

INGENIEURBÜRO MARIENWERDER GmbH

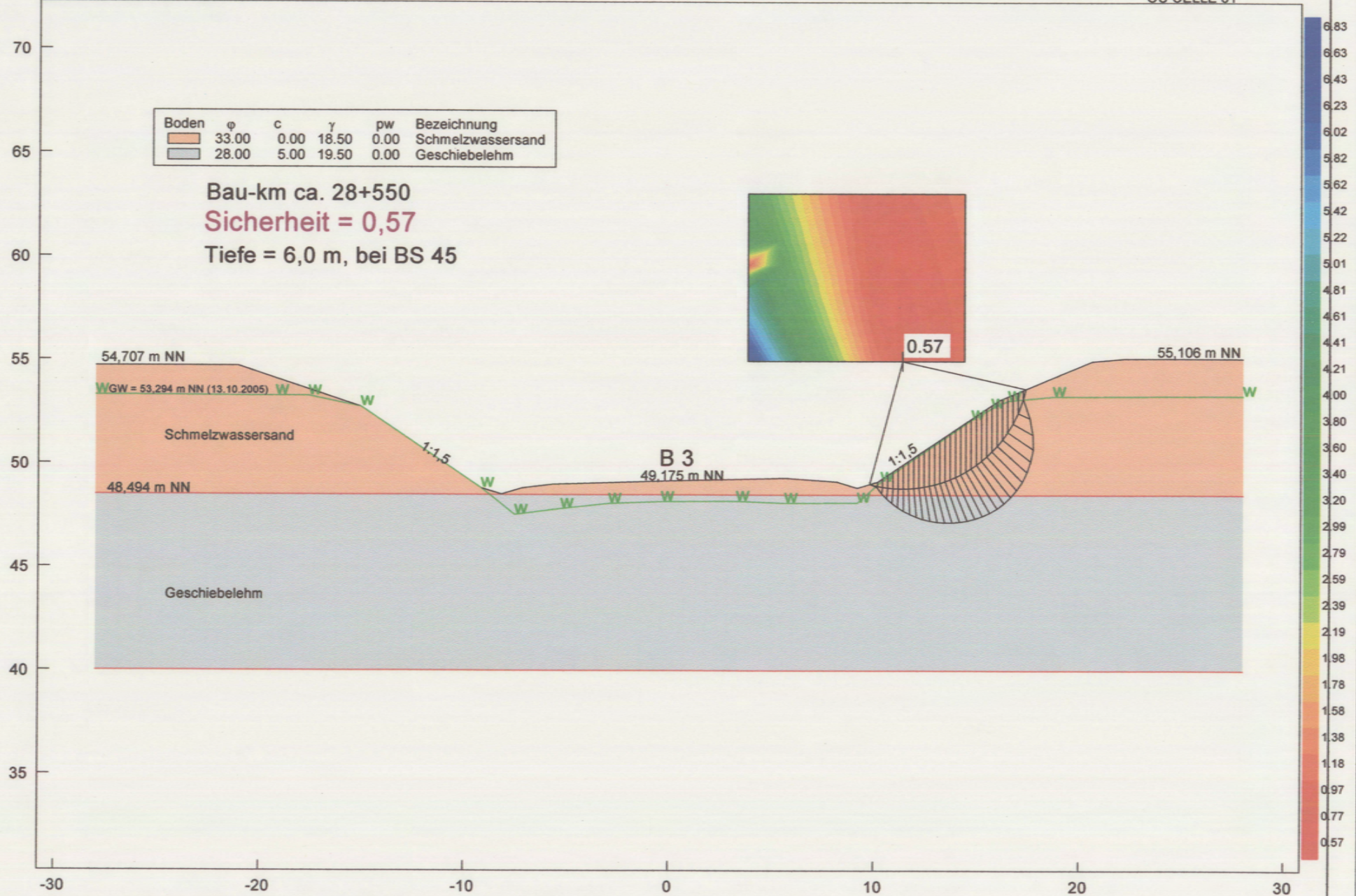
Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Celle (B214)

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

Gerechnet : Dipl.-Ing. Marjeh

Anlage : 11.1

15.11.2005
OU CELLE 01



Parameterliste

eta = Sicherheit nach DIN 4084

xm,ym = x,y-Wert des Gleitkreismittelpunktes

rad = Radius des Gleitkreises

Bewegungsrichtung des Gleitkörpers nach links

Koordinaten der Geländepunkte

Nr.	x [m]	y [m]
1	-28.000	54.707
2	-21.050	54.707
3	-15.050	52.739
4	-9.175	48.820
5	-8.179	48.520
6	-7.179	48.820
7	-5.695	49.000
8	0.000	49.175
9	5.679	49.316
10	8.179	49.136
11	9.179	48.836
12	10.179	49.136
13	16.139	53.110
14	20.639	54.978
15	22.139	55.106
16	28.000	55.106

Bodenkennwerte

Boden	phi [°]	c [kN/m²]	gamma [kN/m³]	pw [m]	Bezeichnung
1	33.00	0.00	18.50	0.00	Schmelzwassersand
2	28.00	5.00	19.50	0.00	Geschiebelehm

Koordinaten der Schichten und Bodennummern

Nr.	x(links) [m]	y(links) [m]	x(rechts) [m]	y(rechts) [m]	Boden-Nr.
1	-28.000	48.494	28.000	48.494	1
2	-28.000	40.000	28.000	40.000	2

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell
 AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

