Geology – caves

Norwegian Mapping Authority
gerd.mardal@statkart.no

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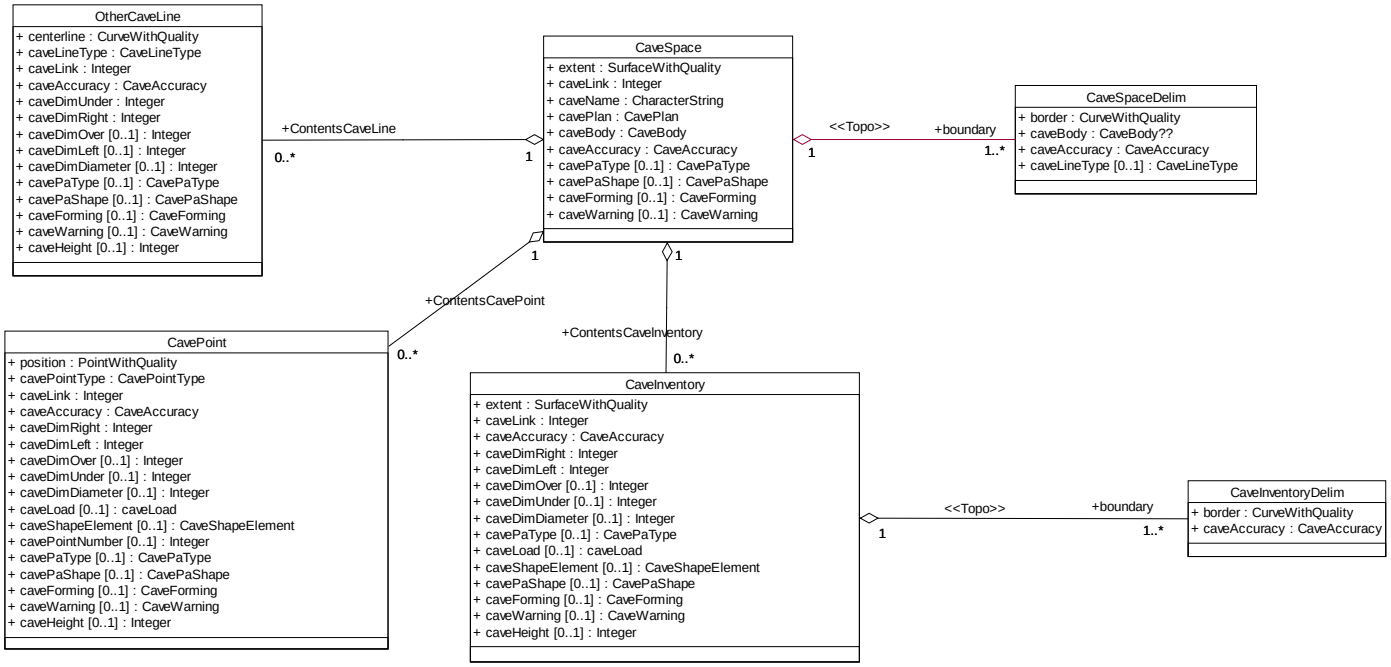
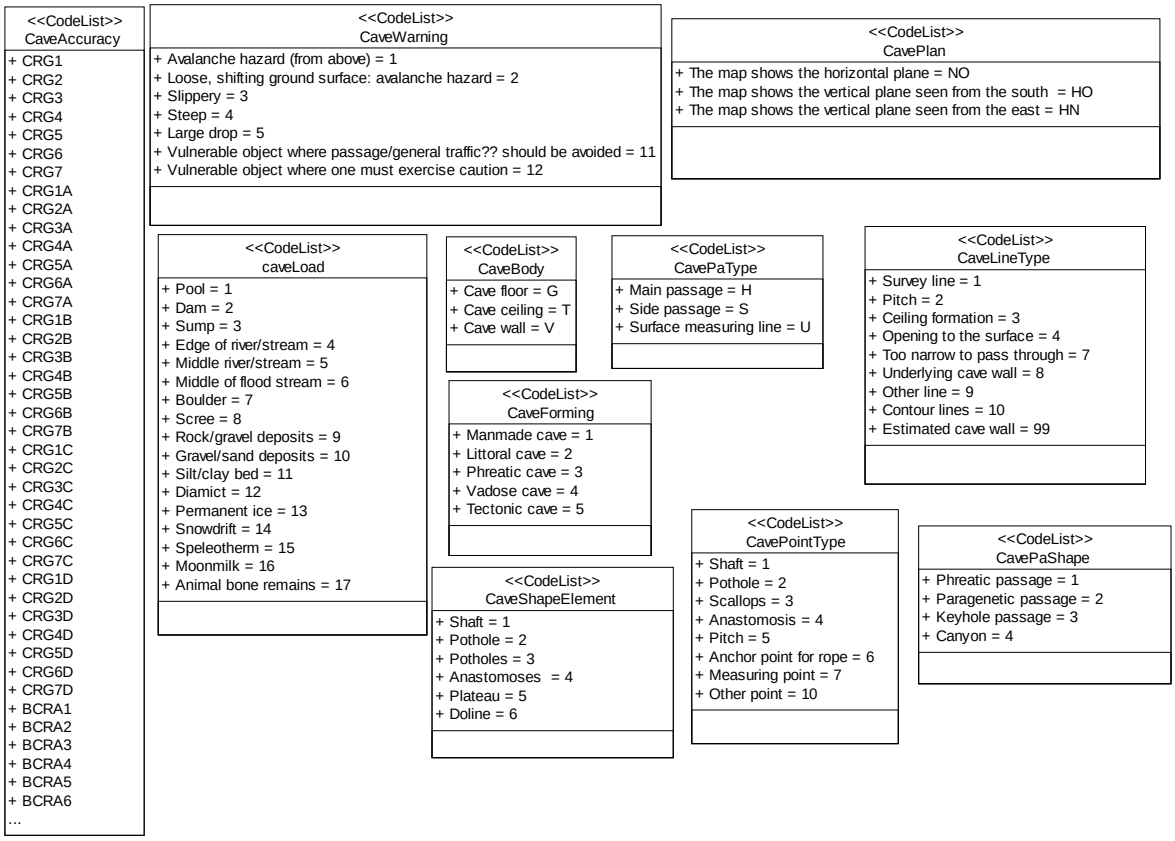
1.1 Application schema



