

Additional Information

Additional FSP Modeling 2/17/21

Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

HYDROLOGY

PROB. HYDRO

INTEGRATED

Fault Data

Number of faults (max 500)

6

Friction Coefficient μ

0.58

☐ Random Faults☒ Enter Faults

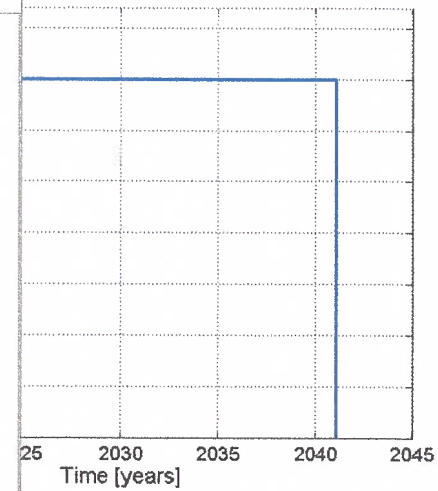
	X [East km]	Y [North km]	Strike [Deg]	Dip [Deg]	Length [km]
1	2.7000	-0.9400	315	45	3
2	0.7500	1	315	45	2.5000
3	-0.7000	2.4500	315	45	1.6700
4	1.8500	-1.2800	320	45	3
5	-0.1700	0.9200	315	45	3
6	-1.8200	2.5800	315	45	1.7000

Load File

Help

OK

All



Fault Slip Potential

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- Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

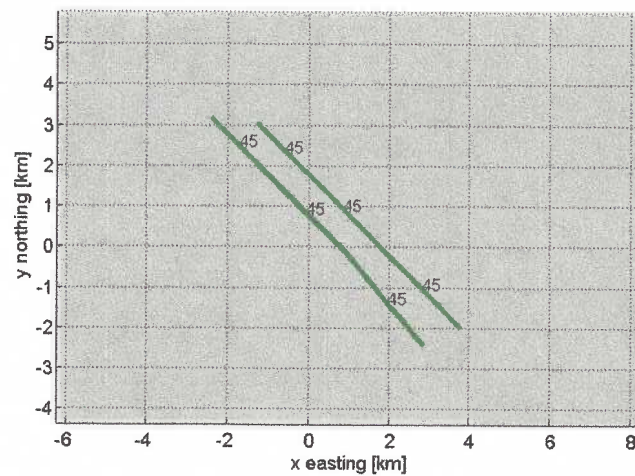
HYDROLOGY

PROB. HYDRO

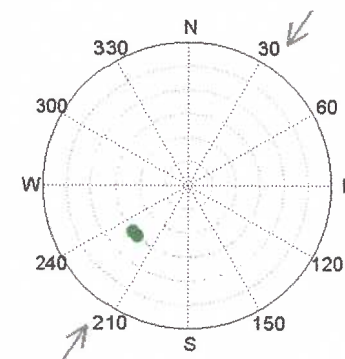
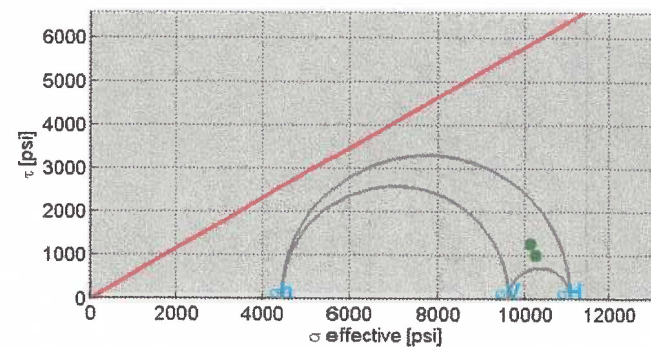
INTEGRATED

b) Fault Dip

Help



Stress Regime: Strike-Slip Faulting



Stereonet Show:

Fault Normals

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

Fault Selector:

- All Faults
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 - Fault #2
 - Fault #3
 - Fault #4
 - Fault #5
 - Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

