

NGU Report 2008.044  
Norway's coastal aggregates.  
Export in 2007 and potential deposits.

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Authors: Peer-Richard Neeb		Client: NGU	
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Summary: 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 exporting, as well as of potential production areas along the coast of South-Central Norway and Finnmark. In 2007 13.6 million tonnes of aggregates were exported to Europe, and about 3.0 million tonnes were used by the offshore oil and gas industry on the continental shelf.			
Keywords:			
Coastal aggregates	Export	Los Angeles	
PSV	Density	Bedrock	

## CONTENTS

	Page
Introduction	4
Bedrock map of Norway with location of important aggregate deposits	5
Norwegian aggregate export markets in 2007	6
Aggregate export 1989-2007	7
Norwegian quarries and potential areas along the coast of South-Central Norway and Finnmark	8
Maps of quarries and potential deposits of hard-rock aggregate and sand/gravel in South-Central Norway	18

## INTRODUCTION

The production of hard-rock aggregates in Norway amounted to about 51 million tonnes in 2007. In addition, 14 million tonnes of sand/gravel were produced.

A total of 13.4 million tonnes of hard-rock aggregates and 0.18 million tonnes of sand and gravel were exported, with an export value of 660 million NOK (or 83 mill EUR), from 23 hard-rock aggregates and 5 sand- and gravel producers (statistics compiled by NGU and the producers; see pages 5-7). Export of hard rock aggregate represents about 26 % of the total hard-rock production. Aggregates are used in the following ways: roads (50 %), concrete (27 %) and other use (23%). 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- 4.9 million tonnes. The largest individual aggregate quarry (gneiss) owned by Norsk Stein A/S had a production of approx. 4.9 million tonnes in 2007. Aggregates for use offshore, mostly in Norwegian sectors of the North Sea, was 3.0 million tonnes in 2007 from 10 producers. The exported sand and gravel came from four quarries in Rogaland, Møre and Romsdal 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 bedrock. 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, Bremanger Quarry AS started export production to the Netherlands in 2001. A new sandstone quarry, Norwegian Sandstone Export AS, started export production in Flora municipality in 2007.

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

This report and the Database for sand, gravel and hard-rock aggregates are accessible on the Internet, including digital maps on individual quarries:

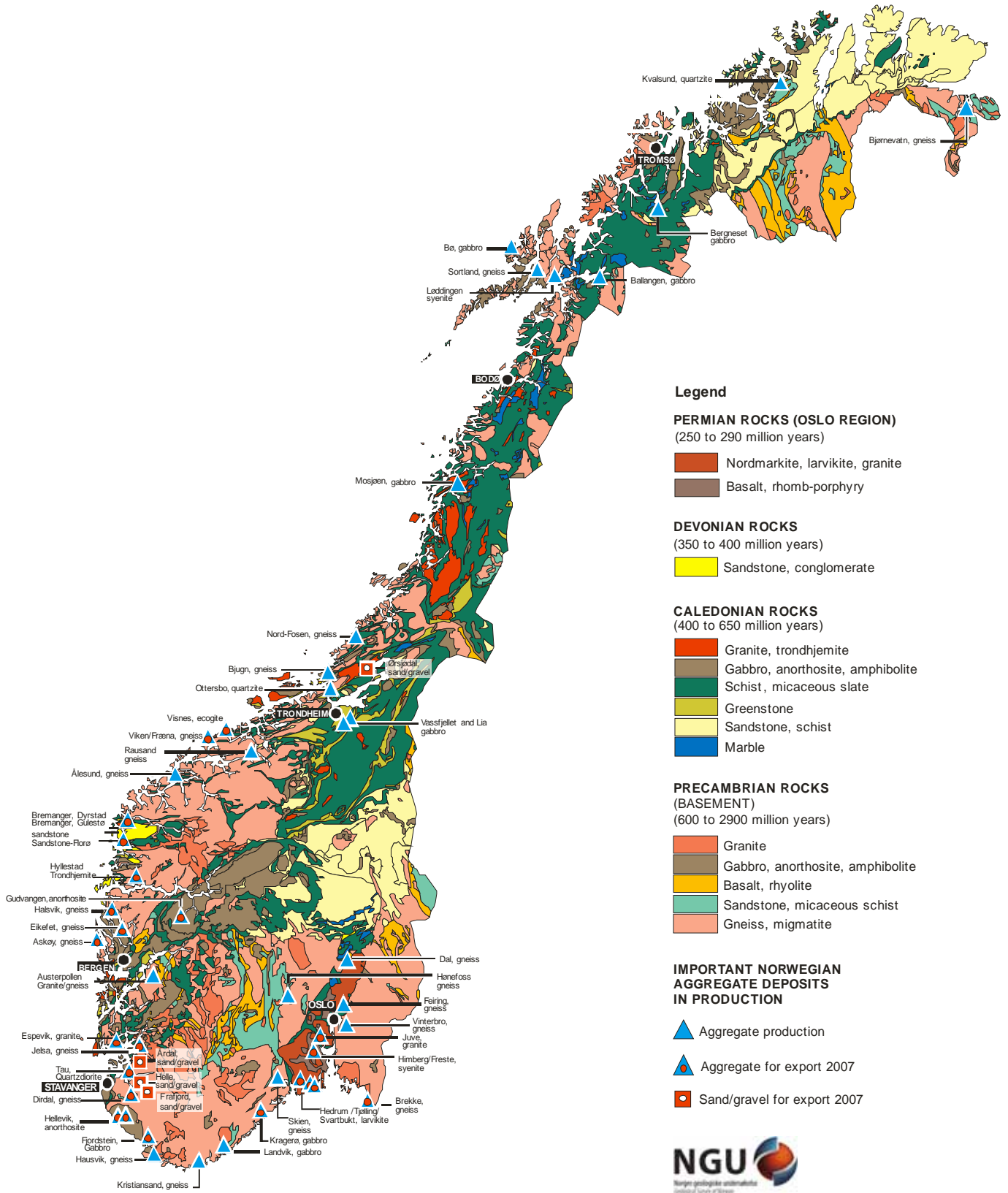
<http://www.ngu.no/grusogpukk> or <http://www.ngu.no>