Koordinaten des Porenwasserdruck-Polygonzuges

Nr.	x [m]	y [m]
1	-28.000	53.294
2	-19.201	53.262
3	-17.602	53.262
4	-15.050	52.739
5	-9.175	48.820
6	-7.540	47.539
7	-5.301	47.822
8	-2.950	48.077
9	-0.371	48.162
10	3.284	48.190
11	5.636	48.105
12	9.185	48.122
13	10.327	49.134
14	14.759	52.129
15	15.731	52.696
16	16.540	53.060
17	18.726	53.262
18	28.000	53.294

Erdbebenlasten (als Beschleunigungswerte)

horizontal = 0.0000
 vertikal = 0.0000

Wasserstand vor der Böschung links [m] = 0.00
 Wasserstand vor der Böschung rechts [m] = 0.00

gamma Wasser [kN/m³] = 10.000

Ergebnisse

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Suchbereich

Art Suchradius

Anfangs- und Endradius

x / y (Anfang): 7.1899 47.8990

x / y (Ende): 14.4151 49.5991

Anzahl Radien = 40

Kreis	xm [m]	ym [m]	Radius [m]	Lamellen [-]	eta [-]
1	3.8303	63.0577	17.1223	30	3.4744
Zähler = 8378.503 Nenner = 2411.507					
M(Ti) = 8378.5 / M(s) = 0.0 / M(Gi) = 2411.5 / M = 0.0					
2	3.8303	61.9013	16.2290	30	3.7464
Zähler = 8296.259 Nenner = 2214.444					
M(Ti) = 8296.3 / M(s) = 0.0 / M(Gi) = 2214.4 / M = 0.0					
3	3.8303	60.7448	15.3709	30	4.0470
Zähler = 8217.892 Nenner = 2030.597					
M(Ti) = 8217.9 / M(s) = 0.0 / M(Gi) = 2030.6 / M = 0.0					
4	3.8303	59.5883	12.2223	30	0.9743
Zähler = 0.195 Nenner = 0.200					
M(Ti) = 0.2 / M(s) = 0.0 / M(Gi) = 0.2 / M = 0.0					
5	3.8303	58.4318	13.7860	30	4.8504
Zähler = 8339.424 Nenner = 1719.341					

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStEV Geschäftsbereich Verden, Projektgruppe OU Celle

M(Ti) = 8339.4 / M(s) = 0.0 / M(Gi) = 1719.3 / M = 0.0

6	3.8303	57.2753	13.0753	30	5.3645
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Zähler = 8493.924 Nenner = 1583.347

M(Ti) = 8493.9 / M(s) = 0.0 / M(Gi) = 1583.3 / M = 0.0

7	3.8303	56.1188	12.4316	30	6.0396
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Zähler = 8849.863 Nenner = 1465.315

M(Ti) = 8849.9 / M(s) = 0.0 / M(Gi) = 1465.3 / M = 0.0

8	3.8303	54.9623	11.8660	30	6.8318
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Zähler = 9301.912 Nenner = 1361.567

M(Ti) = 9301.9 / M(s) = 0.0 / M(Gi) = 1361.6 / M = 0.0

9	5.3424	63.0577	16.2071	30	2.5953
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Zähler = 5859.439 Nenner = 2257.721

M(Ti) = 5859.4 / M(s) = 0.0 / M(Gi) = 2257.7 / M = 0.0

10	5.3424	61.9013	15.2859	30	2.8040
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Zähler = 5816.563 Nenner = 2074.416

M(Ti) = 5816.6 / M(s) = 0.0 / M(Gi) = 2074.4 / M = 0.0

11	5.3424	60.7448	14.3715	30	3.0408
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Zähler = 5693.145 Nenner = 1872.232

M(Ti) = 5693.1 / M(s) = 0.0 / M(Gi) = 1872.2 / M = 0.0

12	5.3424	59.5883	13.4944	30	3.3170
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Zähler = 5603.534 Nenner = 1689.355

M(Ti) = 5603.5 / M(s) = 0.0 / M(Gi) = 1689.4 / M = 0.0

13	5.3424	58.4318	12.6622	30	3.6360
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Zähler = 5543.071 Nenner = 1524.483

M(Ti) = 5543.1 / M(s) = 0.0 / M(Gi) = 1524.5 / M = 0.0

14	5.3424	57.2753	11.8844	30	4.0495
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Zähler = 5580.525 Nenner = 1378.073

M(Ti) = 5580.5 / M(s) = 0.0 / M(Gi) = 1378.1 / M = 0.0

15	5.3424	56.1188	11.1723	30	4.5767
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Zähler = 5689.122 Nenner = 1243.074

M(Ti) = 5689.1 / M(s) = 0.0 / M(Gi) = 1243.1 / M = 0.0

16	5.3424	54.9623	10.5394	30	5.2276
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Zähler = 5900.666 Nenner = 1128.749

M(Ti) = 5900.7 / M(s) = 0.0 / M(Gi) = 1128.7 / M = 0.0

17	6.8546	63.0577	15.3065	30	1.8335
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Zähler = 3785.134 Nenner = 2064.436

M(Ti) = 3785.1 / M(s) = 0.0 / M(Gi) = 2064.4 / M = 0.0

18	6.8546	61.9013	14.2880	30	1.9685
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Zähler = 3550.550 Nenner = 1803.694

M(Ti) = 3550.5 / M(s) = 0.0 / M(Gi) = 1803.7 / M = 0.0

19	6.8546	60.7448	13.4681	30	2.1373
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Zähler = 3803.348 Nenner = 1779.522

