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Lambert conformal conical projection, Standard parallels 54°N and 69°N, centre meridian 18°E, Lat=69°N and long=18°E correspond to x=412 976 y=1000 000

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Bibliographic reference
Lundqvist, T., Bee, R., Kozub, J., Lukkarinen, N., Luoma, O., Luukkonen, J., Roberts, D., Sell, A., Stephens, M., Wehler, P., 1997. Metamorphic, structural and isotopic age map of Central Fennoscandia. Scale 1 : 1 000 000. Geological Survey of Finland (Espoo), Norway (Trondheim) and Sweden (Uppsala). ISBN 951-986-026-0

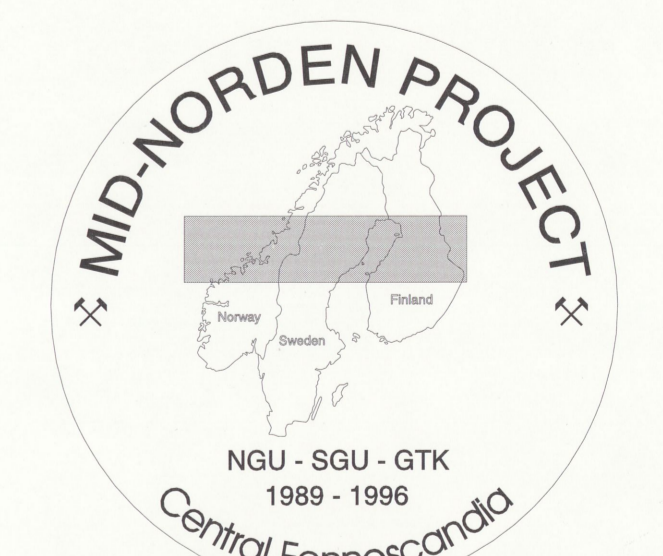
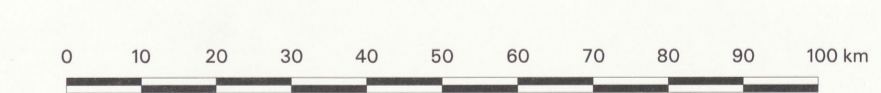
Coordination work in connection with the digitization procedure was carried out by O. Luoma (Geological Survey of Norway)

METAMORPHIC, STRUCTURAL AND ISOTOPE AGE MAP OF CENTRAL FENNOSCANDIA

Scale 1 : 1 000 000

COMPILED BY THE GEOLOGICAL SURVEYS OF FINLAND, NORWAY AND SWEDEN
MID-NORDEN PROJECT
1997

This map is a result of Nordic collaboration supported by the Nordic Council of Ministers



Geological Survey of Finland, Espoo
Geological Survey of Norway, Trondheim
Geological Survey of Sweden, Uppsala

LEGEND FOR MAIN MAP

METAMORPHISM
The designation of metamorphic grade is based on the classification of Wilks (1976). The colour of the grade of metamorphism is indicated by colour on the map. The grade of metamorphism is indicated by colour on the map. The grade of metamorphism is indicated by colour on the map. The grade of metamorphism is indicated by colour on the map.

VENDIAN TO LOWER ORDOVICIAN COVER ROCKS ON THE FENNOSCANDIAN SHIELD
Very low grade and unmetamorphosed

MESO- AND NEOPROTEROZOIC COVER ROCKS ON THE FENNOSCANDIAN SHIELD
Very low grade and unmetamorphosed

