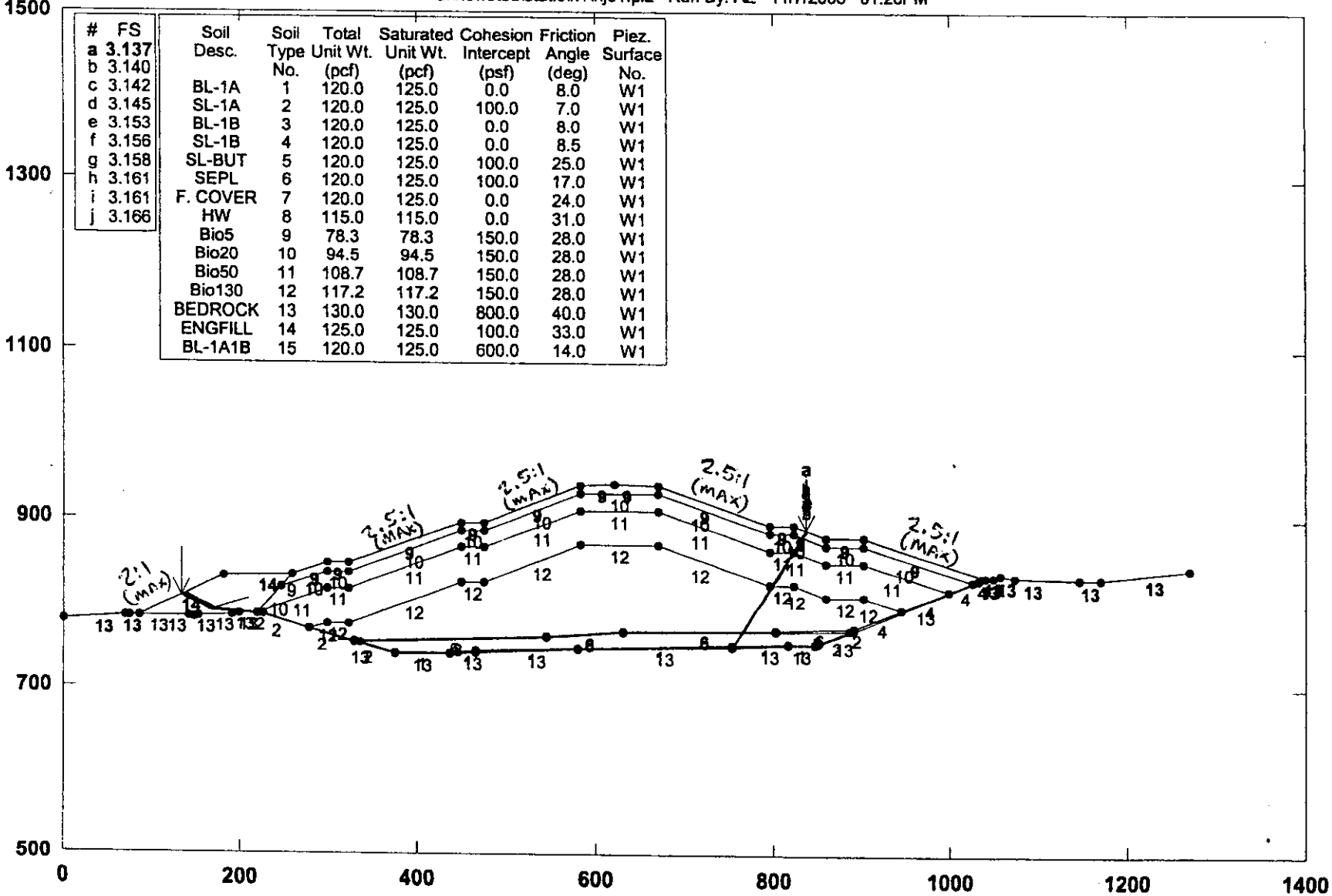
CROSS SECTION H-H'

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj01.pl2 Run By: AZ 11/7/2003 01:26PM

#	FS
a	3.137
b	3.140
c	3.142
d	3.145
e	3.153
f	3.156
g	3.158
h	3.161
i	3.161
j	3.166

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=3.137

Safety Factors Are Calculated By The Simplified Janbu Method

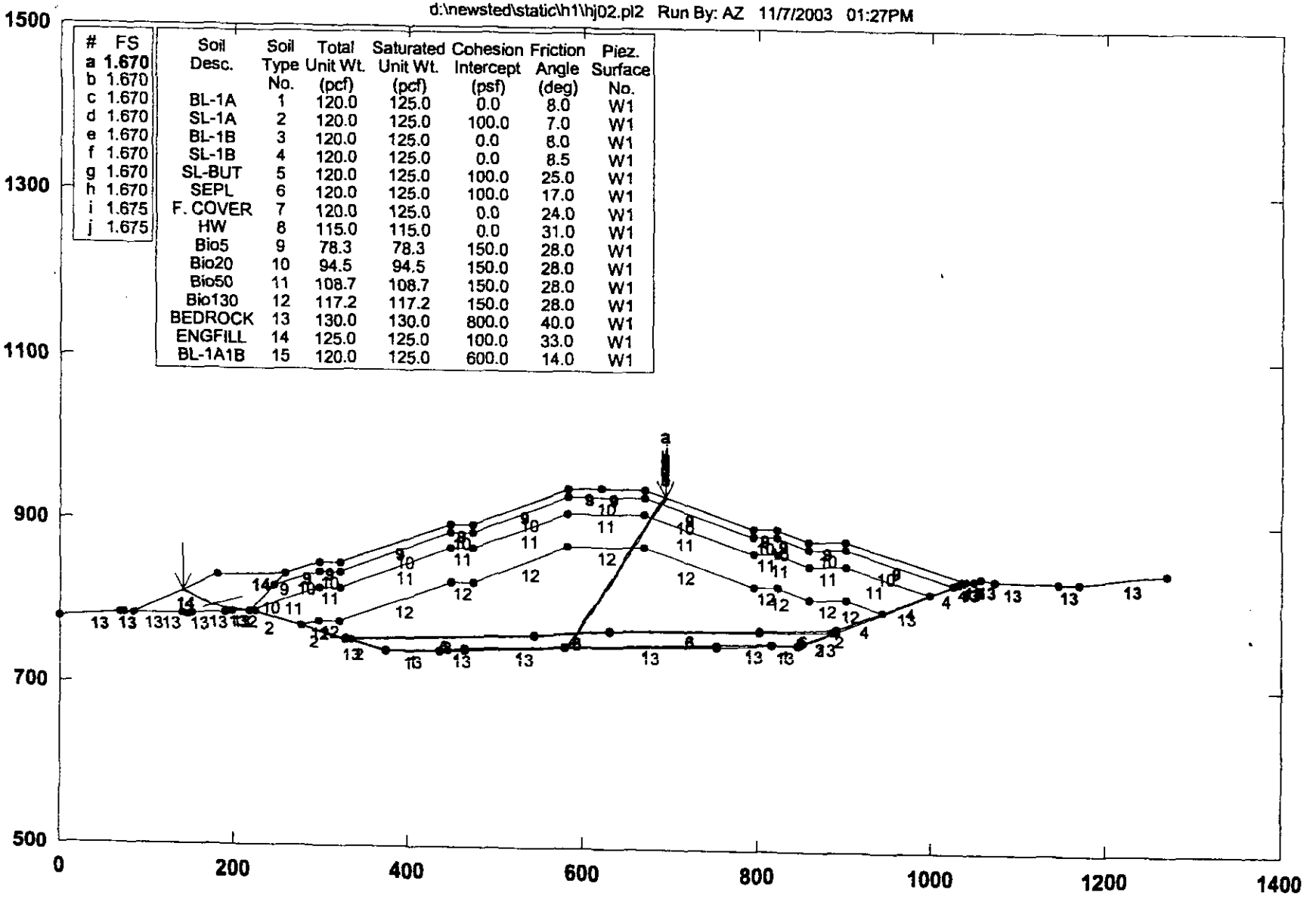
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj02.pl2 Run By: AZ 11/7/2003 01:27PM

#	FS
a	**1.670**
b	1.670
c	1.670
d	1.670
e	1.670
f	1.670
g	1.670
h	1.670
i	1.675
j	1.675

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.670

Safety Factors Are Calculated By The Simplified Janbu Method

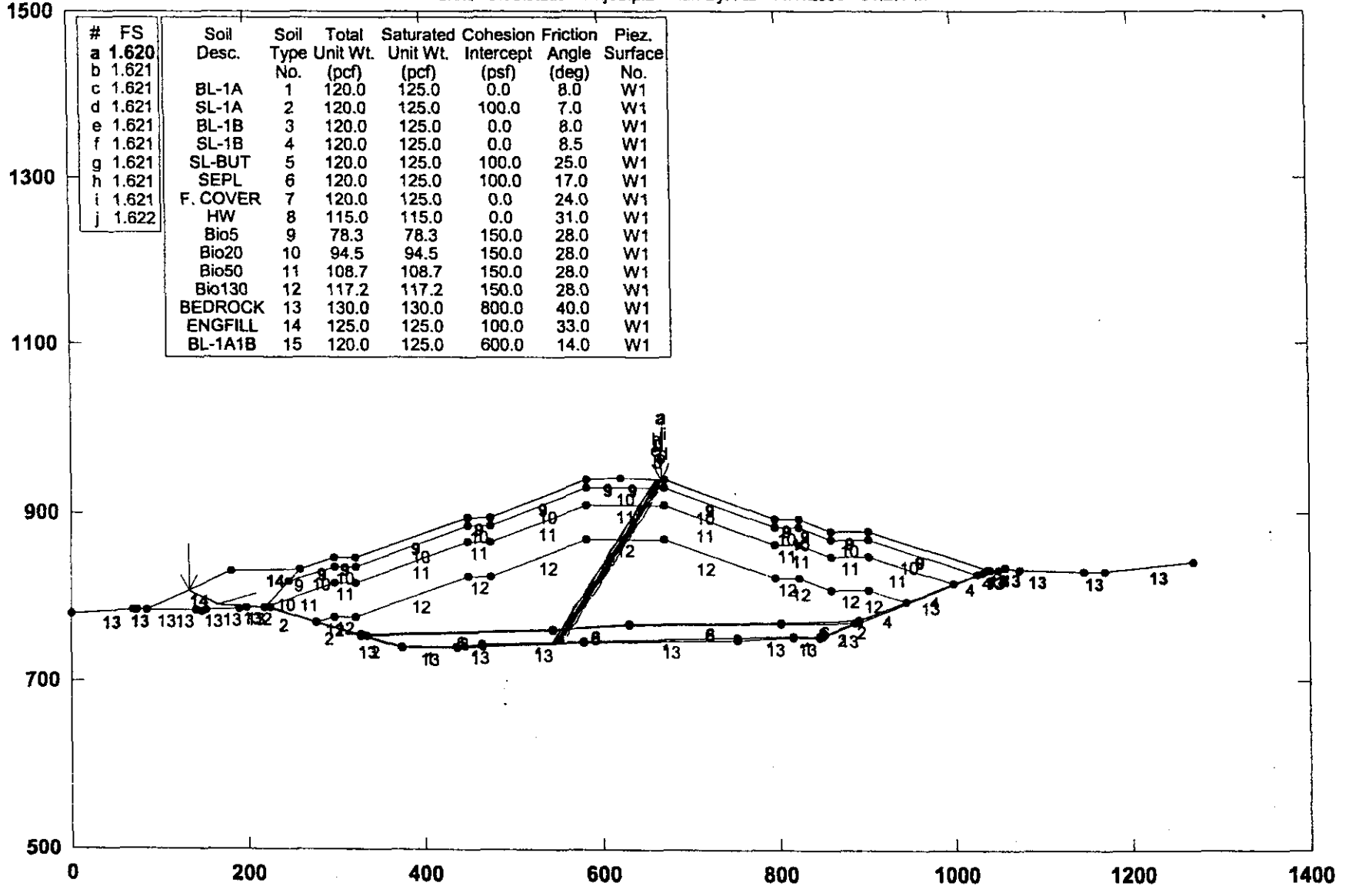
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj03.pl2 Run By: AZ 11/7/2003 01:27PM

#	FS
a	**1.620**
b	1.621
c	1.621
d	1.621
e	1.621
f	1.621
g	1.621
h	1.621
i	1.621
j	1.622

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.620

Safety Factors Are Calculated By The Simplified Janbu Method

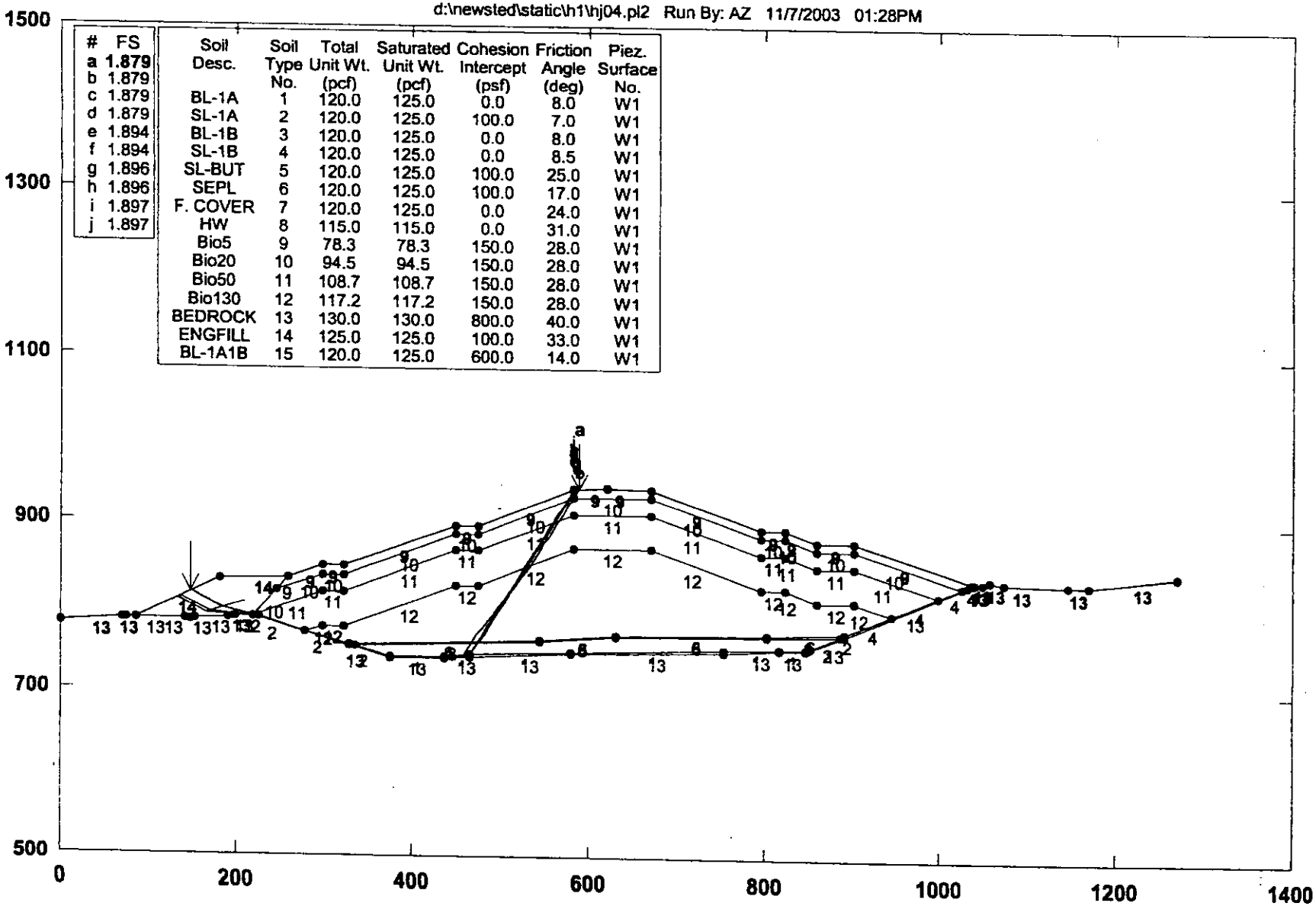
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj04.pl2 Run By: AZ 11/7/2003 01:28PM

#	FS
a	1.879
b	1.879
c	1.879
d	1.879
e	1.894
f	1.894
g	1.896
h	1.896
i	1.897
j	1.897

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.879

Safety Factors Are Calculated By The Simplified Janbu Method

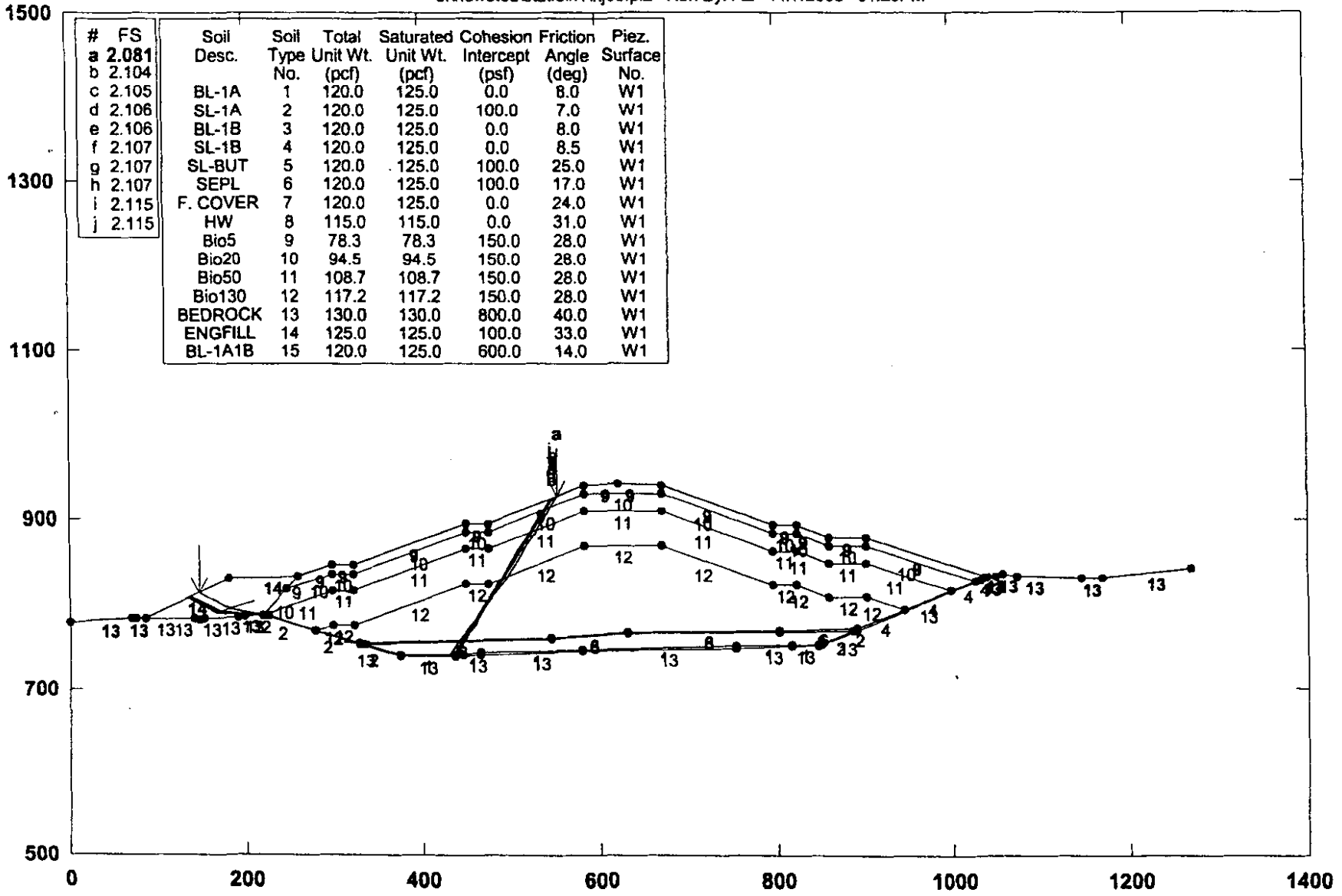
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj05.pl2 Run By: AZ 11/7/2003 01:29PM

#	FS
a	2.081
b	2.104
c	2.105
d	2.106
e	2.106
f	2.107
g	2.107
h	2.107
i	2.115
j	2.115

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.081

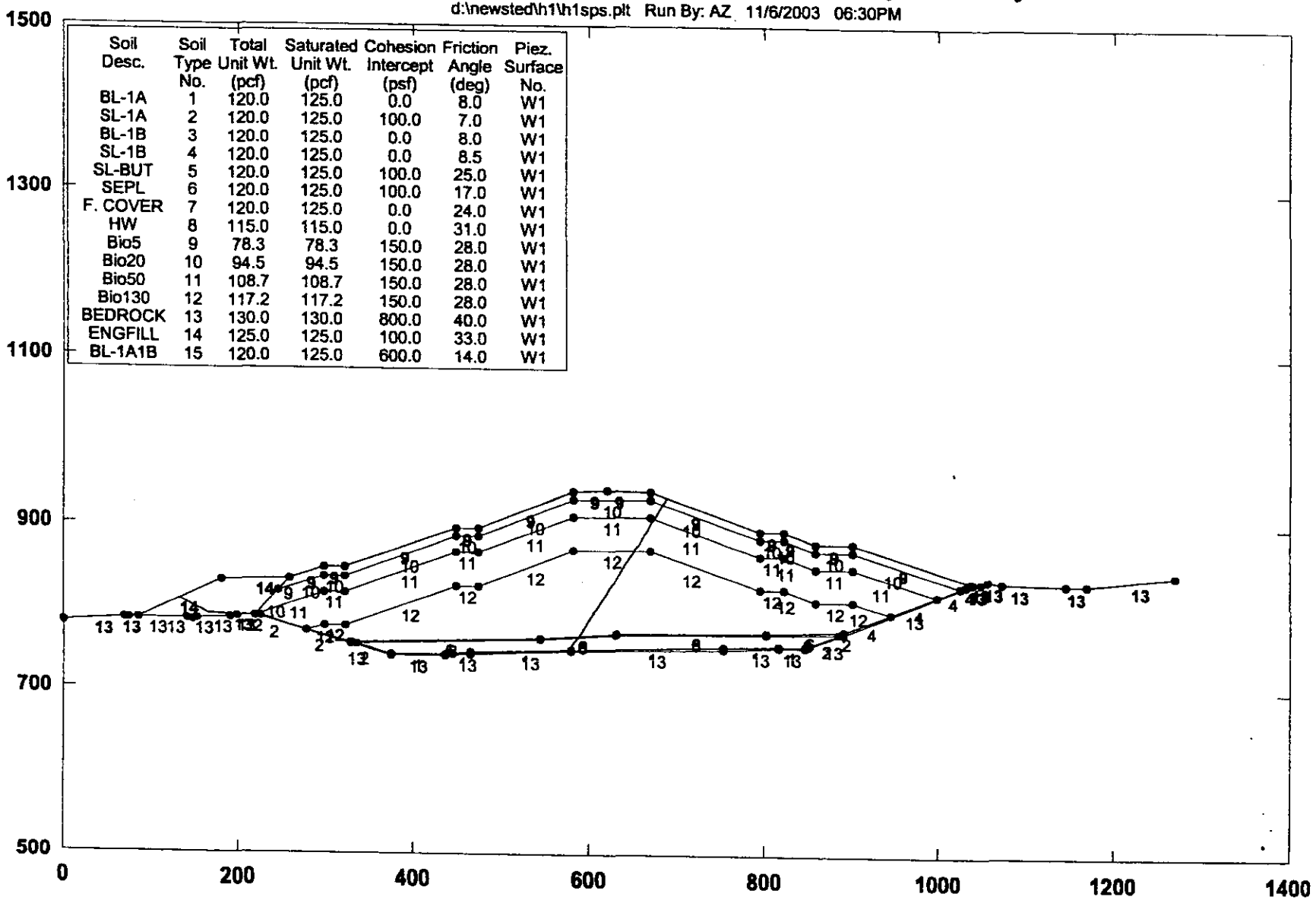
Safety Factors Are Calculated By The Simplified Janbu Method

GSTABL7

KHF H-H' Failure Plane 1 Spencer Static Slope Stability

d:\newsted\h1\h1sps.plt Run By: AZ 11/6/2003 06:30PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.943

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

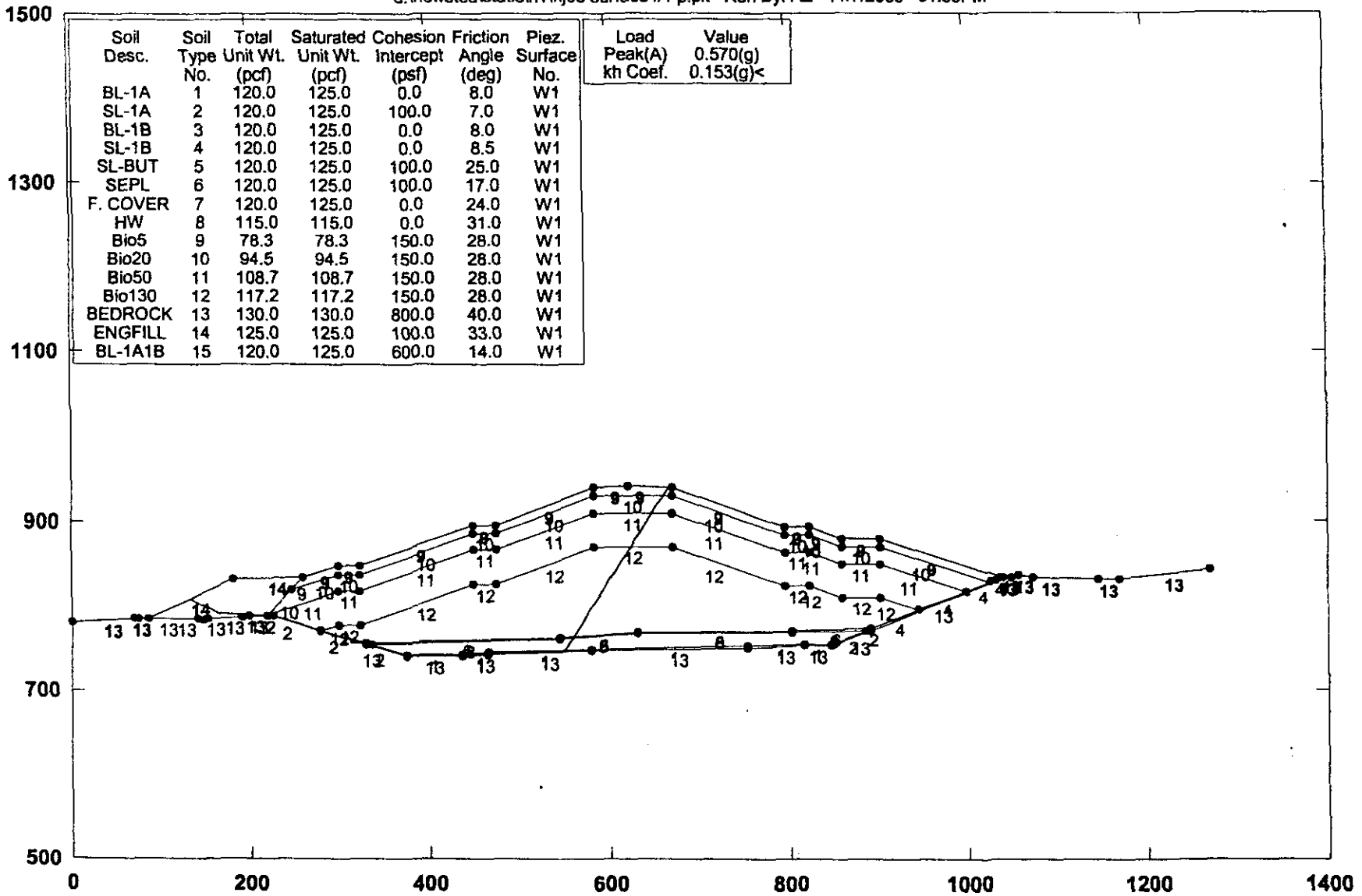
GSTABL7

KHF H-H' Failure Plane I Spencer Pseudo-Static Slope Stability

d:\newsted\static\h1\hj03 surface #1 p.plt Run By: AZ 11/7/2003 01:33PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.153(g)<



GSTABL7 v.2 FSmin=1.000

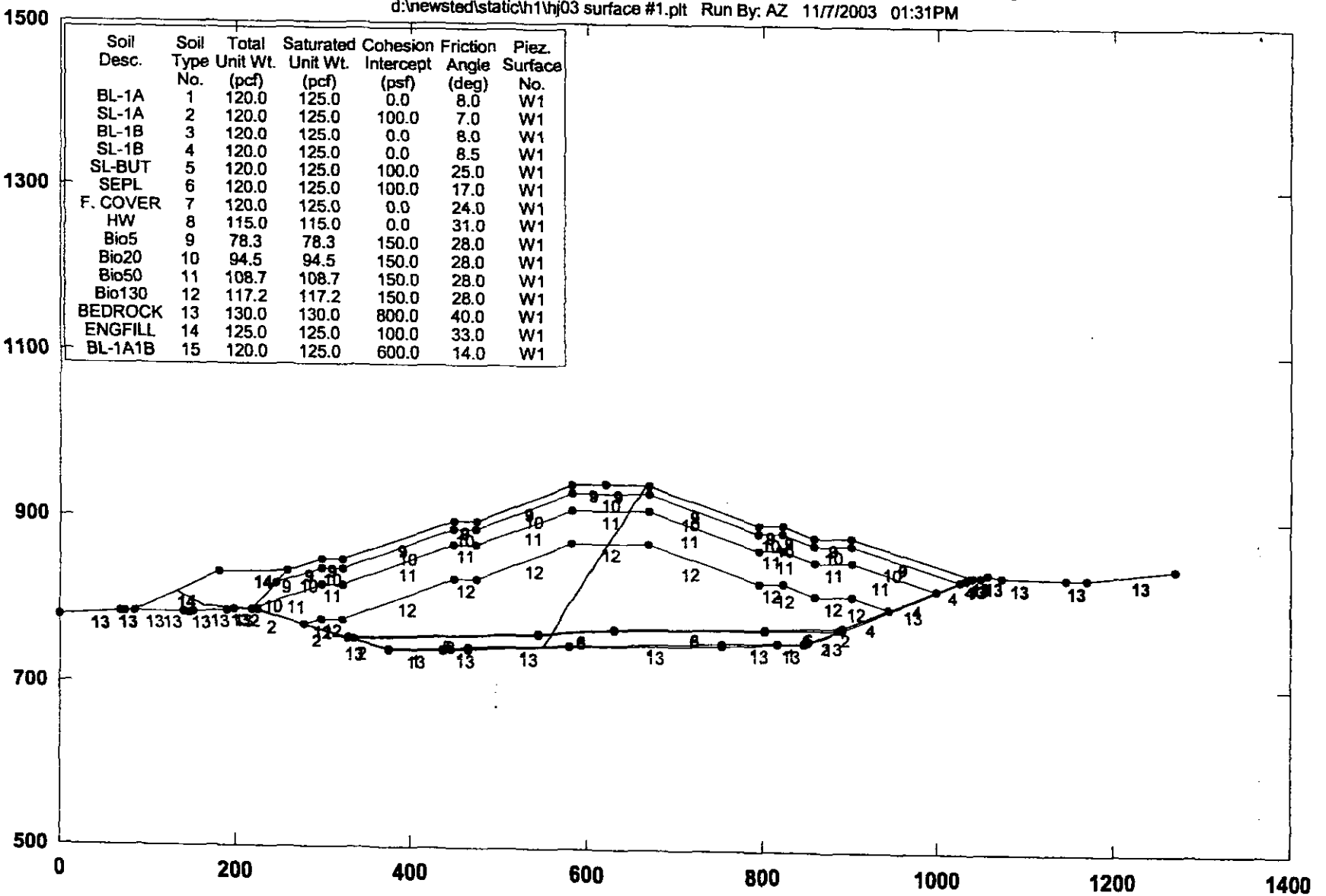
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF H-H' Failure Plane I Spencer Static Slope Stability

d:\newsted\static\h1\hj03 surface #1.plt Run By: AZ 11/7/2003 01:31PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio5	9	78.3	78.3	150.0	28.0	W1
Bio20	10	94.5	94.5	150.0	28.0	W1
Bio50	11	108.7	108.7	150.0	28.0	W1
Bio130	12	117.2	117.2	150.0	28.0	W1
BEDROCK	13	130.0	130.0	800.0	40.0	W1
ENGFILL	14	125.0	125.0	100.0	33.0	W1
BL-1A1B	15	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.941

Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

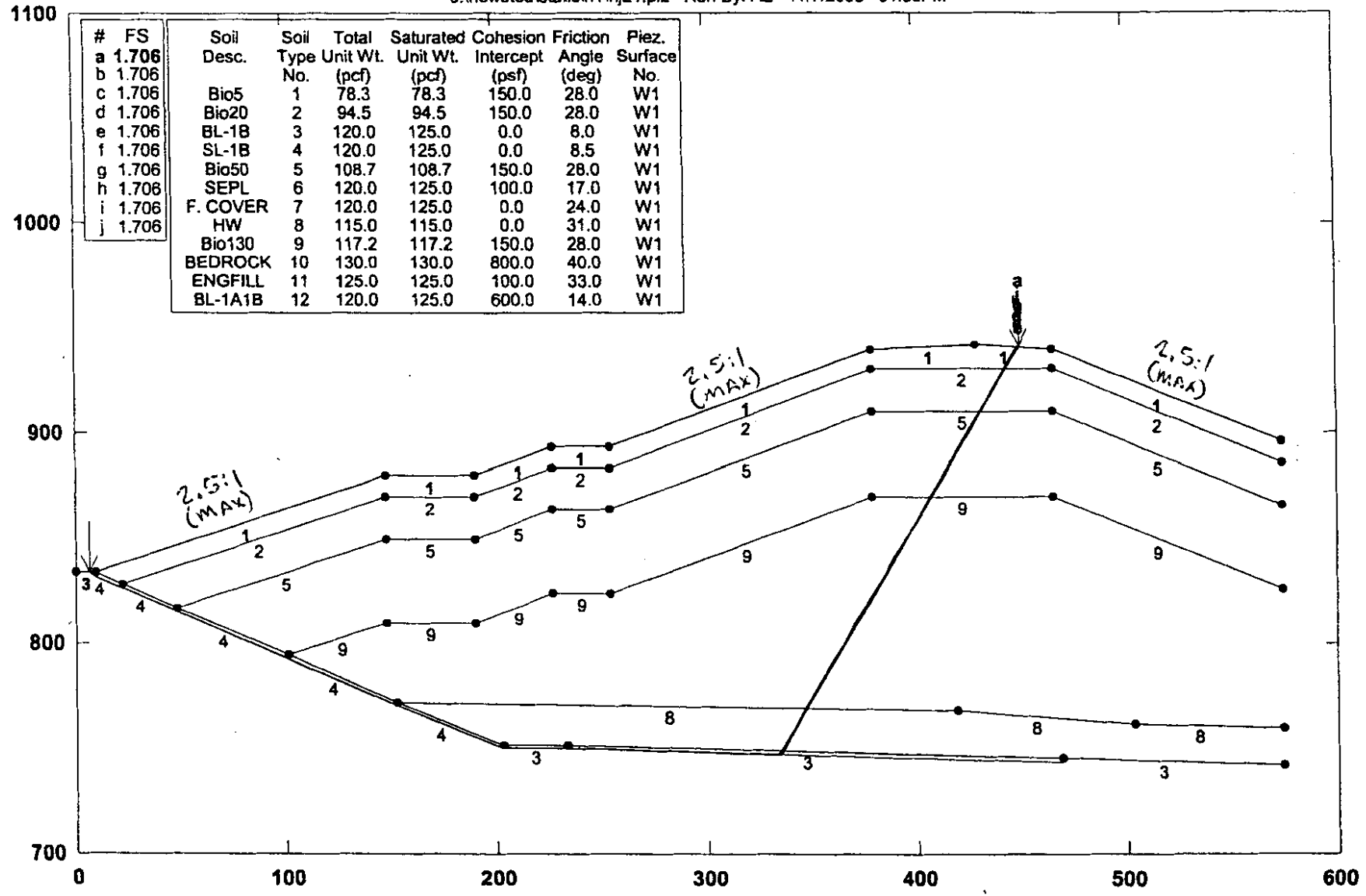
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj21.pl2 Run By: AZ 11/7/2003 01:36PM

#	FS
a	1.706
b	1.706
c	1.706
d	1.706
e	1.706
f	1.706
g	1.706
h	1.706
i	1.706
j	1.706

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=1.706

Safety Factors Are Calculated By The Simplified Janbu Method

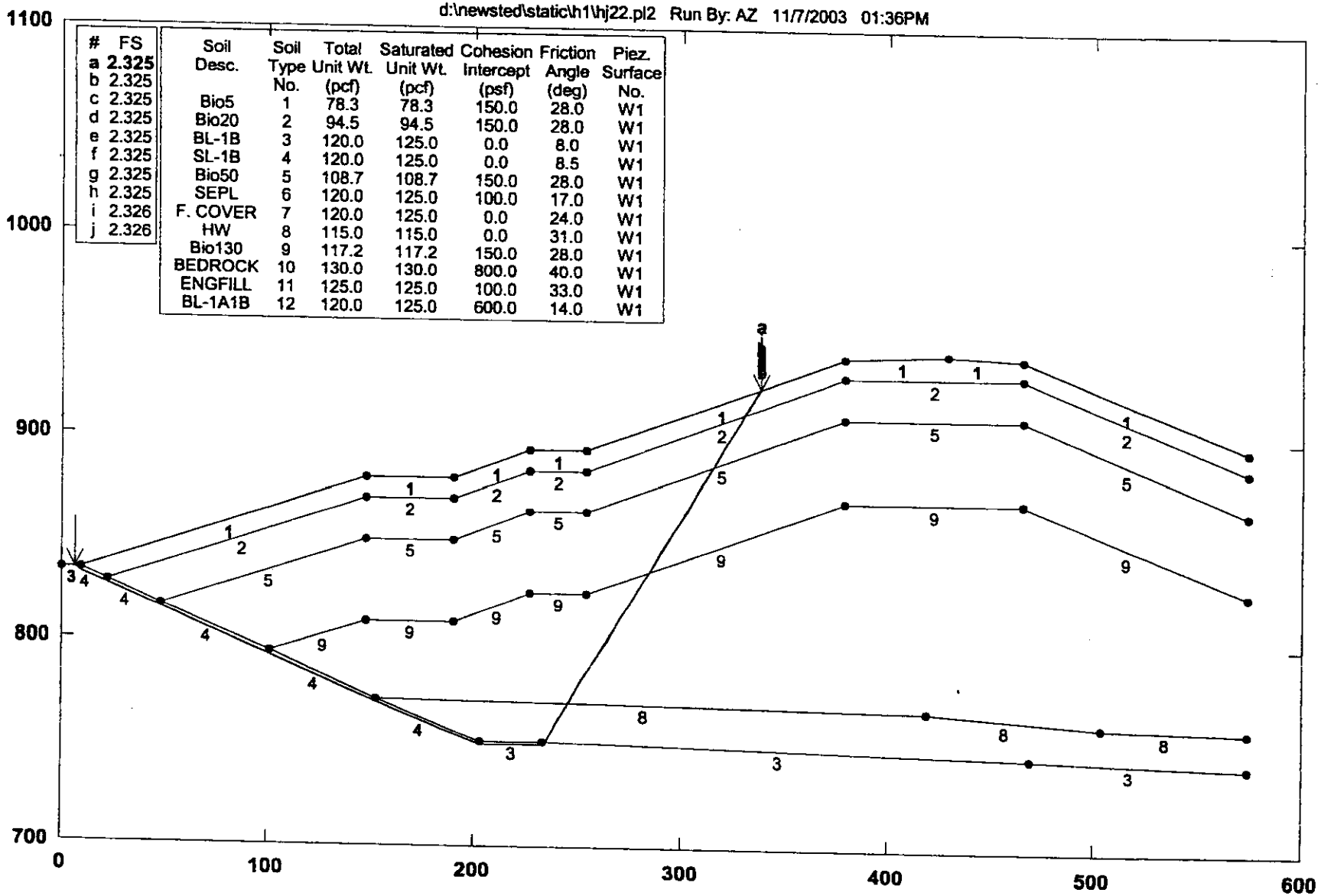
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj22.pl2 Run By: AZ 11/7/2003 01:36PM

#	FS
a	**2.325**
b	2.325
c	2.325
d	2.325
e	2.325
f	2.325
g	2.325
h	2.325
i	2.326
j	2.326

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.325

Safety Factors Are Calculated By The Simplified Janbu Method

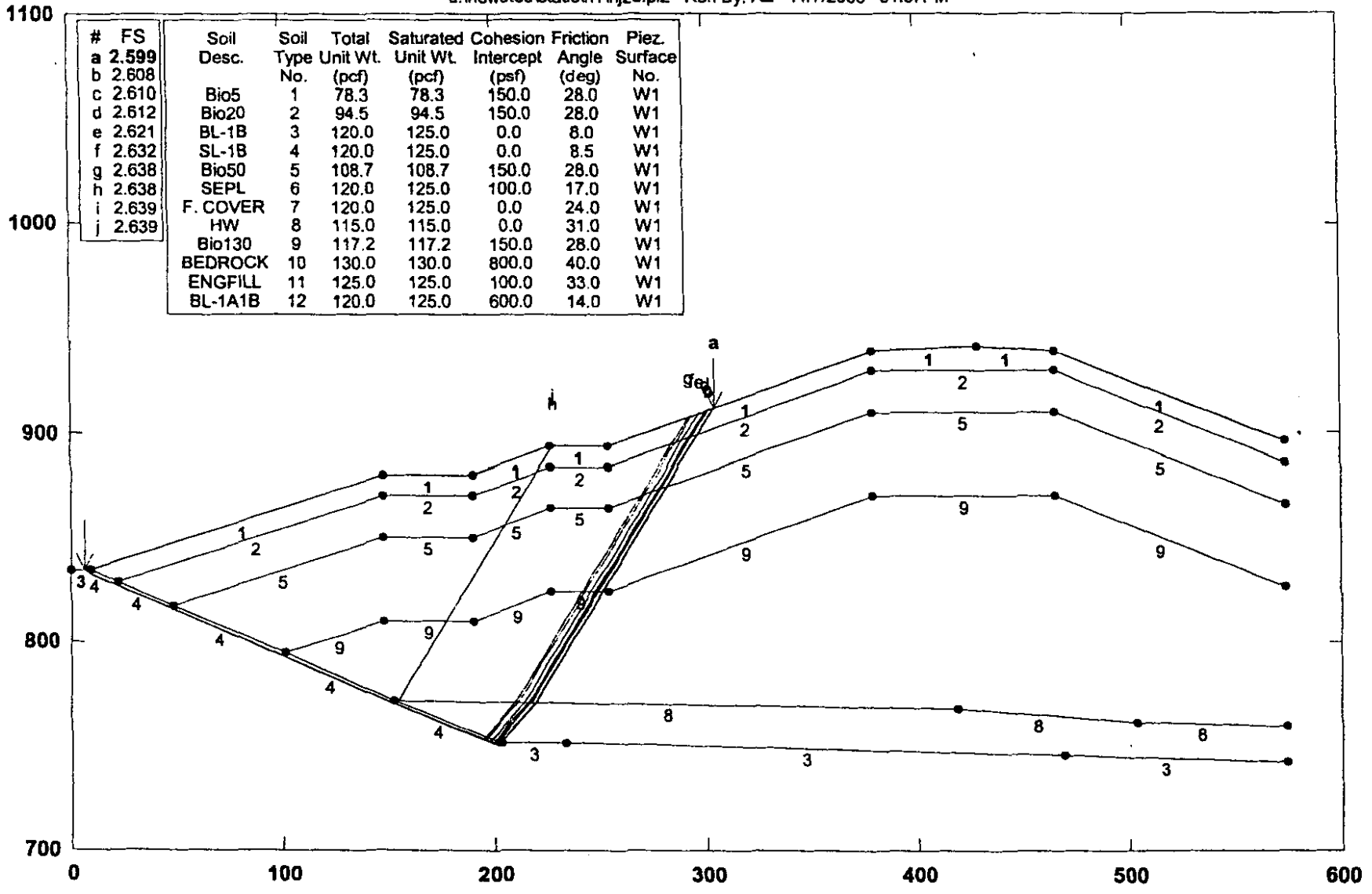
GSTABL7

KHF H-H' Static Janbu Block Search

d:\newsted\static\h1\hj23.pl2 Run By: AZ 11/7/2003 01:37PM

#	FS
a	2.599
b	2.608
c	2.610
d	2.612
e	2.621
f	2.632
g	2.638
h	2.638
i	2.639
j	2.639

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.599

Safety Factors Are Calculated By The Simplified Janbu Method

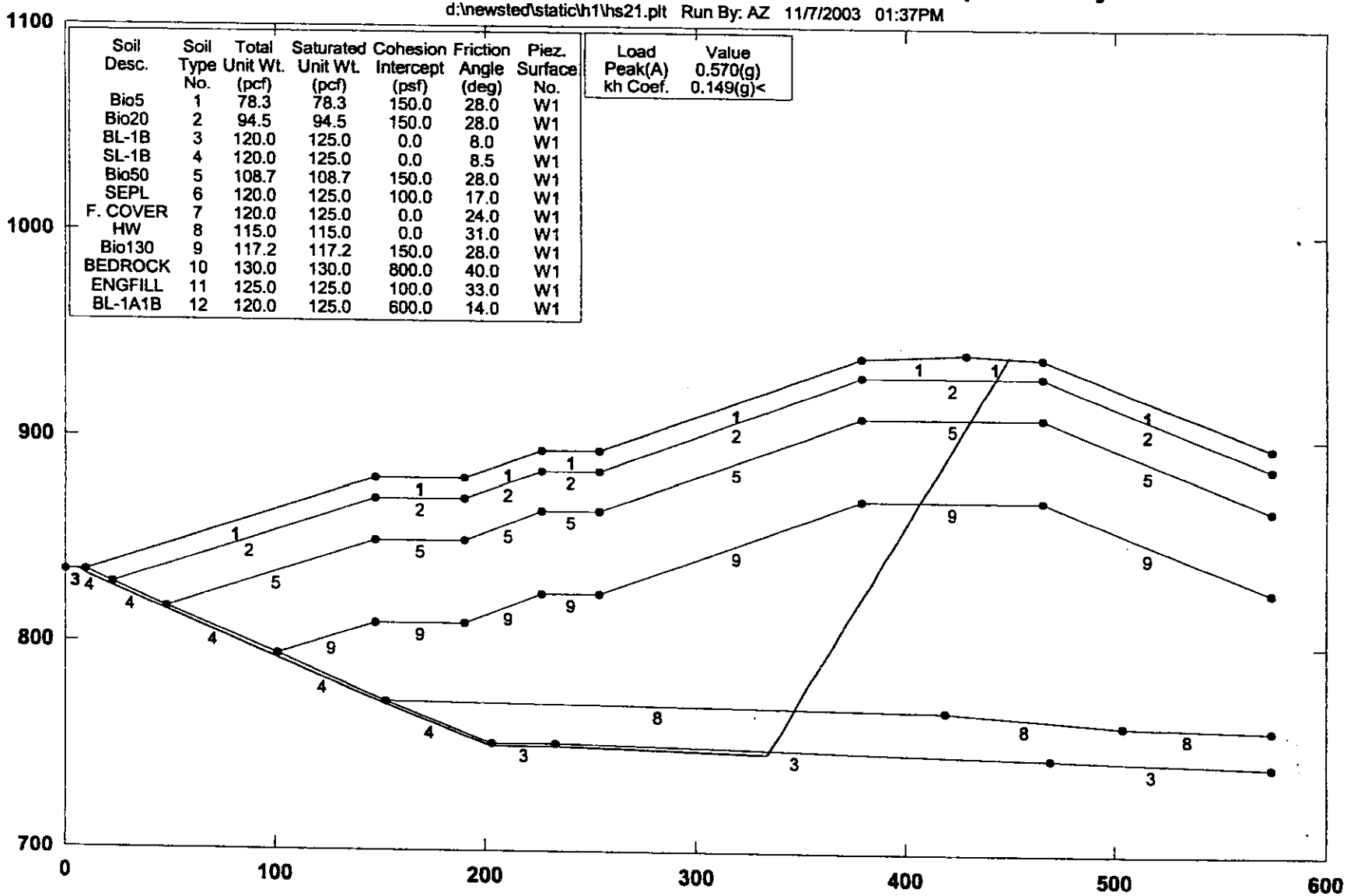
GSTABL7

KHF H-H' Failure Plane II Spencer Pseudo-Static Slope Stability

d:\newsted\static\h1\hs21.plt Run By: AZ 11/7/2003 01:37PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.149(g)<



GSTABL7 v.2 FSmin=1.001

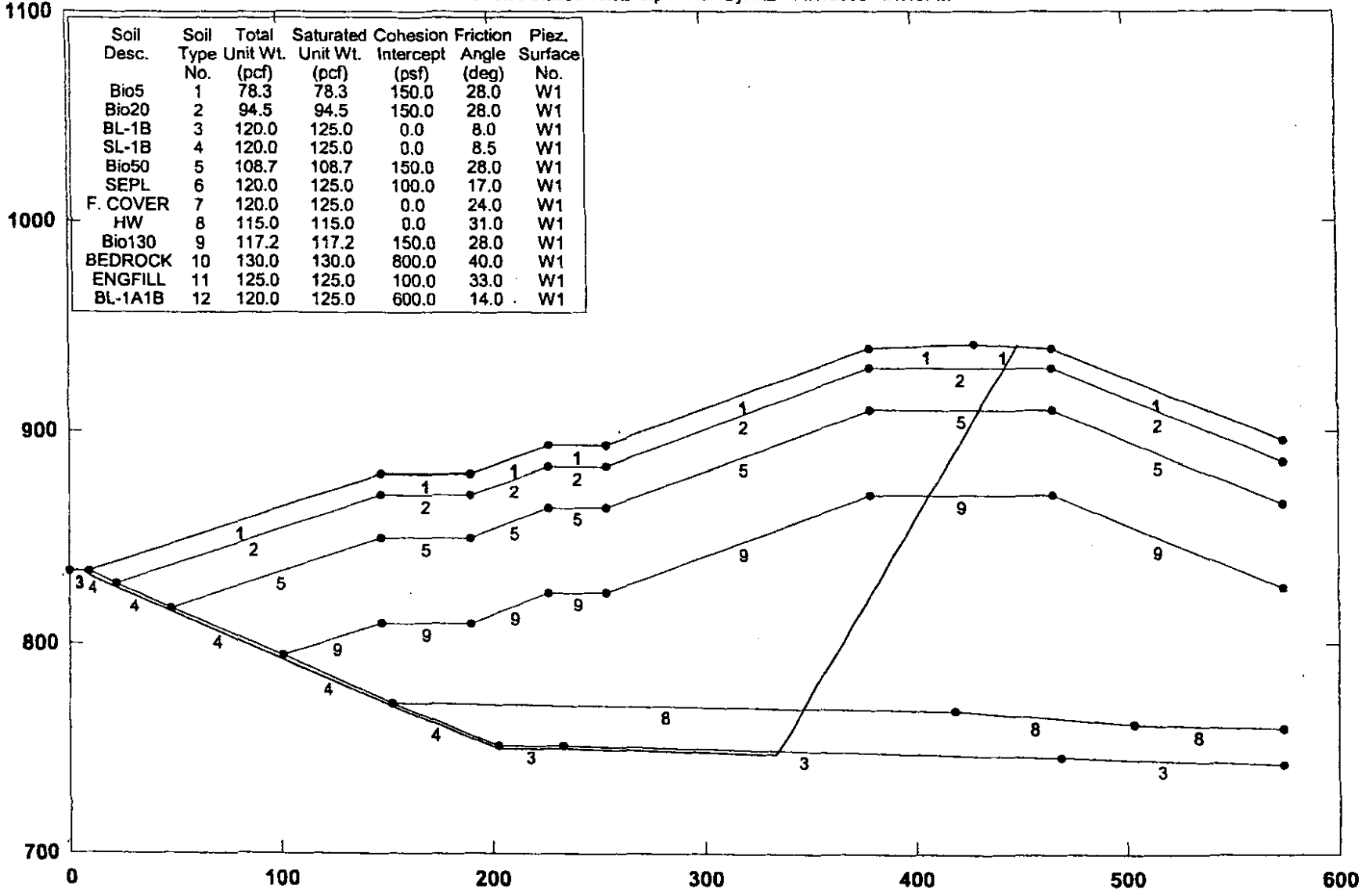
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF H-H' Failure Plane II Spencer Static Slope Stability

d:\newsted\static\h1\hs21s.plt Run By: AZ 11/7/2003 01:40PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.342

Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

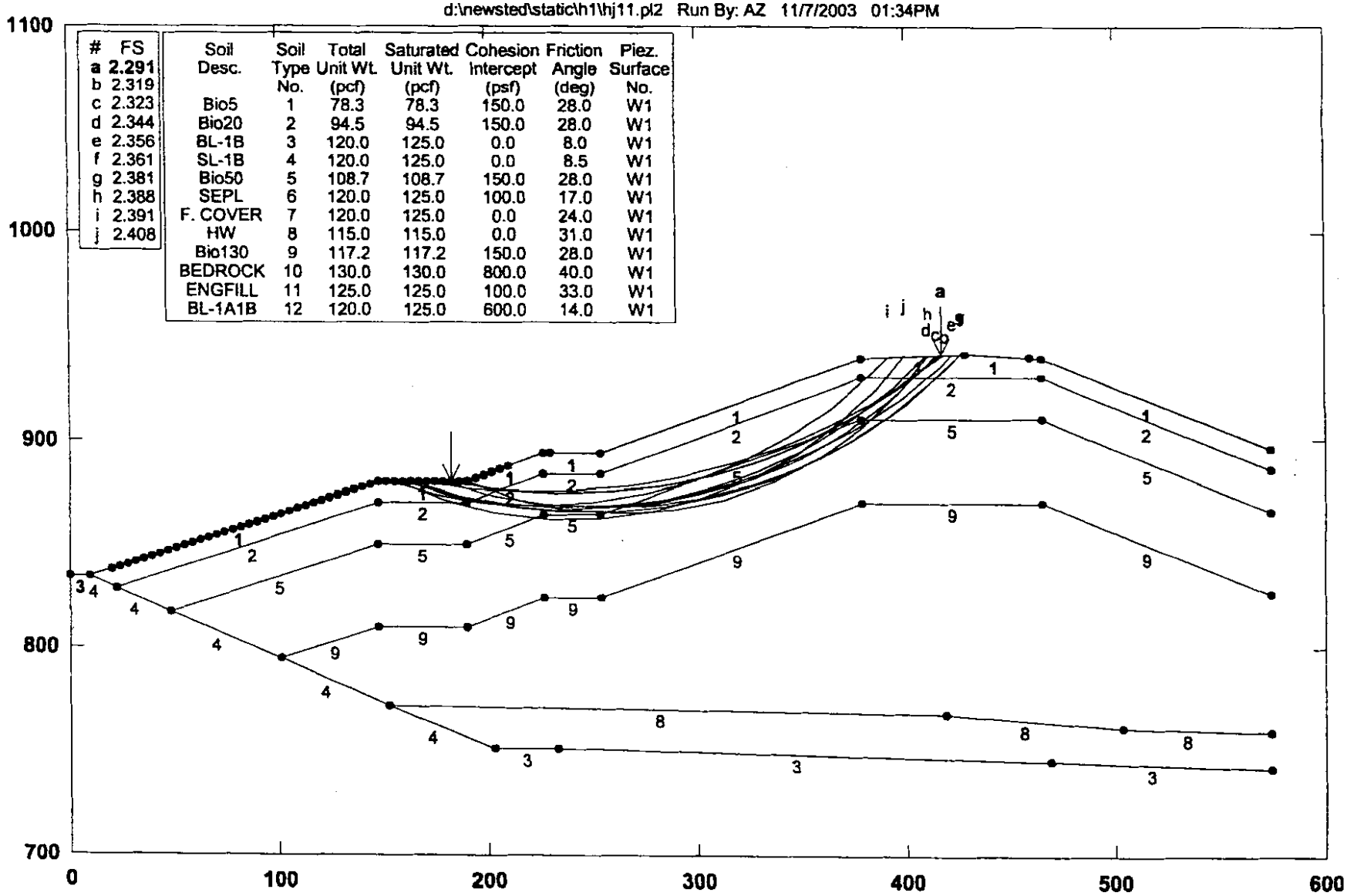
GSTABL7

KHF H-H' Static Bishop Slope Stability

d:\newsted\static\h1\hj11.pl2 Run By: AZ 11/7/2003 01:34PM

#	FS
a	2.291
b	2.319
c	2.323
d	2.344
e	2.356
f	2.361
g	2.381
h	2.388
i	2.391
j	2.408

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.291

Safety Factors Are Calculated By GLE (Spencer`s) Method (0-2)

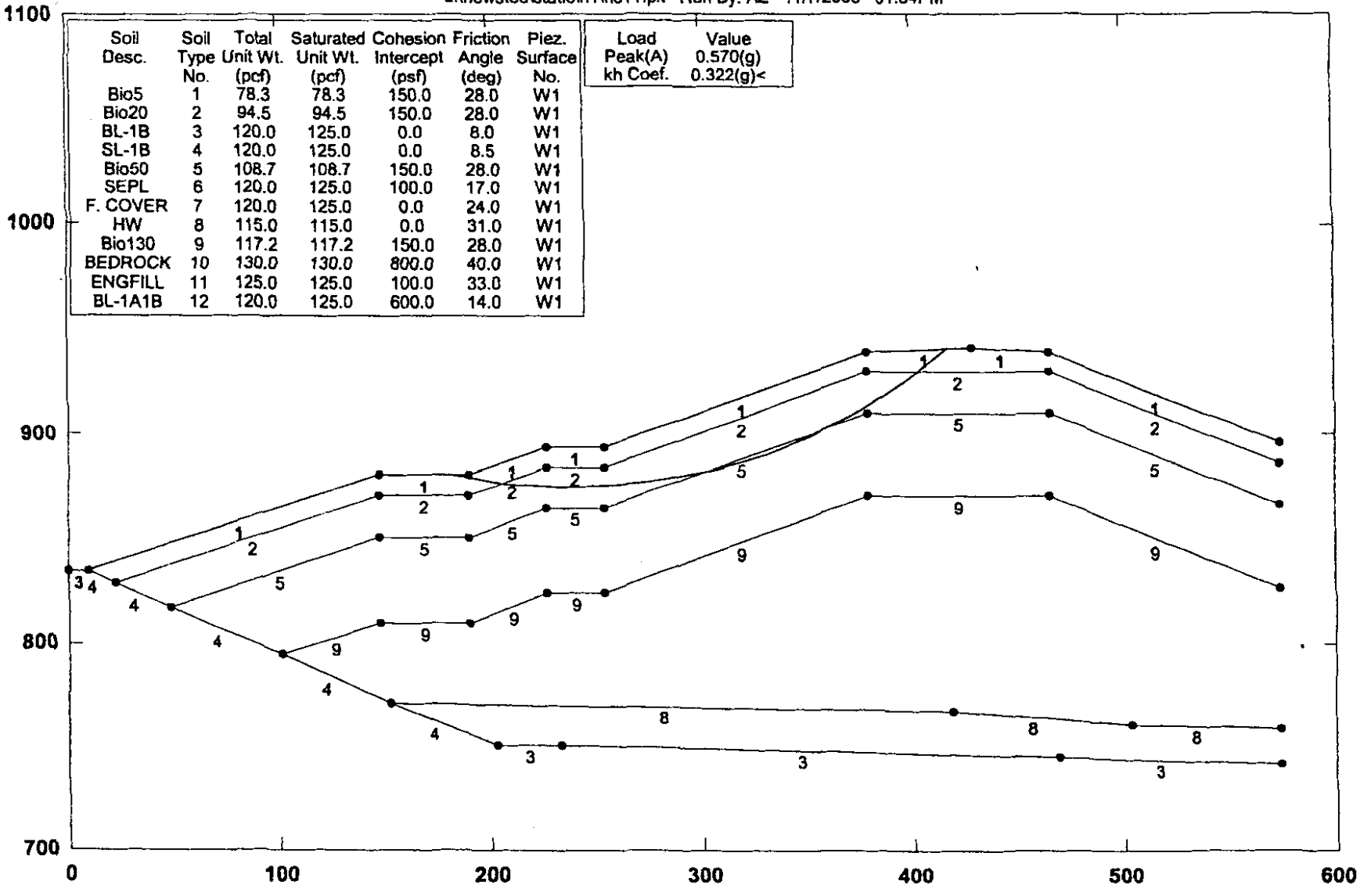
GSTABL7

KHF H-H' Failure Plane III Spencer Pseudo-Static Slope Stability

d:\newsted\static\h1\hs11.plt Run By: AZ 11/7/2003 01:34PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.322(g)<



GSTABL7 v.2 FSmin=1.000

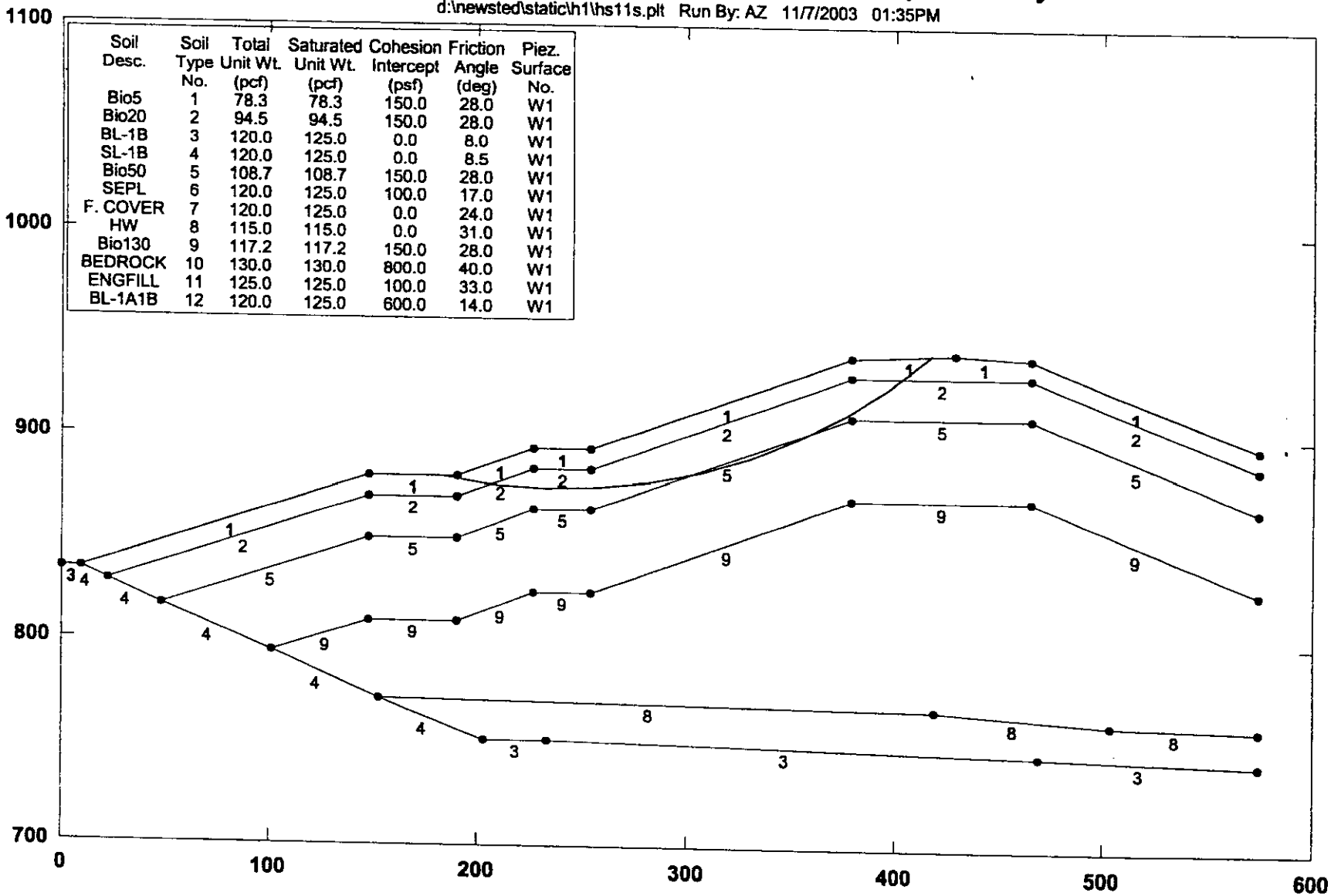
Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

KHF H-H' Failure Plane III Spencer Static Slope Stability

d:\newsted\static\h1\hs11s.plt Run By: AZ 11/7/2003 01:35PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
Bio50	5	108.7	108.7	150.0	28.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
Bio130	9	117.2	117.2	150.0	28.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1