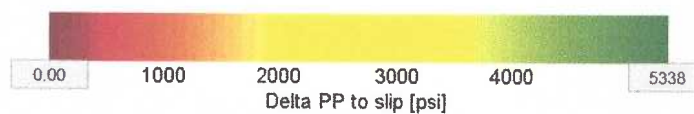
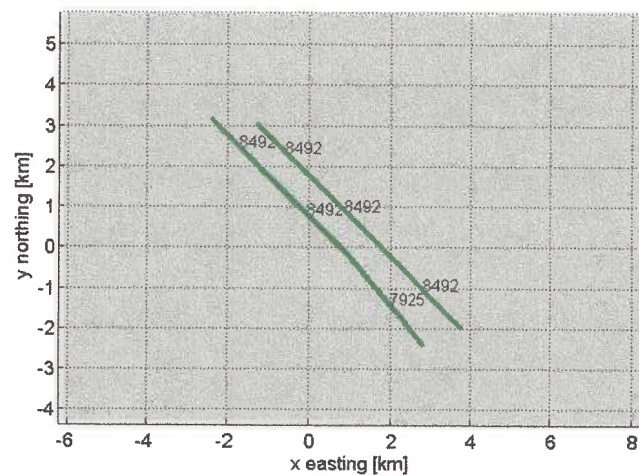
HYDROLOGY

PROB. HYDRO

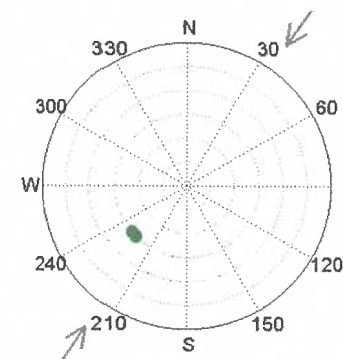
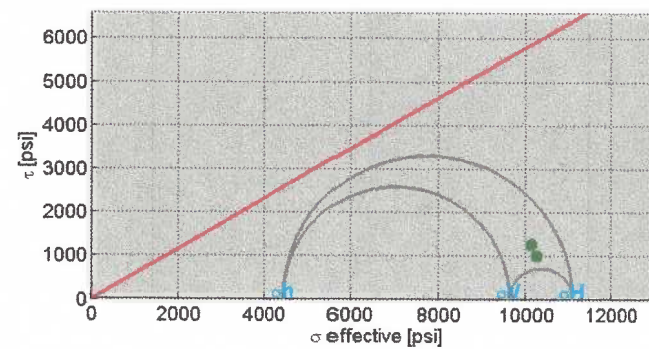
INTEGRATED

d) PPF: Pore Pressure to Slip

Help



Stress Regime: Strike-Slip Faulting



Stereonet Show:

Fault Normals

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

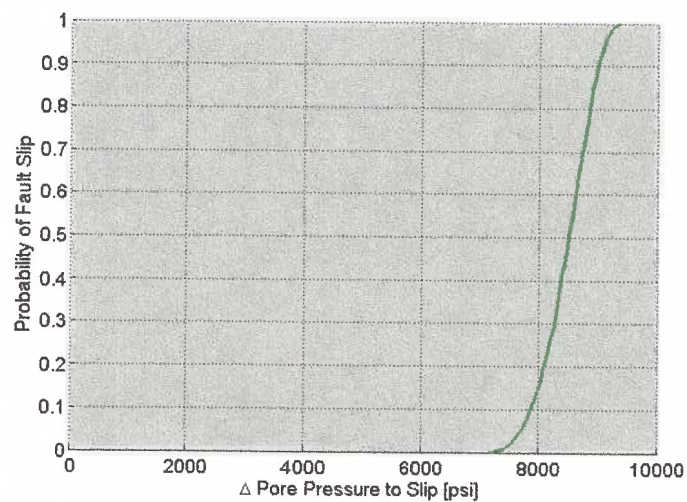
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



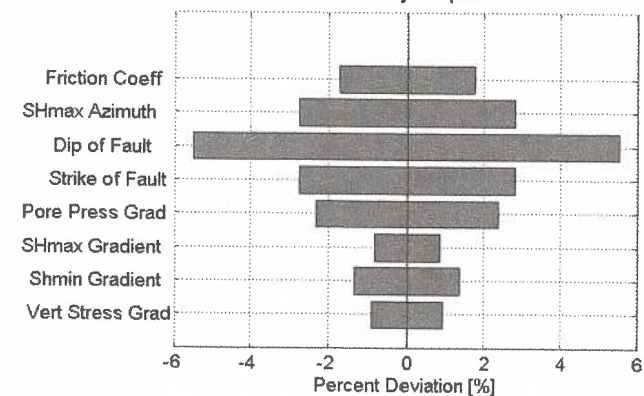
Max Delta PP [psi]:

