#### TGS-NOPEC GEOPHYSICAL COMPANY ASA

# FUSJONSPLAN FOR FUSJON AV SPECTRUM ASA OG TGS AS MED VEDERLAGSUTSTEDELSE FRA TGS-NOPEC GEOPHYSICAL COMPANY ASA

MERGER PLAN FOR MERGER OF SPECTRUM ASA AND TGS AS WITH ISSUANCE OF CONSIDERATION FROM TGS-NOPEC GEOPHYSICAL COMPANY ASA

UNOFFICIAL OFFICE TRANSLATION – IN CASE OF DISCREPANCIES THE NORWEGIAN VERSION SHALL PREVAIL:

# FUSJONSPLAN FOR FUSJON AV SPECTRUM ASA

(org. nr. 992 470 763)

hvor samtlige eiendeler, rettigheter og forpliktelser overføres til

#### TGS AS

(org. nr. 920 927 432)

med utstedelse av fusjonsvederlag i morselskapet

#### TGS-NOPEC GEOPHYSICAL COMPANY ASA

(org. nr. 976 695 372)

Denne fusjonsplanen er utarbeidet av styrene i TGS-NOPEC Geophysical Company ASA ("TGS"), Spectrum ASA ("Spectrum") og TGS AS ("TGS NewCo"), i fellesskap kalt "Selskapene".

Fusjonen gjennomføres som en konsernfusjon etter allmennaksjeloven § 13-2, annet ledd. Selskapet som utsteder vederlagsaksjer er TGS, som er morselskap til TGS NewCo.

#### 1. PARTENE

#### **VEDERLAGSUTSTEDENDE SELSKAP:**

Firma: TGS-NOPEC Geophysical Company ASA Forretningsadresse: Lensmannslia 4, 1386 Asker

Kommune: Asker

Organisasjonsnummer: 976 695 372

#### **OVERDRAGENDE SELSKAP:**

Firma: Spectrum ASA

Forretningsadresse: Karenslyst Allé 11, 0278 Oslo

Kommune: Oslo

Organisasjonsnummer: 992 470 763

# MERGER PLAN FOR THE MERGER OF SPECTRUM ASA

(reg. no. 992 470 763)

whereby all assets, rights and obligations are transferred to

#### TGS AS

(reg. no. 920 927 432)

with issuance of merger consideration from the parent company

#### TGS-NOPEC GEOPHYSICAL COMPANY ASA

(reg. no. 976 695 372)

This merger plan is prepared by the Boards of Directors of TGS-NOPEC Geophysical Company ASA ("TGS"), Spectrum ASA ("Spectrum") and TGS AS ("TGS NewCo"), collectively referred to as the "Companies".

The merger will be conducted as a triangular merger in accordance with the Norwegian Public Limited Liability Companies Act (the "Companies Act") section 13-2, second paragraph. The consideration issuing company will be TGS, the parent company of TGS NewCo.

#### 1. THE PARTIES

#### CONSIDERATION ISSUING COMPANY:

Company: TGS-NOPEC Geophysical Company ASA Business address: Lensmannslia 4, 1386 Asker

Municipality: Asker

Registration number: 976 695 372

#### **TRANSFEROR COMPANY:**

Company: Spectrum ASA

Business address: Karenslyst Allé 11, 0278 Oslo

Municipality: Oslo

Registration number: 992 470 763

#### **OVERTAKENDE SELSKAP:**

Firma: TGS AS (tidligere Inceptum 1116 AS) Forretningsadresse: Lensmannslia 4, 1386 Asker

Kommune: Asker

Organisasjonsnummer: 920 927 432

#### 2. FUSJONEN

#### 2.1 Formål

Styrene i TGS og Spectrum har inngått en avtale som regulerer en planlagt fusjon hvor Spectrum fusjoneres inn i et heleid datterselskap av TGS. Styrenes oppfatning er at en sammenslåing av Selskapenes virksomhet vil skape en merverdi sammenlignet med at Selskapene opererer som separate selskaper. Det fusjonerte selskapet vil ha en betydelig 2D og 3D database og vil være vel posisjonert til å akselerere investeringer i et forbedrende marked, samt bidra til en utvikle TGS' dataanalysestrategi.

Ved fusjonen overtar TGS NewCo alle eiendeler, rettigheter og forpliktelser tilhørende Spectrum. Etter gjennomføring av fusjonen vil Spectrum oppløses og ikke lenger eksistere som selskap notert på Oslo Børs. TGS viderefører sin notering på Oslo Børs etter fusjonen.

Fusjonen vil bli registrert og tre i kraft utenfor åpningstiden for handel på Oslo Børs.

#### 2.2 Lovregulering mv.

Fusjonen gjennomføres etter bestemmelsene i allmennaksjeloven kapittel 13. Fusjonen vil bli gjennomført som en såkalt trekantfusjon etter fordringsmodellen, jf. den særskilte bestemmelsen i allmennaksjeloven § 13-2 andre ledd.

Fusjonen gjennomføres regnskapsmessig som en transaksjon i tråd med regnskapslovens regler.

Fusjonen gjennomføres med skattemessig kontinuitet for norske skatteformål etter reglene i skatteloven kapittel 11.

Det vises til punkt 3 nedenfor for en nærmere redegjørelse for den regnskapsmessige og skattemessige behandlingen og konsekvenser for

#### **TRANSFEREE COMPANY:**

Company: TGS AS (previously Inceptum 1116 AS) Business address: Lensmannslia 4, 1386 Asker

Municipality: Asker

Registration number: 920 927 432

#### 2. THE MERGER

#### 2.1 Reason for the merger

The Boards of Directors of TGS and Spectrum have entered into an agreement regarding a contemplated merger through which Spectrum is merged into a wholly owned subsidiary of TGS. The Boards of Directors' opinion is that a combination of the Companies' business will lead to greater value creation compared to the Companies operating as separate entities. The combined company will have a comprehensive 2D and 3D database and will be well positioned to accelerate investments in an improving market, and help accelerate TGS' data analytics strategy.

Through the merger, TGS NewCo will acquire all assets, rights and obligations of Spectrum. Following completion of the merger, Spectrum will cease to exist as a company listed on Oslo Stock Exchange. TGS will continue to be listed on Oslo Stock Exchange after the merger.

The merger will be registered and enter into force outside the trade hours of Oslo Stock Exchange.

#### 2.2 Legal regulations etc.

The merger shall be carried out in accordance with the Companies Act chapter 13 and as a triangular merger applying the receivable model, cf. the Companies Act section 13-2 second paragraph.

The merger is carried out as a transaction for accounting purposes in accordance with the rules set out in the Norwegian Accounting Act.

The merger shall be carried out with tax continuity for Norwegian tax purposes pursuant to the provisions of the Norwegian Tax Act, Chapter 11.

Reference is made to section 3 below for a more detailed account of the accounting and tax treatment and consequences for the Companies and the

selskapene og aksjonærene.

#### 2.3 Teknisk gjennomføring

Fusjonen gjennomføres slik:

- i. Fusjonsplanen skal meldes og kunngjøres i Foretaksregisteret og gjøres tilgjengelig sammen med øvrige saksdokumenter for aksjeeierne på selskapenes hjemmeside senest en måned før generalforsamlingene skal behandle planen.
- ii. Fusjonsplanen med vedlegg skal fremlegges for endelig vedtakelse av Selskapenes respektive generalforsamlinger på samme dag, foreløpig fastsatt til 21. juni 2019. Generalforsamlingenes beslutninger vil deretter bli meldt til Foretaksregisteret, som deretter vil kunngjøre en seks ukers kreditorvarslingsfrist.
- iii. Etter utløpet av kreditorfristen og forutsatt at det ikke har meldt seg noen kreditorer med innvendinger mot fusjonen eller at eventuelle innvendinger er håndtert, vil gjennomføring av fusjonen bli meldt til Foretaksregisteret.
- iv. Fusjonen trer i kraft ved registrering av gjennomføringsmeldingene. Ved fusjonens ikrafttredelse oppløses Spectrum og fusjonsvederlag utstedes i TGS som nærmere angitt i punkt 4.

# 3. REGNSKAPSMESSIG OG SKATTEMESSIG GJENNOMFØRING

#### 3.1 Regnskapsmessig gjennomføring

Fusjonen skal gjennomføres med regnskapsmessig virkning fra og med fusjonens selskapsrettslige ikrafttredelsestidspunkt.

Fusjonen gjennomføres regnskapsmessig som en transaksjon.

#### 3.2 Skattemessig gjennomføring

Fusjonen gjennomføres med full skattemessig

shareholders.

#### 2.3 Technical completion

The merger shall be completed in the following manner:

- i. The merger plan shall be sent to and published by the Register of Business Enterprises and made available for the shareholders together with other case documents on the Companies' website no later than one month prior to the general meetings evaluating the merger plan.
- ii. The merger plan with appendices shall be presented for final approval by the Companies' respective general meetings on the same day, preliminarily scheduled for 21 June 2019. The general meeting's decisions will thereafter be notified to the Norwegian Register of Business Enterprises, who will then announce a six weeks creditors' notice period.
- iii. Following the end of the creditors' notification period and provided that no creditors have objected to the merger or that any objections have been handled, the completion of the merger will be notified to the Register of Business Enterprises.
- iv. The merger enters into force upon the registration of the completion notifications. Upon the merger's entry into force, Spectrum is dissolved and the merger contribution is issued in TGS as further specified in section 4.

#### 3. ACCOUNTING AND TAX MATTERS

#### 3.1 Accounting implementation

For accounting purposes the merger will be completed with accounting effect as of the merger's corporate completion date.

The merger is carried out as a transaction for accounting purposes.

#### 3.2 Tax implementation

The merger will be completed with full tax continuity

kontinuitet for norske skatteformål i samsvar med bestemmelsene i skatteloven kapittel 11. Dette gjelder både Selskapene og aksjonærene. Fusjonen vil gjennomføres med skattemessig virkning fra samme tidspunkt som det regnskapsmessige virkningstidspunktet.

At fusjonen gjennomføres med skattemessig kontinuitet innebærer at alle skatteposisjoner i Spectrum knyttet til eiendeler, rettigheter og forpliktelser som overføres, overføres uendret og uten at det utløses skatt i Spectrum eller gir oppskrivningsrett for TGS NewCo.

Fusjonen vil ikke anses som en skattemessig realisasjon for norske aksjonærer. For utenlandske aksjonærer reguleres den skattemessige behandlingen av de respektive lands skatteregler. I enkelte land kan det være at fusjonen anses som en skattemessig transaksjon. Alle utenlandske aksjonærer oppfordres til å konsultere med skatteeksperter i sine respektive jurisdiksjoner.

# 4. FUSJONSVEDERLAG OG VILKÅR FOR UTØVELSE AV AKSJEEIERRETTIGHETER

Fusjonsvederlaget til aksjonærene i Spectrum består av vederlagsaksjer i TGS som utstedes ved kapitalforhøyelsen som gjennomføres i forbindelse med fusjonen.

Fusjonen gjennomføres som en konsernfusjon etter allmennaksjeloven § 13-2 annet ledd. Som vederlag for samtlige eiendeler, rettigheter og forpliktelser i Spectrum som overføres til TGS NewCo, vil aksjonærene i Spectrum ved trekantfusjonen motta vederlag i TGS ved at aksjekapitalen forhøyes jf. bestemmelsen i allmennaksjeloven § 13-2 annet ledd.

Bytteforholdet ved fusjonen er fastsatt til at én aksje i Spectrum gir rett til 0,28 aksjer i TGS. Bytteforholdet er fremforhandlet av Selskapenes styrer i samråd med Selskapenes respektive finansielle rådgivere, dvs. mellom uavhengige parter, og er således fastsatt på markedsmessig vilkår. Det har ikke vært særlige vanskeligheter ved fastsettelsen av fusjonsvederlaget.

for Norwegian tax purposes in accordance with chapter 11 in the Norwegian Tax Act. This applies both to the Companies and the shareholders. The merger will be completed with tax effect from the same time as the accounting effective time.

The merger being completed with tax continuity implies that all tax positions in Spectrum related to the transferred assets, rights and obligations, are transferred unchanged, and without triggering any tax in Spectrum or write up rights for TGS NewCo.

The merger will not be regarded as a tax realization for Norwegian shareholders. For foreign shareholders, the tax treatment is regulated by their respective countries' tax legislation. In some countries the merger may be regarded as a tax transaction. All foreign shareholders are encouraged to consult tax advisors in their respective jurisdictions.

# 4. MERGER CONSIDERATION AND TERMS FOR EXERCISING SHAREHOLDER RIGHTS

The merger consideration to the shareholders of Spectrum consists of consideration shares in TGS issued in the capital increase implemented in connection with the merger.

The merger is effectuated as a triangular merger in accordance with the Companies Act section 13-2 second paragraph. As consideration for the assets, rights and obligations being transferred from Spectrum to TGS NewCo, the shareholders in Spectrum will receive consideration by a share capital increase in TGS, cf. the Companies Act section 13-2 second paragraph.

The merger exchange ratio is determined to be that one share in Spectrum gives the right to 0.28 shares in TGS. The exchange ratio is determined through negotiations between the Companies Board of Directors with the advice from the Companies' respective financial advisors, i.e. between unrelated parties, and is thereby in accordance with market terms. There have not been any particular difficulties in connection with the determination of the merger consideration.

Ved fusjonen økes aksjekapitalen i TGS med minimum NOK 3 834 957 og maksimum NOK 4 147 420 ved utstedelse av minimum 15 339 828 og maksimum 16 589 679 nye aksjer, hver pålydende NOK 0,25.

Antallet utstedte aksjer vil bero på hvor mange aksjer som utstedes i Spectrum som følge av opsjonsutøvelse forut for fusjonens gjennomføring. Det avtalte bytteforholdet i fusjonen, 0,28, vil imidlertid ikke påvirkes av antall opsjoner som Spectrum utøves aksjer i forut gjennomføringen fusjonen. av Dette Spectrums rettigheter/forpliktelser knyttet til opsjonene uansett overføres ved fusjonen, noe som innebærer at det er verdinøytralt for Selskapene om opsjonene utøves eller på annen måte gjøres opp forut for gjennomføring av fusjonen, eller om opsjonenes tilknyttede rettigheter/forpliktelser hadde blitt overført ved fusjonen.

