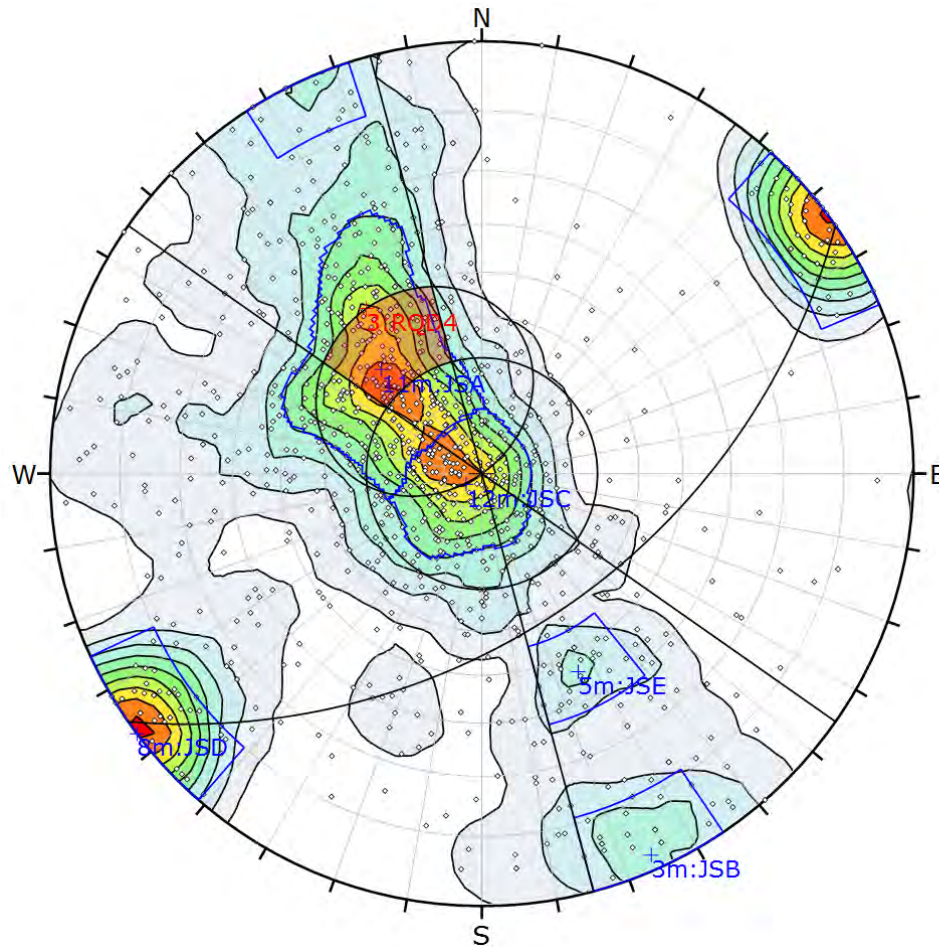


1.1 West-North: Planar



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

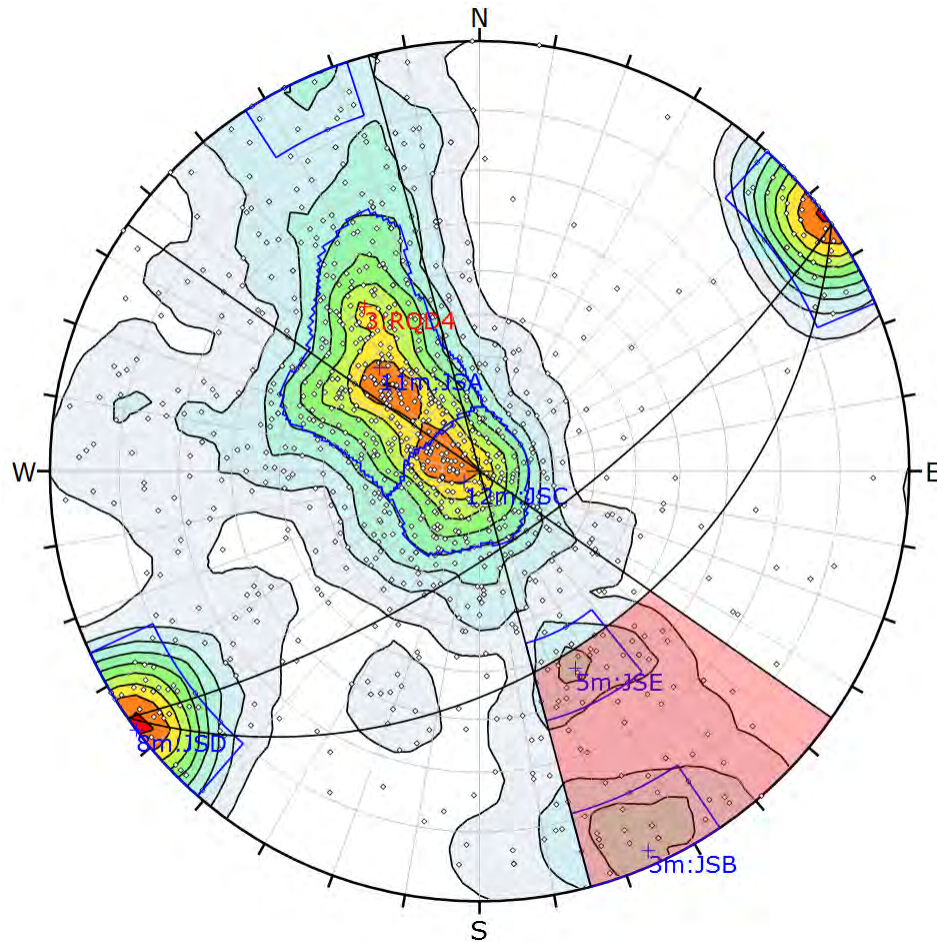
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Planar Sliding
Slope Dip	50
Slope Dip Direction	145
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Planar Sliding (All)	92	1033	8.91%
Planar Sliding (Set 11)	89	266	33.46%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

