ALLEGATO 1
VERIFICHE DI STABILITÀ INTERFERENZA 04
SEZIONE A-A' - RELAZIONI DI CALCOLO

VERIFICA DI STABILITÀ PRE-OPERAM IN ASSENZA DI FALDA ACQUIFERA

Analisi di stabilità dei pendii con BISHOP

Numero di strati	2.0
Numero dei conci	50.0
Coefficiente di sicurezza [R2]	1.1

Superficie di forma circolare

Maglia dei Centri

Ascissa vertice sinistro inferiore xi	208.51 m
Ordinata vertice sinistro inferiore yi	423.38 m
Ascissa vertice destro superiore xs	316.14 m
Ordinata vertice destro superiore ys	508.18 m
Passo di ricerca	10.0
Numero di celle lungo x	10.0
Numero di celle lungo y	10.0

Coefficienti sismici [N.T.C.] 2018

Dati generali

Descrizione:	
Latitudine:	41.95
Longitudine:	14.77
Tipo di costruzione:	2 - Opere ordinarie
Classe d'uso:	Classe IV
Vita nominale:	50.0 [anni]
Vita di riferimento:	100.0 [anni]

Parametri sismici su sito di riferimento

Categoria sottosuolo:	C
Categoria topografica:	T1

S.L. Stato limite	TR Tempo ritorno [anni]	ag [m/s²]	F0 [-]	TC* [sec]
S.L.O.	60.0	0.55	2.52	0.34
S.L.D.	101.0	0.69	2.53	0.36
S.L.V.	949.0	1.49	2.62	0.43
S.L.C.	1950.0	1.86	2.63	0.46

Coefficienti sismici orizzontali e verticali

Opera: Stabilità dei pendii

S.L. Stato limite	amax [m/s²]	beta [-]	kh [-]	kv [sec]
S.L.O.	0.825	0.2	0.0168	0.0084
S.L.D.	1.035	0.2	0.0211	0.0106
S.L.V.	2.1771	0.24	0.0533	0.0266
S.L.C.	2.6053	0.24	0.0638	0.0319

Coefficiente azione sismica orizzontale	0.0533
Coefficiente azione sismica verticale	0.0266

Vertici profilo

N	X m	y m
1	0.0	219.0
2	32.16	219.5
3	38.47	220.0
4	42.38	220.5
5	45.63	221.0
6	48.59	221.5
7	51.43	222.0
8	54.25	222.5
9	57.08	223.0
10	59.99	223.5
11	63.08	224.0
12	66.4	224.5
13	70.05	225.0
14	74.09	225.5
15	78.6	226.0
16	83.93	226.5
17	90.39	227.0
18	97.47	227.5
19	104.83	228.0
20	111.43	228.5
21	116.73	229.0
22	121.81	229.5
23	127.02	230.0
24	132.53	230.5
25	138.23	231.0
26	143.55	231.5
27	148.6	232.0
28	153.77	232.5
29	159.14	233.0
30	164.65	233.5
31	170.36	234.0
32	176.38	234.5
33	182.78	235.0
34	188.6	235.5
35	193.44	236.0
36	197.39	236.5
37	200.83	237.0
38	203.93	237.5
39	206.86	238.0
40	209.7	238.5
41	212.5	239.0
42	215.23	239.5
43	217.86	240.0
44	220.47	240.5
45	221.1	241.0
46	225.77	241.5
47	228.52	242.0
48	231.34	242.5
49	234.26	243.0
50	237.39	243.5
51	240.89	244.0

52	244.84	244.5
53	249.39	245.0
54	254.51	245.5
55	259.4	246.0
56	263.44	246.5
57	266.81	247.0
58	269.77	247.5
59	272.49	248.0
60	275.02	248.5
61	277.43	249.0
62	279.77	249.5
63	282.14	250.0
64	284.59	250.5
65	287.15	251.0
66	289.98	251.5
67	292.96	252.0
68	295.97	252.5
69	298.96	253.0
70	301.94	253.5
71	304.87	254.0
72	307.65	254.5
73	310.21	255.0
74	312.65	255.5
75	315.01	256.0
76	317.17	256.5
77	319.73	257.0
78	322.11	257.5
79	324.58	258.0
80	327.13	258.5
81	329.78	259.0
82	332.63	259.5
83	335.7	260.0
84	339.03	260.5
85	342.65	261.0
86	346.49	261.5
87	350.6	262.0
88	355.22	262.5
89	360.7	263.0
90	367.98	263.5
91	422.21	263.5