Trondheim, 29<sup>th</sup> April 2008



Peer-Richard Neeb  
Teamleader  
Aggregates

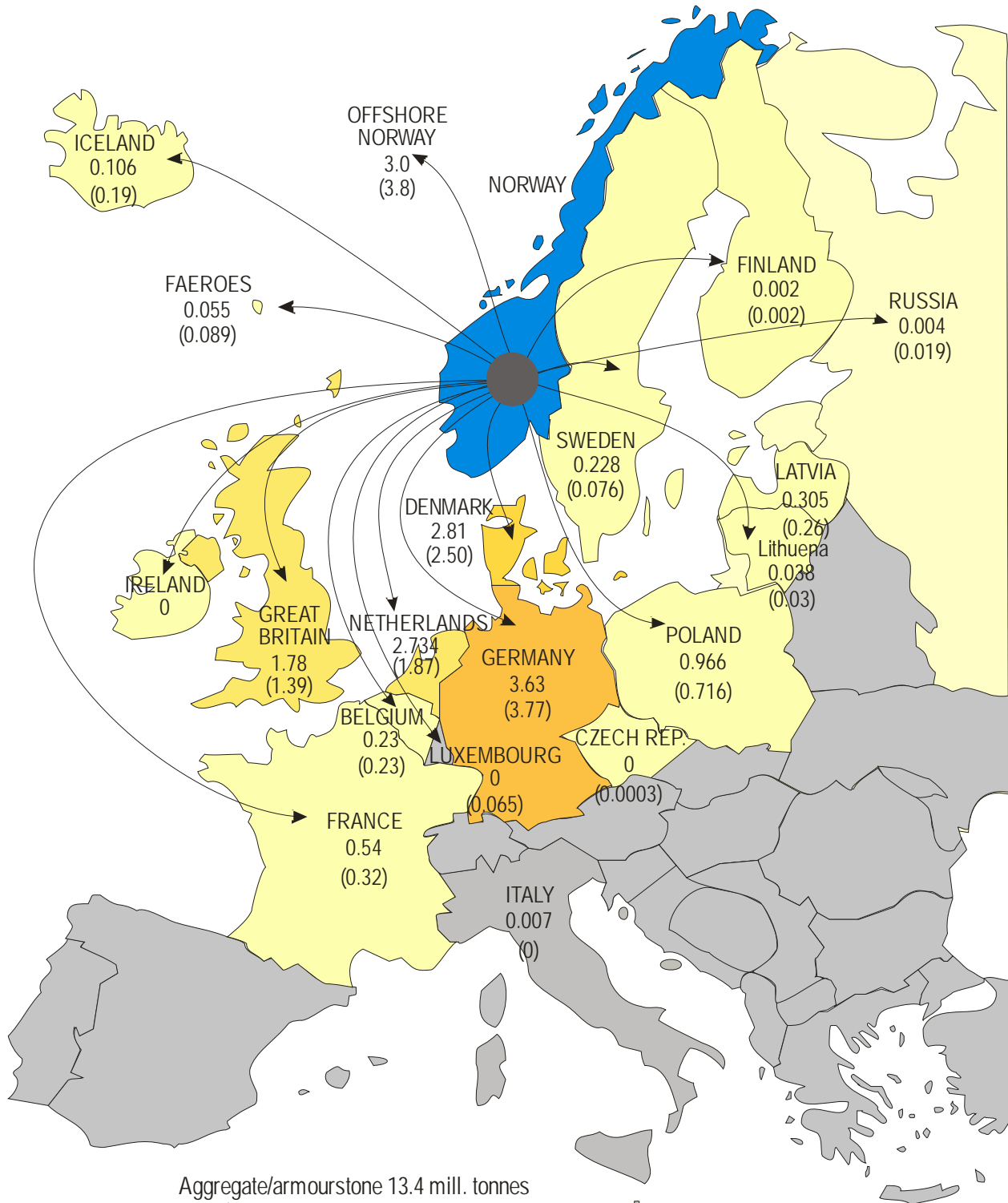
# BEDROCK MAP OF NORWAY WITH IMPORTANT AGGREGATE DEPOSITS



# NORWEGIAN AGGREGATE EXPORTED IN 2007

Total production 16.6 mill. tonnes: export 13.6 mill. tonnes aggregate, armourstone, sand and gravel, plus 3.0 mill. tonnes aggregate for offshore use.

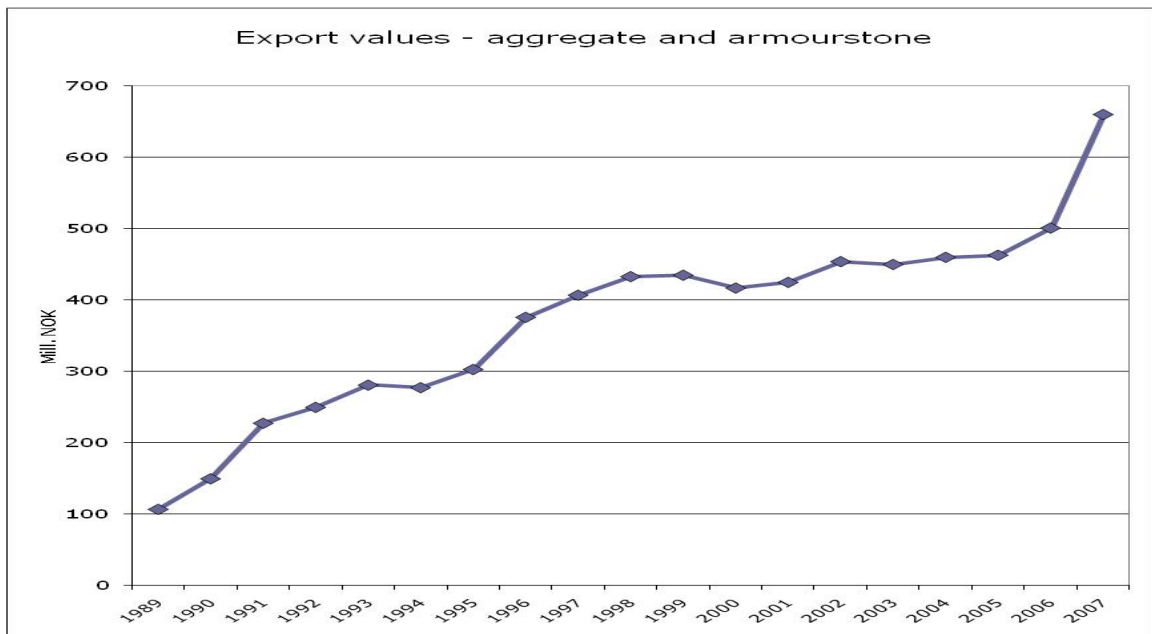
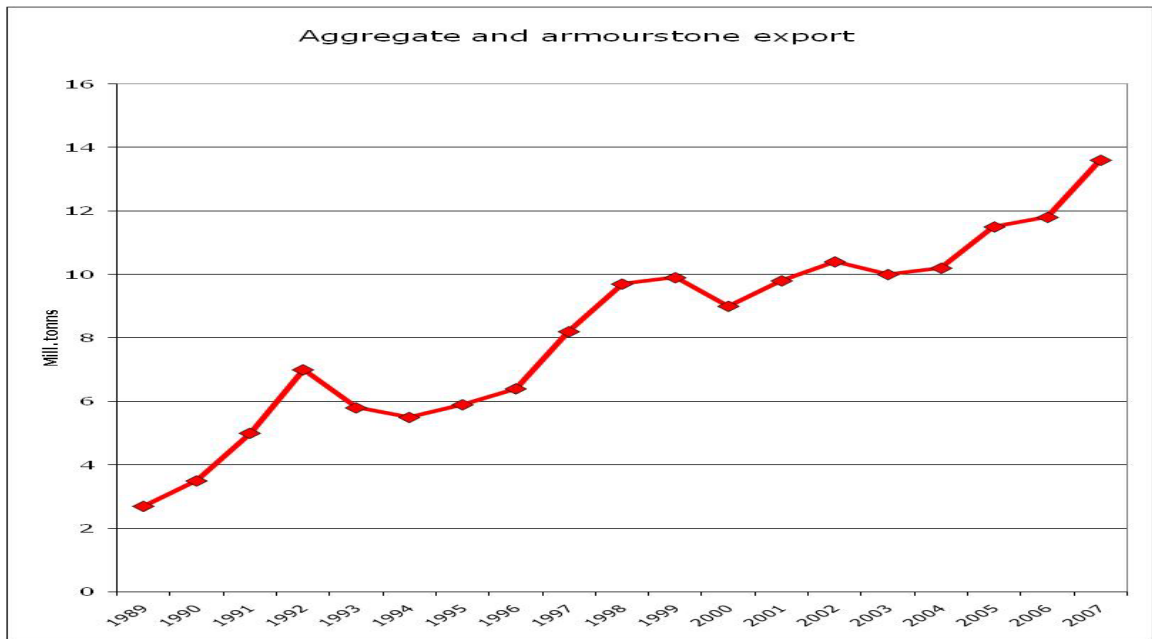
Export/production values in parentheses are for 2006.



Aggregate/armourstone 13.4 mill. tonnes  
 Sand/gravel 0.18 mill. tonnes  
 Export value 660 mill. NOK/83 mill. EUR  
 Offshore-aggregate 3.0 mill., Tonnes



# AGGREGATE EXPORT 1989-2007



**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	<b>36</b>	<b>53</b>	<b>2.64</b>	
0101-506 Halden	NorStone as, Svingen		Terje Holt	69 19 53 61	69 19 50 74	Gneiss/grey	<b>15</b>	<b>51-54</b>	<b>2.79</b>	

**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	<b>30.9</b>	<b>48</b>	<b>2.72 – 2.73</b>	Hedrum
0709-501 Larvik	Pukkverk, Landhjem 3270 Larvik						<b>31.2</b>	<b>48</b>	<b>2.71</b>	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	<b>24.5</b>	<b>48</b>	<b>2.74</b>	Armourstone
0718-503 Rammes	Martin Haraldstad AS 3175 Rammes	x	Steinar Frellumstad	33 39 65 54	33 39 51 95	Syenite – Grey Syenite	<b>19.0 – 23.2</b> <b>12</b>	<b>50</b> <b>43</b>	<b>2.62 – 2.74</b> <b>2,7</b>	Avd. Himberg, Freste
0713-508 Sande	Sando Kalk og Pukk-servise AS		NGU			Carbonate White	<b>19.4</b>	<b>57</b>	<b>2.78</b>	Closed
0711-506 Svelvik	Juve pukkverk A/S, 3060 Svelvik	x	Guri Olsen	33 77 20 15		Granite Red	<b>23.7 – 27.4</b>		<b>2.50 – 2.60</b>	
0706.501 Sandefjord	ÅSMUND Berg, KOLO Veidekke AS, 3233 Sandefjord	x	Gunnar Topstad	33470171		Larvikite- Grey	<b>33</b>	<b>45</b>	<b>2,71</b>	



