

# Data Dictionary for MRT Bulk Data Download December 2020

<b>DRILLING</b>	
<b>Field Name</b>	<b>Description</b>
Name	Drill hole name
Keywords	Drill hole Location/project/prospect
X	Easting in metres or longitude in decimal degrees, for the Datum indicated in the datum field
Y	Northing in metres or longitude in decimal degrees for the Datum in the datum field
Z	Height of the drill hole collar in metres above AHD TAS83
Datum	Datum and coordinate system: AGD 66 Zone 55 or GCS GDA94, or Lat/long
mE (MGA94/Z55)	Easting in metres for datum GDA94, map projection MGA94 Zone 55
mN (MGA94/Z55)	Northing in metres for datum GDA94, map projection MGA94 Zone 55
Longitude (GDA94)	Longitude in decimal degrees, for GCS GDA94
Latitude (GDA94)	Latitude in decimal degrees, for GCS GDA94
EOH Length	End of hole, drill hole length in metres
Date Drilled	The date the drill hole was drilled
Wedge Parent Hole ID	Parent Drill Hole ID number
Wedge Downhole Depth	Depth down parent hole at which wedge starts in metres
Company	Company or agency that contracted the drilling.
Associated Tenement	Tenements associated with this drill hole at the time of drilling.
Positional Accuracy	Estimated uncertainty in accuracy of the x,y position (m)
* <a href="#">Position Method</a>	Method used to derive the x,y position of the drill hole collar
Elevation Accuracy	The accuracy of the drill hole collar height in metres
* <a href="#">Elevation Method</a>	Method used to derive the height of the drill hole collar
Azimuth	Azimuth (bearing) of the start of the drill hole from TRUE north (must be between 0 and 360)
Dip	Angle of hole relative to the horizontal (inclination), with negative values for holes directed downwards and positive values for holes directed upwards (must be between -90 and 90)
Core Status	Can the public view the physical core for this drill hole
Driller Category	The type of organisation that did the drilling e.g. Private contractor, Department of Mines
Collared Underground	Is the drill hole collared from underground workings
* <a href="#">Drill Types</a>	Method used to drill the hole e.g. diamond
Purpose	Drill hole purpose e.g. Metallic minerals
Core Store Location	Drill core stored in MRT core library

\* Further details provided in sub-tables below

<b>DRILLING:</b> Location Method / Elevation Method	
<b>Name</b>	<b>Description</b>
Air Photo	Estimated from air photo
Barometer	Measured using aneroid barometer
benchmark survey	Measured using precise survey from a benchmark
Client	Client Supplied
control point survey	Measured using survey between non benchmark control points
DEM	Estimated from digital elevation model
Estimate	Not surveyed, method of estimation unknown
GPS	Measured using global positioning system
autonomous GPS	Measured using autonomous global positioning system
differential GPS	Measured using differential global positioning system
kinematic GPS	Measured using GPS device with phase kinematic relative positioning
static GPS	Measured using GPS device with phase static relative positioning
Map	Estimated from map
NIL	Placed on calculated midpoint of street segment of block
Nominal	Nominal position when site is poorly known
radio triangulation	Measured by triangulation using synchronised pulsed transmissions from radio stations
Reference	Estimate derived from an attached reference
report	Estimate derived from a report eg drillers location map
satellite	Estimated from satellite imagery
stereophotogrammetry	Measured from stereopairs of photogrammes
Survey	Measured using traditional survey with ground control
trigonometric	Measured using trigonometrical leveling
unknown	Method of location is unknown

<b>DRILLING:</b> Drill Type	
<b>Field Name</b>	<b>Description</b>
Aircore	Air core drilling and related methods utilising blades to bore into unconsolidated ground
Augers	Auger drilling using a helical screw driven into the ground with rotation
Cable Tool	A percussion drilling method that uses a heavy drilling tool that is raised and lowered with enough force to pulverise the rock
Diamond	Diamond core drilling utilizes an annular diamond- or tungsten-carbide-impregnated drill bit attached to the end of hollow drill rods to cut a cylindrical core of solid rock
Hollow Flight Auger	Type of auger drilling method utilising a hollow stem or shaft.
Percussion	A drilling method whereby rock or sediment chips or fragments (cuttings) are derived by use of a percussion (hammer) method, with or without rotary action.