GSTABL7 v.2 FSmin=2.291

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

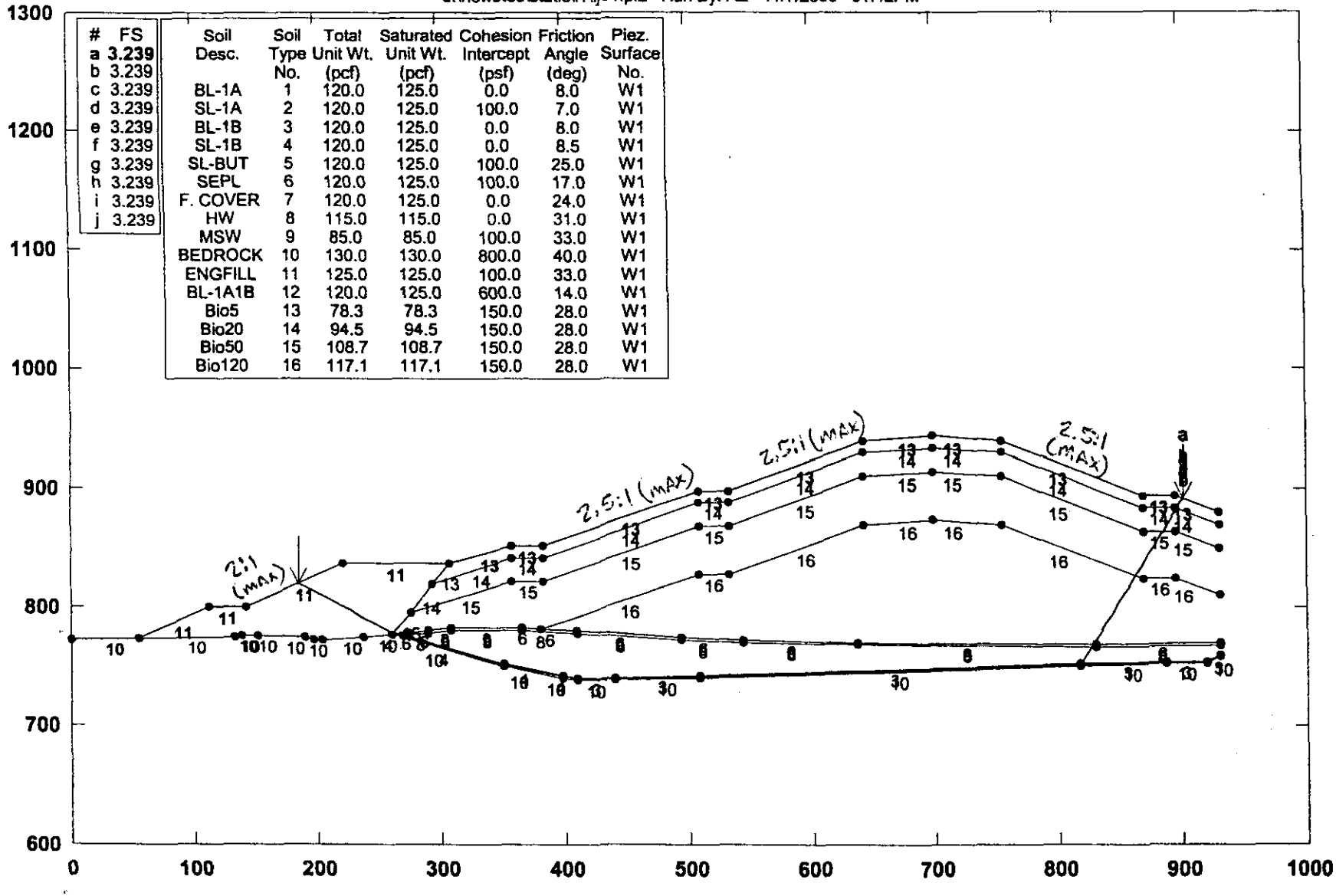
CROSS SECTION I-I'

KHF I-I' Static Janbu Block Search

d:\newsted\static\i1\ij01.pl2 Run By: AZ 11/7/2003 01:42PM

#	FS
a	3.239
b	3.239
c	3.239
d	3.239
e	3.239
f	3.239
g	3.239
h	3.239
i	3.239
j	3.239

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1



GSTABL7 v.2 FSmin=3.239

Safety Factors Are Calculated By The Simplified Janbu Method

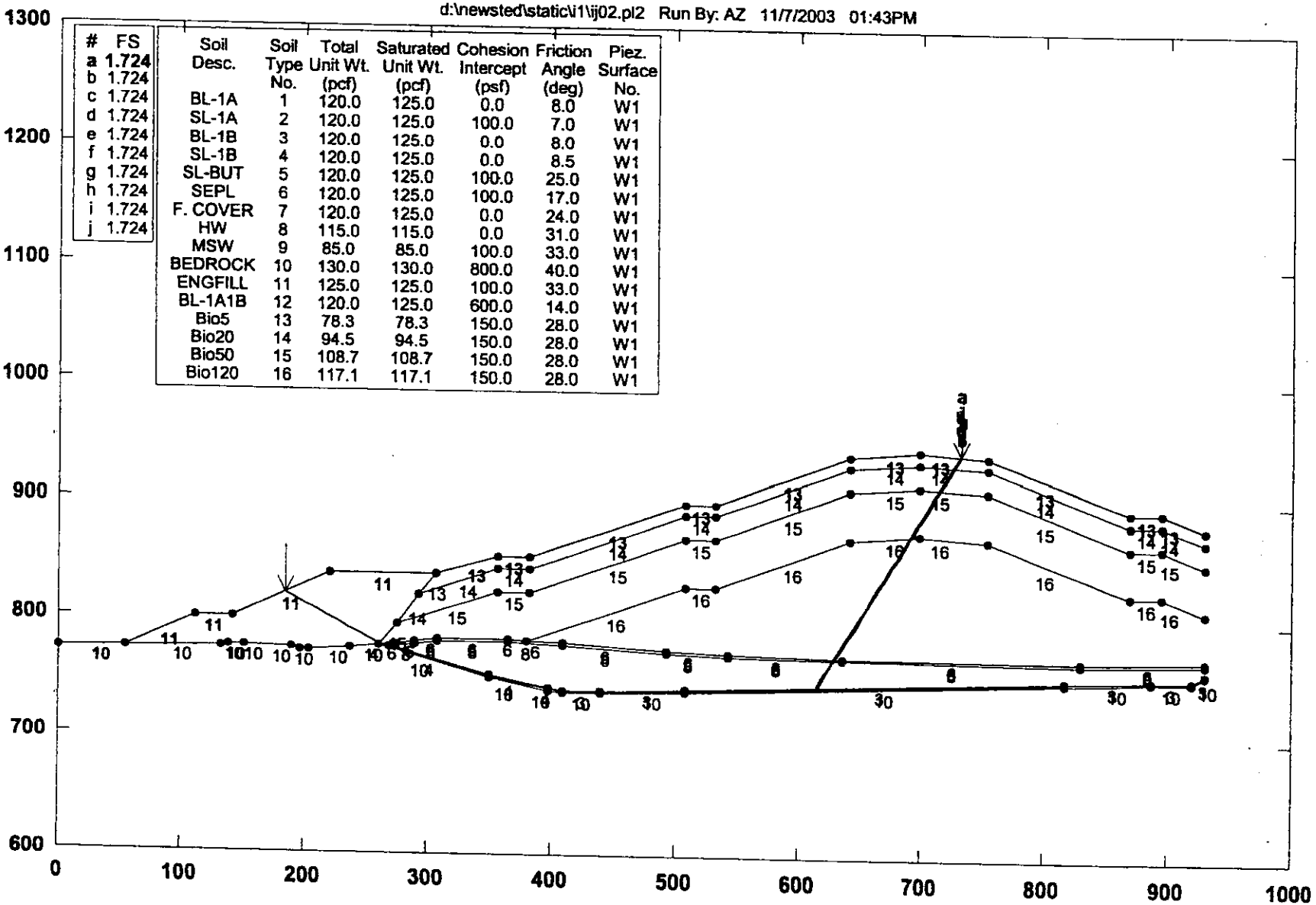
GSTABL7

KHF I-I' Static Janbu Block Search

d:\newsted\static\i1\ij02.pl2 Run By: AZ 11/7/2003 01:43PM

#	FS
a	1.724
b	1.724
c	1.724
d	1.724
e	1.724
f	1.724
g	1.724
h	1.724
i	1.724
j	1.724

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1



GSTABL7 v.2 FSmin=1.724

Safety Factors Are Calculated By The Simplified Janbu Method

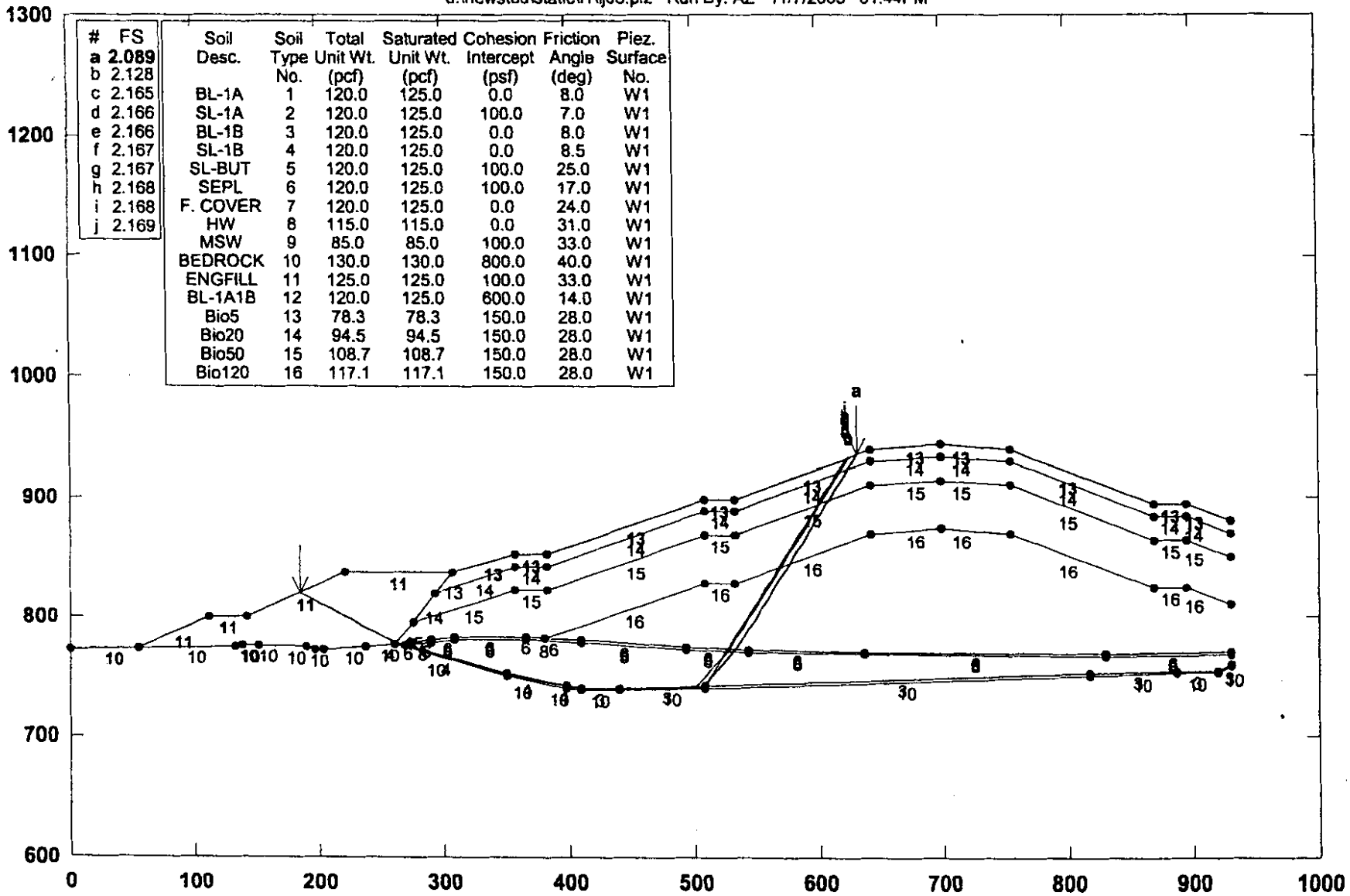
GSTABL7

KHF I-I' Static Janbu Block Search

d:\newsted\static\i1\ij03.pl2 Run By: AZ 11/7/2003 01:44PM

#	FS
a	2.089
b	2.128
c	2.165
d	2.166
e	2.166
f	2.167
g	2.167
h	2.168
i	2.168
j	2.169

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1



GSTABL7 v.2 FSmin=2.089

Safety Factors Are Calculated By The Simplified Janbu Method

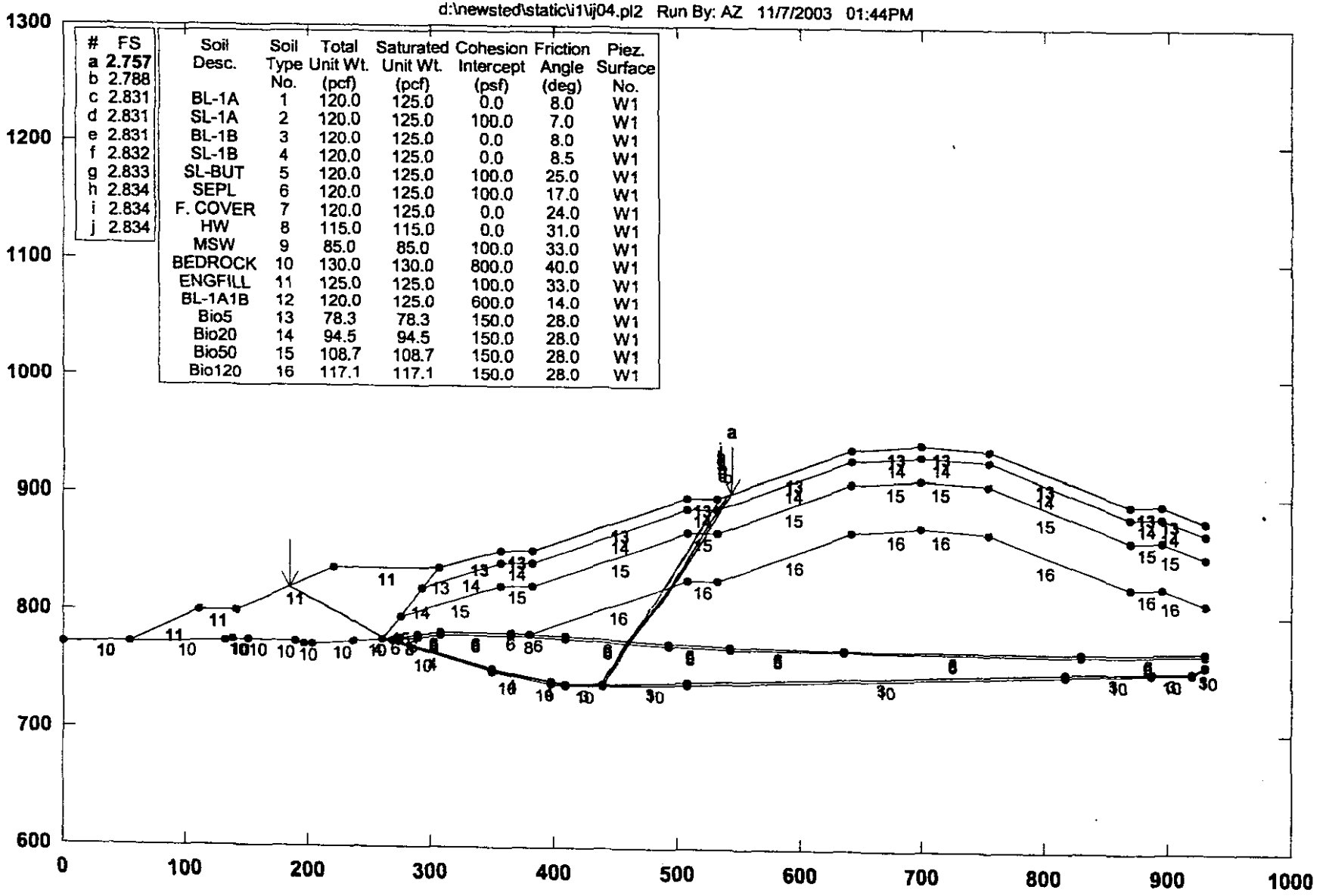
GSTABL7

KHF I-I' Static Janbu Block Search

d:\newsted\static\i1\ij04.pl2 Run By: AZ 11/7/2003 01:44PM

#	FS
a	2.757
b	2.788
c	2.831
d	2.831
e	2.831
f	2.832
g	2.833
h	2.834
i	2.834
j	2.834

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1



GSTABL7 v.2 FSmin=2.757

Safety Factors Are Calculated By The Simplified Janbu Method

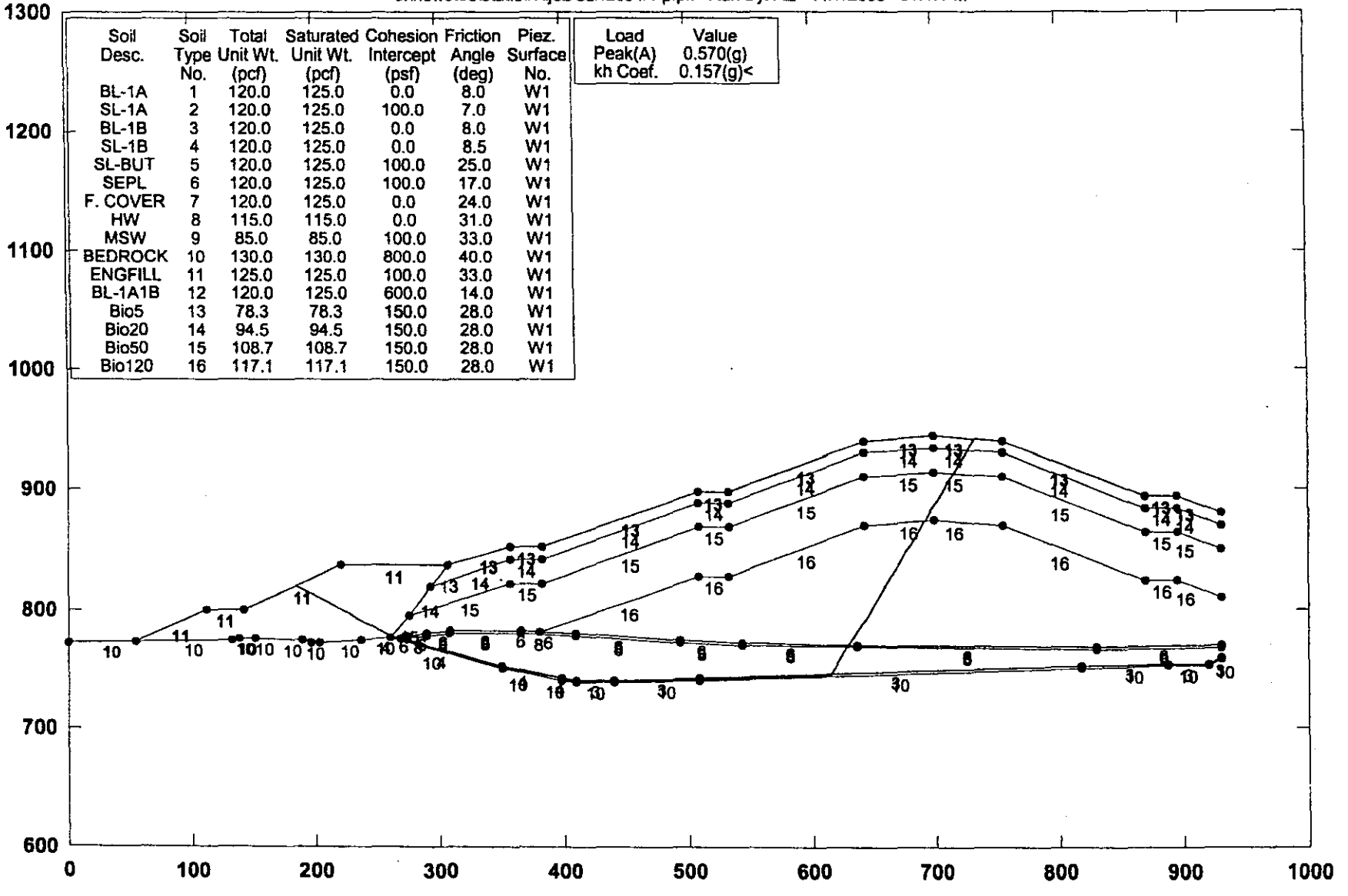
GSTABL7

KHF I-I' Failure Plane I Spencer Pseudo-Static Slope Stability

d:\newsted\static\i1\ij02 surface #1 p.plt Run By: AZ 11/7/2003 01:47PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.157(g)<



GSTABL7 v.2 FSmin=1.003

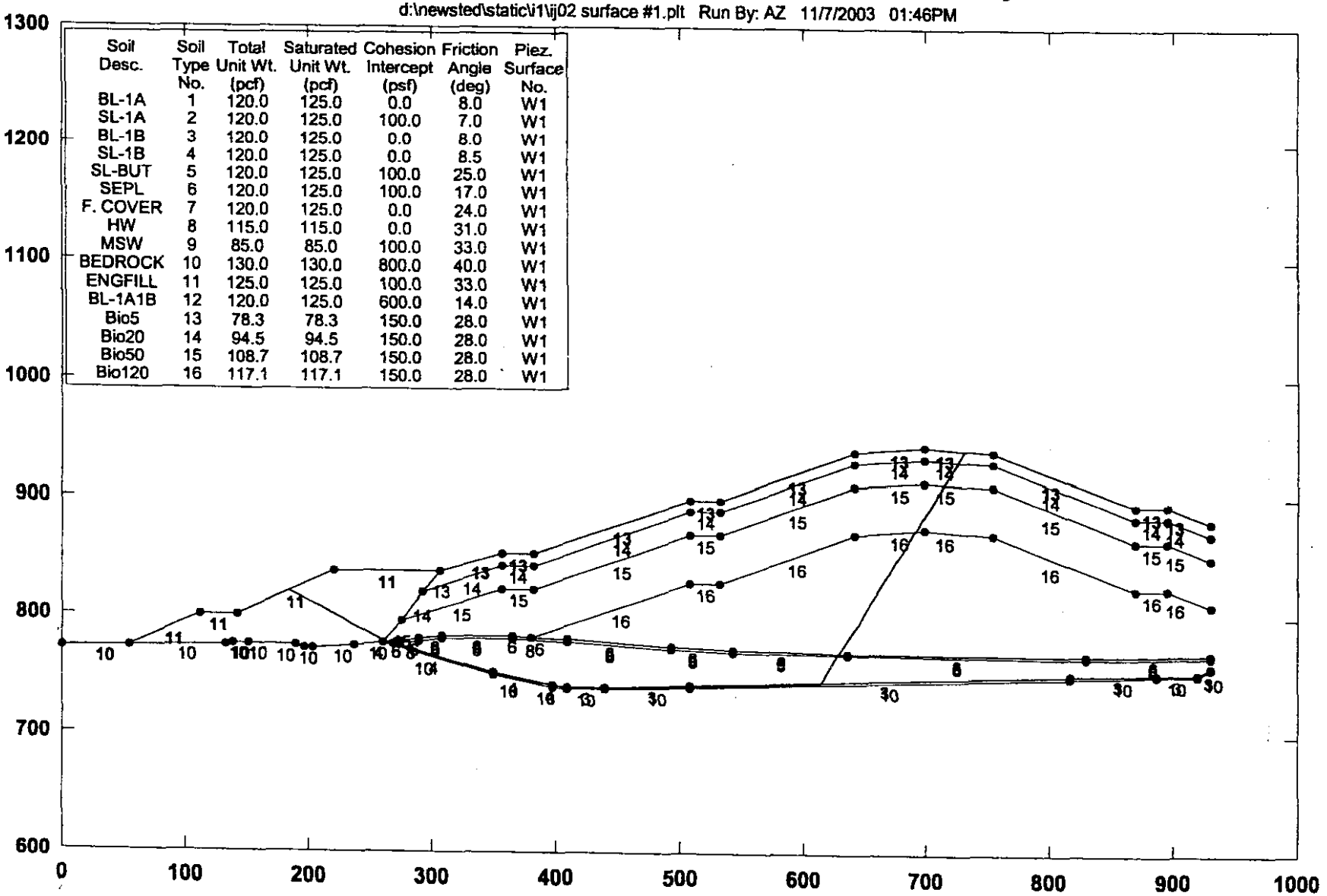
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF I-I' Failure Plane I Spencer Static Slope Stability

d:\newsted\static\i1\ij02 surface #1.plt Run By: AZ 11/7/2003 01:46PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	W1
SL-1A	2	120.0	125.0	100.0	7.0	W1
BL-1B	3	120.0	125.0	0.0	8.0	W1
SL-1B	4	120.0	125.0	0.0	8.5	W1
SL-BUT	5	120.0	125.0	100.0	25.0	W1
SEPL	6	120.0	125.0	100.0	17.0	W1
F. COVER	7	120.0	125.0	0.0	24.0	W1
HW	8	115.0	115.0	0.0	31.0	W1
MSW	9	85.0	85.0	100.0	33.0	W1
BEDROCK	10	130.0	130.0	800.0	40.0	W1
ENGFILL	11	125.0	125.0	100.0	33.0	W1
BL-1A1B	12	120.0	125.0	600.0	14.0	W1
Bio5	13	78.3	78.3	150.0	28.0	W1
Bio20	14	94.5	94.5	150.0	28.0	W1
Bio50	15	108.7	108.7	150.0	28.0	W1
Bio120	16	117.1	117.1	150.0	28.0	W1



GSTABL7 v.2 FSmin=2.043

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

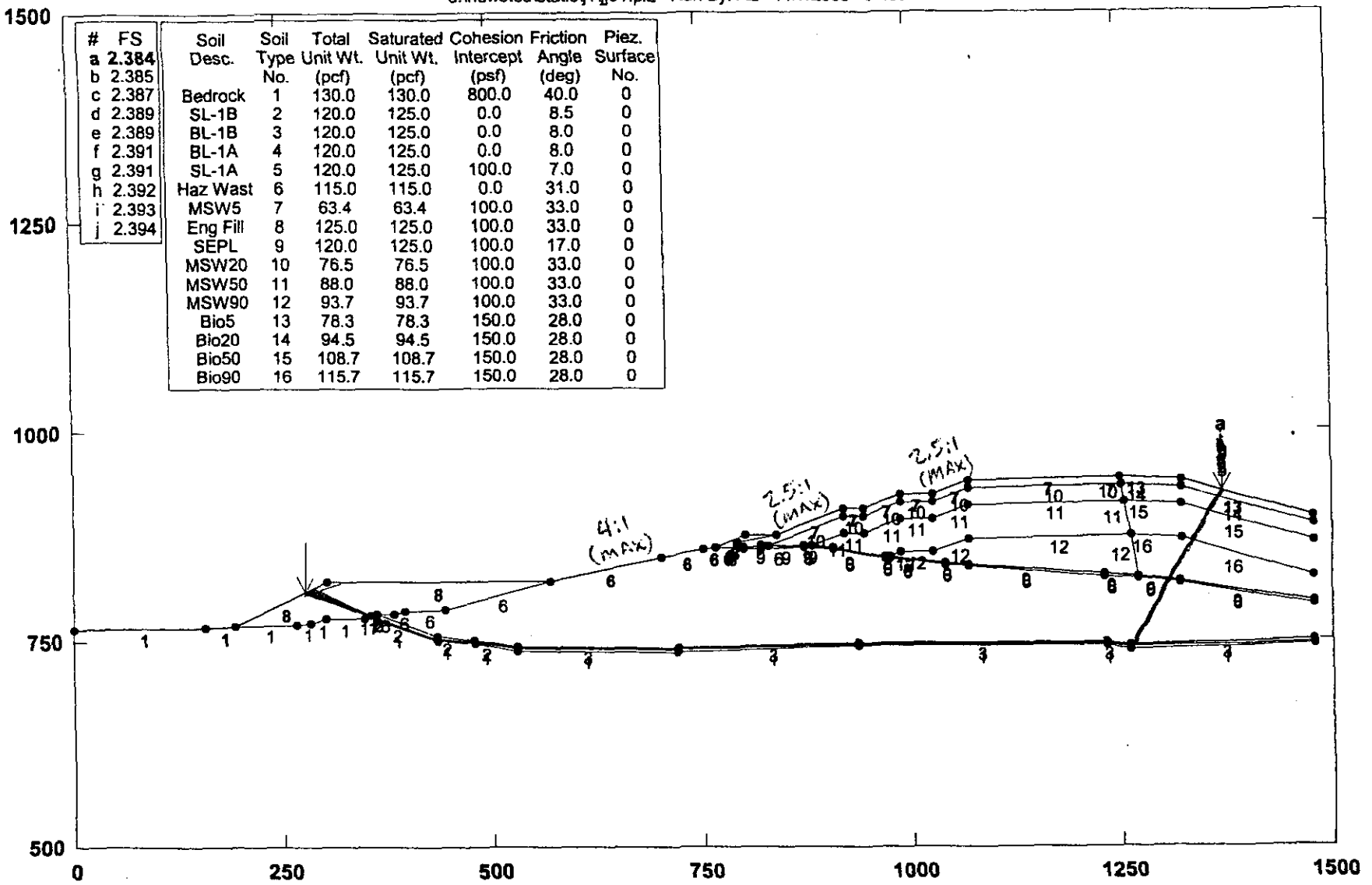
CROSS SECTION J-J'