2. West-North: Toppling



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

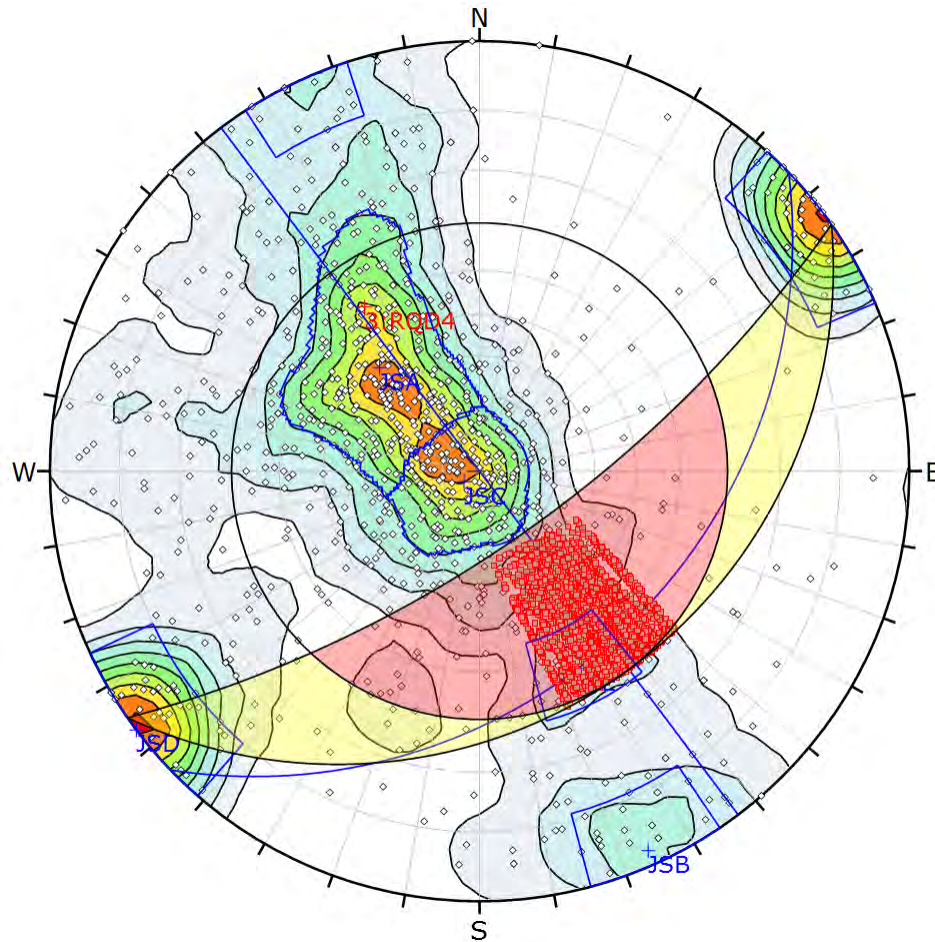
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Flexural Toppling
Slope Dip	70
Slope Dip Direction	145
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Flexural Toppling (All)	72	1033	6.97%
Flexural Toppling (Set 3)	18	29	62.07%
Flexural Toppling (Set 5)	21	26	80.77%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

3.1 West-North: Wedge JSA vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

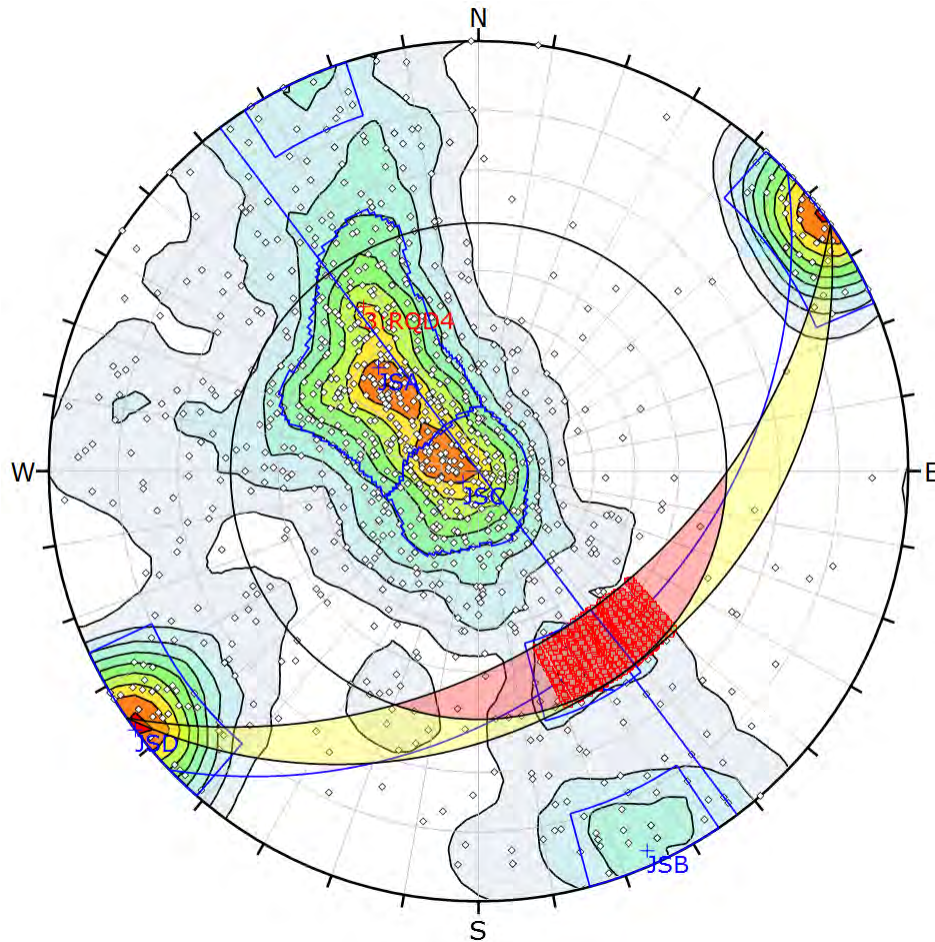
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	145
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	14149	21546	65.67%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 8 vs Set 11 Planes
Intersections Count	21546
Hemisphere	Lower
Projection	Equal Angle

3.1.1 West-North: Wedge JSA vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

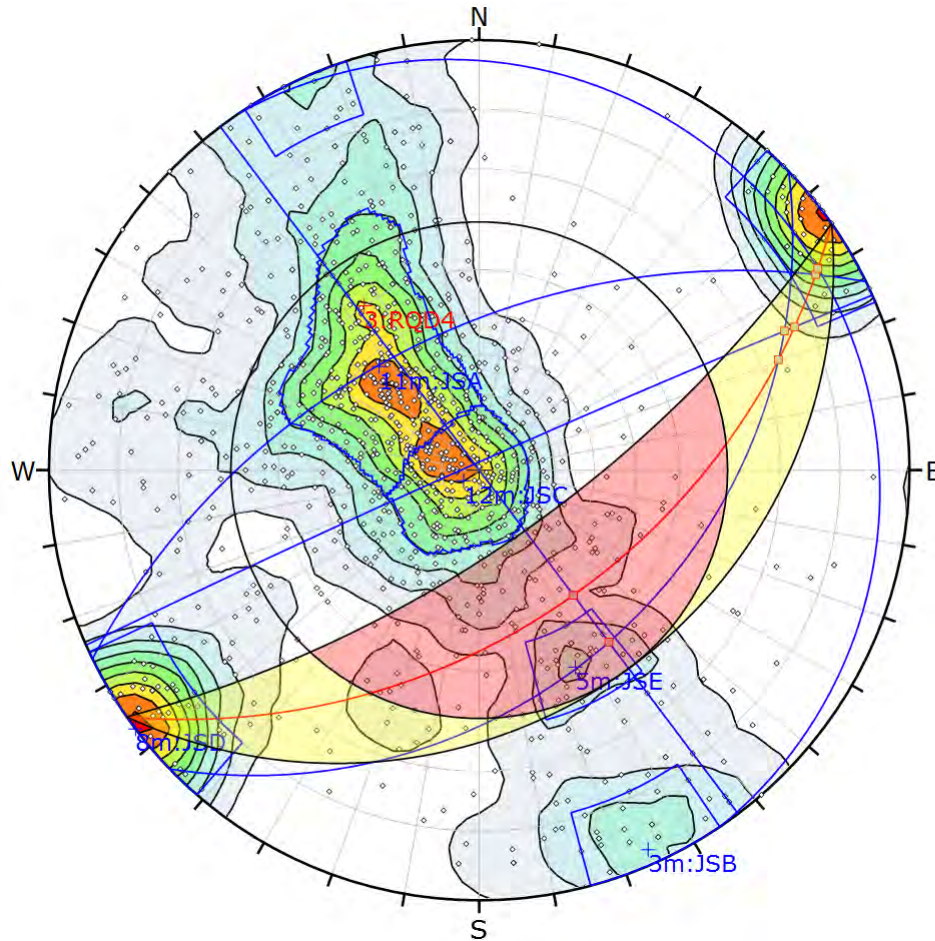
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	45
Slope Dip Direction	145
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	8043	21546	37.33%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 8 vs Set 11 Planes
Intersections Count	21546
Hemisphere	Lower
Projection	Equal Angle