Percussion_Diamond	Percussion drilling converted to diamond type (percussion pre-collar with diamond tail)
Pit	Pit excavation
Push Tube	Direct push drilling utilising hydraulic cylinders and a hydraulic hammer in advancing a hollow core sampler
Reverse circulation	Reverse circulation (RC) drilling utilises a pneumatic reciprocating piston to drive a tungsten-steel drill bit.
Rotary	Rotary drilling utilises a drill stem equipped with a bit that is rotated to cut and grind the rock
Rotary_Diamond	Rotary drilling converted to diamond drill type (rotary pre-collar with diamond tail)
Rotary_Percussion	Rotary drilling converted to percussion drill type (rotary pre-collar with percussion tail)
Unknown	Drill type unknown

<b>SAMPLES and OBSERVATIONS</b>	
<b>Field Name</b>	<b>Description</b>
ID	A number unique to each sample/observation
Reg. #	A unique identifier for the sample within the MRT rock catalogue.
Originators	Name of the person or company who collected the sample/observation
Projects	Name of any internal MRT projects which the sample/observation is associated.
* Type	The type of sample/observation which is being described (eg. rock, mineralised)
Lithology	The lithology that the sample/observation has been assigned to
Lithostratigraphy	Name of the lithostratigraphic unit the sample/observation has been described as belonging to
Chronostratigraphy	Name of the chronostratigraphic unit the sample/observation has been described as belonging to
Mineral Types	The significant minerals which have been identified in the sample/observation
Ore Types	The significant ore minerals which have been identified in the sample/observation
Collection Date	Date sample/observation was collected/recorded
Field #	A number assigned to the sample/observation by the originator
Notebook	The name of the internal MRT project notebook used to record sample/observation and site details
Sample Description	A general description of the sample/observation
Other References	Related reports and links to other TIGER records, related reports stored in the MRT corporate management system, or text description of related reports or to other Tiger records
Locality	Location description the sample/observation was taken from

Raw X	Easting in metres or longitude in decimal degrees, for the datum indicated in the datum field
Raw Y	Northing in metres or longitude in decimal degrees for the datum in the datum field
Raw Datum	Datum and coordinate system: AGD 66 Zone 55 or GCS GDA94, or Lat/long
Longitude (GDA94)	Longitude in decimal degrees, for GCS GDA94
Latitude (GDA94)	Latitude in decimal degrees, for GCS GDA94
mE (MGA94/Z55)	Easting in metres for datum GDA94, map projection MGA94 Zone 55
mN (MGA94/Z55)	Northing in metres for datum GDA94, map projection MGA94 Zone 55
LIST 25K Map Sheet	Automatically generated from sample/observation point location and index of TASMAR 1:25000 Topographic/Cadastral Map sheets
X/Y Accuracy	Estimated uncertainty in accuracy of the x,y position (m)
* Location Method	Method used to derive the position of sample/observation
Site Description	A description of the site where the sample was collected
* Site Type	The type of site where the sample or observation was collected/recorded
State	The state where the sample or observation was collected/recorded
Country	The country where the sample or observation was collected/recorded
Height	Metres above AHD TAS83
Height Accuracy	Estimated uncertainty accuracy of height in centimetres or metres
Drill ID	Unique ID number for each drill hole
Depth From	Start depth of drill hole sampling interval in metres
Depth To	Finish depth of drill hole sampling interval in metres
Depth Accuracy	Estimated uncertainty accuracy of the depth of the drill hole sampling interval in metres
References	Related reports e.g. 93_3492, URI985_62. These reports relate to the original sampling and subsequent work such as re-sampling
RM8 References	Related reports stored in the MRT corporate management system. These reports relate to the original sampling and subsequent work such as re-sampling
Created On	Date sample/observation record was entered into database
Modified On	Date sample/observation record was modified in database

\* Further details provided in sub-tables below

<b>SAMPLE/OBSERVATION:</b>	
<b>Type</b>	
<b>Name</b>	<b>Description</b>
Artificial	Synthetic/anthropogenic, industrial or laboratory product, incl. concrete
Concentrate	Mineral concentrate, Mill Product, eg. pan concentrate
Drill cuttings	Cuttings from RC or percussion drilling.
Drill log	Geology information about section of drill core
Environmental	Sample of dust, asbestos or related material of environmental health concern.
Fossil	Fossil
Meteorites/tektites	Meteorites or tektites
Mineral	Mineral, mineraloid or related material
Mineralised	Mineralised rock
Organic	Vegetation/leaf litter, bones, etc
Outcrop Observation	Outcrop Observation from field investigation where no physical sample has been collected
Reading/Observation	Outcrop Observation from field investigation where no physical sample has been collected
Rock	Rock: consolidated, natural geological sample, excluding ores and minerals
Sediment	Sediment (unconsolidated)
Soil	Soil
Stream Sediment	Sample of sediment from a stream or river
Tailings/mine waste	Tailings/mine waste (acid mine drainage deposits, etc)
Water	Water