Kapitalforhøyelsen i TGS gjennomføres ved at TGS NewCo utsteder en fusjonsfordring til fordel for TGS som benyttes som aksjeinnskudd i TGS. Fordringen vil ha pålydende verdi lik virkelig verdi av egenkapitalen som TGS NewCo tilføres ved fusjonen justert for latent skatt/skattefordel.

Da fusjonen gjennomføres regnskapsmessig som transaksjon fastsettes fusjonsfordringens størrelse til virkelig verdi av eiendelene, rettighetene og forpliktelsene i Spectrum og vil tilsvare NOK 4 062 812 387. Justert latent skatt/skattefordel er fordringens størrelse fastsatt Fusjonsfordringens 5 022 001 923. størrelse/ virkelig verdi av eiendelene mv. som overføres er fastsatt basert på at samtlige opsjoner i Spectrum er utøvd forut for gjennomføringen av fusjonen.

På denne bakgrunnen vil tegningskursen i kapitalforhøyelsen fastsattes til minimum NOK 244 per aksje og maksimum NOK 265 per aksje. Verdsettelsen og størrelsen på aksjeinnskuddet er fastsatt per 16. mai 2019 av Selskapenes styrer i samråd med finansiell rådgiver og baseres seg på verdien av avtalt antall utstedte vederlagsaksjer per 16. mai 2019. Differansen mellom nominell aksjekapitalforhøyelse og samlet tegningsbeløp tilføres overkurs.

For å få riktig bytteforhold uten at aksjer må eies i sameie av aksjonærene eller det må gjennomføres In the merger the share capital of TGS will be increased by minimum NOK 3,834,957 and maximum NOK 4,147,420 through the issuance of minimum 15,339,828 and maximum 16,589,679 new shares, each with a nominal value of NOK 0.25.

The number of issued shares will rely on the number of shares issued by Spectrum as a result of exercise of options prior to the completion of the merger. The agreed exchange ratio, o.28, will however not be affected by the number of options exercised / shares in Spectrum prior to the completion of the merger. This is because Spectrum's rights/obligations pertaining to the options nevertheless will be transferred in the merger, which implies that it is value neutral whether the options are exercised or in other ways settled prior to completion of the merger, or the rights and obligations pertaining to the options had been transferred in the merger.

The share capital increase in TGS will be conducted through the issuance of a merger receivable by TGS NewCo in favor of TGS, which will be used as the share deposit in TGS. The receivable will have a nominal value equal to the fair value of the equity contributed to TGS NewCo in the merger, adjusted for deferred tax/tax advantage.

As the merger is carried out as a transaction for accounting purposes, the merger receivable will reflect the fair value of the assets, rights and obligations in Spectrum and equal NOK 4,062,812,387. Adjusted for deferred tax / tax advantage, the receivables is determined to NOK 5,022,001,923. The merger receivable amount / fair value of the assets etc. to be transferred is determined on the basis that all options in Spectrum are exercised prior to the completion of the merger.

On this basis the subscription price in the capital increase will be set to minimum NOK 244 per share and maximum NOK 265 per share. The valuation and the size of the share deposit is set per 16. May 2019 by the Companies' Boards of Directors with the advice from financial advisor and is based on the value of the agreed number of issued consideration shares per 16 May 2019. The difference between nominal capital increase and the total subscription amount is allocated as share premium.

To ensure the correct exchange ratio without the need for joint ownership to shares or completion of a

en aksjesplitt, vil antall vederlagsaksjer til den enkelte aksjonær avrundes nedover til nærmeste antall hele aksjer og brøkdelsaksjer vil gjøres opp kontant.

Vederlagsaksjene gir rettigheter i TGS fra tidspunktet for den selskapsrettslige ikrafttredelse av fusjonen.

Aksjonærene i Spectrum vil motta et ytterligere kontantvederlag i NOK tilsvarende USD 0,27 multiplisert med bytteforholdet i fusjonen forutsatt at fusjonen ikke gjennomføres forut for ex-dagen for utbytte som utbetales av TGS i Q3 2019. Vekslingskursen USD:NOK som skal benyttes for å utregne kontantvederlaget skal være lik den vekslingskurs som benyttes for utbetaling av Q3 utbytte.

Det vises for øvrig til vedlagte sakkyndige redegjørelser for fusjonsplanen utarbeidet av henholdsvis KPMG og EY i anledning fusjonen.

#### 5. FORHOLDET TIL ANSATTE

Spectrum har 13 ansatte. TGS NewCo har ingen ansatte.

Fusjonen vil ikke ha betydning for de ansatte i TGS som vil fortsette sine ansettelsesforhold uendret.

For de ansatte i det Spectrum vil fusjonen innebære at ansettelsesforholdene overføres til TGS NewCo. De ansatte vil beholde eksisterende betingelser i sine respektive ansettelsesavtaler.

De ansatte i Selskapene er informert om fusjonen i samsvar med kravene som følger allmennaksjeloven arbeidsmiljøloven. og Fusjonsrapporten og fusjonsplanen vil bli gjort tilgjengelig for de ansatte i overensstemmelse med allmennaksjeloven § 13-11, jf. arbeidsmiljøloven § 16-5. Det er også gjennomført informasjons- og drøftelsesmøter med de ansatte, eller der relevant, deres ansatterepresentanter, i samsvar gjeldende lov.

Det vises for øvrig til styrenes rapporter om fusjonen og dennes betydning for de ansatte.

share split, the number of consideration shares to each shareholder will be rounded down to the nearest number of whole shares and fractional shares will be settled in cash.

The consideration shares gives rights in TGS from the time of the entry into force of the merger from a corporate perspective.

The shareholders in Spectrum will receive an additional cash consideration equal to the NOK equivalent of USD 0.27 multiplied with the exchange ratio for the merger, provided that the merger has not been completed prior to the ex-date for dividend payment by TGS payable in Q3 2019. For the purpose of calculating this cash consideration, the same USD:NOK exchange rate as used for the Q3 dividend payment shall apply.

Further reference is made to the enclosed expert statements prepared by KPMG and EY, respectively, in connection with the merger.

#### 5. EMPLOYEE MATTERS

Spectrum has 13 employees. TGS NewCo has no employees.

The merger will not have any implications for the employees in TGS who will continue their employment unchanged.

For the employees with Spectrum, their employment relationships will be transferred to TGS NewCo in connection with the merger. The employees will keep the terms and conditions in their existing employment agreements.

The employees of the Companies have been informed about the merger in accordance with the requirements in the Companies Act and the Working Environment Act. The Boards of directors' merger reports and the merger plan will be made available for the employees in accordance with the Companies Act section 13-11 and the Working Environment Act section 16-5. There have also been information and consultation meetings with the employees, or where relevant, their employee representatives, in accordance with applicable law.

Further reference is made to the Board of Directors' reports on the merger and its consequences for the employees.

# 6. AKSJEEIERE MED SÆRLIGE RETTIGHETER MV.

Tegningsretter i TGS vil fortsette uendret etter fusjonen.

Det er utstedt opsjoner i Spectrum som enten vil være utøvd forut for fusjonen og således bli omgjort til vederlagsaksjer ved fusjonens gjennomføring, eller falt bort mot verdinøytral kompensasjon til opsjonshaverne. Dette er det tatt høyde for i fastsettelsen av bytteforholdet.

Utover dette er det ingen aksjeeiere med særlige rettigheter eller innehavere av tegningsrett mv. som nevnt i allmennaksjeloven §§ 11-1, 11-10 eller 11-12 i Selskapene. Ingen slike rettigheter tildeles ved fusjonen.

#### 7. SÆRLIG RETT ELLER FORDEL

Det skal ikke tilfalle noen særlig rett eller fordel for styremedlemmer, daglig leder, uavhengig sakkyndige eller andre ved fusjonen, utover alminnelige honorarer for bistand.

#### 8. SELSKAPSRETTSLIGE BESLUTNINGER

#### 8.1 Spectrum

Det foreslås at generalforsamlingen i Spectrum treffer følgende vedtak til gjennomføring av fusjonen:

- i. Fusjonsplan med vedlegg datert 20. mai 2019 vedrørende fusjon av Spectrum ASA som overdragende selskap og TGS AS som overtakende selskap, og utstedelse av fusjonsvederlag fra morselskapet til det overtakende selskapet, dvs. fra TGS-NOPEC Geophysical Company ASA, godkjennes og fusjonen skal gjennomføres i henhold til fusjonsplanen.
- ii. Selskapet vil bli oppløst og slettet fra Foretaksregisteret ved fusjonens ikrafttredelse.

# 6. SHAREHOLDERS WITH PARTICULAR RIGHTS

Warrants in TGS will continue unaffected by the merger.

There are options issued by Spectrum that will either be exercised prior to the merger and thus be exchanged to consideration shares at the completion of the merger, or be deleted against value neutral compensation to the option holders. This has been taken into account in the determination of the exchange ratio.

Besides the above, there are no shareholders with particular rights or holders of subscription rights etc. as mentioned in the Companies Act, Section 11-1, 11-10 or 11-12 in the Companies. No such rights are awarded upon the merger.

#### 7. SPECIAL RIGHT OR BENEFIT

No special right or benefit shall accrue to board members, the general manager, the independent expert or others in connection with the merger, other than ordinary fees for assistance.

#### 8. CORPORATE RESOLUTIONS

#### 8.1 Spectrum

It is proposed that the general meeting in Spectrum pass the following resolution for the completion of the merger:

- i. The merger plan with appendices dated 20 May 2019 regarding merger of Spectrum ASA as the transferor company and TGS AS as transferee company, and issuance of merger consideration by the transferee company's parent company, i.e. by TGS-NOPEC Geophysical Company ASA, is approved and the merger shall be carried out in accordance with the merger plan.
- ii. The company will be dissolved and deleted from the Register of Business Enterprises upon completion of the merger.

#### 8.2 TGS NewCo

Det foreslås at generalforsamlingen i TGS NewCo treffer følgende vedtak til gjennomføring av fusjonen:

i. Fusjonsplan med vedlegg datert 20. mai 2019 vedrørende fusjon av Spectrum ASA som overdragende selskap og TGS AS som overtakende selskap, og utstedelse av fusjonsvederlag fra morselskapet til det overtakende selskapet, dvs. fra TGS-NOPEC Geophysical Company ASA, godkjennes og fusjonen skal gjennomføres i henhold til fusjonsplanen.

#### 8.3 TGS

Ettersom fusjonen gjennomføres som en konsernfusjon, vil fusjonsvederlaget til aksjonærene i Spectrum bestå i aksjer i TGS NewCos morselskap TGS. Disse vederlagsaksjene utstedes i en kapitalforhøyelse ved nytegning av aksjer i TGS. Grunnlaget for kapitalforhøyelsen er en fordring som det overtakende selskapet, TGS NewCo, utsteder til fordel for TGS, som følge av at Spectrum innfusjoneres i TGS NewCo (den såkalte fordringsmodellen).

Utover de forhold som fremgår av denne fusjonsplanen, de sakkyndige redegjørelsene fra henholdsvis KPMG og EY, og styrets rapport om fusjonen, er styret i TGS ikke kjent med forhold som må tillegges vekt når det gjelder å tegne nye aksjer.

Det er ikke inntruffet hendelser etter siste balansedag som er av vesentlig betydning for TGS.

Det foreslås på denne bakgrunn at generalforsamlingen i TGS treffer følgende vedtak til gjennomføring av fusjonen:

i. Fusjonsplan med vedlegg datert 20. mai 2019 vedrørende fusjon av Spectrum ASA som overdragende selskap og TGS AS som overtakende selskap, og utstedelse av fusjonsvederlag fra morselskapet til det overtakende selskapet, dvs. fra TGS-NOPEC Geophysical Company ASA, godkjennes og

#### 8.2 TGS NewCo

It is proposed that the general meeting in TGS NewCo pass the following resolution for the completion of the merger:

i. The merger plan with appendices dated 20 May 2019 regarding merger of Spectrum ASA as the transferor company and TGS AS as transferee company, and issuance of merger consideration by the transferee company's parent company, i.e. by TGS-NOPEC Geophysical Company ASA, is approved and the merger shall be carried out in accordance with the merger plan.

#### 8.3 TGS

As the merger is a triangular merger, the merger consideration for the shareholders in Spectrum will consist of shares in TGS NewCo's parent company TGS. Such consideration shares will be issued in a share capital increase by subscription of new shares in TGS. The basis for such capital increase is a receivable to be issued by the transferee company, TGS NewCo, in favour of TGS as a consequence of Spectrum being merged into TGS NewCo (the receivable model).

Except for the circumstances provided for in this merger plan, the expert statements prepared by KPMG and EY, respectively, and the board report on the merger, the Board of Directors of TGS is not familiar with circumstances that need to be taken into account with respect to the subscription of shares.

No incidents of significant importance to TGS have occurred since the last balance sheet day.

On this background, it is proposed that the general meeting in TGS pass the following resolution for completion of the merger:

i. The merger plan with appendices dated 20 May 2019 regarding merger of Spectrum ASA as the transferor company and TGS AS as transferee company, and issuance of merger consideration by the transferee company's parent company, i.e. by TGS-NOPEC Geophysical Company ASA, is

fusjonen skal gjennomføres i henhold til fusjonsplanen

ii. Som ledd i fusjonen forhøyes aksjekapitalen med minimum NOK 3 834 957 og maksimum NOK 4 147 420 ved utstedelse av minimum 15 339 828 og maksimum 16 589 679 nye aksjer hver pålydende NOK 0,25. Antallet utstedte aksjer vil bero på hvor mange opsjoner som utøves i Spectrum forut for fusjonens gjennomføring.