3.2 West-North: Wedge User and Mean Set Planes



Symbol	Feature
◊	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

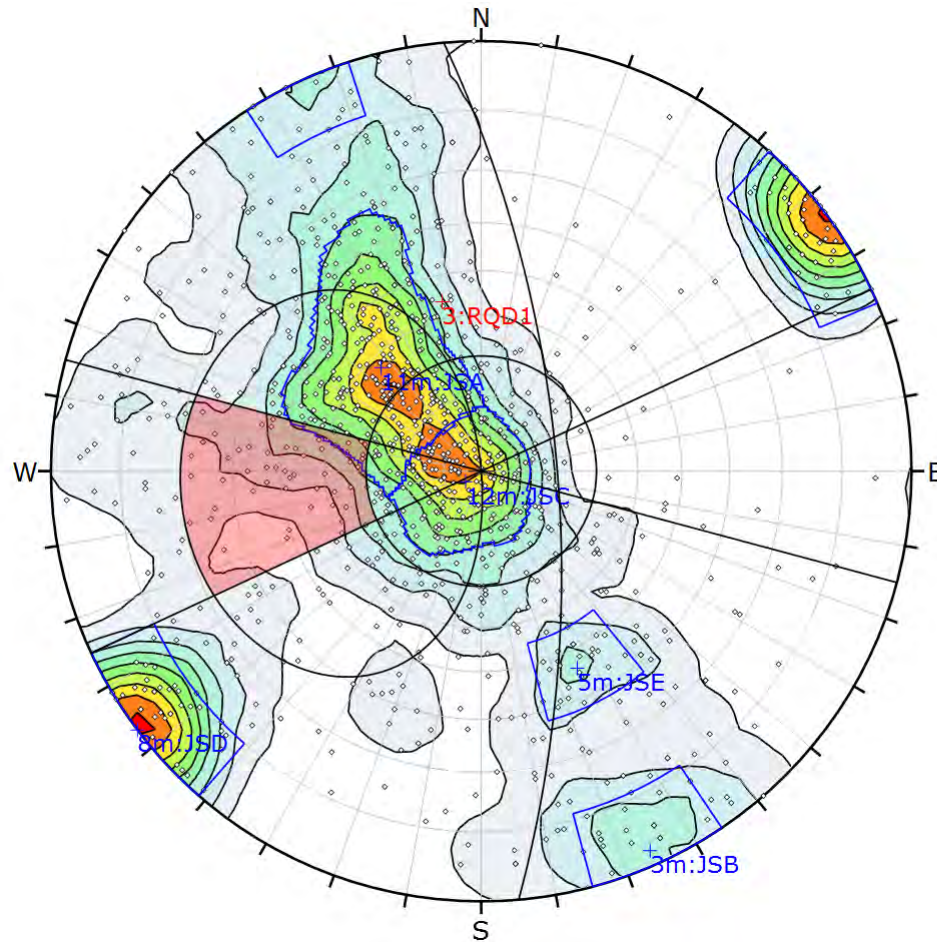
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	145
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	7	15	46.67%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	User and Mean Set Planes
Intersections Count	15
Hemisphere	Lower
Projection	Equal Angle

1. West: Planar



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

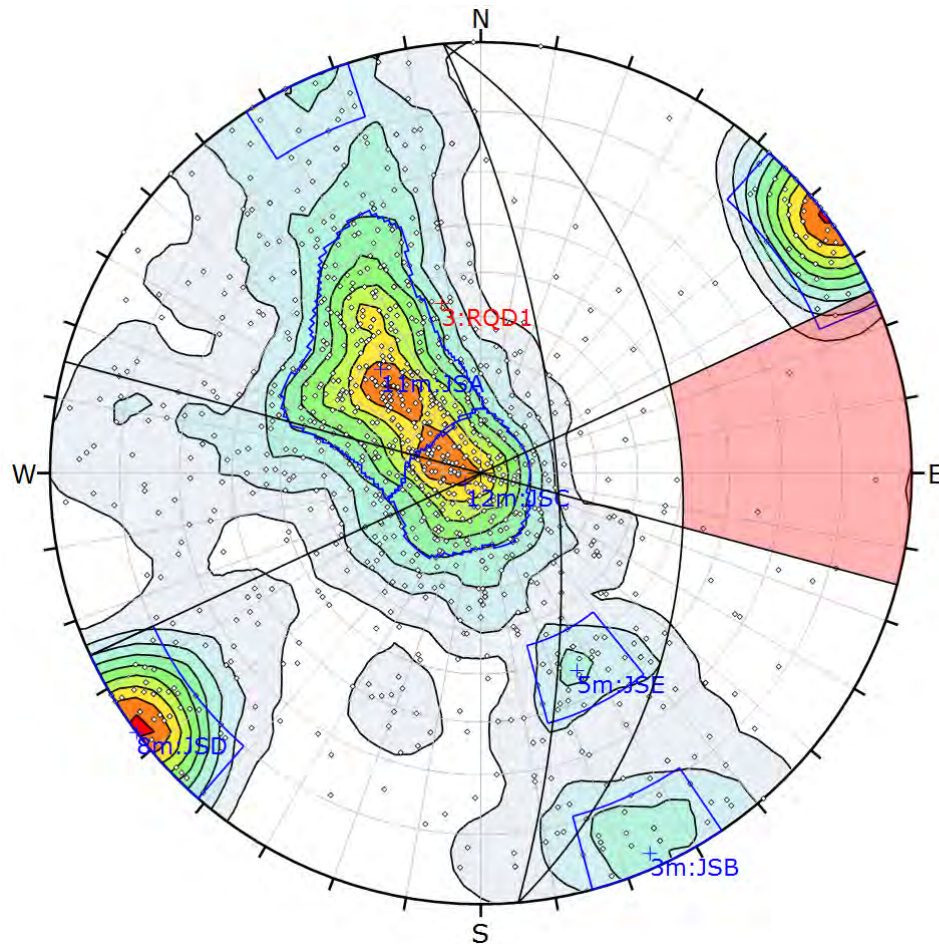
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Planar Sliding
Slope Dip	70
Slope Dip Direction	85
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Planar Sliding (All)	58	1033	5.61%
Planar Sliding (Set 11)	11	266	4.14%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