KHF J-J' Static Janbu Block Search

d:\newsted\static\j1\jj01.pl2 Run By: AZ 11/7/2003 01:53PM

#	FS
a	2.384
b	2.385
c	2.387
d	2.389
e	2.389
f	2.391
g	2.391
h	2.392
i	2.393
j	2.394

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0



GSTABL7 v.2 FSmin=2.384

Safety Factors Are Calculated By The Simplified Janbu Method

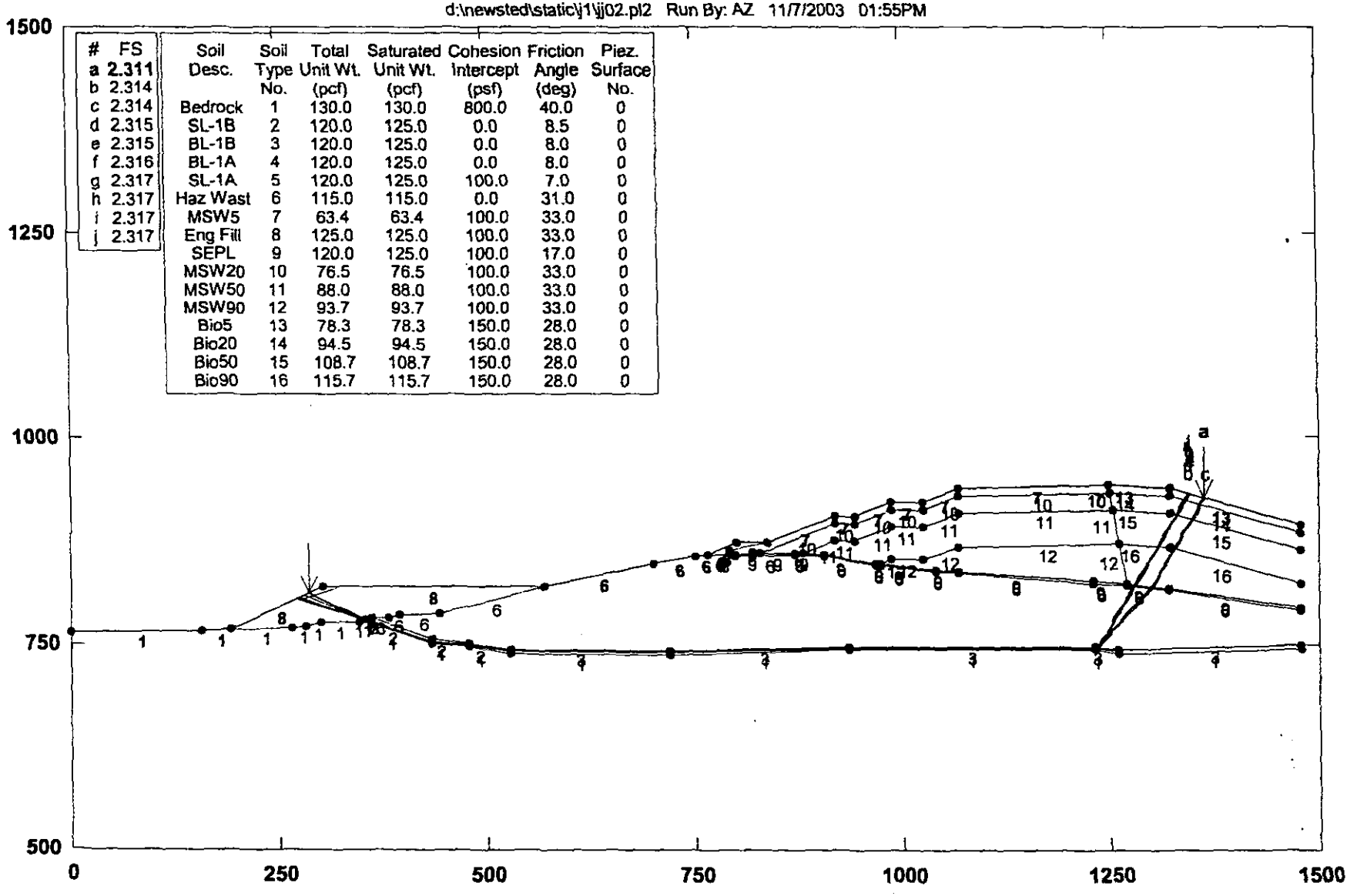
GSTABL7

KHF J-J' Static Janbu Block Search

d:\newsted\static\j1\jj02.pl2 Run By: AZ 11/7/2003 01:55PM

#	FS
a	2.311
b	2.314
c	2.314
d	2.315
e	2.315
f	2.316
g	2.317
h	2.317
i	2.317
j	2.317

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0



GSTABL7 v.2 FSmin=2.311

Safety Factors Are Calculated By The Simplified Janbu Method

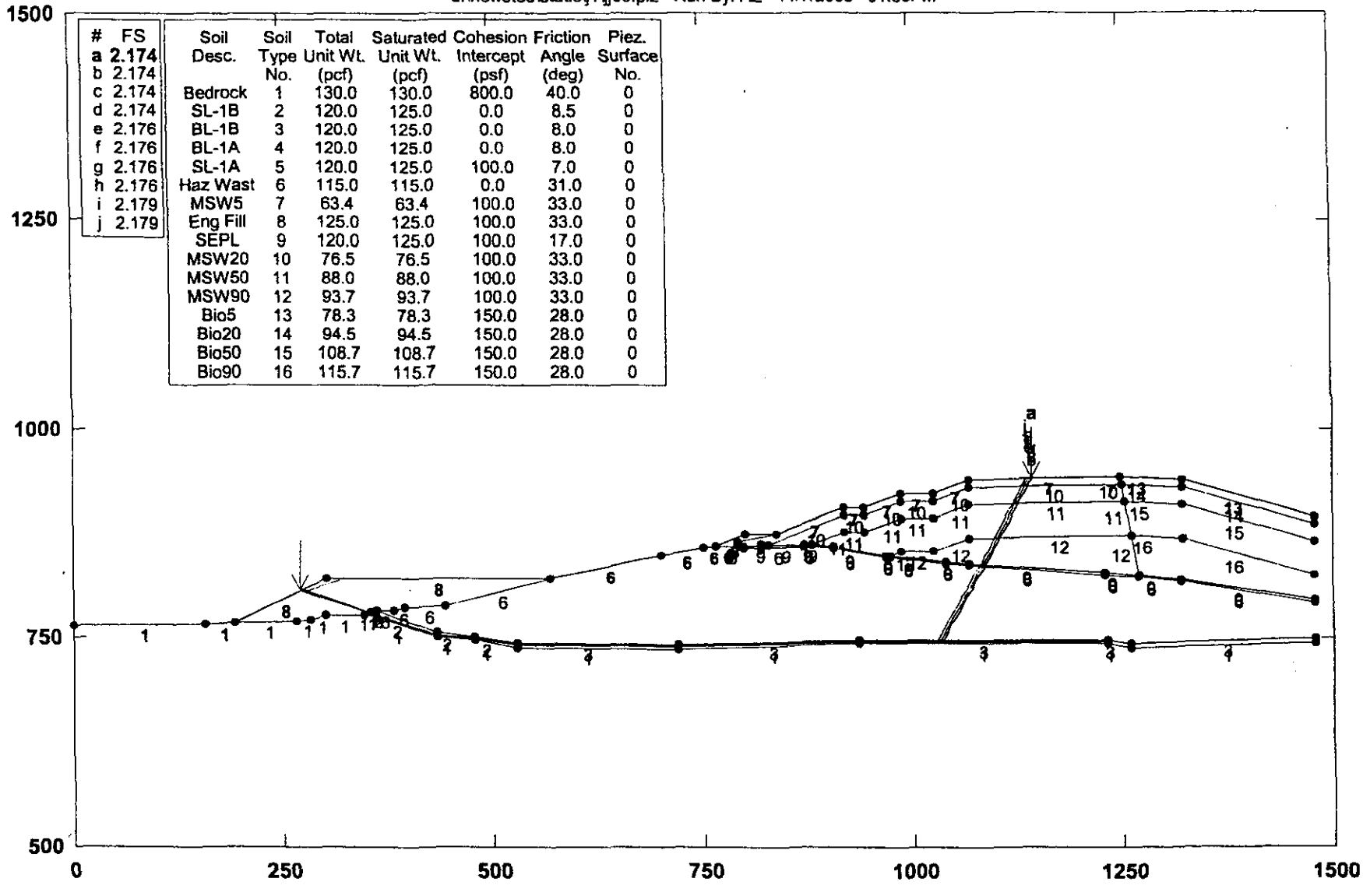
GSTABL7

KHF J-J' Static Janbu Block Search

d:\newsted\static\j1\jj03.pl2 Run By: AZ 11/7/2003 01:55PM

#	FS
a	2.174
b	2.174
c	2.174
d	2.174
e	2.176
f	2.176
g	2.176
h	2.176
i	2.179
j	2.179

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0



GSTABL7 v.2 FSmin=2.174

Safety Factors Are Calculated By The Simplified Janbu Method

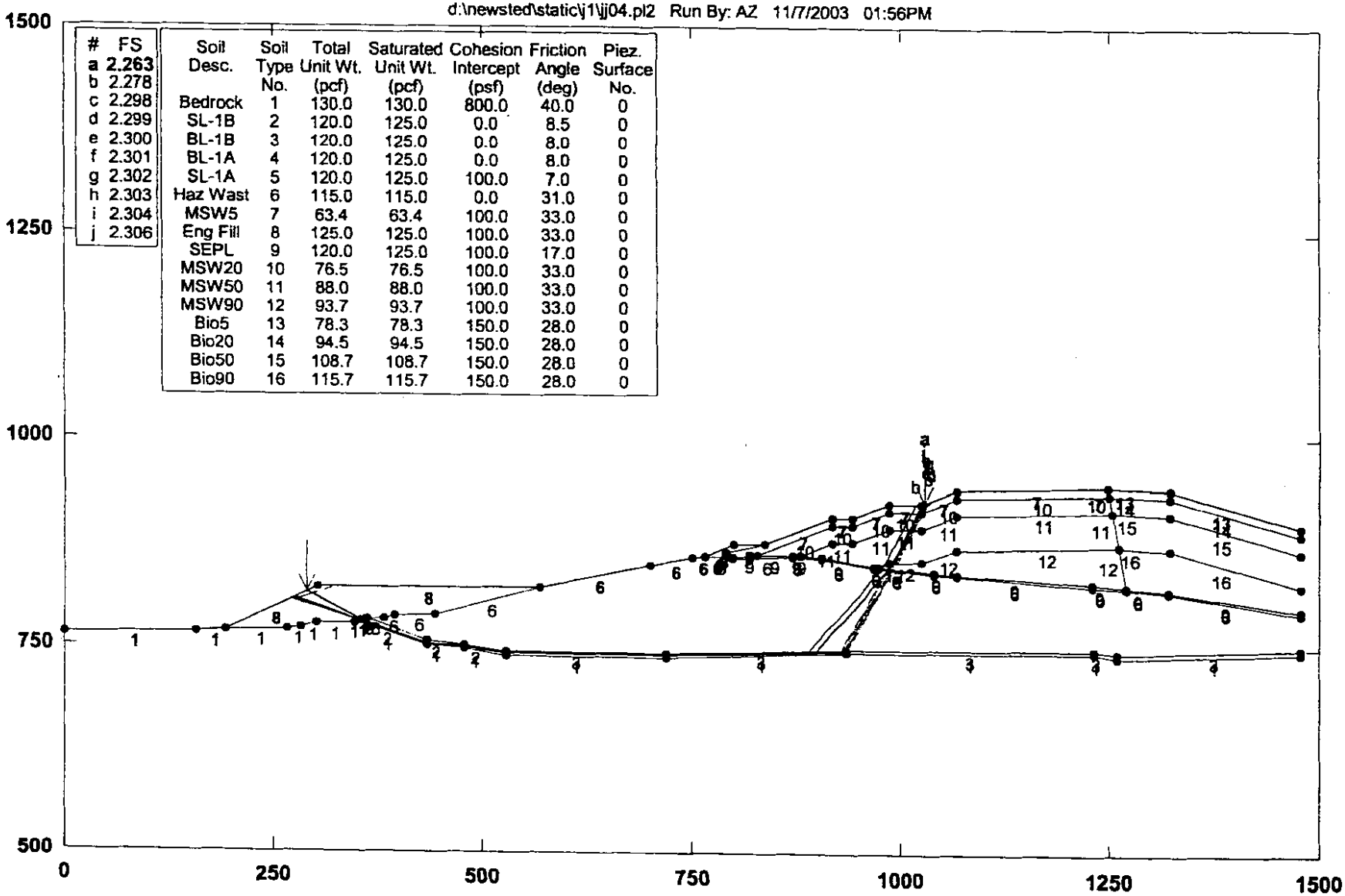
GSTABL7

KHF J-J' Static Janbu Block Search

d:\newsted\static\j1\jj04.pl2 Run By: AZ 11/7/2003 01:56PM

#	FS
a	2.263
b	2.278
c	2.298
d	2.299
e	2.300
f	2.301
g	2.302
h	2.303
i	2.304
j	2.306

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0



GSTABL7 v.2 FSmin=2.263

Safety Factors Are Calculated By The Simplified Janbu Method

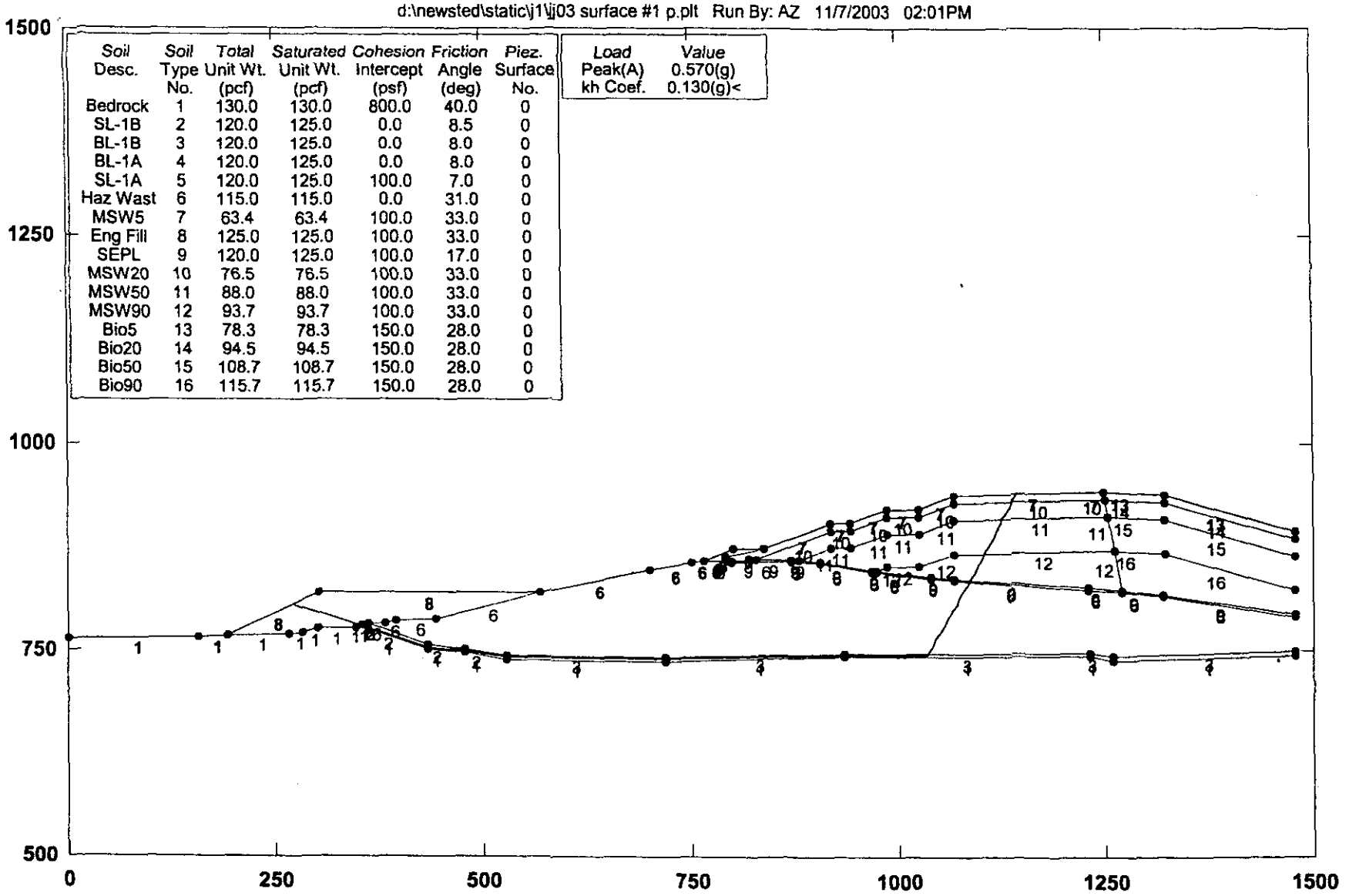
GSTABL7

KHF J-J' Failure Plane I Spencer Pseudo-Static Slope Stability

d:\newsted\static\j1\j03 surface #1 p.plt Run By: AZ 11/7/2003 02:01PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.130(g)<



GSTABL7 v.2 FSmin=1.002

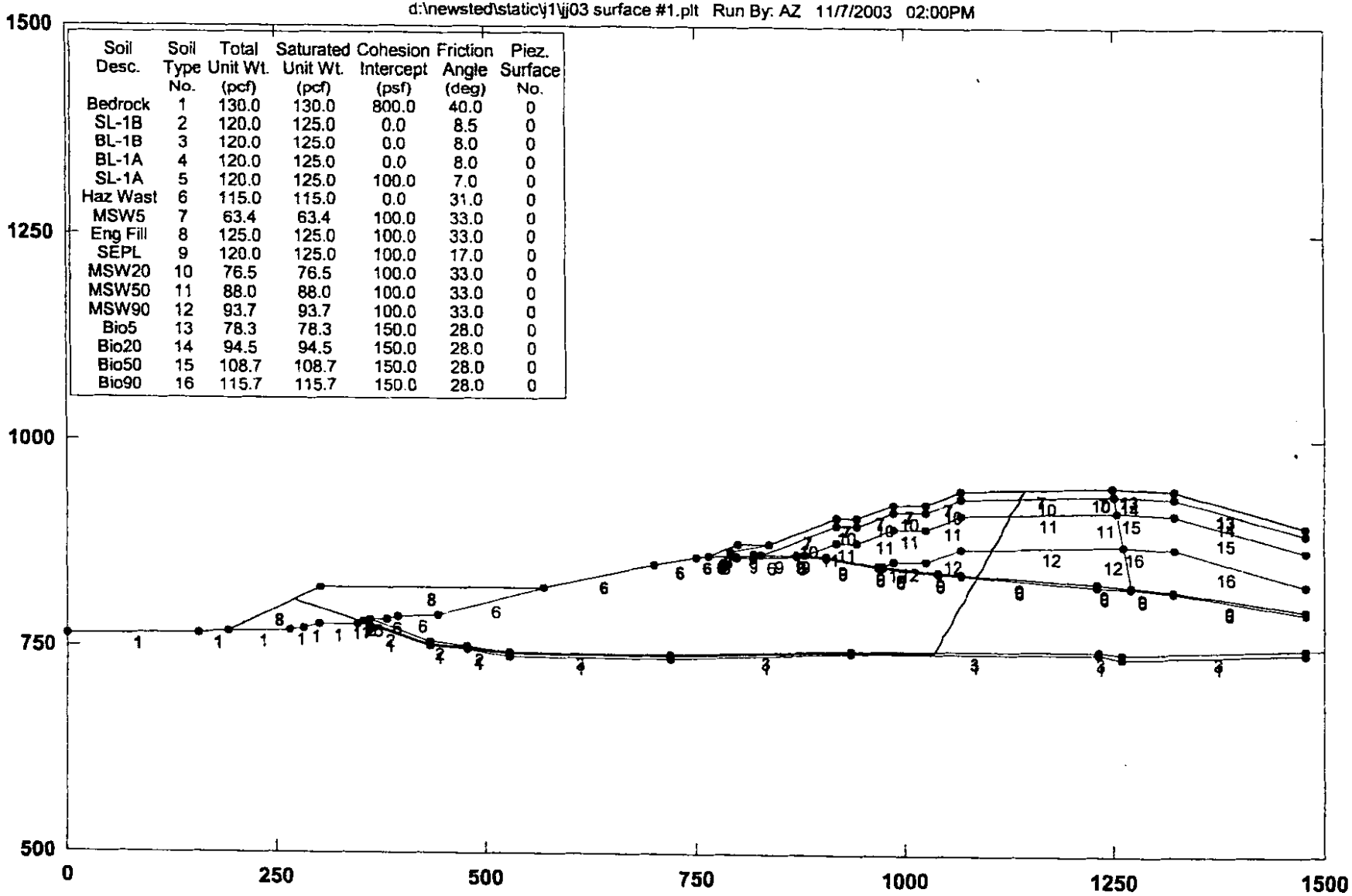
Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

KHF J-J' Failure Plane I Spencer Static Slope Stability

d:\newsted\static\j1\jj03 surface #1.plt Run By: AZ 11/7/2003 02:00PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
MSW20	10	76.5	76.5	100.0	33.0	0
MSW50	11	88.0	88.0	100.0	33.0	0
MSW90	12	93.7	93.7	100.0	33.0	0
Bio5	13	78.3	78.3	150.0	28.0	0
Bio20	14	94.5	94.5	150.0	28.0	0
Bio50	15	108.7	108.7	150.0	28.0	0
Bio90	16	115.7	115.7	150.0	28.0	0



GSTABL7 v.2 FSmin=2.342

Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

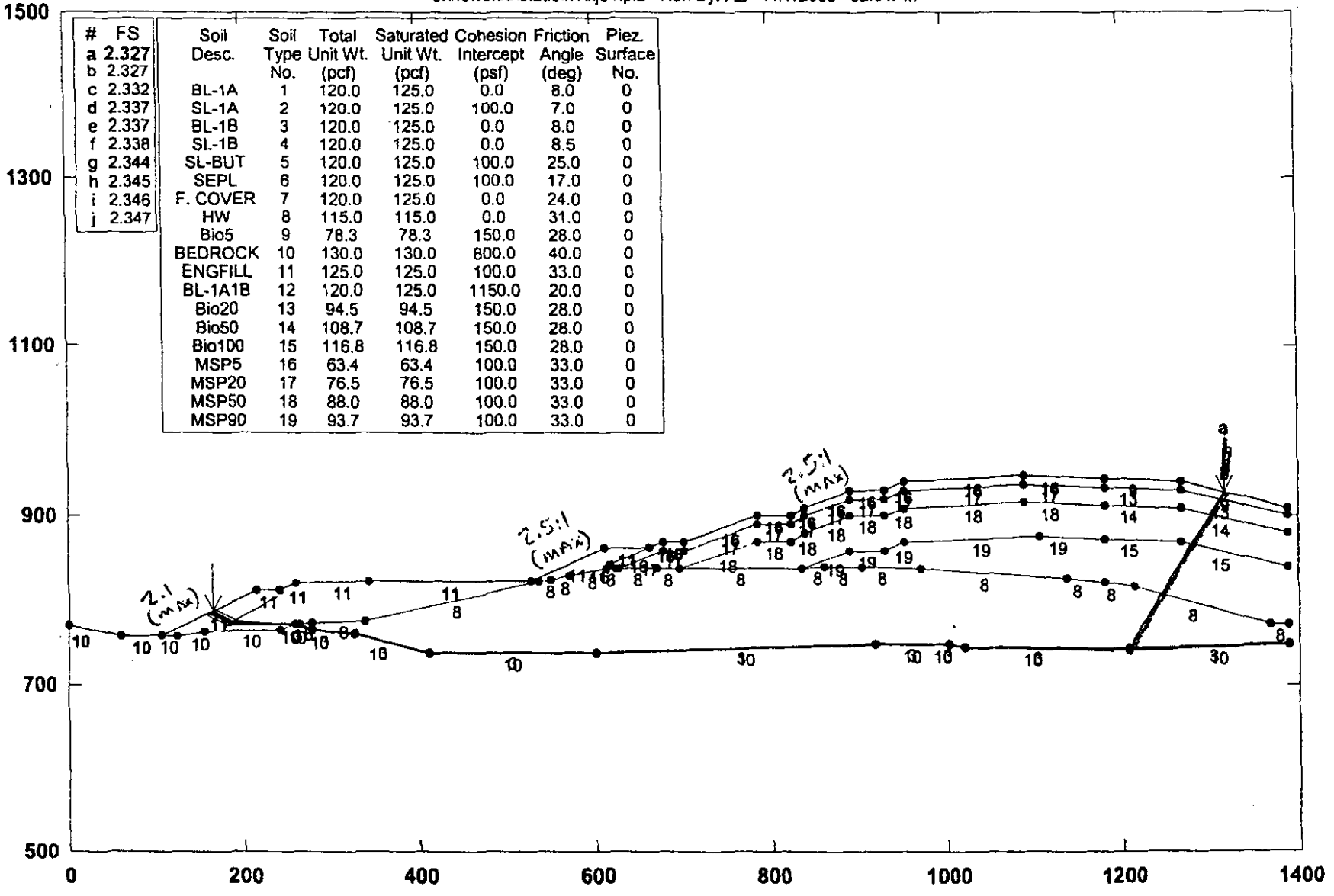
CROSS SECTION K-K'

KHF K-K' Static Janbu Block Search

d:\newsted\static\k1\kj01.pl2 Run By: AZ 11/7/2003 02:04PM

#	FS
a	2.327
b	2.327
c	2.332
d	2.337
e	2.337
f	2.338
g	2.344
h	2.345
i	2.346
j	2.347

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.327

Safety Factors Are Calculated By The Simplified Janbu Method

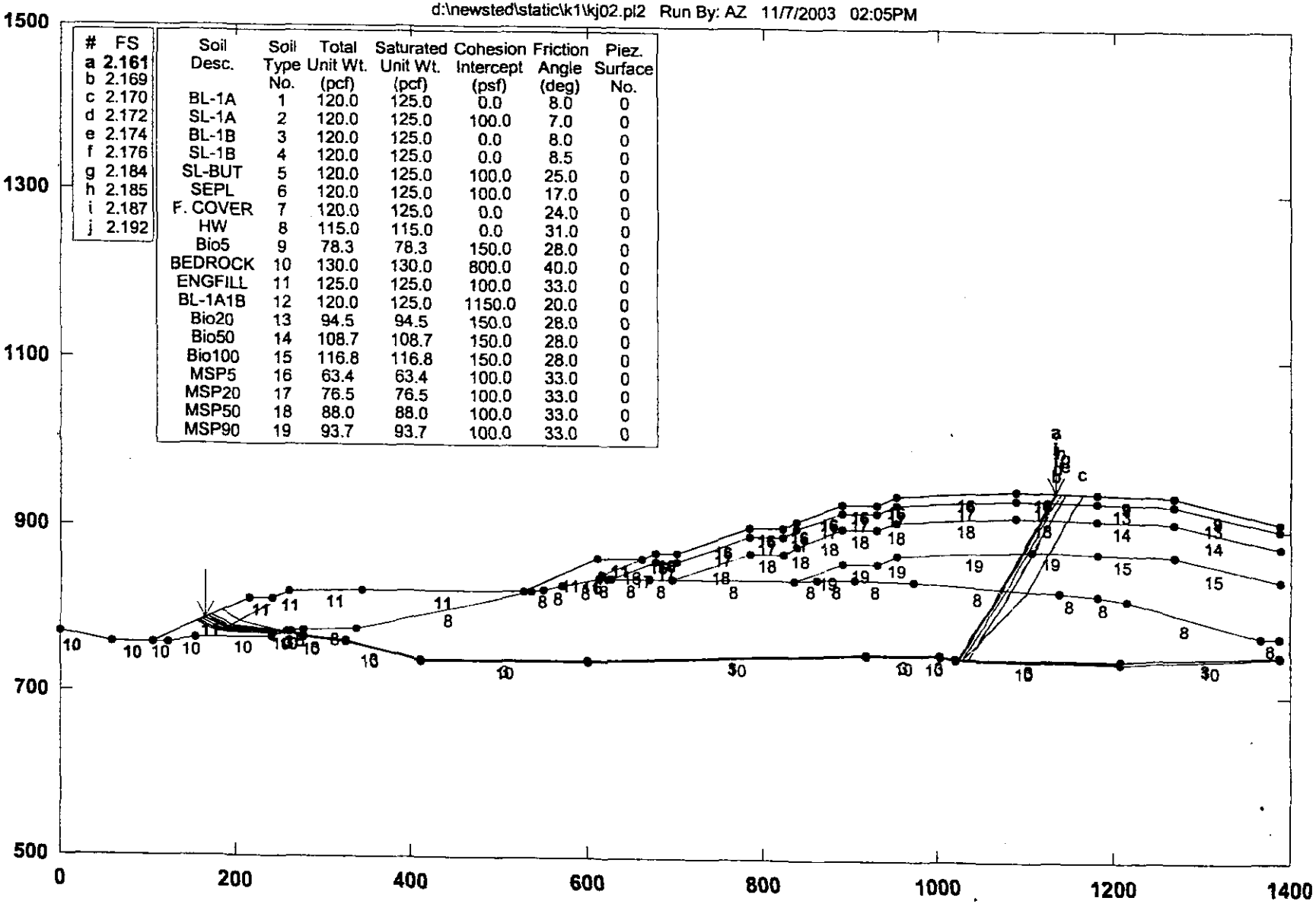
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k1\kj02.pl2 Run By: AZ 11/7/2003 02:05PM

#	FS
a	2.161
b	2.169
c	2.170
d	2.172
e	2.174
f	2.176
g	2.184
h	2.185
i	2.187
j	2.192

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.161

Safety Factors Are Calculated By The Simplified Janbu Method

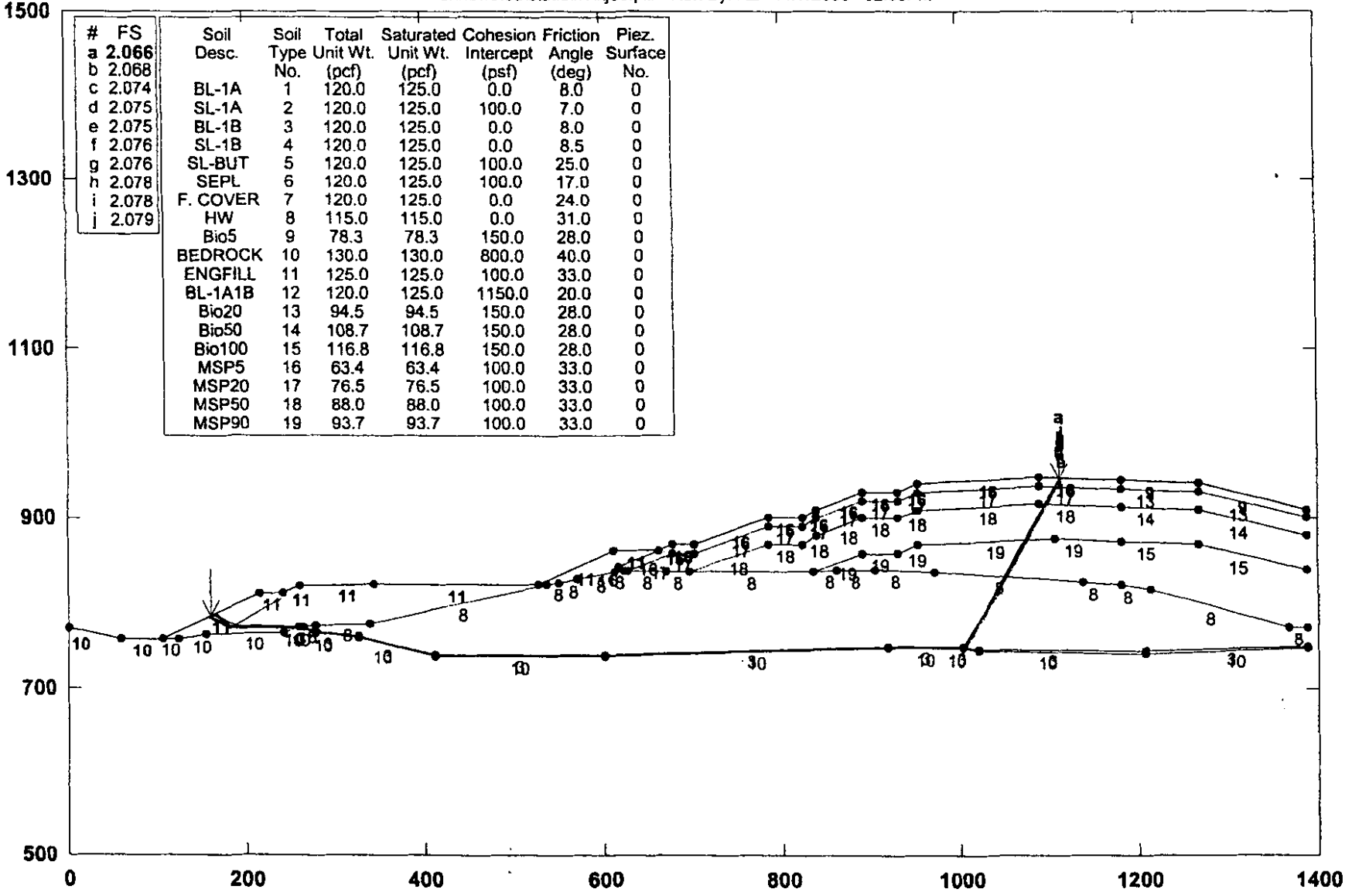
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k1\kj03.pl2 Run By: AZ 11/7/2003 02:05PM

#	FS
a	2.066
b	2.068
c	2.074
d	2.075
e	2.075
f	2.076
g	2.076
h	2.078
i	2.078
j	2.079

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.066

Safety Factors Are Calculated By The Simplified Janbu Method

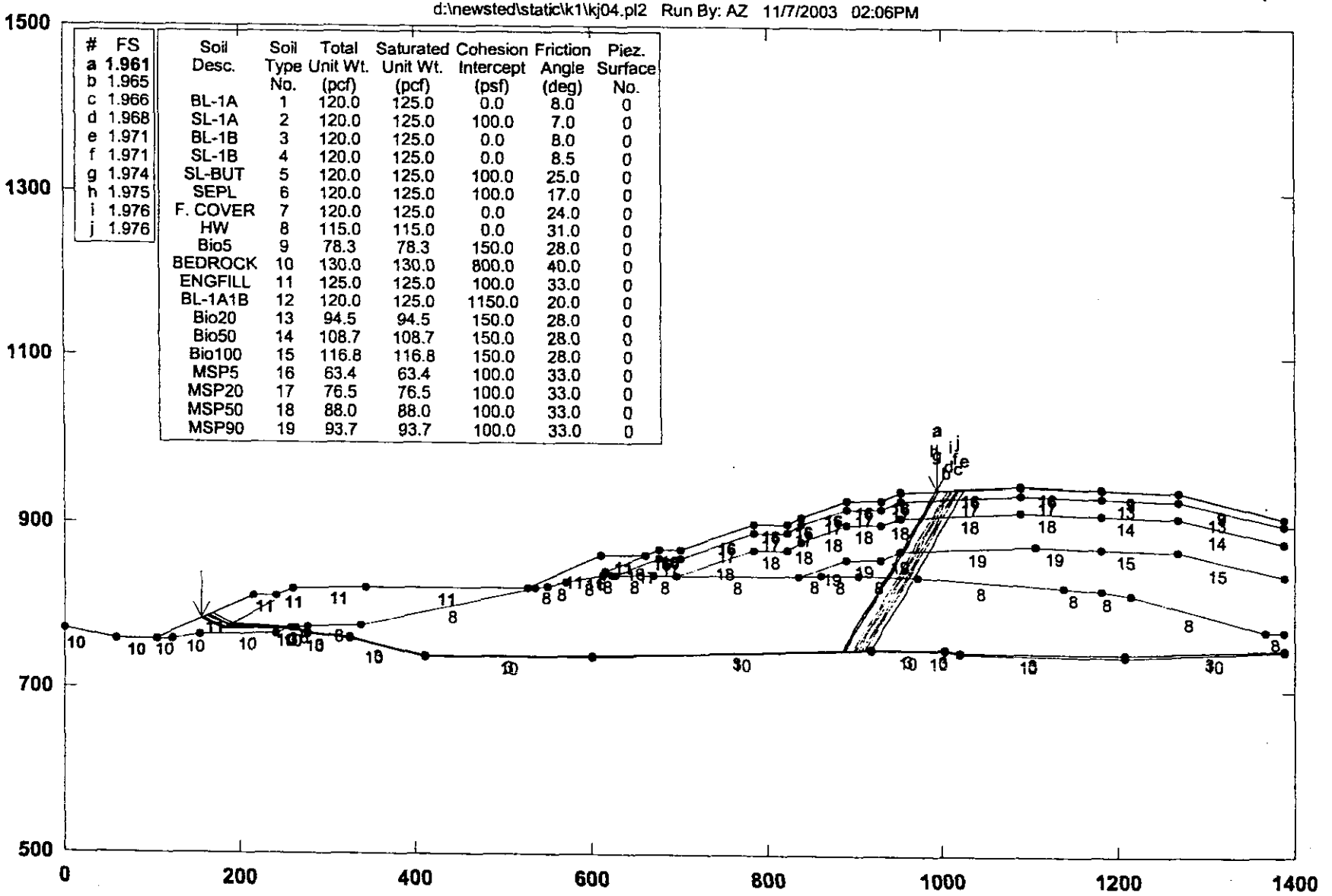
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k1\kj04.pl2 Run By: AZ 11/7/2003 02:06PM