M(Ti) = 3803.3 / M(s) = 0.0 / M(Gi) = 1779.5 / M = 0.0

20	6.8546	59.5883	12.5278	30	2.3251
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Zähler = 3659.795 Nenner = 1574.024

M(Ti) = 3659.8 / M(s) = 0.0 / M(Gi) = 1574.0 / M = 0.0

21	6.8546	58.4318	11.6267	30	2.5560
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Zähler = 3554.100 Nenner = 1390.471

M(Ti) = 3554.1 / M(s) = 0.0 / M(Gi) = 1390.5 / M = 0.0

22	6.8546	57.2753	10.7395	30	2.8600
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Zähler = 3421.362 Nenner = 1196.279

M(Ti) = 3421.4 / M(s) = 0.0 / M(Gi) = 1196.3 / M = 0.0

23	6.8546	56.1188	9.9834	30	3.2403
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Zähler = 3504.470 Nenner = 1081.541

M(Ti) = 3504.5 / M(s) = 0.0 / M(Gi) = 1081.5 / M = 0.0

24	6.8546	54.9623	9.2697	30	3.7575
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Zähler = 3570.836 Nenner = 950.311

M(Ti) = 3570.8 / M(s) = 0.0 / M(Gi) = 950.3 / M = 0.0

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

25	8.3667	63.0577	14.7553	30	1.1859
Zähler = 2751.376 Nenner = 2320.106					
M(Ti) = 2751.4 / M(s) = 0.0 / M(Gi) = 2320.1 / M = 0.0					
26	8.3667	61.9013	13.7087	30	1.2750
Zähler = 2578.961 Nenner = 2022.755					
M(Ti) = 2579.0 / M(s) = 0.0 / M(Gi) = 2022.8 / M = 0.0					
27	8.3667	60.7448	12.6811	30	1.3863
Zähler = 2436.048 Nenner = 1757.259					
M(Ti) = 2436.0 / M(s) = 0.0 / M(Gi) = 1757.3 / M = 0.0					
28	8.3667	59.5883	11.6777	30	1.5080
Zähler = 2292.960 Nenner = 1520.487					
M(Ti) = 2293.0 / M(s) = 0.0 / M(Gi) = 1520.5 / M = 0.0					
29	8.3667	58.4318	10.5983	30	1.6345
Zähler = 1982.333 Nenner = 1212.797					
M(Ti) = 1982.3 / M(s) = 0.0 / M(Gi) = 1212.8 / M = 0.0					
30	8.3667	57.2753	9.6113	30	1.8198
Zähler = 1816.437 Nenner = 998.175					
M(Ti) = 1816.4 / M(s) = 0.0 / M(Gi) = 998.2 / M = 0.0					
31	8.3667	56.1188	8.7164	30	2.0822
Zähler = 1754.103 Nenner = 842.416					
M(Ti) = 1754.1 / M(s) = 0.0 / M(Gi) = 842.4 / M = 0.0					
32	8.3667	54.9623	8.0838	30	2.4155
Zähler = 1976.968 Nenner = 818.464					
M(Ti) = 1977.0 / M(s) = 0.0 / M(Gi) = 818.5 / M = 0.0					
33	9.8788	63.0577	14.2026	30	0.6744
Zähler = 1647.562 Nenner = 2442.827					
M(Ti) = 1647.6 / M(s) = 0.0 / M(Gi) = 2442.8 / M = 0.0					
34	9.8788	61.9013	13.1119	30	0.6953
Zähler = 1472.828 Nenner = 2118.239					
M(Ti) = 1472.8 / M(s) = 0.0 / M(Gi) = 2118.2 / M = 0.0					
35	9.8788	60.7448	12.0335	30	0.6947
Zähler = 1257.582 Nenner = 1810.336					
M(Ti) = 1257.6 / M(s) = 0.0 / M(Gi) = 1810.3 / M = 0.0					
36	9.8788	59.5883	10.9710	30	0.7125
Zähler = 1091.171 Nenner = 1531.371					
M(Ti) = 1091.2 / M(s) = 0.0 / M(Gi) = 1531.4 / M = 0.0					
37	9.8788	58.4318	9.9295	30	0.7513
Zähler = 965.924 Nenner = 1285.632					
M(Ti) = 965.9 / M(s) = 0.0 / M(Gi) = 1285.6 / M = 0.0					
38	9.8788	57.2753	8.9164	30	0.9472
Zähler = 1012.937 Nenner = 1069.429					
M(Ti) = 1012.9 / M(s) = 0.0 / M(Gi) = 1069.4 / M = 0.0					
39	9.8788	56.1188	7.9426	30	1.0940
Zähler = 965.371 Nenner = 882.450					
M(Ti) = 965.4 / M(s) = 0.0 / M(Gi) = 882.5 / M = 0.0					
40	9.8788	54.9623	7.0244	30	1.3015
Zähler = 938.690 Nenner = 721.240					
M(Ti) = 938.7 / M(s) = 0.0 / M(Gi) = 721.2 / M = 0.0					
41	11.3909	63.0577	13.7943	30	0.8028
Zähler = 2027.914 Nenner = 2526.005					
M(Ti) = 2027.9 / M(s) = 0.0 / M(Gi) = 2526.0 / M = 0.0					
42	11.3909	61.9013	12.6685	30	0.7556
Zähler = 1664.556 Nenner = 2203.020					
M(Ti) = 1664.6 / M(s) = 0.0 / M(Gi) = 2203.0 / M = 0.0					
43	11.3909	60.7448	11.5487	30	0.7093
Zähler = 1335.928 Nenner = 1883.351					
M(Ti) = 1335.9 / M(s) = 0.0 / M(Gi) = 1883.4 / M = 0.0					
44	11.3909	59.5883	10.4370	30	0.6655