2. West: Toppling



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

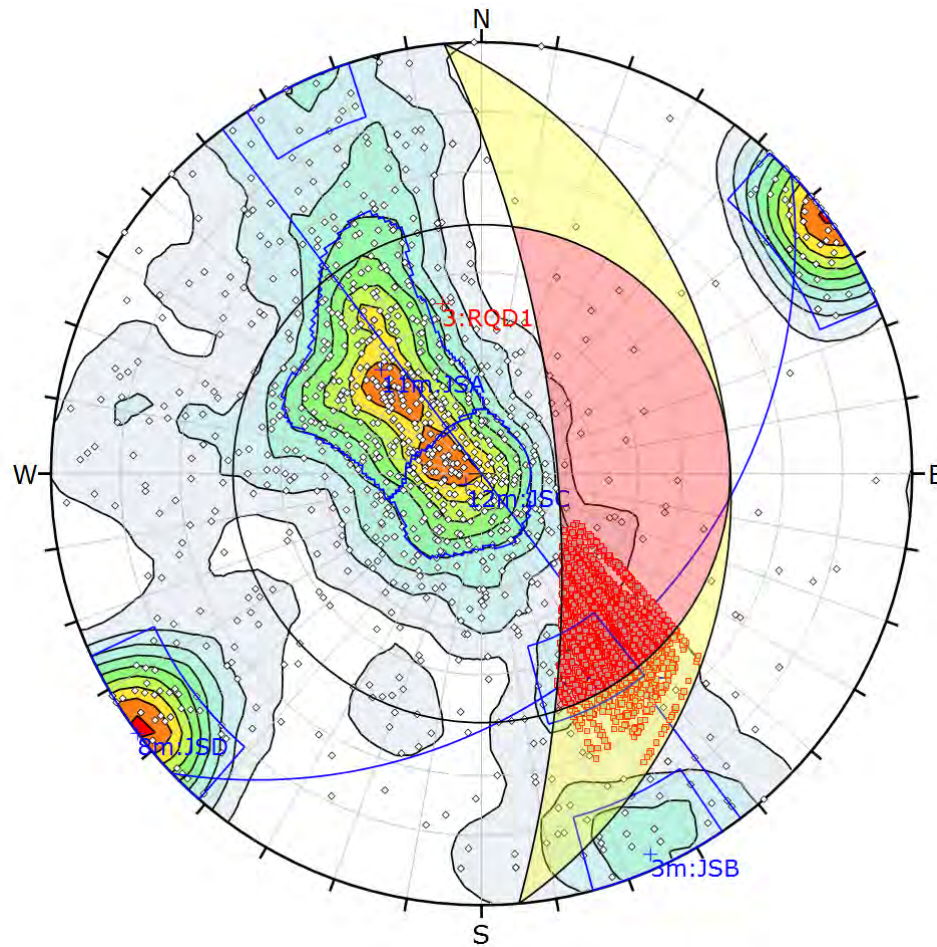
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Flexural Toppling
Slope Dip	70
Slope Dip Direction	85
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Flexural Toppling (All)	7	1033	0.68%
Flexural Toppling (Set 8)	2	81	2.47%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

3.1 West: Wedge JSA vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

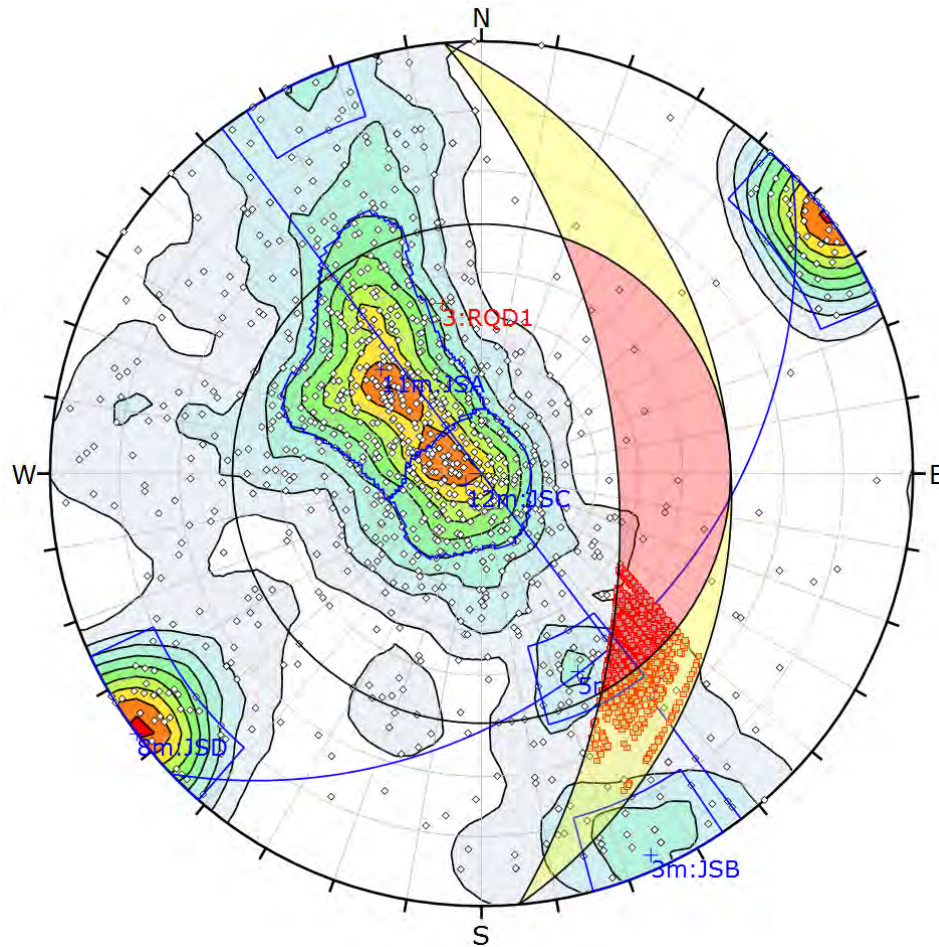
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	85
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	13104	21546	60.82%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 8 vs Set 11 Planes
Intersections Count	21546
Hemisphere	Lower
Projection	Equal Angle

3.1.1 West: Wedge JSA vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

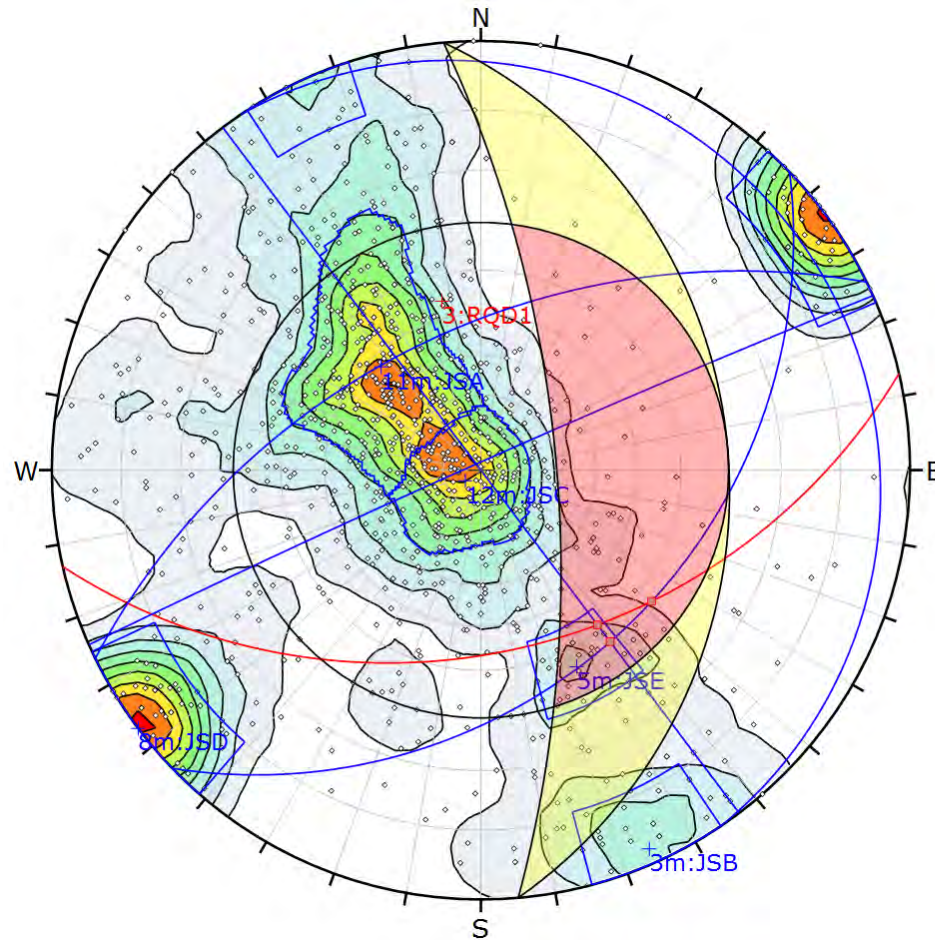
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	55
Slope Dip Direction	85
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	5381	21546	24.97%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 8 vs Set 11 Planes
Intersections Count	21546
Hemisphere	Lower
Projection	Equal Angle

