

NGU Report 2007.044
Norway's coastal aggregates.
Export in 2006 and potential deposits.

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<p>Summary:</p> <p>The Geological Survey of Norway has compiled an inventory of hard rock aggregate deposits in coastal Norway. This report contains a catalogue of Norwegian coastal quarries presently in production and export, as well as potential production areas along the coast of South-Central Norway and Finnmark. 11.8 million tonnes of aggregates were exported to Europe in 2006, and about 3.8 million tonnes was used by the offshore oil and gas industry on the continental shelf.</p>			
Keywords:			
Coastal aggregates	Export	Los Angeles	
PSV	Density	Bedrock	

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INTRODUCTION

The production of hard-rock aggregates in Norway amounted to about 46 million tonnes in 2006. In addition, 13 million tonnes of sand/gravel were produced.

A total of 11.5 million tonnes of aggregate and 0.375 million tonnes of sand and gravel were exported, with an export value of 501 million NOK (or 63 mill EUR), from 22 hard rock aggregate and 5 sand and gravel producers (statistics compiled by NGU and the producers; see pages 5-7). Export of hard rock aggregate represents about 25 % of the total hard rock production. Aggregates are used in the following ways: roads (37 %), offshore (24 %), concrete (24 %) and other use (15%). The majority of the quarrying companies are relatively small, catering essentially to local needs. There are, however, a number of major players including Norsk Stein A/S, Oster Pukk og Grus A/S, NorStone, Kolo-Veidekke AS, NCC Roads AS, Halsvik Aggregates A/S, Bremanger Aggregates AS and Visnes Kalk A/S. These companies each have an annual production in the order of 1- 4.6 million tonnes. The largest individual aggregate quarry (gneiss) owned by Norsk Stein A/S had a production of approx 4.6 million tonnes in 2006. Additional in 2006 export of aggregates for use offshore, mostly in Norwegian sectors of the North Sea, was 3.8 million tonnes in 2006 from 6 producers. The exported sand and gravel comes from four quarries in Rogaland and Nord-Trøndelag counties.

Norway is probably northern Europe's principal **hard-rock** country, being composed almost entirely of Precambrian and Palaeozoic igneous and metamorphic crystalline rocks. Norway has a long, indented and rugged coastline where a considerable variety of rocks suitable for aggregate production are well exposed. Deep-water anchorage, low tidal range and a well-developed infrastructure allow for planning of harbour facilities for medium to large size bulk carriers. Norway has an attractive investment and taxation climate, and overseas investment is encouraged. National and local authorities are aware of the potential for the development of large coastal quarries (super-quarries) designed for the production and export of rock aggregates. The Geological Survey of Norway (NGU) is undertaking a number of investigations of potential coastal sites for such quarries, in order that local government planners will be able to classify such sites for future development. In Bremanger municipality, one new quarry is planned and will start production in 2007/2008 of green sandstone in with PSV from 58 to 62. Bremanger Quarry AS started export production to the Netherlands in 2001. A new sandstone quarry is planned and will start production in Flora municipality in 2007/2008.

NGU in cooperation with county and local authorities and industry is planning to map the potential for new coastal rock units for which environmental, topographic and transport criteria would favour quarrying.

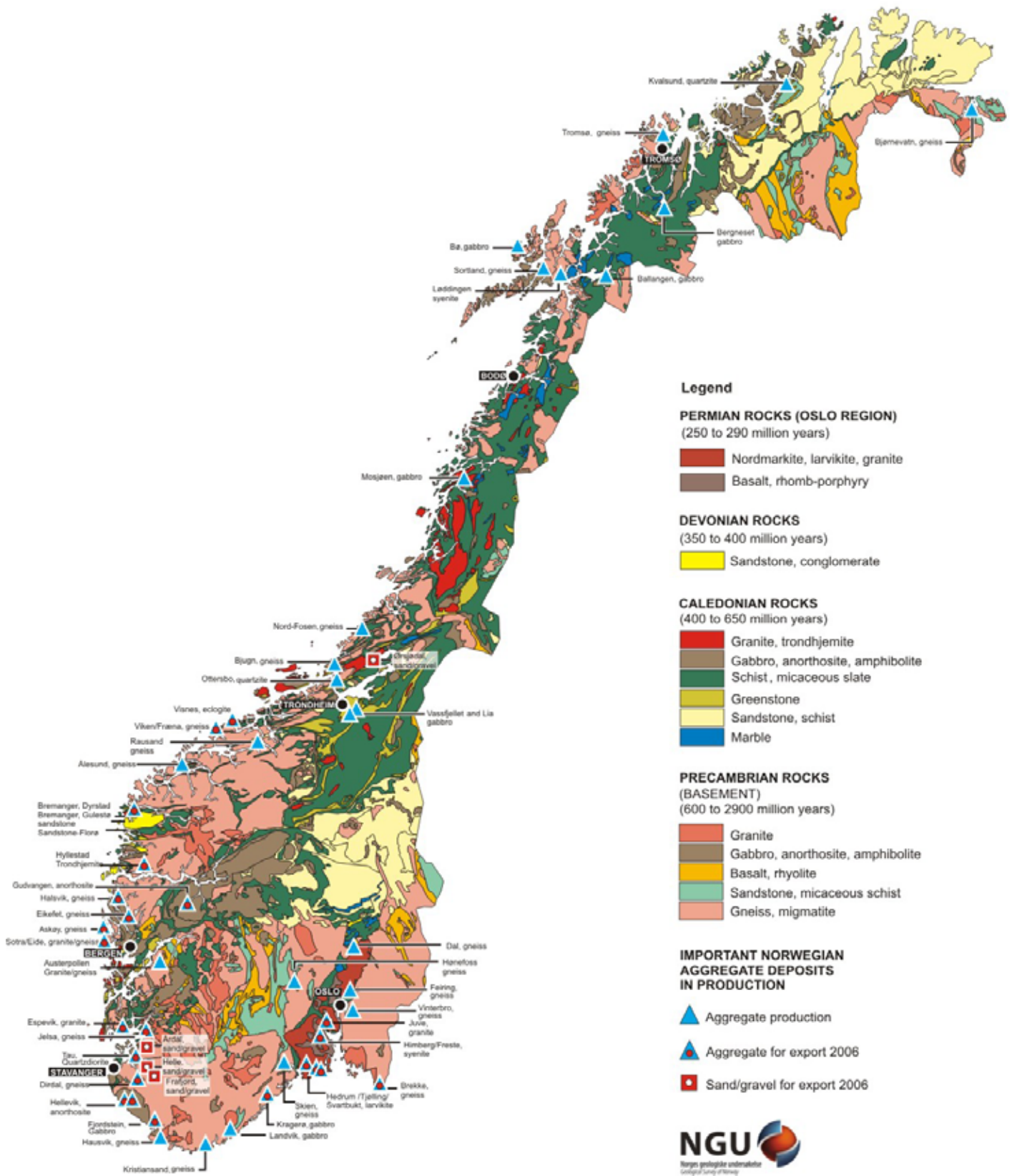
The Gravel and Aggregate database is accessible on the Internet, and includes digital maps for zooming in on individual quarries:

<http://www.ngu.no/grusogpukk> or <http://www.ngu.no>

Trondheim, 20th June 2007

Peer-Richard Neeb
Teamleader
Aggregates

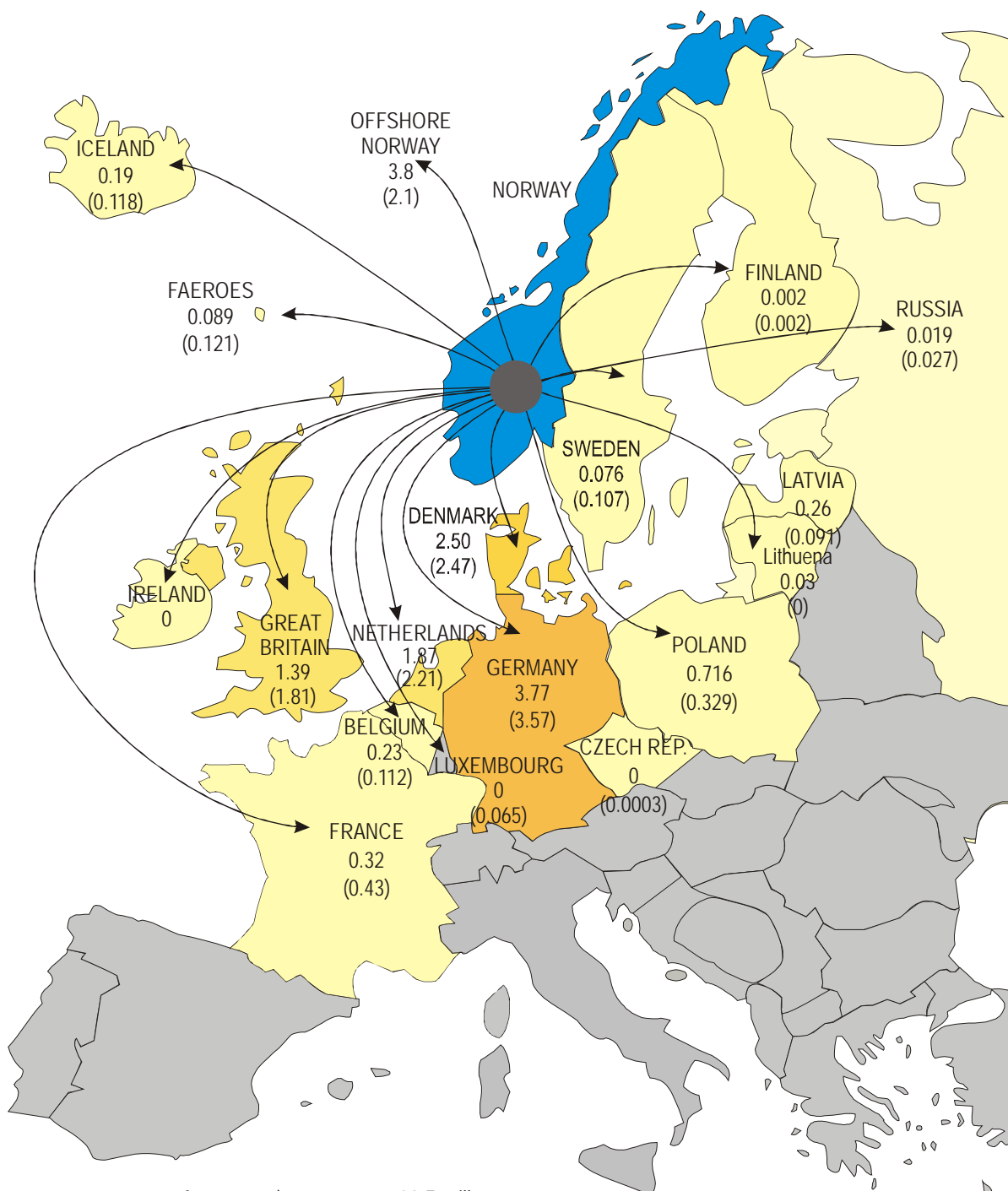
BEDROCK MAP OF NORWAY WITH IMPORTANT AGGREGATE DEPOSITS



NORWEGIAN AGGREGATE EXPORTED IN 2006

Total production 15.6 mill. tonnes: export 11.8 mill. tonnes aggregate, armourstone, sand and gravel, plus 3.8 mill. tonnes aggregate for offshore use.

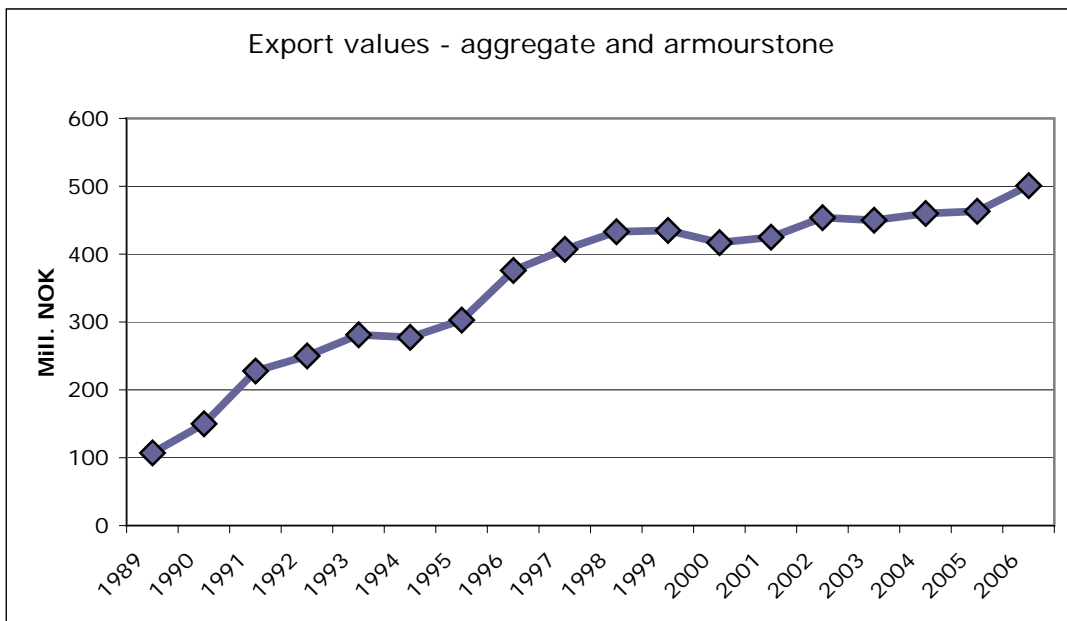
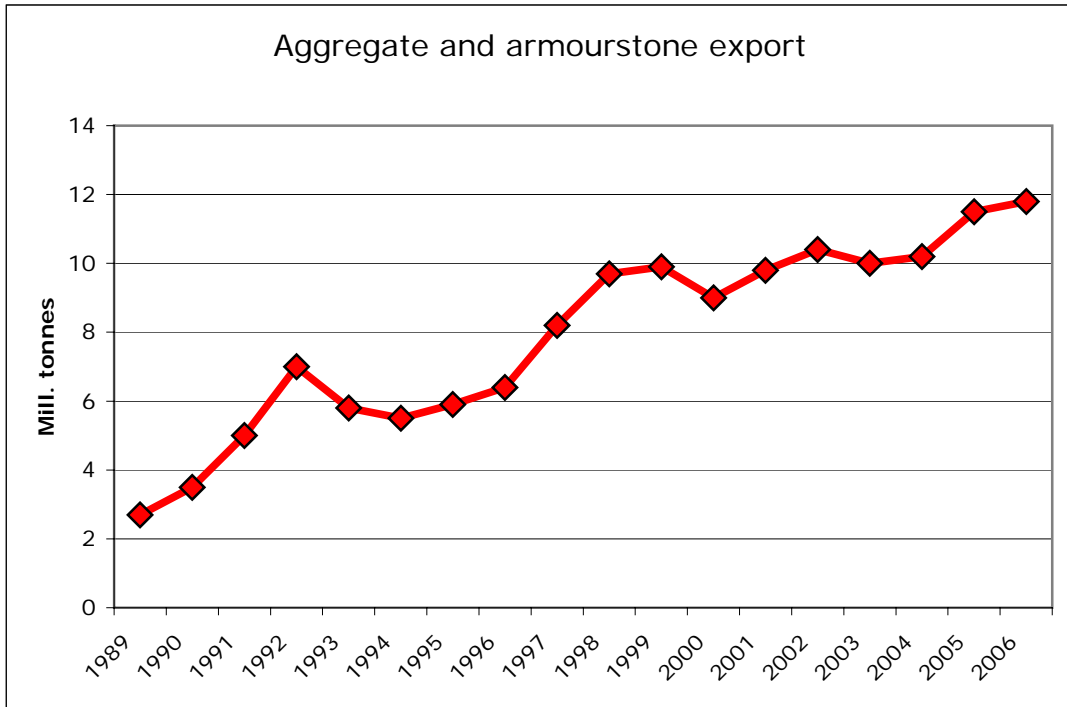
Export/production values in parentheses are for 2005.



Aggregate/armourstone 11.5 mill. tonnes
 Sand/gravel 0.3 mill. tonnes
 Export value 501 mill. NOK/62 mill. EUR
 Offshore-aggregate 3.8 mill. tonnes



AGGREGATE EXPORT 1989-2006



HARD ROCK AGGREGATES AND ARMOURSTONE: NORWEGIAN QUARRIES AND POTENTIAL AREAS ALONG THE COAST OF SOUTH-CENTRAL NORWAY AND FINNMARK. SITENUMBER REFERENCED ON ENCLOSED MAPS

Østfold County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
0101-514 Halden	Brekke Iddefjorden BG-Stone AS Bodalen 1, c/o BG Stone DK-8643 ANS. Danmark	x	Niels Korshøj	+45 40556658		Granite Grey			2.65	Export 97/98 and 2006
0101-506 Halden	NorStone as, Svingen		Terje Holt	69 19 53 61	69 19 50 74	Gneiss/grey	15	51-54	2.79	

Vestfold County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
0709-511 Larvik	NCC Roads AS avd Hedrum- og Tjølling	x	Ole Steinholt	33 13 69 60	33 13 69 79	Syenite/Larvikite Grey-black	30.9	48	2.72 – 2.73	Hedrum
0709-501 Larvik	Pukkverk, Landhjem 3270 Larvik						31.2	48	2.71	Tjølling
0709-xxx Larvik	Svartbukt/Larvik Stema Shipping (N) A/S Grøttinglia 32, 3261 Larvik	x	Arne Nicander	33 13 03 94 91663070	33 12 72 30	Syenite/Larvikite Grey-black	24.5	48	2.74	Armourstone
0718-503 Ramnes	Martin Haraldstad AS 3175 Ramnes	x	Steinar Frellumstad	33 39 65 54	33 39 51 95	Syenite – Grey Syenite	19.0 – 23.2 12	50 43	2.62 – 2.74 2,7	Avd. Himberg, Freste
0713-508 Sande	Sando Kalk og Pukk-servise AS		NGU			Carbonate White	19.4	57	2.78	Closed
0711-506 Svelvik	Juve pukkverk A/S, 3060 Svelvik	x	Guri Olsen	33 77 20 15		Granite Red	23.7 – 27.4		2.50 – 2.60	
0706.501 Sandefjord	ÅSMUND Berg, KOLO Veidekke AS, 3233 Sandefjord	x	Gunnar Topstad	33470171		Larvikite- Grey	33	45	2,71	