Vertici strato 1

N	X m	y m
1	0.0	216.0
2	32.16	216.5
3	61.27	218.34
4	137.96	224.65
5	194.25	231.58
6	221.82	236.5
7	299.31	249.22
8	367.98	261.5
9	422.21	262.0

Stratigrafia

c: coesione; Fi: Angolo di attrito; G: Peso Specifico; Gs: Peso Specifico Saturo

Strato	c (kg/cm²)	Fi (°)	G (Kg/m³)	Gs (Kg/m³)	Litologia
1	0.04	21.6	1880	1940	

2	0.28	22	2110	2130	

Risultati analisi pendio [A2+M2+R2]

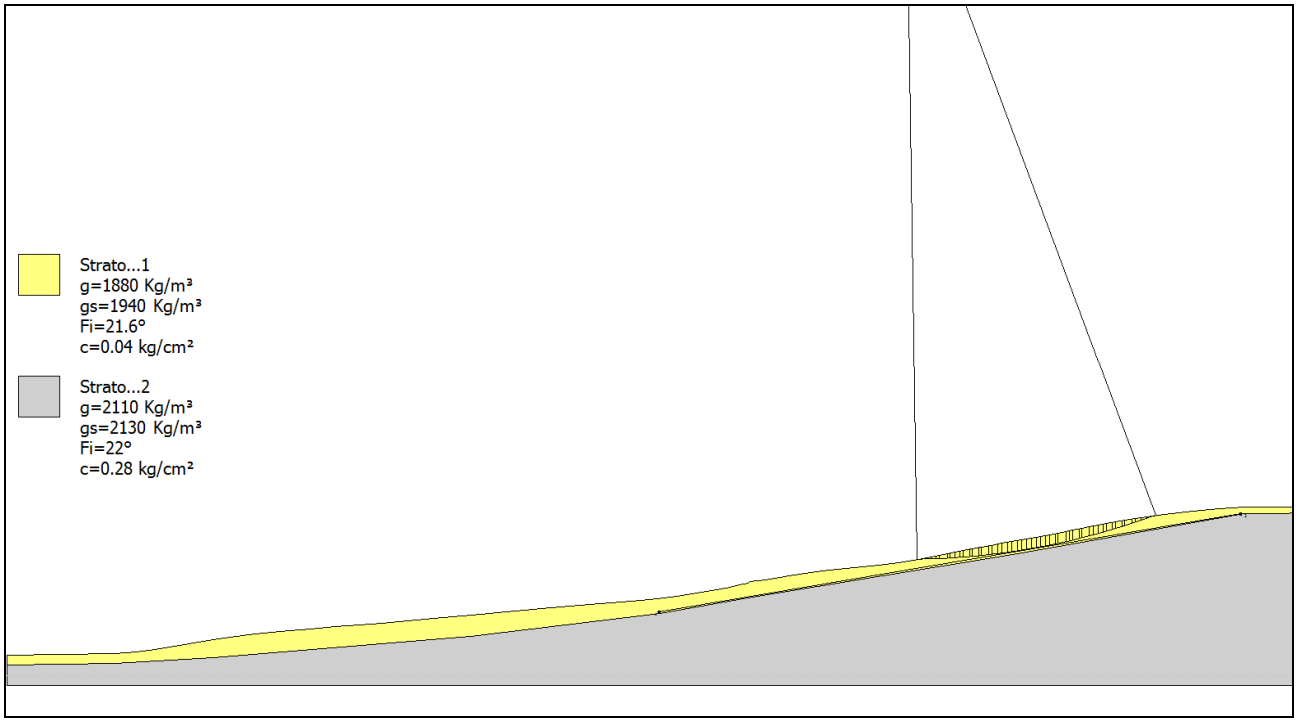
Fs minimo individuato	1.61
Ascissa centro superficie	267.71 m
Ordinata centro superficie	461.54 m
Raggio superficie	213.88 m

B: Larghezza del concio; Alfa: Angolo di inclinazione della base del concio; Li: Lunghezza della base del concio; Wi: Peso del concio ; Ui: Forze derivanti dalle pressioni neutre; Ni: forze agenti normalmente alla direzione di scivolamento; Ti: forze agenti parallelamente alla superficie di scivolamento; Fi: Angolo di attrito; c: coesione.