3.2 West: Wedge User and Mean Set Planes



Symbol	Feature
◊	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

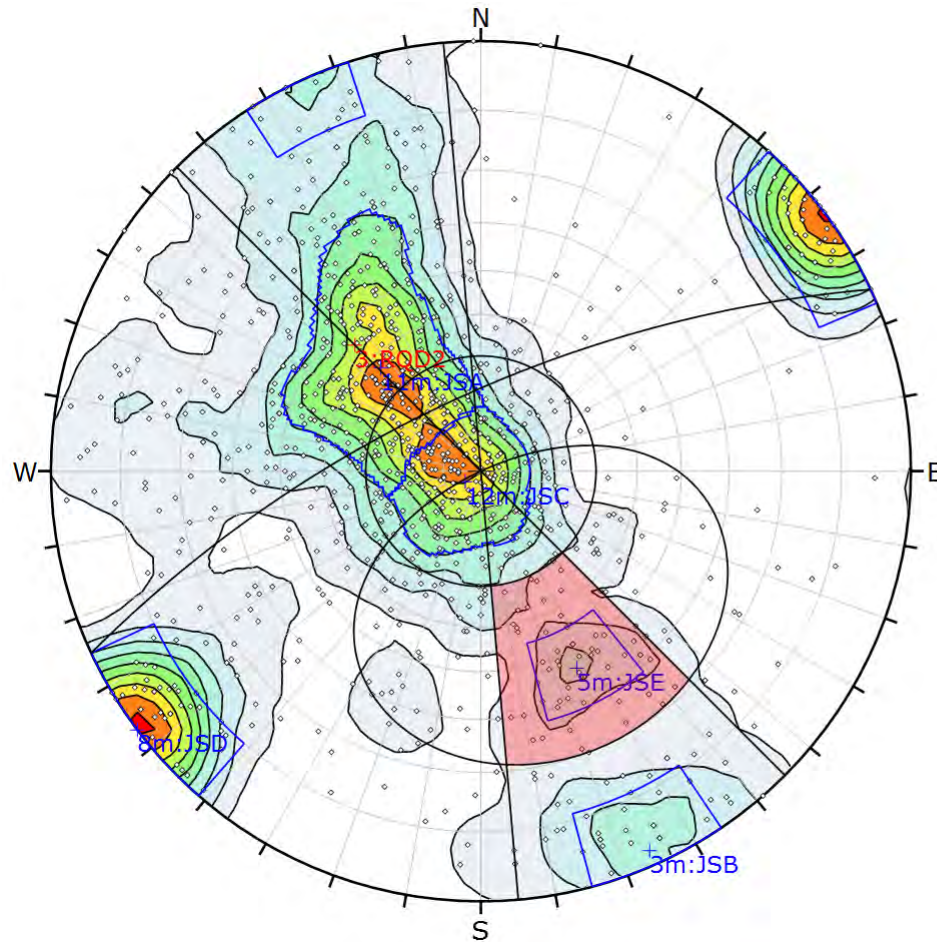
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	85
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	3	15	20.00%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	User and Mean Set Planes
Intersections Count	15
Hemisphere	Lower
Projection	Equal Angle

1. West-South: Planar



Symbol	Feature
•	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

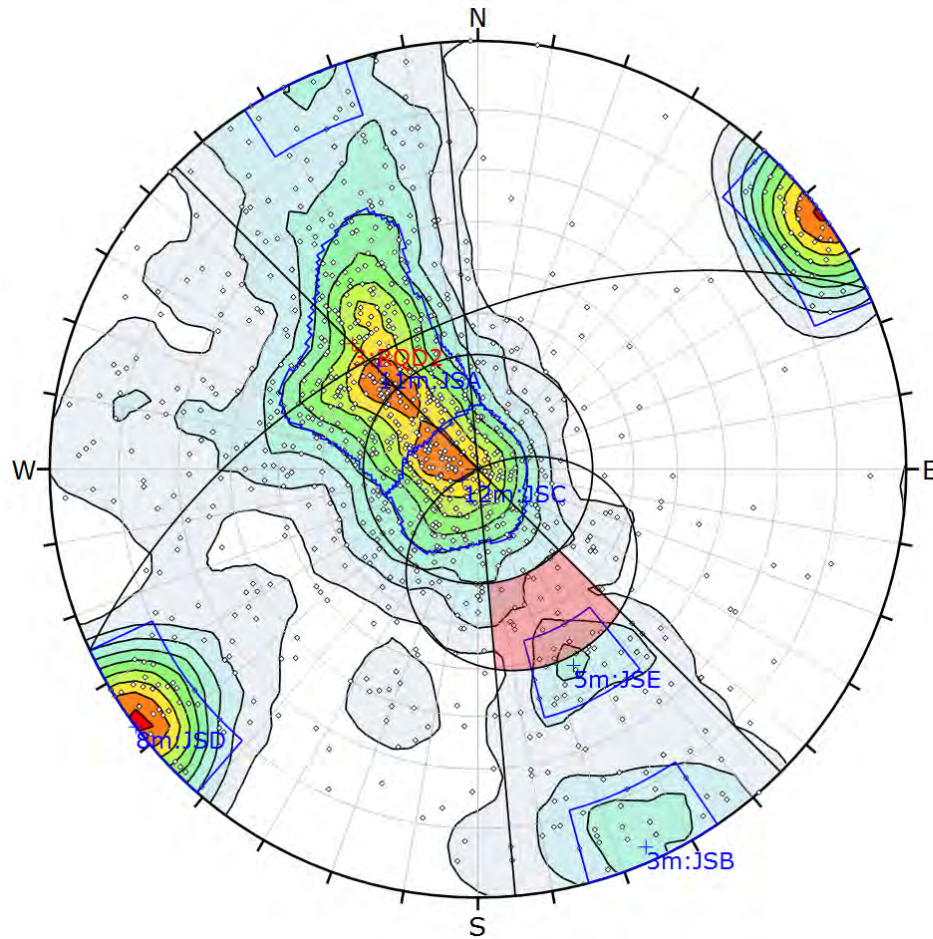
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Planar Sliding
Slope Dip	70
Slope Dip Direction	335
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Planar Sliding (All)	58	1033	5.61%
Planar Sliding (Set 5)	26	26	100.00%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

