Economic parameters for a manual example.

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Quantity |
| Qm | tonnes per year | 1000000 |
| Qc | tonnes per year | 500000 |
| Qr1 | tonnes per year | 150000 |
| Qr2 | tonnes per year | 60000 |
| M | dollar per tonnes | 1 |
| C | dollar per tonnes | 16.25 |
| r1 | dollar per tonnes | 525 |
| r2 | dollar per tonnes | 220 |
| F | dollar per year | 10000000 |
| s1 | dollar per tonnes | 775 |
| s2 | dollar per tonnes | 435 |
| y1 | % | 80 |
| y2 | % | 60 |
| D | % | 20 |

Grade-tonnage distribution of lead and zinc.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Zinc (%) | Lead (%) | | | | |
|  | 0-4 | 4-8 | 8-12 | 12-16 | >16 |
| 0-4 | 250000 | 110000 | 5000 | 5000 | 2000 |
| 4-7 | 900000 | 100000 | 10000 | 70000 | 30000 |
| 7-10 | 700000 | 100000 | 50000 | 60000 | 150000 |
| 10-14 | 185000 | 170000 | 110000 | 200000 | 370000 |
| 14-17 | 500000 | 170000 | 170000 | 90000 | 345000 |
| 17-20 | 570000 | 390000 | 150000 | 150000 | 280000 |
| 20-24 | 900000 | 770000 | 270000 | 190000 | 365000 |
| 24-27 | 420000 | 200000 | 250000 | 370000 | 225000 |
| 27-30 | 350000 | 170000 | 540000 | 230000 | 25000 |
| >30 | 300000 | 115000 | 60000 | 35000 | 3000 |



Grade-tonnage distribution for the lead-zinc deposit. (a) 3-D, (b) 2-D.