Kapitalforhøyelsen gjøres med rett til innskudd i andre eiendeler enn penger som ledd i gjennomføringen av fusjon. Grunnlaget for kapitalforhøyelsen er en fordring som det overtakende selskapet, TGS AS, utsteder til fordel for selskapet som følge av at Spectrum ASA innfusjoneres i TGS AS (den såkalte fordringsmodellen). Verdien av innskuddet er fastsatt til NOK 4 062 812 387, og tilsvarer virkelig verdien av egenkapitalen basert på verdsettelsen per 16. mai 2019, som TGS AS tilføres fra Spectrum ASA ved fusjonen. Justert for latent skatt/skattefordel er fordringens størrelse fastsatt til NOK 5 022 001 923. Fusjonsfordringens størrelse / virkelig verdi av eiendelene mv. som overføres er fastsatt basert på at samtlige opsjoner i Spectrum er utøvd forut for gjennomføringen av fusjonen.

Tegningskursen per aksje vil bero på det antall vederlagsaksjer som utstedes i fusjonen, ref. ovenfor, og ligge i intervallet NOK 244 per aksje og NOK 265 per aksje. Styret gis fullmakt til å fastsette endelig tegningskurs. Tegningsbeløpet er fastsatt per 16. mai 2019.

- iii. Kapitalforhøyelsen tegnes ved at generalforsamlingene godkjenner fusjonsplanen og tilfaller aksjonærene i Spectrum ASA ved fusjonens ikrafttredelse som beskrevet i fusjonsplanen.
- iv. De nye aksjene gir rett til utbytte fra det tidspunkt kapitalforhøyelsen er registrert i Foretaksregisteret.

approved and the merger shall be carried out in accordance with the merger plan.

ii. As part of the merger, the share capital is increased with minimum NOK 3,834,957 and maximum NOK 4,147,420 through the issuance of minimum 15,339,828 and maximum 16,589,679 new shares, each with a nominal value of NOK 0.25. The number of issued shares will rely on the number of options exercised in Spectrum prior to the completion of the merger.

The capital increase is completed against consideration in other assets than cash in connection with merger. The basis for the capital increase is a receivable that the transferee company, TGS AS, issues in favor of the company as a consequence of Spectrum ASA being merged into TGS AS (the receivable model). The value of the deposit is set to NOK 4,062,812,387, and equals the fair value of the equity based on valuation per 16. May 2019, which TGS AS receives from Spectrum ASA in the merger. Adjusted for deferred tax / tax advantage, the receivables is determined to NOK 5,022,001,923. The merger receivable / fair value of the assets etc. being transferred is determined on the basis that all options in Spectrum are exercised prior to completion of the merger.

The subscription price per share will rely on the number of consideration shares issued in the merger, ref. above, and be in the interval NOK 244 per shares and NOK 265 per shares. The board is granted proxy to determine the final subscription price. The subscription amount is determined per 16 May.

- iii. The share capital increase is subscribed by the general meetings approving the merger plan and falls to the shareholders in Spectrum ASA upon the merger's entry into force as described in the merger plan.
- iv. The new shares shall carry right to dividends with effect from the time the share capital increase is registered with the Norwegian Register of

- v. Aksjeinnskuddet gjøres opp ved fordringen som utstedes av TGS AS til selskapet når Foretaksregisteret har registrert at fusjonen er trådt i kraft.
- vi. Som følge av aksjekapitalforhøyelsen, og med virkning fra registrering av gjennomføringen av fusjonen og kapitalforhøyelsen, endres vedtektenes § 5 i henhold til ovenstående beslutning om kapitalforhøyelse.
- vii. Alle kostnader i anledning fusjonen dekkes av selskapet. Selskapets anslåtte utgifter i forbindelse med kapitalforhøyelsen er NOK 150 000.

#### 6 9. CONDITIONS FOR COMPLETION

1. The merger is resolved in the Companies' general meetings with the majority required for amendments in the articles of association, cf. section 13-3 of the Companies Act.

Completion of the merger is conditional upon that:

- 2. The creditor notification period pursuant to Section 13-15 of the Companies Act has expired and issues related to creditors having objected have been resolved or the district court has decided that the merger can be completed.
- 3. Approval/consents (either unconditional or with conditions that can be remedied through measures that do not in the reasonable opinion of TGS materially affect the overall purpose and rationale behind the merger) by relevant and agreed competition and regulatory authorities and other third parties, save in each case such consents and approvals which do not in the reasonable opinion of TGS materially affect the overall purpose and rationale behind the merger.
- 4. The customary representation and warranties provided by the parties in the merger agreement entered into between TGS and Spectrum in connection with the merger remaining true and correct in all material respects.

#### 9. BETINGELSER FOR GJENNOMFØRING AV FUSJONEN

Gjennomføring av fusjonen er betinget av at:

- Fusjonen vedtas i Selskapenes generalforsamlinger med flertall som for vedtektsendring, jf. allmennaksjeloven § 13-3 annet ledd.
- 2. Kreditorfristen etter allmennaksjeloven § 13-15 er utløpt og forholdet til kreditorer som eventuelt har fremsatt innsigelser er avklart eller tingretten har besluttet at fusjonen likevel kan gjennomføres.
- 3. Godkjennelse/samtykke (enten ubetinget eller med vilkår som kan rettes ved tiltak som etter TGS' rimelige vurdering ikke har vesentlig betydning for det overordnede formål og begrunnelsen for fusjonen) fra relevante og avtalte konkurranse- og tilsynsmyndigheter og andre tredjeparter, unntatt i tilfeller der slike samtykker og godkjennelser ikke etter TGS' oppfatning har vesentlig innvirkning på det overordnede formål og begrunnelsen for fusjonen.
- 4. De ordinære markedsmessige bekreftelser avgitt av partene i fusjonsavtalen inngått mellom TGS og Spectrum i forbindelse med fusjonen i all vesentlighet fortsatt er gjeldende.

- Business Enterprises.
- v. The share contribution is settled by the receivable issued by TGS AS to the company when the Norwegian Register of Business Enterprises has registered the merger's entry into force.
- vi. As a result of the share capital increase, and with effect from the registration of the completion of the merger and the share capital increase, the articles of association section 5 is amended in accordance with the capital increase resolution above.
- vii. All costs pertaining to the merger shall be borne by the company. The company's estimated costs in connection with the share capital increase are NOK 150,000.

- 5. Det ikke foreligger noen vesentlige brudd på fusjonsplanen eller fusjonsavtalen inngått mellom TGS og Spectrum i forbindelse med fusjonen.
- 6. Ingen Vesentlig Negativ Endring inntruffet. Med "Vesentlig Negativ Endring" enhver endring, utvikling hendelse som det er rimelig å anta vil ha en vesentlig negativ betydning for de finansielle vilkårene, virksomheten, eiendelene eller driftsresultatet for Spectrum gruppen eller TGS gruppen, vurdert helhetlig; forutsatt, underlagt reguleringen av denne definisjonen, at ingen slik hendelse, eller serie av hendelser, som er et resultat av eller knyttet til noe av det følgende skal hensyntas når det vurderes hvorvidt en slik endring eller utvikling har inntrådt: (i) endringer som generelt påvirker industrier eller markeder Selskapene opererer i, inkludert, men ikke begrenset til, endringer i oljeprisen, i den grad slike ikke i vesentlig grad disproporsjonalt påvirker et selskap og dets datterselskaper, (ii) generelle endringer i relevante lover og regler, skatteregler eller regnskapsstandarder, (iii) endringer som påvirker økonomien generelt eller kreditt-, låne-, finans- eller kapitalmarkeder, i hvert tilfelle, i Norge eller annet sted i verden, (iv) noen negativ utvikling av relasjoner med leverandører eller kunder, andre forretningskontakter som et resultat av annonseringen av fusjonen, (v) endringer i konkurranselandskapet i industrien et av selskapene opererer, (vi) jordskjelv, orkaner, tornadoer eller andre naturkatastrofer i den grad slike ikke i vesentlig og disproporsjonalt selskapene rammer av og datterselskaper, (vii) krigshandlinger, sabotasje eller terrorisme, eller en eskalering eller forverring av slik krigshandling, sabotasje eller terrorisme, truende eller underveis, (viii) enhver nedgang i et selskaps aksjekurs, endring i omsetningsvolum eller manglende oppfyllelse av analytikeres omsetnings- og inntekts forventninger (bortsett fra når forårsaket av en hendelse som ellers er en Vesentlig Negativ Endring), og (ix) enhver hendelser eller omstendighet som var kjent for det andre selskapet per datoen for denne fusjonsplanen.
- No material breach of the merger plan or the merger agreement entered into between TGS and Spectrum in connection with the merger having occurred.
- No Material Adverse Change having occurred. By "Material Adverse Change" is understood any change, effect, development or event that is or would reasonably be expected to have a material adverse effect on the financial condition, business, assets, or results of operations of the Spectrum group or the TGS group (as the case may be), taken as a whole; provided, however, that subject to the provisions of this definition, no such event or series of events resulting from or relating to any of the following shall be taken into account when determining whether such a change, effect or development has occurred: (i) changes that affect generally the industries or markets in which the Companies operates, including but not limited to changes in oil prices, to the extent that they do not to a material extent disproportionately affect such company and its subsidiaries (ii) generally applicable changes in relevant laws, regulations, tax rules or accounting standards, (iii) changes that affect generally the economy or the credit, debt, financial or capital markets, in each case, in Norway or elsewhere in the world, (iv) any negative developments in relationships with customers, suppliers or other business contacts resulting from the announcement of the merger, (v) changes in the competitive landscape in the industries in which one of the company operates, (vi) earthquakes, hurricanes, tornados or other natural disasters to the extent that they do not to a material extent disproportionately affect one of the companies and its subsidiaries. (vii) acts of war, sabotage or terrorism, or any escalation or worsening of any such acts of war, sabotage or terrorism threatened or underway, (viii) any decline in a company's share price, change in trading volume or failure to meet analysts' revenue or earnings projections (unless caused by an event which would otherwise constitute a Material Adverse Change), and (ix) any event or fact which was known to the other party on the date of this merger plan.

§ 13-15 er utløpt og alle øvrige vilkår for gjennomføring av fusjonen er oppfylt, skal TGS Newco uten opphold gi melding til Foretaksregisteret om at fusjonen skal tre i kraft.

**Tidspunktet** for fusjonens selskapsrettslige ikrafttredelsestidspunkt vil være når meldingen er registrert. Når meldingen er registrert i Foretaksregisteret vil **Spectrums** eiendeler, rettigheter og forpliktelser anses endelig overdratt til TGS NewCo som nærmere beskrevet i denne fusjonsplanen, jf. allmennaksjeloven § 13-17. På samme tidspunkt oppløses Spectrum.

#### 10. KOSTNADER

Forutsatt gjennomføring av fusjonen vil kostnadene i anledning fusjonen dekkes av TGS.

#### 11. SELSKAPENES FORVALTNING

Frem til fusjonen er endelig gjennomført ved registrering i Foretaksregisteret, skal Selskapene styres og forvaltes i henhold til det som er vanlig praksis for Selskapene, og i tråd med det som følger av fusjonsavtale mellom TGS og Spectrum inngått forbindelse med fusjonen.

#### 12. FULLMAKT

Ved vedtakelse av fusjonsplanen gir generalforsamlingene fullmakt til styrene i Selskapene til i fellesskap å gjennomføre eventuelle mindre endringer i fusjonsplanen hvis det ikke er til skade eller ulempe for Selskapene eller aksjeeierne. the Companies Act, Section 13-15 has expired and all other the conditions for completion of the merger are fulfilled, TGS NewCo shall without delay notify the Norwegian Register of Business Enterprises that the merger shall enter into force.

The time of the merger's entry into force from a corporate law perspective will be when the notification has been registered. When the notification has been registered in the Norwegian Register of Business Enterprises, Spectrum's assets, rights and obligations shall be considered as finally transferred to TGS NewCo as further described in this merger plan, cf. the Companies Act, Section 13-17. At the same time, Spectrum is liquidated.

#### 10. COST

Subject to completion of the merger, the costs in connection therewith shall be borne by TGS.

#### 11. CONDUCT OF BUSINESS

Until the merger is complete, the Companies shall be managed and administered in accordance with common practice for the Companies, and in line with the provisions of the merger agreement entered into between TGS and Spectrum in connection with the merger.

#### 12. AUTHORISATION

Upon resolving the merger plan, the general meetings grant the Boards of Directors of the Companies authorisation to jointly complete any minor amendments to the merger plan if this does not cause any harm or disadvantage for the Companies or the shareholders.

#### 13. VEDLEGG

Som vedlegg til denne fusjonsplan følger:

- 1. Selskapenes vedtekter
- 2. Selskapenes årsregnskap, årsberetning og revisjonsberetning for de tre siste regnskapsår (TGS NewCo har ikke forut for fusjonen avlagt årsregnskap)
- 3. Siste kvartalsrapport for Spectrum og TGS
- 4. Styrenes rapport om fusjonen
- Sakkyndig redegjørelse for fusjonsplanen fra KPMG
- 6. Sakkyndig redegjørelse for fusjonsplanen fra EY

#### 13. APPENDICES

As appendices to the merger plan is attached:

- 1. The Companies' Articles of Association
- 2. The Companies' financial statements, annual reports and auditor's reports for the last three financial years (TGS NewCo has not prior to the merger prepared financial statements).
- 3. The last quarterly report for Spectrum and TGS
- 4. The Boards of Directors' report on the merger
- 5. Expert statement on the merger plan from KMPG
- 6. Expert statement on the merger plan from EY

Henry Haywood Hamilton	Mark Steven Leonard
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Kristian Kuyaas Johansen

Pål Stampe

Ingrid Elvira Leisner

Christian Dahl Aaser

#### Vedlegg 1 – Selskapenes vedtekter

## Apenndix 1 – The Companies' Articles of Association

#### Vedtekter

#### Articles of association

#### **TGS-NOPEC Geophysical Company ASA**

Pr. 15. august 2018 / 15 August 2018

ξ1

Selskapets navn er TGS-NOPEC Geophysical Company ASA.