10000

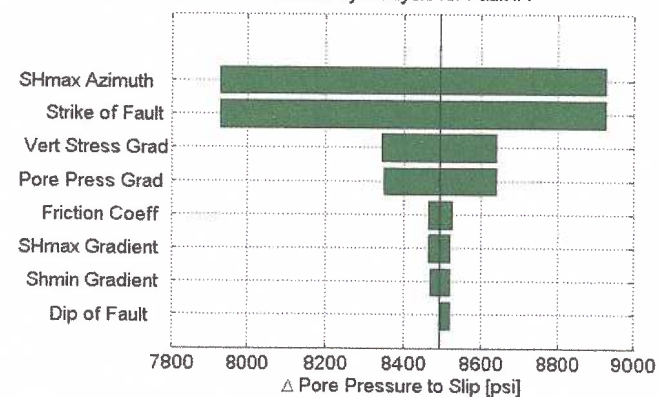
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #1



Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

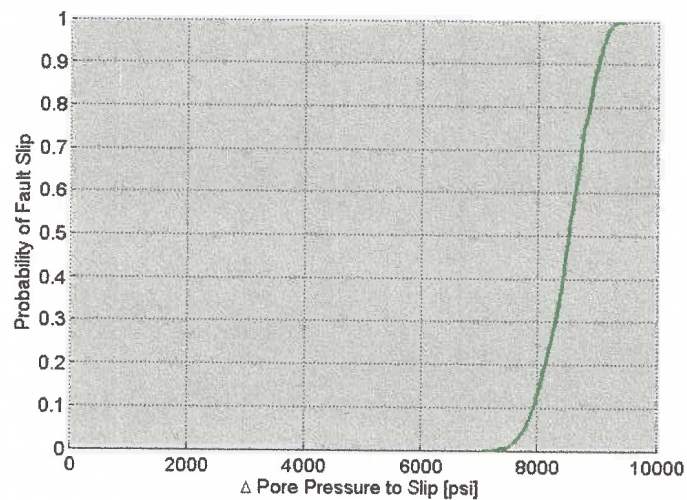
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



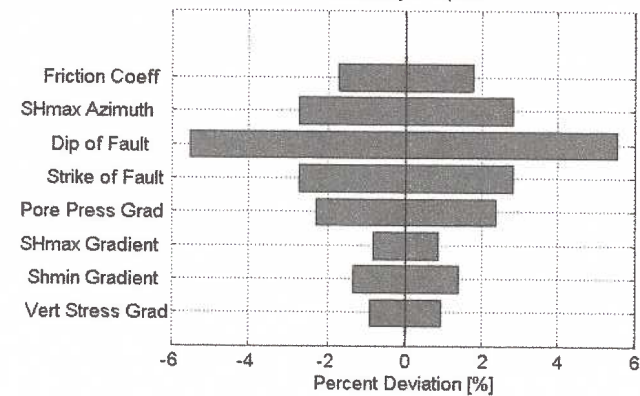
Max Delta PP [psi]:

10000

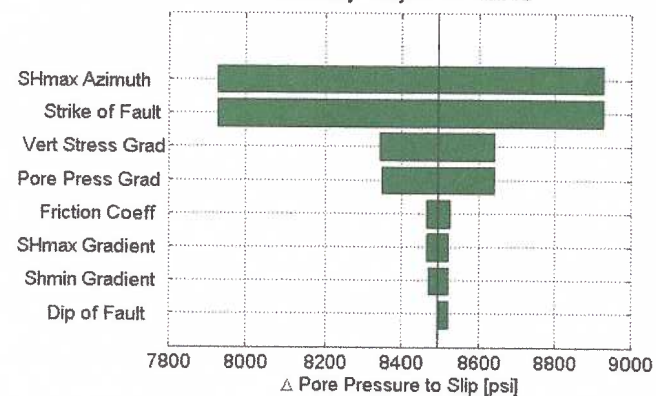
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #2



Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

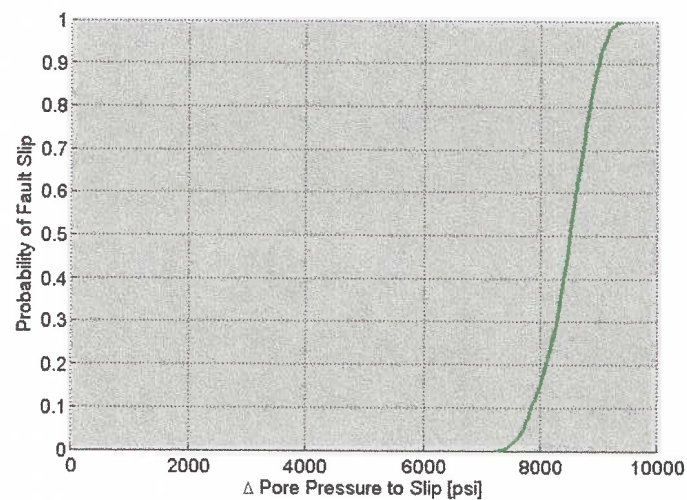
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



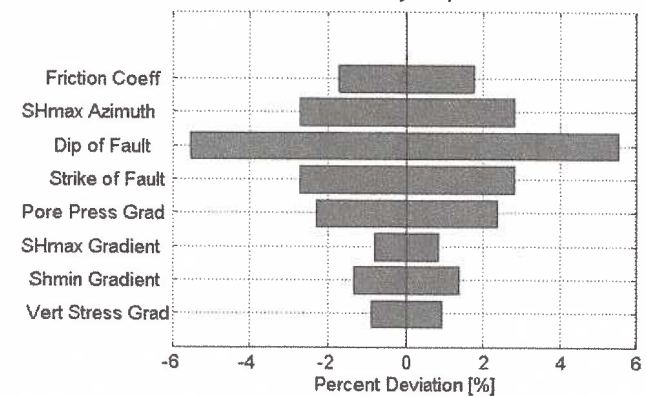
Max Delta PP [psi]:

10000

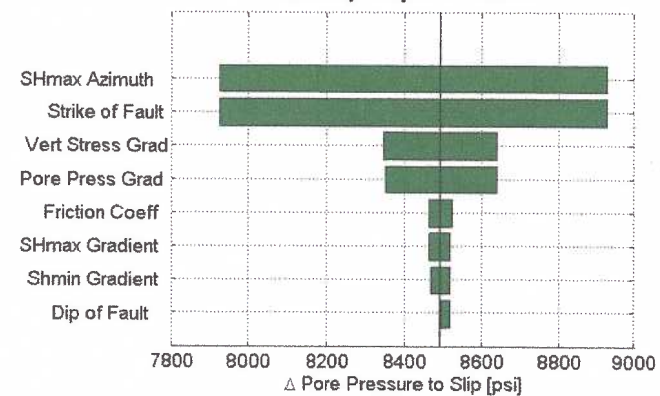
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #3



Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

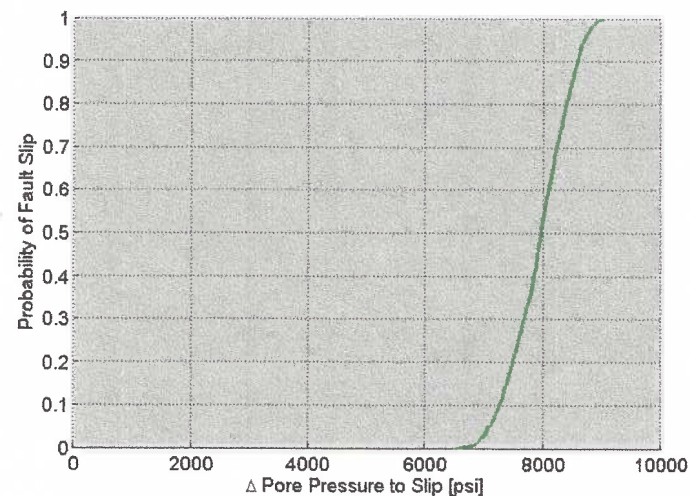
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