Analisi dei conci. Superficie...xc = 267.707 yc = 461.54 Rc = 213.884 Fs=1.6115

Nr.	B m	Alfa (°)	Li m	Wi (Kg)	Kh•Wi (Kg)	Kv•Wi (Kg)	c (kg/cm²)	Fi (°)	Ui (Kg)	N'i (Kg)	Ti (Kg)
1	1.76	1.0	1.76	485.44	25.87	12.91	0.03	17.6	0.0	477.4	442.5
2	1.08	1.4	1.08	784.76	41.83	20.87	0.03	17.6	0.0	775.8	367.9
3	1.45	1.8	1.45	1629.95	86.88	43.36	0.03	17.6	0.0	1612.1	604.1
4	1.39	2.1	1.4	2197.98	117.15	58.47	0.03	17.6	0.0	2173.1	704.2
5	1.02	2.5	1.02	1986.66	105.89	52.85	0.03	17.6	0.0	1963.2	587.8
6	2.34	2.9	2.34	5791.86	308.71	154.06	0.03	17.6	0.0	5718.3	1589.2
7	0.9	3.4	0.91	2672.23	142.43	71.08	0.03	17.6	0.0	2635.9	697.8
8	1.47	3.7	1.47	4825.09	257.18	128.35	0.03	17.6	0.0	4756.3	1226.7
9	1.37	4.1	1.38	5032.38	268.23	133.86	0.03	17.6	0.0	4956.6	1247.6
10	1.08	4.4	1.08	4268.52	227.51	113.54	0.03	17.6	0.0	4201.3	1040.2
11	1.76	4.8	1.77	7548.23	402.32	200.78	0.03	17.6	0.0	7423.5	1810.4
12	0.8	5.1	0.8	3620.85	192.99	96.31	0.03	17.6	0.0	3558.5	858.3
13	2.04	5.5	2.05	9767.46	520.61	259.81	0.03	17.6	0.0	9592.1	2292.9
14	0.79	5.9	0.79	3925.77	209.24	104.43	0.03	17.6	0.0	3852.4	914.4
15	2.05	6.3	2.06	10586.35	564.25	281.6	0.03	17.6	0.0	10381.2	2450.5
16	0.93	6.7	0.93	4925.76	262.54	131.03	0.03	17.6	0.0	4826.8	1134.2
17	1.91	7.0	1.93	10393.37	553.97	276.46	0.03	17.6	0.0	10178.1	2383.1
18	1.1	7.4	1.11	6087.9	324.48	161.94	0.03	17.6	0.0	5957.9	1390.9
19	1.74	7.8	1.76	9812.37	523.0	261.01	0.03	17.6	0.0	9597.3	2235.6
20	1.25	8.2	1.26	7121.9	379.6	189.44	0.03	17.6	0.0	6961.8	1618.8
21	1.59	8.6	1.61	9165.3	488.51	243.8	0.03	17.6	0.0	8954.8	2079.8
22	1.39	9.0	1.41	8043.53	428.72	213.96	0.03	17.6	0.0	7854.8	1823.0
23	1.45	9.4	1.47	8436.08	449.64	224.4	0.03	17.6	0.0	8234.5	1910.7
24	1.48	9.8	1.5	8599.99	458.38	228.76	0.03	17.6	0.0	8391.0	1947.2
25	1.36	10.2	1.38	7912.13	421.72	210.46	0.03	17.6	0.0	7716.9	1791.4
26	1.42	10.6	1.44	8235.65	438.96	219.07	0.03	17.6	0.0	8029.8	1864.9
27	1.42	11.0	1.45	8237.23	439.04	219.11	0.03	17.6	0.0	8029.0	1865.5
28	1.14	11.3	1.16	6600.56	351.81	175.57	0.03	17.6	0.0	6432.3	1495.0
29	1.7	11.7	1.74	9842.13	524.59	261.8	0.03	17.6	0.0	9589.2	2229.6
30	0.74	12.0	0.76	4271.13	227.65	113.61	0.03	17.6	0.0	4160.8	968.0
31	2.36	12.5	2.42	13585.08	724.09	361.36	0.03	17.6	0.0	13232.1	3080.8
32	1.16	12.9	1.19	6651.23	354.51	176.92	0.03	17.6	0.0	6477.7	1509.6
33	1.0	13.2	1.03	5730.9	305.46	152.44	0.03	17.6	0.0	5581.3	1301.0
34	1.84	13.6	1.89	10393.8	553.99	276.48	0.03	17.6	0.0	10121.5	2365.3
35	0.72	14.0	0.74	3981.39	212.21	105.91	0.03	17.6	0.0	3876.5	909.3
36	2.38	14.4	2.46	12836.52	684.19	341.45	0.03	17.6	0.0	12497.0	2944.3
37	1.16	14.9	1.2	6045.64	322.23	160.81	0.03	17.6	0.0	5884.8	1394.9
38	1.31	15.2	1.36	6630.64	353.41	176.38	0.03	17.6	0.0	6453.3	1538.1
39	1.53	15.6	1.59	7421.71	395.58	197.42	0.03	17.6	0.0	7221.4	1734.7