The name of the company is TGS-NOPEC Geophysical Company ASA.

§ 2

Selskapet er et allmennaksjeselskap registrert i Verdipapirsentralen.

The company is a public limited company registered in the Norwegian Securities Register.

§ 3

Selskapets hovedvirksomhet er å forsyne, skaffe og selge seismiske og geofysiske data, herunder i inkludert tilknyttede produkter, tjenester og teknologi til olje og gass industrien og til produksjonsindustrien.

The principal business area of the company is in the provision, procurement and sale of seismic and geophysical data hereunder included associated products and services and technology to the oil and gas industry and to the production industry.

ξ4

Selskapets forretningskontor er i Asker kommune. Generalforsamlingen kan avholdes i Oslo kommune.

The company's business office is in the municipality of Asker. The shareholders' meetings can be held in the municipality of Oslo.

8 5

Selskapets aksjekapital er NOK 25 661 947,50 fordelt på 102 647 790 aksjer á NOK 0,25. *The company's share capital is NOK 25,661,947.50 divided on 102,647,790 shares of NOK 0.25.* 

§ 6

Styret skal bestå av fra 5-9 medlemmer. Styremedlemmer skal tjenestegjøre i ett år. Forslag til styremedlemmer og forslag til honorar til disse skal forberedes av en valgkomité som skal bestå av en formann og to medlemmer som velges av og blant aksjonærene og som skal velges for en periode på to år.

The company's board of directors shall consist of from five to nine directors. The period of service is one year. The nomination of directors to the board, and the remuneration payable to the directors shall be prepared by a nomination committee consisting of one chairman and two members elected by and amongst the shareholders and who shall serve for a period of two years.

Den ordinære generalforsamling skal behandle:

- Godkjennelse av årsregnskap og årsberetning, herunder utdeling av utbytte.
- 2 Alle andre saker som i henhold til lov eller vedtekter hører inn under generalforsamlingen.

Dokumenter som gjelder saker som skal behandles i selskapets generalforsamling, herunder dokumenter som etter lov skal inntas i eller vedlegges innkallingen til generalforsamlingen, trenger ikke sendes til aksjeeierne dersom dokumentene er tilgjengelige på selskapets hjemmeside. En aksjeeier kan likevel kreve å få tilsendt dokumenter som gjelder saker som skal behandles i generalforsamlingen.

Aksjeeiere skal gi melding til selskapet om de vil være tilstede på generalforsamlingen senest tre dager før dagen for generalforsamlingen. Aksjeeiere som ikke har meldt til selskapet kan nektes adgang og stemmerett på generalforsamlingen.

Styret kan beslutte at aksjeeiere kan avgi skriftlig forhåndsstemme, herunder ved bruk av elektronisk kommunikasjon, i en periode før generalforsamlingen i saker som skal behandles på generalforsamlinger i selskapet. Adgangen til å avgi forhåndsstemme er betinget av at det foreligger betryggende metode for autentisering av avsenderen. Styret kan fastsette nærmere retningslinjer for forhåndsstemmer. Det skal fremgå av innkallingen til generalforsamlingen om det er gitt adgang til skriftlig stemmegivning før generalforsamlingen, og hvilke retningslinjer som eventuelt er fastsatt for slik stemmegivning.

The ordinary shareholders' meeting shall decide the following:

- (1) Approval of the annual profit and loss account and the annual report, hereunder distribution of dividends.
- (2) Other matters that according to the laws or these articles of association shall be dealt with by the shareholders.

Documents relating to items that are on the agenda for the shareholders' meeting of the company, including documents that according to law shall be included or attached to the notice calling the shareholders' meeting, do not have to be sent to the shareholders if the documents are available at the company's home page. A shareholder may however require that such documents are sent to him/her.

Shareholders shall notify the company about their attendance at the shareholders' meeting at the latest three days before the day of the shareholders' meeting. Shareholders who have not given notice of attendance can be denied the right to meet and vote at the shareholders' meeting.

The board of directors may resolve that the shareholders may, within a limited time period prior to the shareholders' meeting, deliver their votes in writing, which shall include the use of electronic means. The right to vote in writing prior to the shareholders' meeting is conditioned upon that an adequately secure method to authenticate the sender exists. The board of directors may lay down guidelines for advance voting in writing. The notice to the shareholders' meeting shall provide information about whether the shareholders may vote in advance in writing, and about the guidelines that apply to such voting.

ξ8

Retten til å delta og stemme på generalforsamling kan bare utøves når erverv av aksjer er innført i aksjeeierregisteret den femte virkedagen før generalforsamlingen (registreringsdato).

The right to attend and vote at the shareholders' meeting may only be exercised when the transfer of ownership of shares has been entered in the register of shareholders five working days prior to the shareholders' meeting (date of registration).

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#### **VEDTEKTER FOR SPECTRUM ASA**

(sist endret 22. august 2018)

#### § 1 Selskapets firma

Selskapets navn er Spectrum ASA. Selskapet er et allmennaksjeselskap.

#### § 2 Selskapets forretningssted

Selskapets forretningssted er i Oslo kommune.

#### § 3 Formål

Selskapets virksomhet består i å tilby tjenester knyttet til innsamling, prosessering og markedsføring av geofysiske og flymagnetiske data og gravitasjonsdata, samt andre tjenester knyttet til denne virksomhet, og å delta i selskaper med lignende og tilknyttet virksomhet.

#### § 4 Aksjekapital

Selskapets aksjekapital er NOK 54 785 103 fordelt på 54 785 103 aksjer, hver pålydende NOK 1. Selskapets aksjer skal registreres i Verdipapirsentralen.

#### § 5 Styret

Selskapets styre skal ha fra tre til syv medlemmer.

#### § 6 Signatur

Selskapets firma tegnes av styrets leder alene, daglig leder alene eller to styremedlemmer i fellesskap.

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#### § 7 Valgkomité

Selskapet skal ha en valgkomité bestående av 1 til 3 medlemmer. Medlemmene skal velges for en periode på to år.

#### § 8 Dokumenter på Selskapets internettsider

Dokumenter fremlagt til behandling på generalforsamlingen kan legges ut på selskapets internettsider. Tilsvarende gjelder for dokumenter som etter lov skal inntas i eller vedlegges innkallingen til generalforsamlingen. Hvis dokumentene er gjort tilgjengelig for aksjeeierne som nevnt foran, erstatter dette de lovmessige krav til utsendelse. En aksjeeier kan likevel kreve å få tilsendt dokumenter som gjelder saker som skal behandles på generalforsamlingen.

#### § 9 Generalforsamling

På den ordinære generalforsamling skal følgende spørsmål behandles og avgjøres:

- 1. Godkjennelse av årsregnskap og årsberetning, herunder utdeling av utbytte.
- 2. Valg av styremedlemmer og revisor (hvis de er på valg).
- 3. Andre saker som etter lov eller vedtekter hører under generalforsamlingen.

UNOFFICIAL OFFICE TRANSLATION – IN CASE OF DISCREPANCIES THE NORWEGIAN VERSION SHALL PREVAIL:

#### VEDTEKTER FOR TGS AS

Org. nr. 920 927 432 16. mai 2019

#### § 1 Navn

Selskapets navn er TGS AS.

#### § 2 Forretningskontor

Selskapets forretningskontor er i Asker kommune.

#### § 3 Formål

Selskapets hovedvirksomhet er å forsyne, skaffe og selge seismiske og geofysiske data, herunder i inkludert tilknyttede produkter, tjenester og teknologi til olje og gass industrien og til produksjons-industrien.

#### § 4 Aksjekapital

Selskapets aksjekapital er NOK 30 000, fordelt på 30 000 aksjer à kr 1,-.

#### § 5 Styre

Selskapet skal ha et styre bestående av inntil fem styremedlemmer.

#### § 6 Firma

Selskapets firma tegnes av styrets leder alene.

#### § 7 Overdragelse av aksjer

Aksjeeierne har ikke forkjøpsrett til aksjer som overdras eller for øvrig skifter eier. Erverv av aksjer er ikke betinget av samtykke fra styret.

# ARTICLES OF ASSOCIATION FOR TGS AS

Reg. No. 920 927 432 16 May 2019

#### § 1 Name

The company's name is TGS AS.

#### § 2 Registered address

The company's registered business address is in Asker municipality.

#### § 3 Object

The principal business area of the company is in the provision, procurement and sale of seismic and geophysical data hereunder included associated products and services and technology to the oil and gas industry and to the production industry.

#### § 4 Share capital

The company's share capital is NOK 30,000 divided on 30,000 shares, each with a nominal value of NOK 1.

#### § 5 Board

The company shall have a board of directors comprised of up to five members.

#### § 6 Signature

The chairman of the board signs on behalf of the company.

#### § 7 Transfer of shares

The shareholders do not have preferential right to acquire shares that are transferred, or otherwise change owner. Transfer of shares is not subject to board approval.

#### § 8 Generalforsamlingen

Den ordinære generalforsamling skalbehandle:

- 1. Godkjennelse av årsregnskap og årsberetning.
- Anvendelse av overskuddet eller dekning av underskudd i henhold til den fastsatte balanse, samt utdeling av utbytte.
- 3. Valg av styre.
- 4. Andre saker som i henhold til lov hører under generalforsamlingen.

For øvrig henvises til den til enhver tid gjeldende aksjelovgivning.

#### § 8 General meeting

The annual general meeting shall address:

- 1. Approval of the annual accounts and the annual report;
- 2. Use of profit or coverage of loss in accordance with the approved balance, including distribution of dividend;
- 3. Election of the board of directors
- 4. Such other matters which, according to law, fall within the duties of the general meeting.

The Norwegian Private Limited Liability Companies Act applies to any other matters.

Vedlegg 2 – Selskapenes årsregnskap, årsberetning og revisjonsberetning for de tre siste regnskapsår (TGS NewCo har ikke forut for fusjonen avlagt årsregnskap)

Appendix 2 - The Companies' financial statements, annual reports and auditor's reports for the last three financial years (TGS NewCo has not prior to the merger prepared financial statements)

# discover more... with Spectrum Multi-Client data



Spectrum ASA Karenlyst Allé 11, N-0278 Oslo Norway

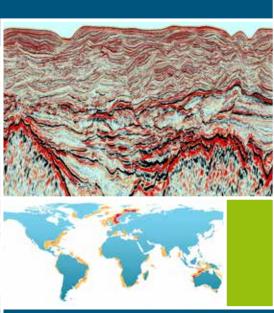
Tel.: +47 23 01 49 60 Fax.: +47 23 01 49 61 www.spectrumgeo.com



# **Annual** Report









spectrum**geo**.com

# **Highlights 2016**

Net revenue decreased 21% to \$ 87 million from \$ 110 million

**Group EBITDA decreased** 19.5% to \$ 63 million from \$ 79 million

Investment in Multi-Client library (organic) decreased 23% to \$51 million from \$ 66 million

Completed a 2D **Multi-Client Project** in the Amazonas and Para-Maranhao Basins offshore Brazil

Completed a Multi-Client 3D seismic survey offshore Norway in the Western Barents Sea

Completed a 15,000 km Multi-Client 2D survey offshore Brazil in the **Santos Campos Basins** 

Completed broadband reprocessing of several 3D datasets as part of an extensive new Broadband 3D seismic project to facilitate exploration offshore NW Australia

Acquired a Multi-Client 2D survey in Brazil Santos Campos and a 3D survey in Lebanon from the administrator of the **Dolphin estate** 

Commenced a 3D seismic campaign for the upcoming Shallow Water License Rounds in Gabon

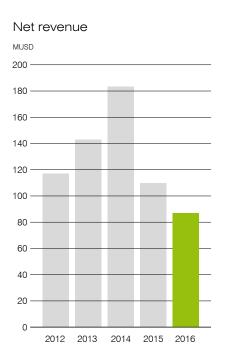
Spectrum is a major provider of Multi-Client seismic data and Seismic Imaging services to the global oil and gas industry. Its current Multi-Client data library includes in excess of 3.3 million km of 2D seismic data covering all the major oil and gas producing regions of the world. In addition the library also includes approximately 165 thousand km² 3D seismic data from East Mediterranean, North Sea, Australia, Brazil and Gulf of Mexico. The company constantly strives to increase the offerings to its customers both by increasing the Seismic Imaging capabilities of its geoprocessors and expanding its data library. The seismic library is core to the Spectrum group and is continually being enhanced through the reprocessing of vintage data using new techniques and the identification of areas of interest by its dedicated geological team.

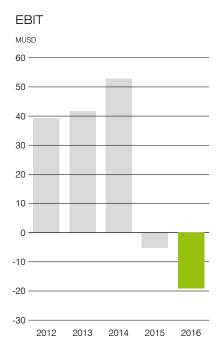
#### CONTENTS

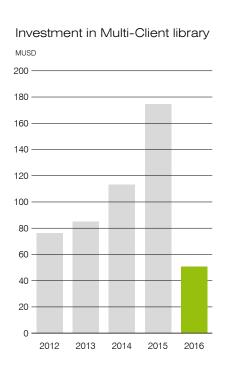
					•
Highlights 2016	2	Seismic Imaging	12	Investor Relations	27
Key Figures	3	Executive Management Team	14	Shareholder Information	28
Chairman's letter to	_	The Board	16	Financial Consolidated	•
shareholders Spectrum 2016	4	Board of Directors' Report	17	and ASA	31
Corporate vision, Mission, Strategy and Goal	4	Board of Directors and CEO		Notes to Accounts	36
Chategy and Goal	-	Statement of Compliance	23	Alternative Performance	
CEO Review	6	Corporate Governance	24	Measures (APMs)	63
Multi-Client Operations	8	Corporate Governance	24	Auditor's Report	64

# **Key Figures**

	2012	2013	2014	2015	2016
Multi-Client services	113 608	140 529	180 756	109 058	72 412
Seismic imaging	3 364	2 494	2 542	786	1 294
Other revenue					13 147
Net revenue	116 972	143 023	183 298	109 844	86 852
EBIT	39 355	41 641	52 795	(5 169)	(19 048)
EBIT margin	34 %	26 %	29 %	-5 %	-22 %
Net profit	23 115	29 155	38 229	(8 654)	(20 283)
Net profit margin	20 %	18 %	21 %	-8 %	-23 %
Earnings per share	0,60	0,72	0,90	(0,18)	(0,38)
Earnings per share fully diluted	0,50	0,62	0,79	(0,18)	(0,38)
Non-current assets	109 525	137 109	157 055	251 534	233 192
Current assets - non cash	59 592	56 484	85 959	81 973	64 661
Cash and cash equivalents	16 988	2 719	8 364	23 373	15 827
TOTAL ASSETS	186 105	196 313	251 379	356 880	313 680
Non-current liabilities	14 587	766	2 066	19 609	27 923
Current liabilities	66 128	57 506	75 045	135 692	103 914
Equity	105 391	138 041	174 267	201 580	181 845
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	186 105	196 313	251 379	356 880	313 680
Investment in Multi-Client library	76 162	85 200	113 280	174 618	50 671
Average headcount	133	156	168	167	153







#### Chairman's letter to shareholders

## **Dear Reader**

The drivers for recovery in the marine seismic market appear to be intact and Spectrum believes that it is well positioned to benefit from 2017 market outlook.