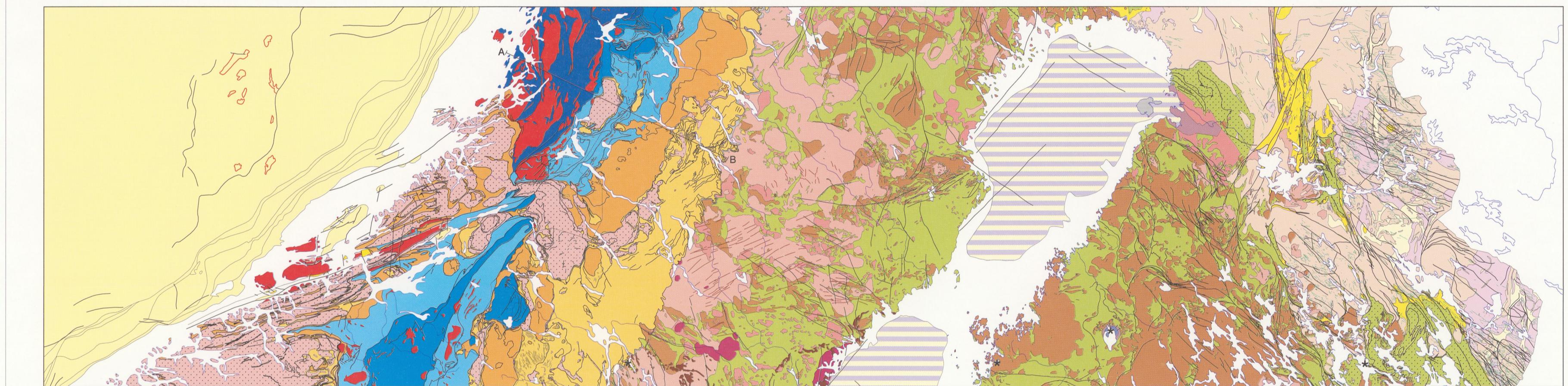
NORWEGIAN CONTINENTAL SHELF AND FJORDS
Mesozoic and Cenozoic rocks

CALEDONIAN OROGENIC BELT
Neoproterozoic to Cambrian rocks, Caledonian metamorphism (c. 510-380 Ma)

STRUCTURE
Structural elements on land and in the Gulf of Bothnia

STRUCTURAL ELEMENTS ON THE NORWEGIAN CONTINENTAL SHELF AND IN FJORDS

MAJOR GEOLOGICAL UNITS, CENTRAL FENNOSCANDIA (Scale 1 : 3 000 000)



IMPACT STRUCTURES AND ROCKS
Impact site, Impact rock

RIFTED AND TECTONICALLY SHORTENED CONTINENTAL MARGIN ALONG BALTICA AND TECTONICALLY SHORTENED MARGIN OF THE CONTINENT BALTICA

CALEDONIAN OROGENIC BELT
Neoproterozoic-Cambrian cover rocks and intrusions, and Precambrian crystalline rocks

MESO- AND NEOPROTEROZOIC COVER ROCKS ON THE NORWEGIAN CONTINENTAL SHELF AND IN FJORDS

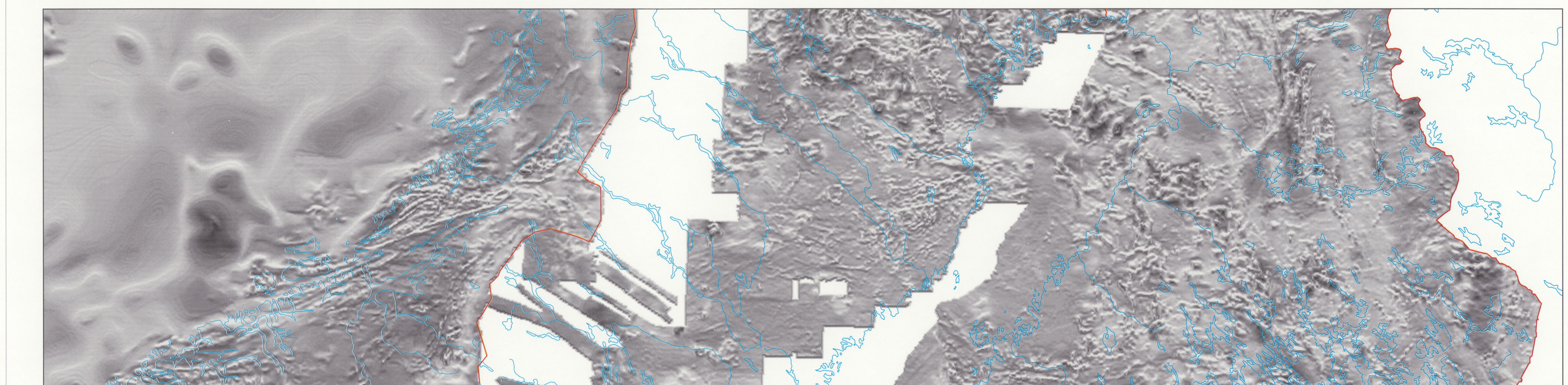
RIFTED AND TECTONICALLY SHORTENED CONTINENTAL MARGIN ALONG BALTICA AND TECTONICALLY SHORTENED MARGIN OF THE CONTINENT BALTICA