1.1 West-South: Planar



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

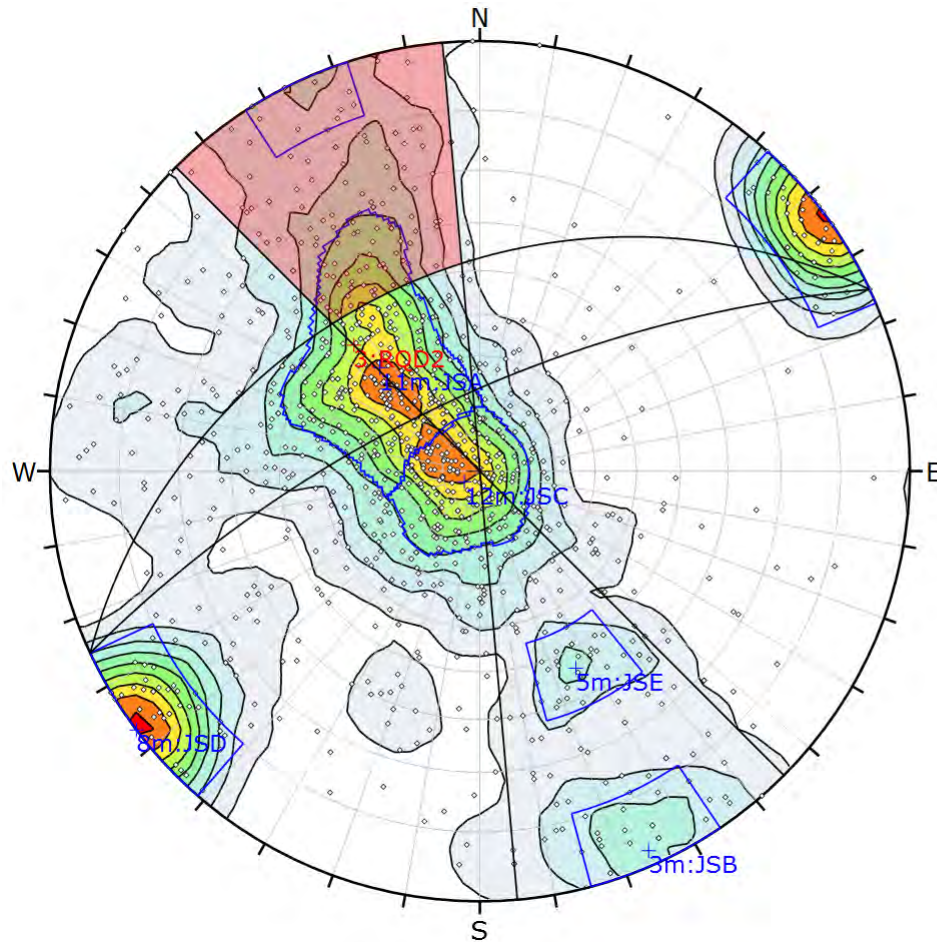
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Planar Sliding
Slope Dip	52
Slope Dip Direction	335
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Planar Sliding (All)	23	1033	2.23%
Planar Sliding (Set 5)	8	26	30.77%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

2. West-South: Toppling



Symbol	Feature
◊	Pole Vectors

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

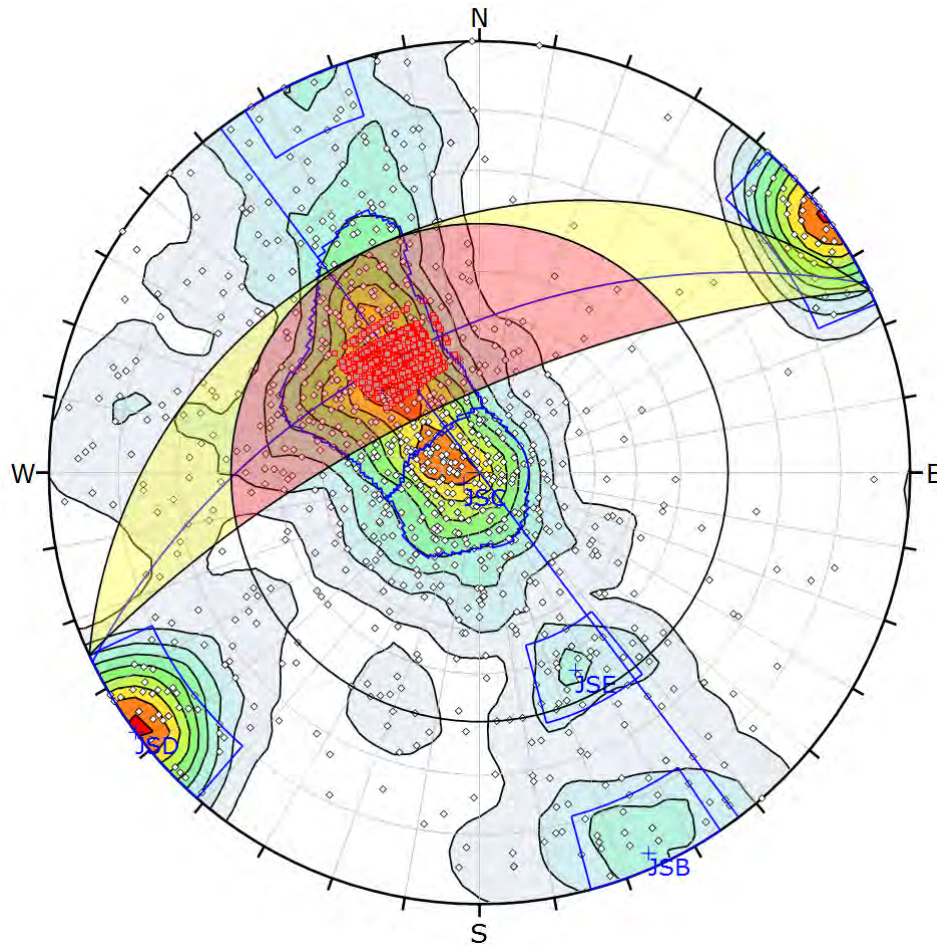
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Flexural Toppling
Slope Dip	70
Slope Dip Direction	335
Friction Angle	30°
Lateral Limits	20°

	Critical	Total	%
Flexural Toppling (All)	117	1033	11.33%
Flexural Toppling (Set 3)	11	29	37.93%
Flexural Toppling (Set 11)	44	266	16.54%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Hemisphere	Lower
Projection	Equal Angle