#	FS
a	1.961
b	1.965
c	1.966
d	1.968
e	1.971
f	1.971
g	1.974
h	1.975
i	1.976
j	1.976

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=1.961

Safety Factors Are Calculated By The Simplified Janbu Method

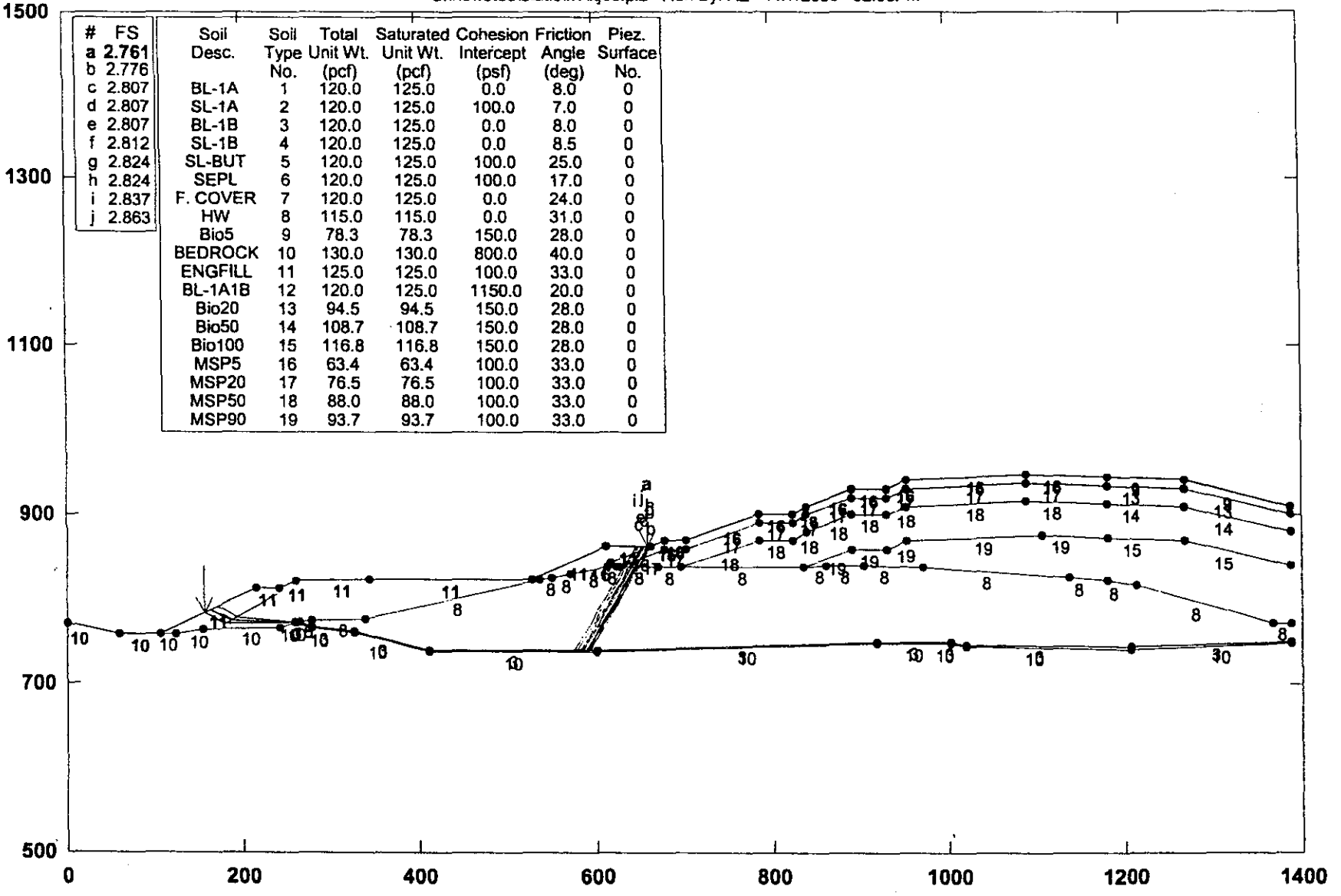
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k1\kj05.pl2 Run By: AZ 11/7/2003 02:06PM

#	FS
a	2.761
b	2.776
c	2.807
d	2.807
e	2.807
f	2.812
g	2.824
h	2.824
i	2.837
j	2.863

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.761

Safety Factors Are Calculated By The Simplified Janbu Method

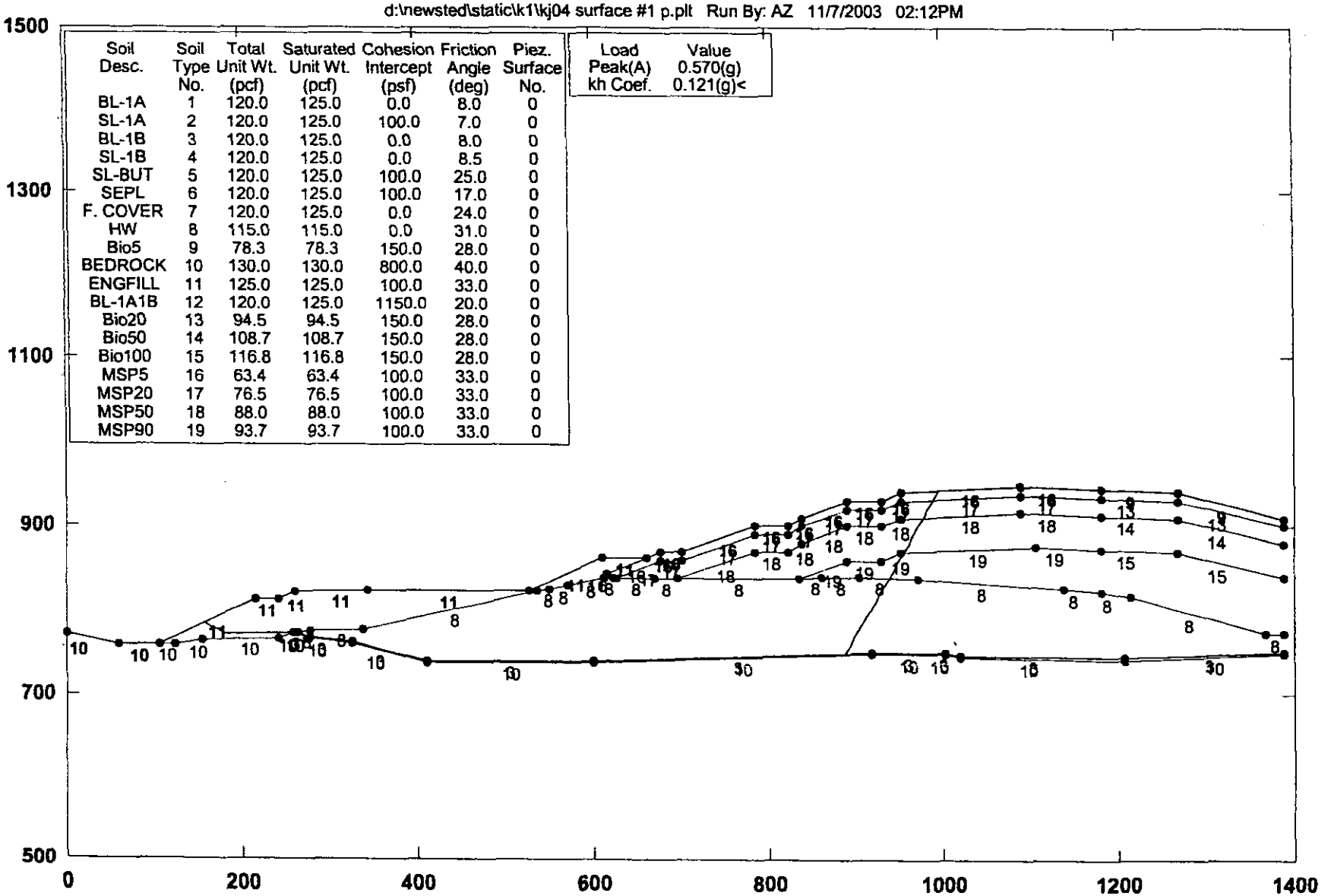
GSTABL7

KHF K-K' Failure Plane I Spencer Pseudo-Static Slope Stability

d:\newsted\static\k1\kj04 surface #1 p.plt Run By: AZ 11/7/2003 02:12PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.121(g)<



GSTABL7 v.2 FSmin=0.999

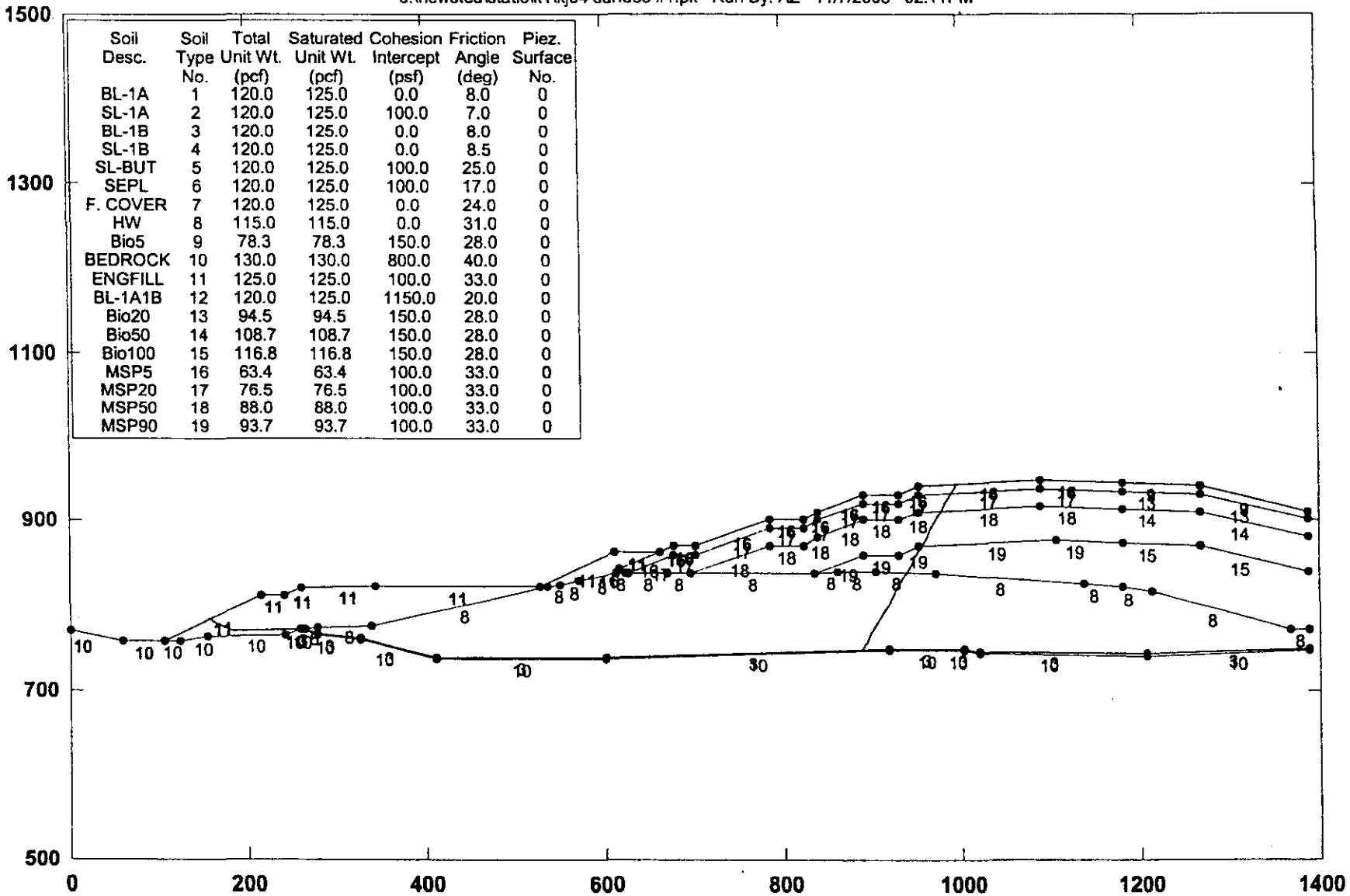
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF K-K' Failure Plane I Spencer Static Slope Stability

d:\newsted\static\k1\kj04 surface #1.plt Run By: AZ 11/7/2003 02:11PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.108

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

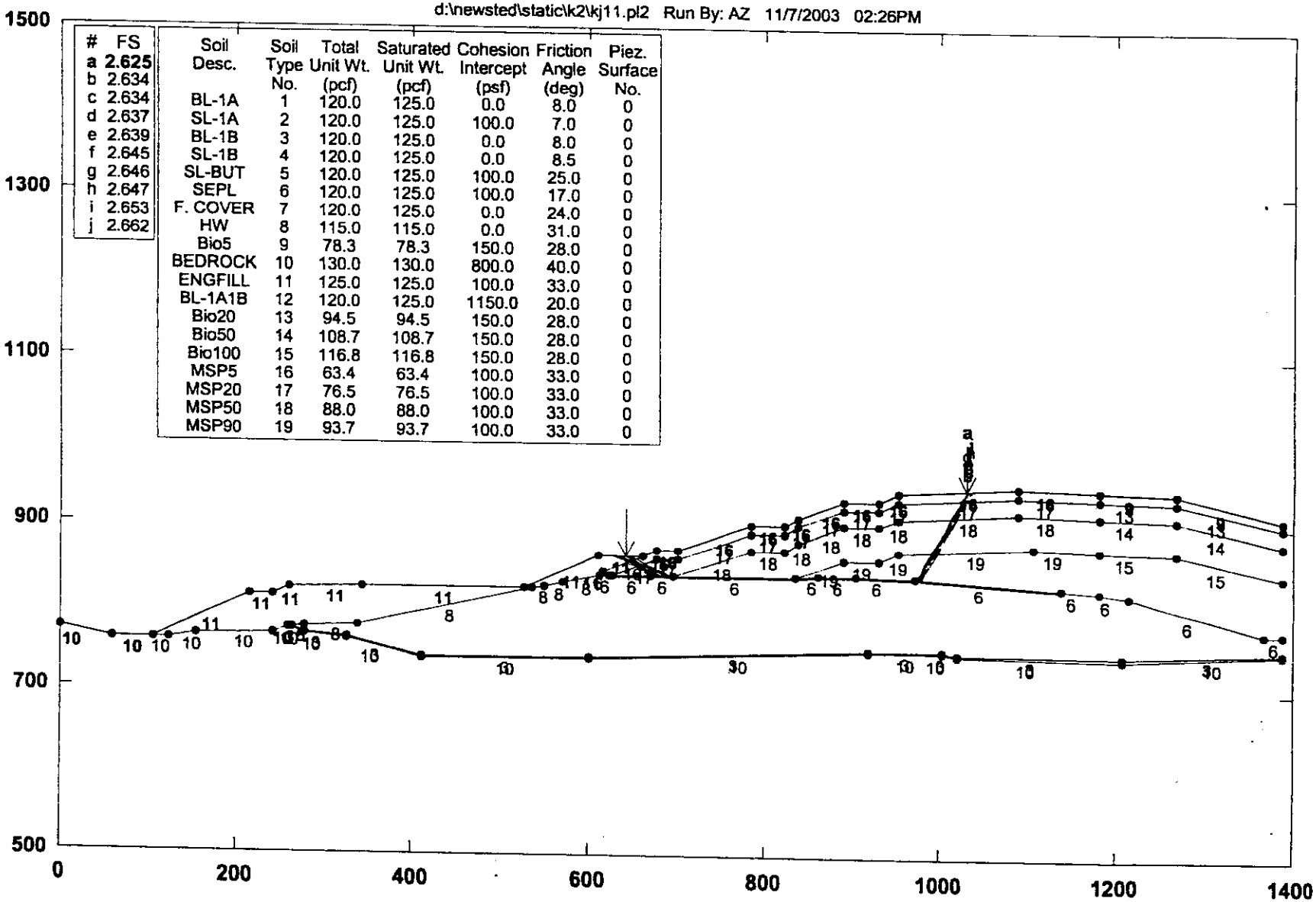
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k2\kj11.pl2 Run By: AZ 11/7/2003 02:26PM

#	FS
a	**2.625**
b	2.634
c	2.634
d	2.637
e	2.639
f	2.645
g	2.646
h	2.647
i	2.653
j	2.662

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.625

Safety Factors Are Calculated By The Simplified Janbu Method

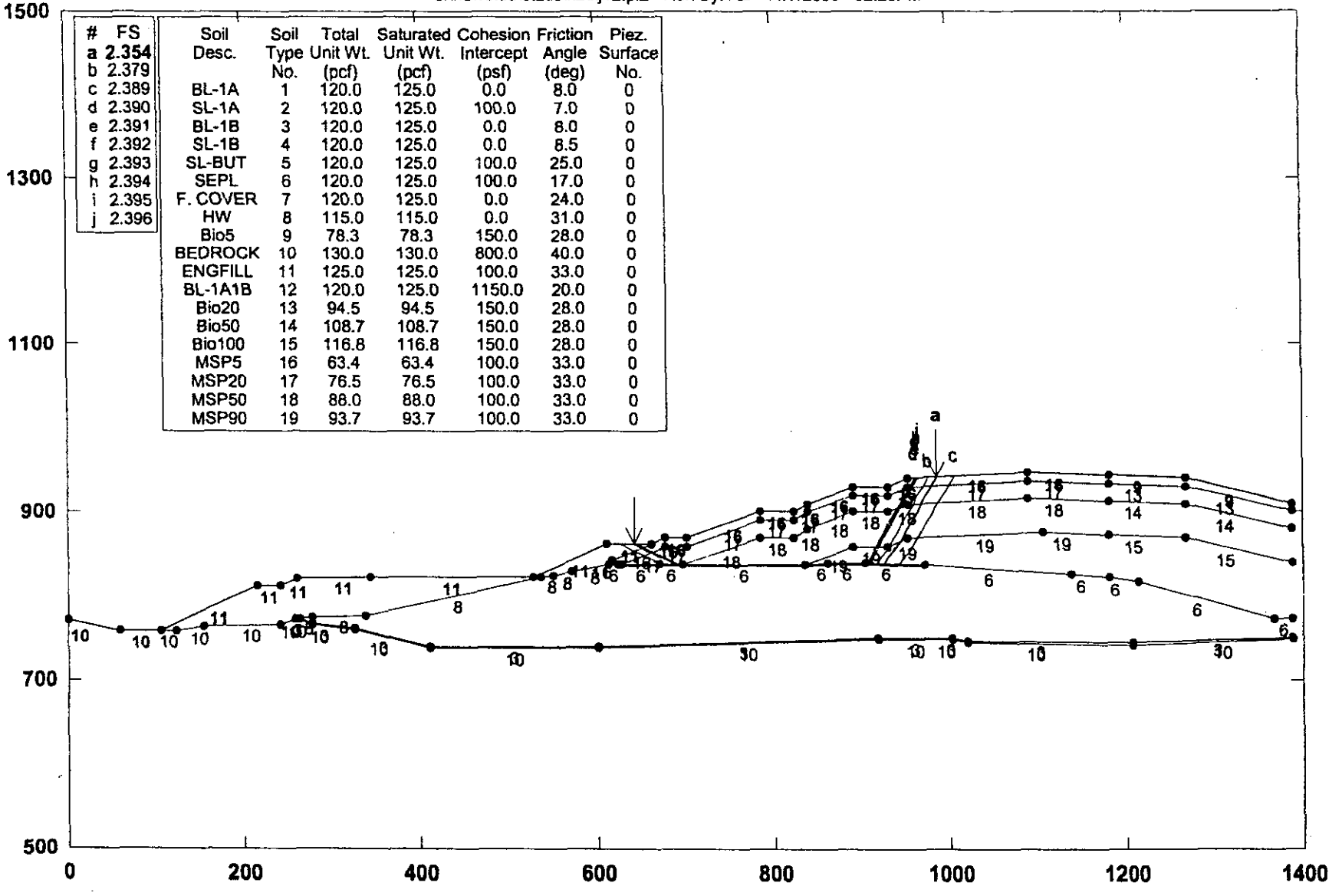
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k2\kj12.pl2 Run By: AZ 11/7/2003 02:26PM

#	FS
a	2.354
b	2.379
c	2.389
d	2.390
e	2.391
f	2.392
g	2.393
h	2.394
i	2.395
j	2.396

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.354

Safety Factors Are Calculated By The Simplified Janbu Method

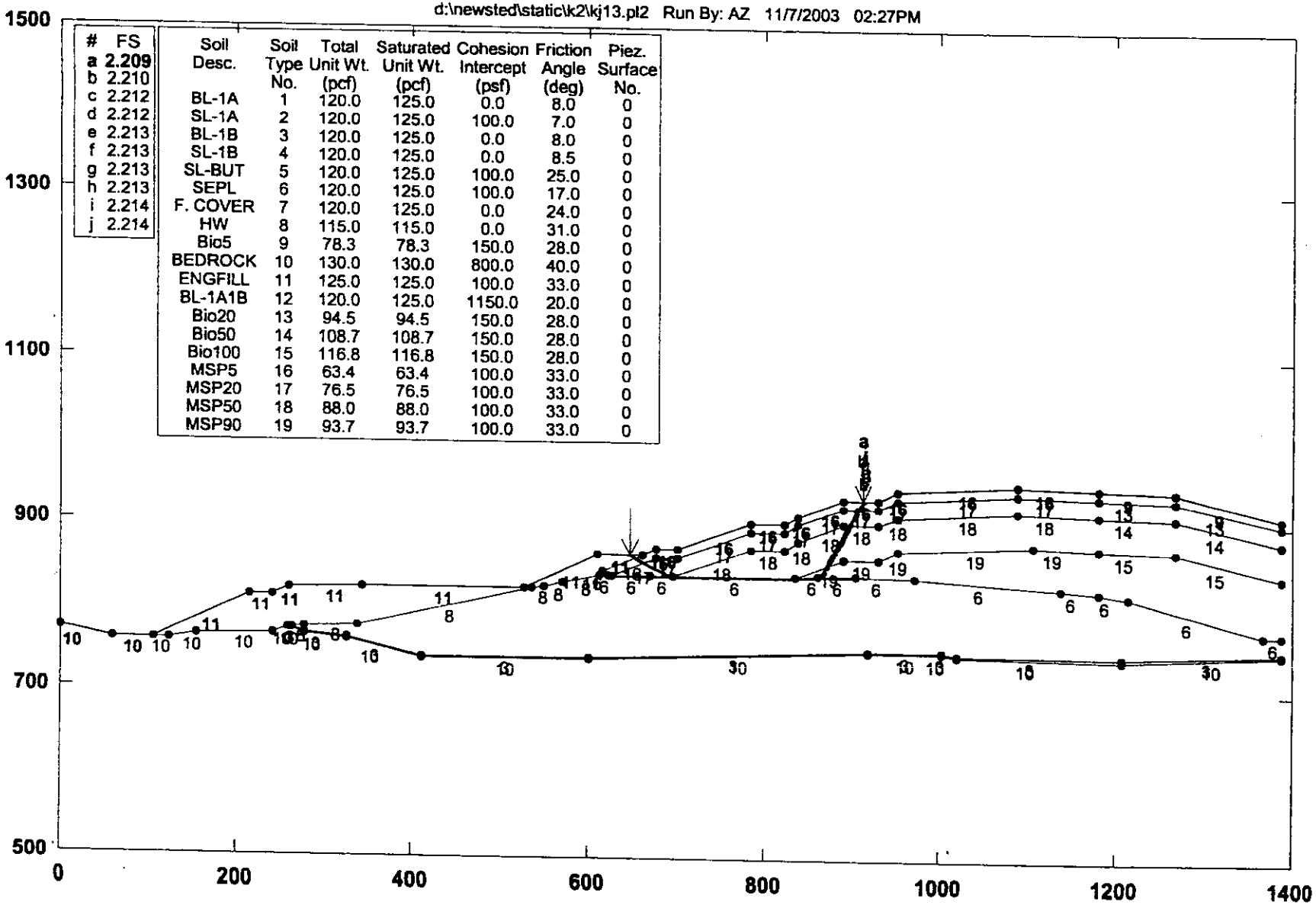
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k2\kj13.pl2 Run By: AZ 11/7/2003 02:27PM

#	FS
a	2.209
b	2.210
c	2.212
d	2.212
e	2.213
f	2.213
g	2.213
h	2.213
i	2.214
j	2.214

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.209

Safety Factors Are Calculated By The Simplified Janbu Method

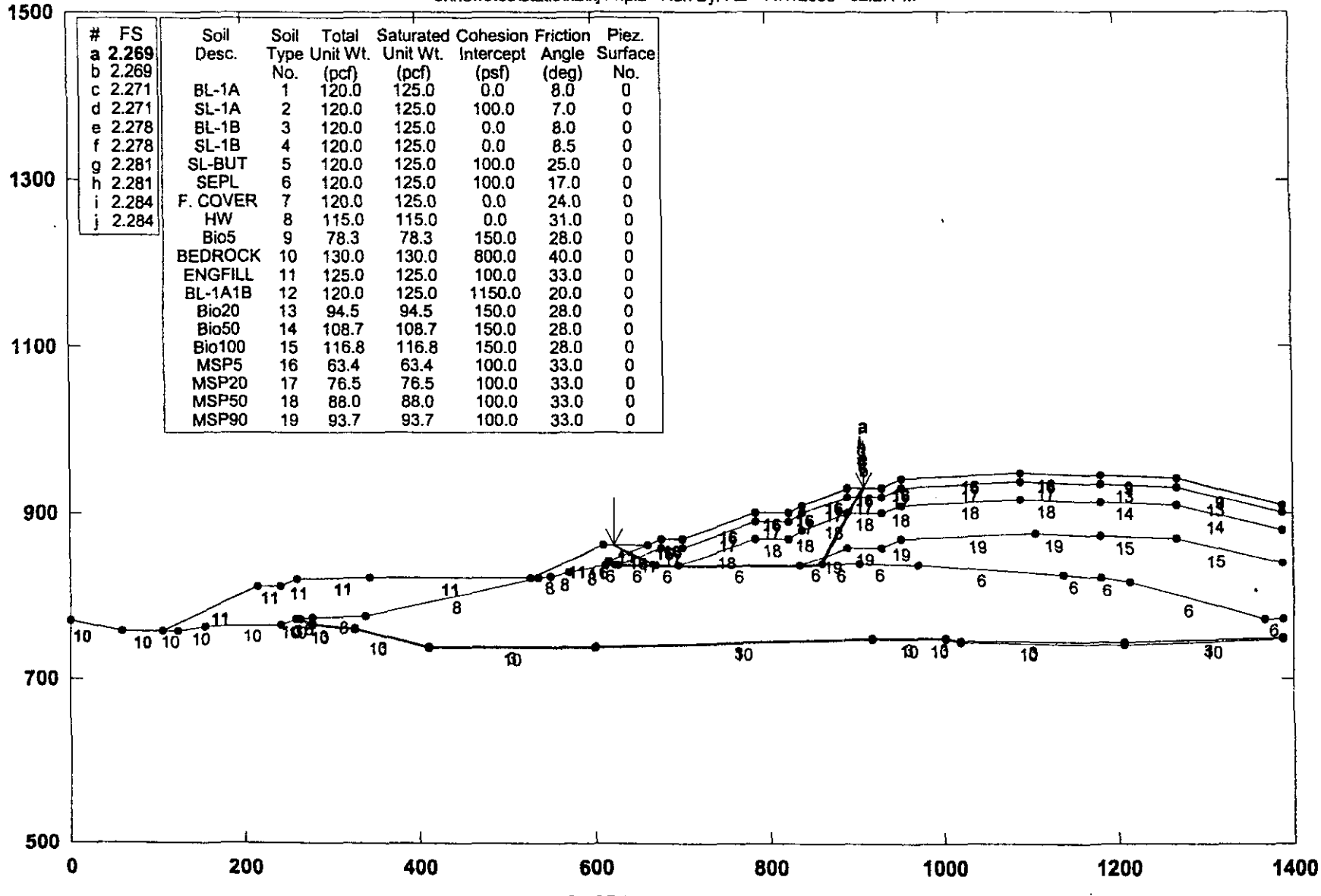
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k2\kj14.pl2 Run By: AZ 11/7/2003 02:27PM

#	FS
a	2.269
b	2.269
c	2.271
d	2.271
e	2.278
f	2.278
g	2.281
h	2.281
i	2.284
j	2.284

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.269

Safety Factors Are Calculated By The Simplified Janbu Method

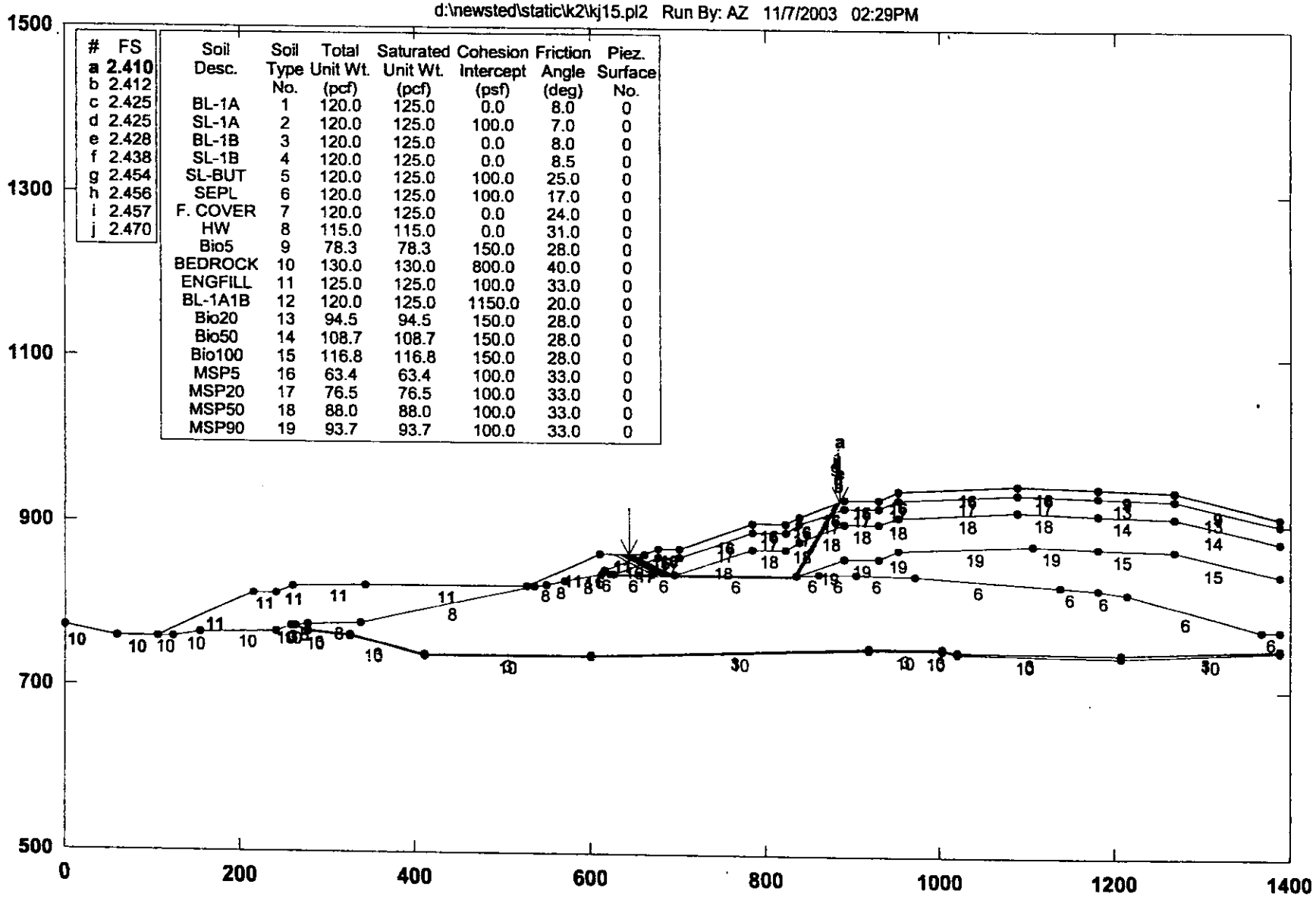
GSTABL7

KHF K-K' Static Janbu Block Search

d:\newsted\static\k2\kj15.pl2 Run By: AZ 11/7/2003 02:29PM

#	FS
a	2.410
b	2.412
c	2.425
d	2.425
e	2.428
f	2.438
g	2.454
h	2.456
i	2.457
j	2.470

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.410

Safety Factors Are Calculated By The Simplified Janbu Method

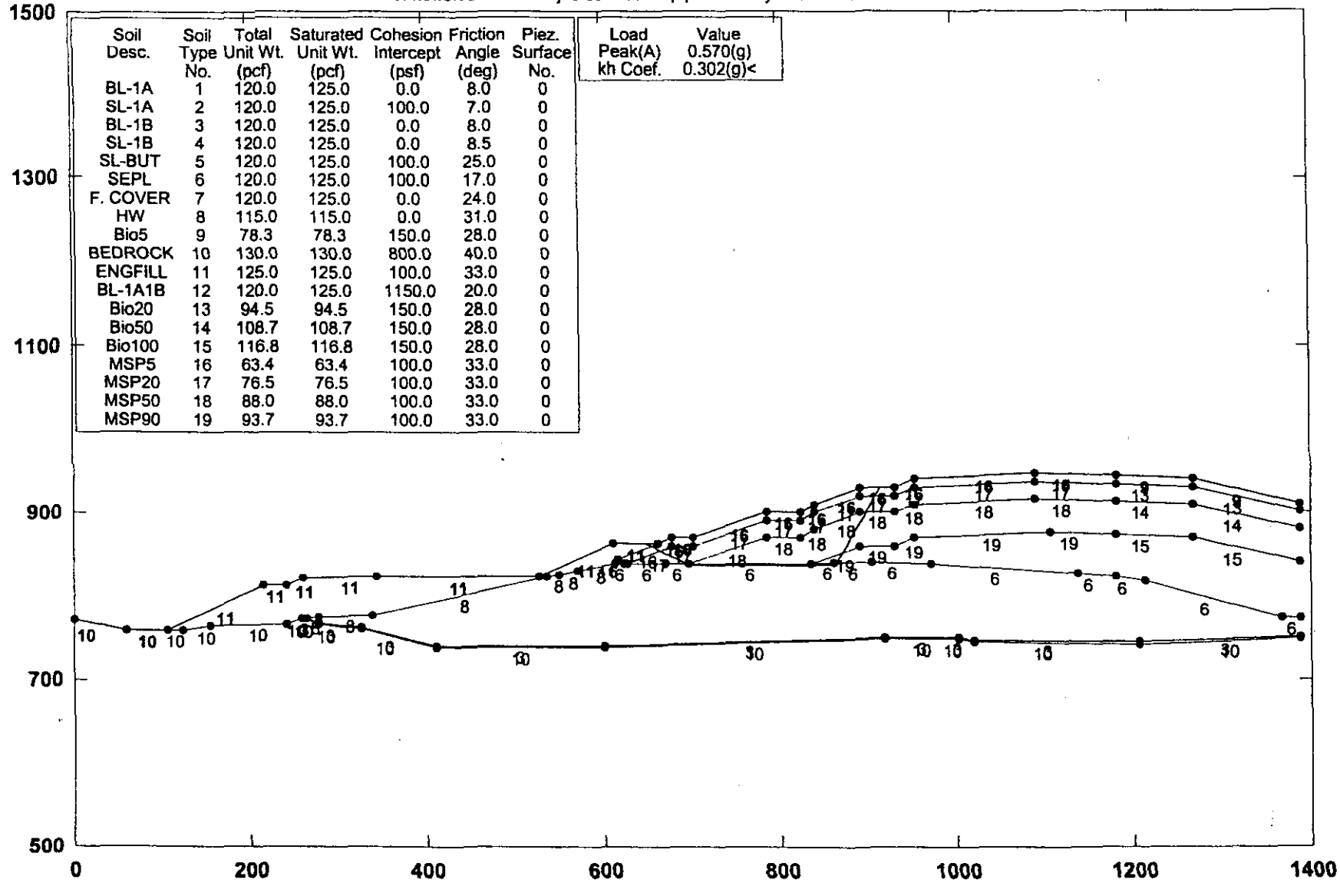
GSTABL7

KHF K-K' Failure Plane II Spencer Pseudo-Static Slope Stability

d:\newsted\static\k2\kj13 surface #1 p.plt Run By: AZ 11/7/2003 02:32PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.302(g)<