Codelists


<<CodeList>>
CaveAccuracy
+ CRG1
+ CRG2
+ CRG3
+ CRG4
+ CRG5
+ CRG6
+ CRG7
+ CRG1A
+ CRG2A
+ CRG3A
+ CRG4A
+ CRG5A
+ CRG6A
+ CRG7A
+ CRG1B
+ CRG2B
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+ CRG1C
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+ CRG6C
+ CRG7C
+ CRG1D
+ CRG2D
+ CRG3D
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+ CRG5D
+ CRG6D
+ CRG7D
+ BCRA1
+ BCRA2
+ BCRA3
+ BCRA4
+ BCRA5
+ BCRA6
...
<<CodeList>>
CaveWarning
+ Avalanche hazard (from above) = 1
+ Loose, shifting ground surface: avalanche hazard = 2
+ Slippery = 3
+ Steep = 4
+ Large drop = 5
+ Vulnerable object where passage/general traffic?? should be avoided = 11
+ Vulnerable object where one must exercise caution = 12
<<CodeList>>
CavePlan
+ The map shows the horizontal plane = NO
+ The map shows the vertical plane seen from the south = HO
+ The map shows the vertical plane seen from the east = HN
<<CodeList>>
caveLoad
+ Pool = 1
+ Dam = 2
+ Sump = 3
+ Edge of river/stream = 4
+ Middle river/stream = 5
+ Middle of flood stream = 6
+ Boulder = 7
+ Scree = 8
+ Rock/gravel deposits = 9
+ Gravel/sand deposits = 10
+ Silt/clay bed = 11
+ Diamict = 12
+ Permanent ice = 13
+ Snowdrift = 14
+ Speleotherm = 15
+ Moonmilk = 16
+ Animal bone remains = 17
<<CodeList>>
CaveBody
+ Cave floor = G
+ Cave ceiling = T
+ Cave wall = V
<<CodeList>>
CavePaType
+ Main passage = H
+ Side passage = S
+ Surface measuring line = U
<<CodeList>>
CaveLineType
+ Survey line = 1
+ Pitch = 2
+ Ceiling formation = 3
+ Opening to the surface = 4
+ Too narrow to pass through = 7
+ Underlying cave wall = 8
+ Other line = 9
+ Contour lines = 10
+ Estimated cave wall = 99
<<CodeList>>
CaveForming
+ Manmade cave = 1
+ Littoral cave = 2
+ Phreatic cave = 3
+ Vadose cave = 4
+ Tectonic cave = 5
<<CodeList>>
CaveShapeElement
+ Shaft = 1
+ Pothole = 2
+ Potholes = 3
+ Anastomoses = 4
+ Plateau = 5
+ Doline = 6
<<CodeList>>
CavePointType
+ Shaft = 1
+ Pothole = 2
+ Scallops = 3
+ Anastomosis = 4
+ Pitch = 5
+ Anchor point for rope = 6
+ Measuring point = 7
+ Other point = 10
<<CodeList>>
CavePaShape
+ Phreatic passage = 1
+ Paragenetic passage = 2
+ Keyhole passage = 3
+ Canyon = 4