3.1 West-South: Wedge JSE vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

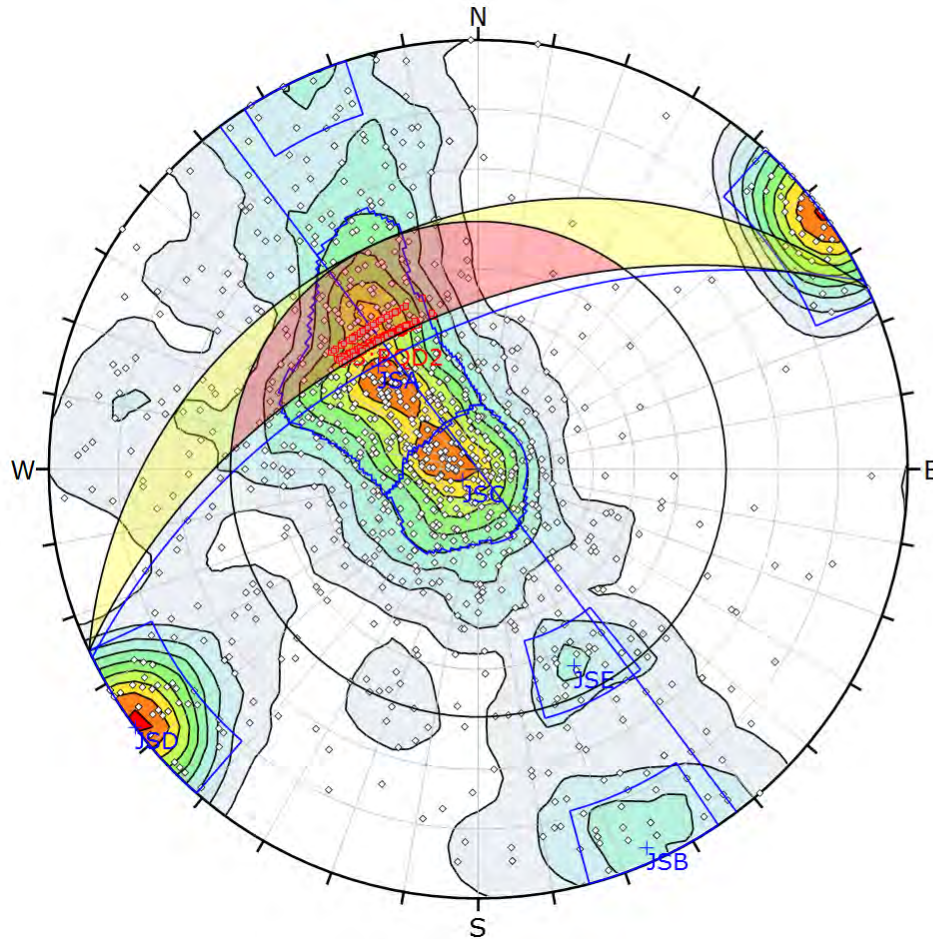
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	335
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	2106	2106	100.00%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 5 vs Set 8 Planes
Intersections Count	2106
Hemisphere	Lower
Projection	Equal Angle

3.1.1 West-South: Wedge JSE vs JSD



Symbol	Feature
◇	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

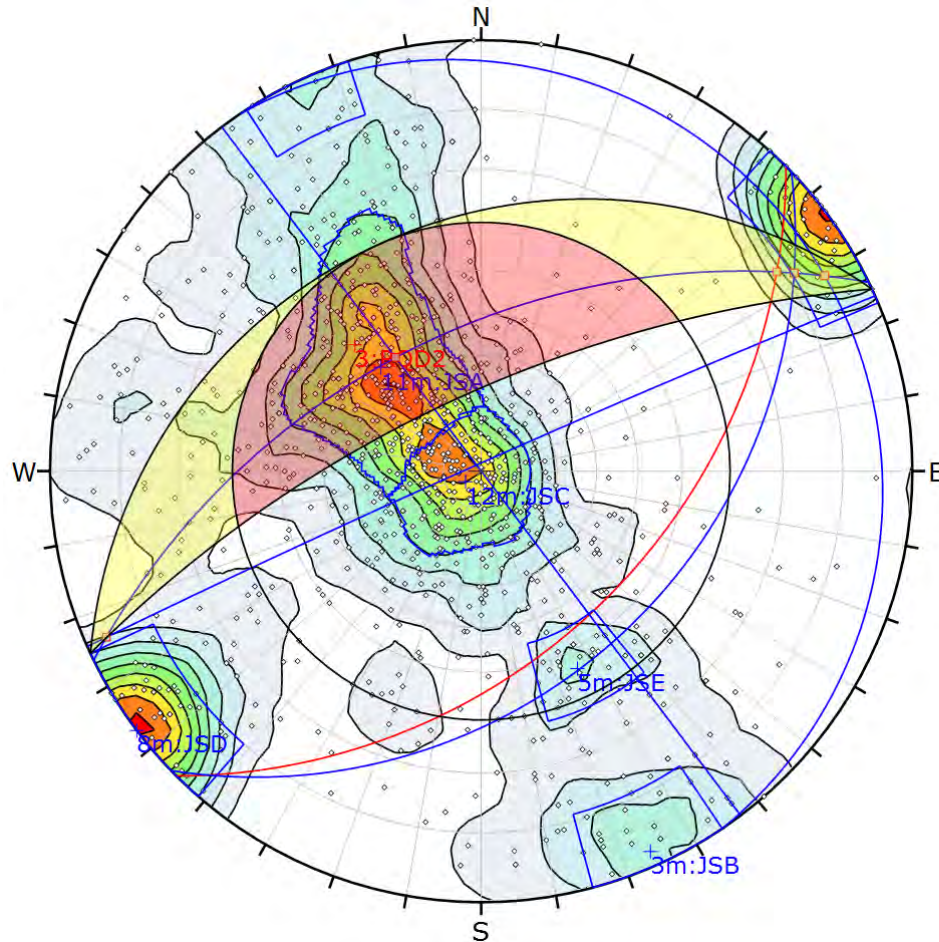
Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	50
Slope Dip Direction	335
Friction Angle	30°

	Critical	Total	%
Wedge Sliding	424	2106	20.13%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	Set 5 vs Set 8 Planes
Intersections Count	2106
Hemisphere	Lower
Projection	Equal Angle

3.2 West-South: Wedge User and Mean Set Planes



Symbol	Feature
◊	Pole Vectors
■	Critical Intersection

Color	Density Concentrations
	0.00 - 0.50
	0.50 - 1.00
	1.00 - 1.50
	1.50 - 2.00
	2.00 - 2.50
	2.50 - 3.00
	3.00 - 3.50
	3.50 - 4.00
	4.00 - 4.50
	4.50 <

Maximum Density	4.63%
Contour Data	Pole Vectors
Contour Distribution	Fisher
Counting Circle Size	1.0%

Kinematic Analysis	Wedge Sliding
Slope Dip	70
Slope Dip Direction	335
Friction Angle	30°

