

Earth Sciences Sector
Geological Map Flow Project

Feature Domains (Pick-lists)

Supplement to the Data Model Document for the
Bedrock Mapping Geodatabase, Version 3.1
(Released June 2011)

FEATURE CLASS	DOMAIN	DEFAULT VALUE
Stations (stp)	map_theme	bedrock, at surface
Lithologies (ltp)		
LithologyMinerals (lmp)		
Planar (plp)		
Linear (lip)		
AltnMineraliztn (amp)		
Photos (php)		
Fossils (fop)		
Geochronology (gcp)		
Wells (wep)		
MineralLocalities (mlp)		
SmallMapUnits (unp)		
Notes (nop)		
Contacts (col)		
GeolUnitConstruct (gul)		
BaseMapConstruct (bmp)		
ThinStratUnits (unl)		
ThinDykes (dyl)		
Faults (fal)		
Folds (fol)		
DriftContacts (dcl)		
MeasuredSections (sel)		
Traverses (tvl)		
Traces (trl)		
Limits (lsl)		
Isograds (igl)		
FaultZones (faa)		
MapUnits (una)		
DriftMapUnits (dua)		
Sources (soa)		
ESS_Project		
StudyArea		

FEATURE CLASS	DOMAIN	DEFAULT VALUE
Stations (stp)	stp_feature	station
Lithologies (ltp)	ltp_feature	lithology
LithologyMinerals (lmp)	lmp_feature	lithology mineral
Planar (plp)	plp_feature	planar orientation measurement
Linear (lip)	lip_feature	linear orientation measurement
FieldSamples (sap)	sap_feature	field sample
Photos (php)	php_feature	photograph
Fossils (fop)	fop_feature	fossil locality
Geochronology (gcp)	gcp_feature	geochronology result locality
Wells (wep)	wep_feature	well
MineralLocalities (mlp)	mlp_feature	mineral locality
Notes (nop)	nop_feature	note
SmallMapUnits (unp) ThinStratUnits (unl) ThinDykes (dyl)	unv_feature	map unit
Contacts (col) DriftContacts (dcl)	col_feature	contact
GeolUnitConstruct (gul)	gul_feature	geology unit construct
BaseMapConstruct (bml)	bml_feature	base map construct
Folds (fol)	fol_feature	fold
MeasuredSections (sel)	sel_feature	measured stratigraphic section
Traverses (trl)	trl_feature	trace
Traces (trl)	trl_feature	trace
Isograds (igl)	igl_feature	isograd

Sources (soa)

soa_feature

source area

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	stp_subfeature	visited outcrop remote ground observation aerial observation photograph only imagery observation archival observation historical published observation isolated outcrop, location only

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	stp_phys_env	cliff face ridge slope shoreline stream cut road cut rail cut trench pit mine, surface adit quarry open ground vegetated terrain

FEATURE CLASS**DOMAIN****PICK LIST**

Stations (stp)

stp_oc_quality

excellent outcrop
good outcrop
poor outcrop
scattered outcrop
subcrop
float/rubble
talus/scree
felsenmeer
vegetation covered
burrow debris
borehole
glacial erratic

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	UTM_lon_zn	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

Stations (stp)

UTM_lat_zn

T

U

V

W

X

not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	hor_datum	NAD83
FieldSamples (sap)		NAD27
Wells (wep)		WGS84
Mineral localities (mlp)		not applicable
Photos (php)		
MeasuredSections (sel)		

FEATURE CLASS**DOMAIN****PICK LIST**

Stations (stp)

loc_method

GPS

FieldSamples (sap)

georeferenced image
scaled from 50k topo map
scaled from 250k topo map
approximated from archival
documents

tap from Ganfeld

manual from Ganfeld

transfer, air photo to topo map

FEATURE CLASS**DOMAIN****PICK LIST**

Stations (stp)

vert_datum

WGS84
CGVD28
Mean Sea Level
not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

Stations (stp)

FieldSamples (sap)

elev_meth

GPS

altimeter

50k topo map

250k topo map

50k DEM

250k DEM

approximated from archival
documents

not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	release	ESS project only
Lithologies (ltp)		laboratory
Planar (plp)		public
Linear (lip)		
FieldSamples (sap)		
LithologyMinerals (lmp)		
AltnMineraliztn (amp)		
Photos (php)		