<b>SAMPLE/OBSERVATION:</b>	
<b>Site Type</b>	
<b>Name</b>	<b>Description</b>
Anthropogenic	Man-made structures, includes dams, bridges, culverts and buildings etc. Also forensics.
Atmospheric	Sample collected by atmospheric sampling (eg. dust on filters)
Cutting	This includes road and railway cuttings
Dam	From actual dam structure
Drill Hole	Geoscientific drill hole into rock, soil, etc
Drill Hole not in DB	Drill hole not recorded in the drill hole database
Float	Site with isolated displaced fragment of underlying bedrock on surface
Geosite	Geological heritage sites
Industrial	Industrial site excluding mine or quarry
Laboratory	Created or highly modified in a laboratory
Mill or Processing Plant	Mills and Mineral Processing plants related to mining operations
Mine	Undifferentiated excavations from a mining or prospecting site
Mine Dump	Stockpile or dump of ore and/or waste rock from a mine working
Outcrop	Bedrock site excluding surficial deposit sites
Pit Face	Face of open pit excavation

**SAMPLE/OBSERVATION:****Location Method**

<b>Name</b>	<b>Description</b>
10k Topographical Map	Sample location estimated from 1:10,000 scale topographic map
1:10k Geological Map	Sample location estimated from 1:10,000 scale geological map
25k Topographical Map	Sample location estimated from 1:25,000 scale topographic map
50k Geological Map	Sample location estimated from 1:50,000 scale geological map
Atlas	Sample location estimated from Atlas
Bibliographic reference	Sample location from bibliographic reference
Captured as part of NETGOLD project	Stream sediments captured as part of NETGOLD project. Digitised from paper maps, Pre-digital rivers.
Client Supplied	Sample location supplied by client
Drillhole	Sample location estimated from drill hole collar position.
Estimate	Sample location estimated, method of estimation unknown
Global Positioning System	Sample location measured using global positioning system
Guess	Sample location guesstimate, method of guesstimation unknown
Mirloch (Deposits database)	Sample location from MRT deposits database
Not snapped to stream location	Stream sediment sample not snapped to stream location determined from 1:25k contour coverage etc.
Orthophoto	Sample location estimated from ortho-rectified aerial photograph
Snapped to DPIWE 1:250k Rivers coverage	Stream sediment sample point snapped to DPIWE 1:250k Rivers coverage
snapped to DPIWE 1:25k Rivers coverage	Stream sediment sample point snapped to DPIWE 1:25k Rivers coverage
Survey	Sample location measured by location survey

**ANALYSIS RESULTS**

<b>Field Name</b>	<b>Description</b>
Analysis ID	Unique identifier for the analysis information in the MRT database
* Analysis Type	Analysis Instrument/method type used to analyse sample/observation
Linked To ID	Unique sample/observation identifier number linked to the analysis
Analysis Date	Date the sample was analysed
Submitted Date	Date of submission of the sample to the laboratory for the analysis
Processed Mediums	Type of mineral or medium analysed
* Treatments	Treatment type used on the sample to perform the analysis
Treatment Comments	Description of the treatment A description of how the sample was processed prior to analysis

Laboratory	Laboratory that performed the analysis
Lab Job No.	Number assigned to all submission requests for analyses to be completed by Mineral Resources Tasmania laboratories, of form LJN20yy-1234
User Analysis No	A non-MRT number required by the Laboratory's clients for their analyses
Lab Analysis No.	A discontinued number series of style YYYY1234 used by MRT chemical laboratories for individual analyses up to 2018
Repeat No.	Mineral Resources Tasmania will complete duplicate and repeats for QAQC purposes, when more than one valid analysis is available a repeat is recoded
RM8 References	Related reports stored in the MRT corporate management system. These reports relate to the original sampling and subsequent work such as re-sampling

