

**Mining - Survey  
Management System**

**U/G JUMBO  
DRILLING DIRECTION MARKUP  
PROCEDURE**

**MIN-GEN-20020305**

Revision: draft A

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## 1 PURPOSE

These notes are compiled to assist in marking up an underground heading for Jumbo development.

## 2 SCOPE

The procedure is applicable to all survey laser offsets, whether on a straight or a curve.

The assumed cut size for the example used is 3m (ie 3m steels), for a drive width of 4.5m

## 3 DEFINITIONS

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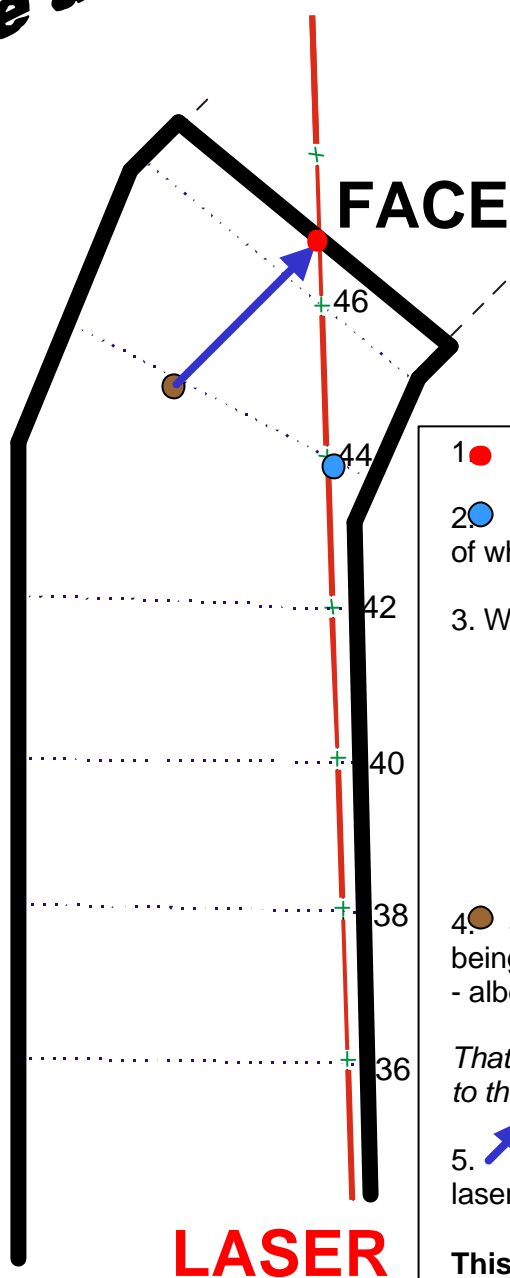
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(Drawing shown at approximately 1:100 Scale)

## 4 PROCEDURE

**Example:  
Face at 47m**



### LASER MEMO OFFSETS

LEFT	DIST	RIGHT
3.6	28	0.9
3.8	30	0.7
4.0	32	0.5
4.1	34	0.4
4.2	36	0.3
4.2	38	0.3
4.2	40	0.3
4.2	42	0.3
3.8	44	0.7
3.0	46	1.5
1.5	48	3.0
0.0	50	4.5

1. Insert laser and mark up where laser hits the face.
2. Step back 3m from the face. Mark a point on the floor of where the laser line is here.
3. Work out how much the next cut is to turn:
 
$$\begin{aligned} &\text{Right offset at 3m past current face} \\ &- \text{Right offset at current face} \\ &= \text{turn distance of next cut} \end{aligned}$$

*a +ve answer = turn to the right,  
a -ve answer = turn to the left.*
4. Step back 3m from face. Mark a point on the floor; being the turn distance - next to the laser mark from step 2, - albeit on the opposite side of the turn.  
  
*That-is, if turn is to the right; mark on the left side. If turn is to the left, mark new point on right side of the laser line.*
5. Paint a line on floor joining the point in step 4 to laser mark at the face.

**This is the drilling direction of the cut.**

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## 5 REFERENCES


## 6 DOCUMENT REVISION HISTORY

Revision Events			
Rev.	Author	Changes	Date
Draft A	OG	Initial draft	5/03/02
Draft B			

## 7 APPENDICES

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