2016 was another challenging year, but longer term drivers for marine seismic are intact and Spectrum is well positioned.

Another challenging year

Following a more than 2/3 compression in the marine seismic market since 2013, mainly driven by 2014-2015 decline in oil price from USD ~110 per barrel to USD ~30 per barrel, 2016 was as expected another challenging year. The activity level was low in terms of both sales from the existing seismic library and commitment

from oil companies for new surveys, driven by continued weak cash flow in oil companies and consequent need for further reduction in cost and capital expenditure.

#### Trough likely past us

The fourth quarter showed an improvement for Spectrum over the previous three with higher sales from the existing library and also new surveys with a high level of prefunding, helped by an increase in oil price from USD ~30 per barrel to USD ~55 per barrel during the course of 2016. Some confidence is returning among oil companies and oil service companies and we have likely seen the trough in this downturn.

# **Corporate vision**

Be a world class provider of frontier Multi-Client surveys and seismic imaging solutions.

# **Mission**

Achieve world leading performance through persistence, dedication and commitment to quality.

Supply global seismic solutions through dedicated and experienced people.

Work in partnership with our customers to deliver consistent quality Multi-Client seismic data and seismic imaging services on time and to budget.

# The supply-demand imbalance caused by the US shale supply glut is about to be balanced by stalling supply and increasing demand.

# Long term drivers for recovery in the marine seismic intact

The drivers for recovery in the marine seismic market appear to be intact. The underinvestment in proving up new oil reserves in the last couple of years has caused very low reserve replacement. Oil companies 'focus is likely to shift towards replacing production and reserves as cash flow is restored from cost deflation and increased efficiency.

There is a need for new supply of oil to the market with roughly 1 million barrels of daily production from increasing demand and some 5 million barrels from depleting reserves. Offshore oil and gas will likely continue to play an important role in bringing new supply to the market in order to cover total need for supply as other sources, such as US shale, cannot meet total need over time according to current perspectives. The offshore industry has demonstrated substantial reduction in break-even

prices and new offshore projects are now being sanctioned. Ultimately, higher marine seismic activity is needed to prove up the required offshore reserves.

#### Anatomy of recovery still uncertain

The supply-demand imbalance caused by the US shale supply glut is about to be balanced by stalling supply and increasing demand. How fast the marine seismic market will recover, is still uncertain. How strong the supply response from US shale will be and how much reserves can be proven up before new offshore exploration is needed will be decisive factors for how fast marine seismic will recover.

#### Spectrum well positioned

With its asset light Multi-Client model and low cost base, Spectrum has managed cash and cash flow well in the downturn. At the same time, Spectrum has made transformative acquisition of the Fugro library, continued to invest in new projects and developed its project pipeline.

Spectrum is still taking a cautious approach to current market conditions, but believes that it is well positioned to benefit from the 2017 market outlook. Longer term, the fact that Spectrum is holding the worlds' largest 2D library, and fifth largest 3D library, combined with enthusiastic, commercial and highly competent management team and employees, strong shareholder base and bank relation, the company is well positioned to benefit from a market recovery and consolidation opportunities. We are excited to see what 2017 and the following years will bring.

Pål Stampe

# **Strategy**

Grow the company organically through project development combined with acquisition of strategic data libraries.

Initiate and execute projects relevant to the global oil and gas industry to a high professional standard and delivering the results at the right time and place.

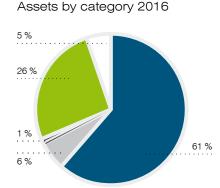
Attract the best people by offering performance based incentive programs together with the opportunity to be awarded equity in the company.

## Goal

Spectrum is to be a leading Marine Multi-Client company.

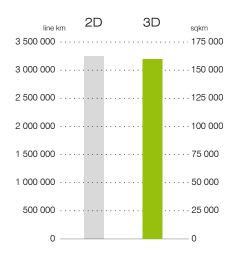
## **CEO Review**

The technology development and cost efficiency have made it possible to explore and develop offshore fields with a break even oil price of less than USD ~40 per barrel.





Cash and Equivalents



2016 was a difficult year for the seismic industry. The oil price went from low USD ~30 per barrel in the beginning of the year to around USD ~50 per barrel at the year end. In this environment the oil companies have cut cost and reduced their investment in upstream business. Seismic is hit early in the cycle, because it is easy for the oil companies to cut. Seismic is also an early mover in a business recovery scenario and the difference in this cycle-recovery to previous cycles is that exploration activity has shifted from the mature offshore basins to areas with high potential discoveries. The areas explored by oil companies 5 years ago may not be the areas of high interest today. Seismic is needed in many new places and for offshore exploration the technology development and cost efficiency have made it possible to explore and develop offshore fields with a break even oil price of less than USD ~40 per barrel. The lower breakeven level is required to meet an increasing onshore shale production that seems to take more control of the worlds swing production and keeping the oil price in an interval between USD ~40-60 per barrel. Offshore deep water exploration and production is fully justified and economical viable for oil companies with an oil price of USD ~50 per barrel.

Spectrum is asset light and we can adjust our investments instantaneously according to the market sentiment. Our business model is flexible for Multi-Client investments and we can quickly trim our operating cost in a downturn. In these times the asset light model plays at its very strength since vessel utilisation is not a factor in Spectrum's investment decisions. Spectrum only invests in new projects if prefunding and near term sales brings the project in cost recovery within 24 months after

data being available in the market. This has resulted in a lower organic investment level for new projects in 2016. The continuous change in the industry requires new business models to cope with an everlasting demand for data and knowledge of the subsurface. Spectrum believes that its large data library and global coverage offers valuable screening and review opportunities for the oil companies.

Spectrum's assets are the Multi-Client library, our cash and receivables. Spectrum has more than 3 million km of 2D seismic over the world's most prospective areas, and each basin, each survey and each seismic line has its own evolving suite of hydrocarbon stories that we market and sell to the oil companies. Our data is for those that challenge existing play models and use our data to come up with innovative ideas where oil and gas can be found. This is the heart and pulse of Spectrum.

Multi-Client projects are developed and executed differently in different regions around the world. In fact, the selection of projects is similar to i.e. private equity funds that focus on project development, financing, execution and project sale. The Multi-Client model is such that Spectrum can drive the business with its own project ideas. Our ideas are based on the fine art of combining subsurface knowledge with the above ground risks and sell those ideas to the oil companies.

Spectrum project developers have to consider the project risk that will involve all above ground risks and the subsurface risk. The above ground risk is related to political and ethical risk. Spectrum is focused on the sustainability of our business and has a zero tolerance for bribes and corruption. Given the nature of Spectrum business in new frontier

Our ideas are based on the fine art of combining subsurface knowledge with the above ground risks and sell those ideas to the oil companies.

areas it is important to pay particular attention to business arrangements with individuals or governments. At the same time Spectrum is working with developing our business to support local content and local business activity. Training of local staff and onsite working experience is part of our business to develop local knowledge and experience in order to run their oil and gas business in a professional way. In this context Spectrum's goal is to reduce business and legal risk by taking control of our decisions.

The net book value of the Multi-Client library by year end 2016 is USD 193 million which is down from USD 220 million by year end 2015. Management in Spectrum has carefully reviewed the library to see if there are projects that potentially need any write downs in the near future. The conclusion is that management finds the net book value fully justified with a strong potential to generate future sales.

The Spectrum organization currently counts 189 people (147 direct employees and 42 in a joint venture in Egypt) with

the two largest offices in London and Houston. The organization and people are key differentiators in the Multi-Client seismic industry. Project development and storytelling to the oil companies lends credibility to Spectrum when presented with integrity and quality. This builds the oil company's trust that Spectrum can contribute meaningfully to their exploration strategy and opens further dialogue. Major oil companies have gradually become more integrated in our project development efforts and Spectrum has become a speaking partner for data purchase and project development.

I would like to thank the Spectrum staff for the hard work and our customers for their support in 2016.

Sincerely

Rune Eng





# **Multi-Client Operation**

Attractive Multi-Client projects generally rely on a number of success factors that need to be in place. These are the presence of a proven petroleum system, good interest from exploration companies, and sales triggers in the form of upcoming license rounds or new areas becoming available for licensing.

Throughout the year there has been a strong focus on keeping the momentum on library growth whilst exercising strong financial discipline, fully exploiting the flexibility of our asset-light business model. By working closely with our partners and vessel providers, close to 50,000 km of newly acquired 2D, and about 5,000 sqkm of newly acquired 3D was added to the library in 2016.

Organic 2D & 3D Acquisition

Together with the (re)processing efforts this represents an organic investment of USD 51 million for the year, illustrating how Spectrum was able to take advantage of the favorable terms offered by vessel providers throughout the year. For 2017 we do not see a tightening of the vessel market and expect terms to continue to be favorable for partnerships and risk sharing options.

2016

# 2D Mm 2D 3D SqKm 2D 000 3D SqKm 100 000 20 000 20 000 40 000 12 000 80 000 80 000 80 000 40 000 80 000 40 000 800 80 000 80 000 80 000 80 000 80 000 80 000 80 000 80 000 80 0000

Organic library growth through newly acquired surveys from 2010 - 2016. Note that the CGG and FUGRO liberary acquisitions are not included.

2013

#### **Multi-Client Project evaluation**

To ensure a proper risk/reward balance, Spectrum has a mature project evaluation process consisting of four levels of approval for any project of significance. First the project developer works closely with the Executive Vice President of the relevant region to ensure the business case is commercially viable with realistic earnings expectations. Next the business case is presented to the Multi-Client Risk Board, which consists of three senior managers with a combination of geosciences, commercial, and operational expertise. The risk board reviews the project attractiveness from the oil company perspective and quantifies the financial and operational risks, as well as testing the payback period and the expected earnings over a 4-year period. Following a comprehensive evaluation the risk board provides its recommendations to the CEO who in turn decides whether he supports the conclusions. If so, the Spectrum Board of Directors is presented with the project business case for approval before a project is ready for execution with or without certain conditions imposed by the Spectrum Board of Directors.

2011

This approval process has been implemented and matured over the years and ensures a disciplined investment approach in new surveys and opportunities.

#### The year in review

During 2016 a total of three 2D and three 3D Multi-Client surveys have been initiated, resulting in a total of 48,500 km newly acquired MC2D data (88,000 km in 2015) and 4,800 sqkm of new MC3D data (850 sqkm in 2015). In addition three major 3D reprocessing projects were started comprising a total of 52,000 sqkm of 3D data being upgraded to a state-of-the-art Broadband product.

Due to continued challenging conditions for our industry in general, the majority of the surveys have been acquired in partnership or with favorable contract payment terms to reduce Spectrum's risk and cash exposure.

Attractive Multi-Client projects generally rely on a number of success factors that need to be in place. These are the presence of a proven petroleum system, good interest from exploration companies, and sales triggers in the form of upcoming license rounds or new areas becoming available for licensing. Most of the surveys acquired by Spectrum in 2016 had at least two of these three criteria fulfilled before a survey was started.

#### Africa

In September 2015, Spectrum was awarded an exclusive agreement with the Somalian Federal Government to acquire new Multi-Client 2D data offshore Somalia as well as the exclusive brokerage rights for 20,000 km of existing 2D data. The new survey attracted strong industry support and commenced in December 2015. Despite the complexity of logistics and security, the survey was completed ahead of time in April 2016, with 20,809 km of new Broadband data successfully acquired. The data has been Broadband processed using Spectrum's deghosting and data conditioning solution. Evaluation and interpretation of the data is ongoing and will form the basis of a 2017 license round offshore Somalia that is expected to attract good interest due to the





Outline of the Gryphon 3D survey, covering mainly open blocks in shallow waters offshore Gabon.

Coordinate System: WGS 1984 UTM Zone 329 | Author

potential for giant oil discoveries in an unexplored basin.

Following studies of vintage data over the shallow water parts of Gabon, our geoscientists identified the outlines of a new play type underneath the salt, even though it is hardly visible on the existing data. The 'Direction Generale des Hydrocarbures' (DGH) supported Spectrum's proposal to acquire modern 3D seismic over the identified areas and awarded Spectrum an exclusive Multi-Client contract for three prospective shallow water areas. The programmes are located in under-explored areas over open blocks in water depths pre-dominantly ranging from 30 to 200 m. The DGH intends to make these blocks available through future shallow water license rounds. Spectrum's new

3D Broadband seismic will image high potential pre- and post-salt play types. Fully processed and depth migrated data will be available for upcoming license rounds, thus facilitating immediate exploration activity when the blocks are awarded.