MESO- AND NEOPROTEROZOIC COVER ROCKS ON THE NORWEGIAN CONTINENTAL SHELF AND IN FJORDS

CALEDONIAN OROGENIC BELT
Neoproterozoic-Cambrian cover rocks and intrusions, and Precambrian crystalline rocks

MESO- AND NEOPROTEROZOIC COVER ROCKS ON THE NORWEGIAN CONTINENTAL SHELF AND IN FJORDS

GREY-TONE RELIEF MAP OF MAGNETIC TOTAL INTENSITY, CENTRAL FENNOSCANDIA (SCALE 1 : 3 000 000)



PUBLISHED ISOTOPE AGES AND $t_{D50}(T)$ VALUES

Legend for isotope age symbols: U-Pb, Pb-Pb, Sm-Nd, etc.

FENNOSCANDIAN SHIELD

Age (Ma)	$t_{D50}(T)$	Reference
1850 ± 10	1850 ± 10	OSP Sam. 02, 11
1850 ± 10	1850 ± 10	OSP Sam. 03, 12
1850 ± 10	1850 ± 10	OSP Sam. 04, 13
1850 ± 10	1850 ± 10	OSP Sam. 05, 14
1850 ± 10	1850 ± 10	OSP Sam. 06, 15
1850 ± 10	1850 ± 10	OSP Sam. 07, 16
1850 ± 10	1850 ± 10	OSP Sam. 08, 17
1850 ± 10	1850 ± 10	OSP Sam. 09, 18
1850 ± 10	1850 ± 10	OSP Sam. 10, 19
1850 ± 10	1850 ± 10	OSP Sam. 11, 20
1850 ± 10	1850 ± 10	OSP Sam. 12, 21
1850 ± 10	1850 ± 10	OSP Sam. 13, 22
1850 ± 10	1850 ± 10	OSP Sam. 14, 23
1850 ± 10	1850 ± 10	OSP Sam. 15, 24
1850 ± 10	1850 ± 10	OSP Sam. 16, 25
1850 ± 10	1850 ± 10	OSP Sam. 17, 26
1850 ± 10	1850 ± 10	OSP Sam. 18, 27
1850 ± 10	1850 ± 10	OSP Sam. 19, 28
1850 ± 10	1850 ± 10	OSP Sam. 20, 29
1850 ± 10	1850 ± 10	OSP Sam. 21, 30
1850 ± 10	1850 ± 10	OSP Sam. 22, 31
1850 ± 10	1850 ± 10	OSP Sam. 23, 32
1850 ± 10	1850 ± 10	OSP Sam. 24, 33
1850 ± 10	1850 ± 10	OSP Sam. 25, 34
1850 ± 10	1850 ± 10	OSP Sam. 26, 35
1850 ± 10	1850 ± 10	OSP Sam. 27, 36
1850 ± 10	1850 ± 10	OSP Sam. 28, 37
1850 ± 10	1850 ± 10	OSP Sam. 29, 38
1850 ± 10	1850 ± 10	OSP Sam. 30, 39
1850 ± 10	1850 ± 10	OSP Sam. 31, 40
1850 ± 10	1850 ± 10	OSP Sam. 32, 41
1850 ± 10	1850 ± 10	OSP Sam. 33, 42
1850 ± 10	1850 ± 10	OSP Sam. 34, 43
1850 ± 10	1850 ± 10	OSP Sam. 35, 44
1850 ± 10	1850 ± 10	OSP Sam. 36, 45
1850 ± 10	1850 ± 10	OSP Sam. 37, 46
1850 ± 10	1850 ± 10	OSP Sam. 38, 47
