# INPUT DATA FORM : GEOMECHANICS CLASSIFICATION (ROCK MASS RATING SYSTEM)

Name of Project:
Site of Survey:

Conducted by:
Date:

| STRUCTURAL REGION | DEPTH, m | ROCK TYPE |
|---|---|---|
| | | |

## STRENGTH OF INTACT ROCK MATERIAL

| Designation | Uniaxial compressive strength, MPa | OR | Point-load strength index, MPa |
|---|---|---|---|
| Very High: | Over 250 _____ | | > 10 _____ |
| High: | 100 - 250 _____ | | 4 - 10 _____ |
| Medium High: | 50 - 100 _____ | | 2 - 4 _____ |
| Moderate: | 25 - 50 _____ | | 1 -2 _____ |
| Low: | 5 - 25 _____ | | < 1 _____ |
| Very Low: | 1 - 5 _____ | | |

## DRILL CORE QUALITY, R.Q.D.

| | | |
|---|---|---|
| Excellent quality: | 90 - 100% | _____ |
| Good quality: | 75 - 90% | _____ |
| Fair quality: | 50 - 75% | _____ |
| Poor quality: | 25 - 50% | _____ |
| Very poor quality: | < 25% | _____ |

R.Q.D. = Rock Quality Designation

## STRIKE AND DIP ORIENTATIONS

| | | | | | |
|---|---|---|---|---|---|
| Set 1 | Strike _____ *(average)* | (from _____ | to _____) | Dip: _____ *(angle)* | _____ *(direction)* |
| Set 2 | Strike _____ | (from _____ | to _____) | Dip: _____ | _____ |
| Set 3 | Strike _____ | (from _____ | to _____) | Dip: _____ | _____ |
| Set 4 | Strike _____ | (from _____ | to _____) | Dip: _____ | _____ |

NOTE: Refer all directions to magnetic north.

## SPACING OF DISCONTINUITIES

| | | Set 1 | Set 2 | Set 3 | Set 4 |
|---|---|---|---|---|---|
| Very wide: | Over 2 m | _____ | _____ | _____ | _____ |
| Wide: | 0.6 - 2 m | _____ | _____ | _____ | _____ |
| Moderate: | 200 - 600 mm | _____ | _____ | _____ | _____ |
| Close: | 60 - 200 mm | _____ | _____ | _____ | _____ |
| Very close: | < 60 mm | _____ | _____ | _____ | _____ |

## GROUNDWATER

INFOW per 10 m of tunnel length liters/minute _____
_____
or _____
WATER PRESSURE KpA _____

GENERAL CONDITIONS (completely dry, damp, wet, dripping or flowing under low, medium or high pressure):

## IN SITU STRESSES

## CONDITION OF DISCONTINUITIES

| PERSISTENCE (CONTINUITY) | | Set 1 | Set 2 | Set 3 | Set 4 |
|---|---|---|---|---|---|
| Very low: | < 1 m | _____ | _____ | _____ | _____ |
| Low: | 1 - 3 m | _____ | _____ | _____ | _____ |
| Medium: | 3 - 10 m | _____ | _____ | _____ | _____ |
| High: | 10 - 20 m | _____ | _____ | _____ | _____ |
| Very high: | > 20 m | _____ | _____ | _____ | _____ |
| **SEPARATION (APERATURE)** | | | | | |
| Very tight joints: | < 0.1 mm | _____ | _____ | _____ | _____ |
| Tight joints: | 0.1 - 0.5 mm | _____ | _____ | _____ | _____ |
| Moderately open joints: | 0.5 - 2.5 mm | _____ | _____ | _____ | _____ |
| Open joints: | 2.5 - 10 mm | _____ | _____ | _____ | _____ |
| Very wide aperature: | > 10 mm | _____ | _____ | _____ | _____ |
| **ROUGHNESS (state also if surfaces are stepped, undulating or planar)** | | | | | |
| Very rough surfaces: | | _____ | _____ | _____ | _____ |
| Rough surfaces: | | _____ | _____ | _____ | _____ |
| Slightly rough surfaces: | | _____ | _____ | _____ | _____ |
| Smooth surfaces: | | _____ | _____ | _____ | _____ |
| Slickensided surfaces: | | _____ | _____ | _____ | _____ |
| **FILLING (GOUGE)** | | | | | |
| Type: | | _____ | _____ | _____ | _____ |
| Thickness: | | _____ | _____ | _____ | _____ |
| Uniaxial compressive strength, MPa: | | _____ | _____ | _____ | _____ |
| Seepage: | | _____ | _____ | _____ | _____ |
| **WALL ROCK OF DISCONTINUITIES** | | | | | |
| Unweathered | | _____ | _____ | _____ | _____ |
| Slightly weathered | | _____ | _____ | _____ | _____ |
| Moderately weathered | | _____ | _____ | _____ | _____ |
| Highly weathered | | _____ | _____ | _____ | _____ |
| Completely weathered | | _____ | _____ | _____ | _____ |
| Residual soil | | _____ | _____ | _____ | _____ |

## GENERAL REMARKS AND ADDITIONAL DATA

MAJOR FAULTS specify locality, nature and orientations.

NOTE: For definitions and methods consult ISRM document: *'Quantitive description of discontinuities in rock masses.'*