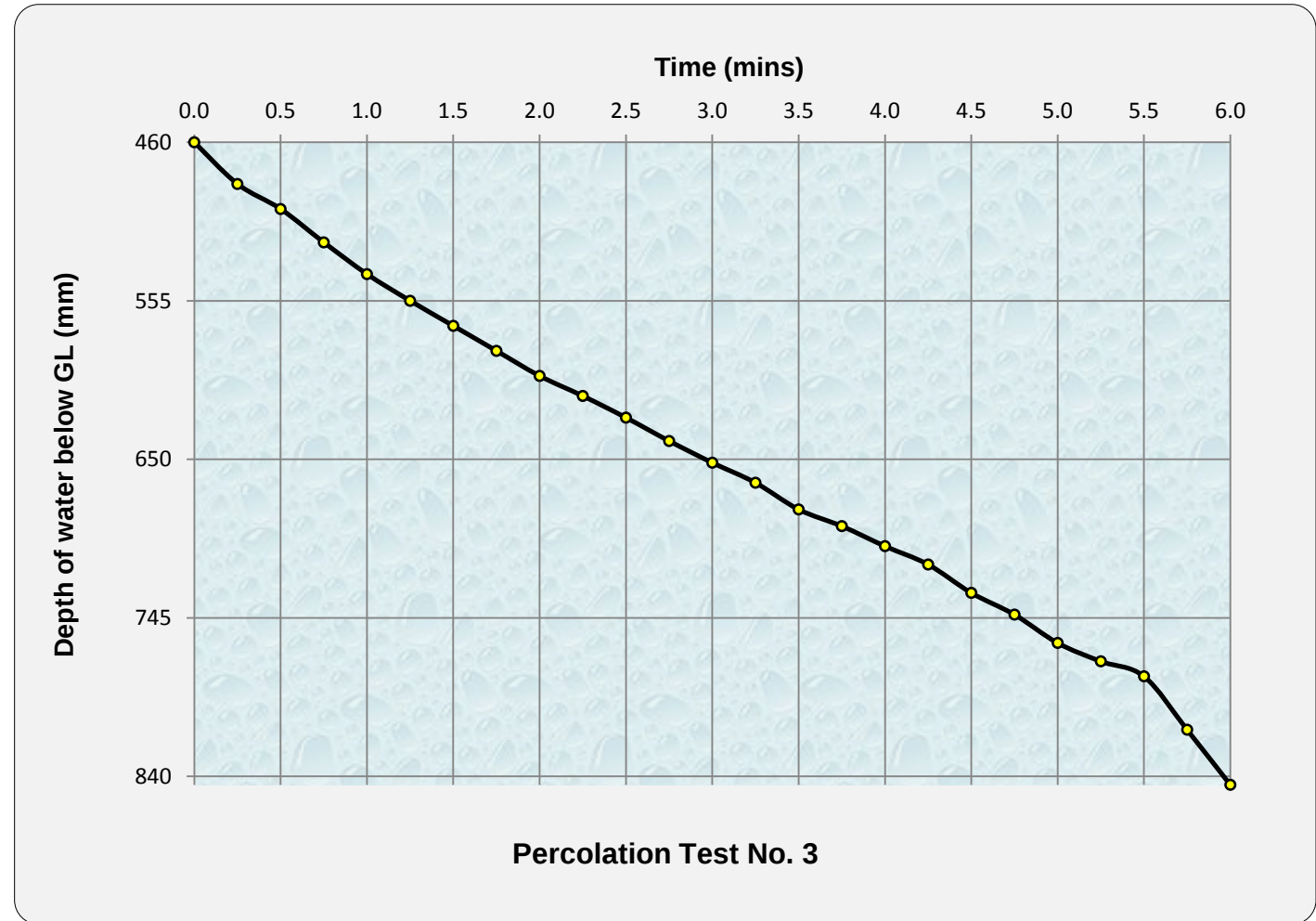
Time (mins)	Depth to Water Surface
0.00	460
0.25	485
0.50	500
0.75	520
1.00	539
1.25	555
1.50	570
1.75	585
2.00	600
2.25	612
2.50	625
2.75	639
3.00	652
3.25	664
3.50	680
3.75	690
4.00	702
4.25	713
4.50	730
4.75	743
5.00	760
5.25	771
5.50	780
5.75	812
6.00	845

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#4

Main Entrance Roadway Percolation Test#3

1800mm Length x 650mm Width x 840mm Depth



Soil infiltration rate:

$$f = \frac{0.105}{1.611 \times 3.6 \times 60} = 3.069\text{E-}04 \text{ m/s}$$

Soil Infiltration Rate is
3.069E-04 metres/second

"Eastmere Stables", Eastergate Lane, Walberton

Percolation Trial Pit TP#4

Main Entrance Roadway Percolation 3 Tests

1800mm Length x 650mm Width x 840mm Depth