1850 ± 10	1850 ± 10	OSP Sam. 39, 48
1850 ± 10	1850 ± 10	OSP Sam. 40, 49
1850 ± 10	1850 ± 10	OSP Sam. 41, 50
1850 ± 10	1850 ± 10	OSP Sam. 42, 51
1850 ± 10	1850 ± 10	OSP Sam. 43, 52
1850 ± 10	1850 ± 10	OSP Sam. 44, 53
1850 ± 10	1850 ± 10	OSP Sam. 45, 54
1850 ± 10	1850 ± 10	OSP Sam. 46, 55
1850 ± 10	1850 ± 10	OSP Sam. 47, 56
1850 ± 10	1850 ± 10	OSP Sam. 48, 57
1850 ± 10	1850 ± 10	OSP Sam. 49, 58
1850 ± 10	1850 ± 10	OSP Sam. 50, 59
1850 ± 10	1850 ± 10	OSP Sam. 51, 60
1850 ± 10	1850 ± 10	OSP Sam. 52, 61
1850 ± 10	1850 ± 10	OSP Sam. 53, 62
1850 ± 10	1850 ± 10	OSP Sam. 54, 63
1850 ± 10	1850 ± 10	OSP Sam. 55, 64
1850 ± 10	1850 ± 10	OSP Sam. 56, 65
1850 ± 10	1850 ± 10	OSP Sam. 57, 66
1850 ± 10	1850 ± 10	OSP Sam. 58, 67
1850 ± 10	1850 ± 10	OSP Sam. 59, 68
1850 ± 10	1850 ± 10	OSP Sam. 60, 69
1850 ± 10	1850 ± 10	OSP Sam. 61, 70
1850 ± 10	1850 ± 10	OSP Sam. 62, 71
1850 ± 10	1850 ± 10	OSP Sam. 63, 72
1850 ± 10	1850 ± 10	OSP Sam. 64, 73
1850 ± 10	1850 ± 10	OSP Sam. 65, 74
1850 ± 10	1850 ± 10	OSP Sam. 66, 75
1850 ± 10	1850 ± 10	OSP Sam. 67, 76
1850 ± 10	1850 ± 10	OSP Sam. 68, 77
1850 ± 10	1850 ± 10	OSP Sam. 69, 78
1850 ± 10	1850 ± 10	OSP Sam. 70, 79
1850 ± 10	1850 ± 10	OSP Sam. 71, 80
1850 ± 10	1850 ± 10	OSP Sam. 72, 81
1850 ± 10	1850 ± 10	OSP Sam. 73, 82
1850 ± 10	1850 ± 10	OSP Sam. 74, 83
1850 ± 10	1850 ± 10	OSP Sam. 75, 84
1850 ± 10	1850 ± 10	OSP Sam. 76, 85
1850 ± 10	1850 ± 10	OSP Sam. 77, 86
1850 ± 10	1850 ± 10	OSP Sam. 78, 87
1850 ± 10	1850 ± 10	OSP Sam. 79, 88
1850 ± 10	1850 ± 10	OSP Sam. 80, 89
1850 ± 10	1850 ± 10	OSP Sam. 81, 90
1850 ± 10	1850 ± 10	OSP Sam. 82, 91
1850 ± 10	1850 ± 10	OSP Sam. 83, 92
1850 ± 10	1850 ± 10	OSP Sam. 84, 93
1850 ± 10	1850 ± 10	OSP Sam. 85, 94
1850 ± 10	1850 ± 10	OSP Sam. 86, 95
1850 ± 10	1850 ± 10	OSP Sam. 87, 96
1850 ± 10	1850 ± 10	OSP Sam. 88, 97
1850 ± 10	1850 ± 10	OSP Sam. 89, 98
1850 ± 10	1850 ± 10	OSP Sam. 90, 99
1850 ± 10	1850 ± 10	OSP Sam. 91, 100