\* Further details provided in sub-tables below

<b>ANALYSIS RESULTS:</b>	
<b>Analysis Type</b>	
<b>Name</b>	<b>Description</b>
AAS	Atomic absorption spectrometry
Atomic Fluorescence Spectroscopy	Measurement of the intensity of light emitted from a sample when subjected to an excitation beam
Carbon Sulphur Analysis	Sample combusted in induction furnace concentration of C and S determined via infrared detection
Cold HCL-XRF	
Cold extraction followed by AA	
Colorimetry	Determination of the concentration of a coloured compound in a solution utilising a colorimeter
Electron Microprobe Analysis-oxides	Electron Microprobe Analyses - oxides
Emission Spectroscopy	Analysis by ICP-AES or ICP-OES
Fire Assay	Determination of metal or metals by the separated from impurities by fusion processes
Graphite Furnace AAS	Type of spectrometry that uses a graphite-coated furnace to vaporize the sample
Hot HCL-XRF	
ICPMS Analysis	Inductivity Coupled Plasma Mass Spectroscopy Analysis
LECO	Carbon sulphur analysis by combustion using LECO elemental analyser
Laser Ablation ICP-MS	Laser Ablation Inductively Coupled Mass Plasma Spectroscopy Analysis
Major Elements XRF	XRF Major Element Analysis
Neutron Activation Analysis	Neutron Activation Analysis
Other	Analysis type not specified

Rock analyses - Wet chemistry	Rock analyses - Wet chemistry
Specific ion electrode	Analysis method used to measure the potential of a specific ion in solution
Thermogravimetric	Thermogravimetric analysis, eg LOI
Trace Elements XRF	XRF Trace Elements Analysis
Unknown	unknown analysis type
XRF	X-ray fluorescence analysis

<b>ANALYSIS RESULTS:</b>	
<b>Analysis Treatment</b>	
<b>Name</b>	<b>Description</b>
Acid digestion	Acid digestion of sample for mass or emission spectrometry analysis
Acid leach	
Aqua regia	Aqua regia digestion
Artificial mould	Artificial mould.
Borate Fusion	Borate fusion is a preparation method where an oxidized sample is dissolved in a molten flux
Bulk leach extractable gold	
Caustic leach	Pressure controlled caustic leach at elevated temperature
Clay	Clay fraction
Concentrates	Undifferentiated mineral concentrate
Conodont residue	Conodont residue
Conodonts slide	Conodonts slide
Crushed sample	Undifferentiated crushed samples
Crushed sample (XRF)	Unused part of sample jaw crushed for XRF analysis
Cyanide leach	Cyanide extraction from large sample (500g to 3kg) to detect small gold anomalies
Ferromanganese gravels	
Filtrate	Material filtered from a water sample
Fire assay	Undifferentiated Fire assay concentration products
Flotation concentrates	Undifferentiated Flotation concentration products
Fluid inclusion chip	Part-prepared doubly polished thin section sample for fluid inclusion work
Foraminifera residue	Foraminifera residue
Foraminifera slide	Foraminifera slide
Fused Bead	Sample mixed with flux/oxidizing agent and fused at 1000-1200 Deg C and cooled to create fused bead
Gravel	Gravel fraction
Heavy mineral concentrates	Undifferentiated heavy mineral concentration products
Lapidary	Undifferentiated thin or polished section preparation
Lithium Borate Fusion	

Lithium metaborate fusion	
Lithium tetraborate fusion	
Magnetic concentrates	Undifferentiated magnetic concentration products
Magnetic fraction	
Magnetic separation	Magnetic fraction separated and removed from sample
Micro fossil	Micro fossil
Multi-acid digestion	Multiple acid digestion of sample
Palaeontology	Undifferentiated paleontological sample
Palynology	Palynology
Palynology residue	Palynology residue
Palynology slide	Palynology slide
Panned Concentrate	Heavy-mineral concentration method using pan
Partial leach	Partial leach method utilizes a tetra-sodium pyrophosphate leach
Polished Face	Large polished rock slab or similar
Polished grain mount	Mineral grains mounted and polished
Polished section	Standard polished sample in epoxy mount
Polished thin section	Unpolished standard thin section
Pulp	Residual pulverised rock powder from XRF preparation
Quickplate	Doubly polished thin section sample for fluid inclusion work
Recalculated	Result recalculated by lab manager
Sample split	Representative part of major sample. split with sample splitter or similar
Sand	Sand fraction
Size fraction	Undifferentiated sub samples based on grain size.
	-40# Followed by BLEG
Sodium Peroxide Fusion	Sodium Peroxide Fusion treatment used at low temperatures to decompose most refractory minerals
Subsample	Non-representative subdivision of a sample separated for individual testing, etc.
Suspended Clay	
Thin section	Polished standard thin section
Unknown	Analysis treatments unknown
Unprocessed palynology sample	Unprocessed palynology sample.
XRF fused bead	Fused disk used for XRF analysis
XRF pellet	Pressed pellet used for XRF analysis