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

Zähler = 1045.438 Nenner = 1570.997

 $M(Ti) = 1045.4 / M(s) = 0.0 / M(Gi) = 1571.0 / M = 0.0$

45 11.3909 58.4318 9.3361 30 0.6270

Zähler = 800.086 Nenner = 1276.134

 $M(Ti) = 800.1 / M(s) = 0.0 / M(Gi) = 1276.1 / M = 0.0$

46 11.3909 57.2753 8.2505 30 0.5935

Zähler = 605.135 Nenner = 1019.573

 $M(Ti) = 605.1 / M(s) = 0.0 / M(Gi) = 1019.6 / M = 0.0$

47 11.3909 56.1188 7.1870 30 0.5698

Zähler = 455.434 Nenner = 799.271

 $M(Ti) = 455.4 / M(s) = 0.0 / M(Gi) = 799.3 / M = 0.0$

48 11.3909 54.9623 6.1571 30 0.5696

Zähler = 348.928 Nenner = 612.580

 $M(Ti) = 348.9 / M(s) = 0.0 / M(Gi) = 612.6 / M = 0.0$

49 12.9030 63.0577 13.5434 30 0.9773

Zähler = 2597.939 Nenner = 2658.338

 $M(Ti) = 2597.9 / M(s) = 0.0 / M(Gi) = 2658.3 / M = 0.0$

50 12.9030 61.9013 12.3948 30 0.9273

Zähler = 2163.972 Nenner = 2333.751

 $M(Ti) = 2164.0 / M(s) = 0.0 / M(Gi) = 2333.8 / M = 0.0$

51 12.9030 60.7448 11.2478 30 0.8775

Zähler = 1762.687 Nenner = 2008.671

 $M(Ti) = 1762.7 / M(s) = 0.0 / M(Gi) = 2008.7 / M = 0.0$

52 12.9030 59.5883 10.1030 30 0.8291

Zähler = 1396.923 Nenner = 1684.862

 $M(Ti) = 1396.9 / M(s) = 0.0 / M(Gi) = 1684.9 / M = 0.0$

53 12.9030 58.4318 8.9612 30 0.7846

Zähler = 1071.814 Nenner = 1365.990

 $M(Ti) = 1071.8 / M(s) = 0.0 / M(Gi) = 1366.0 / M = 0.0$

54 12.9030 57.2753 7.8237 30 0.7477

Zähler = 790.044 Nenner = 1056.635

 $M(Ti) = 790.0 / M(s) = 0.0 / M(Gi) = 1056.6 / M = 0.0$

55 12.9030 56.1188 6.6928 30 0.7182

Zähler = 562.067 Nenner = 782.642

 $M(Ti) = 562.1 / M(s) = 0.0 / M(Gi) = 782.6 / M = 0.0$

56 12.9030 54.9623 5.5723 30 0.7008

Zähler = 385.911 Nenner = 550.684

 $M(Ti) = 385.9 / M(s) = 0.0 / M(Gi) = 550.7 / M = 0.0$

57 14.4151 63.0577 13.4587 30 1.1982

Zähler = 3379.199 Nenner = 2820.181

 $M(Ti) = 3379.2 / M(s) = 0.0 / M(Gi) = 2820.2 / M = 0.0$

58 14.4151 61.9013 12.3022 30 1.1486

Zähler = 2868.158 Nenner = 2497.166

 $M(Ti) = 2868.2 / M(s) = 0.0 / M(Gi) = 2497.2 / M = 0.0$

59 14.4151 60.7448 11.1457 30 1.0997

Zähler = 2391.103 Nenner = 2174.364