### 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 Kragereø	NCC ROADS Avd. Valberg 3770 Kragereø	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	Lemminkainen Norge A/S Ravneberget 4990 Søndeled		Eigil Runsag	37 15 61 87 90505342	37 15 62 73	Gabbro	14-16	48-52	3.00	
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	Hausvik Pukkverk Rock trading AS, PB 1029 4884 Grimstad	In 2008	Torhild Sundtoft	90077880		Gneiss/granite	23-24	50	2.73 – 2.80	New export in 2008

### 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 Eigersund	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 42	2.69 – 2.77	

1101-503 Eigersund	Ramslund pukk A.S, Hellvik 4387 Bjerkreim		Paul Ramslund local marked	51 45 01 88 51 49 68 77	51 45 01 11	Anorthosite White	<b>12.3</b>	<b>54</b>	<b>2.78</b>	
1129-06/09/10 Forsand	NCC ROADS AS avd Helle	x	Arne Maudal	51703555		Sand/gravel				
1111-501 Sokndal	Rekefjord Stone AS 4380 Hauge i Dalane	x	Solveig Rek Olsen	51476050 91165456		Anorthosite/ Norite	<b>14-33</b> <b>23-35</b>	<b>46-53</b> <b>55</b>	<b>2.75</b> <b>3.16</b>	Anorthosite Norite
1134-501 Suldal	Norsk Stein AS Berakvam 4234 Jelsa	x	Einar Nøkling	52 79 29 00 91547576	52 79 29 01	Gneiss	<b>15.4 – 20</b>	<b>52 - 58</b>	<b>2.76 – 2.79</b>	
1122-501 Gjesdal	NorStone a.s NorStone Dirdal 4335 Dirdal	x	Daniel Øvstebø	51 67 61 00	51 67 61 01	Gneiss	<b>24.3</b>	<b>48</b>	<b>2.76 – 3.0</b>	
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	<b>10.5 – 10.8</b>	<b>52 – 57</b>	<b>2.76 –2.80</b>	
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	<b>12.1 - 27</b>	<b>50 - 58</b>	<b>2.63 – 2.93</b>	
1154-502 Vindafjord	Knapphus knuseverk Toraneset Øvre Vats 5576		Svein Ove Tyssebotn	53 76 39 16		Granite			<b>2.71</b>	
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			<b>2.66</b>	
1141-501	Sørevågen Finnøy kommune	Possible				Gneiss			2.75	
1145-501	Sønnaland Bokn kommune	Possible				Gneiss			2.64	
1146-503	Ramsvika	Possible				Gneiss			2.67	

	Tysvær kommune									
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	<b>21.4 – 40.3</b>	<b>51 – 54</b>	<b>2.62 – 2.71</b>	
1111-504	Sokndal-Jøssingfjord Noran A/S	Possible				Anorthosite				
1111-503	Hauge i Dalane, Sokndal Titania a/s	Possible	Knut Petter Netland	51 47 80 00 90911242	51 47 80 10	Anorthosite	<b>24.1</b>	<b>48</b>	<b>2.88</b>	Waste from ilmenite mine
1101-504	Lædre, Eigersund	Possible				Anorthosite	<b>10.07 – 13.4</b>	<b>52 - 56</b>	<b>2.78</b>	

### *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	<b>14.1</b>		<b>2.60</b>	
1263-501 Lindås	Eikefet pukkverk Oster pukk og sand A/S Ø. Muralm. 1, 5012 Bergen	x	Magne Aunebakk	55 36 30 00	55 36 30 10	Granite-gneiss	<b>15 - 18</b>	<b>53-54</b>	<b>2.65 – 2.70</b>	
1224 xxx/xxx Kvinnherad	Johs Hjelmeland AS Austrepollen 5164 Dimmelsvik		Johannes Hjelmeland	53 48 30 70 41683070	56 55 60 57	Granite-gneiss	<b>21</b>	<b>50 - 52</b>	<b>2.71</b>	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			<b>2.76</b>	
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				
1245-502	Sund Granitt AS, Nova Maritime Service A/S Postboks 3703, 5845	Possible	Jan Johnsen	55 12 35 50	55 12 48 90	Gneiss-granite	<b>10.6 – 15.2</b>	<b>50 - 56</b>	<b>2.64</b>	

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
	Bergen, Lundaneset, Sund kommune									
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 Tysnes 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	Torbjørn Wergeland	46 84 44 47 57 78 38 40	57 78 38 76	Gneiss	20 – 24	49 - 57	2,67 - 2.71	Micro Deval: 9
1421-539 Aurland	Gudvangen stein AS, Nordic Mining Munkedamsveien 45 0250 OSLO	x	Ottar Nakken	22947720 92891780		Anorthosite White	13 - 15	58 - 60	2,88 – 3.04	Mico Deval: 12
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	x	Magne Mørkedal	40003350 90862150		Trondhjemite/- quartz diorite white granite	17	49 - 51	2,62	Micro Deval: 3

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, Naustal	Closed 99		NGU		Eclogite	<b>9.5 – 12.6</b>	<b>51 – 53</b>	<b>3.31 - 3.38</b>	
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	<b>18</b>	<b>49</b>	<b>2.91-2.93</b>	Micro Deval: 5,2
1401-514 Flora	Havrøy Pukkverk Flora	Closed				Anorthosite				
1416-046 Høyanger	Bjordal Maskin ANS 5962 Bjordal		Helge Bjordal	57 71 02 80 90193233	57 71 02 81	Sand/gravel/gneiss				Export 2007
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	<b>12 -19</b>	<b>60-62</b>	<b>2.69</b>	NGU sample 09.2001 06.2008 Micro Deval: 17
1401-508 Flora	Seljestokken, Norwegian Sandstone Export AS. 6724 Svelgen	x	Roeland Kremers	577 477 30	577 477 31	Sandstone Green	<b>12-14</b>	<b>59-61</b>	<b>2.72- 2.76</b>	New company NGU sample 06.08 Micro Deval: 12

### *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	Bremanger Quarry A.S, Dyrstad	57 79 22 00	57 79 22 01	Sandstone Green	<b>13</b>	<b>57 – 58</b>	<b>2.74</b>	
1438-504 and 510 Bremanger	Gotraneset - Skipperdalen	Possible	NGU			Trondhjemite Grey/white	<b>14.7 – 17.2</b>	<b>50 - 58</b>	<b>2.68 – 2.71</b>	
1401-506 Flora	Beidvik, Durmålhornet	Possible	NGU			Sandstone Green	<b>11.8</b>	<b>56</b>	<b>2.74</b>	
1429-506, Fjaler	Lutelandet	Possible	NGU			Gneiss	<b>17-21</b>		<b>2.75</b>	New ind. area

### *Møre og Romsdal County*

Site number	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters	
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Municipality							Los Angeles	PSV	Density	Other
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 Knuseverket 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 Kolo- Veidekke AS 6022 Spjelkavik		Magne Mørkedal	70 17 54 00 94 73 63 76		Gneiss			2.69 – 2.71	
1523-501 Ørskog	Skjøholt pukkverk 6240 Sjøholt		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	19-20	52	2.9-3.1	

### *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 Aukra kommune	Possible				Gneiss/granite			2.63	
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	

Site number Municipality	Production location	Potential	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
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	
1621-501 Ørland	Kolo Veidekke A.S Ottersbo pukkverk 7140 Opphaug	x	Ketil Oksvold	73 82 35 00 72 52 27 80	72 52 10 80	Mylonite	10.3	48 - 52	2.75 – 2.77	Some Export
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	x	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 27.2	52 46	2.68 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***

