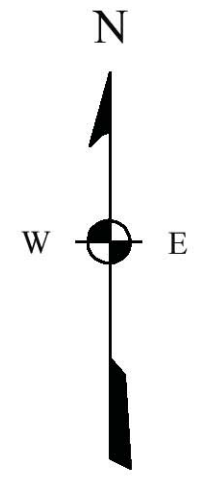


Glory Hole

ELEV. (Logan's Fork) 1013.10'
ELEV. (UBB) 826.99'

35' of the Glory Hole is 20' diameter.
15' of the Glory Hole is 10' diameter.



SCALE



SELECTED SYMBOLS FROM UBB BASE MAP (Base map supplied by UBB shortly after April 5, 2010)

● BELT HEAD	— PERMANENT STOPPINGS
++++ TRACK	≡ WET SEALS
— EXISTING BELT	⊗ OVERCAST
⊙ CO MONITOR	⊠ AIRLOCK DOOR
⊞ BOX CHECK	R REGULATOR
⊞ MAN DOOR	— COAL CONTOURS
⊞ ACTIVE OR INACTIVE GAS WELL	— STREAM
⊞ PLUGGED GAS WELL	— INTERMITTENT STREAM

SHEET 4-B

Map Symbols used to indicate the orientations of Impacted Dust on Protruding or Standing Structures

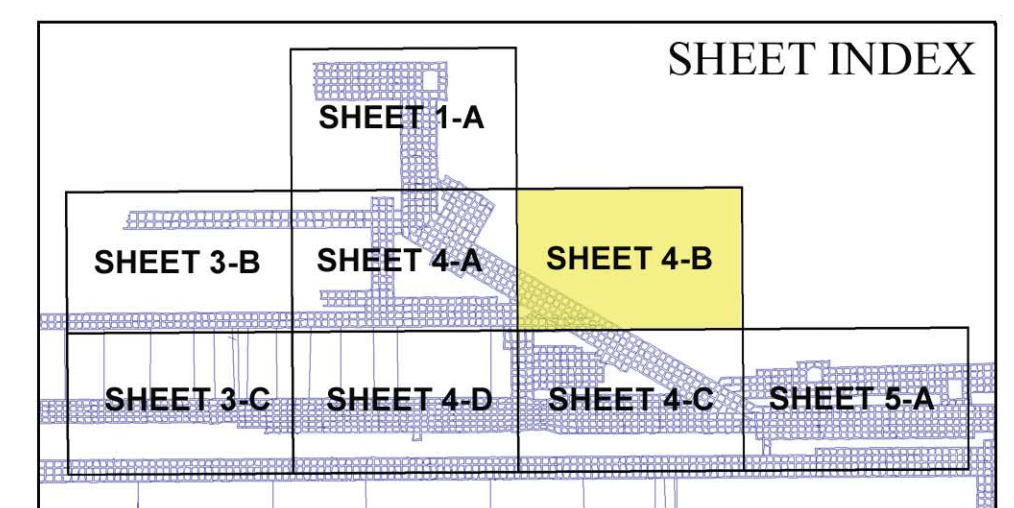
Roof Bolt Heads	⊙ Both sides - thickest on the Left	⊙ Only on Left - heavy	⊙ No impacted dust, either side	⊙ Only on Right - heavy	⊙ Both sides - thickest on the Right	⊙ Both sides - light	⊙ Only on Left - light	⊙ Only on Right - light				
Pipe Couplers = PC	□	□	□	□	□	□	□	□				
Standing Jacks = SJ	□	□	□	□	□	□	□	□				
Other Structures (see abbreviations, below)	□	□	□	□	□	□	□	□				
Belt Structure = BS	Belt Roller = BR	Belt Chain = BC	Cable Bolts = CB	Bolt Plate = BP	Chain Hanger = CH	Fire Valve = FV	Header Board = HB	Proprietary = PS	Roof Pan = RP	Roof Ledge = RL	Square Post = SP	Wire Roof Mesh = WRM

The following notation is used to indicate where coal samples or dust samples were collected:
Channel Samples (coal) = ● CS-#
Impact Samples (dust) = ● IS-# (source)

SELECTED SYMBOLS used in WVOMHS&T Mapping (and selected pre-explosion mine ventilation information)

OBSERVED CONDITION OF ROOF PANS	
□ No well-defined bending of roof pans by wind forces	□ Roof pans not rusted
□ Minor to Moderate bending of roof pans by wind forces	□ Roof pan edges, only, rusted
□ Severe bending of roof pans	□ Roof pans are rusted
→ Indicated wind-force direction (pans bent >90°, except when gray)	→ Initial wind-force direction
→ Indicated "final force" direction (usually "non-pan" light-weight structures like paper or plastic)	→ Subsequent wind-force direction
↔ Pan bending from reflected forces	
VENTILATION *	
— Intake airway	— Neutral airway
— Return airway	— Temporary curtain (these were installed post-explosion)
OTHER SYMBOLS	
▲ Approx. location of victims	▲ Approx. location of water pool

SHEET 4-A
SPCS WV-S NAD 27: E1,827,400



Flames and Forces Map Upper Big Branch Mine Explosion, 2010

West Virginia Office of Miners' Health, Safety, and Training
February, 2012

SPCS WV-S NAD 27: E1,830,600