 $M(Ti) = 2391.1 / M(s) = 0.0 / M(Gi) = 2174.4 / M = 0.0$

60 14.4151 59.5883 9.9892 30 1.0523

Zähler = 1948.425 Nenner = 1851.572

 $M(Ti) = 1948.4 / M(s) = 0.0 / M(Gi) = 1851.6 / M = 0.0$

61 14.4151 58.4318 8.8327 30 1.0090

Zähler = 1543.467 Nenner = 1529.669

 $M(Ti) = 1543.5 / M(s) = 0.0 / M(Gi) = 1529.7 / M = 0.0$

62 14.4151 57.2753 7.6762 30 0.9744

Zähler = 1177.683 Nenner = 1208.634

 $M(Ti) = 1177.7 / M(s) = 0.0 / M(Gi) = 1208.6 / M = 0.0$

63 14.4151 56.1188 6.5197 30 0.9544

Zähler = 855.083 Nenner = 895.965

INGENIEURBÜRO MARIENWERDER GmbH

Anlage :11.1

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

$M(Ti) = 855.1 / M(s) = 0.0 / M(Gi) = 896.0 / M = 0.0$

64 14.4151 54.9623 5.3632 30 0.9591

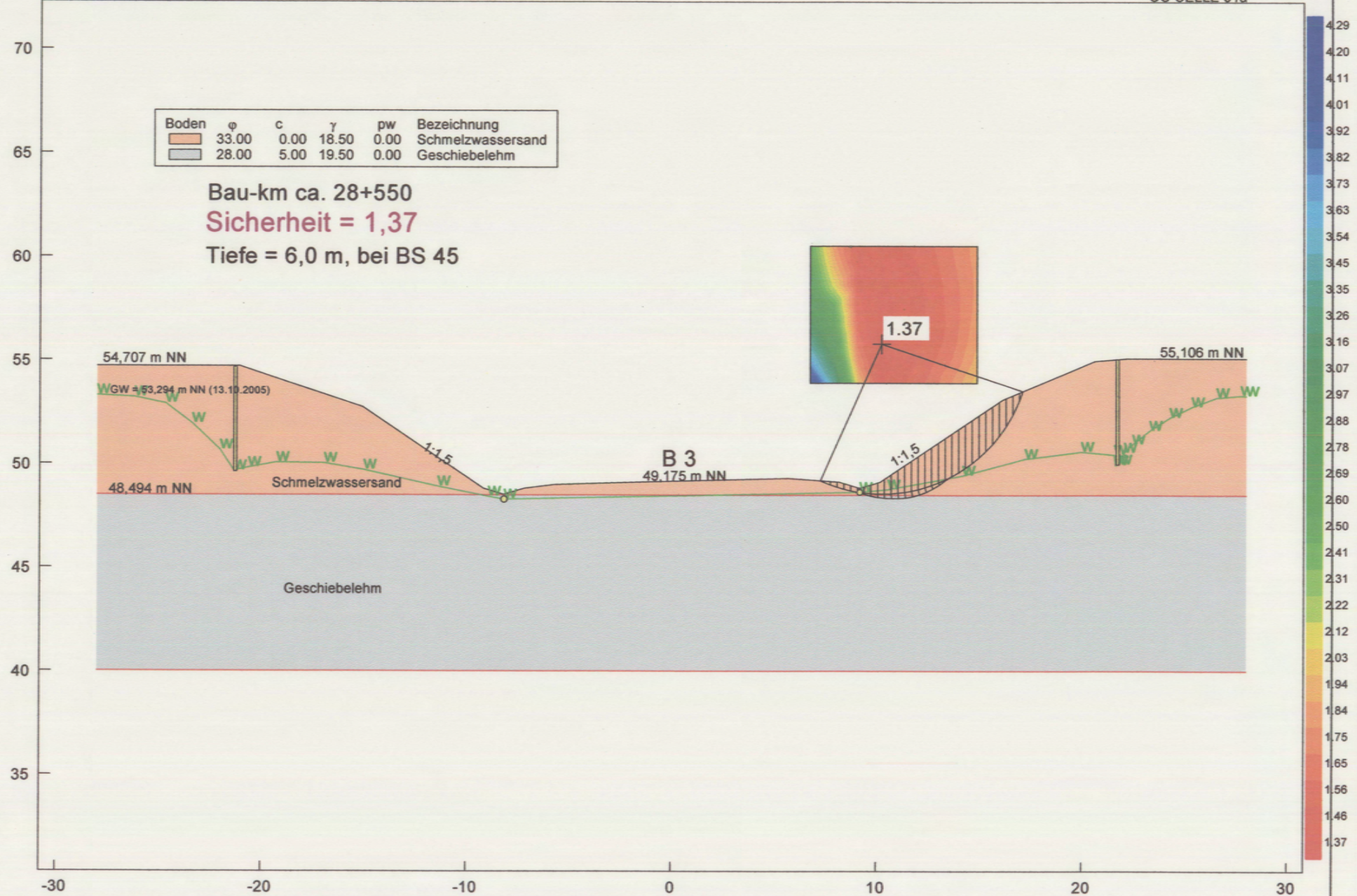
Zähler = 581.462 Nenner = 606.269

$M(Ti) = 581.5 / M(s) = 0.0 / M(Gi) = 606.3 / M = 0.0$

Ungünstigster Gleitkreis

Kreis	xm	ym	Radius	Lamellen	eta
	[m]	[m]	[m]	[-]	[-]
48	11.3909	54.9623	6.1571	30	0.5696

Zähler = 348.928 Nenner = 612.580



Bau-km ca. 28+550

Sicherheit = 1,37

Tiefe = 6,0 m, bei BS 45

Anlage : 11.2

Baumaßnahme : B 3, OU Celle --(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell
AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle
Böschungsberechnung nach DIN 4084
mit Kreisgleitflächen

Parameterliste

eta = Sicherheit nach DIN 4084
 xm,ym = x,y-Wert des Gleitkreismittelpunktes
 rad = Radius des Gleitkreises

Bewegungsrichtung des Gleitkörpers nach links

Koordinaten der Geländepunkte

Nr.	x [m]	y [m]
1	-28.000	54.707
2	-21.050	54.707
3	-15.050	52.739
4	-9.175	48.820
5	-8.179	48.520
6	-7.179	48.820
7	-5.695	49.000
8	0.000	49.175
9	5.679	49.316
10	8.179	49.136
11	9.179	48.836
12	10.179	49.136
13	16.139	53.110
14	20.639	54.978
15	22.139	55.106
16	28.000	55.106

Bodenkennwerte

Boden	phi [°]	c [kN/m ²]	gamma [kN/m ³]	pw [~]	Bezeichnung
1	33.00	0.00	18.50	0.00	Schmelzwassersand
2	28.00	5.00	19.50	0.00	Geschiebelehm

Koordinaten der Schichten und Bodennummern

Nr.	x(links) [m]	y(links) [m]	x(rechts) [m]	y(rechts) [m]	Boden-Nr.
1	-28.000	48.494	28.000	48.494	1
2	-28.000	40.000	28.000	40.000	2