GSTABL7 v.2 FSmin=1.002

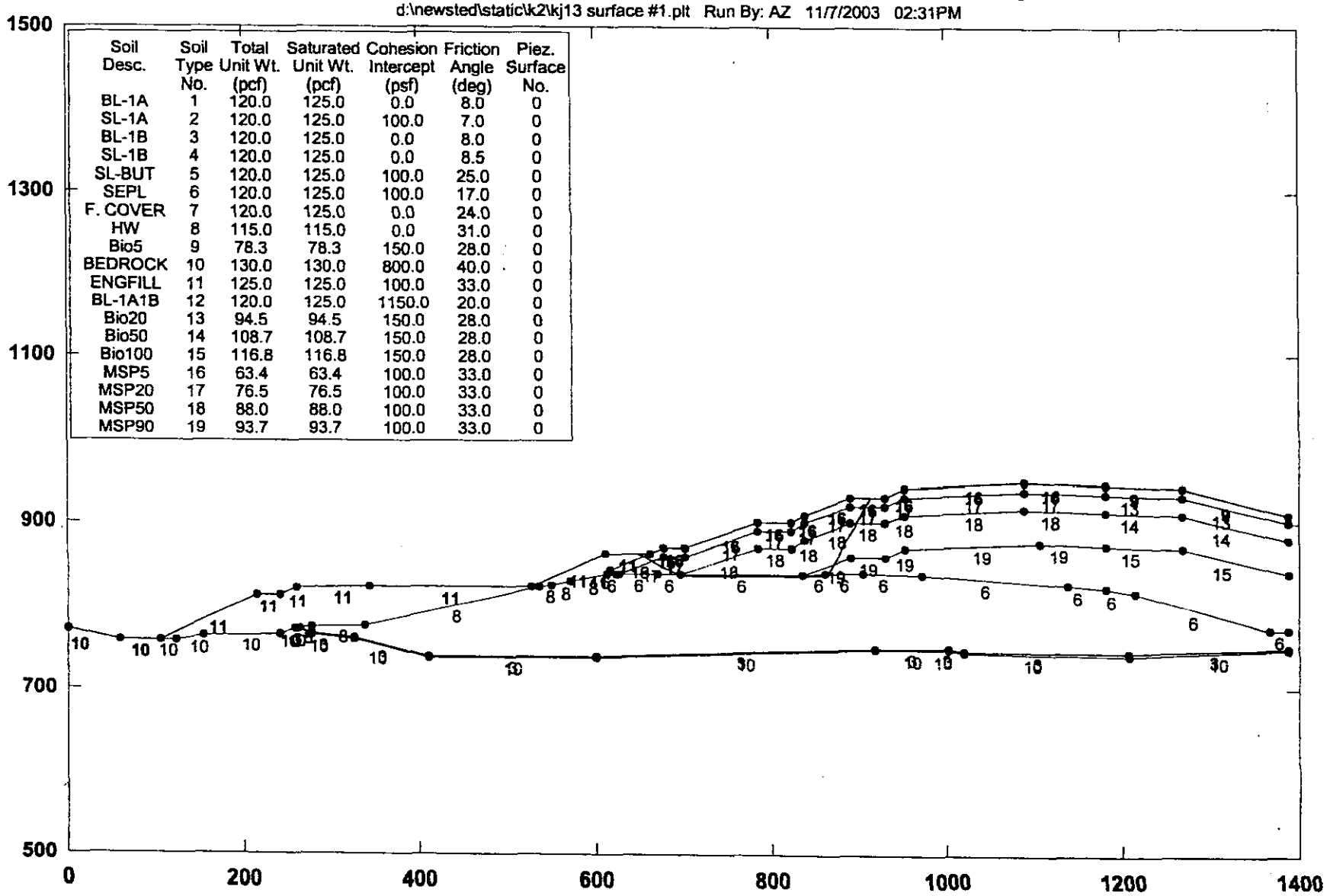
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF K-K' Failure Plane II Spencer Static Slope Stability

d:\newsted\static\k2\kj13 surface #1.plt Run By: AZ 11/7/2003 02:31PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
BL-1A	1	120.0	125.0	0.0	8.0	0
SL-1A	2	120.0	125.0	100.0	7.0	0
BL-1B	3	120.0	125.0	0.0	8.0	0
SL-1B	4	120.0	125.0	0.0	8.5	0
SL-BUT	5	120.0	125.0	100.0	25.0	0
SEPL	6	120.0	125.0	100.0	17.0	0
F. COVER	7	120.0	125.0	0.0	24.0	0
HW	8	115.0	115.0	0.0	31.0	0
Bio5	9	78.3	78.3	150.0	28.0	0
BEDROCK	10	130.0	130.0	800.0	40.0	0
ENGFILL	11	125.0	125.0	100.0	33.0	0
BL-1A1B	12	120.0	125.0	1150.0	20.0	0
Bio20	13	94.5	94.5	150.0	28.0	0
Bio50	14	108.7	108.7	150.0	28.0	0
Bio100	15	116.8	116.8	150.0	28.0	0
MSP5	16	63.4	63.4	100.0	33.0	0
MSP20	17	76.5	76.5	100.0	33.0	0
MSP50	18	88.0	88.0	100.0	33.0	0
MSP90	19	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.708

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

PSEUDO-STATIC SLOPE STABILITY ANALYSIS RESULTS (TABLE 2B)

CROSS SECTION A-A'

```
PROFIL  D:\newSTED\A1\a1jap.in Version G7v2.003 [GSTABL72.EXE]
KHF A-A'                                   Pseudo-Static Janbu Block Search
41 9
0. 832. 40. 832. 7
40. 832. 47. 832. 1
47. 832. 205. 887.6 1
205. 887.6 242. 890. 1
242. 890. 322. 920. 1
322. 920. 652. 940. 1
652. 940. 1117. 947.1 1
1117. 947.1 1242. 949. 1
1242. 949. 1257. 940. 1
53.07 824.14 205. 877.6 2
205. 877.6 242. 880. 2
242. 880. 322. 910. 2
322. 910. 652. 930. 2
652. 930. 1242. 939. 2
1242. 939. 1250. 938.42 2
77.36 812.69 205. 857.6 3
205. 857.6 242. 860. 3
242. 860. 322. 890. 3
322. 890. 652. 910. 3
652. 910. 1242. 919. 3
1242. 919. 1250. 918.42 3
125.95 789.87 205. 817.6 4
205. 817.6 242. 820. 4
242. 820. 322. 850. 4
322. 850. 652. 870. 4
652. 870. 1242. 879. 4
1242. 879. 1250. 878.42 4
40. 832. 47. 827. 7
47. 827. 53.07 824.14 7
53.07 824.14 77.36 812.69 7
77.36 812.69 125.95 789.87 7
125.95 789.87 187. 761. 7
187. 761. 197. 755. 7
197. 755. 212. 753. 7
212. 753. 274. 739. 7
274. 739. 627. 737. 6
627. 737. 747. 740. 6
747. 740. 839. 743. 6
839. 743. 859. 741. 6
852. 741. 1187. 737. 6
1187. 737. 1257. 739. 6
500. 0. 0.
SOIL  Bio5    Bio20   Bio50   Bio130  BEDROCK BL      SL      Eng Fill
8
78.3 78.3 150. 28. 0. 0. 1
94.51 94.51 150. 28. 0. 0. 1
108.65 108.65 150. 28. 0. 0. 1
117.16 117.16 150. 28. 0. 0. 1
130. 130. 800. 40. 0. 0. 1
120. 125. 0. 8. 0. 0. 1
120. 125. 0. 8.5 0. 0. 1
125. 125. 100. 33. 0. 0. 1
EQUAKE
0.57 0.13 0.0 0. 1
BLOCK2
2000 9 10.
40. 829. 40. 829. 0.
47. 824. 47. 824. 0.
187. 758. 187. 758. 0.
197. 752. 197. 752. 0.
212. 750. 212. 750. 0.
274. 736. 274. 736. 0.
627. 734. 627. 734. 0.
747. 737. 747. 737. 0.
747.1 737. 839. 740. 0.
```

```
                    *** GSTABL7 ***
              ** GSTABL7 by Garry H. Gregory, P.E. **
   ** Original Version 1.0, January 1996; Current Version 2.003, June 2002 **
            (All Rights Reserved-Unauthorized Use Prohibited)
*******************************************************************************
                  SLOPE STABILITY ANALYSIS SYSTEM
      Modified Bishop, Simplified Janbu, or GLE Method of Slices.
      (Includes Spencer & Morgenstern-Price Type Analysis)
      Including Pier/Pile, Reinforcement, Soil Nail, Tieback,
      Nonlinear Undrained Shear Strength, Curved Phi Envelope,
      Anisotropic Soil, Fiber-Reinforced Soil, Boundary Loads, Water
      Surfaces, Pseudo-Static & Newmark Earthquake, and Applied Forces.
*******************************************************************************
Analysis Run Date:          11/6/2003
Time of Run:                04:53PM
Run By:                     AZ
Input Data Filename:        D:\newSTED\A1\a1jap.in
Output Filename:            D:\newSTED\A1\a1jap.OUT
Unit System:                English
Plotted Output Filename:    D:\newSTED\A1\a1jap.PLT
PROBLEM DESCRIPTION:   KHF A-A'
                       Pseudo-Static Janbu Block Search
BOUNDARY COORDINATES
    9 Top   Boundaries
   41 Total Boundaries
```

Boundary No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Soil Type Below Bnd
1	0.00	832.00	40.00	832.00	7
2	40.00	832.00	47.00	832.00	1
3	47.00	832.00	205.00	887.60	1
4	205.00	887.60	242.00	890.00	1
5	242.00	890.00	322.00	920.00	1
6	322.00	920.00	652.00	940.00	1
7	652.00	940.00	1117.00	947.10	1
8	1117.00	947.10	1242.00	949.00	1
9	1242.00	949.00	1257.00	940.00	1
10	53.07	824.14	205.00	877.60	2
11	205.00	877.60	242.00	880.00	2
12	242.00	880.00	322.00	910.00	2
13	322.00	910.00	652.00	930.00	2
14	652.00	930.00	1242.00	939.00	2
15	1242.00	939.00	1250.00	938.42	2
16	77.36	812.69	205.00	857.60	3
17	205.00	857.60	242.00	860.00	3
18	242.00	860.00	322.00	890.00	3
19	322.00	890.00	652.00	910.00	3
20	652.00	910.00	1242.00	919.00	3
21	1242.00	919.00	1250.00	918.42	3
22	125.95	789.87	205.00	817.60	4
23	205.00	817.60	242.00	820.00	4
24	242.00	820.00	322.00	850.00	4
25	322.00	850.00	652.00	870.00	4
26	652.00	870.00	1242.00	879.00	4
27	1242.00	879.00	1250.00	878.42	4
28	40.00	832.00	47.00	827.00	7
29	47.00	827.00	53.07	824.14	7
30	53.07	824.14	77.36	812.69	7
31	77.36	812.69	125.95	789.87	7
32	125.95	789.87	187.00	761.00	7
33	187.00	761.00	197.00	755.00	7
34	197.00	755.00	212.00	753.00	7
35	212.00	753.00	274.00	739.00	7
36	274.00	739.00	627.00	737.00	6
37	627.00	737.00	747.00	740.00	6
38	747.00	740.00	839.00	743.00	6
39	839.00	743.00	859.00	741.00	6
40	852.00	741.00	1187.00	737.00	6
41	1187.00	737.00	1257.00	739.00	6

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User Specified Y-Origin =        500.00(ft)
Default X-Plus Value = 0.00(ft)
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Default Y-Plus Value = 0.00(ft)
ISOTROPIC SOIL PARAMETERS
8 Type(s) of Soil

Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Param.	Pressure Constant (psf)	Piez. Surface No.
1	78.3	78.3	150.0	28.0	0.00	0.0	1
2	94.5	94.5	150.0	28.0	0.00	0.0	1
3	108.7	108.7	150.0	28.0	0.00	0.0	1
4	117.2	117.2	150.0	28.0	0.00	0.0	1
5	130.0	130.0	800.0	40.0	0.00	0.0	1
6	120.0	125.0	0.0	8.0	0.00	0.0	1
7	120.0	125.0	0.0	8.5	0.00	0.0	1
8	125.0	125.0	100.0	33.0	0.00	0.0	1

Specified Peak Ground Acceleration Coefficient (A) = 0.570(g)
Specified Horizontal Earthquake Coefficient (kh) = 0.130(g)
Specified Vertical Earthquake Coefficient (kv) = 0.000(g)
Specified Seismic Pore-Pressure Factor = 0.000
A Critical Failure Surface Searching Method, Using A Random Technique For Generating Sliding Block Surfaces, Has Been Specified.
The Active And Passive Portions Of The Sliding Surfaces Are Generated According To The Rankine Theory.
2000 Trial Surfaces Have Been Generated.
9 Boxes Specified For Generation Of Central Block Base
Length Of Line Segments For Active And Passive Portions Of Sliding Block Is 10.0

Box No.	X-Left (ft)	Y-Left (ft)	X-Right (ft)	Y-Right (ft)	Height (ft)
1	40.00	829.00	40.00	829.00	0.00
2	47.00	824.00	47.00	824.00	0.00
3	187.00	758.00	187.00	758.00	0.00
4	197.00	752.00	197.00	752.00	0.00
5	212.00	750.00	212.00	750.00	0.00
6	274.00	736.00	274.00	736.00	0.00
7	627.00	734.00	627.00	734.00	0.00
8	747.00	737.00	747.00	737.00	0.00
9	747.10	737.00	839.00	740.00	0.00

Following Are Displayed The Ten Most Critical Of The Trial Failure Surfaces Evaluated. They Are Ordered - Most Critical First.
* * Safety Factors Are Calculated By The Simplified Janbu Method * *
Total Number of Trial Surfaces Evaluated = 2000
Statistical Data On All Valid FS Values:
FS Max = 1.001 FS Min = 0.985 FS Ave = 0.995
Standard Deviation = 0.003 Coefficient of Variation = 0.31 %
Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	837.27	739.94
11	839.85	742.91
12	846.41	750.46
13	852.97	758.01
14	859.53	765.56
15	866.09	773.10
16	872.65	780.65
17	879.21	788.20
18	885.77	795.74

19	892.33	803.29
20	898.90	810.84
21	905.46	818.39
22	912.02	825.93
23	918.58	833.48
24	925.14	841.03
25	931.70	848.57
26	938.26	856.12
27	944.82	863.67
28	951.38	871.22
29	954.33	874.61
30	959.48	883.18
31	964.63	891.76
32	969.78	900.33
33	974.93	908.90
34	978.59	914.98
35	983.74	923.55
36	988.89	932.13
37	990.72	935.17
38	995.87	943.74
39	996.78	945.26

Factor of Safety
*** 0.985 ***

Individual data on the 46 slices

Slice No.	Width (ft)	Weight (lbs)	Water Force Top (lbs)	Water Force Bot (lbs)	Tie Force Norm (lbs)	Tie Force Tan (lbs)	Earthquake Force Hor (lbs)	Earthquake Force Ver (lbs)	Surcharge Load (lbs)
1	3.5	626.7	0.0	0.0	0.	0.	81.5	0.0	0.0
2	7.0	3890.2	0.0	0.0	0.	0.	505.7	0.0	0.0
3	6.1	5749.4	0.0	0.0	0.	0.	747.4	0.0	0.0
4	24.3	50715.6	0.0	0.0	0.	0.	6593.0	0.0	0.0
5	48.6	252994.8	0.0	0.0	0.	0.	32889.3	0.0	0.0
6	61.0	630311.1	0.0	0.0	0.	0.	81940.4	0.0	0.0
7	10.0	138261.0	0.0	0.0	0.	0.	17973.9	0.0	0.0
8	8.0	116888.2	0.0	0.0	0.	0.	15195.5	0.0	0.0
9	7.0	104437.6	0.0	0.0	0.	0.	13576.9	0.0	0.0
10	30.0	465352.8	0.0	0.0	0.	0.	60495.9	0.0	0.0
11	32.0	548762.6	0.0	0.0	0.	0.	71339.1	0.0	0.0
12	48.0	928581.6	0.0	0.0	0.	0.	*******	0.0	0.0
13	305.0	6587968.0	0.0	0.0	0.	0.	*******	0.0	0.0
14	25.0	570902.8	0.0	0.0	0.	0.	74217.4	0.0	0.0
15	95.0	2169236.8	0.0	0.0	0.	0.	*******	0.0	0.0
16	90.3	2047988.4	0.0	0.0	0.	0.	*******	0.0	0.0
17	1.7	38960.0	0.0	0.0	0.	0.	5064.8	0.0	0.0
18	0.8	18955.2	0.0	0.0	0.	0.	2464.2	0.0	0.0
19	6.6	143074.8	0.0	0.0	0.	0.	18599.7	0.0	0.0
20	6.6	137350.9	0.0	0.0	0.	0.	17855.6	0.0	0.0
21	6.6	131626.7	0.0	0.0	0.	0.	17111.5	0.0	0.0
22	6.6	125902.8	0.0	0.0	0.	0.	16367.4	0.0	0.0
23	6.6	120178.6	0.0	0.0	0.	0.	15623.2	0.0	0.0
24	6.6	114454.7	0.0	0.0	0.	0.	14879.1	0.0	0.0
25	6.6	108730.5	0.0	0.0	0.	0.	14135.0	0.0	0.0
26	6.6	103006.5	0.0	0.0	0.	0.	13390.9	0.0	0.0
27	6.6	97282.4	0.0	0.0	0.	0.	12646.7	0.0	0.0
28	6.6	91558.5	0.0	0.0	0.	0.	11902.6	0.0	0.0
29	6.6	85834.3	0.0	0.0	0.	0.	11158.5	0.0	0.0
30	6.6	80110.4	0.0	0.0	0.	0.	10414.3	0.0	0.0
31	6.6	74386.2	0.0	0.0	0.	0.	9670.2	0.0	0.0
32	6.6	68662.3	0.0	0.0	0.	0.	8926.1	0.0	0.0
33	6.6	62938.1	0.0	0.0	0.	0.	8182.0	0.0	0.0
34	6.6	57214.1	0.0	0.0	0.	0.	7437.8	0.0	0.0
35	6.6	51490.0	0.0	0.0	0.	0.	6693.7	0.0	0.0
36	3.0	21300.9	0.0	0.0	0.	0.	2769.1	0.0	0.0
37	5.2	33777.1	0.0	0.0	0.	0.	4391.0	0.0	0.0
38	5.2	29024.4	0.0	0.0	0.	0.	3773.2	0.0	0.0
39	5.2	24271.8	0.0	0.0	0.	0.	3155.3	0.0	0.0

40	5.2	19519.2	0.0	0.0	0.	0.	2537.5	0.0	0.0
41	3.7	10969.5	0.0	0.0	0.	0.	1426.0	0.0	0.0
42	5.2	11702.9	0.0	0.0	0.	0.	1521.4	0.0	0.0
43	5.2	7568.8	0.0	0.0	0.	0.	983.9	0.0	0.0
44	1.8	1692.0	0.0	0.0	0.	0.	220.0	0.0	0.0
45	5.2	2322.2	0.0	0.0	0.	0.	301.9	0.0	0.0
46	0.9	54.3	0.0	0.0	0.	0.	7.1	0.0	0.0

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	831.39	739.75
11	834.07	742.84
12	840.63	750.39
13	847.19	757.93
14	853.75	765.48
15	860.32	773.03
16	866.88	780.57
17	873.44	788.12
18	880.00	795.67
19	886.56	803.22
20	893.12	810.76
21	899.68	818.31
22	906.24	825.86
23	912.80	833.40
24	919.36	840.95
25	925.92	848.50
26	932.48	856.05
27	939.04	863.59
28	945.60	871.14
29	948.54	874.52
30	953.69	883.10
31	958.84	891.67
32	964.00	900.24
33	969.15	908.81
34	972.80	914.89
35	977.95	923.47
36	983.10	932.04
37	984.93	935.08
38	990.08	943.65
39	991.00	945.18

Factor of Safety
*** 0.986 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	831.34	739.75
11	834.03	742.84
12	840.59	750.38
13	847.15	757.93

14	853.71	765.48
15	860.27	773.03
16	866.83	780.57
17	873.39	788.12
18	879.95	795.67
19	886.51	803.21
20	893.07	810.76
21	899.63	818.31
22	906.19	825.86
23	912.76	833.40
24	919.32	840.95
25	925.88	848.50
26	932.44	856.04
27	939.00	863.59
28	945.56	871.14
29	948.50	874.52
30	953.65	883.09
31	958.80	891.67
32	963.95	900.24
33	969.10	908.81
34	972.76	914.89
35	977.91	923.46
36	983.06	932.04
37	984.89	935.08
38	990.04	943.65
39	990.95	945.18

Factor of Safety
*** 0.986 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	821.34	739.42
11	824.02	742.51
12	830.58	750.06
13	837.14	757.61
14	843.70	765.15
15	850.26	772.70
16	856.82	780.25
17	863.39	787.79
18	869.95	795.34
19	876.51	802.89
20	883.07	810.44
21	889.63	817.98
22	896.19	825.53
23	902.75	833.08
24	909.31	840.62
25	915.87	848.17
26	922.43	855.72
27	928.99	863.27
28	935.55	870.81
29	938.65	874.37
30	943.80	882.94
31	948.95	891.52
32	954.10	900.09
33	959.25	908.66
34	962.90	914.74
35	968.05	923.31
36	973.20	931.89

37	975.03	934.93
38	980.18	943.50
39	981.10	945.02

Factor of Safety
*** 0.987 ***

Failure Surface Specified By 39 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	804.60	738.88
11	807.28	741.97
12	813.84	749.51
13	820.41	757.06
14	826.97	764.61
15	833.53	772.15
16	840.09	779.70
17	846.65	787.25
18	853.21	794.80
19	859.77	802.34
20	866.33	809.89
21	872.89	817.44
22	879.45	824.98
23	886.01	832.53
24	892.57	840.08
25	899.13	847.63
26	905.69	855.17
27	912.25	862.72
28	918.81	870.27
29	922.17	874.12
30	927.32	882.69
31	932.47	891.26
32	937.62	899.84
33	942.77	908.41
34	946.42	914.49
35	951.57	923.06
36	956.72	931.63
37	958.55	934.68
38	963.70	943.25
39	964.62	944.77

Factor of Safety
*** 0.988 ***

Failure Surface Specified By 37 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	836.32	739.91
11	839.01	743.00
12	844.16	751.57
13	849.31	760.14
14	854.46	768.71
15	859.61	777.29

16	864.76	785.86
17	869.91	794.43
18	875.06	803.00
19	880.21	811.57
20	885.36	820.14
21	890.51	828.72
22	895.66	837.29
23	900.81	845.86
24	905.96	854.43
25	911.11	863.00
26	916.26	871.57
27	917.75	874.05
28	922.90	882.63
29	928.05	891.20
30	933.20	899.77
31	938.35	908.34
32	942.01	914.42
33	947.16	923.00
34	952.31	931.57
35	954.14	934.61
36	959.29	943.18
37	960.21	944.71

Factor of Safety
*** 0.990 ***

Failure Surface Specified By 37 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	836.28	739.91
11	838.96	743.00
12	844.11	751.57
13	849.26	760.14
14	854.41	768.71
15	859.57	777.29
16	864.72	785.86
17	869.87	794.43
18	875.02	803.00
19	880.17	811.57
20	885.32	820.14
21	890.47	828.72
22	895.62	837.29
23	900.77	845.86
24	905.92	854.43
25	911.07	863.00
26	916.22	871.57
27	917.71	874.05
28	922.86	882.62
29	928.01	891.20
30	933.16	899.77
31	938.31	908.34
32	941.97	914.42
33	947.12	922.99
34	952.27	931.57
35	954.09	934.61
36	959.24	943.18
37	960.16	944.71

Factor of Safety
*** 0.990 ***

Failure Surface Specified By 37 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	836.23	739.91
11	838.92	743.00
12	844.07	751.57
13	849.22	760.14
14	854.37	768.71
15	859.52	777.28
16	864.67	785.86
17	869.82	794.43
18	874.97	803.00
19	880.12	811.57
20	885.27	820.14
21	890.42	828.71
22	895.57	837.29
23	900.72	845.86
24	905.87	854.43
25	911.02	863.00
26	916.17	871.57
27	917.66	874.05
28	922.82	882.62
29	927.97	891.20
30	933.12	899.77
31	938.27	908.34
32	941.92	914.42
33	947.07	922.99
34	952.22	931.57
35	954.05	934.61
36	959.20	943.18
37	960.12	944.70

Factor of Safety
*** 0.990 ***

Failure Surface Specified By 37 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	836.19	739.91
11	838.87	743.00
12	844.02	751.57
13	849.17	760.14
14	854.33	768.71
15	859.48	777.28
16	864.63	785.85
17	869.78	794.43
18	874.93	803.00
19	880.08	811.57
20	885.23	820.14
21	890.38	828.71
22	895.53	837.28
23	900.68	845.86

24	905.83	854.43
25	910.98	863.00
26	916.13	871.57
27	917.62	874.05
28	922.77	882.62
29	927.92	891.20
30	933.07	899.77
31	938.22	908.34
32	941.88	914.42
33	947.03	922.99
34	952.18	931.57
35	954.01	934.61
36	959.16	943.18
37	960.07	944.70

Factor of Safety
*** 0.990 ***

Failure Surface Specified By 37 Coordinate Points

Point No.	X-Surf (ft)	Y-Surf (ft)
1	36.52	832.00
2	40.00	829.00
3	47.00	824.00
4	187.00	758.00
5	197.00	752.00
6	212.00	750.00
7	274.00	736.00
8	627.00	734.00
9	747.00	737.00
10	836.37	739.91
11	839.05	743.00
12	844.20	751.57
13	849.35	760.14
14	854.50	768.71
15	859.65	777.28
16	864.80	785.85
17	869.95	794.43
18	875.10	803.00
19	880.25	811.57
20	885.40	820.14
21	890.55	828.71
22	895.70	837.28
23	900.85	845.86
24	906.00	854.43
25	911.15	863.00
26	916.30	871.57
27	917.80	874.05
28	922.95	882.63
29	928.10	891.20
30	933.25	899.77
31	938.40	908.34
32	942.05	914.42
33	947.20	923.00
34	952.35	931.57
35	954.18	934.61
36	959.33	943.18
37	960.25	944.71

Factor of Safety
*** 0.990 ***

**** END OF GSTABL7 OUTPUT ****

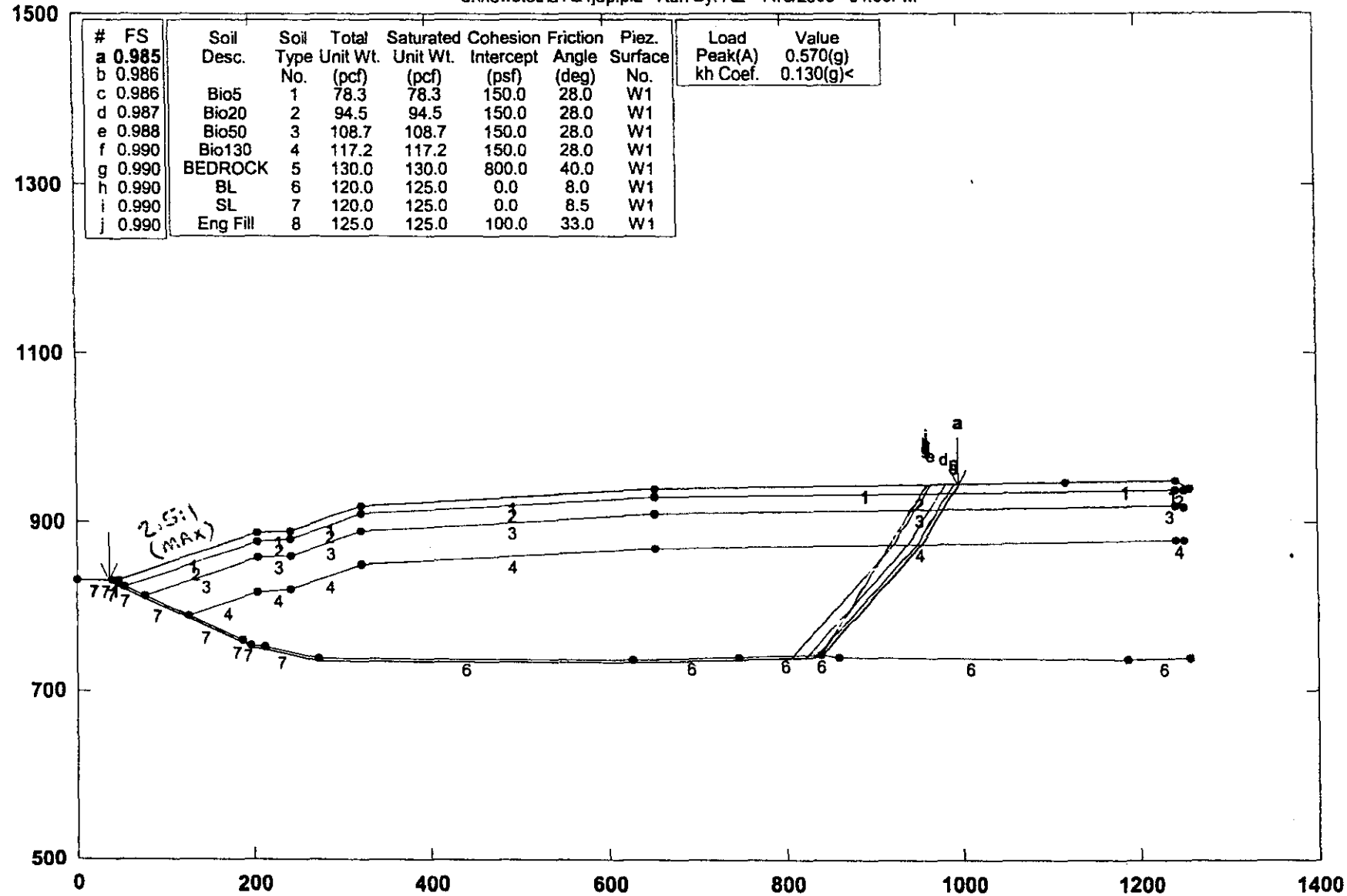
KHF A-A' Pseudo-Static Janbu Block Search

d:\newsted\a1\a1jap.pl2 Run By: AZ 11/6/2003 04:53PM

#	FS
a	0.985
b	0.986
c	0.986
d	0.987
e	0.988
f	0.990
g	0.990
h	0.990
i	0.990
j	0.990

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
BEDROCK	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.130(g)<