Telemark County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
0806-501 Skien	NCC Skien pukkverk AS, Voldsfjorden Havnevn. 22 3739 Skien		Kolbjørn Bach Hansen	35 90 04 44	35 90 04 41	Gneiss	21 - 23	50 -51	2.65	Export before 2005
0815-509 Kragerø	NCC ROADS Avd. Valberg 3770 Kragerø	x	Frode Jørgensen	35 98 99 40	35 98 99 41	Gabbro Black	15 - 20	51	2.90 –3.11	

Aust-Agder County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
0901-506 Risør	Franzefoss Pukk A/S Ravneberget 4990 Søndeland		Eigil Runsag	67 15 20 00 37 15 61 87	67 15 20 01 37 15 62 73	Gabbro		54	3.03	
0904-516 Grimstad	Landvik pukkverk Postboks 481 4801 Arendal		Oddvar Madsen			Gabbro				
0906-502 Arendal	Klodeborg pukkverk Postb. 1701, Myrene 4801 Arendal		Oddvar Madsen		37 09 49 72	Gneiss			2.80	

Vest-Agder County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1001-508 Kristiansand	Ringknuten pukkverk A/S Postboks 1121 Lundsiden 4602 Kristiansand S		Karsten Reme	38 17 91 00	38 09 72 08	Gneiss			2.60 – 2.70	
1032-501 Lyngdal	Kolo - Veidekke A.S Hausvik Pukkverk Martin Haraldstad AS 3175 Ramnes		Steinar Frellumstad	33 01 63 00 33 39 65 54	33 39 51 95	Gneiss/granite		50	2.73	Export 2001

Rogaland County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1101-501 1101-502	K.S. Norwegian Edelsplit 4375 Hegrestad	x	Anders Hovland	51 46 11 80 / 51 49 68 77	51 49 66 54	Anorthosite White	11.9 - 17	51 - 55	2.69 – 2.77	

Eigersund								42		
1101-503 Eigersund	Ramsland pukk A.S, Hellvik 4387 Bjerkreim		Paul Ramsland local marked	51 45 01 88 51 49 68 77	51 45 01 11	Anorthosite White	12.3	54	2.78	
1129-06/09/10 Forsand	NCC ROADS AS avd Helle	x	Arne Maudal	51703555		Sand/gravel				
1111-501 Sokndal	NCC ROADS AS avd Fjordstein, 4380 Hauge i Dalane	x	Pål Thjømø	40 00 59 92	51 47 08 44	Anorthosite/ Norite	14-33 23-35	46-53 55	2.75 3.16	Anorthosite closed 2005 Norite
1134-501 Suldal	Norsk Stein AS Berakvam 4234 Jelsa	x	Jan-Øyvind Jørgensen	52 79 29 00	52 79 29 01	Gneiss	15.4 – 20	52 - 58	2.76 – 2.79	
1122-501 Gjesdal	NorStone a.s NorStone Dirdal 4335 Dirdal	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Gneiss	24.3	48	2.76 – 3.0	
1122 – 8 Gjesdal	NorStone a.s NorStone Frafjord 4335 Dirdal	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Sand/gravel				
1130-501 Strand	NorStone a.s NorStoneTau 4120 Tau	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Mylonite Quartz diorite	10.5 – 10.8	52 – 57	2.76 –2.80	
1146-506 Tysvær	Amrock J.V. A/S Espevik,5560 Hinderåvåg, Tysvær	x	Odd Hotdvedt	52 75 42 30 94 61 34 62	52 77 89 33	Granite	12.1 - 27	50 - 58	2.63 – 2.93	
1154-502 Vindafjord	Knapphus knuseverk Toraneset Øvre Vats 5576		Svein Ove Tyssebotn	53 76 39 16		Granite			2.71	
1133-018 Hjelmeland	NorStone Årdal 4137 Årdal i Ryfylke	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Sand/gravel				
1122-13/14 Gjesdal	Lemminkainen Norge A/S Postboks 69 4301 Sandnes		Rolf Stangeland	51 57 90 50 90 76 12 40	51 57 54 17	Sand/gravel				Avd. Vølstad Export 2002

Rogaland County - Potential deposit of aggregate

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1103-503	Ådnanesnuten Strand kommune	Possible				Augen gneiss			2.66	
1141-501	Sørevågen Finnøy kommune	Possible				Gneiss			2.75	
1145-501	Sønnaland Bokn kommune	Possible				Gneiss			2.64	

1146-503	Ramsvika Tysvær kommune	Possible				Gneiss			2.67	
1134-503	Ersdal Suldal kommune	Possible				Gneiss			2.73	
1154-505	Rafoss Invest AS, Vindafjord Rock Company AS,Raunes Vindafjord komm.	Possible		53 76 12 00 NGU	53 76 05 20	Gneiss	21.4 – 40.3	51 – 54	2.62 – 2.71	
1111-504	Sokndal-Jøssingfjord Noran A/S	Possible				Anorthosite				
1111-503	Hauge i Dalane, Sokndal Titania a/s	Possible	Øystein Rushfeldt	51 47 80 00	51 47 80 10	Anorthosite	24.1	48	2.88	Waste from ilmenite mine
1101-504	Lædre, Eigersund	Possible				Anorthosite	10.07 – 13.4	52 - 56	2.78	

Hordaland County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1247-501	NorStone a.s NorStone Askøy 5328 Herdla	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Mylonite	14.1		2.60	
1263-501 Lindås	Eikefet puklverk Oster pukl og sand A/S Ø. Muralm. 1, 5012 Bergen	x	Magne Aunebakk	55 36 30 00	55 36 30 10	Granite-gneiss	18	49 - 52	2.65 – 2.70	
1246-501 Fjell	Sotra Pukk A/S, Eide Ø. Muralm. 1, 5012 Bergen		Magne Aunebakk	55 36 30 00	55 36 30 10	Granite-gneiss	10 - 17	54	2.64	
1224 xxx/xxx Kvinnherad	Johs Hjelmeland AS Austrepollen 5164 Dimmelsvik		Johannes Hjelmeland	53 48 30 70 41683070	56 55 60 57	Granite-gneiss	21	50 - 52	2.71	Waste from road tunnel

Hordaland County - Potential deposit of aggregate

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1222-504	Svartasmoget, SIM, 5410 Sagvåg Fitjar kommune	Possible	Terje Gilje	53 45 78 50	53 45 78 60	Granite			2.76	
1222-xxx	Gabbro Stone, Rauholmen box 344, 546224 Varnersberg, Sverige	Possible	Arvid Andersen	467086640955		Gabbro				
1222-xxx	Landasåtane, 5419 Fitjar Fitjar kommune	Possible	Fitjar kommune	53 49 71 01	53 49 73 97	Amphibolite				

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1245-502	Sund Granitt AS, Nova Maritime Service A/S Postboks 3703, 5845 Bergen, Lundaneset, Sund kommune	Possible	Jan Johnsen	55 12 35 50	55 12 48 90	Gneiss-granite	10.6 – 15.2	50 - 56	2.64	
1266-505	Eikemo Steinbrot Masfjorden	Possible	Tore Svendsen	56 36 51 00	56 36 51 05	Gneiss	25.9 – 31.1	52 - 55	2.65	
1263-504	Hodna, 5110 Isdalsstø Lindås kommune	Possible		56 35 05 55	56 35 28 00	Gabbro				
1246-505	Vindenes, Aktivest, Postboks 244, 5353 Straume, Fjell kommune	Possible	Harald Smedal	56 32 0055	56 32 01 60	Gneiss			2.74	
1241-xxx	Matland, 5640 Eikelandsosen Fusa kommune	Possible	Fusa kommune	56 56 11 00	56 58 13 38	Gneiss				
1223-501	Steinåsen, 5685 Uggdal Tynesnes kommune	Possible		53 42 22 22	53 43 21 81	Quartz diorite			3.03	
1216-xxx	Ålfjorden, 5520 Sveio, Sveio komm.	Possible	Sveio kommune	53 74 01 00	52 74 00 96	Gneiss-granite				
1216-xxx	Mjuk, 5520 Sveio Sveio kommune	Possible	Sveio kommune	53 74 01 00	52 74 00 96	Gneiss-granite				
1214-501	Vardåsen, 5580 Ølen Ølen kommune	Possible	Ølen kommune	53 76 81 66	53 76 82 52	Granite			2.65	

Sogn og Fjordane County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1411-504 Gulen	Halsvik Aggregates A/S, Sløvåg, 5960 Dalsøyra	x	Lars Hellandsjø	57 78 38 40	57 78 38 76	Gneiss	19,5 –22,3	49 - 57	2,67 - 2.71	
1421-539 Aurland	Gudvangen stein AS, Bryalii 153, 5700 Voss	x	Sigmund Bjørke	56 52 34 65 94 68 25 20	56 52 34 61	Anorthosite White	15.2	60	2,88 – 3.04	
1424-501 Årdal	Årdalitt A/S Offerdal, 6146 Åheim		Henning Hansen	70 02 43 22		Trondhjemite	26	47	2.63	
1413-504 Hyllestad	Hyllestad Pukk A/S KOLO Veidekke, Postboks 8043, Spjelkavik, 6022 Ålesund		Magne Mørkedal	40003350 90862150		Trondhjemite/- quartz diorite white granite	12	50 - 53	2,63	Export before 2003