On 31 December, Spectrum commenced acquisition of the 10,000 sqkm Gryphon 3D survey in southern Gabon. The survey has attracted strong industry funding and is expected to be completed early Q3 2017. A further 5,500 sqkm 3D survey over open acreage in Northern Gabon, and an additional 1,500 sqkm 3D survey offshore Central Gabon will be acquired subsequently. Data will be available toward the end of the year, ahead of anticipated licensing rounds.

#### Asia Pacific

During 2016 the region has gained significant momentum, largely due to focusing on the Northwest shelf activities in Australia. Following the acquisition of the Fugro library in 2015, Spectrum's 3D coverage in this region totals 40,000 sqkm of newly acquired 3D Multi-Client data (less than 5 years old) and this offers a strong platform for developing further opportunities.

In Q2 2016, Spectrum partnered with Polarcus and Downunder Geosolutions to commence the Cygnus South 3D survey in the Browse basin. A total of 3,500 sqkm of data was acquired using Polarcus' XArrayTM configuration with a 12.5 m triple source interval and continuous recording, delivering a 33% improvement in cross-line data density. The survey is adjacent to Spectrum's Cartier 3D survey, acquired in 2010 and recently reprocessed to Broadband PSDM. The survey was supported by industry and the area is of high interest for future licensing activities.

The Olympus Broadband reprocessing and merging project started in Q3 2016. The project is centered around existing Spectrum 3D coverage on the Australian Northwest Shelf, complemented by JV Ultracube data with Searcher Seismic and various open file 3D surveys. In total, data is used from over 20 different 3D surveys which are processed and merged from raw data by Downunder Geosolutions. The final product will be a consistent and fully depth migrated Broadband dataset of approximately 21,000 sqkm. Intermediate data products already show a significant uplift in imaging resolution and the data will allow clients to perform both a cost effective regional as well as prospect focused interpretation. The project has attracted strong industry interest and the scope has been expanded as the project progressed. Final PSTM products will be available during Q2 2017 and PSDM products near the end of Q3 2017.

#### Americas

With the prospect of frequent annual license rounds and indications that the local content requirements will be relaxed going forward, the main focus of activities has been on new surveys and data reprocessing of existing data in Brazil.

At the end of March 2016 the Amazonas Phase 3 MC2D survey was started with the aim of tying five of Spectrum's existing Northern Margin programs and to produce a continuous dataset from the French Guyana border to the Potiguar basin. A 12,000 m streamer was used to ensure imaging of the deep basin architecture as well as image the prospective zones in the shallower sections. The survey was carried out in partnership with BGP and the data complements Spectrum existing coverage of over 125,000 km of recently acquired and reprocessed data to provide industry with a uniform dataset along the Brazilian Equatorial Margin. The high end products, including PSTM and PSDM plus associated Broadband products, will tie seamlessly across the area.

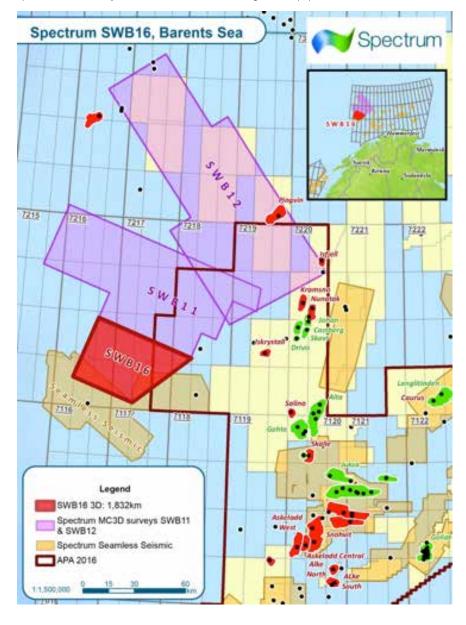
Following completion of the Amazonas survey, the vessel proceeded to acquire the Santos Campos phase 2 MC2D survey, again in partnership with BGP. This survey is an outboard extension of Spectrum's 2012 phase 1 survey and will tie existing Spectrum data in the Santos Campos and Espirito Santo Basins. Again using a long offset streamer the objective is to image the deeper basin architecture as well as the prospective zones in the pre-salt section. Data acquisition was completed by year-end and the data is currently being processed with PSTM, PSDM (Kirchoff and RTM) and Broadband products expected to be available in Q2 2017. The survey was supported by industry and will be a valuable asset for future pre-salt licensing rounds.

#### Northwest Europe

Spectrum expanded its coverage in the Western Barents Sea with a 1,300 sqkm Multi-Client 3D seismic survey, carried out during Q4 2016 in partnership with BGP. At the same time a Broadband reprocessing project was initiated to upgrade Spectrum's 2010 vintage 3D data in the area. The new survey will be

merged with the reprocessed product, resulting in a consistent 3D volume of 15,000 sqkm of modern Broadband data. The Western Barents Sea has seen renewed interest with two exploration wells planned for 2017 and data will be available in time for the 2017 APA round as well as the 24th licensing round.

Spectrum's new survey outline in red, and its 2010 vintage data in puprle.



# Seismic Imaging

During the year Spectrum processed 223,000 km of seismic data both newly acquired projects and reprocessing projects.

Proprietary work was not as strong as the previous year, but we were able to process 13,000 km of 2D data and 440 sqkm of 3D data. We are optimistic that as the price of oil stabilizes in 2017 both our Multi-Client projects and proprietary tenders will increase creating new and exciting opportunities for Seismic Imaging in the coming year.

We had many goals in 2016. We wanted to create a unified, best-in-class software toolkit, benchmark key processes in the pre-stack time processing workflow between Paradigm® and SPA (Spectrum's internal software) and implement the best solutions. We also wanted to maintain a healthy backlog of Multi-Client work in all of our processing centers

globally, adding value and extending the revenue generating lifetime of our library. Providing consistent data quality and turnaround on all projects was essential. We persevered to make this happen by providing on the job training for our staff, working closely with our clients and actively seeking and reacting to their feedback. We continue to improve our project management, processes, and procedures with each and every project.

2016 was also a pivotal year for reviewing and evaluating cost within Seismic Imaging globally. During the year we reduced staff in Houston, Woking and Cairo.

Spectrum R&D staff were busy in 2016 with the implementation of a new de-ghosting algorithm called XorSeis. The purpose of this algorithm is to remove the source and receiver ghosts recorded in acquisition such that the remaining data has a broadened bandwidth, sharper wavelets and better resolution for improved interpretation. Figure 1 is an example of before and after broadband processing.

In addition, we continued to utilise continuous recording on many newly acquired projects around the globe.

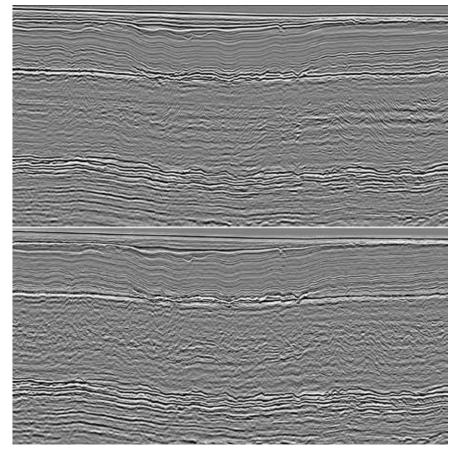


Figure 1: Top – before broadband processing; bottom – after broadband processing.

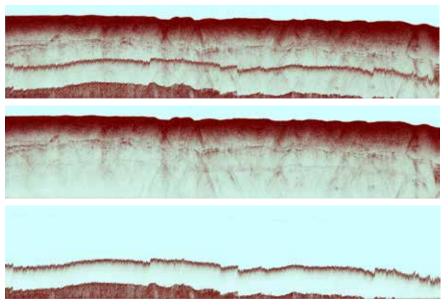


Figure 2: Top – Data before de-blending, Middle – data after de-blending, Bottom – difference before and after de-blending.

Continuous recording allows for more efficient data acquisition (lower costs), as well as the ability to acquire data for longer data records. This type of acquisition coupled with our de-blending processing technology allows us to successfully image both the shallow and the deep subsurface which traditionally may have required two separate surveys. Following an initial rollout of continuous recording and de-blending in 2015, the R&D team has continued to work closely with the production processing teams in 2016 across several projects in order to improve the efficiency of the workflow.

Figure 2 illustrates data that has been continuously recorded without de-blending, with de-blending, and the difference

The R&D team continues to develop new software tools to improve processing quality and turnaround. In 2017 our R&D strategy is to continuously improve previously developed technology and also focus on new technology to improve our processing and imaging capabilities for our clients.

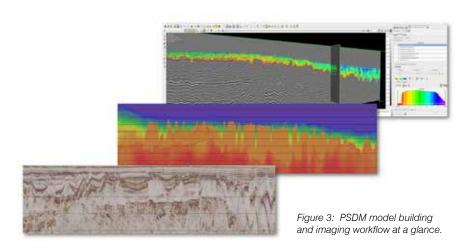
Paradigm® Echos and GeoDepth continue to be important tools in our toolkit. In order to improve quality, efficiency and turnaround of the 2D PSDM projects, in collaboration with Paradigm® we have developed and deployed a new multi-line tomography

workflow. The quality improvement comes from a robust tomography engine that utilises modern algorithms such as structural smoothing and interactive 2D/3D quality control capabilities; this allows us to build geologically consistent velocity models in basins of different complexity.

The multi-line workflow was designed specifically for 2D projects where we are building, quality controlling and running a number of lines simultaneously, and it is already showing improvements in turnaround. Optimization of the tomography code is also reducing run times and making resources available for other processes.

The end goal we are trying to achieve is very fast turnaround and optimal quality on very large 2D projects. We are moving to anisotropic (VTI) model building and imaging in complicated salt basins without compromising the quality of our models or data.

In summary, 2017 will continue to be a challenging time as the oil and gas industry finds its equilibrium with the new oil price. Spectrum continues to invest in new Multi-Client projects, new technology, and people. Although little exploration seismic processing or reprocessing occurred in 2016 there are some reasons for optimism in 2017 including a stabilized oil price. Oil companies have completed major restructuring and hopefully will start to do more exploration going forward. We look forward to the challenges before us in the coming year and will continue to strive to support our clients with quality seismic data solutions.



# **Executive Management Team**



Rune Eng (1961)
President & Chief Executive Officer

Mr. Eng has a broad range of experience in the seismic industry. He has held various executive positions in the oil industry, most recently in Petroleum Geo-Services (PGS) and before that Fugro-Geoteam, Sevoteam and a senior consultant position in Digital Equipment Computing (DEC). Mr. Eng is a Norwegian citizen based in the Oslo office.



Svein O. Staalen (1971) General Counsel

Mr. Staalen was previously Corporate Legal Counsel in Det Norske Veritas (DNV). Prior to that, he worked eight years as a lawyer in the law firm Haavind and two years as Corporate Legal Counsel in the Nycomed Group. He holds a Master's of Law degree from the University of Oslo and a Diploma in English Commercial Law from the College of Law, London. Mr. Staalen is a Norwegian citizen based in the Oslo office.



Neil Hodgson (1961)

<u>Exec. Vice President Geoscience</u>

Dr. Hodgson joined Spectrum in June 2012, having previously worked for BP, BG and Premier Oil in a number of Exploration Geology roles over a 25 year career. His last role prior to joining Spectrum was as Exploration Director for Matra Petroleum. Neil is focussed on developing the understanding of hydrocarbon plays in the Mediterranean and Middle Eastern areas of Spectrum's Library. Mr. Hodgson is a British citizen based in the UK office.



Henning Olset (1959) Chief Financial Officer (CFO)

Mr. Olset has previously worked for IBM and been the CFO of two other companies listed on the Oslo stock exchange. In his former assignment Henning joined Staples in 2006 with the acquisition of Andvord Tybring-Gjedde ASA, where he was CFO. He holds a Master's of Science (Siv.ing) from NTNU and an MBA (Hons) from Handelshøyskolen Bl. Mr. Olset is a Norwegian citizen based in the Oslo office.



Jan Schoolmeesters (1966) Chief Operating Officer (COO)

Mr. Schoolmeesters holds a PhD in Geophysics from Delft University of Technology (the Netherlands) and joined Spectrum as COO in August 2011. He has substantial experience in the seismic industry having served 16 years in various roles in PGS with a technical, operational, and commercial background. His latest position was with PGS as President of Asia Pacific. Mr. Schoolmeesters is a Dutch citizen based in the Oslo office.



Graham Mayhew (1961) Exec. Vice President Multi-Client: Africa, Mediterranean & Middle East

Mr. Mayhew joined Spectrum in March 2013. He brings with him 30 years' experience in the seismic industry, having previously worked for Western Geophysical, Cogniseis, Landmark and WesternGeco in various managerial roles. During the last 14 years Graham has been focusing his efforts on developing new ventures and the Multi-Client business in Africa for WesternGeco where his last role was Multi-Client manager for Europe and Africa. Mr. Mayhew is a British citizen based in the UK office.



Richie Miller (1963) Exec. Vice President Multi-Client, Americas

Mr. Miller brings with him a wealth of knowledge, gained from over 29 years of experience within the seismic industry. He joined Spectrum from CGGVeritas where he held the position as Director of Marketing & Business Development. During that time, he was responsible for developing the data library, identifying new opportunities and general business development of the US and South American libraries. His other positions with other global companies included Marine Acquisition Manager, Senior Geophysicist and Director of Geology & Geophysics.

Mr. Miller is an American citizen based in the Houston office.



Mike Ball (1958) Exec. Vice President, Seismic Imaging

Mr. Ball joined Spectrum in March 2013 with 30 years of industry experience. He previously worked for TGS, Schlumberger Geco-Prakla, and Western Geophysical in various seismic imaging and project management positions. In his last role at TGS, Mr. Ball had global responsibility as Director of Data Management and Quality Control. He graduated from Texas A&M University with degrees in Marine Science and Geophysics. Mr. Ball is an American citizen based in the Houston office.