FEATURE CLASS	DOMAIN	PICK LIST
Stations (stp)	include_hc	yes
Lithologies (ltp)		no
LithologyMinerals (lmp)		
Planar (plp)		
Linear (lip)		
AltnMineraliztn (amp)		
Photos (php)		
Fossils (fop)		
Geochronology (gcp)		
Wells (wep)		
MineralLocalites (mlp)		
SmallMapUnits (unp)		
Notes (nop)		
Contacts (col)		
GeolUnitConstruct (gul)		
ThinStratUnits (unl)		
ThinDykes (dyl)		
Faults (fal)		
Folds (fol)		
DriftContacts (dcl)		
MeasuredSections (sel)		
Traverses (tvl)		
Traces (trl)		
Limits (lsl)		
FaultZones (faa)		
MapUnits (una)		
DriftMapUnits (dua)		
Sources (soa)		
Isograds (igl)		

*FieldSamples (sap) and BaseMapConstruct (bml) feature classes are not listed here because they are not intended for plotting on publication hardcopies (i.e. always “no”)

FEATURE CLASS	DOMAIN	PICK LIST
Lithologies (ltp)	ltp_occurrence	bed lamina clast nodule concretion lens layer sheet flow sill dyke plug pluton vein raft screen inclusion xenolith enclave schlieren leucosome mesosome melanosome paleosome neosome vug fill vesicle fill other, see remarks

FEATURE CLASS	DOMAIN	PICK LIST
Lithologies (ltp)	ltp_lith_group	plutonic volcanic volcanoclastic sedimentary metamorphic metaplutonic metavolcanic metavolcanoclastic metasedimentary tectonite hydrothermal

FEATURE CLASS	DOMAIN	PICK LIST
Lithologies (ltp)	ltp_grain_size	clay (<.004 mm) silt (.004 - .0625 mm) mud (clay + silt) v. fine sand (.0625 - .125 mm) fine sand (.125 - .250 mm) medium sand (.25 - .50 mm) coarse sand (0.5 - 1.0 mm) v. coarse sand (1.0 - 2.0 mm) granule (2 - 4 mm) pebble (4 - 64 mm) cobble (64 - 256 mm) boulder (>256 mm) - cryptocrystalline (1-4 um) v. finely crystalline (4-16 um) finely crystalline (16-62 um) medium crystalline (62-250 um) coarse crystalline (0.25-1.0 mm) v. coarse crystalline (1-4 mm) e. coarse crystalline (>4 mm) - ash (<2 mm) lapilli (2-64 mm) bombs (>64 mm) - micrograined/microcrystalline - aphanitic fine grained (<1 mm) medium grained (1-5 mm) coarse grained (5-30 mm) v. coarse grained (>30 mm) pegmatitic

FEATURE CLASS**DOMAIN****PICK LIST**

Lithologies (ltp)

ltp_bedding_thickness

thinly laminated (1-3 mm)
thickly laminated (3-10 mm)
very thin bedded (1-3 cm)
thin bedded (3-10 cm)
medium bedded (10-30 cm)
thick bedded (30-100 cm)
very thick bedded (>100 cm)

FEATURE CLASS	DOMAIN	PICK LIST
Lithologies (ltp)	ltp_lith_contact	gradational sharp erosional karstic exposure surface unconformity angular unconformity disconformity nonconformity intrusive sheared faulted diffuse covered missing other, see contact notes

FEATURE CLASS**DOMAIN****PICK LIST**

Lithologies (ltp)

ltp_int_confid

confident
moderate
not confident
not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

LithologyMinerals (Imp)

Imp_form

anhedral
euhedral
subhedral
other, see remarks

FEATURE CLASS	DOMAIN	PICK LIST
LithologyMinerals (Imp)	Imp_habit	acicular circular columnar equant fibrous flaky granular lath-like massive prismatic pseudo-hexagonal tabular other, see remarks

FEATURE CLASS	DOMAIN	PICK LIST
LithologyMinerals (Imp)	Imp_occurrence	accessory amygdule clast clot constituent fragment glomerocryst groundmass matrix megacryst phenocryst porphyroblast porphyroclast pseudomorph vug filling other, see remarks