CALEDONIAN OROGENIC BELT

Age (Ma)	$t_{D50}(T)$	Reference
495 ± 10	495 ± 10	OSP Sam. 01, 1
495 ± 10	495 ± 10	OSP Sam. 02, 2
495 ± 10	495 ± 10	OSP Sam. 03, 3
495 ± 10	495 ± 10	OSP Sam. 04, 4
495 ± 10	495 ± 10	OSP Sam. 05, 5
495 ± 10	495 ± 10	OSP Sam. 06, 6
495 ± 10	495 ± 10	OSP Sam. 07, 7
495 ± 10	495 ± 10	OSP Sam. 08, 8
495 ± 10	495 ± 10	OSP Sam. 09, 9
495 ± 10	495 ± 10	OSP Sam. 10, 10
495 ± 10	495 ± 10	OSP Sam. 11, 11
495 ± 10	495 ± 10	OSP Sam. 12, 12
495 ± 10	495 ± 10	OSP Sam. 13, 13
495 ± 10	495 ± 10	OSP Sam. 14, 14
495 ± 10	495 ± 10	OSP Sam. 15, 15
495 ± 10	495 ± 10	OSP Sam. 16, 16
495 ± 10	495 ± 10	OSP Sam. 17, 17
495 ± 10	495 ± 10	OSP Sam. 18, 18
495 ± 10	495 ± 10	OSP Sam. 19, 19
495 ± 10	495 ± 10	OSP Sam. 20, 20
495 ± 10	495 ± 10	OSP Sam. 21, 21
495 ± 10	495 ± 10	OSP Sam. 22, 22
495 ± 10	495 ± 10	OSP Sam. 23, 23
495 ± 10	495 ± 10	OSP Sam. 24, 24
495 ± 10	495 ± 10	OSP Sam. 25, 25
495 ± 10	495 ± 10	OSP Sam. 26, 26
495 ± 10	495 ± 10	OSP Sam. 27, 27
495 ± 10	495 ± 10	OSP Sam. 28, 28
495 ± 10	495 ± 10	OSP Sam. 29, 29
495 ± 10	495 ± 10	OSP Sam. 30, 30
495 ± 10	495 ± 10	OSP Sam. 31, 31
495 ± 10	495 ± 10	OSP Sam. 32, 32
495 ± 10	495 ± 10	OSP Sam. 33, 33
495 ± 10	495 ± 10	OSP Sam. 34, 34
495 ± 10	495 ± 10	OSP Sam. 35, 35
495 ± 10	495 ± 10	OSP Sam. 36, 36
495 ± 10	495 ± 10	OSP Sam. 37, 37
495 ± 10	495 ± 10	OSP Sam. 38, 38
495 ± 10	495 ± 10	OSP Sam. 39, 39
495 ± 10	495 ± 10	OSP Sam. 40, 40
495 ± 10	495 ± 10	OSP Sam. 41, 41
495 ± 10	495 ± 10	OSP Sam. 42, 42
495 ± 10	495 ± 10	OSP Sam. 43, 43
495 ± 10	495 ± 10	OSP Sam. 44, 44
495 ± 10	495 ± 10	OSP Sam. 45, 45
495 ± 10	495 ± 10	OSP Sam. 46, 46
495 ± 10	495 ± 10	OSP Sam. 47, 47
495 ± 10	495 ± 10	OSP Sam. 48, 48
495 ± 10	495 ± 10	OSP Sam. 49, 49
495 ± 10	495 ± 10	OSP Sam. 50, 50
495 ± 10	495 ± 10	OSP Sam. 51, 51
495 ± 10	495 ± 10	OSP Sam. 52, 52
495 ± 10	495 ± 10	OSP Sam. 53, 53
495 ± 10	495 ± 10	OSP Sam. 54, 54
495 ± 10	495 ± 10	OSP Sam. 55, 55
495 ± 10	495 ± 10	OSP Sam. 56, 56
495 ± 10	495 ± 10	OSP Sam. 57, 57
495 ± 10	495 ± 10	OSP Sam. 58, 58