GSTABL7 v.2 FSmin=0.985

Safety Factors Are Calculated By The Simplified Janbu Method

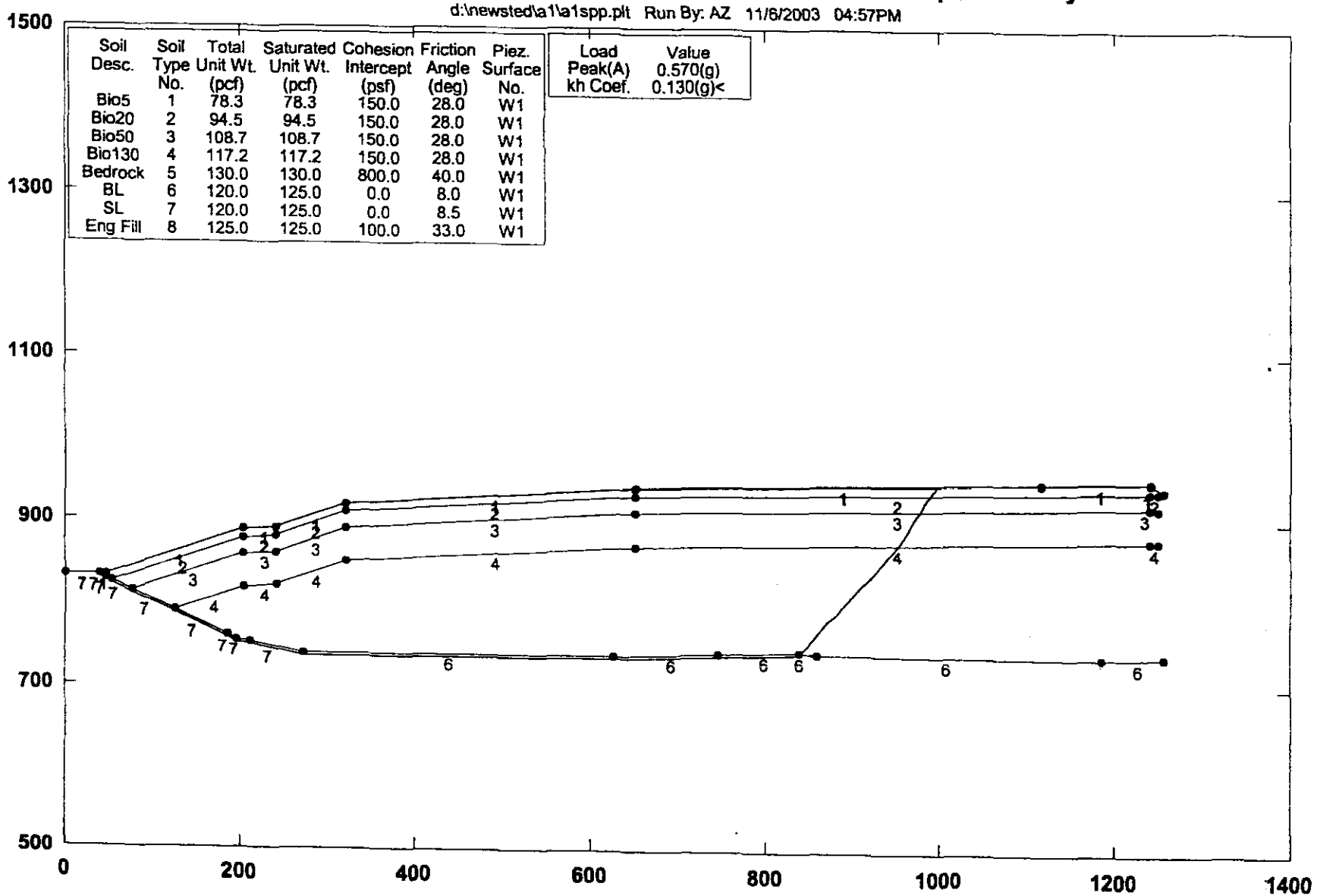
GSTABL7

KHF A-A' Failure Plane 1 Spencer Pseudo-Static Slope Stability

d:\newsted\a1\a1spp.plt Run By: AZ 11/6/2003 04:57PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
Bedrock	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.130(g)<



GSTABL7 v.2 FSmin=1.000

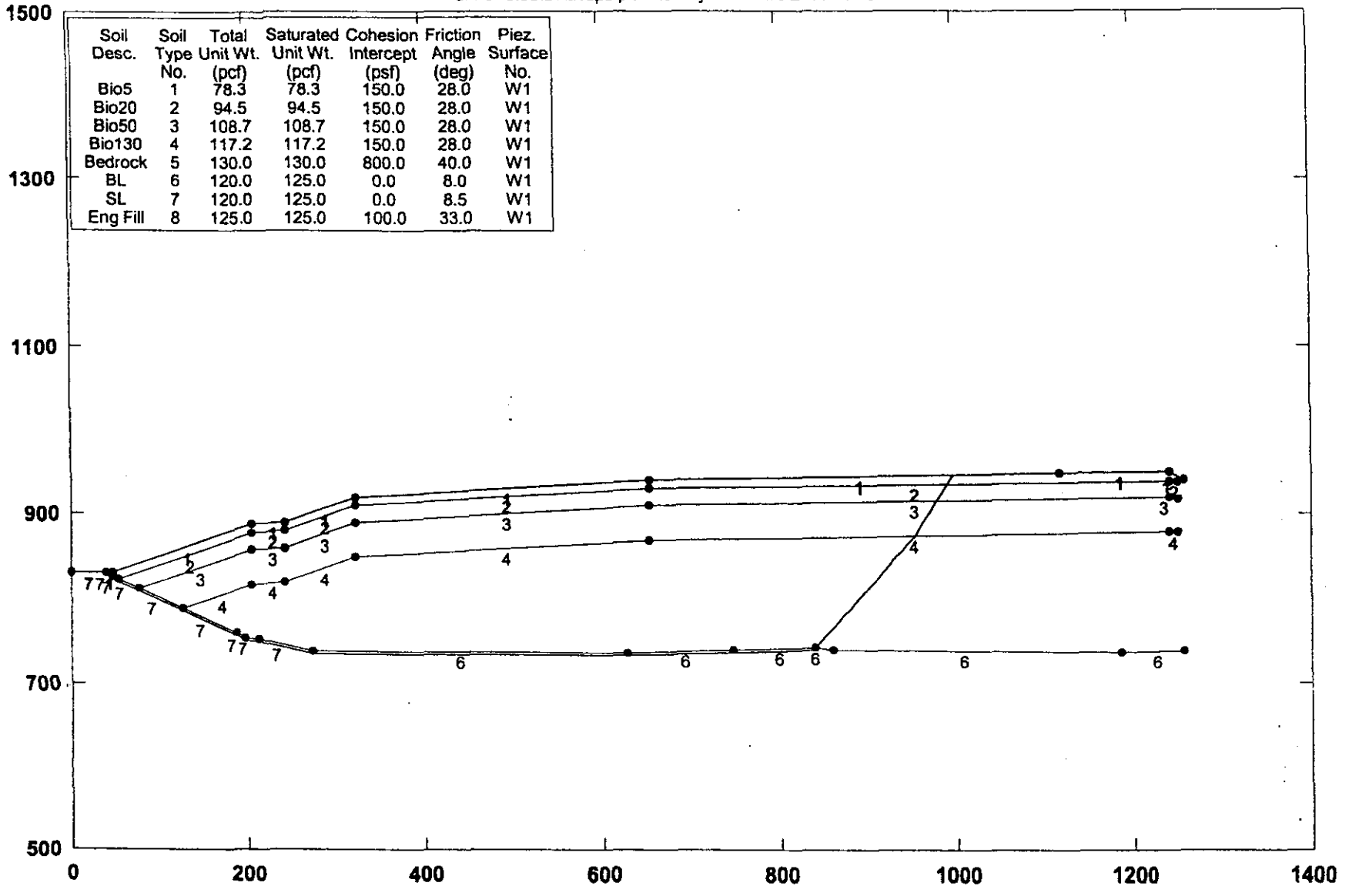
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 1 Spencer Static Slope Stability

d:\newsted\a1\a1sps.plt Run By: AZ 11/6/2003 04:58PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
Bedrock	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1



GSTABL7 v.2 FSmin=2.936

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

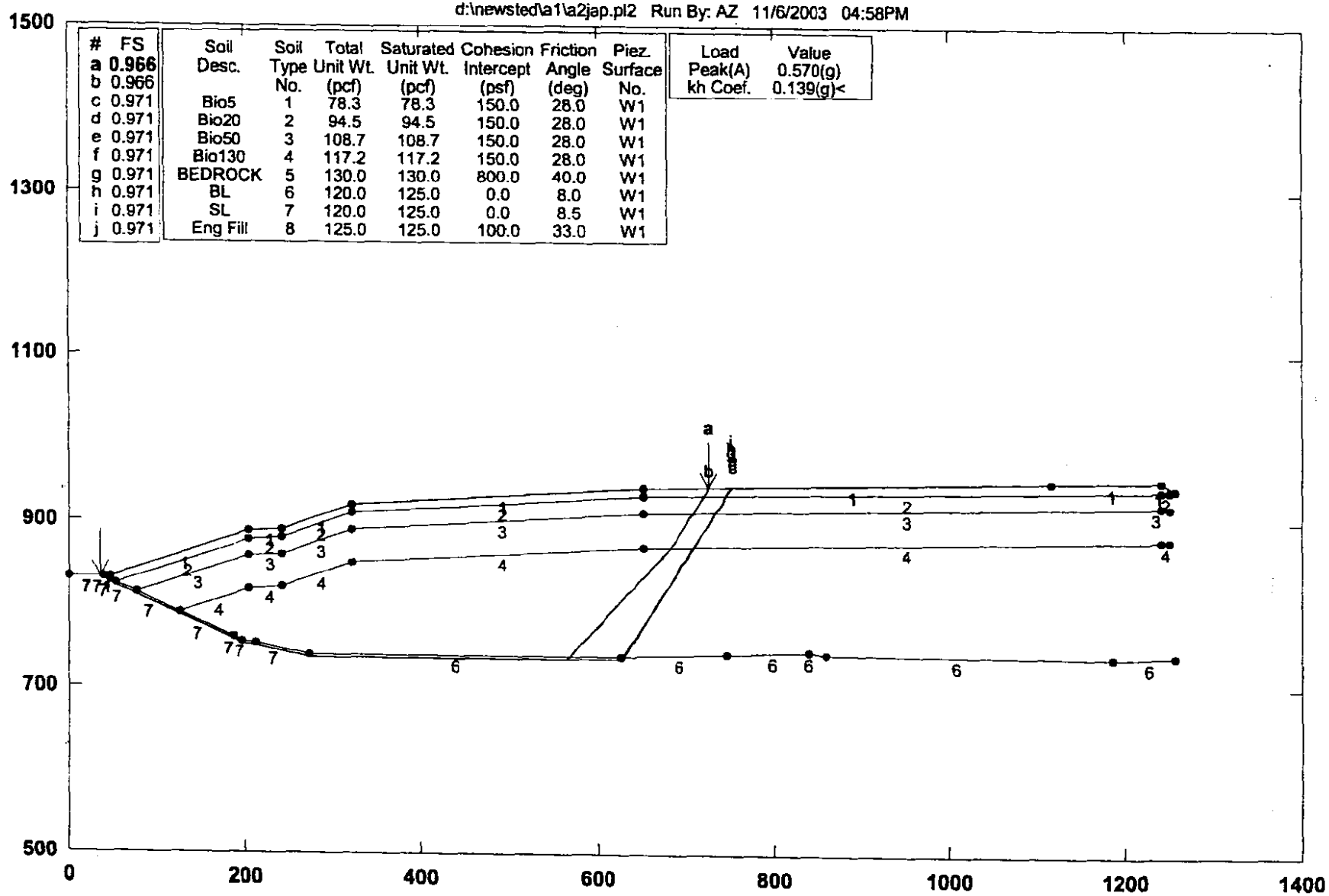
KHF A-A' Pseudo-Static Janbu Block Search

d:\newsted\a1\a2jap.pl2 Run By: AZ 11/6/2003 04:58PM

#	FS
a	0.966
b	0.966
c	0.971
d	0.971
e	0.971
f	0.971
g	0.971
h	0.971
i	0.971
j	0.971

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
BEDROCK	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.139(g)<



GSTABL7 v.2 FSmin=0.966

Safety Factors Are Calculated By The Simplified Janbu Method

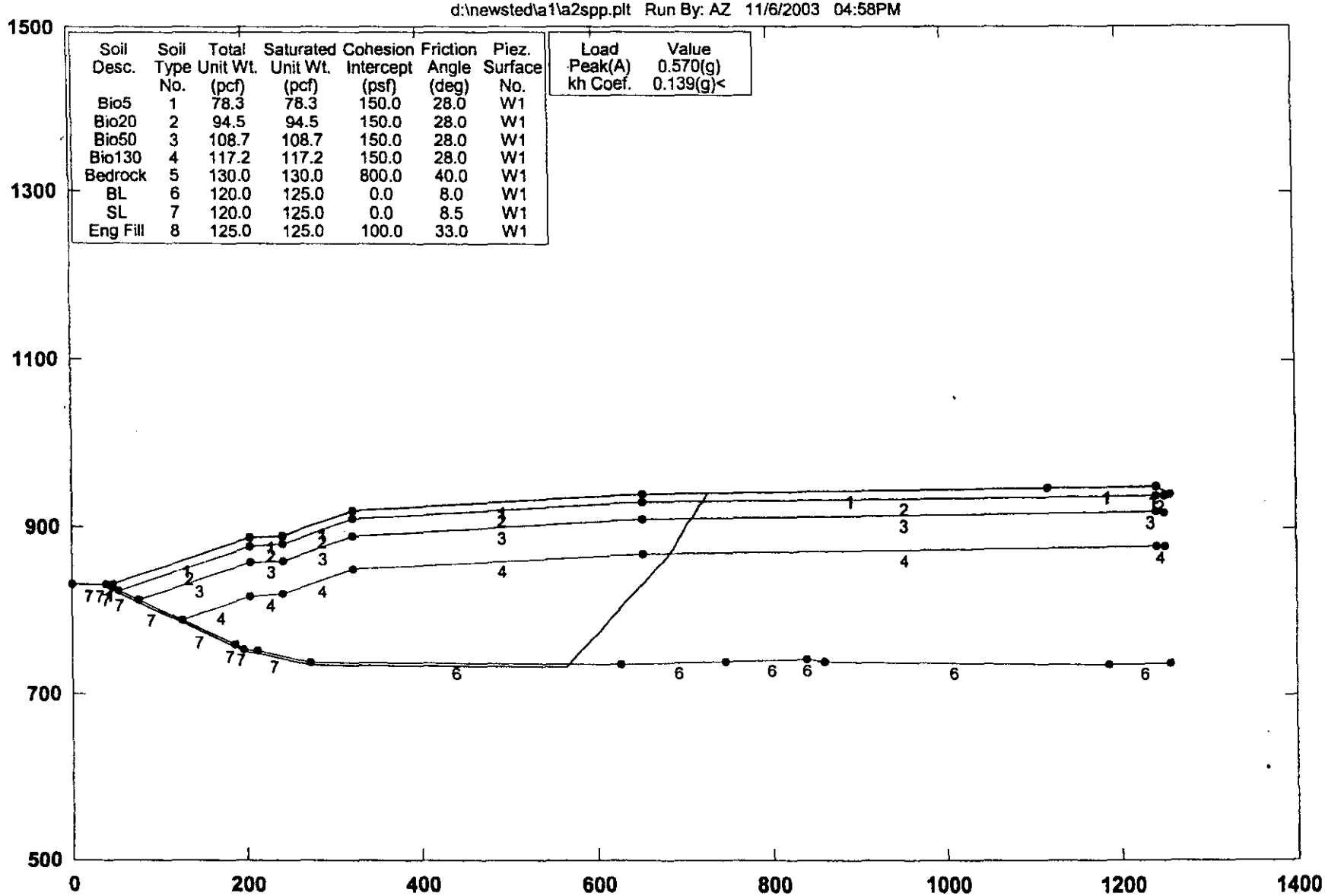
GSTABL7

KHF A-A' Failure Plane 2 Spencer Pseudo-Static Slope Stability

d:\newsted\a1\a2spp.plt Run By: AZ 11/6/2003 04:58PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
Bedrock	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.139(g)<



GSTABL7 v.2 FSmin=0.998

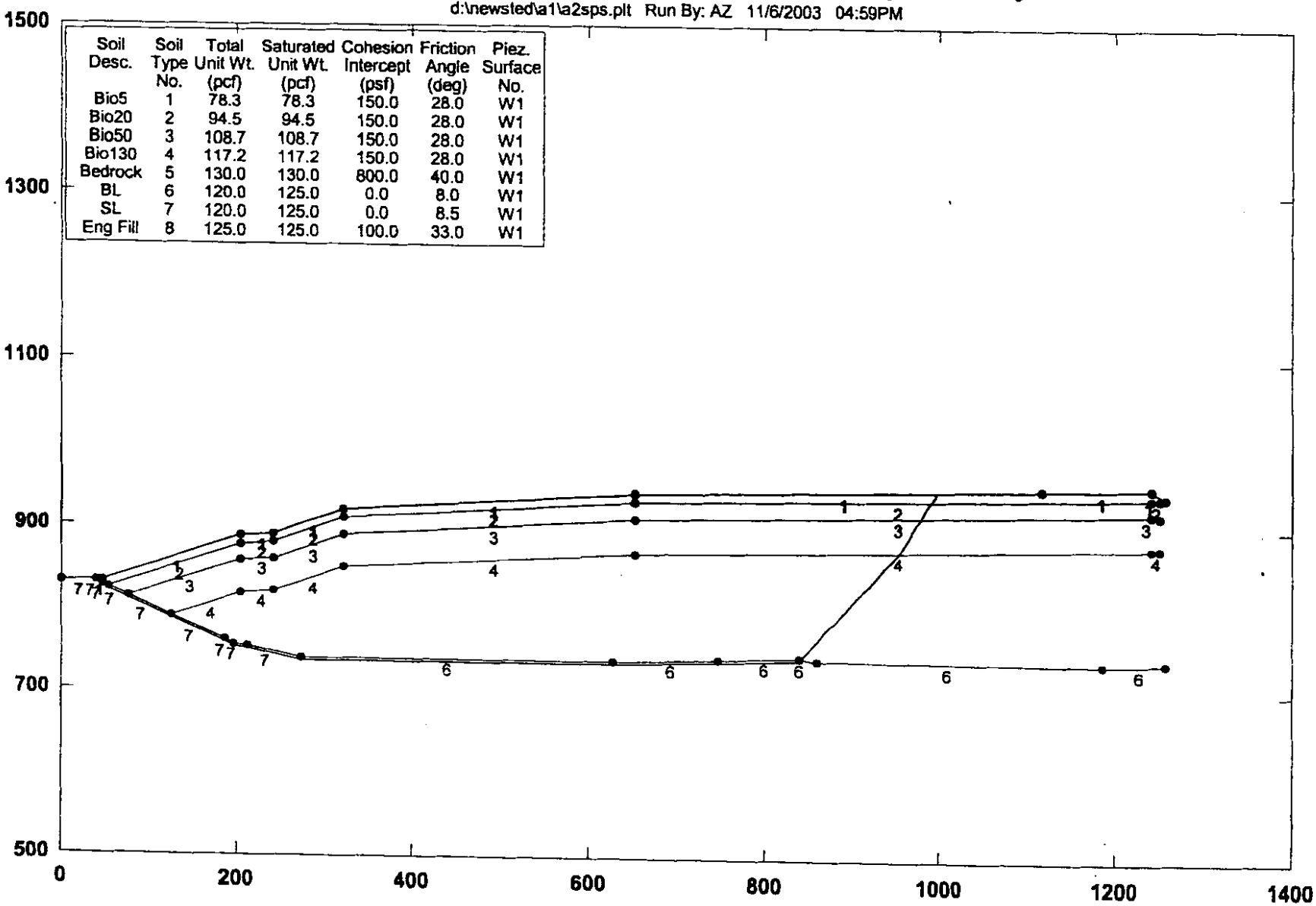
Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 2 Spencer Static Slope Stability

d:\newsted\a1\a2sps.plt Run By: AZ 11/6/2003 04:59PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
Bedrock	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1



GSTABL7 v.2 FSmin=2.938

Factor Of Safety is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

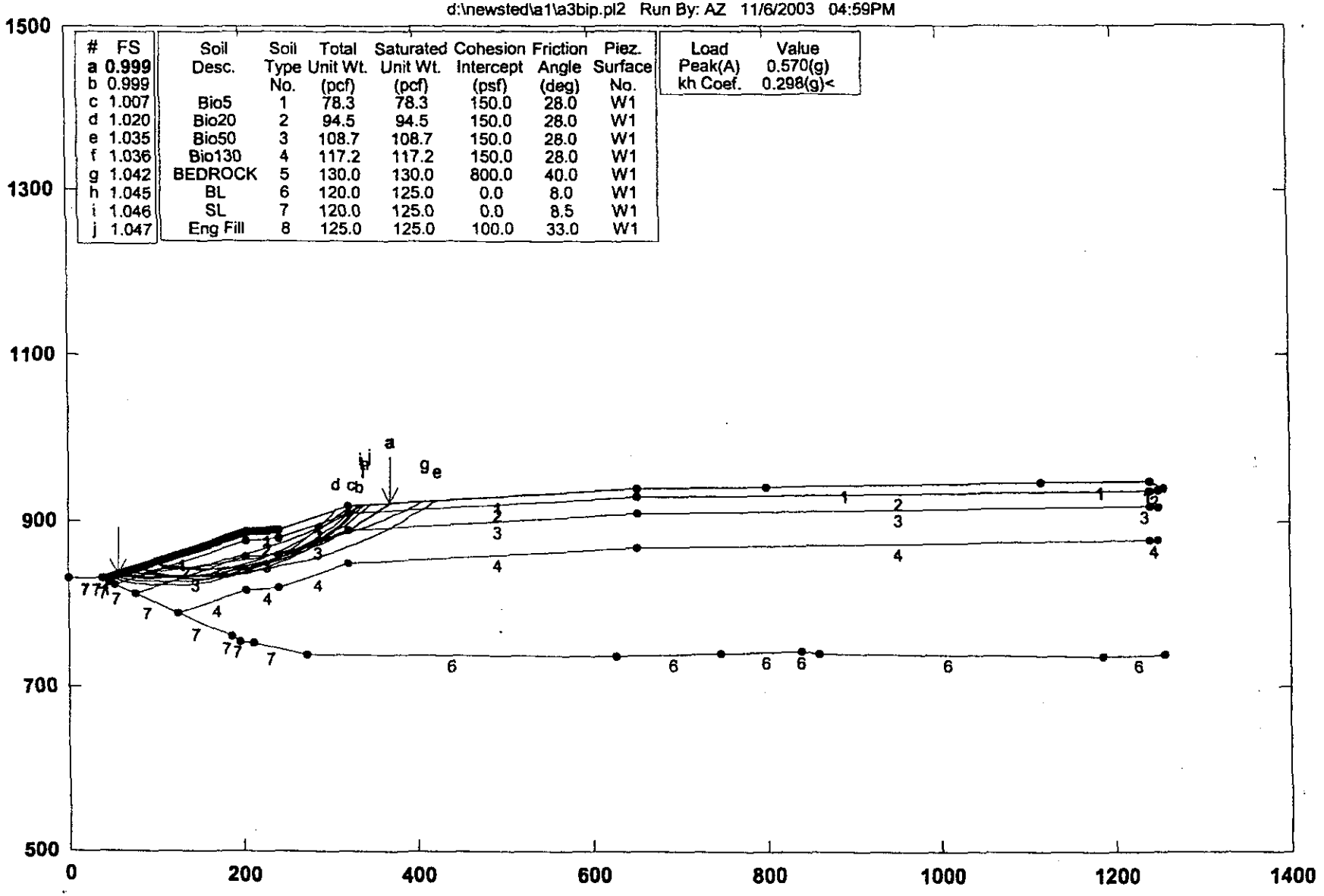
KHF A-A' Pseudo-Static Bishop Slope Stability

d:\newsted\a1\a3bip.pl2 Run By: AZ 11/6/2003 04:59PM

#	FS
a	0.999
b	0.999
c	1.007
d	1.020
e	1.035
f	1.036
g	1.042
h	1.045
i	1.046
j	1.047

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
BEDROCK	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.298(g)<



GSTABL7 v.2 FSmin=0.999

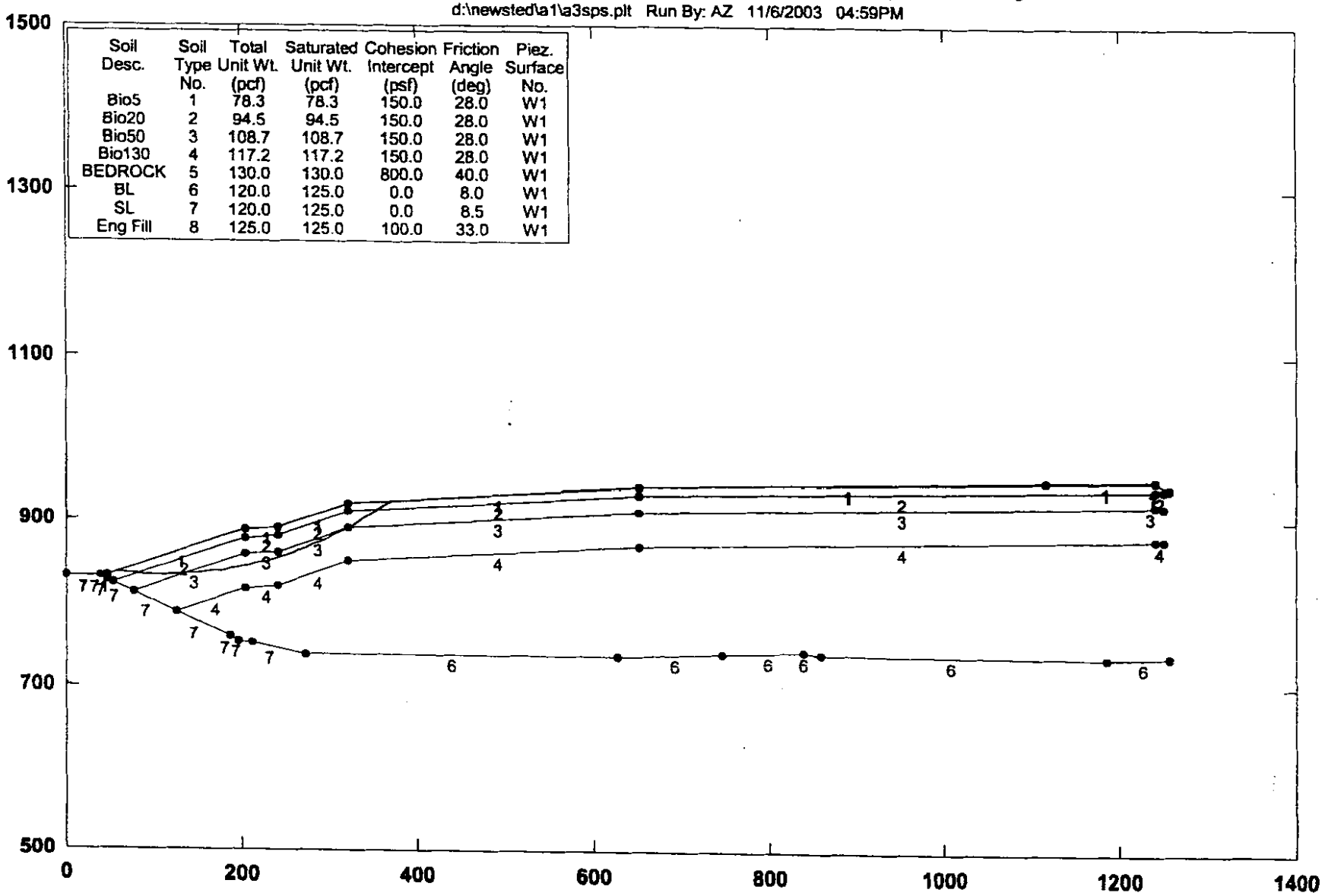
Safety Factors Are Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 3 Spencer Static Slope Stability

d:\newsted\a1\a3sps.plt Run By: AZ 11/6/2003 04:59PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bio5	1	78.3	78.3	150.0	28.0	W1
Bio20	2	94.5	94.5	150.0	28.0	W1
Bio50	3	108.7	108.7	150.0	28.0	W1
Bio130	4	117.2	117.2	150.0	28.0	W1
BEDROCK	5	130.0	130.0	800.0	40.0	W1
BL	6	120.0	125.0	0.0	8.0	W1
SL	7	120.0	125.0	0.0	8.5	W1
Eng Fill	8	125.0	125.0	100.0	33.0	W1



GSTABL7 v.2 FSmin=2.226

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

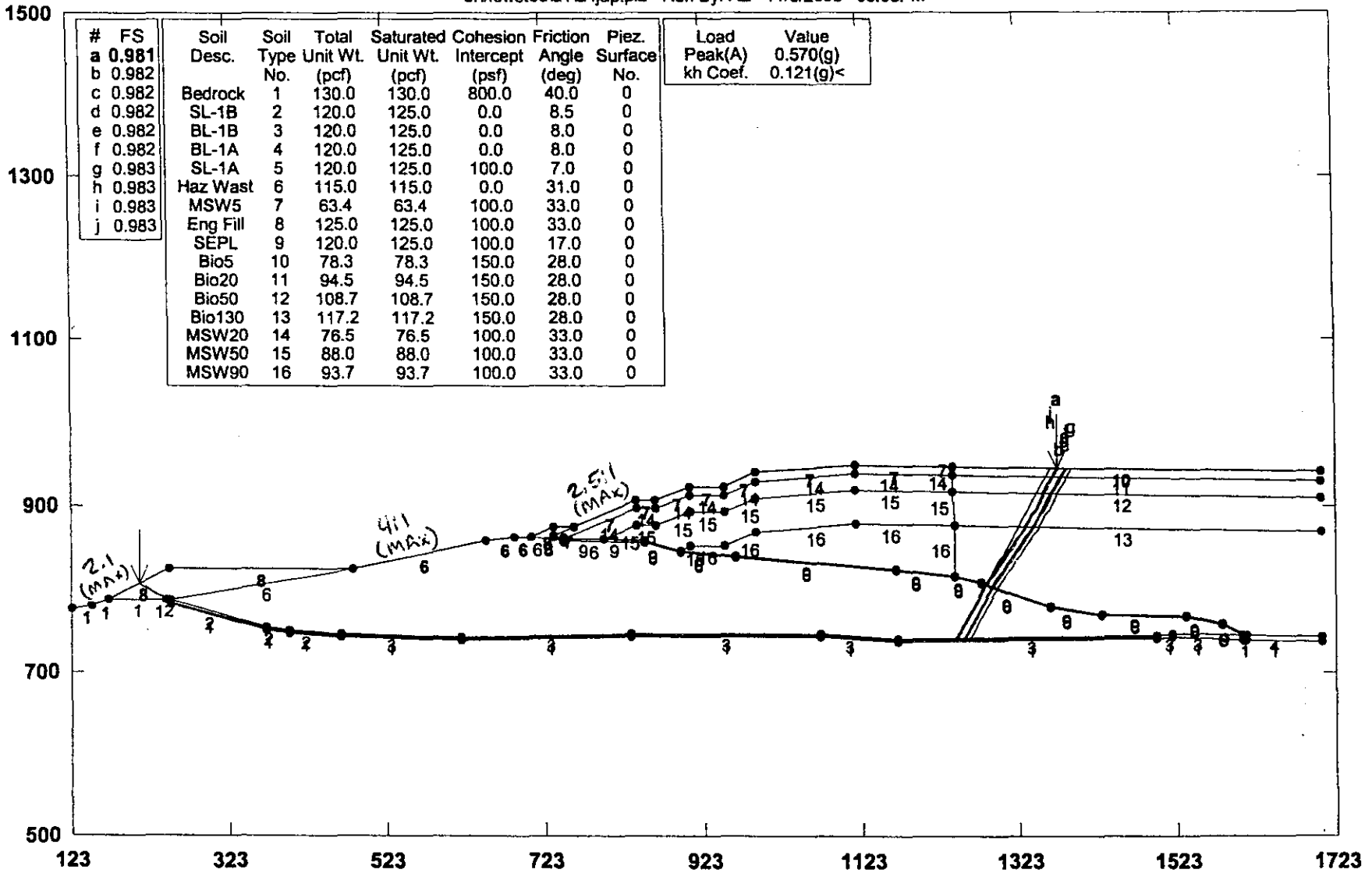
KHF A-A' Pseudo-Static Janbu Block Search

d:\newsted\a1\a4jap.pl2 Run By: AZ 11/6/2003 05:08PM

#	FS
a	0.981
b	0.982
c	0.982
d	0.982
e	0.982
f	0.982
g	0.983
h	0.983
i	0.983
j	0.983

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.121(g)<



GSTABL7 v.2 FSmin=0.981

Safety Factors Are Calculated By The Simplified Janbu Method

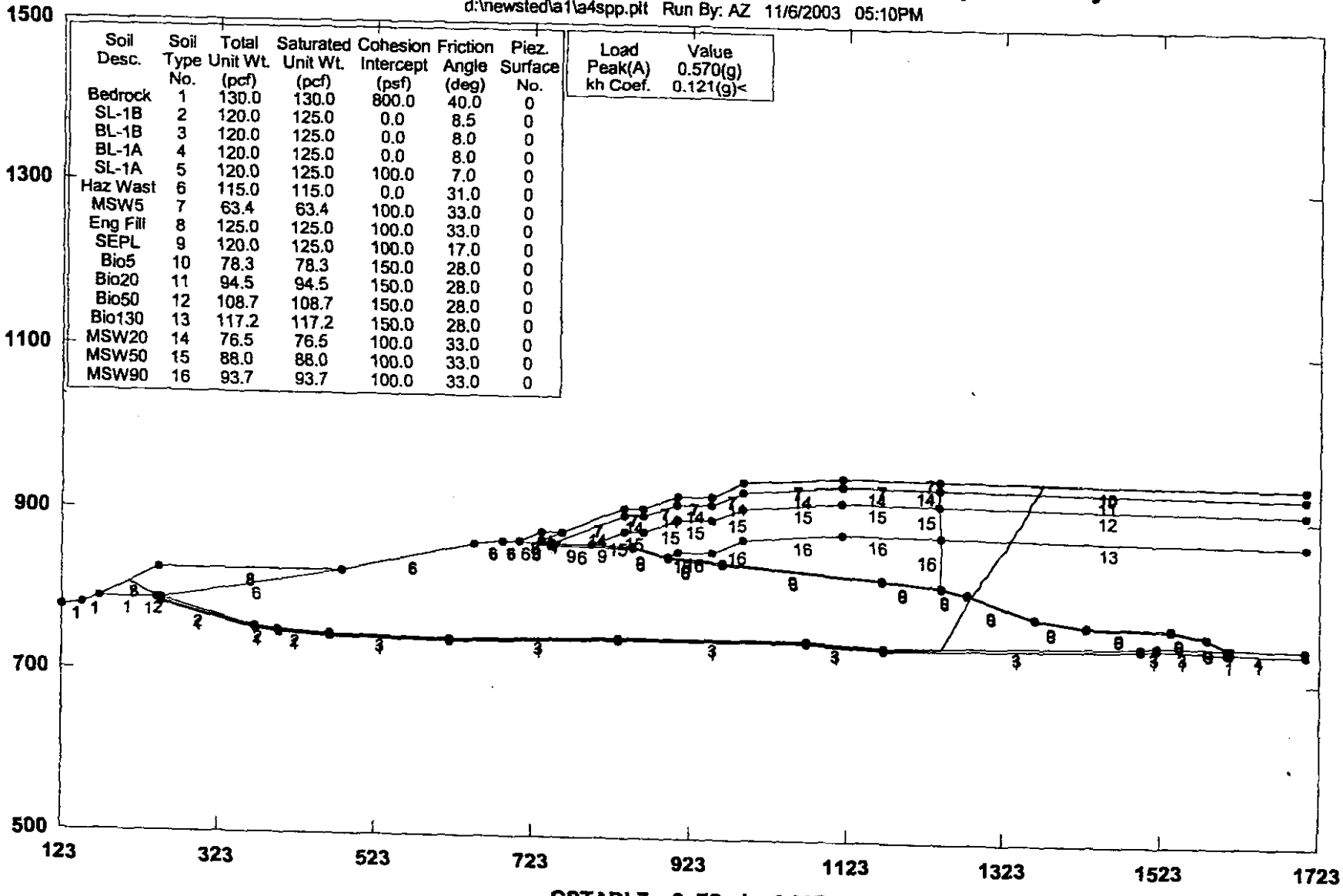
GSTABL7

KHF A-A' Failure Plane 4 Spencer Pseudo-Static Slope Stability

d:\newsted\a1\a4spp.plt Run By: AZ 11/6/2003 05:10PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.121(g)<