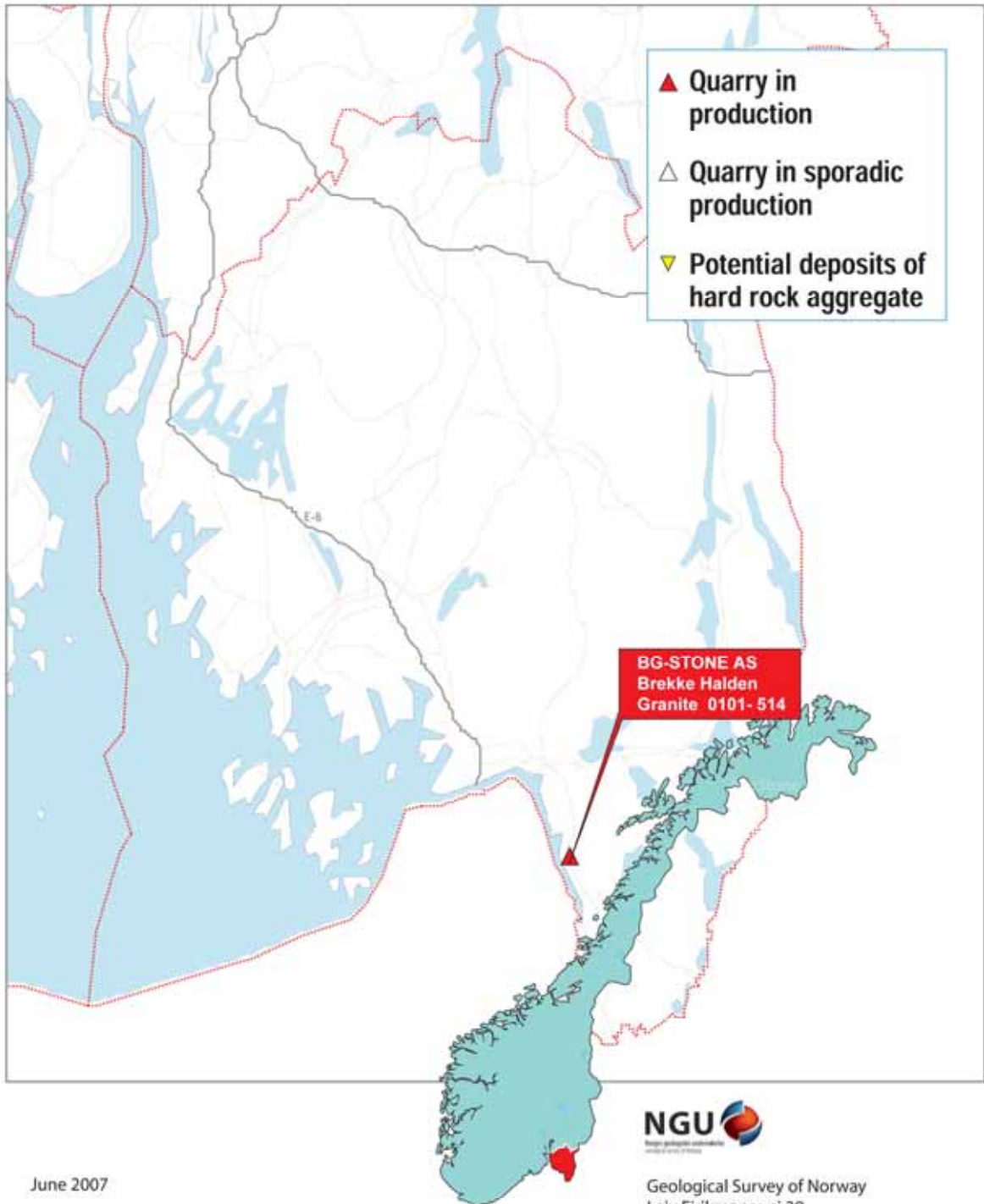
Site number Municipality	Production location	Export today	Contact person	Telephone	Fax-number	Bedrock/ colour	Quality parameters			Other
							Los Angeles	PSV	Density	
1854-510 Ballangen	Ballangen Aggregates AS . Boks 86 8546 Ballangen					Noritt Pyroxenite Black-green	25 - 29 9 - 10	60 55 -60	3.0	Closed Bankruptcy November 2008

***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	Trorbjørn Wergeland	44844447 57 78 38 40	57 78 38 76	Quartzite/grey		58	2.68	New producer Offshore/export 2005
2030-501 Sør - Varanger	Bjørnevatn Syd Varanger A/S		Trond Dahlberg	78 97 03 00		Gneiss Grey	12 – 18	54 – 56	2.75-3.02	Waste from iron mine