1.2 Description

1.2.1 OtherCaveLine

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
1	Class OtherCaveLine	linear elements associated with natural passages or cavities in the bedrock				
1.1	centerline	course followed by the central part of the object	1	1	CurveWithQuality	
1.2	caveLineType	other line types describing the cave conditions	1	1	CaveLineType	
1.3	caveLink	division of the cave space by means of consecutive numbering of links (cave segments) between node points	1	1	Integer	
1.4	caveAccuracy	description of how accurately the object has been surveyed	1	1	CaveAccuracy	
1.5	caveDimUnder	distance from mapped object Example: From the shaft opening or top of a cliff to the floor of the cave.	1	1	Integer	
1.6	caveDimRight	distance to the right from mapped object to cave wall	1	1	Integer	
1.7	caveDimOver	measured distance above mapped object Example: From measuring point to cave ceiling.	0	1	Integer	
1.8	caveDimLeft	distance to the left from mapped object to cave wall Note: Right and left usually means from the main entry and further into the cave. However, this must sometimes be determined by discretionary assessment	0	1	Integer	
1.9	caveDimDiameter	the diameter of the object Example: The diameter of the shaft opening	0	1	Integer	
1.10	cavePaType	type of cave passage Note: Main passage, side passage or outside. Often determined by discretionary assessment.	0	1	CavePaType	
1.1	cavePaShape	various cave passage	0	1	CavePaShape	

1		shapes				
1.12	caveForming	indicates how the cave passage has been formed	0	1	CaveForming	
1.13	caveWarning	special concerns that one must be aware of with regard to the object	0	1	CaveWarning	
1.14	caveHeight	height in relation to a chosen zero point, measured in metres Note: There are no rules for whether the contour line should be laid at floor or ceiling level, or through the centre of the cave passage. We suggest that the default placement of contour li	0	1	Integer	
1.15	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.2 CaveInventory

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
2	Class CaveInventory	objects recorded in a natural passage or cavity in the bedrock				
2.1	extent	area over which an object extends	1	1	SurfaceWithQuality	
2.2	caveLink	division of the cave space by means of consecutive numbering of links (cave segments) between node points	1	1	Integer	
2.3	caveAccuracy	description of how accurately the object has been surveyed	1	1	CaveAccuracy	
2.4	caveDimRight	distance to the right from mapped object to cave wall	1	1	Integer	
2.5	caveDimLeft	distance to the left from mapped object to cave wall Note: Right and left usually means from the main entry and further into the cave. However, this must sometimes be determined by discretionary assessment	1	1	Integer	
2.6	caveDimOver	measured distance above mapped object to cave ceiling Example: From measuring point to cave ceiling	0	1	Integer	

2.7	caveDimUnder	distance under mapped object to cave floor Example: From the shaft opening or top of a cliff to the floor of the cave	0	1	Integer	
2.8	caveDimDiameter	the diameter of the object Example: The diameter of the shaft opening	0	1	Integer	
2.9	cavePaType	type of cave passage Note: Main passage, side passage or outside. Often determined by discretionary assessment	0	1	CavePaType	
2.10	caveLoad	indication of contents of cave Note: If caveInventory is not used, caveShapeElement is required	0	1	caveLoad	
2.11	caveShapeElement	special formations on the floor, walls and/or ceiling of the cave Note: Necessary if ??caveInventory/caveLoad has not been used	0	1	CaveShapeElement	
2.12	cavePaShape	various cave passage shapes	0	1	CavePaShape	
2.13	caveForming	indicates how the cave passage has been formed	0	1	CaveForming	
2.14	caveWarning	special concerns that one must be aware of with regard to the object	0	1	CaveWarning	
2.15	caveHeight	height in relation to a chosen zero point, measured in metres Note: There are no rules for whether the contour line should be laid at floor or ceiling level, or through the centre of the cave passage. We suggest that the default placement of contour lines should be through the centre of the cave passage	0	1	Integer	
2.16	Role boundary		1	N	CaveInventoryDelim	Aggregration
2.17	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.3 CavePoint

