Data Dictionary for 1:20,000-scale Solid and Superficial Geology Map Sheets 2-16 (First Edition) Hong Kong Geological Survey

Explanatory Notes

- This document describes the data dictionary for all the nine (9) geological datasets (see Table 1) pertaining to 15 sheets of the 1:20,000-scale Solid and Superficial Geology Map (Map Series HGM20, First Edition), produced by the Hong Kong Geological Survey Section between 1986 and 1995.

- The format of each field in the attribute table for each dataset is defined in terms of input width or size, output width, and data category (see explanation in Table 2).

- Attributes of each field are either restricted or unrestricted in format. The lists of the restricted attribute values are presented in Appendix A.

Table 1 Geological Datasets Shown on 1:20,000-scale First Edition Geological Maps (in the Order from Top to Bottom)

Dataset	Attribute	Title of Field for Symbology	Label on Map	Title of Field for Label
Miscellaneous Symbols	Point	Pt_Type	Yes	Pt_Label
Structural Symbols	Point	Stru_Type	Yes	Dip_Angle
Miscellaneous Lines	Line	Line_Type	No	N/A
Mineral Annotations	Annotation	(Not Applicable)	Yes	Min_Label
Geological and Structural Lines	Line	GSL_Type	No	N/A
Fill	Polygon	Fill_Type	No	N/A
Superficial Geology	Polygon	Sup_Type	Yes	Sup_Type
Textures and Metamorphism	Polygon	TM_Type	No	N/A
Solid Geology	Polygon	Sol_Type	Yes	Sol_Type

Table 2 Format of Fields of Attribute Tables of Geological Datasets

Field Format (examples)				Explanation
9	9	N	3	A number (N) with an input and output width of 9 spaces including 3 spaces reserved for decimal places.
25	25	C		A character (C) field with an input and output width of 25 spaces

Data Dictionary

Miscellaneous Symbols

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Pt_Type	50 50 C	Code of miscellaneous symbols, e.g. 'FOSSIL'. Choose from **'List of Miscellaneous Symbols'**
Rotation	12 12 N 6	Orientation of abandoned mine adits in degrees, 0 to 360 degrees (in geographic rotation style); '0' for null value of other symbols
Pt_Label	20 20 C	Hole number for boreholes and vibrocore holes; or Station number for EPD sea bed sampling stations; or Year of important slope failure; or Code of mineral occurrence: 'Ag' (silver), 'Au' (gold), 'Cu' (chalcopyrite/malachite), 'F' (fluorite), 'Fe' (limonite/magnetite), 'gr' (graphite), 'He' (hematite), 'K' (kaolin), 'Mo' (molybdenite), 'Pb' (galena), 'Py' (pyrite), 'q' (quartz), 'W' (wolframite), 'Zn' (sphalerite)

Structural Symbols

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Stru_Type	50 50 C	Code of structural symbols, e.g. 'Bed_I'. Choose from **'List of Structural Symbols'**
Rotation	12 12 N 6	Strike or trend of structures in degrees, 0 to 360 degrees (in geographic rotation style)
Dip_Angle	20 20 C	Dip angle or plunge of structures in degrees, 0 to 90 degrees

Miscellaneous Lines

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Line_Type	50 50 C	Code of miscellaneous lines. Choose from **'List of Miscellaneous Lines'**

Mineral Annotations

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Min_Label	15 15 C	Code of mineral occurrence. Choose from **'List of Mineral Annotations'**

Geological and Structural Lines

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
GSL_Type	50 50 C	Code of geological or structural lines. Choose from **'List of Geological and Structural Lines'**

Fill

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Fill_Type	4 4 C	Code of fill. Choose from **'List of Fill'**

Superficial Geology

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Sup_Type	20 20 C	Code of Quaternary stratigraphic unit (formation and member) name, or type of superficial deposits. Choose from **'List of Superficial Geology'**

Texture and Metamorphism

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
TM_Type	5 5 C	Code of igneous rock texture, or type of metamorphism. Choose from **'List of Texture and Metamorphism'**

Solid Geology

Field Title	Field Format	Description
FID	5 5 N 0	Unique identifying code
Sol_Type	20 20 C	Code of pre-Quaternary stratigraphic unit (formation and member) name, or lithology. Choose from **'List of Solid Geology'**

Appendix A – Lists of Restricted Attribute Values

List of Miscellaneous Symbols

Pt_Type	Explanation
ELEMENT	Mineral occurrence
FOSSIL	Fossil locality
GI_BH	Selected borehole
GI_EPD	EPD sea bed sampling stations
GI_VC	Vibrocore holes
MADIT	Mine adit, abandoned
MAREA	Mining area, abandoned
MSHAFT	Mine shaft, abandoned
SLOPE_F	Important slope failure, with date