Mr. Edwards brings a wealth of knowledge from the oil and gas industry, with a career that has spanned over 47 years. He started his career in 1970 with Phillips Petroleum. In 1982 he became part of the initial team of JEBCO Seismic Ltd and focussed on the UK and then the Soviet Union. This was followed in 1992 by his move to Digicon Geophysical where he was responsible for starting the Data Library and Geological Services departments for EAME Division. Throughout his time with Digicon/Veritas and finally CGGVeritas in 2010, he held various senior positions with his last role as Senior Vice President Data Library EAME and Global New Ventures. In late 2010 Mr. Edwards was one of the original members of the Executive Team of Dolphin Geophysical responsible for Global Multi-Client Surveys and New Ventures. During his career Mr. Edwards has initiated many unique Multi-Client seismic surveys which have stimulated industry investment and exploration. He was also responsible for the concept of the highly successful PROMOTE Licensing mechanism in the UK. Mr. Edwards studied Geology at Birkbeck College, University of London and later Law at London University externally. He is a British Citizen.

# The Board



Pål Stampe (1975), Chairman

Mr. Stampe is a partner at Spectrum's largest shareholder Altor Equity Partners. He has previously held positions at Danske Securities and McKinsey & Company. Mr. Stampe holds a Master's degree in Mathematics and Physics from NTNU, Trondheim. He is a Norwegian citizen and resides in Oslo, Norway.



Glen Ole Rødland (1964), Board member

Mr. Rødland is a Senior Partner in HitecVision. He joined HitecVision in January 2016 from the position as Director and co-investor of Direct Active Investments in Ferncliff TIH AS (ten years). Mr. Rødland has PhD studies in Finance from the Norwegian School of Economics and Business Administration (NHH) and UCLA. He has worked as a management consultant in PWC and research assistant at NHH. He has also worked as a market and investment analyst at Jebsens, a shipping company based in Bergen. Mr. Rødland has worked 15 years with portfolio management and investment banking for Vital (2 years) and First Securities (formerly Elcon Securities) (13 years). Mr. Rødland`s experience is mainly within Energy, Basic Materials and Shipping, where he has significant transaction experience. Mr. Rødland is a member of the Board of Directors of several companies, including Aqualis ASA. He has previously been a member of the Board of Directors of Weifa ASA, First Securities ASA, Norske Finansanalytikers Forening, Standard Drilling ASA and Noble Denton. Mr Rødland is a Norwegian citizen and resides in Oslo, Norway.



Linda Rudolfsen Myklebust (1974), Board member

Mrs. Rudolfsen Myklebust has broad experience as legal counsel in the oil service branch. She currently holds the position as General Counsel in Odfjell Drilling. Previous positions include Senior Associate in the lawfirm Wikborg, Rein & Co and Senior Legal Counsel in Petroleum Geo-Services. She holds a Master of Law degree from the University of Bergen, Norway. Mrs. Myklebust is a Norwegian citizen and lives in Bergen, Norway.



Ingrid Elvira Leisner (1968), Board member

Mrs. Leisner has previously worked as Head of Portfolio Management for Electric Power in Statoil Norge AS. She also has a background as a trader of different oil and gas products in her 15 years in Statoil ASA. Mrs. Leisner is member of the audit committee in Spectrum ASA. She holds a Bachelor of Business degree (Siviløkonom) with honors from the University of Texas at Austin. Mrs. Leisner serves on the Board of several companies listed on the Oslo Stock Exchange. Mrs. Leisner is a Norwegian citizen and lives in Oslo, Norway.



Maria Tallaksen (1980), Board member

Ms. Tallaksen is a director at Spectrum's largest shareholder Altor Equity Partners. She has previously held positions at Morgan Stanley's Investment Banking Division and Global Capital Markets. Ms. Tallaksen holds a Master of Science in Business (Siviløkonom) from BI Norwegian School of Management. Ms. Tallaksen is a Norwegian citizen and lives in Oslo, Norway.





Mr. Romestrand is Director and Founder of investment company Rome AS, investing in oil service companies and property. He has been in the oil service business for more than 30 years in different positions. His recent role was as CEO and President for ODIM ASA until the company was sold to Rolls Royce in 2009. Mr. Romestrand took the company public in 2005 after a management buy out in 2002. In the period of 2002-009 the company went from 100 mill NOK to 2,5 bill NOK in revenue. Other positions: Chairman at Neptune Offshore AS and Impact Solutions AS, board member at Impact Engineering AS and, until recently, board member at Eco Stim Energy Solution Inc. (public at Nasdaq USA). Romestrand is Norwegian citizen and resides in Ulsteinvik.

# **Board of Directors' Report**

Also in 2016 Spectrum continued to execute on its strategy to become one of the leading pure play marine Multi-Client companies based on an assetlight business model. The Group has limited long-term operational financial commitments and hires in vessels and crew on a project by project basis. This provides the Group with the financial flexibility to meet changes in the market. The Company's Seismic Imaging unit uses Seismic Imaging technology and services to deliver high quality products and solutions to oil companies. The Seismic Imaging unit also reprocesses data to enhance the quality of our expanding data library. The pure play marine Multi-Client strategy was formed late in 2010. In 2011 Spectrum discontinued the operation of vessel business segment allowing the group to focus on developing the core business of marine Multi-Client surveys. In 2011 Spectrum stepped up the investments in Multi-Client surveys by making organic investments of USD 14 million and structural investments of USD 40 million by acquiring the marine 2D Multi-Client library of CGG. In 2012 the Spectrum organic Multi-Client investment grew to USD 76 million followed by USD 85 million in 2013. During 2013 Spectrum also acquired the Norwegian companies Carmot Seismic AS and Carmot Processing AS. This acquisition established a significant footprint for Spectrum on the Norwegian Continental Shelf adding 3D seismic data cubes covering approximately 125,000 sqkm of the Norwegian Continental Shelf and more than 80.000 km of merged and matched 2D data in the Barents Sea.

In 2014 Spectrum's Multi-Client investment ended at USD 113 million, an increase of 33% vs. 2013. The major parts of the 2014 Multi-Client investments were made in Brazil, Croatia and Norway. License rounds were expected to take place in many of these areas in 2015 in addition to license round addressing these areas already during 2014.

In 2015 Spectrum made organic Multi-Client investments of USD 66 million and structural investments of USD 109 million by acquiring the marine Multi-Client library of Fugro. Through this acquisition Spectrum stepped up to be the world's number 1 in terms of size of marine Multi-Client 2D library and also gaining momentum in the 3D market.

In 2016 Spectrum's organic Multi-Client investments ended at USD 51 million. These investments came primarily in Somalia, Brazil, Mexico, Norway and Australia.

Late in 2012 Spectrum invested in the Group's first marine 3D survey offshore Lebanon and this survey was followed up by a second survey in the same region early 2013. Late 2013 Spectrum also decided to initiate a large 3D survey in the Amazonas delta, jointly with CGG. This survey started in January 2014 and the acquisition phase ended first week of October. Processing of the Amazonas 3D survey was finalized in 2015. During 2015 Spectrum completed the acquisition of 2D surveys in Brazil, Australia and Mexico. In addition Spectrum commenced a new 2D survey in Somalia and a 3D survey in Australia. The 2D survey in Somalia continued through most of 2016. Spectrum also commenced on a 3D Multi-Client campaign in Gabon at the end of 2016.

Spectrum has a clear number one market position in terms of the volume of 2D seismic data held worldwide with more than 3.3 million km of marine data. Looking at the balance sheet, approximately 94% of the book value of the Multi-Client seismic library is related to library additions made in 2015 and 2016. As such the Spectrum library is very fresh and maintains a high quality. The step change in Spectrum's Multi-Client investments has also directly impacted on Multi-Client sales even if 2016 and 2015 came in at levels below 2014. Net Multi-Client sales have moved from USD 46 million in 2011 to USD 114 million in 2012, USD 141 million in 2013, USD 181 million in 2014, USD 109 million in 2015 and USD 72 million in 2016.

Looking at net late sales, 2016 revenue ended at USD 50 million, down from USD 79 million in 2015.

#### **Results**

The currency of presentation for the financial statement of Spectrum is USD, which reflects the functional currency of

the entities and transactions undertaken by the Group.

Gross revenue for Multi-Client and Seismic Imaging, for the year ending 31 December 2016, was USD 78.2 million. Adjusted for revenue share net revenue came in at USD 73.7 million, split between Multi-Client services of USD 72.4 million and Seismic Imaging of USD 1.3 million. In addition Spectrum recognized USD 13.1 million as "Other revenue" in 2016. The "Other revenue" reflects a tax credit in Brazil derived from transaction taxes booked In the period 2011-2016.

The Group EBIT in 2016 was negative USD 19.0 million (includes impairment of USD 12.9 million of the Multi-Client library and technical goodwill) compared to negative USD 5.2 million in 2015 (includes impairment of USD 16.1 million of the Multi-Client library).

#### **Going Concern Assumption**

The Board confirms that the Group's financial statements have been prepared on a going concern basis in accordance with the Norwegian accounting act §3-3a which takes into account the forecasts for 2017 and the long term strategic view of the Company and the market.

#### **Market Risk**

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities. Financial market risk is the possibility that fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risk, and actions are taken to mitigate specific risks identified. Spectrum established early 2014 an USD account in Brazil. This reduced currency risk related to our operation in Brazil. The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly held in USD.

#### Liquidity risk

The Board of Directors considers the liquidity risk to be moderate. Risk is negatively impacted by the currently

weak market conditions, but at the same time positively impacted by the material increase of Spectrum's Multi-Client seismic library and continued high focus on cash flow related to new acquisition projects.

Some new projects are also de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions. Liquidity risk is primarily related to potentially realising lower sales than expected from existing library.

At 31 December 2016 the Spectrum Group had current assets of USD 80.5 million (2015: USD 105.3 million) and current liabilities of USD 103.9 million (2015: USD 135.7 million). The Group held USD 15.8 million (2015: USD 23.4 million) in cash and cash equivalents as of 31 December 2016.

#### Credit risk

The customers of the Spectrum Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class (see note 10). Management considers the provisions in each legal entity sufficient to cover risk related to receivables balances. The overall credit risk is considered to be low and Spectrum had no losses on receivables in 2016.

#### Currency and Interest rate risk

A 1% change in the currency rate NOK to USD would impact the Group's net result by less than 0.1%. Spectrum Geo Do Brazil SG LTDA has bank deposits and tax liabilities in BRL. A 1% change in the currency rate BRL to USD would impact the Group's financial position by less than 0.1%. The risk related to interest rates is considered limited since the operation is not capital intensive.

#### Liquidity

As at 31 December 2016 the total assets of the Group were USD 313.7 million, including USD 15.8 million in cash and cash equivalents.

Spectrum is positioned to meet its future working capital commitments through internally funded cash flow.

The Board of Spectrum has approved a stock option program for senior exec-

utives. As of 31 December 2016 there were 5.5 million outstanding options with an average exercise price of NOK 22.91. Of the outstanding options 4.7 million options are exercisable in 2017.

#### **Corporate Governance**

Spectrum is committed to maintaining high standards of corporate governance. We believe that effective corporate governance is essential to the well-being of the Company and establishes the framework by which we conduct ourselves in servicing our client's needs, achieving strategic goals and delivering value to our shareholders. The Company is registered in Norway as a public limited company.

The Company has Audit and Remuneration committees.

#### **Corporate Social Responsibility**

Corporate Social Responsibility is an integrated part of Spectrum's way of doing business. Spectrum's corporate mission is to achieve world-leading performance through persistence, dedication and full commitment to quality. Further, supplying global seismic solutions through dedicated and experienced people.

We believe Spectrum's commitment to core values like business integrity, respect for others, fair play and honesty is key to realizing our corporate mission.

Spectrum takes the responsibility towards the Group's stakeholders very seriously and considers how all parts of the Group's operational activities can potentially impact them. This consideration includes thorough planning of all projects, extensive communication with regulatory bodies and local communities (including permitting processes), quality based selection of local representatives and partners.

#### Customers

We focus on working in partnership with our customers to deliver consistent quality Multi-Client seismic data and seismic processing services on time and to budget.

#### **Employees**

It is Spectrum's policy to treat all employees with the same level of professionalism regardless of their sex, sexual orientation, age, race, ethnic origin, colour, nationality, disability or marital status. Furthermore, the Company believes that no employee should be prejudiced in any aspect of their employment or career development. The Company will take appropriate measures for any instances of non-compliance with this policy.

#### Community and Environment

The Group's activities involving the collection of seismic data mean that there is a level of interaction with the external environment. Spectrum is continually working on its operational procedures in order to minimize the environmental and social impact on the people, communities and the surroundings in which we operate. We are dedicated to continuous improvements in all parts of our operation. Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. Spectrum endeavours to ensure that security services are only used where deemed necessary and that the provision of security is in accordance with international standards of best practice and the laws of the countries in which we operate. We act with fairness in our business practices and do not use our dealings with political organisations or our business partners to secure an unfair advantage over others.

Spectrum also made contributions to a number of charities in 2016 and employees of Spectrum is also encouraged to be actively involved in charitable activities.

Spectrum focus specifically on compliance, anti-corruption and safe and environmentally friendly execution of our seismic projects.

#### Anti-Corruption and Compliance

Spectrum shall actively combat bribery and corruption and we shall act professionally, fairly and with integrity in all our business dealings and relationships wherever we operate.

Spectrum's Code of Conduct and Anti-Corruption Policy may be found at www.spectrumgeo.com. The Spectrum Code of Conduct describes the requirements in terms of business ethics and conduct applying to Spectrum's business activities. Spectrum is committed to comply with all legal and ethical requirements of the industry.

Our Code of Conduct and Anti-Corruption policies are approved by the Board of Directors and are applicable to all employees.

Spectrum operates in several high risk countries which puts an obligation on us to act diligently. Our policies emphasize Spectrum's zero tolerance approach to bribery and corruption. The policies expressly prohibit bribery and other illegal payments as well as giving guidance on gifts and hospitality.