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
3	Class	point theme in connection				

	CavePoint	with caves and cave mapping				
3.1	position	location where the object exists	1	1	PointWithQuality	
3.2	cavePointType	various types of point themes for cave data	1	1	CavePointType	
3.3	caveLink	division of the cave space by means of consecutive numbering of links (cave segments) between node points	1	1	Integer	
3.4	caveAccuracy	description of how accurately the object has been surveyed Note: Used for both lines and points	1	1	CaveAccuracy	
3.5	caveDimRight	distance to the right from mapped object to cave wall	1	1	Integer	
3.6	caveDimLeft	distance to the left from mapped object to cave wall Note: Right and left usually means from the main entry and further into the cave	1	1	Integer	
3.7	caveDimOver	measured distance above mapped object to cave ceiling Example: From measuring point to cave ceiling	0	1	Integer	
3.8	caveDimUnder	distance under mapped object to cave floor Example: From the shaft opening or top of a cliff to the floor of the cave	0	1	Integer	
3.9	caveDimDiameter	the diameter of the object Example: The diameter of the shaft opening	0	1	Integer	
3.10	caveLoad	indication of contents of cave	0	1	caveLoad	
3.11	caveShapeElement	special formations on the floor, walls and/or ceiling of the cave Note: Depending on the scale, it will often be better to indicate the various	0	1	CaveShapeElement	
3.12	cavePointNumber	survey station numbering in the cave Note: Condition. If the cavePointType constitutes a ??Survey/Measuring Point (value 7), the ..CavePoint must also be given a value. If ..CAVEPOINTTYPE does	0	1	Integer	

		not have value 7 survey station. ..CavePoint cannot have a value. (However, I do not know how ... ??<truncated>				
3.13	cavePaType	type of cave passage (main passage, side passage or outside) Note: Often determined by discretionary assessment	0	1	CavePaType	
3.14	cavePaShape	various cave passage shapes	0	1	CavePaShape	
3.15	caveForming	indicates how the cave passage has been formed	0	1	CaveForming	
3.16	caveWarning	special concerns that one must be aware of with regard to the object	0	1	CaveWarning	
3.17	caveHeight	height in relation to the chosen zero point Note: There are no rules for whether the contour line should be laid at floor or ceiling level, or through the centre of the cave passage. We suggest that the default placement of contour lines should be through the centre of the cave passage. Measured in metres	0	1	Integer	
3.18	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.4 CaveSpace

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
4	Class CaveSpace	large natural cavity in the bedrock, often formed by water dissolving calcareous bedrock along cracks, widening them to external delimitation of cavity in the bedrock				
4.1	extent	area over which an object extends	1	1	SurfaceWithQuality	
4.2	caveLink	division of the cave space by means of consecutive numbering of links (cave segments) between node points	1	1	Integer	
4.3	caveName	the name of the cave	1	1	CharacterString	
4.4	cavePlan	shows which plane	1	1	CavePlan	

		(horizontal plane, vertical plane seen from the south or vertical plane seen from the east) the map shows (lacking proper 3D modelling) Note: Usually, CAVEPLAN will be given in the SOSI fileXzXs header and not in the individual objects				
4.5	caveBody	in the absence of proper 3D modelling	1	1	CaveBody	
4.6	caveAccuracy	description of how accurately the object has been surveyed Note: Used for both lines and points	1	1	CaveAccuracy	
4.7	cavePaType	type of cave passage (main passage, side passage or outside) Note: Often determined by discretionary assessment	0	1	CavePaType	
4.8	cavePaShape	various cave passage shapes	0	1	CavePaShape	
4.9	caveForming	indicates how the cave passage has been formed	0	1	CaveForming	
4.10	caveWarning	special concerns that one must be aware of with regard to the object	0	1	CaveWarning	
4.11	Role boundary		1	N	CaveSpaceDelim	Aggregration
4.12	Role ContentsCaveInventory		0	N	CaveInventory	Aggregration
4.13	Role ContentsCaveLine		0	N	OtherCaveLine	Aggregration
4.14	Role ContentsCavePoint		0	N	CavePoint	Aggregration

1.2.5 CaveSpaceDelim

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
5	Class CaveSpaceDelim	external delimitation of cavity in the bedrock				
5.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
5.2	caveBody	shows which cave space demarcation line (floor, wall or ceiling) the surface/line represents	1	1	CaveBody??	