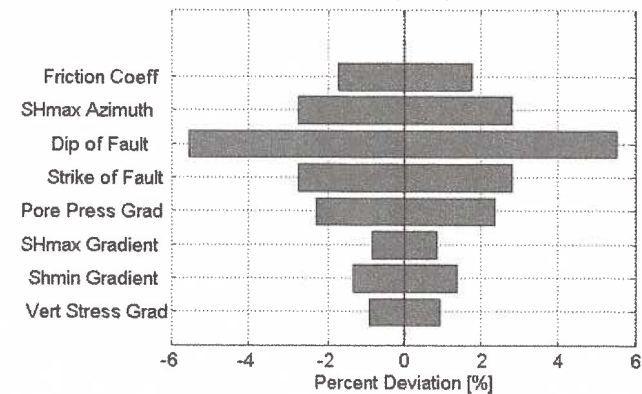
Max Delta PP [psi]:

10000

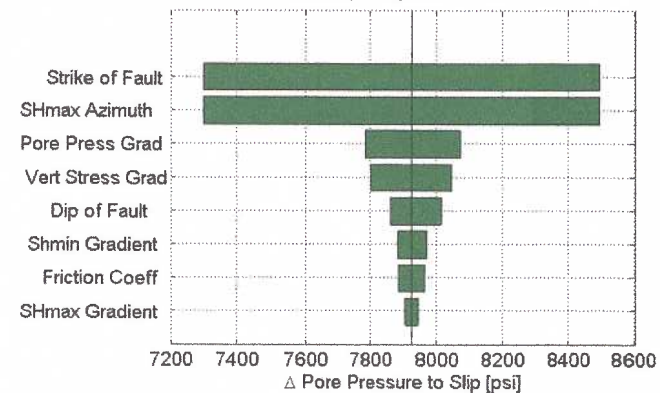
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #4



Fault Slip Potential

Fault Selector:

All Faults

Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

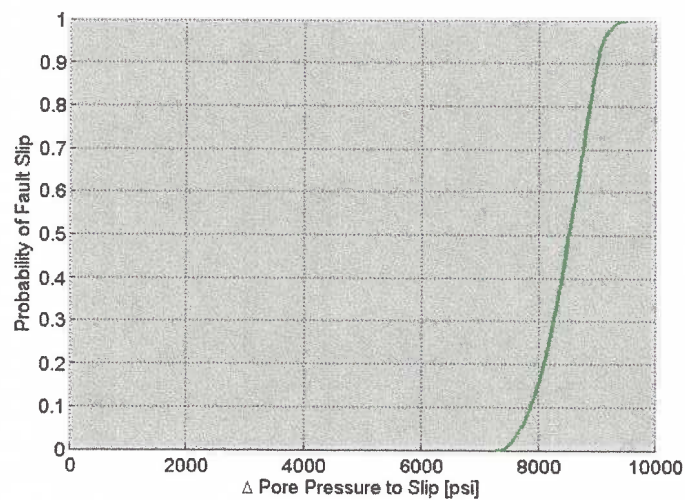
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



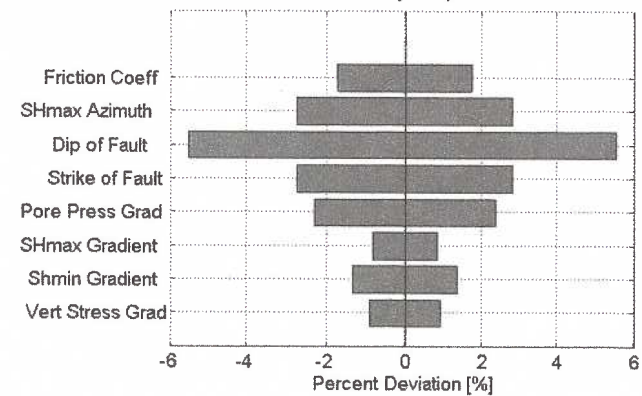
Max Delta PP [psi]:

10000

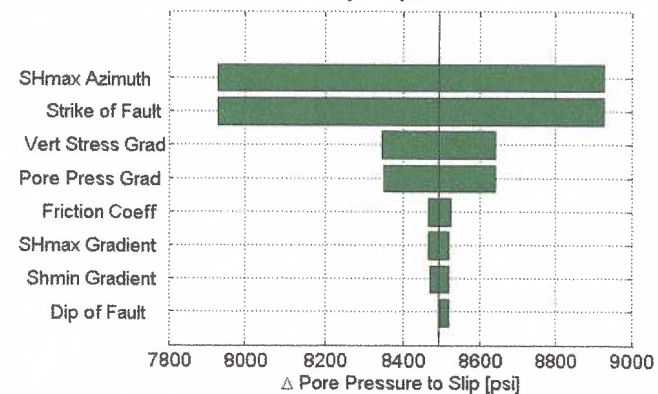
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #5