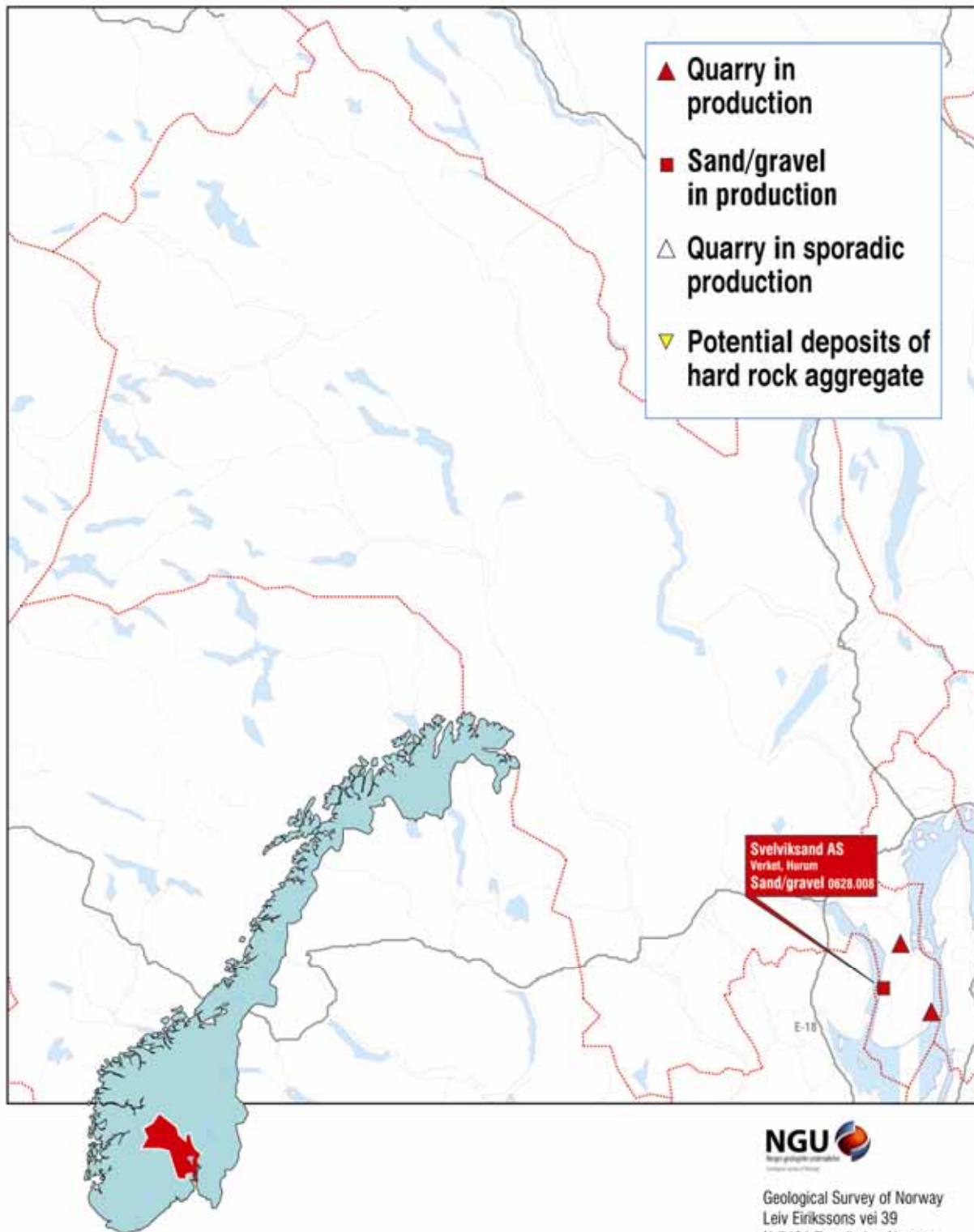


## QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN ØSTFOLD COUNTY



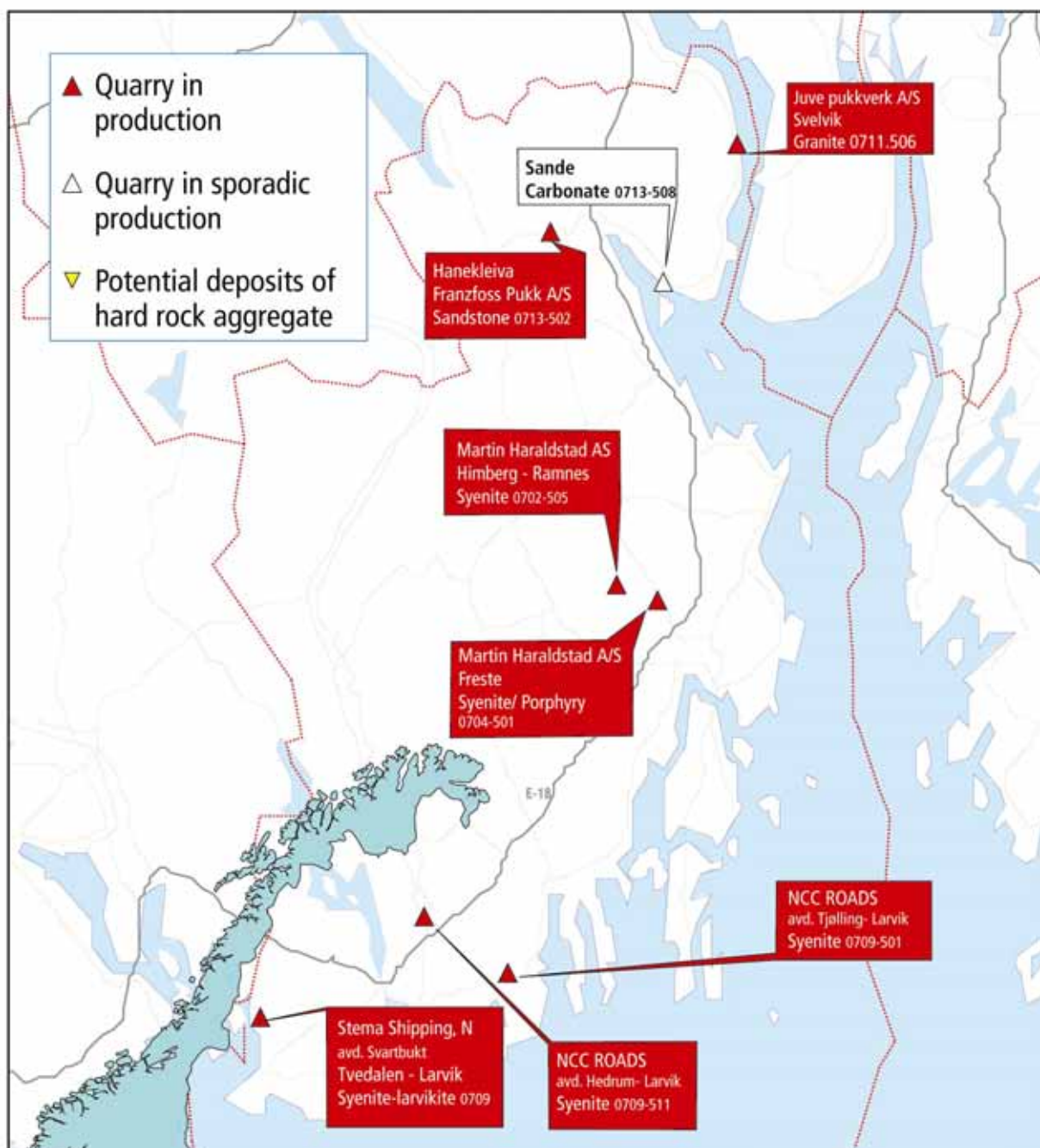
June 2007

## QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN BUSKERUD COUNTY



April 2003

## QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN VESTFOLD COUNTY

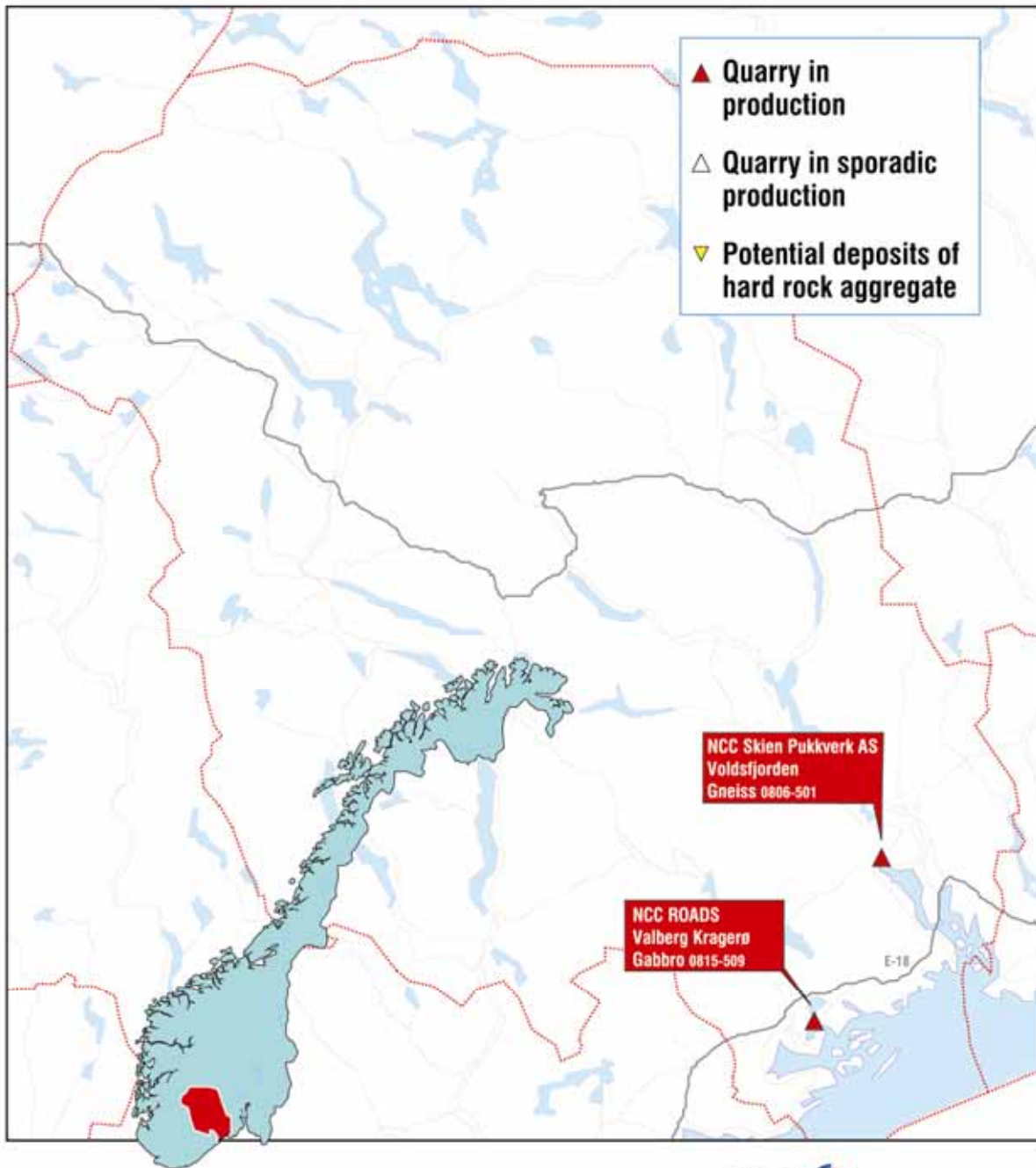


April 2006



Geological Survey of Norway  
Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
Telefax: 47 73 92 16 20

## QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN TELEMARK COUNTY



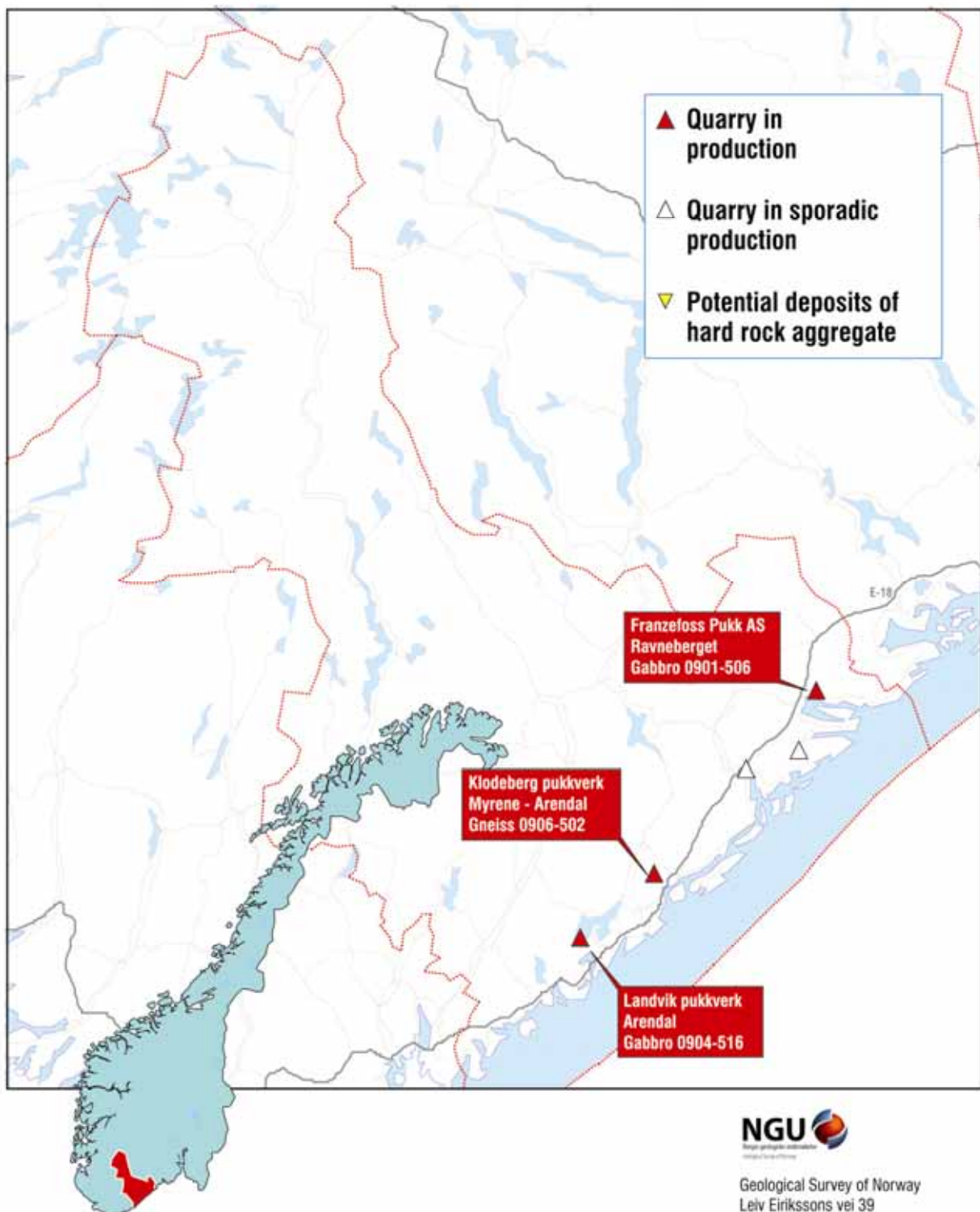
April 2003



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Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Telephone.: 47 73 90 40 00  
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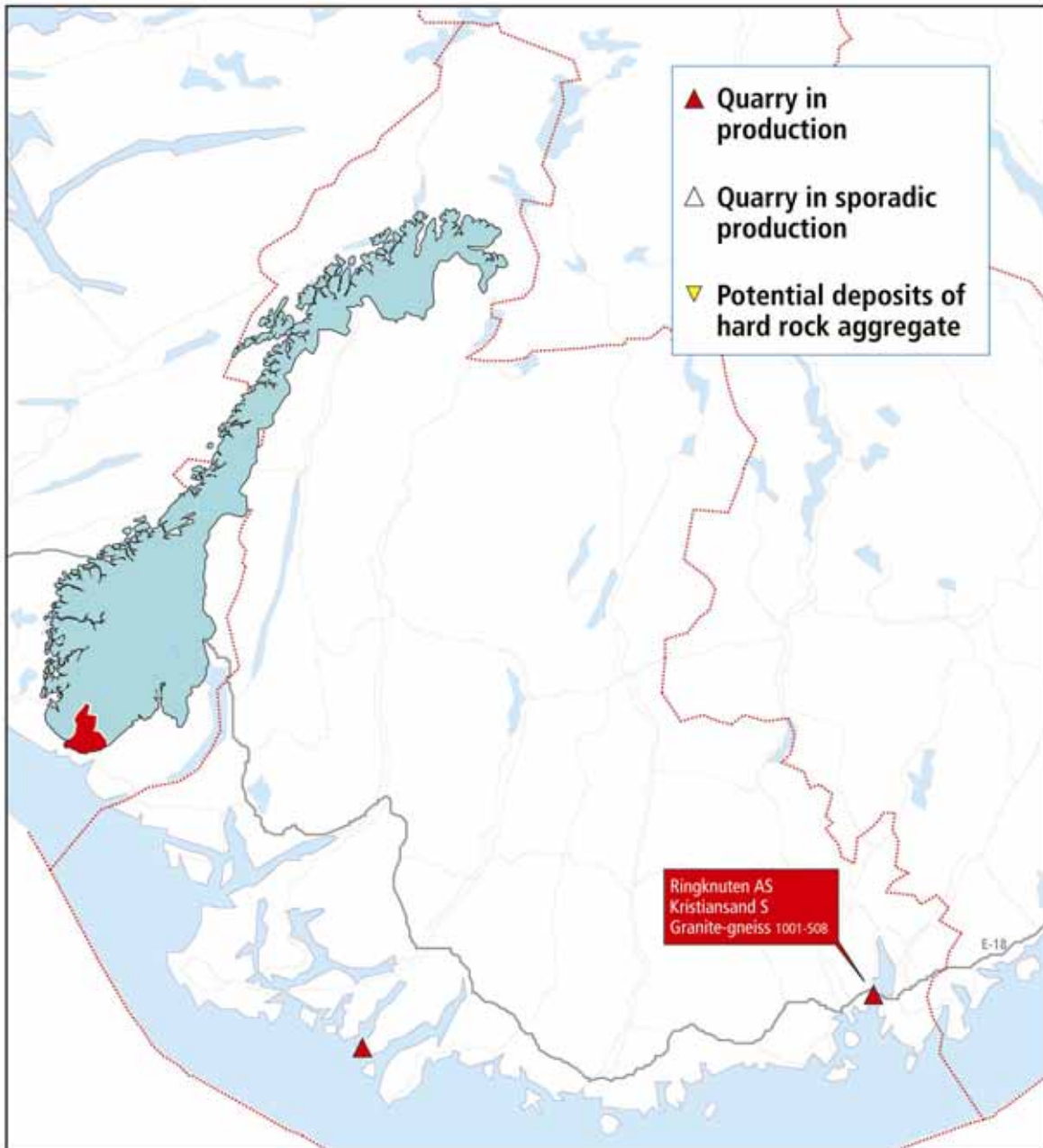


## QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN AUST-AGDER COUNTY



April 2003

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

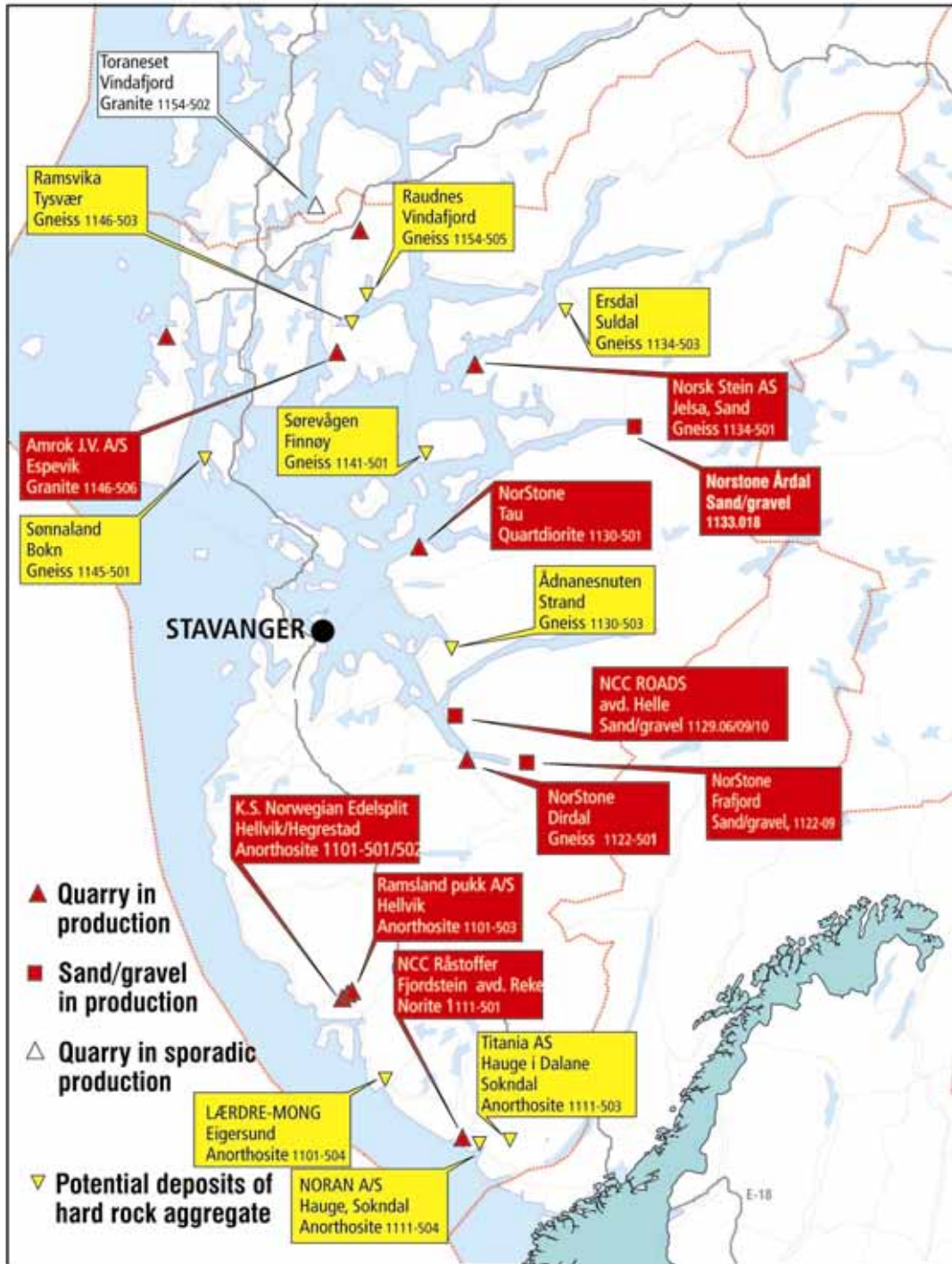


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Geological Survey of Norway  
Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
Telefax: 47 73 92 16 20

# QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN ROGALAND COUNTY



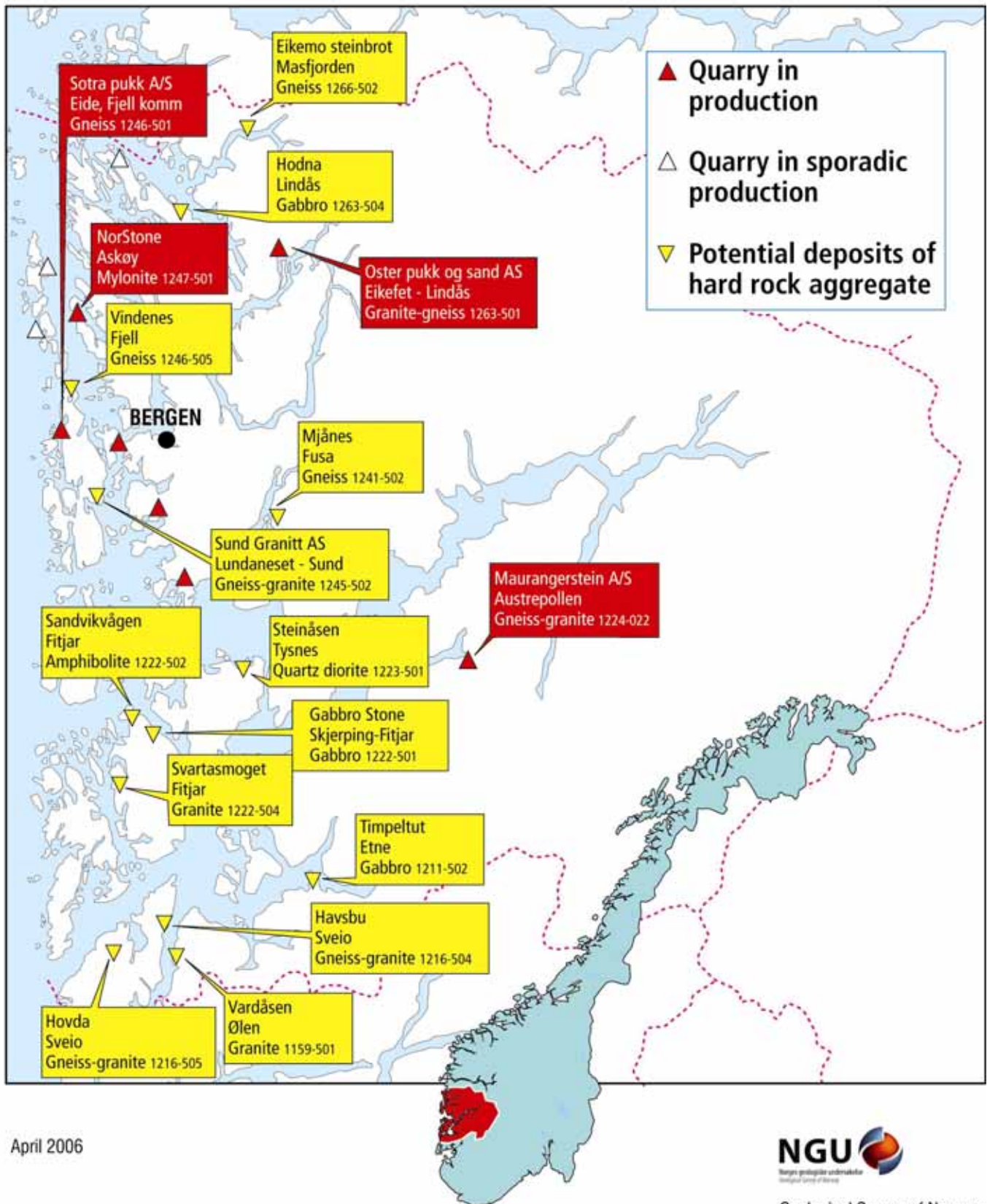
Mars 2007



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N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
Telefax: 47 73 92 16 20



# QUARRIES AND POTENTIAL DEPOSITS OF HARD ROCK AGGREGATE IN HORDALAND COUNTY



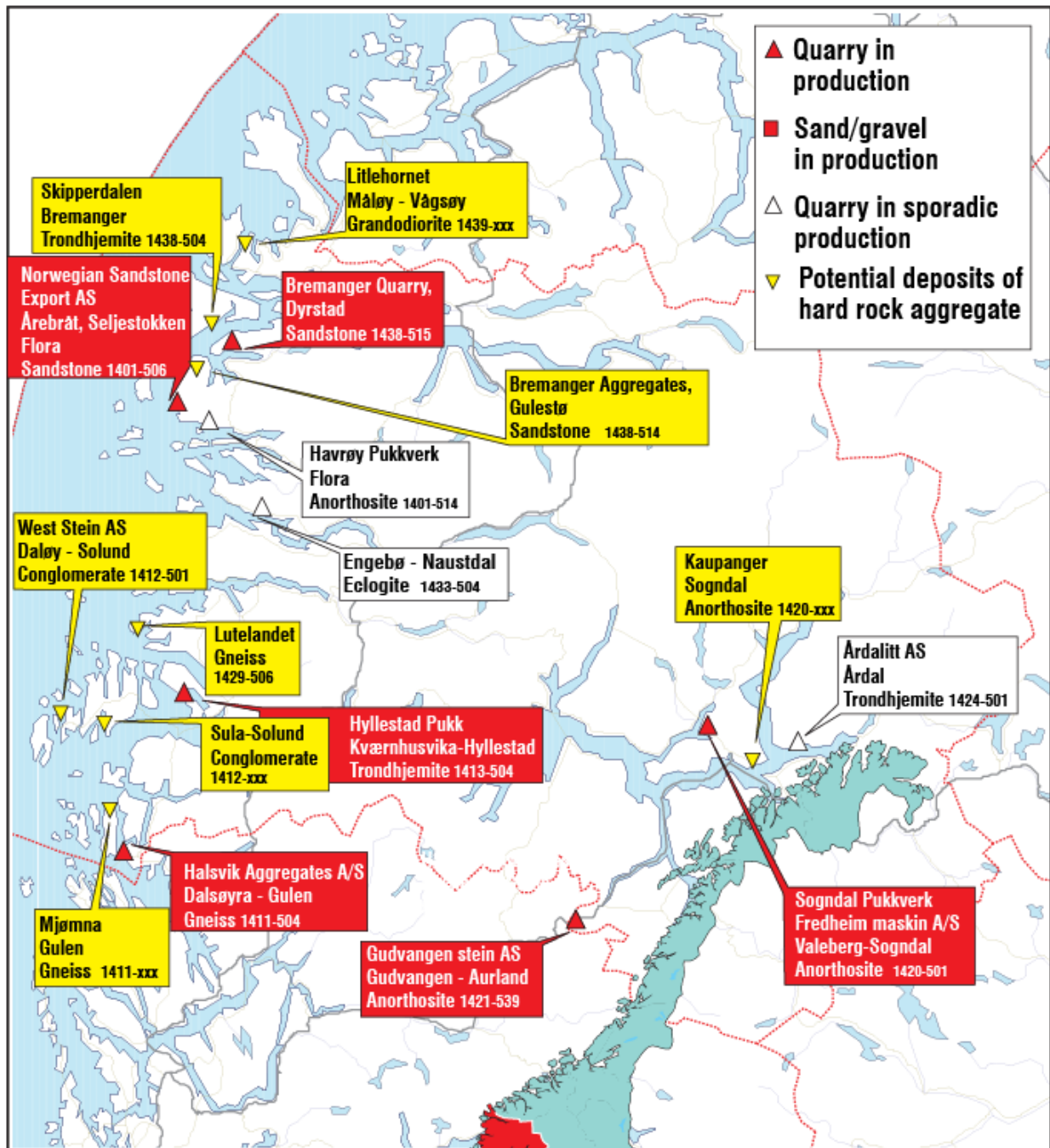
April 2006



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N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
Telefax: 47 73 92 16 20