		(lacking proper 3D modelling)				
5.3	caveAccuracy	description of how accurately the object has been surveyed	1	1	CaveAccuracy	
5.4	caveLineType		0	1	CaveLineType	
5.5	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.6 CaveInventoryDelim

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
6	Class CaveInventoryDelim	delimitation of partial object or shape elements in natural cavities in the bedrock				
6.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
6.2	caveAccuracy	description of how accurately the object has been ??surveyed/measured	1	1	CaveAccuracy	
6.3	Role (unnamed) CaveInventory		1	1	CaveInventory	

1.2.7 Association <<Topo>> CaveSpace-CaveSpaceDelim

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
7	Association CaveSpace-CaveSpaceDelim					
7.1	Role boundary		1	N	CaveSpaceDelim	Aggregation
7.2	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.8 Association <<Topo>> CaveInventory-CaveInventoryDelim

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
8	Association CaveInventory-CaveInventoryDelim					
8.1	Role boundary		1	N	CaveInventory Delim	Aggregation
8.2	Role		1	1	CaveInventory	

	(unnamed) CaveInventory					

1.2.9 Association CaveSpace-CaveInventory

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
9	Association CaveSpace-CaveInventory					
9.1	Role ContentsCaveInventory		0	N	CaveInventory	Aggregation
9.2	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.10 Association CaveSpace-OtherCaveLine

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
10	Association CaveSpace-OtherCaveLine					
10.1	Role ContentsCaveLine		0	N	OtherCaveLine	Aggregation
10.2	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.11 Association CaveSpace-CavePoint

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
11	Association CaveSpace-CavePoint					
11.1	Role ContentsCavePoint		0	N	CavePoint	Aggregation
11.2	Role (unnamed) CaveSpace		1	1	CaveSpace	

1.2.11.1 <<CodeList>> CaveForming

Nr	Code name	Definition/Description	Code
1	CodeList CaveForming	indicates how the cave passage has been formed	
1.1	Manmade cave		1
1.2	Littoral cave		2
1.3	Phreatic cave		3
1.4	Vadose cave		4
1.5	Tectonic cave		5

1.2.11.2 <<CodeList>> CaveShapeElement

Nr	Code name	Definition/Description	Code
2	CodeList CaveShapeElement	special formations on the floor, walls and/or ceiling of the cave	
2.1	Shaft		1
2.2	Pothole		2
2.3	Potholes		3
2.4	Anastomoses		4
2.5	Plateau		5
2.6	Doline		6

1.2.11.3 <<CodeList>> CavePaShape

Nr	Code name	Definition/Description	Code
3	CodeList CavePaShape	various cave passage shapes	
3.1	Phreatic passage		1
3.2	Paragenetic passage		2
3.3	Keyhole passage		3
3.4	Canyon		4

1.2.11.4 <<CodeList>> CavePaType

Nr	Code name	Definition/Description	Code
4	CodeList CavePaType	type of cave passage Note: Main passage, side passage or outside. Often determined by discretionary assessment.	
4.1	Main passage		H
4.2	Side passage		S
4.3	Surface measuring line		U

1.2.11.5 <<CodeList>> caveLoad

Nr	Code name	Definition/Description	Code
5	CodeList caveLoad	contents of cave	
5.1	Pool		1
5.2	Dam		2
5.3	Sump		3
5.4	Edge of river/stream		4
5.5	Middle river/stream		5
5.6	Middle of flood stream		6
5.7	Boulder		7
5.8	Scree		8
5.9	Rock/gravel deposits		9
5.10	Gravel/sand deposits		10
5.11	Silt/clay bed		11
5.12	Diamict		12
5.13	Permanent ice		13
5.14	Snowdrift		14
5.15	Speleotherm	FF-Usually not indicated on public maps due to souvenir hunters	15
5.16	Moonmilk	FF-Usually not indicated on public maps due to vandals	16
5.17	Animal bone remains	FF-Usually not indicated on public maps due to souvenir hunters	17