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1433-504 Naustal	Fjordblokk A/S Engebø, Nausdal	Closed 99		NGU		Eclogite	9.5 – 12.6	51 – 53	3.31 - 3.38	
1420-501 Sogndal	Sogndal Pukkverk Fredheim Maskin og Betong A/S , 6856 Sogndal		Arvid Fredheim	57 67 84 46 90 51 33 66	57 67 88 14	Anorthosite	18	49	2.91-2.93	
1401-514 Flora	Havrøy Pukkverk Flora	Closed				Anorthosite				
1416-046 Høyanger	Bjorsand AS 6949 Bjordal		Helge Bjordal	57 71 02 80 57 71 02 52	57 71 02 81	Sand/gravel				Export berfore 2003
1438-515 Bremanger	Bremanger Quarry A.S, Dyrstad 6721 Svelgen	x	Ole Petter Mejer/Rune Mo Postboks 93 6721 Svelgen	57 79 22 00	57 79 22 01	Sandstone Green	12	60	2.69	NGU sample 09.2001

Sogn og Fjordane County - Potential deposit of aggregate

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1438-514 Bremanger	Bremanger Aggregates, Gulestø,	Possible	NGU	73 90 40 00	73 92 16 20	Sandstone Green	13	57 – 58	2.74	EUROVIA gmbH, Germany New Company
1438-504 and 510 Bremanger	Gotraneset - Skipperdalen	Possible	NGU			Trondhemite Grey/white	14.7 – 17.2	50 - 58	2.68 – 2.71	
1401-5xx Flora	Årebråt. Seljestokken - Bjørkeliskaret	Possible	Norwegian Sandstone Export AS			Sandstone Green	12-14	55-57	2.74	New company 2002
1401-506 Flora	Beidvik, Durmålhornet	Possible	NGU			Sandstone Green	11.8	56	2.74	

Møre og Romsdal County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1503.xxx	Gunnar Holth-Kristiansund	x	Oddvar Soma	99581789	71584632	Gneiss				Offshore
1516-505 Ulstein	Kvalnes pukkverk Ulstein Betongindustri A/S 6072 Haddal			70 01 60 04		Gneiss/granite			2.67 – 2.70	
1504-501 Ålesund	Kolo -Veidekke AS Ålesund 6019 Ålesund		Magne Mørkedal	70 17 54 00 94 73 63 76	70 17 54 10	Gneiss			2.65 – 2.72	
1504-502 Ålesund	Ufo pukkverk Nodest vei A/S 6010 Spjelkavik		Tore Rødal	70 14 19 00		Gneiss			2.69 – 2.71	
1523-501 Ørskog	Skjøholt pukkverk 6240 Skjøholt		Karl Vaksvik Vaksvik Maskin	70 27 30 52	70 27 31 02	Dioritic gneiss			2.77 – 2.85	
1543-522 Neset	Kolo-Veidekke A.S Raudsand 6462 Raudsand		Magne Mørkedal	71 23 31 00	71 23 31 02	Gneiss/granite			2.60 – 2.66	
1551-508 Eide	Visnes Eklogitt A.S 6493 Lyngstad	x	Karl Johan Eide	71 29 56 05	71 29 55 70	Eclogite	21.9 – 23.2	59 – 61	3.14	
1548-512 Fræna	Viken Pukkverk A/S 1548 Fræna	x	Gunder Viken/ Kjell Hvattum	71 26 93 78	71 26 93 76	Gneiss			2.9	Export 2001

Møre og Romsdal County - Potential deposit of aggregate

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1523-502 Ørskog kommune	Viset pukkverk A.S Jønningshagen 40, 4316 Sandnes	Possible	Alf Follo	51 62 43 18		Gabbro black	11.9	52	3.13	
1547-502	Hollingen	Possible				Gneiss/granite			2.63	

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
	Aukra kommune									
1543-501 Neset kommune	Breidvik	Possible				Gabbro			3.20	
1560-503 Tingvoll	Hammaren	Possible				Gabbro			3.15	
1566-501 Tingvoll kommune	Durmålhaugen pukkverk A.S Jønningshagen 40, 4316 Sandnes	Possible	Alf Follo	51 62 43 18		Gneiss/granite	26	52	2.69	
1560-501 Surnadal	Settem	Possible				Amphibolite/- tonalite			2.85	

Sør-Trøndelag/ Nord-Trøndelag Counties

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1617-501 Hitra	Hitra Bergverk 7240 Fillan		Åge Kaasbøll	72 44 14 85	72 44 15 04	Granodiorite			2.65	
1621-501 Ørland	Kolo Veidekke A.S Ottersbo pukkverk 7140 Opphaug		Ketil Oksvold	73 82 35 00 72 52 27 80	72 52 10 80	Mylonite	10.3	48 - 52	2.75 – 2.77	
1627-505 Bjugn	Bjugn Pukkverk, Valsneset NCC Roads AS Trondheim					Gneiss	12.3		2.77 – 2.81	
1633-501 Osen	Nord-Fosen pukkverk 7740 Steinsdalen	Offshore stone	Jon E Høvik	72 57 78 90 72 57 78 62	72 57 78 68	Granodiorite	27.4 – 47.5	52 - 53	2.67 – 2.69	
1724.001.04 Rissa/Verran	Ørsjødalen Verran Grus A/S 7797 Verabotn		Per Jarle Vigum	74 15 72 22		Sand/gravel				Sand/gravel production new

Sør-Trøndelag County - Potential deposit of aggregate

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1617-515	Korskammen Hitra kommune	Possible				Granodiorite Grey/white			2.70 – 2.75	
1630-506	Raudhammaren Åfjord kommune	Possible	NGU			Granite/ amphibolite				
1633-502	Langstrandheia Osen kommune	Possible	NGU			Granite-gneiss	37.9 – 70.7	54 -61	2.62 – 2.78	
1612-506/507	Gjøbergsheia/ Kammen Hemne kommune	Possible	NGU			Gneiss	23.3	52	2.68	

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
							27.2	46	2.61	
1613-505	Stokkafjellet Snillfjord kommune	Possible	NGU Snillfjord kommune	72 45 55 55	72 45 55 97	Gneiss	19.6	53	2.64	

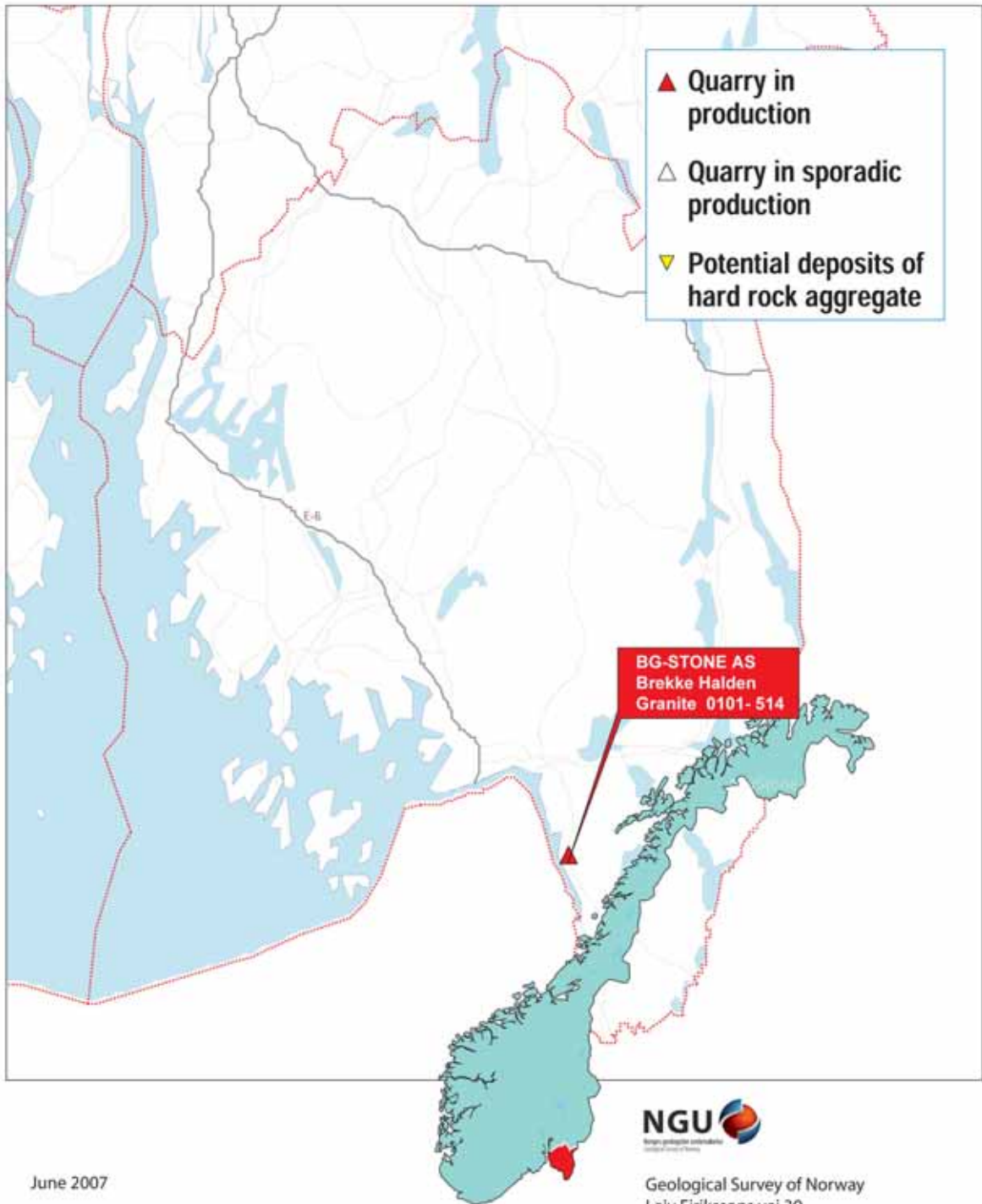
Nordland County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1854-510 Ballangen	Ballangen Aggregates AS . Boks 86 8546 Ballangen		Bjørn Martinsen	76 95 04 91 90159131		Noritt Pyroxenite Black-green	25 - 29 9 - 10	60 55 -60	3.0	New producer export 2007