40	1.02	16.0	1.06	4741.68	252.73	126.13	0.03	17.6	0.0	4612.3	1117.4
41	1.82	16.4	1.9	7967.76	424.68	211.94	0.03	17.6	0.0	7746.6	1899.1
42	0.83	16.8	0.87	3415.56	182.05	90.85	0.03	17.6	0.0	3318.7	824.7
43	2.01	17.2	2.1	7581.05	404.07	201.66	0.03	17.6	0.0	7358.7	1863.8
44	0.84	17.6	0.88	2866.98	152.81	76.26	0.03	17.6	0.0	2778.8	721.4
45	2.0	18.0	2.1	5989.79	319.26	159.33	0.03	17.6	0.0	5792.3	1555.6
46	1.07	18.4	1.13	2701.15	143.97	71.85	0.03	17.6	0.0	2601.9	735.7
47	1.77	18.8	1.87	3600.57	191.91	95.78	0.03	17.6	0.0	3446.6	1048.3
48	1.56	19.3	1.65	2229.55	118.83	59.31	0.03	17.6	0.0	2102.5	741.8
49	1.28	19.7	1.36	1112.45	59.29	29.59	0.03	17.6	0.0	1013.9	468.7
50	1.42	20.0	1.51	433.38	23.1	11.53	0.03	17.6	0.0	328.3	364.7



VERIFICA DI STABILITÀ PRE-OPERAM IN CONDIZIONI DI SATURAZIONE

Analisi di stabilità dei pendii con BISHOP

==========

Numero di strati	2.0
Numero dei conci	50.0
Coefficiente di sicurezza [R2]	1.1

Superficie di forma circolare

==========

Maglia dei Centri

==========

Ascissa vertice sinistro inferiore xi	208.51 m
Ordinata vertice sinistro inferiore yi	423.38 m
Ascissa vertice destro superiore xs	316.14 m
Ordinata vertice destro superiore ys	508.18 m
Passo di ricerca	10.0
Numero di celle lungo x	10.0
Numero di celle lungo y	10.0

==========

Coefficienti sismici [N.T.C.] 2018

==========

Dati generali

Descrizione:	
Latitudine:	41.95
Longitudine:	14.77
Tipo di costruzione:	2 - Opere ordinarie
Classe d'uso:	Classe IV
Vita nominale:	50.0 [anni]
Vita di riferimento:	100.0 [anni]