1.2.11.6 <<CodeList>> CaveBody

Nr	Code name	Definition/Description	Code
6	CodeList CaveBody	in the absence of proper 3D modelling	

6.1	Cave floor		G
6.2	Cave ceiling		T
6.3	Cave wall		V

1.2.11.7 <<CodeList>> CaveLineType

Nr	Code name	Definition/Description	Code
7	CodeList CaveLineType	other line types describing the cave conditions	
7.1	Survey line		1
7.2	Pitch		2
7.3	Ceiling formation		3
7.4	Opening to the surface		4
7.5	Too narrow to pass through	The passage between the walls is too narrow for passage.	7
7.6	Underlying cave wall		8
7.7	Other line		9
7.8	Contour lines		10
7.9	Estimated cave wall		99

1.2.11.8 <<CodeList>> CaveAccuracy

Nr	Code name	Definition/Description	Code
8	CodeList CaveAccuracy	description of how accurately the object has been ??surveyed/measured Note: Used for both line and point themes.	
8.1	CRG1	Nøyaktighet tilsvarende CRG-skalaen grad 1	
8.2	CRG2	Nøyaktighet tilsvarende CRG-skalaen grad 2	
8.3	CRG3	Nøyaktighet tilsvarende CRG-skalaen grad 3	
8.4	CRG4	Nøyaktighet tilsvarende CRG-skalaen grad 4	
8.5	CRG5	Nøyaktighet tilsvarende CRG-skalaen grad 5	
8.6	CRG6	Nøyaktighet tilsvarende CRG-skalaen grad 6	
8.7	CRG7	Nøyaktighet tilsvarende CRG-skalaen grad 7	
8.8	CRG1A	Detaljnøyaktighet tilsvarende undergrad 1A	
8.9	CRG2A	Detaljnøyaktighet tilsvarende undergrad 2A	
8.10	CRG3A	Detaljnøyaktighet tilsvarende undergrad 3A	
8.11	CRG4A	Detaljnøyaktighet tilsvarende undergrad 4A	
8.12	CRG5A	Detaljnøyaktighet tilsvarende undergrad 5A	
8.13	CRG6A	Detaljnøyaktighet tilsvarende undergrad 6A	

8.14	CRG7A	Detaljnøyaktighet tilsvarende undergrad 7A	
8.15	CRG1B	Detaljnøyaktighet tilsvarende undergrad 1B	
8.16	CRG2B	Detaljnøyaktighet tilsvarende undergrad 2B	
8.17	CRG3B	Detaljnøyaktighet tilsvarende undergrad 3B	
8.18	CRG4B	Detaljnøyaktighet tilsvarende undergrad 4B	
8.19	CRG5B	Detaljnøyaktighet tilsvarende undergrad 5B	
8.20	CRG6B	Detaljnøyaktighet tilsvarende undergrad 6B	
8.21	CRG7B	Detaljnøyaktighet tilsvarende undergrad 7B	
8.22	CRG1C	Detaljnøyaktighet tilsvarende undergrad 1C	
8.23	CRG2C	Detaljnøyaktighet tilsvarende undergrad 2C	
8.24	CRG3C	Detaljnøyaktighet tilsvarende undergrad 3C	
8.25	CRG4C	Detaljnøyaktighet tilsvarende undergrad 4C	
8.26	CRG5C	Detaljnøyaktighet tilsvarende undergrad 5C	
8.27	CRG6C	Detaljnøyaktighet tilsvarende undergrad 6C	
8.28	CRG7C	Detaljnøyaktighet tilsvarende undergrad 7C	
8.29	CRG1D	Detaljnøyaktighet tilsvarende undergrad 1D	
8.30	CRG2D	Detaljnøyaktighet tilsvarende undergrad 2D	
8.31	CRG3D	Detaljnøyaktighet tilsvarende undergrad 3D	
8.32	CRG4D	Detaljnøyaktighet tilsvarende undergrad 4D	
8.33	CRG5D	Detaljnøyaktighet tilsvarende undergrad 5D	
8.34	CRG6D	Detaljnøyaktighet tilsvarende undergrad 6D	
8.35	CRG7D	Detaljnøyaktighet tilsvarende undergrad 7D	
8.36	BCRA1	Nøyaktighet tilsvarende BCRA-skalaen grad 1	
8.37	BCRA2	Nøyaktighet tilsvarende BCRA-skalaen grad 2	
8.38	BCRA3	Nøyaktighet tilsvarende BCRA-skalaen grad 3	
8.39	BCRA4	Nøyaktighet tilsvarende BCRA-skalaen grad 4	
8.40	BCRA5	Nøyaktighet tilsvarende BCRA-skalaen grad 5	
8.41	BCRA6	Nøyaktighet tilsvarende BCRA-skalaen grad 6	
8.42	BCRA1A	Detaljnøyaktighet tilsvarende undergrad 1A	
8.43	BCRA2A	Detaljnøyaktighet tilsvarende undergrad 2A	
8.44	BCRA3A	Detaljnøyaktighet tilsvarende undergrad 3A	
8.45	BCRA4A	Detaljnøyaktighet tilsvarende undergrad 4A	
8.46	BCRA5A	Detaljnøyaktighet tilsvarende undergrad 5A	
8.47	BCRA6A	Detaljnøyaktighet tilsvarende undergrad 6A	
8.48	BCRA1B	Detaljnøyaktighet tilsvarende undergrad 1B	

