Formula 1

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Formula 2

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Formula 3

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Related Content

Title	Type	Slug
Emergency Response Planning for Blasting Incidents	lesson	blasting-emergency-response-planning
Blast Design Excel Template v4.2	resource	blast-design-excel-template
Drill Rig Maintenance Inspection Checklist	resource	drill-rig-maintenance-checklist
Rock Mass Rating (RMR) Field Survey Sheet	resource	rmr-field-survey-sheet
Drilling Energy Benchmarking Dashboard (Power BI)	resource	drilling-energy-dashboard

Detailed Explanation

Mine Planning & Scheduling Datasheets bridge the gap between strategic resource modeling and tactical operational execution. They formalize assumptions and boundary conditions—such as orebody geometry, rock mass rating (RMR), dilution and recovery factors, equipment availability, maintenance

windows, and regulatory constraints—into structured, version-controlled data tables. This enables reproducible scenario analysis, sensitivity testing, and integration with scheduling software (e.g., Deswik, MineSight, Vulcan, or GEMS). A robust datasheet adheres to data governance principles: traceable provenance (e.g., assay lab IDs, survey dates), units standardization (metric/SI), uncertainty quantification (e.g., 90% confidence intervals on grade estimates), and metadata tagging (e.g., 'validated_by', 'effective_date'). In practice, it supports both deterministic and stochastic scheduling approaches—where probabilistic inputs (e.g., grade variability, equipment failure rates) are explicitly parameterized—and facilitates auditability during feasibility studies, permitting submissions, and life-of-mine (LoM) reviews. Modern implementations increasingly incorporate interoperability standards (e.g., ISO 17123 for surveying, IFC for digital twin integration) and API-ready formats (e.g., JSON-LD, CSV with schema definitions) to enable automated data ingestion into digital mine platforms.

Key Components

#	Component
1	Geological Input Parameters
2	Operational Constraints & Equipment Data
3	Economic & Regulatory Assumptions

Applications

#	Application
1	Feasibility Study Input Validation
2	Short-Term Production Schedule Generation
3	Regulatory Compliance Reporting (e.g., SEC Form 10-K, JORC/NI 43-101)

Related Concepts

#	Concept

1	Block Modeling
2	Critical Path Method (CPM)
3	Stochastic Scheduling

Tags

> mining-engineering, resource-planning, digital-mine