FEATURE CLASS	DOMAIN	PICK LIST
Planar (plp)	plp_subfeature	bedding banding igneous layering igneous layering, pillows flow layering compositional layering cross-bed foreset contact dyke margin sill margin vein margin joint fracture fracture zone margin fault plane, unknown sense fault plane, normal fault plane, reverse fault plane, thrust fault plane, dextral fault plane, sinistral fault plane, oblique shear band, unknown sense shear band, normal shear band, reverse shear band, dextral shear band, sinistral shear zone, unknown sense shear zone, normal shear zone, reverse shear zone, dextral shear zone, sinistral shear zone, dextral-normal shear zone, dextral-reverse shear zone, sinistral-normal shear zone, sinistral-reverse axial plane axial plane, anticline axial plane, syncline axial plane, crenulation axial plane, kink-band axial plane, minor S fold axial plane, minor Z fold axial plane, minor U fold axial plane, transposition fold

cleavage
cleavage, slaty
cleavage, spaced
cleavage, crenulation
schistosity
gneissosity
foliation
foliation, mylonitic
foliation, transposed bedding
other, see remarks

FEATURE CLASS**DOMAIN****PICK LIST**

Planar (plp)

plp_attitude

upright
overturned <180
overturned >180
vertical
horizontal
inclined, tops unknown
not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

Planar (plp)

plp_young_evid

known, sedimentary structure
known, igneous structure
known, stratigraphic order
inferred, stratigraphic order
inferred, bedding-cleavage
relationship
evidence unknown, historical data
assumed, no evidence
unknown
not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

Planar (plp)

generation

primary

Linear (lip)

first

Faults (fal)

second

Folds (fol)

third

FaultZones (faa)

fourth

multi-generation

undefined

FEATURE CLASS**DOMAIN****PICK LIST**

Planar (plp)

Linear (lip)

method

measured at station

estimated at station

estimated remotely

calculated from data

calculated from imagery

acquired from historical data

FEATURE CLASS	DOMAIN	PICK LIST
Planar (plp) Linear (lip)	strain	no strain massive weak moderate strong intense

FEATURE CLASS	DOMAIN	PICK LIST
Planar (plp) Linear (lip)	flattening	S tectonite SSS S>L S>=L S=L S<=L S<L LLL L tectonite not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Linear (lip)	lip_subfeature	symmetrical ripple crest asymmetrical ripple paleoflow imbrication paleoflow flute tool mark prod mark parting lineation trough axis slump fold hinge slump fold hinge, Z slump fold hinge, S igneous flow lineation fold hinge fold hinge, soft-sediment fold hinge, anticline fold hinge, syncline fold hinge, antiform fold hinge, synform fold hinge, minor S fold hinge, S crenulation fold hinge, minor Z fold hinge, Z crenulation fold hinge, minor U fold hinge, U crenulation fold hinge, crenulation axis of sheath fold axis of sheath antiform axis of sheath synform intersection lineation intersection, cleavage-bedding intersection, cleavage-cleavage fault striae fault grooves slickensides mineral growth fibres mineral lineation stretching lineation boudinage axis rodding mullions boudins glacial striae glacial grooves other, see remarks

FEATURE CLASS**DOMAIN****PICK LIST**

FieldSamples (sap)

sap_loc_type

outcrop
subcrop
talus
float/rubble
borehole
mine, surface
quarry
adit

FEATURE CLASS**DOMAIN****PICK LIST**

FieldSamples (sap)
StudyArea

sap_province

British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador
Nunavut
Northwest Territories
Yukon
not applicable

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_loc_precsn	50 100 500 >500

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_sam_type	hand, single hand, multiple hand, oriented multiple pieces, bag multiple pieces, bucket oversized core core, oriented chip sample cuttings other, see sample note

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_geol_prov	Appalachian Orogen Arctic Platform Bear Province Churchill Province Cordilleran Orogen Grenville Province Hudson Bay Lowlands Innuitian Orogen Interior Platform Makkovik Nain Province Rae Province Slave Province Southern Province St. Lawrence Platform Superior Province not applicable