List of Structural Symbols

Stru_Type	Explanation
Bed_H	Bedding (horizontal)
Bed_I	Bedding (inclined)
Bed_O	Bedding (overturned)
Bed_U	Bedding (undulating)
Bed_V	Bedding (vertical)
Fabric_H	Flow fabric (horizontal)
Fabric_I	Flow fabric (inclined)
Fabric_LH	Flow fabric (linear horizontal)
Fabric_LI	Flow fabric (linear inclined)
Fabric_U	Flow fabric (undulating)
Fabric_V	Flow fabric (vertical)
Fault_I	Fault plane (inclined)
FoldAxis_A	Minor anticline, with plunge angle
FoldAxis_Ant	Minor anticline axial trace with plunge
FoldAxis_S	Minor syncline, with plunge angle
FoldAxis_Syn	Minor syncline axial trace with plunge
Foli_I	Foliation (inclined)
Foli_U	Foliation (undulating)
Foli_V	Foliation (vertical)
IntruCont_I	Intrusive contact (inclined)
Joint_H	Jointing (horizontal)
Joint_I	Jointing (inclined)
Joint_U	Jointing (undulating)
Joint_V	Jointing (vertical)
Sedi_Y	Sedimentary younging direction
Slicken_I	Slickenside (inclined)

List of Miscellaneous Lines

Line_Type	Explanation
CL1	Buried channel at base of Hang Hau Formation (Major channel)
CL2	Buried channel at base of Hang Hau Formation (Sub channel)
CS	Buried channel at base of Hang Hau Formation (Backscar)
LS	Landslide backscar
SBC	Sand bank crest

List of Mineral Annotations

Min_Label	Explanation
k	Kaolin
q	Quartz
q, Fe	Quartz, iron
q, W, Be	Quartz, wolframite, beryl

List of Geological and Structural Lines

GSL_Type	Explanation
CM	Fault (cross mark indicating downthrow side)
F1	Fault (observed)
F2	Fault (inferred)
FOLD_A	Anticline axial trace (major)
FOLD_S	Syncline axial trace (major)
G1	Geological boundary (observed)
G2	Geological boundary (inferred)
GD	Dyke to dyke contact
GS	Geological boundary (superficial deposit)
M1	Boundary of texture and metamorphic overprint (observed)
M2	Boundary of texture and metamorphic overprint (inferred)
PL	Photogeological lineament
T1	Thrust fault (observed)
T2	Thrust fault (inferred)
TB	Thrust barb pointing to upper plate
V	Mineral vein

List of Fill

Fill_Type	Explanation
F	Reclamation and Fill Bodies

List of Superficial Geology

Sup_Type	Explanation
elm	Holocene East Lamma Channel Member, Hang Hau Formation: mainly marine mud
HHH	Holocene Hang Hau Formation: undivided, mainly dark grey marine mud
ms	Holocene, marine sand, Hang Hau Formation
msb	Holocene, sand banks, Hang Hau Formation
mss	Holocene, sand sheets and channel infill, Hang Hau Formation
PCK	Pleistocene Chek Lap Kok Formation: undivided; clay, silt, sand and gravel
Qa	Quaternary, alluvium (undifferentiated)
Qam	Quaternary, estuarine deposits (undifferentiated)
Qams	Quaternary, estuarine mud and sand (undifferentiated)
Qat	Quaternary, terraced alluvium (undifferentiated)
Qb	Quaternary, beach deposits: mainly sand
Qbb	Quaternary, beach deposits: mainly cobbles and boulders
Qbr	Quaternary, beach deposits: mainly beach rock
Qbs	Quaternary, back shore deposits: mainly sand or gravel
QCK	Quaternary Chek Lap Kok Formation: mainly alluvium; some estuarine and marine deposits
Qct	Quaternary, channel and transgressive deposits
Qd	Quaternary, debris flow deposits (undifferentiated)
Qdl	Quaternary, slide deposits
Qdt	Quaternary, mixed debris flow and talus deposits
QHH	Quaternary Hang Hau Formation: mainly marine mud
Qi	Quaternary, estuarine deposits
Qmm	Quaternary, marine mud
Qms	Quaternary, marine sand
Qpa	Quaternary, Pleistocene, terraced alluvium
Qpd	Quaternary, Pleistocene, debris flow deposits
Qrb	Quaternary, raised beach deposits: mainly sand
QSW	Quaternary Sham Wat Formation: mainly estuarine and marine deposits
Qt	Quaternary, talus (rockfall) deposits
tbm	Holocene Telegraph Bay Member, Hang Hau Formation: mainly marine mud

List of Texture and Metamorphism

TM_Type	Explanation
at	Altered tuff and sedimentary rock
ma	Autobrecciated
mf	Fault breccia
mh	Contact metamorphism
mi	Inequigranular
mm	Metamorphosed
mmg	Megacrystic
mmy	Mylonitised
msc	Schist / Schistosity
msi	Silicified
msm	Slightly metamorphosed