Finnmark County

Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
2017-501 Kvalsund	Repparfjord-Kvalsund Kvalsund Aggregates AS	Offshore stone	Lars Hellandsjø	57 78 38 40	57 78 38 76	Quartzite/grey		58	2.68	New producer Offshore/export 2005
2030-501 Sør - Varanger	Bjørnevatn Kirkenes Utvikling AS, Post boks 220 9915 Kirkenes		Trond Dahlberg	78 99 48 00	78 99 48 10	Gneiss Grey	12 – 18	54 – 56	2.75-3.02	Waste from iron mine

QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN ØSTFOLD COUNTY



QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN BUSKERUD COUNTY

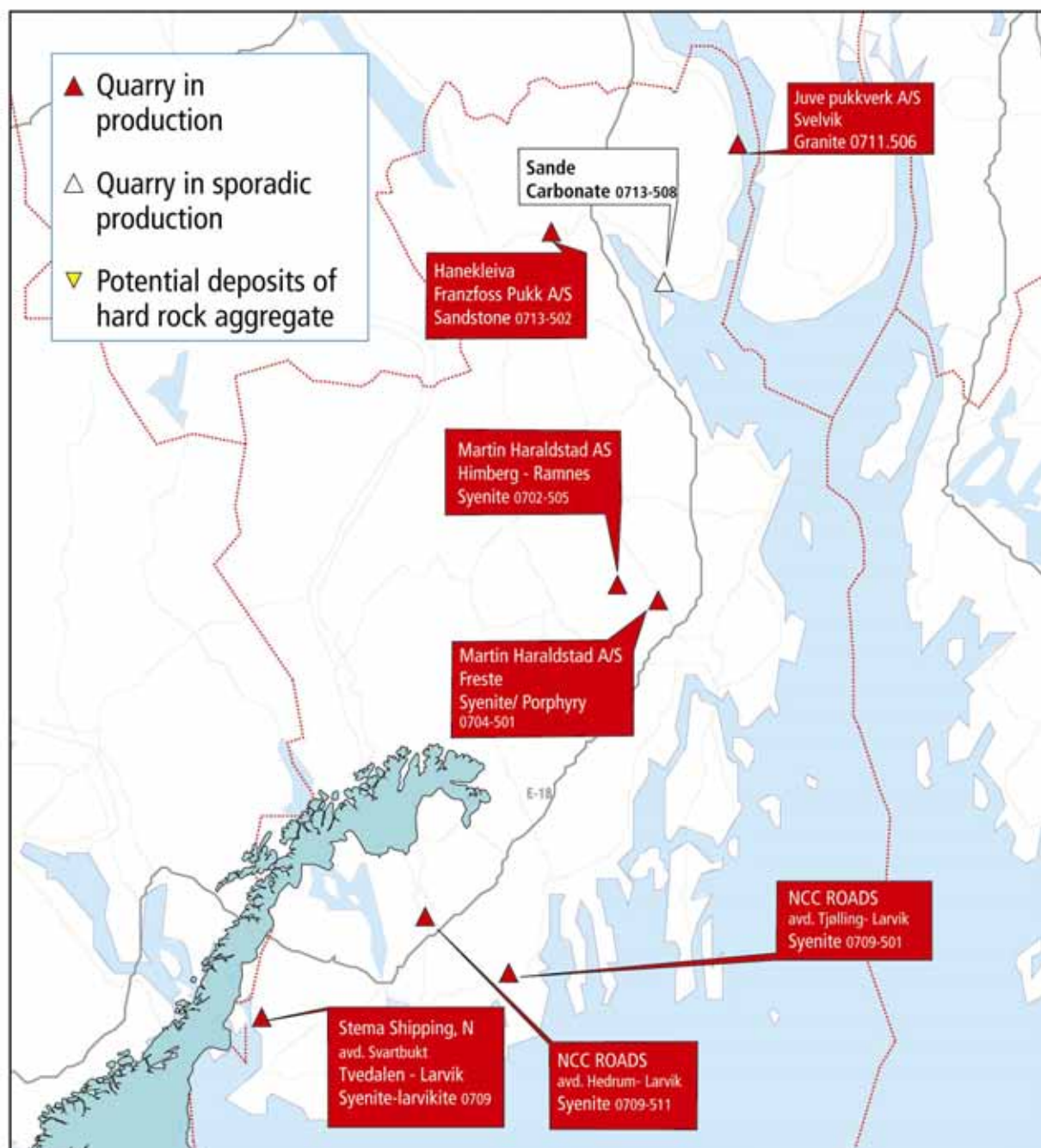


April 2003



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Telefax: 47 73 92 16 20

QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN VESTFOLD COUNTY

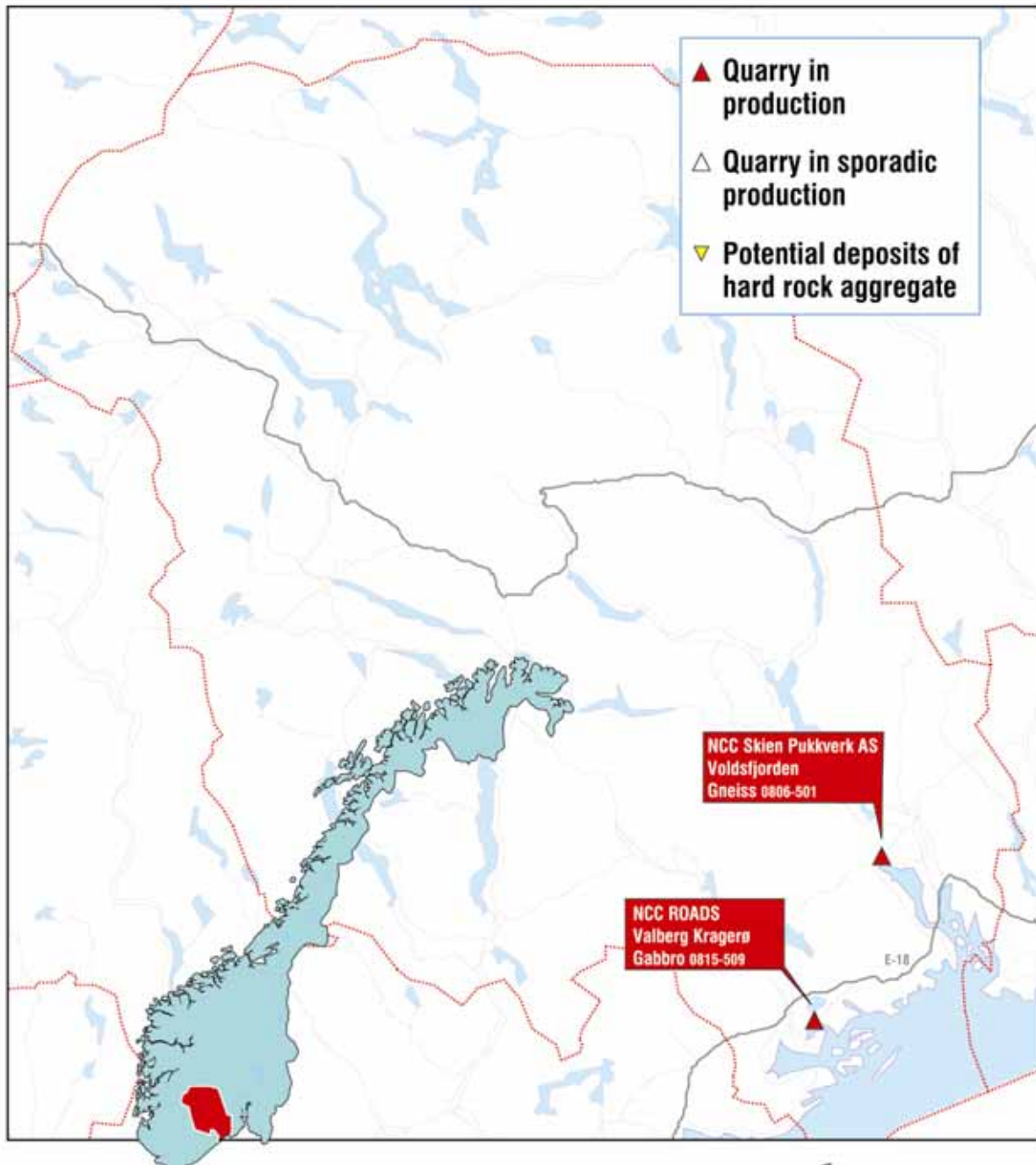


April 2006



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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN TELEMARK COUNTY