Parametri sismici su sito di riferimento

Categoria sottosuolo:	C
Categoria topografica:	T1

S.L. Stato limite	TR Tempo ritorno [anni]	ag [m/s²]	F0 [-]	TC* [sec]
S.L.O.	60.0	0.55	2.52	0.34
S.L.D.	101.0	0.69	2.53	0.36
S.L.V.	949.0	1.49	2.62	0.43
S.L.C.	1950.0	1.86	2.63	0.46

Coefficienti sismici orizzontali e verticali

Opera: Stabilità dei pendii

S.L. Stato limite	amax [m/s²]	beta [-]	kh [-]	kv [sec]
S.L.O.	0.825	0.2	0.0168	0.0084
S.L.D.	1.035	0.2	0.0211	0.0106
S.L.V.	2.1771	0.24	0.0533	0.0266
S.L.C.	2.6053	0.24	0.0638	0.0319

Coefficiente azione sismica orizzontale	0.0533
Coefficiente azione sismica verticale	0.0266

Vertici profilo

N	X m	y m
1	0.0	219.0
2	32.16	219.5
3	38.47	220.0
4	42.38	220.5
5	45.63	221.0
6	48.59	221.5
7	51.43	222.0
8	54.25	222.5
9	57.08	223.0
10	59.99	223.5
11	63.08	224.0
12	66.4	224.5
13	70.05	225.0
14	74.09	225.5
15	78.6	226.0
16	83.93	226.5
17	90.39	227.0
18	97.47	227.5
19	104.83	228.0
20	111.43	228.5
21	116.73	229.0
22	121.81	229.5
23	127.02	230.0
24	132.53	230.5
25	138.23	231.0
26	143.55	231.5
27	148.6	232.0
28	153.77	232.5
29	159.14	233.0
30	164.65	233.5
31	170.36	234.0
32	176.38	234.5
33	182.78	235.0
34	188.6	235.5
35	193.44	236.0
36	197.39	236.5
37	200.83	237.0
38	203.93	237.5
39	206.86	238.0
40	209.7	238.5
41	212.5	239.0
42	215.23	239.5
43	217.86	240.0
44	220.47	240.5
45	221.1	241.0
46	225.77	241.5
47	228.52	242.0
48	231.34	242.5
49	234.26	243.0
50	237.39	243.5
51	240.89	244.0
52	244.84	244.5
53	249.39	245.0
54	254.51	245.5

55	259.4	246.0
56	263.44	246.5
57	266.81	247.0
58	269.77	247.5
59	272.49	248.0
60	275.02	248.5
61	277.43	249.0
62	279.77	249.5
63	282.14	250.0
64	284.59	250.5
65	287.15	251.0
66	289.98	251.5
67	292.96	252.0
68	295.97	252.5
69	298.96	253.0
70	301.94	253.5
71	304.87	254.0
72	307.65	254.5
73	310.21	255.0
74	312.65	255.5
75	315.01	256.0
76	317.17	256.5
77	319.73	257.0
78	322.11	257.5
79	324.58	258.0
80	327.13	258.5
81	329.78	259.0
82	332.63	259.5
83	335.7	260.0
84	339.03	260.5
85	342.65	261.0
86	346.49	261.5
87	350.6	262.0
88	355.22	262.5
89	360.7	263.0
90	367.98	263.5
91	422.21	263.5

Falda

Nr.	X m	y m
1	0.0	219.0
2	32.16	219.5
3	38.47	220.0
4	42.38	220.5
5	45.63	221.0
6	48.59	221.5
7	51.43	222.0
8	54.25	222.5
9	57.08	223.0
10	59.99	223.5
11	63.08	224.0
12	66.4	224.5
13	70.05	225.0
14	74.09	225.5
15	78.6	226.0
16	83.93	226.5
17	90.39	227.0
18	97.47	227.5