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

Koordinaten des Porenwasserdruck-Polygonzuges

Nr.	x [m]	y [m]
1	-28.000	53.294
2	-26.163	53.202
3	-24.666	52.898
4	-23.370	51.927
5	-22.014	50.651
6	-21.347	49.660
7	-20.638	49.822
8	-19.242	50.065
9	-16.914	50.024
10	-14.992	49.700
11	-11.389	48.911
12	-8.940	48.425
13	-8.163	48.292
14	9.181	48.644
15	10.550	48.769
16	14.193	49.437
17	17.228	50.247
18	19.981	50.591
19	21.580	50.449
20	21.640	49.943
21	21.823	49.984
22	22.065	50.558
23	22.466	50.947
24	23.304	51.615
25	24.288	52.246
26	25.356	52.768
27	26.558	53.218
28	27.724	53.315
29	28.000	53.294

Erdbebenlasten (als Beschleunigungswerte)

horizontal = 0.0000

vertikal = 0.0000

Wasserstand vor der Böschung links [m] = 0.00

Wasserstand vor der Böschung rechts [m] = 0.00

gamma Wasser [kN/m³] = 10.000

Ergebnisse

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Suchbereich

Art Suchradius

Anfangs- und Endradius

x / y (Anfang): 9.5457 48.5912

x / y (Ende): 12.0351 45.7497

Anzahl Radian = 40

Kreis	xm [m]	ym [m]	Radius [m]	Lamellen [-]	eta [-]
1	6.7649	60.5279	15.6898	30	2.5014

Zähler = 13203.380 Nenner = 5278.494
 M(Ti) = 13203.4 / M(s) = 0.0 / M(Gi) = 5278.5 / M = 0.0

