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Clilo

AMSS module build: 1.0.56
Project File: Untitled
Input Units: (ft) (psi)

Headgate. 21

URB.

[PROJECT TITLE]

[PROJECT DESCRIPTION]

[MULTIPLE SEAM PARAMETERS]

Interburden Thickness.....100 (ft)
Previous Mining.....Gob Solid Layout
Vertical Position.....Active UNDER Previous
Active Seam Mining Mode.....Analysis of Longwall Pillar Stability

[PREVIOUS SEAM PARAMETERS]

Seam Thickness.....6 (ft)
Width of Gob.....620 (ft)
Age of Workings.....10 years

[ACTIVE SEAM PARAMETERS]

CMRR.....45

[ALPS DATA]

Entry Height.....5 (ft)
Depth of Cover.....990 (ft)
Panel Width.....1000 (ft)
Entry Width.....20 (ft)
Number of Entries.....3
Crosscut Spacing.....100 (ft)
Center to Center Distance #1.....100 (ft)
Center to Center Distance #2.....100 (ft)

[ALPS DEFAULT PARAMETERS]

In Situ Coal Strength.....900 (psi)
Abutment Angle.....21 (deg)
Unit Weight of Overburden.....162 (pcf)

[AMSS Output]

[MULTIPLE SEAM PILLAR STABILITY FACTORS]

Development Stability Factor.....2.48
TAILGATE Loading.....1.12

Tailgate pillar SF is less than the suggested value of 1.13
The pillar design may be inadequate to prevent a major multiple seam interaction. Consider incre

[PREDICTED CONDITIONS]

Development: GREEN: A major interaction is unlikely.

Tailgate: YELLOW: A major interaction should be considered likely unless a pattern of supplemental roof support (cable bolts or equivalent) is installed. Rib instability is also likely.

In addition to installing a pattern of roof support, the likelihood of a major interaction may be reduced by increasing the pillar size by changing the entry spacing, the crosscut spacing, and/or the pillar width.

[WARNING MESSAGES]

[CALCULATED STRESSES]

Single seam development stress.....1740 (psi)



Multiple seam stress.....586 (psi)
 Total vertical stress (Development).....2327 (psi)
 Tailgate abutment stress.....2102 (psi)
 Total vertical stress (Tailgate Loading).....4429 (psi)

[SUGGESTED CRITICAL INTERBURDEN AND STRESS]

Critical Interburden for Development.....96 (ft)
 Allowable Total Vertical Stress.....2457 (psi)
 If a pattern of supplemental roof support is installed, then:
 Critical Interburden for Development.....30 (ft)
 Allowable Total Vertical Stress.....5822 (psi)

Critical Interburden for Tailgate Loading.....170 (ft)
 Allowable Total Vertical Stress.....2457 (psi)
 If a pattern of supplemental roof support is installed, then:
 Critical Interburden for Tailgate Loading.....83 (ft)
 Allowable Total Vertical Stress.....4947 (psi)

[ALPS STABILITY FACTORS - STANDARD GEOMETRY]

	Classic ALPS	ALPS (R)
Development Loading.....	3.31	3.31
Headgate Loading.....	2.27	2.27
Bleeder Loading.....	1.72	1.72
*** Tailgate Loading.....	1.27	1.27
Isolated Loading.....	1.14	1.14

[ALPS STABILITY FACTORS - STANDARD GEOMETRY - MULTI SEAM CONDITIONS]

	Classic ALPS MS	ALPS (R) MS
Development Loading.....	2.48	2.48
Headgate Loading.....	1.84	1.84
Bleeder Loading.....	1.47	1.47
*** Tailgate Loading.....	1.12	1.12
Isolated Loading.....	1.02	1.02

[ALPS PILLAR LOAD BEARING CAPACITY]

PILLAR #1

for Pillar Width (ft).....80.0
 and Pillar Length (ft).....80.0
 Width/Height Ratio.....16.00
 Unit Pillar Strength (psi).....5760
 Pillar Load Bearing Capacity (lbs) / (ft) of gate entry.....5.31E+07

Unit Pillar Strength (R) (psi).....5760
 Pillar Load Bearing Capacity (R) (lbs) / (ft) of gate entry...5.31E+07

PILLAR #2

for Pillar Width (ft).....80.0
 and Pillar Length (ft).....80.0
 Width/Height Ratio.....16.00
 Unit Pillar Strength (psi).....5760
 Pillar Load Bearing Capacity (lbs) / (ft) of gate entry.....5.31E+07

Unit Pillar Strength (R) (psi).....5760
 Pillar Load Bearing Capacity (R) (lbs) / (ft) of gate entry...5.31E+07

TOTAL PILLAR SYSTEM LOAD BEARING CAPACITY [ALPS Classic]

Total Load (lbs) / (ft) of gate entry.....1.06E+08

TOTAL PILLAR SYSTEM LOAD BEARING CAPACITY [ALPS (R)]
Total Load (lbs) / (ft) of gate entry.....1.06E+08

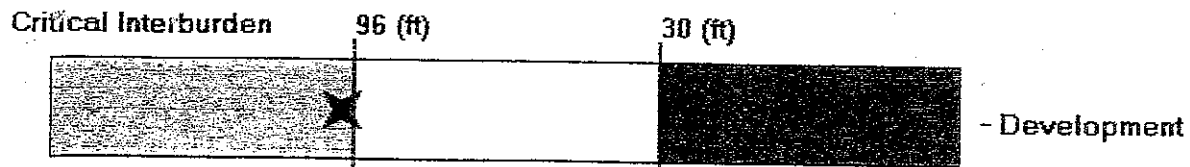
To view the distribution of Unit Pillar Loading
select 'View Plots->Settings->Unit Pillar Loading'
To view the distribution of Load Bearing Capacity
select 'View Plots->Settings->Load Bearing Capacity'

[ALPS SINGLE SEAM LOADS ON PILLAR SYSTEM (lbs) / (ft) of gate entry]

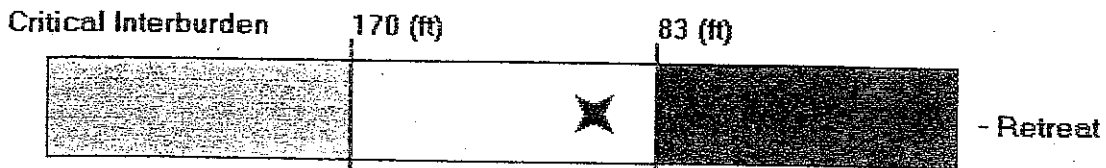
Development Loading.....	32,076,000
Headgate Loading.....	46,829,970
Bleeder Loading.....	61,583,930
*** Tailgate Loading.....	83,882,200
Isolated Loading.....	93,024,470

[ALPS MULTIPLE SEAM LOADS ON PILLAR SYSTEM (lbs) / (ft) of gate entry]

MS Development Load.....	37,480,950
MS Headgate Load.....	50,883,680
MS Bleeder Load.....	64,286,410
*** MS Tailgate Load.....	84,692,940
MS Isolated Load.....	93,024,470



Allowable Stress 2457 (psi) 5822 (psi)



Allowable Stress 2457 (psi) 4947 (psi)