

Controlled Blasting – Times Have Changed

Description	1960s Methods	Current Methods	Benefits of Current Methods
Explosives	Dynamite Hazardous, easily detonated	Emulsion explosives Safe, stable	Optimum charge weights Lower noise and vibration
Detonators	Primacord Inaccurate timing, noisy	Electronic detonators Accurate to microseconds	Consistency Predictable results
Confinement	Open holes	Confined at the top Mats and borehole stemming	Well-controlled Muffled detonation and no flyrock
Placement	Tape measure	GPS located holes Drilled accurately	Controlled relief Reproducible results
Monitoring	Analog monitor	Digital devices Accurate and precise	Immediate results Monitor noise and vibration
Data Keeping	Hand-drawn diagrams	Videos and photos	Digital, easy to compare



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