Fault Slip Potential

Fault Selector:

- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

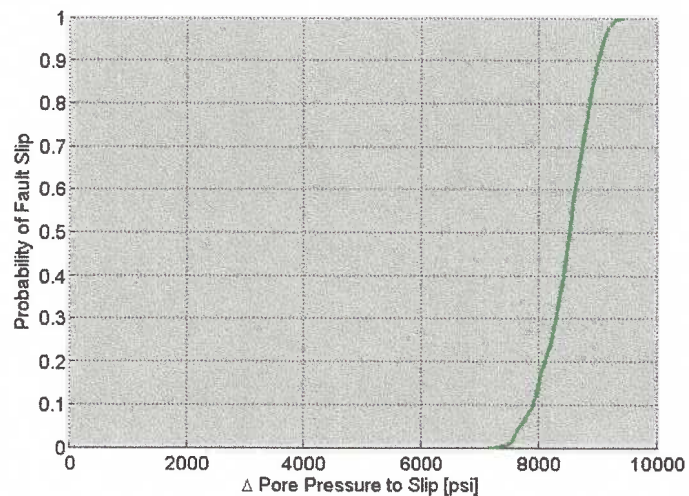
HYDROLOGY

PROB. HYDRO

INTEGRATED

Load Distributions

Run Analysis



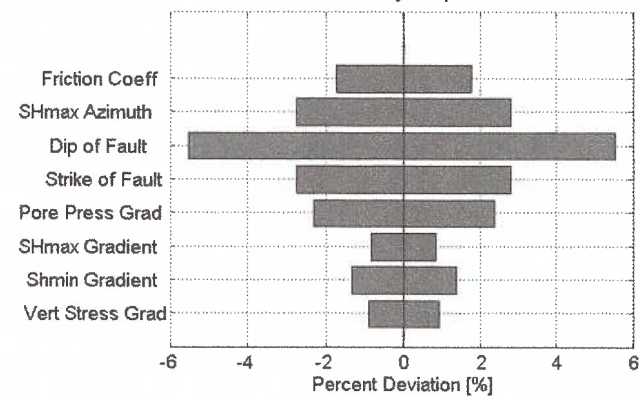
Max Delta PP [psi]:

10000

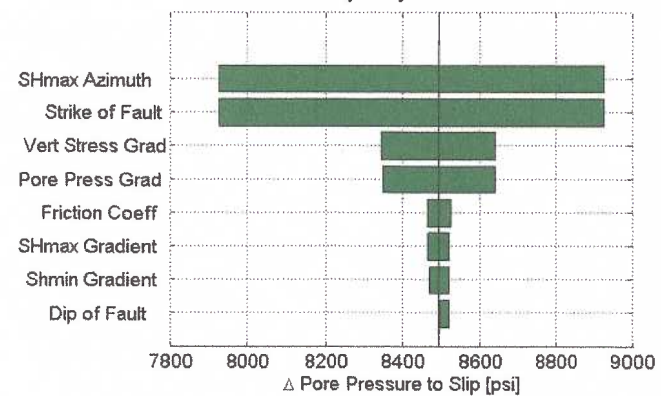
Export CDF data

Show Input Distributions

Variability in Inputs



Sensitivity Analysis for Fault #6



Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

Fault Selector:

All Faults
Fault #1: 0.00 FSP
Fault #2: 0.00 FSP
Fault #3: 0.00 FSP
Fault #4: 0.00 FSP
Fault #5: 0.00 FSP
Fault #6: 0.00 FSP

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

HYDROLOGY

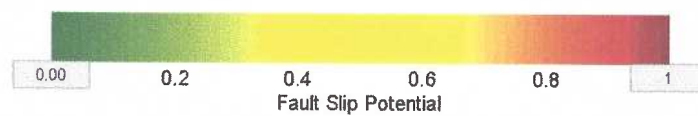
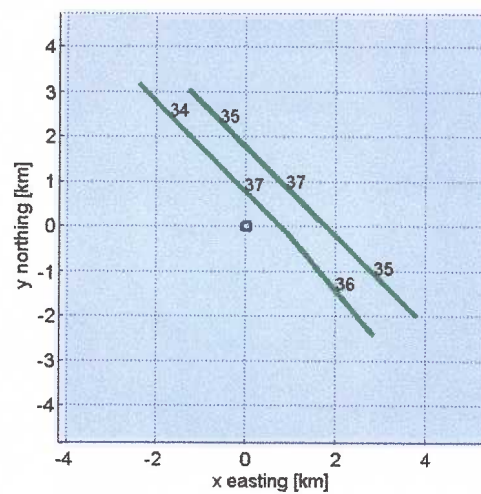
PROB. HYDRO

