# Explosives template

# Mining blast plan – underground development operations

This template is designed to be used in conjunction with Resources Safety’s *Blast plan preparation, including mining operations – guide* to assist with:

* the preparation of a blast plan that complies with Regulation 130(1)(a)
* record of use of an explosive as required by Regulation 134(2)

of the Dangerous Goods Safety (Explosives) Regulations 2007 (Explosives Regulations).

It is the responsibility of the persons listed in regulation 129(1) of the Explosives Regulations and the shotfirer to ensure the blast plan and record of the blast comply with the legislation.

The Registered Manager has ultimate control and management of the mining operations under the Principal Employer at the mine. It is thus the responsibility of the Registered Manager and Principal Employer to ensure that the relevant legislative requirements under the *Mines Safety and Inspection Act 1994*, Mines Safety and Inspection Regulations 1995, Dangerous Goods Safety Act 2004 and Explosives Regulations are met.

Use of this template is not mandatory; however, the blast plan and record must sufficiently address the elements as outlined.

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# Section 1: Blast plan – generic information

(TO BE COMPLETED **BEFORE** AN EXPLOSIVE IS USED)

## Part A: Brief blast summary

| Mine where blast conducted |  |
| --- | --- |
| Brief description of this type of blast |  |
| Objectives for the blast |  |

## Part B: Details of key appointments and responsibilities for the blast plan

**Details of blast plan author and category**

| Name and category |  |
| --- | --- |
| Company name and address |  |
| Position |  |
| Contact details | Ph: | Fax: | Mobile: |
| Email |  |

**Details of mine manager/principal employer giving approval to use explosives**

| Name |  |
| --- | --- |
| Position |  |
| Company name and address |  |
| Contact details | Ph: | Fax: | Mobile: |
| Email |  |

## Part C: Blast risk management

| Identified risk | Risk reduction methods | Details of how these will reduce risks to an acceptable level |
| --- | --- | --- |
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## Part D: Explosives to be used / charging details

| Premier (type) |  |
| --- | --- |
| Detonating cord |  |
| Type and Quantity of initiators |  |
| Quantity of packaged type |  |
| Quantity of bulk type |  |
| Total quantity of explosives to be used |  |
| Effective charge mass per delay (MIC) |  | Powder Factor: |
| Do you have drilling Procedures | YES / NO  | N/A (provide details):  |
| Do you have explosive loading and charging procedures | YES / NO  | N/A (provide details):  |
| Do you have explosive storage and handling procedures | YES / NO  | N/A (provide details):  |

## Part E: Blast design

| Type of ground |  |
| --- | --- |
| Number of holes |  | Diameter of holes: |
| NEQ per hole |  | Burden: |
| Spacing of hole |  | Depth of hole: |
| Stemming requirements |  | Type of stemming: |
| Delay pattern details |  | Number of delays: |
| Cut position |  | Alternating? YES / NO |
| Special precautions |  | N/A (provide details):  |

## Part F: Signatures

| Blast plan author | Approver of the plan |
| --- | --- |
| Name: | Name: |
| Signature: | Signature: |
| Date: | Date: |

# Section 2: Blast plan – specific information

To be completed each time a blast under the generic blast plan previously detailed in Section 1 is undertaken

## Part G: Details of key appointments and responsibilities for the blast

**Details of person responsible for the blast, including safety and security**

| Name |  |
| --- | --- |
| Position |  |
| Company name and address |  |
| Contact details | Ph: | Fax: | Mobile: |
| Email |  |

**Details of shotfirer (if different from above)**

| Name |  |
| --- | --- |
| Position |  |
| Company name and address |  |
| Contact details | Ph: | Fax: | Mobile: |
| Email |  |

**Details of any other key people involved in the blast and their responsibilities**

| Name |  |
| --- | --- |
| Position |  |
| Responsibility |  |
| Company name and address |  |
| Contact details | Ph: | Fax: | Mobile: |
| Email |  |
| Blast Crew Name |  |
| Security Card No |  | Expiry Date: |
| Blast Crew Name |  |
| Security Card No |  | Expiry Date: |

## Part H: Location of blast and permits / precautionary measures

| Blast location |  |
| --- | --- |
| Exclusion zone (metres) |  |
| Zone of influence of blast | General: | Nearby structures: |
| (show distances to …) | Nearby personnel: | Nearest access: |
|  | Nearest services (e.g. water / air / power): |
| Ventilation considerations |  |
| Return air route  |  |
| Provide details of reports, drawings and records consulted |  |

##  Part I: Security arrangements / warning details

| Describe security procedures for the site and the blast, including explosives |  |
| --- | --- |
| Detail communication system(s) between people involved or in the vicinity of the blast |  |
| Advanced warning of fining time | YES / NO  | N/A (provide details):  |
| General mine clearance | YES / NO  | N/A (provide details):  |
| Audible warning | YES / NO  | N/A (provide details):  |
| Sentries  | YES / NO  | N/A (provide details) (including number of sentries):  |
| Signs | YES / NO  | N/A (provide details): |
| Traffic management | YES / NO  | N/A (provide details): |

## Part J: Initiation method

| Safety fuse |  |
| --- | --- |
| Burn time (per metre) |  | Length: |
| Electrical |  |
| Continuity | YES / NO | Resistance: |
| Signal tube |  |
| Electronic |  | Continuity: YES / NO |
| Delays | YES / NO |
| Type |  | Number: |
| Initiation equipment or exploder |  |
| Mains Firing | YES / NO |

## Part K: Blast layout plan

 (INCLUDE ORIENTATION, HOLE LAYOUT / SPACING, DELAYS, INITIATION POINT, FIRING LINES AND ANY DEVIATION FROM THE GENERIC BLAST PLAN DETAILS PROVIDED IN SECTION 1, e.g. additional holes, variation in load factors etc)

# Section 3: Record of use of explosives

(TO BE COMPLETED **BY THE SHOTFIRER WITHIN 7 DAYS** AFTER ANY USE OF EXPLOSIVE)

## Part L: Environmental monitoring equipment (if used)

| Monitoring equipment used | Type: | Serial no: | Location: |
| --- | --- | --- | --- |
| Monitoring equipment used | Type: | Serial no: | Location: |
| Details of measurements recorded during the blast |  |
| Describe environmental considerations for ground vibration |  |

## Part M: Post-blast analysis

| Misfire | YES / NO  | N/A (provide details):  |
| --- | --- | --- |
| Do you have misfire management system | YES / NO  | N/A (provide details):  |
| Flyrock / fly | YES / NO  | N/A (provide details):  |
| Area safe | YES / NO  | N/A (provide details):  |
| Do you have post-blast assessment and inspection | YES / NO  | N/A (provide details):  |
| Incidents / complaints | YES / NO  | N/A (provide details):  |
| Stock reconciliation details |  |
| Was blast satisfactory (Did it meet the objectives?) | YES / NO  | N/A (provide details):  |
| Proposed changes to future blasts (Include any proposed modifications for future shots) |  |
| Post-blast comments |  |

##  Part N: Signature of shotfirer

| Name: |
| --- |
| Signature: |
| Date: |