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_purpose	representative lithology geochemistry, RockEval geochemistry, Xtract geochemistry, TOC analysis geochemistry, organic geochemistry, litho geochemistry, assay geochemistry, stable isotope geochemistry, C isotope geochemistry, O isotope geochemistry, H isotope geochemistry, radio isotope geochronology, fission track geochronology, detrital zircon geochronology, radiocarbon geochronology, K-Ar geochronology, 40Ar-39Ar geochronology, U-Pb geochronology, Pb-Pb geochronology, Sm-Nd geochronology, Rb-Sr geochronology, Re-Os geochronology, Lu-Hf mineral fabric relationship mineralogy mineralogy, ore mineralogy, polished section mineralogy, polished slab mineralogy, stained slab paleomagnetism paleontology, macro paleontology, micro paleontology, ichno paleontology, conodonts paleontology, foraminifera paleontology, palynology paleontology, radiolaria petrology, organic petrology, vitrinite reflectance provenance studies PT estimate remote sensing, hyperspectral sedimentary structure thin section, regular

thin section, polished
thin section, stained

FEATURE CLASS**DOMAIN****PICK LIST**

FieldSamples (sap)

sap_lith_prop

all
major
minor
significant

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_age	Quaternary Holocene Pleistocene Tertiary Neogene Paleogene Pliocene Miocene Oligocene Eocene Paleocene Mesozoic Cretaceous Jurassic Triassic Paleozoic Permian Carboniferous Pennsylvanian Mississippian Devonian Silurian Ordovician Cambrian Proterozoic Neoproterozoic Ediacaran Cryogenian Tonian Mesoproterozoic Paleoproterozoic Archean Neoproterozoic Mesoarchean Paleoproterozoic

FEATURE CLASS**DOMAIN****PICK LIST**

FieldSamples (sap)

sap_format

RHR
DDD
TRND-PLNG

FEATURE CLASS	DOMAIN	PICK LIST
FieldSamples (sap)	sap_surface	upper lower

FEATURE CLASS**DOMAIN****PICK LIST**

AltnMineraliztn (amp)

amp_feature

alteration
mineralization

FEATURE CLASS**DOMAIN****PICK LIST**

AltnMineraliztn (amp)

amp_unit

all
host rock
intrusion
other, see remarks

FEATURE CLASS**DOMAIN****PICK LIST**

AltnMineraliztn (amp)

amp_distributn

selective pervasive
pervasive
patchy
fracture controlled
fracture-coating
disseminated
replacement
selvages
vein

FEATURE CLASS**DOMAIN****PICK LIST**

Photos (php)

php_subject

outcrop
lithology
texture
structure
dyke/vein
fossil
mineral
people
landscape
scenery
panoramic series
historical
cultural
wildlife
section
other, see caption

FEATURE CLASS**DOMAIN****PICK LIST**

Fossils (fop)

fop_type_anal

macropaleontology
micropaleontology
ichnology
conodonts
foraminifera
palynology
radiolaria

FEATURE CLASS	DOMAIN	PICK LIST
Geochronology (gcp)	gcp_type_anal	fission track detrital zircon radiocarbon K-Ar 40Ar-39Ar U-Pb Pb-Pb Sm-Nd Rb-Sr Re-Os Lu-Hf U-Th-He

FEATURE CLASS**DOMAIN****PICK LIST**

Geochronology (gcp)

gcp_age_qual

direct
maximum direct
minimum direct
estimate
maximum estimate
minimum estimate
unverified
not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Wells (wep)	wep_subfeature	oil gas oil and gas water steam dry unknown

FEATURE CLASS**DOMAIN****PICK LIST**

Wells (wep)

wep_activity

abandoned
suspended
drilled and cased
flowing
pumping
producing
testing
injection
disposal
undefined

FEATURE CLASS	DOMAIN	PICK LIST
Wells (wep)	wep_td_units	metres feet

FEATURE CLASS	DOMAIN	PICK LIST
MineralLocalities (mlp)	mlp_status	anomaly showing prospect developed prospect deposit production past production unknown

FEATURE CLASS	DOMAIN	PICK LIST
Contacts (col)	col_subfeature	depositional depositional-conformable depositional-unconformable depositional-escarpment intrusive metamorphic faulted faulted-escarpment sheared facies change thin stratigraphic unit undefined

FEATURE CLASS	DOMAIN	PICK LIST
Contacts (col)	confidence	defined
DriftContacts (dcl)		approximate
ThinStratUnits (unl)		inferred
ThinDykes (dyl)		concealed
Faults (fal)		
Folds (fol)		
Isograds (igl)		

FEATURE CLASS**DOMAIN****PICK LIST**

GeolUnitConstruct (gul)

gul_subfeature

nomenclature change
mapping precision change
limit of mapping
other, see remarks

FEATURE CLASS	DOMAIN	PICK LIST
BaseMapConstruct (bml)	bml_subfeature	shoreline glacier edge map neat line other, see remarks