INTEGRATED

Export

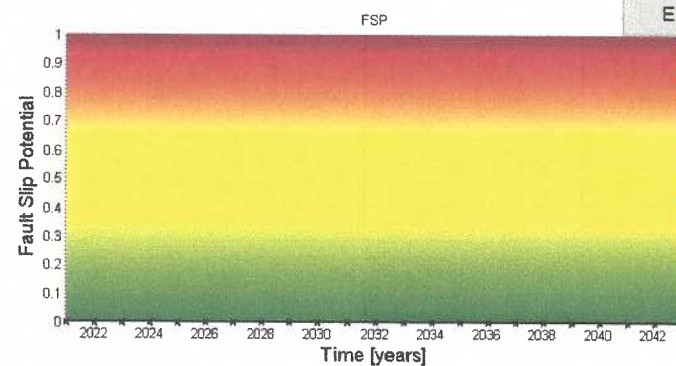
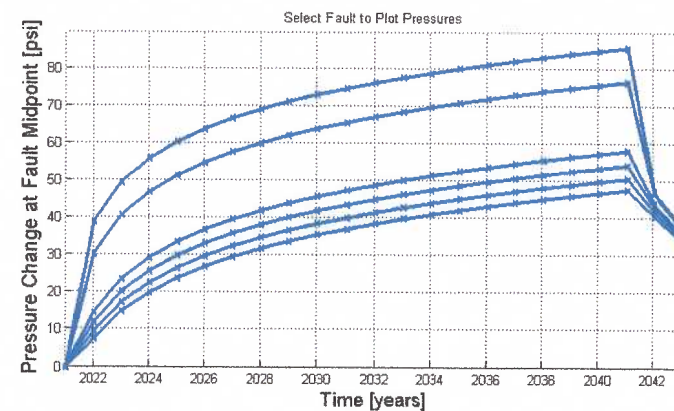
b) PP Change at fault [psi]

Summary Plots



Year:

2043



Fault Slip Potential

Fault Selector:

All Faults
 Fault #1, 0.00 FSP
 Fault #2, 0.00 FSP
 Fault #3, 0.00 FSP
 Fault #4, 0.00 FSP
 Fault #5, 0.00 FSP
 Fault #6, 0.00 FSP

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

HYDROLOGY

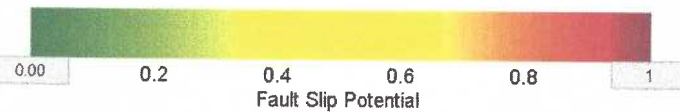
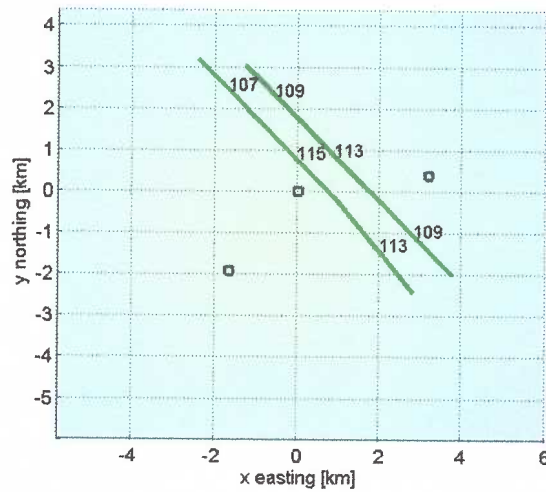
PROB. HYDRO