List of Solid Geology

Sol_Type	Explanation
Cmp	Carboniferous Mai Po Member, Lok Ma Chau Formation: mainly metasiltstone, metasandstone; graphite-bearing
Cts	Carboniferous Tai Shek Mo Member, Lok Ma Chau Formation: undivided, mainly metasandstone with metaconglomerate and phyllite
DBH	Devonian Bluff Head Formation: mainly sandstone and siltstone
EPC	Eocene Ping Chau Formation: undivided, mainly dark grey thinly bedded siltstone and dolomitic siltstone with mudstone
JAC	Jurassic Ap Lei Chau Formation: mainly fine ash vitric tuff
JCB	Jurassic Clear Water Bay Formation: undivided, mainly trachydacite and rhyolite lava
JHI	Jurassic High Island Formation: undivided, mainly fine ash tuff
JLC	Jurassic Lai Chi Chong Formation: undivided, mainly tuffite
JLH	Jurassic Long Harbour Formation: mainly coarse ash crystal tuff
JLT	Jurassic Lantau Formation: undivided, mainly rhyolite lava and tuff
JMD	Jurassic Mount Davis Formation: mainly coarse ash crystal tuff
JMK	Jurassic Mang Kung Uk Formation: undivided, mainly tuffaceous mudstone, siltstone and breccia
JNM	Jurassic Ngo Mei Chau Formation: undivided, mainly fine ash vitric welded tuff with lapilli tuff
JSK	Jurassic Sai Lau Kong Formation: undivided, mainly dacite lava with tuff, sandstone and siltstone
JSM	Jurassic Shing Mun Formation: undivided, mainly fine ash to coarse ash tuffs, tuff-breccia and tuffite
JSS	Jurassic Silverstrand Formation: undivided, mainly eutaxite
JTC	Jurassic Tolo Channel Formation: mainly mudstone and siltstone
JTM	Jurassic Tai Mo Shan Formation: mainly coarse ash crystal tuff
JTS	Jurassic Tsing Shan Formation: mainly sandstone, siltstone and mudstone with conglomerate and tuff
JTU	Jurassic Tuen Mun Formation: mainly andesite with tuff and tuffite
JYT	Jurassic Yim Tin Tsai Formation: mainly coarse ash crystal tuff
Jcs	Jurassic Cheung Shan Member, Lantau Formation: mainly eutaxite

Jln	Jurassic Lan Nai Wan Member, Clear Water Bay Formation: mainly tuffite and tuff
Jmw	Jurassic Tai Miu Wan Member, Clear Water Bay Formation: mainly trachydacite lava
Jnl	Jurassic Ngau Liu Member, Shing Mun Formation: mainly crystal and vitric tuff
Jpk	Jurassic Pak Kok Member, Lantau Formation: mainly siltstone, tuffite and tuff
Jsl	Jurassic Shek Lung Kung Member, Shing Mun Formation: mainly tuff breccia
Jsp	Jurassic Sunset Peak Member, Lantau Formation: mainly lapilli-ash crystal tuff
Jtt	Jurassic Tai Tun Member, Clear Water Bay Formation: mainly eutaxite
KKO	Cretaceous Kat O Formation: mainly calcareous breccia with conglomerate and coarse sandstone
KPI	Cretaceous Port Island Formation: mainly conglomerate and coarse sandstone with siltstone
KPS	Cretaceous Pat Sin Leng Formation: mainly sandstone and siltstone with conglomerate; tuffaceous conglomerate and sandstone at its base
PTH	Permian Tolo Harbour Formation: mainly mudstone, siltstone and sandstone
a	Andesite or andesite lava
ap	Aplite
as	Aegirine-bearing siltstone with dolomitic siltstone
at	Altered tuff and sedimentary rock
az	Zeolite-bearing siltstone with aegirine-bearing siltstone
b	Basalt
bbt	Block-bearing tuff
br	Sedimentary breccia
bt	Block-bearing tuff and tuffite
ca	Coarse ash tuff
cat	Coarse ash tuff
cg	Conglomerate
cs	Chert
d	Dacite
dz	Dolomitic siltstone with calcareous siltstone
e	Eutaxite
fa	Fine ash tuff
gc	Coarse-grained granite, grain size >6 mm
gd	Granodiorite
gdf	Fine-grained granodiorite, grain size <2 mm
gdm	Medium-grained granodiorite, grain size 2-6 mm
gf	Fine-grained granite, grain size <2 mm
gfg	Greisenised fine-grained granite
gfm	Fine- to medium-grained granite
gm	Medium-grained granite, grain size 2-6 mm
gr	Graphite schist or graphite bed
l	Lamprophyre
lq	Quartz latite

lt	Lapilli tuff
m	Mudstone
mq	Quartz monzonite
p	Pegmatite
pQ	Undifferentiated pre-Quaternary solid geology (offshore)
q	Quartz vein
qz	Quartzite
r	Rhyolite lava
rdf	Feldsparphyric rhyodacite
rf	Feldsparphyric rhyolite
rh	Rhyolite lava
rq	Quartzphyric rhyolite
s	Sandstone
sl	Siltstone
sls	Siltstone with sandstone
sm	Siltstone and dolomitic siltstone with mudstone
sqf	Fine-grained quartz syenite, grain size < 2 mm
sqm	Medium-grained quartz syenite, grain size 2-6 mm
ssl	Sandstone and siltstone
t	Undifferentiated Tuff and tuffite
ta	Trachyte lava
tb	Tuff-breccia
tbp	Tuff-breccia and pyroclastic breccia
tq	Quartz trachyte
tt	Tuffite
ug	Microgranite
v	Vent material
vt	Vitric crystal tuff