19	104.83	228.0
20	111.43	228.5
21	116.73	229.0
22	121.81	229.5
23	127.02	230.0
24	132.53	230.5
25	138.23	231.0
26	143.55	231.5
27	148.6	232.0
28	153.77	232.5
29	159.14	233.0
30	164.65	233.5
31	170.36	234.0
32	176.38	234.5
33	182.78	235.0
34	188.6	235.5
35	193.44	236.0
36	197.39	236.5
37	200.83	237.0
38	203.93	237.5
39	206.86	238.0
40	209.7	238.5
41	212.5	239.0
42	215.23	239.5
43	217.86	240.0
44	220.47	240.5
45	221.1	241.0
46	225.77	241.5
47	228.52	242.0
48	231.34	242.5
49	234.26	243.0
50	237.39	243.5
51	240.89	244.0
52	244.84	244.5
53	249.39	245.0
54	254.51	245.5
55	259.4	246.0
56	263.44	246.5
57	266.81	247.0
58	269.77	247.5
59	272.49	248.0
60	275.02	248.5
61	277.43	249.0
62	279.77	249.5
63	282.14	250.0
64	284.59	250.5
65	287.15	251.0
66	289.98	251.5
67	292.96	252.0
68	295.97	252.5
69	298.96	253.0
70	301.94	253.5
71	304.87	254.0
72	307.65	254.5
73	310.21	255.0
74	312.65	255.5
75	315.01	256.0
76	317.17	256.5
77	319.73	257.0

78	322.11	257.5
79	324.58	258.0
80	327.13	258.5
81	329.78	259.0
82	332.63	259.5
83	335.7	260.0
84	339.03	260.5
85	342.65	261.0
86	346.49	261.5
87	350.6	262.0
88	355.22	262.5
89	360.7	263.0
90	367.98	263.5
91	422.21	263.5

Vertici strato 1

N	X m	y m
1	0.0	216.0
2	32.16	216.5
3	61.27	218.34
4	137.96	224.65
5	194.25	231.58
6	221.82	236.5
7	299.31	249.22
8	367.98	261.5
9	422.21	262.0

Stratigrafia

c: coesione; Fi: Angolo di attrito; G: Peso Specifico; Gs: Peso Specifico Saturo

Strato	c (kg/cm²)	Fi (°)	G (Kg/m³)	Gs (Kg/m³)	Litologia
1	0.04	21.6	1880	1940	
2	0.28	22	2110	2130	

Risultati analisi pendio [A2+M2+R2]

==========

Fs minimo individuato	0.91
Ascissa centro superficie	262.33 m
Ordinata centro superficie	491.22 m
Raggio superficie	244.05 m