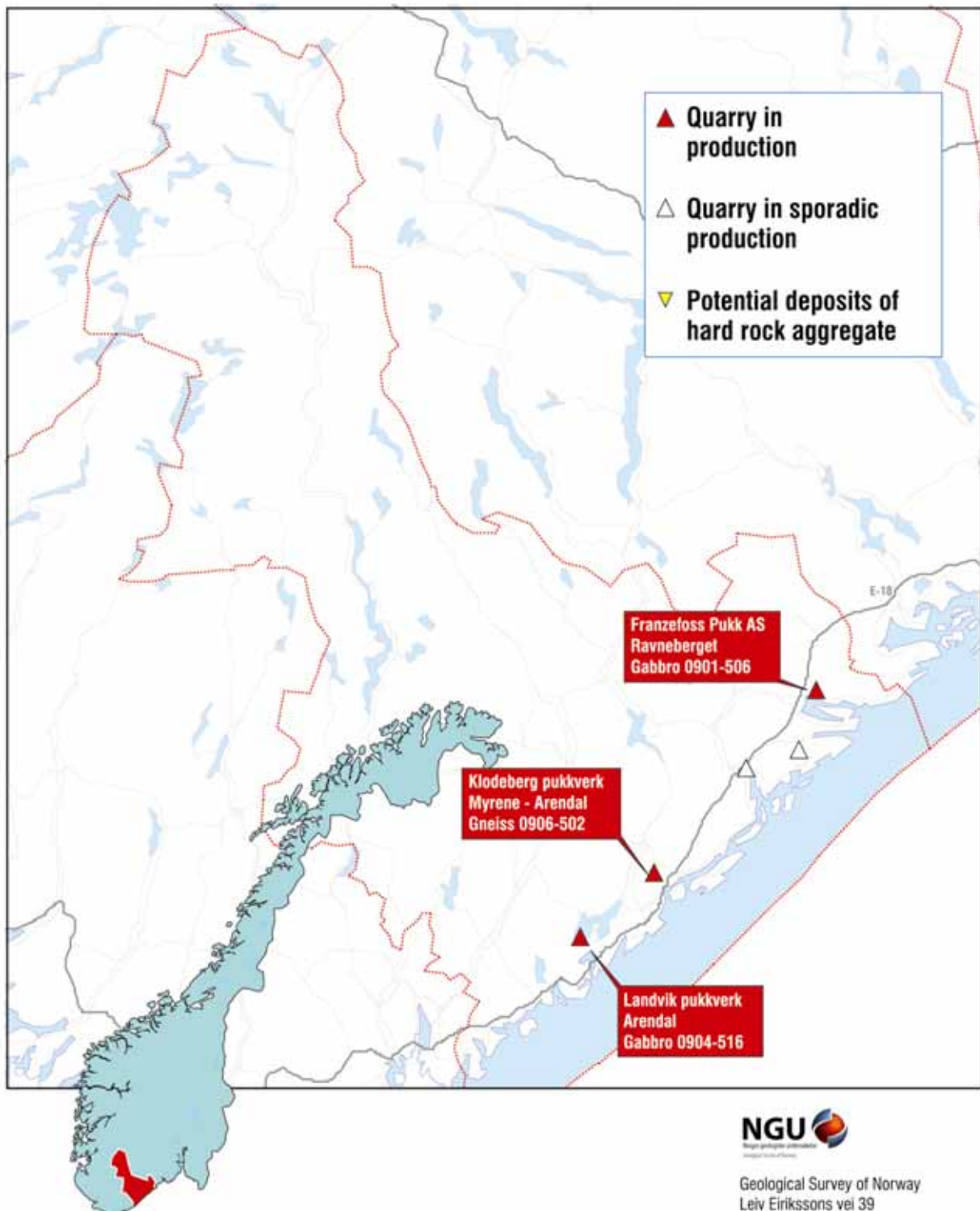


April 2003



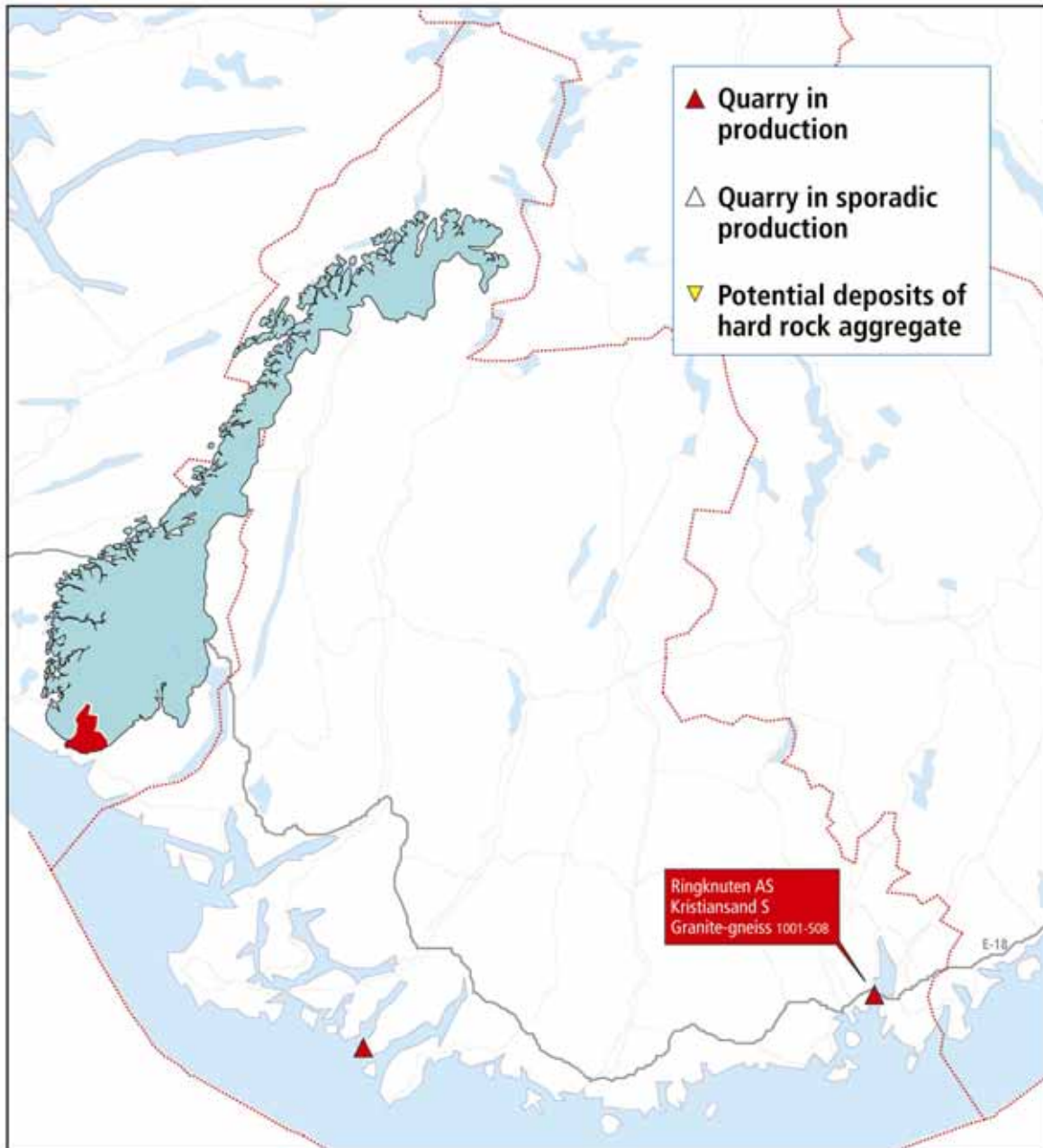
Geological Survey of Norway
Leiv Eirikssons vei 39
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Telefax: 47 73 92 16 20

QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN AUST-AGDER COUNTY



April 2003

QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN VEST-AGDER COUNTY

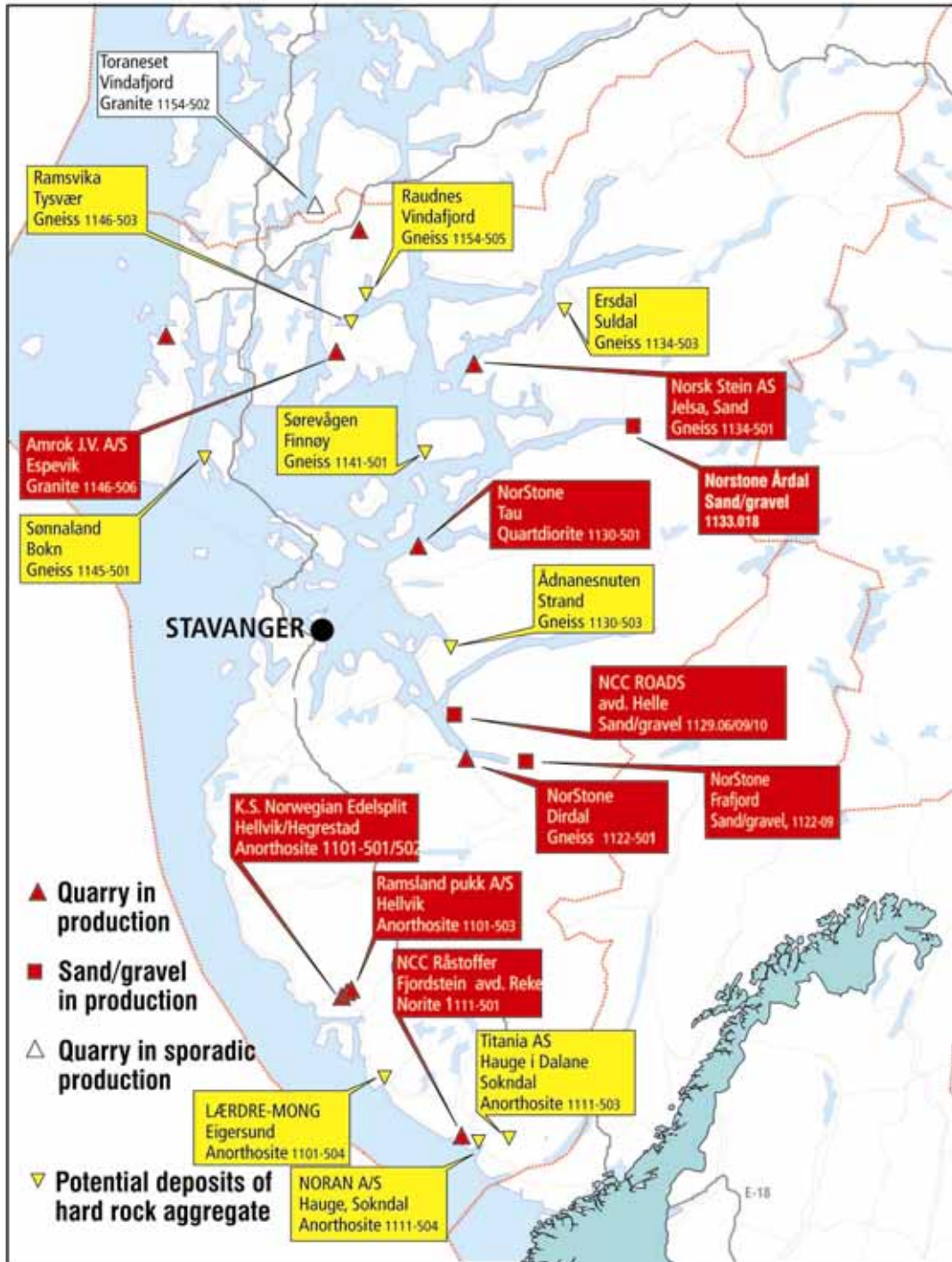


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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN ROGALAND COUNTY

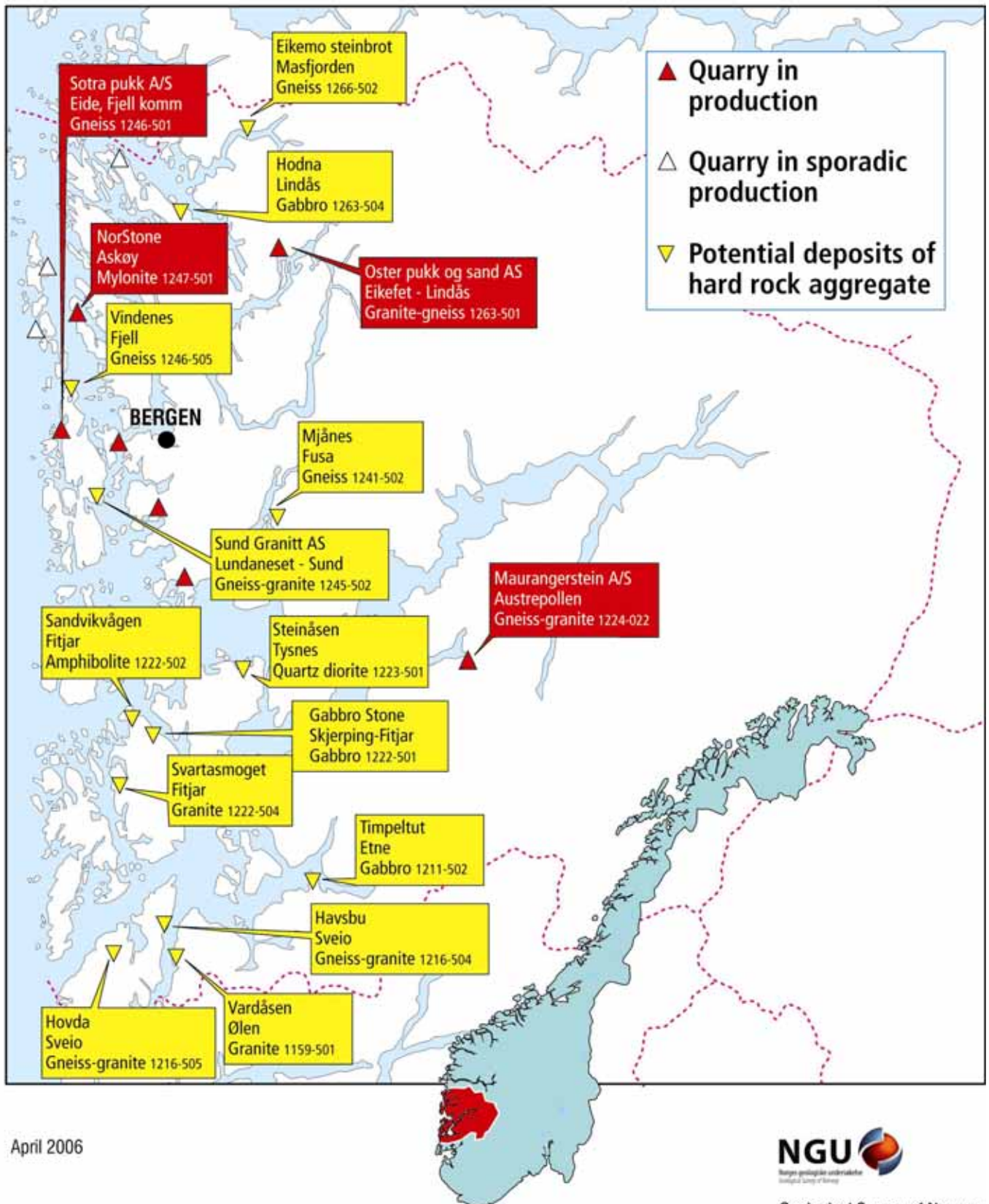


Mars 2007



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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN HORDALAND COUNTY