FEATURE CLASS**DOMAIN****PICK LIST**

Faults (fal)

fal_feature

fault
shear
structural lineament

FEATURE CLASS**DOMAIN****PICK LIST**

Faults (fal)

fav_subfeature

reverse

FaultZones (faa)

thrust

back-thrust

normal

detachment

dextral strike-slip

sinistral strike-slip

oblique-slip, dextral, normal

oblique-slip, dextral, reverse

oblique-slip, sinistral, normal

oblique-slip, sinistral, reverse

tear

transform

transverse, motion undefined

generic, steep dip

generic, moderate dip

generic, shallow dip

motion undefined

FEATURE CLASS**DOMAIN****PICK LIST**

Faults (fal)

attitude

upright

Folds (fol)

overturned

upright, assumed from archival data

not applicable

FEATURE CLASS**DOMAIN****PICK LIST**

Faults (fal)

fal_movement

N side down
NE side down
E side down
SE side down
S side down
SW side down
W side down
NW side down
undefined
not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Faults (fal)	fav_direction	N
Isograds (igl)		NE
		E
		SE
		S
		SW
		W
		NW
		inward
		outward
		undefined
		not applicable

FEATURE CLASS	DOMAIN	PICK LIST
Folds (fol)	fol_subfeature	antiform synform anticline syncline antiform, asymmetrical synform, asymmetrical anticline, asymmetrical syncline, asymmetrical anticline, synformal syncline, antiformal anticline, homeoclinic syncline, homeoclinic anticline, contraclinic syncline, contraclinic monocline, anticlinal bend monocline, synclinal bend anticlinorium synclinorium antiformal sheath synformal sheath neutral arch trough other, see remarks

FEATURE CLASS**DOMAIN****PICK LIST**

Folds (fol)

fol_direction

N
NE
E
SE
S
SW
W
NW
undefined
not applicable

FEATURE CLASS	DOMAIN	PICK LIST
DriftContacts (dcl)	dcl_subfeature	depositional depositional-conformable depositional-unconformable depositional-escarpment intrusive metamorphic faulted faulted-escarpment sheared facies change thin stratigraphic unit base map construct undefined

FEATURE CLASS**DOMAIN****PICK LIST**

MeasuredSections (sel)

sel_subfeature

type section
reference section
study section

FEATURE CLASS**DOMAIN****PICK LIST**

MeasuredSections (sel)

sel_confidence

defined
approximate
obliterated

FEATURE CLASS**DOMAIN****PICK LIST**

Traces (trl)

trl_subfeature

marker bed
distinctive lithology
bedding form line
foliation form line
joint
vein
structural cross-section
non-structural lineament
seismic line
unique – see description

FEATURE CLASS**DOMAIN****PICK LIST**

Limits (lsl)

lsl_feature

limit
boundary

FEATURE CLASS	DOMAIN	PICK LIST
Limits (lsl)	lsl_subfeature	outcrop extent gas field oil field geothermal field mine, surface quarry edge of sinkhole lava flow margin edge of crater edge of caldera front of penetrative strain edge of contact metamorphism edge of regional metamorphism unique – see description

Isograds (igl)

igl_subfeature

zeolite in
zeolite out
chlorite in
chlorite out
muscovite in
muscovite out
biotite in
biotite out
garnet in
garnet out
staurolite in
staurolite out
kyanite in
kyanite out
sillimanite in
sillimanite out
andalusite in
andalusite out
cordierite in
cordierite out

FEATURE CLASS**DOMAIN****PICK LIST**

FaultZones (faa)

faa_feature

fault zone
shear zone

FEATURE CLASS**DOMAIN****PICK LIST**

MapUnits (una)

mapunit_area_feature

map unit

DriftMapUnit (dua)

unmapped area

FEATURE CLASS**DOMAIN****PICK LIST**

StudyArea

presen_form

vector digital data
raster digital data
map
atlas
section
multimedia presentation
spreadsheet
tabular digital data
document

FEATURE CLASS

DOMAIN

PICK LIST

StudyArea

progress

complete
planned
work in progress

FEATURE CLASS**DOMAIN****PICK LIST**

StudyArea

graphic

PMF
PDF
SHP
XML
CGM
EPS
EMF
GIF
JPEG
PBM
PS
TIFF
WMF
XWD