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

2 6.7649 59.5825 14.8027 30 2.6017

Zähler = 12039.161 Nenner = 4627.454

M(Ti) = 12039.2 / M(s) = 0.0 / M(Gi) = 4627.5 / M = 0.0

3 6.7649 58.6371 13.9233 30 2.7373

Zähler = 10914.715 Nenner = 3987.336

M(Ti) = 10914.7 / M(s) = 0.0 / M(Gi) = 3987.3 / M = 0.0

4 6.7649 57.6916 13.0531 30 2.9068

Zähler = 9870.484 Nenner = 3395.700

M(Ti) = 9870.5 / M(s) = 0.0 / M(Gi) = 3395.7 / M = 0.0

5 6.7649 56.7462 12.1942 30 3.1113

Zähler = 8876.605 Nenner = 2853.066

M(Ti) = 8876.6 / M(s) = 0.0 / M(Gi) = 2853.1 / M = 0.0

6 6.7649 55.8008 11.3489 30 3.3899

Zähler = 7974.422 Nenner = 2352.426

M(Ti) = 7974.4 / M(s) = 0.0 / M(Gi) = 2352.4 / M = 0.0

7 6.7649 54.8553 10.5208 30 3.7615

Zähler = 7137.017 Nenner = 1897.396

M(Ti) = 7137.0 / M(s) = 0.0 / M(Gi) = 1897.4 / M = 0.0

8 6.7649 53.9099 9.7141 30 4.2945

Zähler = 6385.488 Nenner = 1486.906

M(Ti) = 6385.5 / M(s) = 0.0 / M(Gi) = 1486.9 / M = 0.0

9 7.9272 60.5279 12.0460 30 1.8308

Zähler = 1784.471 Nenner = 974.696

M(Ti) = 1784.5 / M(s) = 0.0 / M(Gi) = 974.7 / M = 0.0

10 7.9272 59.5825 11.1098 30 1.9533

Zähler = 1462.872 Nenner = 748.940

M(Ti) = 1462.9 / M(s) = 0.0 / M(Gi) = 748.9 / M = 0.0

11 7.9272 58.6371 10.1754 30 2.1121

Zähler = 1153.476 Nenner = 546.115

M(Ti) = 1153.5 / M(s) = 0.0 / M(Gi) = 546.1 / M = 0.0

12 7.9272 57.6916 11.1899 30 2.4623

Zähler = 4868.876 Nenner = 1977.396

M(Ti) = 4868.9 / M(s) = 0.0 / M(Gi) = 1977.4 / M = 0.0

13 7.9272 56.7462 11.1394 30 2.6162

Zähler = 6309.860 Nenner = 2411.841

M(Ti) = 6309.9 / M(s) = 0.0 / M(Gi) = 2411.8 / M = 0.0

14 7.9272 55.8008 10.7714 30 2.8035

Zähler = 6857.886 Nenner = 2446.148

M(Ti) = 6857.9 / M(s) = 0.0 / M(Gi) = 2446.1 / M = 0.0

15 7.9272 54.8553 9.9894 30 3.0501

Zähler = 6223.906 Nenner = 2040.581

M(Ti) = 6223.9 / M(s) = 0.0 / M(Gi) = 2040.6 / M = 0.0

16 7.9272 53.9099 9.1358 30 3.3913

Zähler = 5415.942 Nenner = 1597.015

M(Ti) = 5415.9 / M(s) = 0.0 / M(Gi) = 1597.0 / M = 0.0

17 9.0895 60.5279 11.9455 30 1.5041

Zähler = 2218.284 Nenner = 1474.859

M(Ti) = 2218.3 / M(s) = 0.0 / M(Gi) = 1474.9 / M = 0.0

18 9.0895 59.5825 11.0008 30 1.5049

Zähler = 1796.686 Nenner = 1193.872

M(Ti) = 1796.7 / M(s) = 0.0 / M(Gi) = 1193.9 / M = 0.0

19 9.0895 58.6371 10.0562 30 1.5120

Zähler = 1423.004 Nenner = 941.156

M(Ti) = 1423.0 / M(s) = 0.0 / M(Gi) = 941.2 / M = 0.0

20 9.0895 57.6916 9.1119 30 1.5322

Zähler = 1098.145 Nenner = 716.711

M(Ti) = 1098.1 / M(s) = 0.0 / M(Gi) = 716.7 / M = 0.0

21 9.0895 56.7462 8.1678 30 1.5765

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

Zähler = 817.512 Nenner = 518.572

M(Ti) = 817.5 / M(s) = 0.0 / M(Gi) = 518.6 / M = 0.0

22 9.0895 55.8008 7.2240 30 1.6684

Zähler = 581.894 Nenner = 348.783

M(Ti) = 581.9 / M(s) = 0.0 / M(Gi) = 348.8 / M = 0.0

23 9.0895 54.8553 6.2807 30 1.8051

Zähler = 395.521 Nenner = 219.108

M(Ti) = 395.5 / M(s) = 0.0 / M(Gi) = 219.1 / M = 0.0

24 9.0895 53.9099 5.3382 30 2.0263

Zähler = 255.265 Nenner = 125.975

M(Ti) = 255.3 / M(s) = 0.0 / M(Gi) = 126.0 / M = 0.0

25 10.2518 60.5279 11.9576 30 1.4304

Zähler = 3013.081 Nenner = 2106.389

M(Ti) = 3013.1 / M(s) = 0.0 / M(Gi) = 2106.4 / M = 0.0

26 10.2518 59.5825 11.0140 30 1.4161

Zähler = 2490.070 Nenner = 1758.417

M(Ti) = 2490.1 / M(s) = 0.0 / M(Gi) = 1758.4 / M = 0.0

27 10.2518 58.6371 10.0707 30 1.4015

Zähler = 2022.907 Nenner = 1443.385

M(Ti) = 2022.9 / M(s) = 0.0 / M(Gi) = 1443.4 / M = 0.0

28 10.2518 57.6916 9.1278 30 1.3871

Zähler = 1609.239 Nenner = 1160.146

M(Ti) = 1609.2 / M(s) = 0.0 / M(Gi) = 1160.1 / M = 0.0

29 10.2518 56.7462 8.1855 30 1.3749

Zähler = 1247.264 Nenner = 907.145

M(Ti) = 1247.3 / M(s) = 0.0 / M(Gi) = 907.1 / M = 0.0

30 10.2518 55.8008 7.2441 30 1.3696

Zähler = 936.185 Nenner = 683.525

M(Ti) = 936.2 / M(s) = 0.0 / M(Gi) = 683.5 / M = 0.0

31 10.2518 54.8553 6.3038 30 1.3784

Zähler = 672.801 Nenner = 488.086

M(Ti) = 672.8 / M(s) = 0.0 / M(Gi) = 488.1 / M = 0.0

32 10.2518 53.9099 5.3654 30 1.4062

Zähler = 456.100 Nenner = 324.358

M(Ti) = 456.1 / M(s) = 0.0 / M(Gi) = 324.4 / M = 0.0

33 11.4140 60.5279 12.0821 30 1.4924

Zähler = 4177.182 Nenner = 2799.019

M(Ti) = 4177.2 / M(s) = 0.0 / M(Gi) = 2799.0 / M = 0.0

34 11.4140 59.5825 11.1490 30 1.4692

Zähler = 3575.452 Nenner = 2433.671

M(Ti) = 3575.5 / M(s) = 0.0 / M(Gi) = 2433.7 / M = 0.0

35 11.4140 58.6371 10.2181 30 1.4518

Zähler = 3010.963 Nenner = 2073.888

M(Ti) = 3011.0 / M(s) = 0.0 / M(Gi) = 2073.9 / M = 0.0