8.49	BCRA2B	Detaljnøyaktighet tilsvarende undergrad 2B	
8.50	BCRA3B	Detaljnøyaktighet tilsvarende undergrad 3B	
8.51	BCRA4B	Detaljnøyaktighet tilsvarendeundergrad 4B	
8.52	BCRA5B	Detaljnøyaktighet tilsvarende undergrad 5B	
8.53	BCRA6B	Detaljnøyaktighet tilsvarende undergrad 6B	
8.54	BCRA1C	Detaljnøyaktighet tilsvarende undergrad 1C	
8.55	BCRA2C	Detaljnøyaktighet tilsvarende undergrad 2C	
8.56	BCRA3C	Detaljnøyaktighet tilsvarende undergrad 3C	
8.57	BCRA4C	Detaljnøyaktighet tilsvarende undergrad 4C	
8.58	BCRA5C	Detaljnøyaktighet tilsvarende undergrad 5C	
8.59	BCRA6C	Detaljnøyaktighet tilsvarende undergrad 6C	
8.60	BCRA1D	Detaljnøyaktighet tilsvarende undergrad 1D	
8.61	BCRA2D	Detaljnøyaktighet tilsvarende undergrad 2D	
8.62	BCRA3D	Detaljnøyaktighet tilsvarende undergrad 3D	
8.63	BCRA4D	Detaljnøyaktighet tilsvarende undergrad 4D	
8.64	BCRA5D	Detaljnøyaktighet tilsvarende undergrad 5D	
8.65	BCRA6D	Detaljnøyaktighet tilsvarende undergrad 6D	
8.66	BCRAX	Nøyaktighet tilsvarende BCRA-skalaen grad X	

1.2.11.9 <<CodeList>> CavePlan

Nr	Code name	Definition/Description	Code
9	CodeList CavePlan	in the absence of proper 3D modelling Note: Usually, CAVEPLAN will be given in the SOSI file's header and not in the individual objects.	
9.1	The map shows the horizontal plane	FF-NO/NE?? stands for northings and eastings (coordinates)	NO
9.2	The map shows the vertical plane seen from the south	FF-HO/HE?? stands for height and eastings	HO
9.3	The map shows the vertical plane seen from the east	FF-HN stands for height and northings	HN

1.2.11.10 <<CodeList>> CavePointType

Nr	Code name	Definition/Description	Code
10	CodeList CavePointType	various types of point themes for cave data Note: If the cavePointType is a measuring point (value 7), cavePointNumber must have a value	
10.1	Shaft		1
10.2	Pothole		2

10.3	Scallops		3
10.4	Anastomosis		4
10.5	Pitch		5
10.6	Anchor point for rope		6
10.7	Measuring point		7
10.8	Other point		10

1.2.11.11 <<CodeList>> CaveWarning

Nr	Code name	Definition/Description	Code
11	CodeList CaveWarning	special concerns that one must be aware of with regard to the object	
11.1	Avalanche hazard (from above)		1
11.2	Loose, shifting ground surface: avalanche hazard		2
11.3	Slippery		3
11.4	Steep		4
11.5	Large drop		5
11.6	Vulnerable object where passage/general traffic?? should be avoided		11
11.7	Vulnerable object where one must exercise caution		12