<b>PHYSICAL PROPERTIES-DENSITY</b>	
<b>Name</b>	<b>Description</b>
Density	"Density" as a generic description is the mass per unit volume of a material where a more accurate description, or the method of determination (e.g. dry bulk, wet bulk, grain ) is not given
Density-Arithmetic mean	Arithmetic mean of density readings
Density - # readings used for avg	Number of density readings used for average
Density-Standard deviation	Standard deviation of density readings

<b>PHYSICAL PROPERTIES-ELECTRICAL</b>	
<b>Name</b>	<b>Description</b>
IP Chargeability	Chargeability is the ability of the Earth to hold a direct current (DC) charge, with decay time measured in milliseconds (ms). This is most commonly measured using time-domain induced polarization (IP) equipment
Resistivity	The ability of a rock volume to impede an electrical current
Electrical Conductivity	The ability of a rock mass to conduct an electrical current, determined by electromagnetic induction

<b>PHYSICAL PROPERTIES-MAGNETIC</b>	
<b>Name</b>	<b>Description</b>
Susceptibility	The degree to which a material can be magnetised by an external magnetic field, expressed as a ratio of the magnetisation to the magnetising force. Dimensionless
Susceptibility - # readings used for avg	Number of susceptibility readings used for average
Susceptibility - Standard deviation	Standard deviation of susceptibility readings
Remanent Mag. Declination	Angle between the remanent magnetisation vector and true north, measured in the horizontal plane.
Remanent Mag. Inclination	Angle between the remanent magnetisation vector and horizontal, measured in the vertical plane i.e. dip angle of the NRM vector.
Remanent Mag. Intensity	Magnetisation magnitude of a sample volume in the absence of an inducing field. This and the other remanence fields should be restricted to normal/natural remanent magnetisation

## PHYSICAL PROPERTIES-SONIC VELOCITY

Name	Description
P-wave velocity	P-wave velocity of a rock core, measurement to core axis unknown.
Axial P-wave velocity	P-wave velocity of a rock core measured parallel to the core axis
Radial P-wave velocity along foliation	P-wave velocity measured perpendicular to the core axis (radial), parallel to foliation strike
Radial P-wave velocity across foliation	P-wave velocity, measured perpendicular to core axis (radial), perpendicular to foliation strike
Axial S-wave velocity	First arrival S-wave velocity measured parallel to core axis
Radial S-wave velocity along foliation	First arrival S-wave velocity measured perpendicular to core axis (radial), parallel to foliation strike
Radial S-wave velocity across foliation	First arrival S-wave velocity, measured perpendicular to core axis (radial), perpendicular to foliation strike

## PHYSICAL PROPERTIES-SPECTROMETER

Name	Description
K	Potassium measured by a gamma-ray emission spectrometric method, as raw counts (CPS or CPM) or processed abundance/concentration (K%) and processed equivalent abundance/concentration (Th eppm, U eppm).
TH	Thorium measured by a gamma-ray emission spectrometric method, as raw counts (CPS or CPM) or processed abundance/concentration (K%) and processed equivalent abundance/concentration (Th eppm, U eppm).
U	Uranium measured by a gamma-ray emission spectrometric method, as raw counts (CPS or CPM) or processed abundance/concentration (K%) and processed equivalent abundance/concentration (Th eppm, U eppm).
TC1	Total Count 1, a measure of the natural gamma-ray emission of a material, related to the radioelements K, Th and U and/or their daughter products
TC2	Total Count 2, a measure of the natural gamma-ray emission of a material, related to the radioelements K, Th and U and/or their daughter products

## PHYSICAL PROPERTIES-THERMAL

Name	Description
Thermal Conductivity	The rate at which heat is conducted through a material
Thermal Conductivity Harmonic Mean	Harmonic mean of Thermal Conductivity readings
Thermal Conductivity-# readings for avg	Number of Thermal Conductivity readings used for average
Thermal Conductivity-Standard deviation	Standard deviation of Thermal Conductivity readings