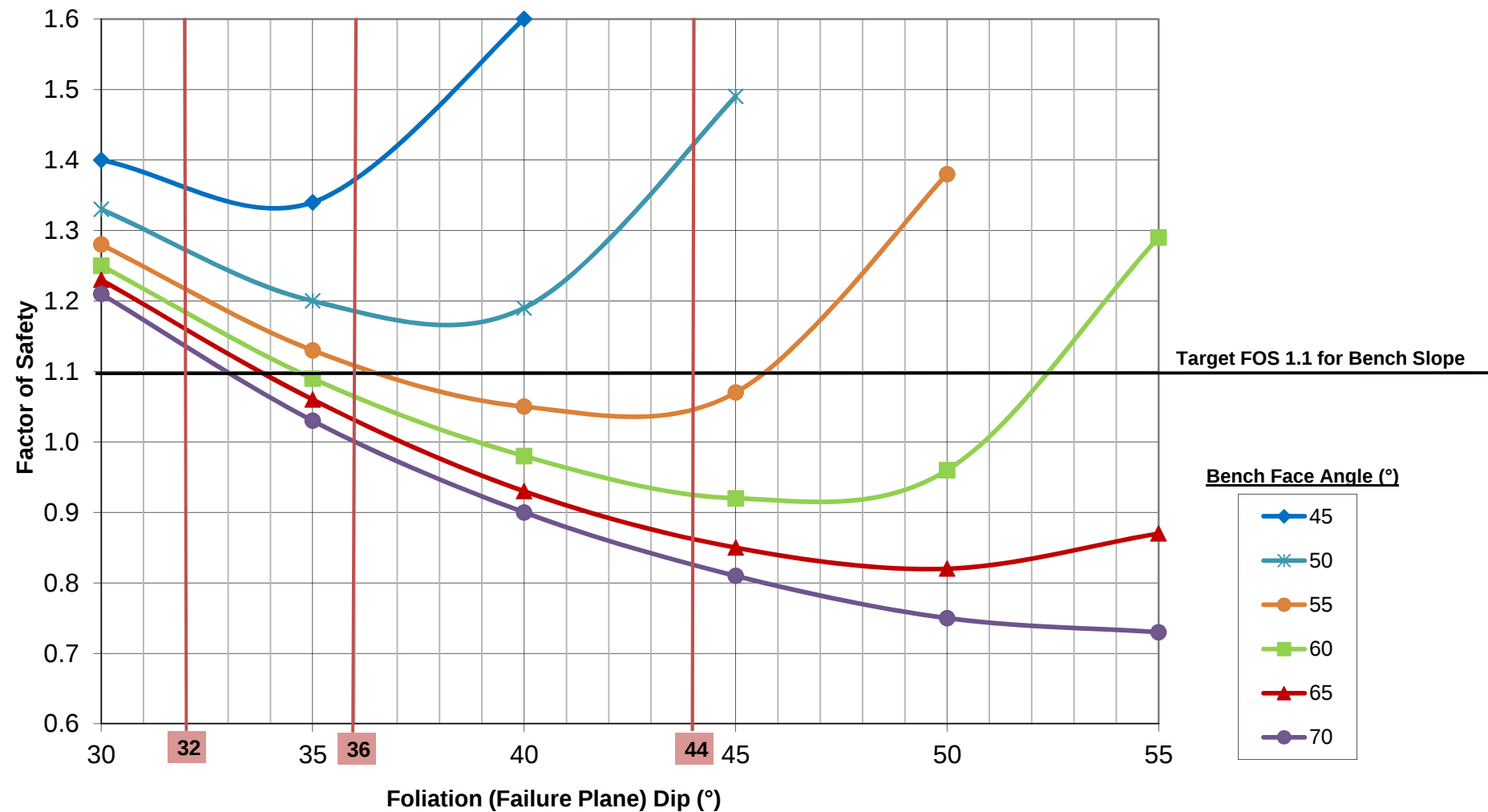
	Critical	Total	%
Wedge Sliding	5	15	33.33%

Plot Mode	Pole Vectors
Vector Count	1033 (1033 Entries)
Intersection Mode	User and Mean Set Planes
Intersections Count	15
Hemisphere	Lower
Projection	Equal Angle

APPENDIX E

ROCPLANE ANALYSES - RESULTS SUMMARY FOR WEST-NORTH SECTOR

(Page E-1)

**NOTES:**

1. BENCH SCALE PLANAR FAILURE ANALYSIS CARRIED OUT USING ROCPLANE 3.0 PROGRAM (ROCSCIENCE).
2. ANALYSES ASSUMES SLOPE DIP DIRECTION IS THE SAME AS THAT OF THE FOLIATION.
3. FRICTION ANGLE OF THE FOLIATION ASSUMED TO BE 30 DEGREES.
4. LIMITED COHESION OF 20 KPa WAS ASSUMED.
5. A DRY BENCH SLOPE WAS ASSUMED.
6. "UNLIMITED" BENCH WIDTH CASE INDICATES THAT THE BENCH FAILURE PLANE CAN EXTEND BEYOND THE WIDTH OF THE BENCH, WHICH IS THE WORST CASE SCENARIO.

AGNICO EAGLE MINES LTD. MEADOWBANK DIVISION

WHALE TAIL PIT

**BENCH SCALE PLANAR FAILURE ANALYSES
FOR WEST-NORTH SECTOR
FACTOR OF SAFETY VS FOLIATION DIP**

Knight Piésold
CONSULTING

P/A NO.
NB101-622/3REF. NO.
2**FIGURE E.1**REV
0

0	27NOV'15	ISSUED WITH REPORT	DAY	BDP
REV	DATE	DESCRIPTION	PREP'D	RVW'D

APPENDIX F

LIMIT-EQUILIBRIUM ANALYSIS - RESULTS SUMMARY

Appendix F1	Limit-Equilibrium Analyses - Inter-Ramp Slope Results Summary
Appendix F2	Limit-Equilibrium Analyses - Overall Slope Results Summary

APPENDIX F1

LIMIT-EQUILIBRIUM ANALYSES - INTER-RAMP SLOPE RESULTS SUMMARY

(Page F1-1)

TABLE F1.1

AGNICO EAGLE MINES LTD. MEADOWBANK DIVISION
WHALE TAIL PIT

UPDATED SCOPING LEVEL OPEN PIT SLOPE DESIGN
LIMIT EQUILIBRIUM ANALYSES - INTER-RAMP SLOPE RESULTS SUMMARY

Print Nov/26/15 12:30:45

Groundwater Conditions	Domain	Slope Height (m)	INTER-RAMP ANGLE					
			40°	42°	45°	50°	52°	55°
Dry (Permafrost)	Greywacke	100						3.05
	Chert	100						3.92
	Ultramafics (North Limb)	75						2.18
		100						1.96
	Ultramafics (South Limb)	75						1.92
		100						1.74
	Altered Ultramafics	100						2.95
	Diorite	100						4.59
10 m Depressurized	Ultramafics (North Limb)	75					1.82	1.69
		100					1.53	1.43
	Ultramafics (South Limb)	75					1.59	1.49
		100			1.61	1.42	1.34	1.26
Fully Saturated (Open Talik)	Greywacke	100						1.75
	Chert	100						2.42
	Ultramafics (North Limb)	75				1.40	1.37	1.26
		100			1.44	1.25	1.19	1.14
	Ultramafics (South Limb)	75		1.54	1.39	1.21	1.16	1.11
		100	1.47	1.37	1.23	1.08	1.05	1.01
	Altered Ultramafics	100						2.29
	Diorite	100						3.02

I:\1\01\00622\03\A\Report\Report 2 Rev 0 Updated Scoping Study\Appendices\F - L-E Analyses\F1 - IRA Results.xlsx]Table - IRA Results

NOTES:

1. MODELS WERE CONSTRUCTED USING SLOPE/W (GEO-SLOPE, 2012).
2. ROCK MASS STRENGTH DERIVED USING THE HOEK-BROWN FAILURE CRITERION (HOEK ET AL., 2002).
3. MODELS ARE RUN USING A FULLY DISTURBED SLOPE (D=0.85 FOR ALL DOMAINS EXCEPT THE ULTRAMAFICS WHERE D=0.7 DUE TO LOWER ROCK MASS QUALITY).
4. TARGET FOS IS 1.2.

LEGEND:

	FOS ≥ 1.4
	1.3 ≤ FOS < 1.4
	1.2 ≤ FOS < 1.3
	1.1 ≤ FOS < 1.2
	1.0 ≤ FOS < 1.1
	FOS < 1.0

0	27NOV'15	ISSUED WITH REPORT NB101-622/3-2	ATJ	BDP
REV	DATE	DESCRIPTION	PREP'D	RVW'D