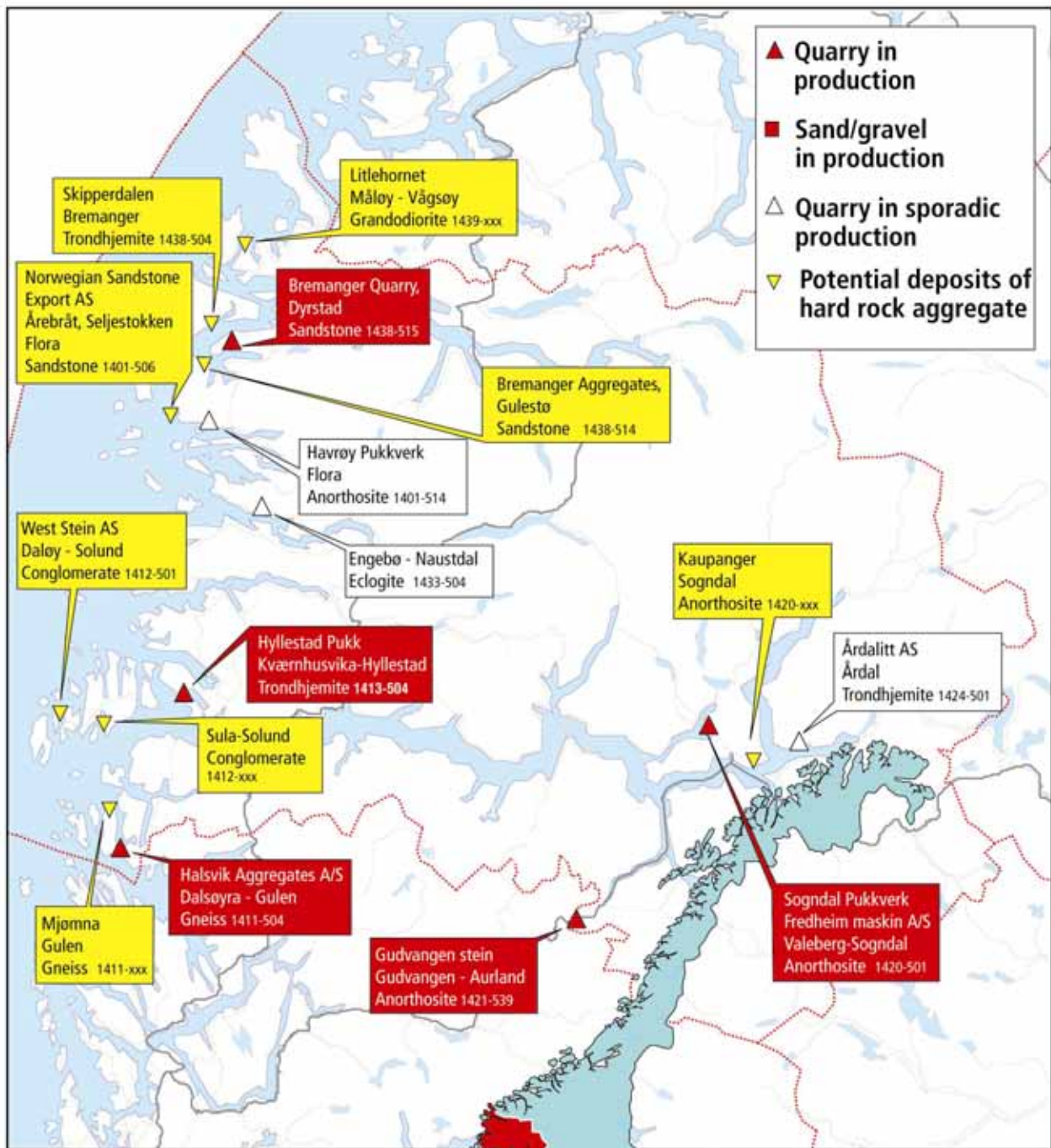


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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN SOGN OG FJORDANE COUNTY

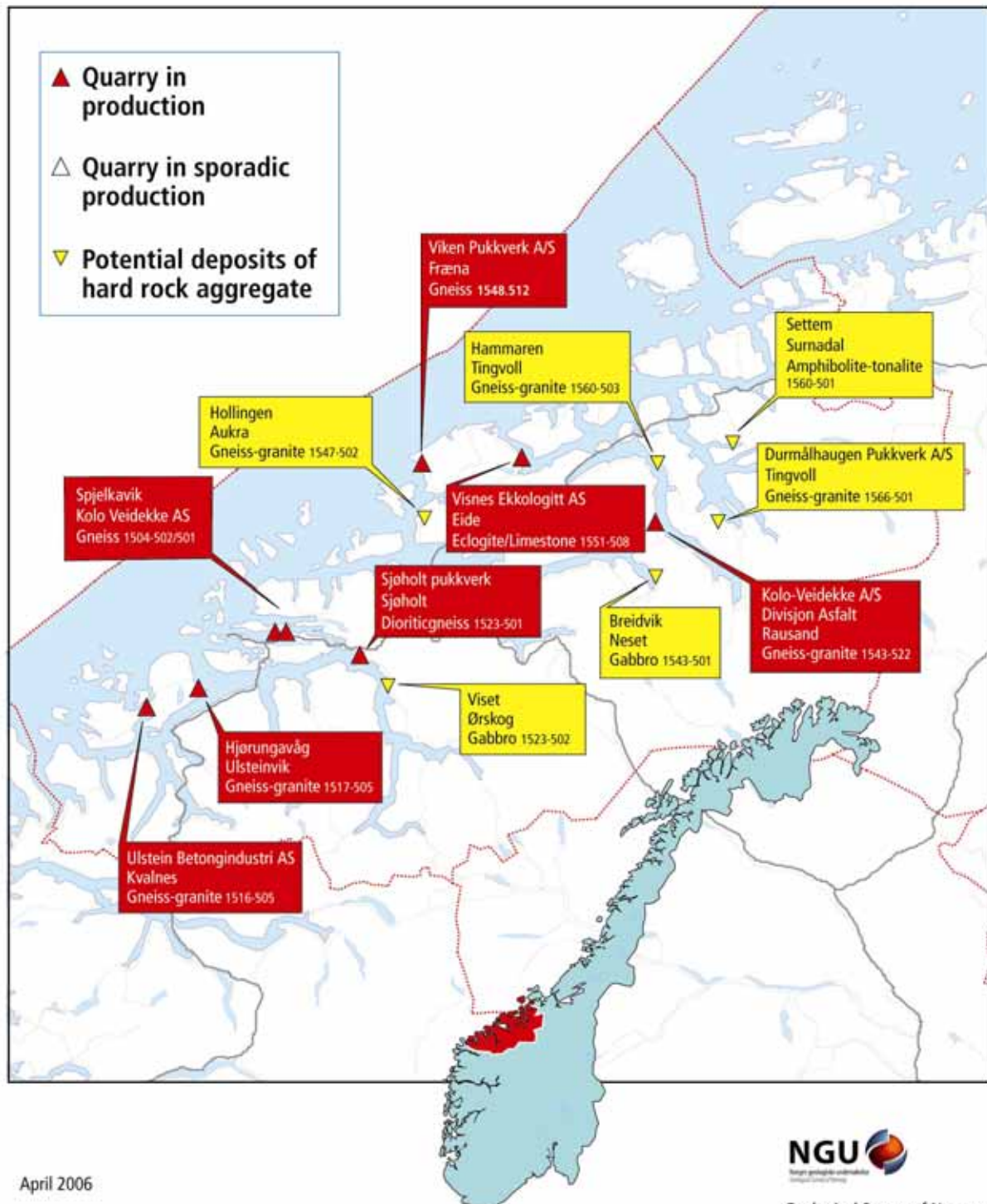


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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN MØRE OG ROMSDAL COUNTY

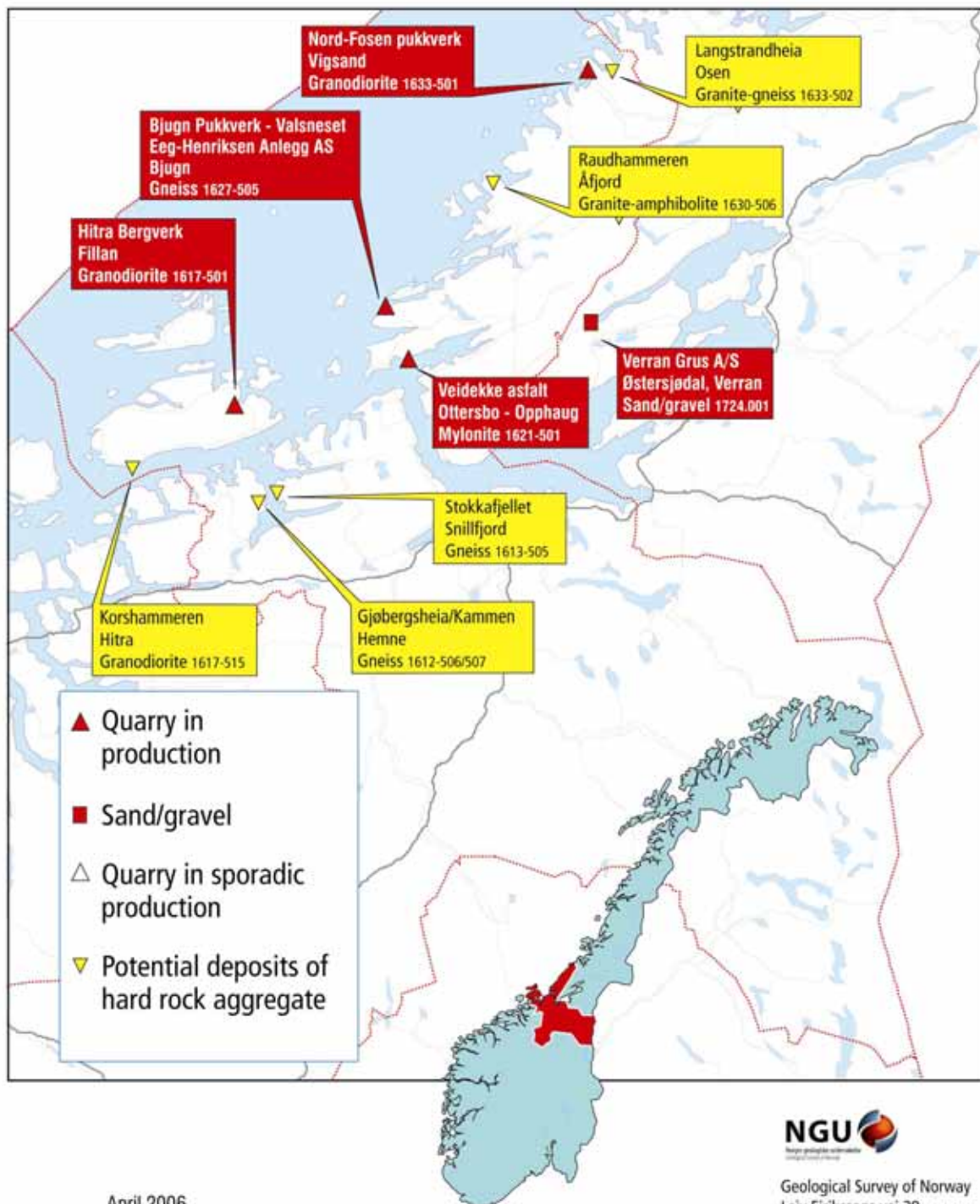


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QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN SØR-TRØNDELAG COUNTY



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