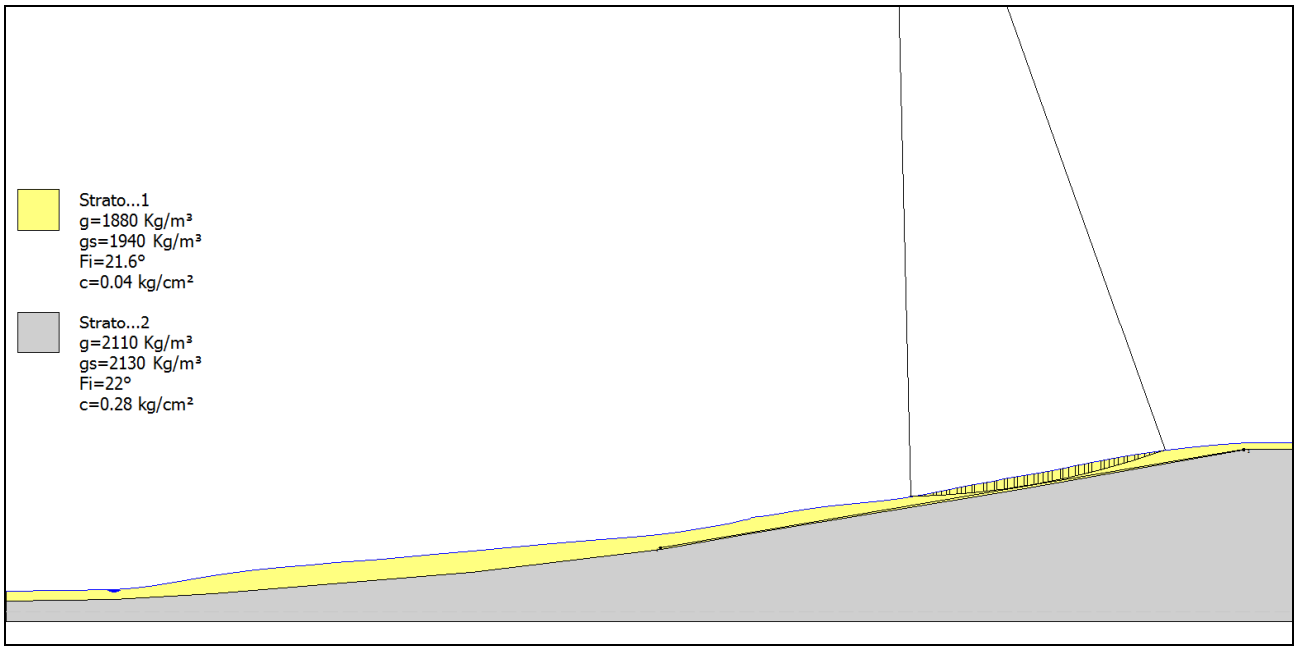
==========

B: Larghezza del concio; Alfa: Angolo di inclinazione della base del concio; Li: Lunghezza della base del concio; Wi: Peso del concio ; Ui: Forze derivanti dalle pressioni neutre; Ni: forze agenti normalmente alla direzione di scivolamento; Ti: forze agenti parallelamente alla superficie di scivolamento; Fi: Angolo di attrito; c: coesione.

Analisi dei conci. Superficie...xc = 262.325 yc = 491.222 Rc = 244.049 Fs=0.9134

Nr.	B m	Alfa (°)	Li m	Wi (Kg)	Kh•Wi (Kg)	Kv•Wi (Kg)	c (kg/cm²)	Fi (°)	Ui (Kg)	N'i (Kg)	Ti (Kg)
1	1.5	1.6	1.51	314.11	16.74	8.36	0.03	17.6	107.6	136.5	574.6
2	1.51	1.9	1.51	465.74	24.82	12.39	0.03	17.6	327.6	443.0	683.7
3	1.21	2.2	1.21	599.51	31.95	15.95	0.03	17.6	528.1	575.5	623.0
4	2.53	2.7	2.53	3969.04	211.55	105.58	0.03	17.6	808.7	1853.5	1530.0
5	0.79	3.1	0.79	1614.86	86.07	42.96	0.03	17.6	1056.9	754.7	538.0
6	1.62	3.4	1.63	3900.5	207.9	103.75	0.03	17.6	1239.2	1822.7	1201.4