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

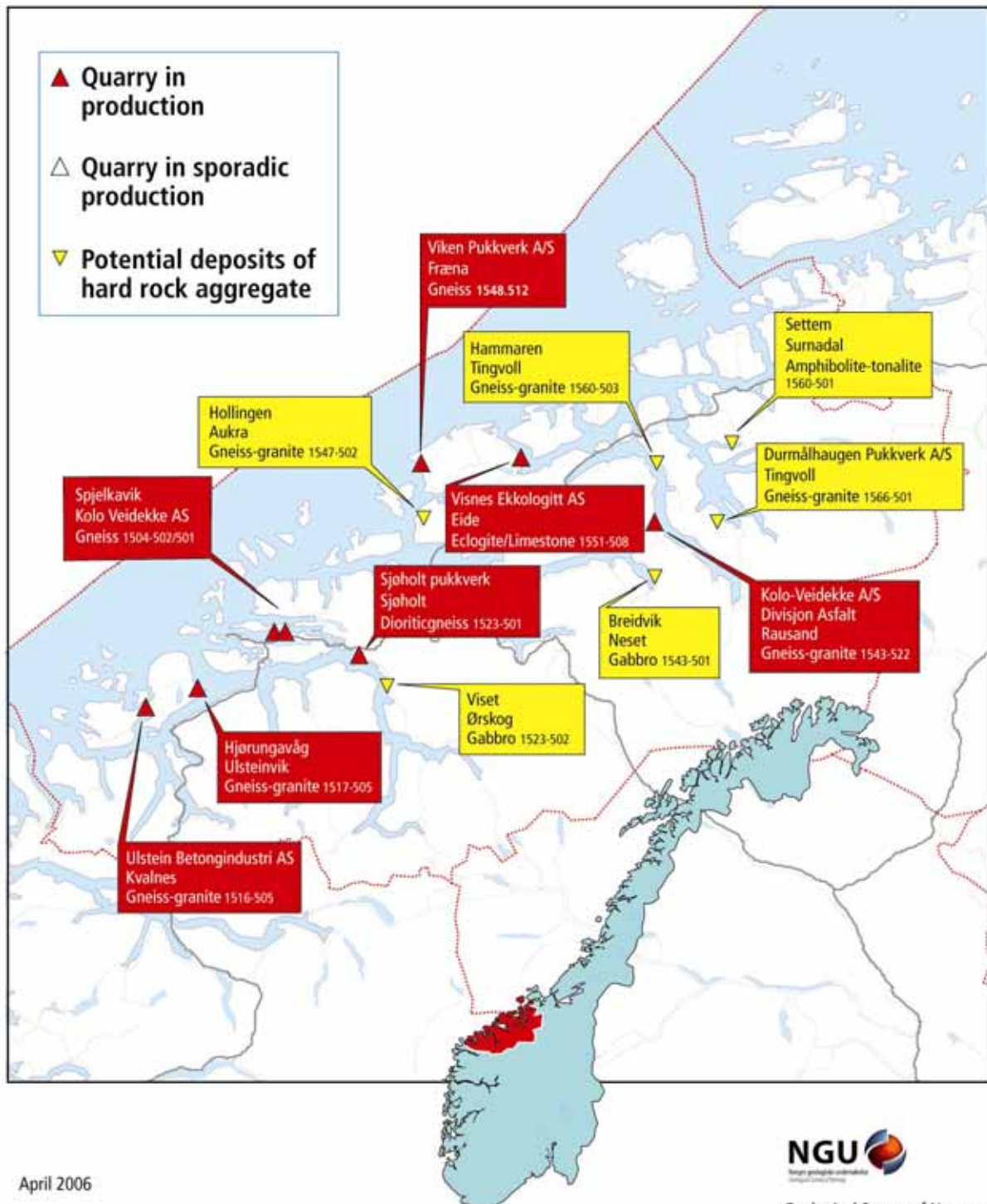


April 2008



Geological Survey of Norway  
Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Telephone.: 47 73 90 40 00  
Telefax: 47 73 92 16 20

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

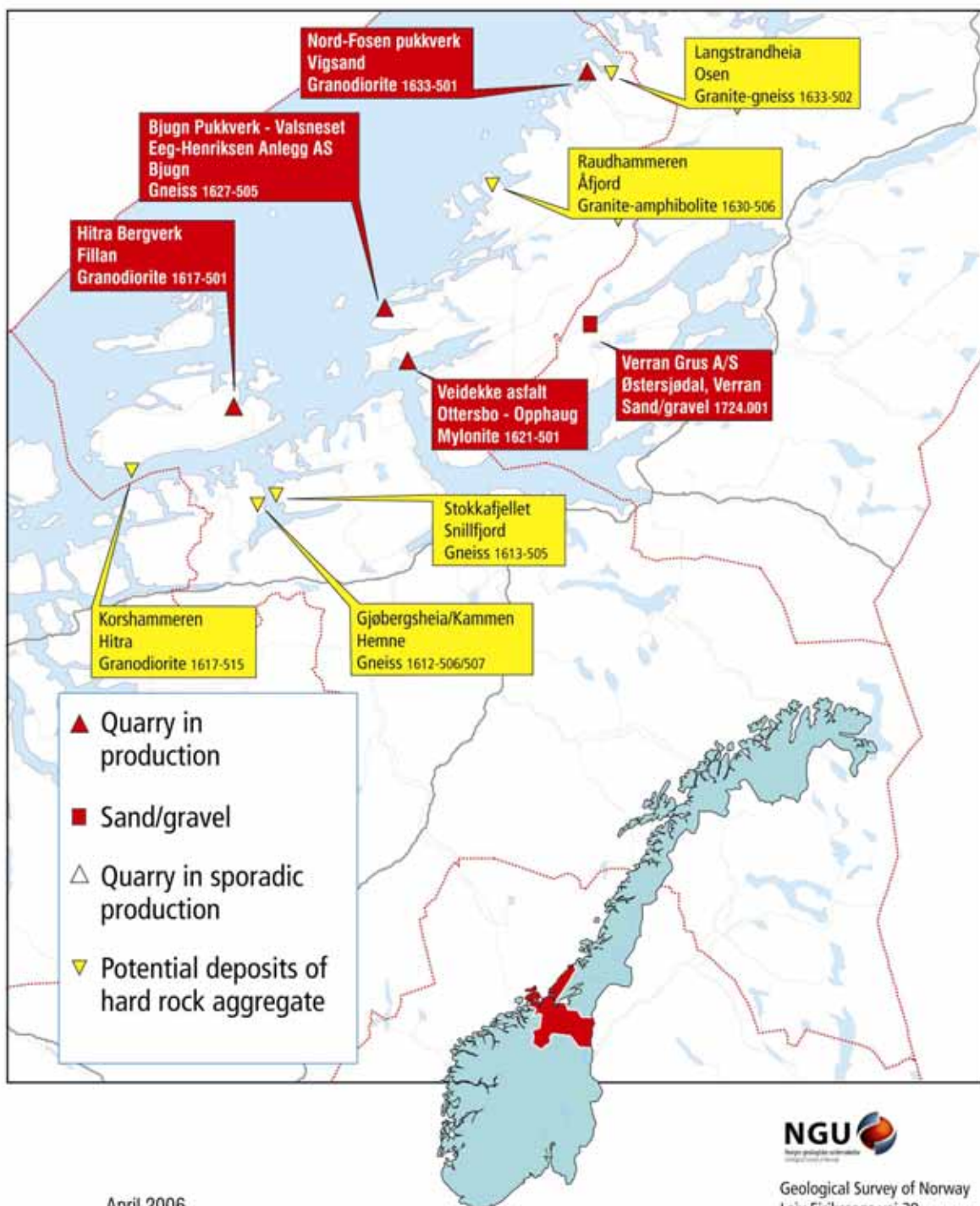


April 2006



Geological Survey of Norway  
Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
Telefax: 47 73 92 16 20

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



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Geological Survey of Norway  
Leiv Eirikssons vei 39  
N-7491 Trondheim, Norway  
Tel.: 47 73 90 40 00  
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