INTEGRATED

Export

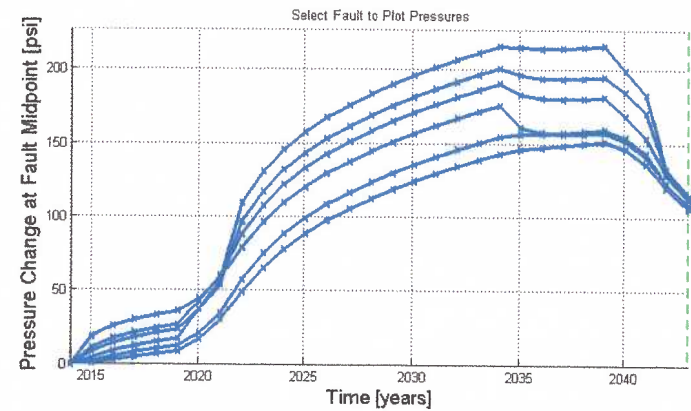
b) PP Change at fault [psi]

Summary Plots

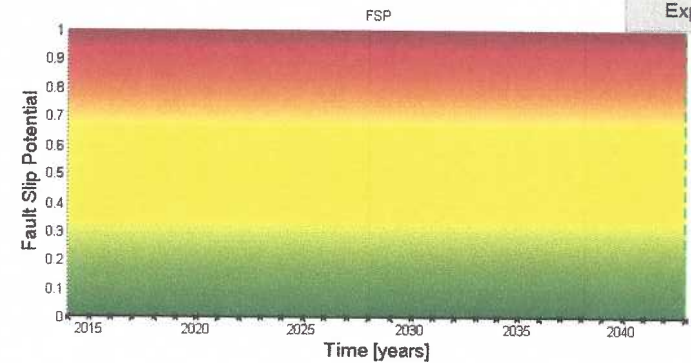


Year:

2043



Export



Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

Fault Selector:

- All Faults
- Fault #1: 0.00 FSP
- Fault #2: 0.00 FSP
- Fault #3: 0.00 FSP
- Fault #4: 0.00 FSP
- Fault #5: 0.00 FSP
- Fault #6: 0.00 FSP

Calculate

MODEL INPUTS

GEOMECHANICS

PROB. GEOMECH

HYDROLOGY

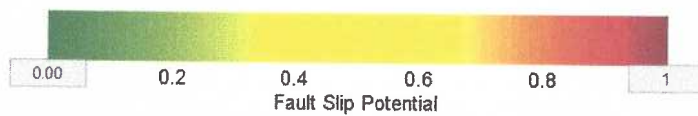
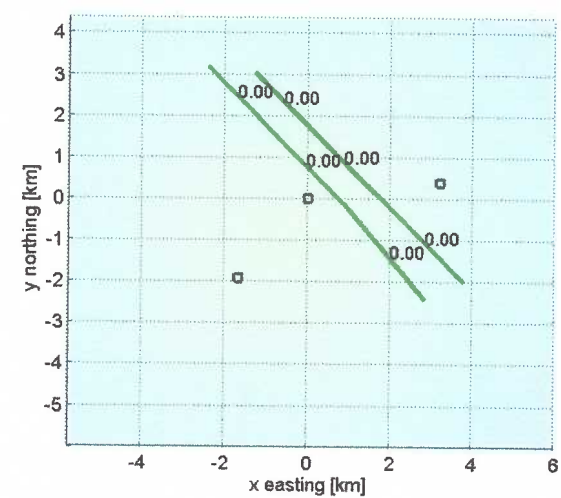
PROB. HYDRO

INTEGRATED

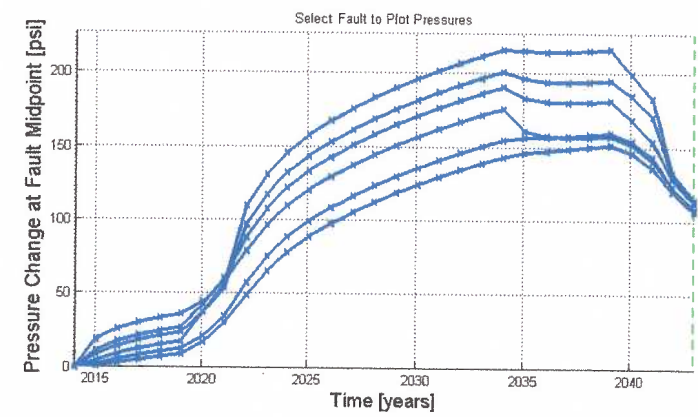
Export

c) Fault Slip Potential

Summary Plots



Year: 2043



Export