7	1.39	3.7	1.4	3958.54	210.99	105.3	0.03	17.6	1463.3	1848.7	1130.6
8	0.95	4.0	0.95	2998.51	159.82	79.76	0.03	17.6	1634.6	1399.4	817.3
9	2.37	4.4	2.38	8572.14	456.9	228.02	0.03	17.6	1864.4	3995.8	2218.3
10	1.21	4.8	1.21	4914.28	261.93	130.72	0.03	17.6	2094.1	2287.2	1218.4
11	1.24	5.1	1.25	5385.74	287.06	143.26	0.03	17.6	2238.2	2503.8	1304.5
12	1.78	5.4	1.78	8268.38	440.7	219.94	0.03	17.6	2399.2	3838.1	1956.0
13	0.78	5.7	0.79	1858.84	99.08	49.45	0.03	17.6	2523.8	1778.4	892.6
14	2.83	6.2	2.85	14613.59	778.9	388.72	0.03	17.6	2661.7	6760.7	3341.6
15	0.91	6.6	0.92	4914.43	261.94	130.72	0.03	17.6	2778.6	2268.7	1108.2
16	2.07	7.0	2.08	11440.36	609.77	304.31	0.03	17.6	2851.2	5272.0	2558.1
17	0.95	7.3	0.96	5363.0	285.85	142.66	0.03	17.6	2914.4	2466.9	1190.5
18	2.06	7.7	2.08	11862.54	632.27	315.54	0.03	17.6	2966.2	5446.9	2617.5
19	0.96	8.0	0.96	5577.01	297.25	148.35	0.03	17.6	3009.1	2556.2	1224.4
20	2.03	8.4	2.06	12012.52	640.27	319.53	0.03	17.6	3043.3	5496.1	2626.3
21	0.98	8.8	0.99	5846.88	311.64	155.53	0.03	17.6	3068.5	2670.3	1274.1
22	2.0	9.1	2.02	11954.31	637.16	317.98	0.03	17.6	3084.4	5449.8	2598.6
23	1.02	9.5	1.03	6113.27	325.84	162.61	0.03	17.6	3092.4	2781.8	1326.5
24	1.91	9.8	1.94	11469.01	611.3	305.08	0.03	17.6	3093.6	5209.7	2485.9
25	1.11	10.2	1.12	6629.82	353.37	176.35	0.03	17.6	3090.4	3006.0	1436.0
26	1.67	10.5	1.7	10025.57	534.36	266.68	0.03	17.6	3086.8	4538.2	2170.2
27	1.34	10.9	1.37	8032.97	428.16	213.68	0.03	17.6	3083.9	3629.8	1737.6
28	1.22	11.2	1.24	7284.92	388.29	193.78	0.03	17.6	3084.7	3287.1	1574.5
29	2.44	11.6	2.49	14604.43	778.42	388.48	0.03	17.6	3085.3	6576.5	3153.1
30	0.87	12.0	0.89	5188.52	276.55	138.01	0.03	17.6	3081.5	2332.2	1119.6
31	1.49	12.3	1.53	8908.51	474.82	236.97	0.03	17.6	3077.6	3999.1	1921.7
32	2.16	12.7	2.21	12908.64	688.03	343.37	0.03	17.6	3080.5	5784.0	2781.4
33	0.87	13.1	0.9	5197.17	277.01	138.24	0.03	17.6	3068.2	2324.9	1120.2
34	1.69	13.4	1.73	9872.75	526.22	262.62	0.03	17.6	3016.9	4408.6	2136.2
35	1.33	13.8	1.37	7629.09	406.63	202.93	0.03	17.6	2956.9	3399.6	1658.5
36	1.05	14.1	1.08	5932.19	316.19	157.8	0.03	17.6	2912.2	2639.1	1294.3
37	2.47	14.5	2.55	13536.61	721.5	360.07	0.03	17.6	2825.0	6005.6	2976.2
38	1.01	14.9	1.04	5300.57	282.52	141.0	0.03	17.6	2718.0	2344.4	1177.4
39	1.54	15.2	1.6	7866.73	419.3	209.26	0.03	17.6	2625.0	3470.5	1764.2
40	1.47	15.6	1.53	7139.42	380.53	189.91	0.03	17.6	2500.0	3138.5	1623.7
41	1.18	15.9	1.22	5430.88	289.47	144.46	0.03	17.6	2376.5	2378.9	1254.0
42	1.84	16.3	1.92	7898.3	420.98	210.09	0.03	17.6	2214.0	3442.4	1864.8
43	1.01	16.6	1.06	4008.35	213.64	106.62	0.03	17.6	2043.4	1736.8	971.9
44	2.01	17.0	2.1	7159.2	381.59	190.43	0.03	17.6	1839.9	3076.7	1801.6
45	1.06	17.4	1.12	3335.42	177.78	88.72	0.03	17.6	1615.4	1417.4	882.2
46	1.95	17.7	2.05	5195.15	276.9	138.19	0.03	17.6	1371.5	2172.2	1471.4
47	1.38	18.1	1.45	2892.49	154.17	76.94	0.03	17.6	1082.4	1174.9	915.2
48	1.64	18.5	1.73	2541.55	135.46	67.61	0.03	17.6	799.1	981.8	946.1
49	1.51	18.9	1.59	1414.2	75.38	37.62	0.03	17.6	483.3	476.4	723.8
50	1.51	19.3	1.6	489.03	26.07	13.01	0.03	17.6	167.1	49.2	576.9


Strato...1
g=1880 Kg/m³
gs=1940 Kg/m³
Fi=21.6°
c=0.04 kg/cm²
Strato...2
g=2110 Kg/m³
gs=2130 Kg/m³
Fi=22°
c=0.28 kg/cm²