

APACE IP AS  
Parkveien 55  
0256 OSLO

Oslo, 2022.01.31

Your ref.: P303NO00  
Application no.: 20210133 (please include in your reply)  
Applicant: PRE STACK SOLUTIONS GEO AS, Vita Kalashnikova  
Due date: 2022.04.30

## Office action in patent application no. 20210133

### Basis of the opinion

Description received 2021.02.03  
Claims received 2021.10.28  
Drawings received 2021.02.03

We refer to your letter and amended claims received 28 October 2021.

We agree with your arguments that none of the cited documents disclose your invention. The subject-matter of the claims is considered to be new and involve an inventive step and comply with the Norwegian Patents Act, Section 2. But there are formal deficiencies in the application that must be corrected before the application can be approved for grant of patent.

### Certain defects and observations

Claim 1 is unclear and also lacks essential features of the invention, which may lead to doubt concerning the matter for which protection is sought. Claim 1 says "... estimating rock properties from...", but the claim does not specify the rock properties any further in the claim, or in any other claim. Essential features should be described by the claims. See Norwegian Patents Act, Section 8, second paragraph and Examination Guidelines part C, chapter III, 4.4 ("patentretningslinjene" in Norwegian only).

Claim 1 also lacks clarity for the following reasons:

- In the step "preparing an initial model with initial functions (200) of velocity and density taking as constants or measured by obtaining seismic trace(s) or measured by obtaining borehole logs," the word "taking" seems to should have been "taken" (see page 7, paragraph [0025] of the description).
- In the step "performing a search of a misfit object function of any norm between original/or real trace or traces and the synthetic trace(s) generated in the following iteration," the use of both slash (/) and "or" in "original/or real" makes it unclear whether there are some missing elements.

Every fifth line of each sheet of claims should be numbered, see Examination Guidelines, part C, Chapter II, 3.5.

The description must be adapted to the claims prior to grant of patent. The invention according to the independent claims should be described in the description in the same

way as in the claims. Either with the description containing a reproduction of the independent claims or a reference to these, see Examination Guidelines, part C, Chapter II, 3.2.3.

Document D1 should be identified in the general part of the description and the relevant background art discussed therein should be briefly discussed to give the correct background for the invention, ref. Patent Regulations, Section 9, see Examination Guidelines, part C, Chapter II, 3.2.1.

#### Instructions

For the application to be approved for grant of patent the stated deficiencies must be corrected, and documents prepared for publication of patent must be filed.

Although we have concluded in this manner, this does not imply a final decision on the application. If you are in disagreement with our assessment of the invention, you are invited to come with your view on the matter.

If you disagree with our assessments please send us the reasons for your opinion and, if appropriate, an amended set of claims reflecting this.

If you amend the patent claims, you must state where in the application as filed support for the amendment is found, ref. Regulations to the Norwegian Patents Act (Patent Regulations), Section 20.

If you file an amended description, you must specify which parts of the description are not in accordance with the previously filed description and specify in which way the amendments imply anything new with respect to the substantive content, ref. Patent Regulations, Section 21.

#### Time limit for response

You are invited to submit a written response within the due date above. You may respond via [Altinn](#). If you fail to respond, the application will be shelved. However, the processing of the application may be resumed by paying a fee. Ref. Norwegian Patents Act, Section 15, third paragraph and Regulation Relating to Payments etc. to the Norwegian Industrial Property Office and the Board of Appeal for Industrial Property Rights (Regulation on fees), Section 26. You may request an extension of the due date, see «patentretningslinjene del A, kap. I, punkt 5.1» Examination Guidelines, part A, Chapter I, 5.1 (in Norwegian only). This must be done within the due date.

For general provisions regarding submitting of documents and payments, see Regulation on fees, Sections 1-6 and 8.

#### Additional information to the applicant

##### Postponement of grant

A prospective grant of a patent implies that all documents of the application become publicly available, even when this happens earlier than 18 months after the filing date. However, you may request that the grant of the patent shall be postponed until the application becomes publicly available according to Norwegian Patents Act, Section 22, second paragraph, i.e. after 18 months, see Regulations to the Norwegian Patents Act (Patent Regulations), Section 33. The request for postponement should be filed in a separate letter.

#### Claims in Norwegian

We would like to remind you that when the application is approved for grant, a translation into Norwegian of the approved claims must be sent to us before the patent is granted, ref. Norwegian Patents Act, Section 21, third paragraph and Regulations to the Norwegian Patents Act (Patent Regulations), Section 33a.

#### For your information

Relevant laws and regulations, as well as Examination Guidelines are available on our webpage, [www.nipo.no](http://www.nipo.no).

Information to applicants using Altinn: You will find cited publications linked in the enclosed search report or as electronic attachments. They will be forwarded in paper format only if not available in electronic format or if protected by copyright.

Please contact us if you have any questions

Sincerely,

Margrethe Overå  
Telephone: +47 22 38 73 11