36 11.4140 57.6916 9.2902 30 1.4458

Zähler = 2492.352 Nenner = 1723.871

M(Ti) = 2492.4 / M(s) = 0.0 / M(Gi) = 1723.9 / M = 0.0

37 11.4140 56.7462 8.3663 30 1.4454

Zähler = 2030.249 Nenner = 1404.658

M(Ti) = 2030.2 / M(s) = 0.0 / M(Gi) = 1404.7 / M = 0.0

38 11.4140 55.8008 7.4477 30 1.4614

Zähler = 1635.129 Nenner = 1118.857

M(Ti) = 1635.1 / M(s) = 0.0 / M(Gi) = 1118.9 / M = 0.0

39 11.4140 54.8553 6.5368 30 1.4669

Zähler = 1270.395 Nenner = 866.044

M(Ti) = 1270.4 / M(s) = 0.0 / M(Gi) = 866.0 / M = 0.0

40 11.4140 53.9099 5.6373 30 1.5085

Zähler = 970.117 Nenner = 643.084

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

 $M(Ti) = 970.1 / M(s) = 0.0 / M(Gi) = 643.1 / M = 0.0$

41 12.5763 60.5279 12.3154 30 1.5841

Zähler = 5553.855 Nenner = 3505.947

 $M(Ti) = 5553.9 / M(s) = 0.0 / M(Gi) = 3505.9 / M = 0.0$

42 12.5763 59.5825 11.4015 30 1.5574

Zähler = 4884.987 Nenner = 3136.615

 $M(Ti) = 4885.0 / M(s) = 0.0 / M(Gi) = 3136.6 / M = 0.0$

43 12.5763 58.6371 10.4930 30 1.5335

Zähler = 4245.033 Nenner = 2768.172

 $M(Ti) = 4245.0 / M(s) = 0.0 / M(Gi) = 2768.2 / M = 0.0$

44 12.5763 57.6916 9.5918 30 1.5266

Zähler = 3665.178 Nenner = 2400.841

 $M(Ti) = 3665.2 / M(s) = 0.0 / M(Gi) = 2400.8 / M = 0.0$

45 12.5763 56.7462 8.6999 30 1.5231

Zähler = 3104.280 Nenner = 2038.092

 $M(Ti) = 3104.3 / M(s) = 0.0 / M(Gi) = 2038.1 / M = 0.0$

46 12.5763 55.8008 7.8206 30 1.5383

Zähler = 2590.550 Nenner = 1684.033

 $M(Ti) = 2590.5 / M(s) = 0.0 / M(Gi) = 1684.0 / M = 0.0$

47 12.5763 54.8553 6.9587 30 1.5778

Zähler = 2146.768 Nenner = 1360.645

 $M(Ti) = 2146.8 / M(s) = 0.0 / M(Gi) = 1360.6 / M = 0.0$

48 12.5763 53.9099 6.1215 30 1.6329

Zähler = 1746.427 Nenner = 1069.548

 $M(Ti) = 1746.4 / M(s) = 0.0 / M(Gi) = 1069.5 / M = 0.0$

49 13.7386 60.5279 12.6517 30 1.7073

Zähler = 7188.249 Nenner = 4210.254

 $M(Ti) = 7188.2 / M(s) = 0.0 / M(Gi) = 4210.3 / M = 0.0$

50 13.7386 59.5825 11.8182 30 1.6874

Zähler = 6603.411 Nenner = 3913.350

 $M(Ti) = 6603.4 / M(s) = 0.0 / M(Gi) = 3913.4 / M = 0.0$

51 13.7386 58.6371 10.8858 30 1.6644

Zähler = 5776.049 Nenner = 3470.433

 $M(Ti) = 5776.0 / M(s) = 0.0 / M(Gi) = 3470.4 / M = 0.0$

52 13.7386 57.6916 10.0199 30 1.6524

Zähler = 5124.866 Nenner = 3101.448

 $M(Ti) = 5124.9 / M(s) = 0.0 / M(Gi) = 3101.4 / M = 0.0$

53 13.7386 56.7462 9.1697 30 1.6495

Zähler = 4507.254 Nenner = 2732.503

 $M(Ti) = 4507.3 / M(s) = 0.0 / M(Gi) = 2732.5 / M = 0.0$

54 13.7386 55.8008 8.4329 30 1.6697

Zähler = 4094.580 Nenner = 2452.317

 $M(Ti) = 4094.6 / M(s) = 0.0 / M(Gi) = 2452.3 / M = 0.0$

55 13.7386 54.8553 7.5810 30 1.7214

Zähler = 3499.962 Nenner = 2033.167

 $M(Ti) = 3500.0 / M(s) = 0.0 / M(Gi) = 2033.2 / M = 0.0$

56 13.7386 53.9099 6.8117 30 1.8118

Zähler = 2991.687 Nenner = 1651.185

 $M(Ti) = 2991.7 / M(s) = 0.0 / M(Gi) = 1651.2 / M = 0.0$

57 14.9009 60.5279 13.2307 30 1.8380

Zähler = 9427.639 Nenner = 5129.307

 $M(Ti) = 9427.6 / M(s) = 0.0 / M(Gi) = 5129.3 / M = 0.0$

58 14.9009 59.5825 12.3215 30 1.8280

Zähler = 8541.280 Nenner = 4672.532

 $M(Ti) = 8541.3 / M(s) = 0.0 / M(Gi) = 4672.5 / M = 0.0$

59 14.9009 58.6371 11.5659 30 1.8210

Zähler = 8026.194 Nenner = 4407.560

 $M(Ti) = 8026.2 / M(s) = 0.0 / M(Gi) = 4407.6 / M = 0.0$

Baumaßnahme : B 3, OU Celle -(Mittelteil) Verlegung der B 3 von Nordost Celle (B191) bis Südost Cell

AG : NLStBV Geschäftsbereich Verden, Projektgruppe OU Celle

60	14.9009	57.6916	10.8174	30	1.8308
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Zähler = 7536.896 Nenner = 4116.697

M(Ti) = 7536.9 / M(s) = 0.0 / M(Gi) = 4116.7 / M = 0.0

61	14.9009	56.7462	9.8365	30	1.8545
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Zähler = 6535.186 Nenner = 3523.868

M(Ti) = 6535.2 / M(s) = 0.0 / M(Gi) = 3523.9 / M = 0.0

62	14.9009	55.8008	9.0912	30	1.8878
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Zähler = 6002.520 Nenner = 3179.672

M(Ti) = 6002.5 / M(s) = 0.0 / M(Gi) = 3179.7 / M = 0.0

63	14.9009	54.8553	8.2412	30	1.9383
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Zähler = 5215.101 Nenner = 2690.533

M(Ti) = 5215.1 / M(s) = 0.0 / M(Gi) = 2690.5 / M = 0.0

64	14.9009	53.9099	7.6302	30	2.0408
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Zähler = 4828.216 Nenner = 2365.798

M(Ti) = 4828.2 / M(s) = 0.0 / M(Gi) = 2365.8 / M = 0.0

Ungünstigster Gleitkreis

Kreis	xm	ym	Radius	Lamellen	eta
	[m]	[m]	[m]	[-]	[-]
30	10.2518	55.8008	7.2441	30	1.3696

Zähler = 936.185 Nenner = 683.525