GSTABL7 v.2 FSmin=0.997

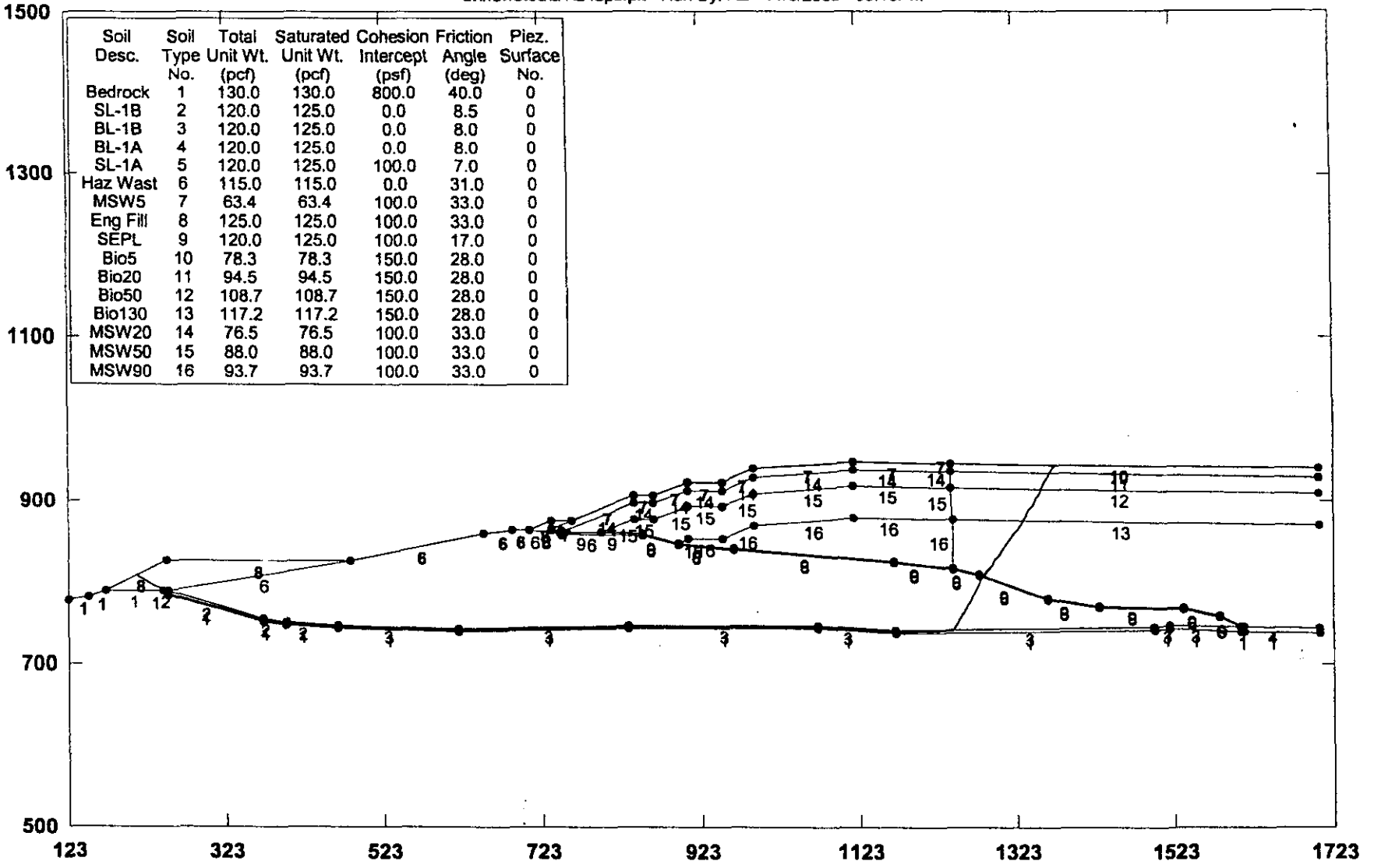
Factor Of Safety Is Calculated By GLE (Spencer's) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 4 Spencer Static Slope Stability

d:\newsted\a1\a4sps.plt Run By: AZ 11/6/2003 05:10PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.467

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

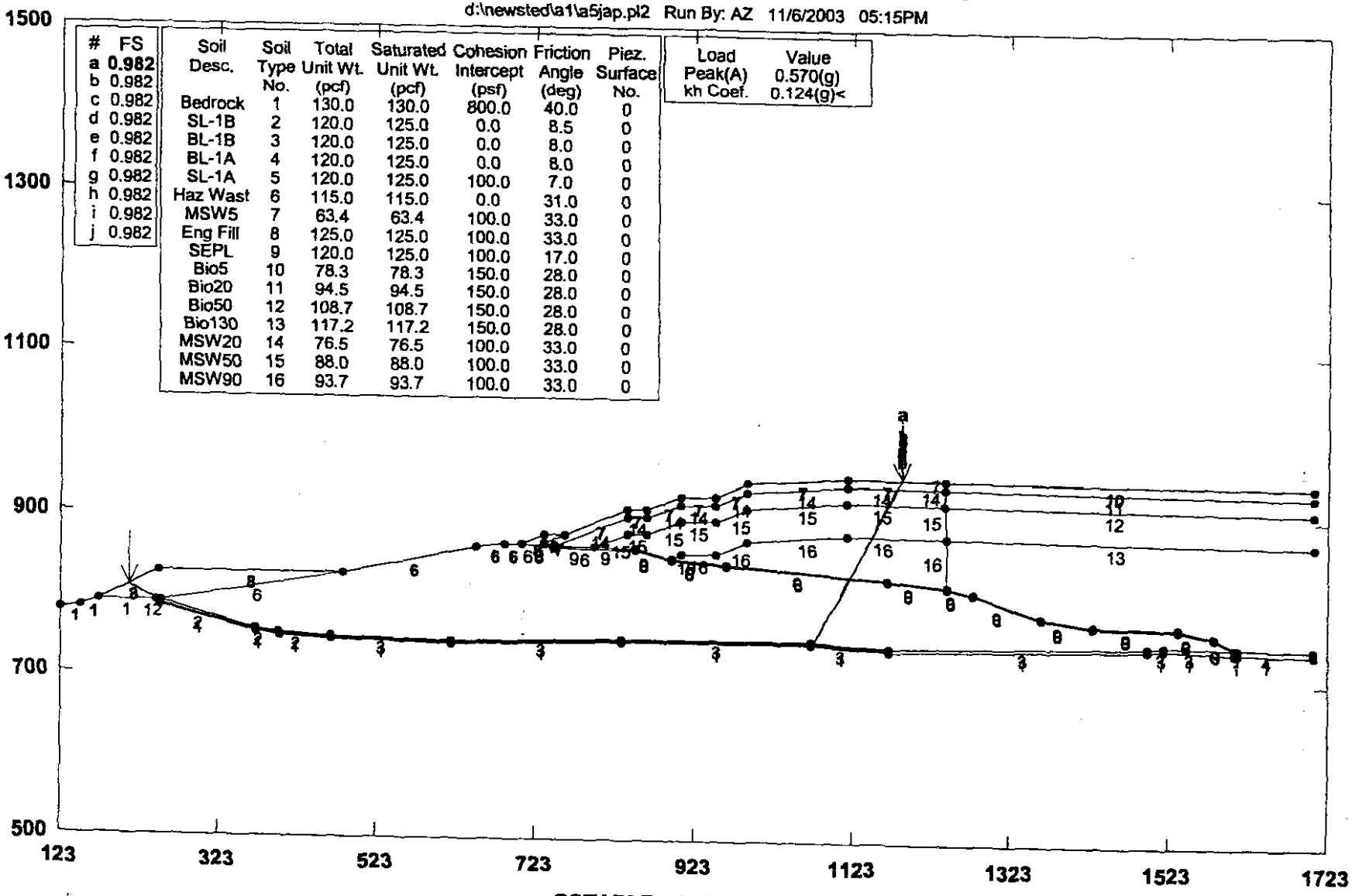
KHF A-A' Pseudo-Static Janbu Block Search

d:\newsted\a1\a5jap.pl2 Run By: AZ 11/6/2003 05:15PM

#	FS
a	0.982
b	0.982
c	0.982
d	0.982
e	0.982
f	0.982
g	0.982
h	0.982
i	0.982
j	0.982

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.124(g)<



GSTABL7 v.2 FSmin=0.982

Safety Factors Are Calculated By The Simplified Janbu Method

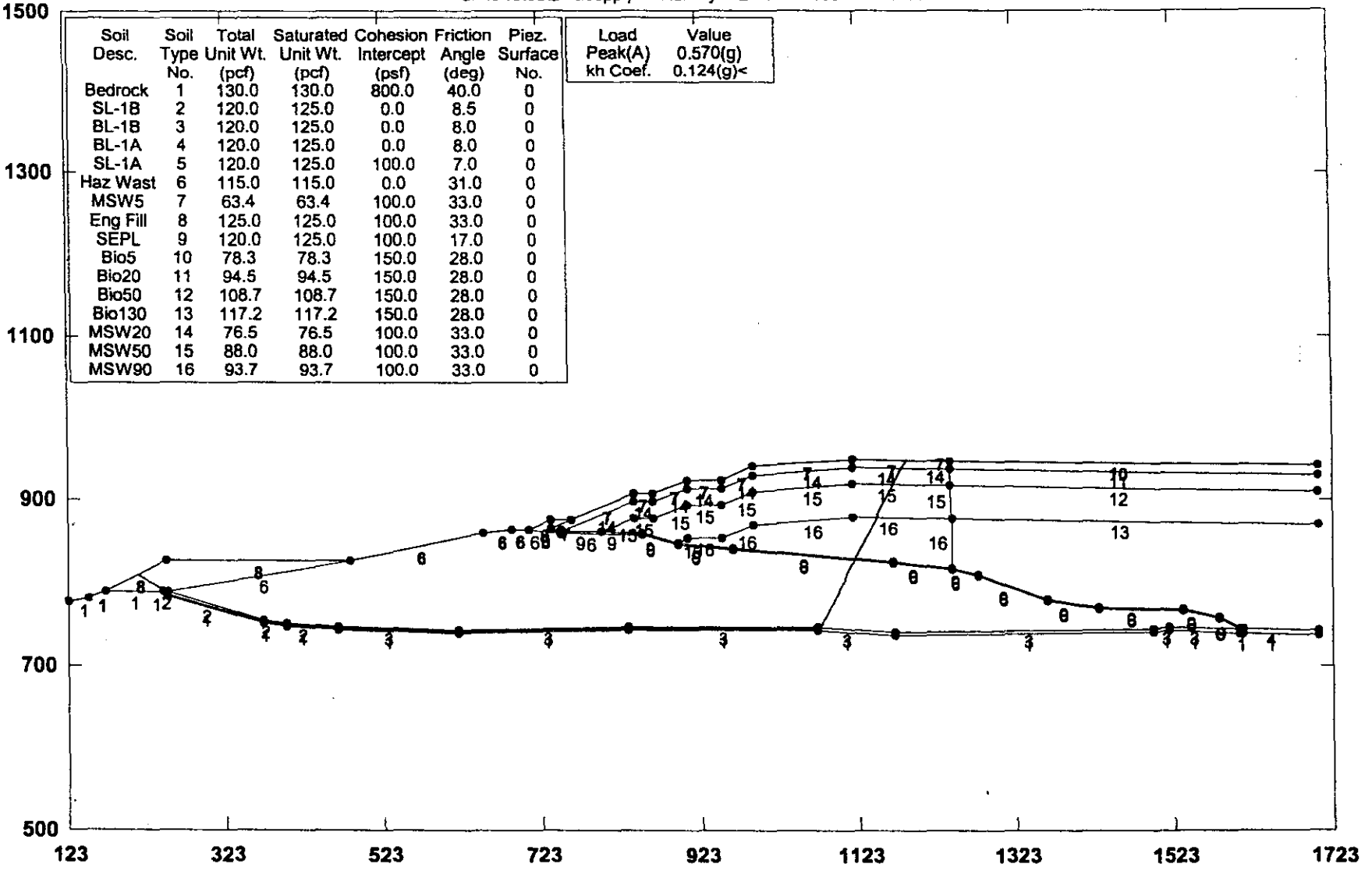
GSTABL7

KHF A-A' Failure Plane 5 Spencer Pseudo-Static Slope Stability

d:\newsted\a1\a5spp.plt Run By: AZ 11/6/2003 05:16PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.124(g)<



GSTABL7 v.2 FSmin=1.001

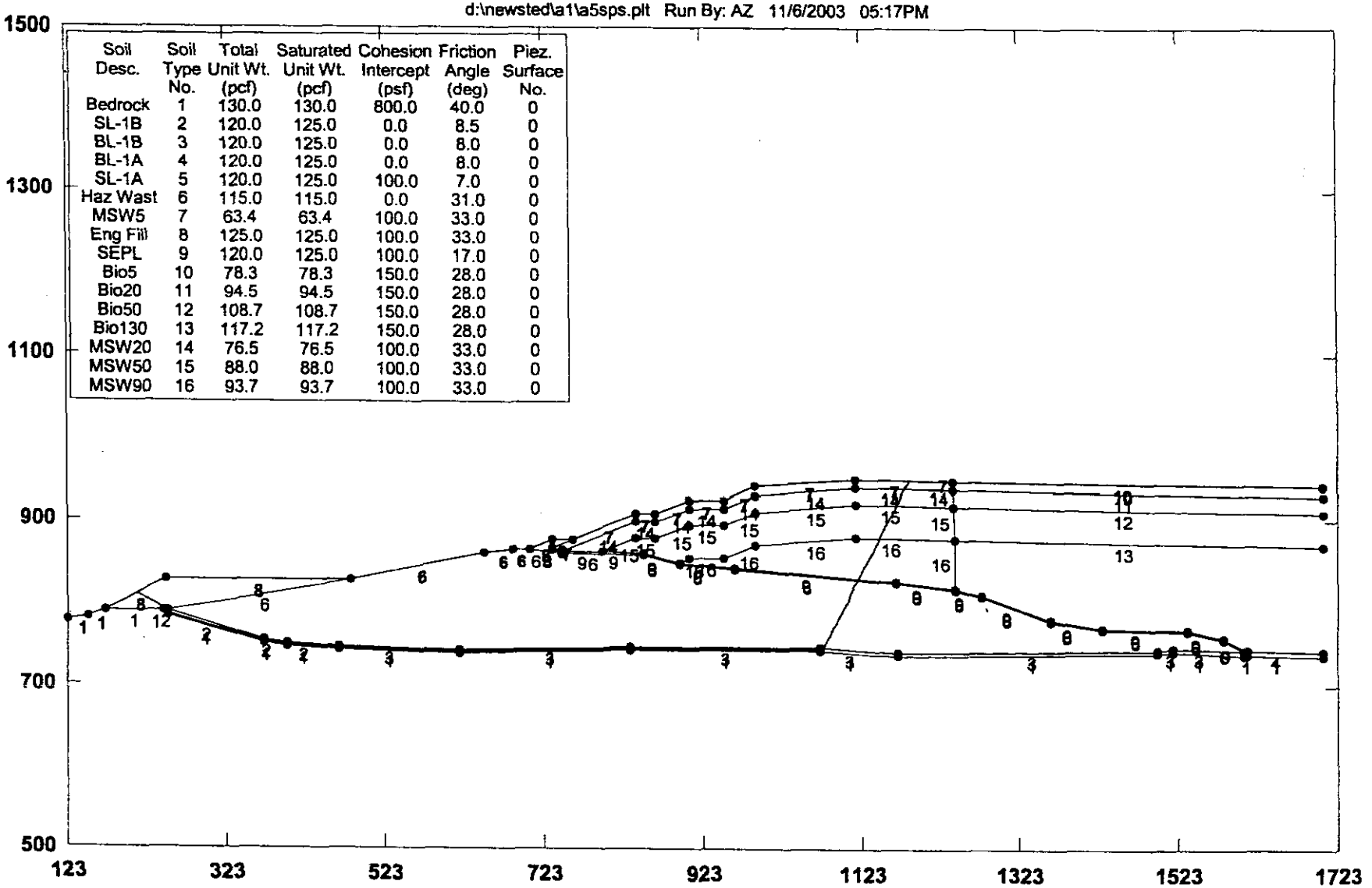
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 5 Spencer Static Slope Stability

d:\newsted\a1\a5sps.plt Run By: AZ 11/6/2003 05:17PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=2.460

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

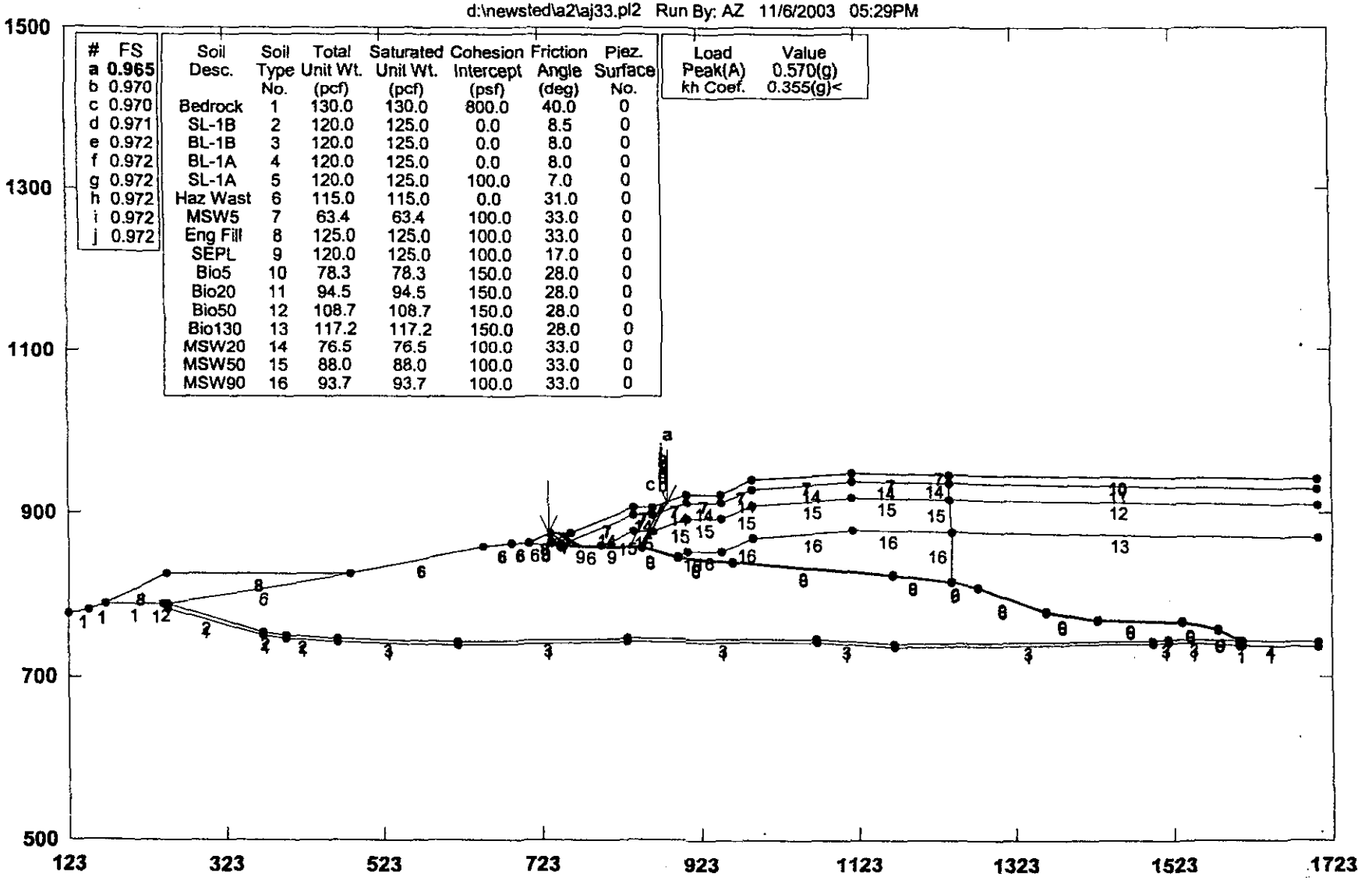
KHF A-A' Pseudo-Static Janbu Block Search

d:\newsted\a2\aj33.pl2 Run By: AZ 11/6/2003 05:29PM

#	FS
a	**0.965**
b	0.970
c	0.970
d	0.971
e	0.972
f	0.972
g	0.972
h	0.972
i	0.972
j	0.972

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.355(g)<



GSTABL7 v.2 FSmin=0.965

Safety Factors Are Calculated By The Simplified Janbu Method

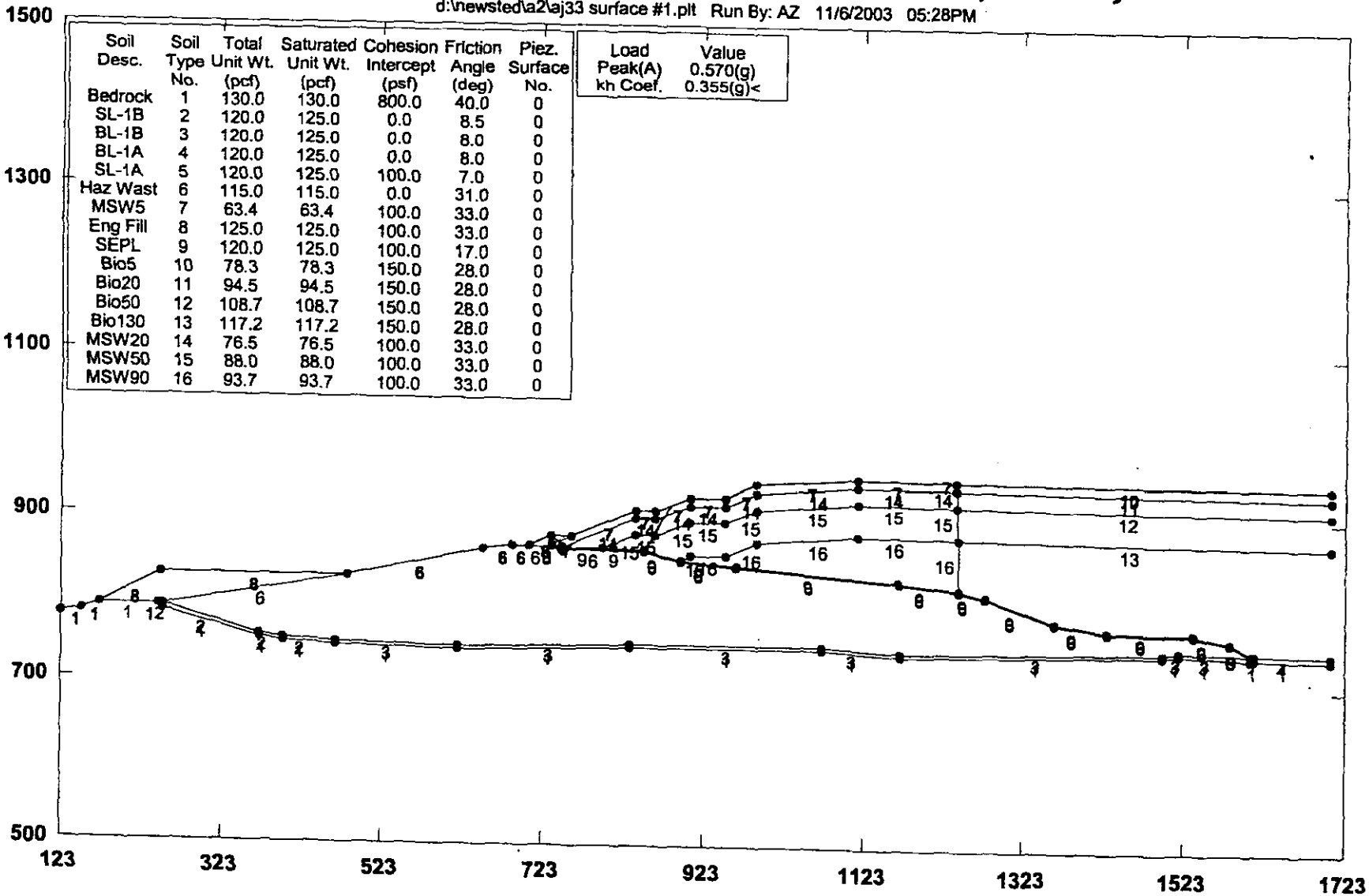
GSTABL7

KHF A-A' Failure Plane 6 Spencer Pseudo-Static Slope Stability

d:\newsted\a2\aj33 surface #1.plt Run By: AZ 11/6/2003 05:28PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0

Load	Value
Peak(A)	0.570(g)
kh Coef.	0.355(g)<



GSTABL7 v.2 FSmin=1.002

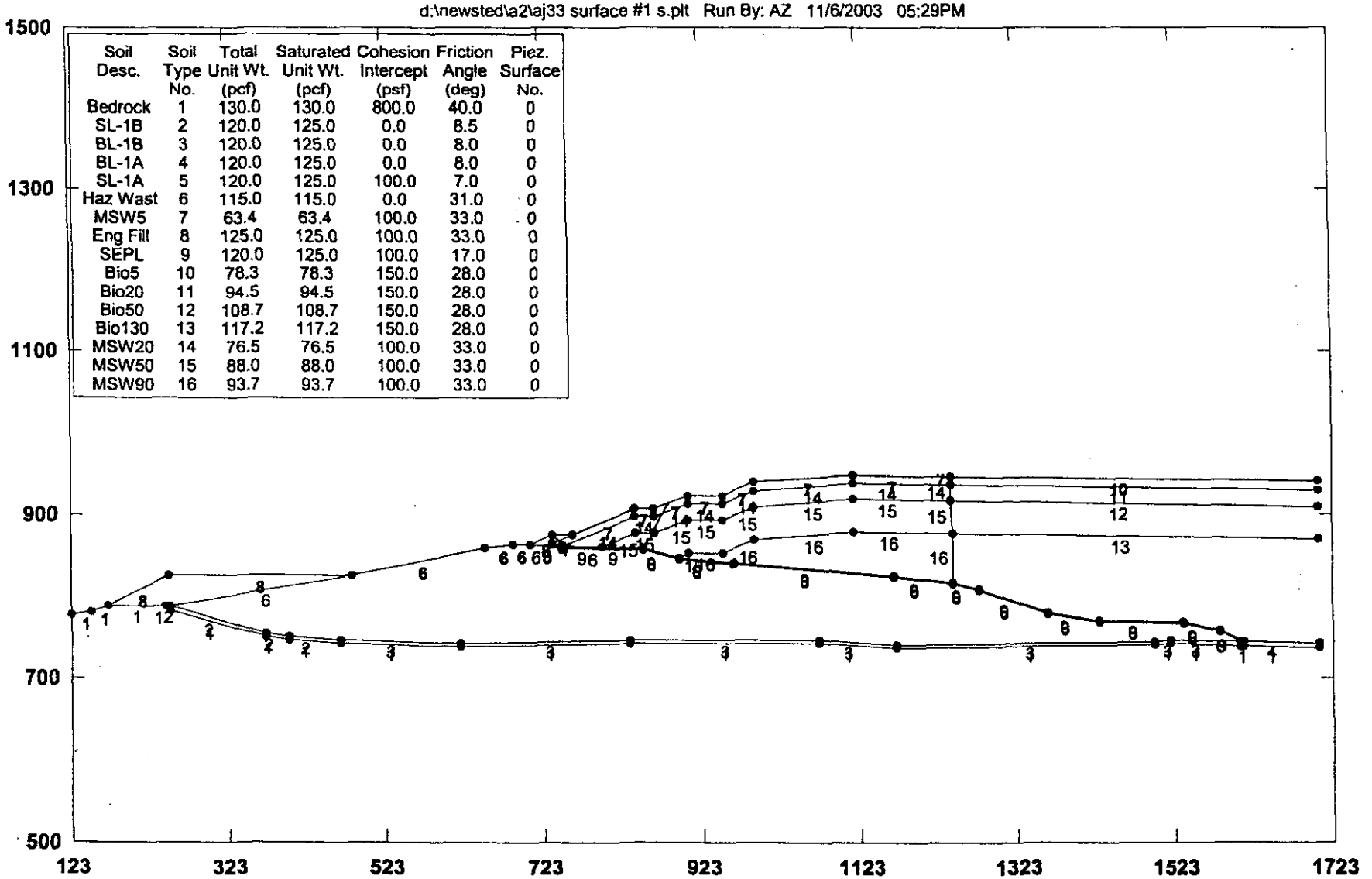
Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7

KHF A-A' Failure Plane 6 Spencer Static Slope Stability

d:\newsted\a2\aj33 surface #1 s.plt Run By: AZ 11/6/2003 05:29PM

Soil Desc.	Soil Type No.	Total Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Piez. Surface No.
Bedrock	1	130.0	130.0	800.0	40.0	0
SL-1B	2	120.0	125.0	0.0	8.5	0
BL-1B	3	120.0	125.0	0.0	8.0	0
BL-1A	4	120.0	125.0	0.0	8.0	0
SL-1A	5	120.0	125.0	100.0	7.0	0
Haz Wast	6	115.0	115.0	0.0	31.0	0
MSW5	7	63.4	63.4	100.0	33.0	0
Eng Fill	8	125.0	125.0	100.0	33.0	0
SEPL	9	120.0	125.0	100.0	17.0	0
Bio5	10	78.3	78.3	150.0	28.0	0
Bio20	11	94.5	94.5	150.0	28.0	0
Bio50	12	108.7	108.7	150.0	28.0	0
Bio130	13	117.2	117.2	150.0	28.0	0
MSW20	14	76.5	76.5	100.0	33.0	0
MSW50	15	88.0	88.0	100.0	33.0	0
MSW90	16	93.7	93.7	100.0	33.0	0



GSTABL7 v.2 FSmin=3.291

Factor Of Safety Is Calculated By GLE (Spencer`s) Method (0-2)

GSTABL7