495 ± 10	495 ± 10	OSP Sam. 59, 59
495 ± 10	495 ± 10	OSP Sam. 60, 60
495 ± 10	495 ± 10	OSP Sam. 61, 61
495 ± 10	495 ± 10	OSP Sam. 62, 62
495 ± 10	495 ± 10	OSP Sam. 63, 63
495 ± 10	495 ± 10	OSP Sam. 64, 64
495 ± 10	495 ± 10	OSP Sam. 65, 65
495 ± 10	495 ± 10	OSP Sam. 66, 66
495 ± 10	495 ± 10	OSP Sam. 67, 67
495 ± 10	495 ± 10	OSP Sam. 68, 68
495 ± 10	495 ± 10	OSP Sam. 69, 69
495 ± 10	495 ± 10	OSP Sam. 70, 70
495 ± 10	495 ± 10	OSP Sam. 71, 71
495 ± 10	495 ± 10	OSP Sam. 72, 72
495 ± 10	495 ± 10	OSP Sam. 73, 73
495 ± 10	495 ± 10	OSP Sam. 74, 74
495 ± 10	495 ± 10	OSP Sam. 75, 75
495 ± 10	495 ± 10	OSP Sam. 76, 76
495 ± 10	495 ± 10	OSP Sam. 77, 77
495 ± 10	495 ± 10	OSP Sam. 78, 78
495 ± 10	495 ± 10	OSP Sam. 79, 79
495 ± 10	495 ± 10	OSP Sam. 80, 80
495 ± 10	495 ± 10	OSP Sam. 81, 81
495 ± 10	495 ± 10	OSP Sam. 82, 82
495 ± 10	495 ± 10	OSP Sam. 83, 83
495 ± 10	495 ± 10	OSP Sam. 84, 84
495 ± 10	495 ± 10	OSP Sam. 85, 85
495 ± 10	495 ± 10	OSP Sam. 86, 86
495 ± 10	495 ± 10	OSP Sam. 87, 87
495 ± 10	495 ± 10	OSP Sam. 88, 88
495 ± 10	495 ± 10	OSP Sam. 89, 89
495 ± 10	495 ± 10	OSP Sam. 90, 90
495 ± 10	495 ± 10	OSP Sam. 91, 91
495 ± 10	495 ± 10	OSP Sam. 92, 92
495 ± 10	495 ± 10	OSP Sam. 93, 93
495 ± 10	495 ± 10	OSP Sam. 94, 94
495 ± 10	495 ± 10	OSP Sam. 95, 95
495 ± 10	495 ± 10	OSP Sam. 96, 96
495 ± 10	495 ± 10	OSP Sam. 97, 97
495 ± 10	495 ± 10	OSP Sam. 98, 98
495 ± 10	495 ± 10	OSP Sam. 99, 99
495 ± 10	495 ± 10	OSP Sam. 100, 100

NORWEGIAN CONTINENTAL SHELF

Age (Ma)	$t_{D50}(T)$	Reference
115 ± 10	115 ± 10	OSP Sam. 01, 1
115 ± 10	115 ± 10	OSP Sam. 02, 2
115 ± 10	115 ± 10	OSP Sam. 03, 3
115 ± 10	115 ± 10	OSP Sam. 04, 4
115 ± 10	115 ± 10	OSP Sam. 05, 5
115 ± 10	115 ± 10	OSP Sam. 06, 6
115 ± 10	115 ± 10	OSP Sam. 07, 7
115 ± 10	115 ± 10	OSP Sam. 08, 8
115 ± 10	115 ± 10	OSP Sam. 09, 9
115 ± 10	115 ± 10	OSP Sam. 10, 10
115 ± 10	115 ± 10	OSP Sam. 11, 11
115 ± 10	115 ± 10	OSP Sam. 12, 12
115 ± 10	115 ± 10	OSP Sam. 13, 13
115 ± 10	115 ± 10	OSP Sam. 14, 14
115 ± 10	115 ± 10	OSP Sam. 15, 15</