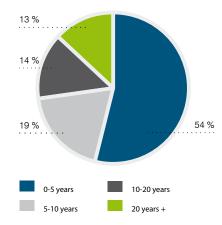
Spectrum has implemented a whistle blower policy where employees are encouraged to report any violation of Spectrum values or policies to their supervisor or to the Code of Conduct Committee. Spectrum investigates all potential violations of its policies or of any applicable anticorruption laws. In order to increase awareness, all Spectrum employees are required to take an anti-corruption course.

Spectrum has conducted an internal risk assessment related to corruption and compliance. One particular risk area that has been identified and addressed is the engagement of local representatives, which has led to a separate policy on this being implemented internally. Spectrum regularly conducts due diligence on thirdparty relationships depending on various risk factors such as location, services and stakeholders involved, including use of a well renowned external company preparing integrity due diligence (IDD) reports. All Spectrum's local representatives are annually required to certify compliance with applicable anti-corruption laws, including Spectrum's own policies. Spectrum includes anti-corruption provisions in the relevant agreements with the local representatives, including audit and termination rights.

The implemented policies and training have increased awareness among Spectrum employees and other representatives related to anti-corruption and compliance issues.

Spectrum intends to continue the monitoring of its anti-corruption policies including further training of employees and also of other representatives of the

Length of service for employees in Spectrum



Spectrum Group. Our policies are continually assessed to identify weaknesses and areas for improvement.

#### People

Spectrum is committed to creating a work environment free of harassment and bullying, where everyone is treated with dignity and respect. We are committed to promoting equal opportunities in all areas and to avoiding unlawful discrimination in employment and against our clients and customers.

Spectrum directly employed 147 people end December 2016 compared to 172 end December 2015. In addition Spectrum has a Joint Venture in Egypt with 42 employees. We had 8 new hires through 2016 and 3 individuals was transferred internally. The employee turnover in 2016 was 9%.

Gender of Board of Directors are: 50% female and 50% male.

The gender of managers are: 29% female and 71% male

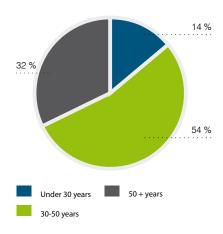
Gender of total number of employees: 42% female and 58% male

52% of managers are in the age span 30-50 and the rest above 50 years old.

The salary for men and women performing the same role is similar with differences due to length of service and individual skill sets.

#### Training and Conferences

Spectrum offers strong professional and technical development opportunities by providing a wide range of training options both internally and externally through Age distribution for total number of employees



strong collaborations established with technology providers and academic institutions. Internal training was delivered through monthly open to all "lunch and learns" as well as yearly internal department specific technical seminars and forums. Companywide online technical training was adopted offering a wide range of oil industry related training modules covering all levels of experience. Software training, academic presentations by university professors and relevant technological updates by technology partners, all took place onsite.

Spectrum strongly encourages employee attendance to major industry events. Additionally, Spectrum took part in the "Nautilus" series of pre-committed training days programme.

Spectrum has established a close collaboration with over 15 universities worldwide, participating closely in both MSc and PhD projects using Spectrum's seismic data. In exchange the universities offer the geoscience employees of Spectrum different courses and fieldtrips to places of geological interest.

#### Working Environment and Health Safety & Environment "HSE"

Spectrum is committed to protect the health, safety and security of its employees, contractors, clients and the public while protecting the environment in which it operates. Spectrum will promote an effective and proper understanding of its HSE requirements with all employees and contractors. All Spectrum personnel are required to cooperate on all matters relating to HSE and to always consider and prioritize the health and safety of themselves and others who may be affected by their actions.

It is Spectrum's objective to:

- Maintain high standards for health, safety and the protection of the environment;
- Communicate these standards to all Spectrum personnel and external parties where necessary;
- Ensure that all Spectrum personnel are given the necessary information, instruction and training to enable them to work in a safe manner.

It is Spectrum's Policy to:

- Provide adequate control of the health and safety risks arising from our work activities;
- Consult with our employees on matters affecting their health and safety;
- Provide and maintain safe premises and equipment;
- Ensure safe handling and use of substances;
- Provide information, instruction and supervision for employees;
- Ensure all employees are competent to do their tasks, and to give them adequate training;
- Prevent accidents and cases of work-related ill health;
- Maintain safe and healthy conditions; and
- Review and revise this policy as necessary at regular intervals.

The average number of days lost through illness in 2016 was 1.8%.

With regard to the offshore operations the following safety performance was recorded for 2016:

Total Man hours	941,361
Fatalities	0
Lost Time Incidents	0
Medical Treatments Cases	2
Restricted Work Cases	0
High Potential Incidents	0
LTI Case Frequency (per million man-hours)	0
High Potential Case Frequency (per million man-hours)	0
Recordable Case Frequency	
(per million man-hours)	2.1

Of the two Medical Treatment cases recoded one was not work related.

In 2016 Spectrum did not experience any major incidents in our operations. This meant no harm to our employees or contractors, and no significant spills or other environmental damage. Spectrum believes that safe operations are fundamental to the success of our business.

#### Human Rights

Spectrum has an organizational culture which is committed to supporting internationally recognized human rights, including the United Nations Declaration of Human Rights. We seek to respect the human rights of our employees in all areas, including non-discrimination of any kind, the prohibition of enforced labour and child labour and the freedom of association. Spectrum makes every effort to be fully aware of human rights issues and through our actions seek to uphold human rights and foster equality and respect for all.

#### Community & Charitable Relations

Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. We actively engage with local communities, providing them with the opportunity to comment and address any concerns regarding projects involving the acquisition of seismic data.

Spectrum made contributions to a number of charities in 2016. The Company and our staff are actively involved in charitable activities, which resulted in a number of significant donations being made.

#### **Shareholders Equity / Dividends**

As of 31 December 2016 there are 53.449,103 shares in issue, which are traded on the Oslo Stock Exchange (SPU), the largest 5 shareholders controlled 44.07% of the shares in the Company. A detailed listing of the largest 20 shareholders and the holdings of the Directors and Executive Management can be found in Note 12.

20 May 2016 the AGM gave the Board of Directors a Power of Attorney, pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 5.3 million through one or more increases in the share capital. This power of attor-

ney and the power of attorney to issue convertible loans (as set out in item 13) are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration. The power of attorney may be utilized in connection with issuance of shares as complete or partial settlement for or financing of mergers or in connection with acquisition of companies, businesses or assets. The power of attorney may also be used for the purpose of strengthening the financial ability of the Company to accomplish such transactions, and for the purpose of investments in Multi-Client seismic studies.

The Power of Attorney is valid until the annual General Meeting in 2017, expiring at latest on 30 June 2017 and replaces the corresponding Power of Attorney granted at the General Meeting 22 May 2015.

20 May 2016 the AGM gave the Board of Directors a Power of Attorney pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 4.0 million through one or more increases in the share capital. The power of attorney may be utilized in connection with the share option scheme of the Company.

The power of attorney may not be used in connection with increase in the share capital with settlement by contribution in kind, by way of set-off, or with conditions that shares may be subscribed for on other particular terms, cf. Public Limited Liability Companies act section 10-2.

The Power of Attorney is valid until the annual General Meeting in 2017, expiring at latest on 30 June 2017. This Power of Attorney replaces the corresponding Power of Attorney granted at the General Meeting 22 May 2015.

20 May 2016 the AGM gave the Board of Directors power of attorney pursuant to the Public Limited Liability Companies act section 11-8 to issue convertible loans which will give lender right to have shares issued against payment of money or by set-off against the receivable.

Loans may be issued in one or several rounds with a maximum loan amount of NOK 400 million.

The share capital of the Company can in total be increased by up to NOK 5.3 million. This power of attorney and the general power of attorney to increase the share capital (as set out in item 11) are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration.

The shareholders pre-emptive rights pursuant to the Public Limited Liability Companies Act section 11-4 may be waived, ref the Public Limited Liability Companies Act section 10-5. The Board of Directors is granted the power to amend the articles of association section 4 in the event of conversion according to the power of attorney.

The Power of Attorney is valid until the annual General Meeting in 2017, expiring at latest on 30 June 2017. This Power of Attorney replaces the corresponding Power of Attorney granted at the Annual General Meeting for 2015.

20 May 2016 the AGM gave the Board of Directors authorization, pursuant to the Public Limited Companies Act section 9-4, to purchase up to 5.3 million own shares with a total nominal value of NOK 5.3 million corresponding to approx. 10% of the Company's share capital.

The amount paid per share shall be minimum NOK 1 and maximum NOK 150.

The Board of Directors is free to decide how the acquisition and disposal of shares takes place, but shall ensure that general principles of equal treatment of shareholders shall be complied with. Disposal of own shares acquired according to this authorization, shall primarily take place as part of fulfillment of the Company's obligations under option programs for senior executives.

This authorization will be effective from the time it is registered in the Norwegian Register of Business Enterprises. The authorization is valid until the day of the annual general meeting in 2017, expiring at latest on 30 June 2017.

The authorization replaces the corresponding authorization granted at the annual general meeting of the Company for 2015.

The Extraordinary General meeting (EGM) 13 November 2012 approved a share option program to senior executives in the Spectrum Group of 8 million options, up from previously 6 million. The program otherwise continued as approved in the EGM held 30 November 2010.

In the Annual General Meeting 23 May 2014 the limit for the option program was further increased from 8 million options to 10 million options of which 2.204,125 options are not granted per. 31 December 2016. Each option gives the right to acquire or subscribe for one share in the Company. Vesting of options related to the first part of the option program take place over a four year period with 15% vested after 1 year, 20% after two years, 25% after 3 and 40% after four years. The second part of the option program vest over a three year period, starting from autumn 2014.

The Board of Spectrum ASA proposes that dividend related to the 2016 period should be reassessed during 2017 post repayments of outstanding bullet loan. Spectrum ASA had USD 181.8 million in equity per 31 December 2016.

#### **Market Outlook**

The Exploration and Production segment of the oil industry, to which Spectrum is a supplier, has undergone some major changes during the last couple of years with the price of oil ranging from USD ~27 per barrel to USD ~147 per barrel. with a price level of USD ~55 per barrel per February 2017. This has been brought about by a number of factors including uncertainty in the global economic outlook, political issues in the Middle East and unbalance in supply/demand due to among others increase in shale oil production. The market now estimates that 2017 will be flattish in terms of activity level and expenditure in the E&P arena relative to 2016.

Spectrum's overall investment criteria for Multi-Client projects will be focused on the quality of the projects and prefunding level will be key for project realization.

Seismic Imaging is an integral and important part of our Multi-Client offering and Spectrum continues to invest appropriately in order to maintain its long-term strategies of securing backlog and delivering additional products.

The Board underline that, given the current market, there are many factors outside the Group's control that could affect Spectrum's future performance so all statements related to the future do involve unknown risks and uncertainties.

#### **Profit Allocation**

The parent company, Spectrum ASA, has a net profit of USD 0.027 million. This will be transferred to retained earnings.

Oslo, 26 April 2017

Pål Stampe Chairman of the Board

Linda Rudolfsen Myklebust

Board member

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Jogeir Romestrand Board member

Glen Rødland

Roard member

Ingrid Leisner

Maria Tallaksen Board member

and er Rune Eng



# Board of Directors and CEO statement of Compliance

# Confirmation from the Board of Directors and CEO

We confirm that, to the best of our knowledge, the consolidated financial statement for the year ended 31 December 2016 have been prepared in accordance with IFRS as adopted by the EU, and give a true and fair view of the Group's assets, liabilities, financial position and results of operations.

We confirm that, to the best of our knowledge, the financial statements for the parent company for the year end 31 December 2016 have been prepared in accordance with the Norwegian Accounting Act and IFRS as adopted by the EU, and that these financial statements give a true and fair view of the company's assets, liabilities, financial position and results of operations.

We also confirm that the Report of the Board of Directors includes a true and fair review of the development, performance and financial position of the group and the Company, and includes a description of the principle risks and uncertainties facing the entity and the group.

Oslo, 26 April 2017

Pål Stampe Chairman of the Board Glen Rødland Board member Ingrid Leisner Board member Maria Tallaksen Board member

Linda Rudolfsen Myklebust

Board member

Jogeir Romestrand

Board member

Rune Eng

# **Corporate Governance**

Spectrum ASA (Spectrum or the "Company") is committed to comply with the corporate governance principles, national and international legislations and regulations as well as our own values and standards.

Since its incorporation, subsequent listing on the Oslo Axess exchange and transfer to Oslo Børs in 2012, Spectrum has sought to create a framework under which it can deliver confidence and provide long term strategic growth to shareholders, employees and other stakeholders

The objective for Spectrum is to adhere to all relevant laws and regulations affecting the Company and its business activities in the regions of operation, as well as the Norwegian Code of Practice for Corporate Governance from 21 October 2010, revised in October 2011, 2012, 2013, 2014, 2015 and 2016, which itself is based on company, accounting, stock exchange and securities legislation, as well as Stock Exchange Rules, as in force at 1 October 2010, and includes provisions and guidance that in part elaborate on existing legislation and in part cover areas not addressed in legislation.

# Implementation and reporting on corporate governance

The Board of Spectrum are responsible for the implementation of strong corporate governance and is committed to the continual review of its policies. It is firmly believed that Spectrum's core corporate governance code is fully compliant with regulations.

Within its daily activities Spectrum recognises the interaction with external parties and the environment and conducts its business in a way to minimise any adverse effects on the people, societies and environments that it has contact with.

All the activities of the Group are designed to promote its basic core values or delivering on strategic goals, strengthening confidence and enhancing the value to our shareholders through an ethical and socially responsible approach to doing business.

#### **Business**

Spectrum's business as defined in the Articles of Association state that 'the Company shall be engaged in the business of offering services related to the acquisition, processing and marketing of geophysical, aeromagnetic and gravity data, and other services related to such business, including the participation in other companies engaged in similar and related business.'

#### **Equity & dividends**

The Board of Spectrum ASA propose to assess during 2017, post amortisation of current interest bearing debt, if dividend should be distributed to its shareholders in respect of the period. This proposal is based upon the result

of the operation for the year, market conditions and overall financial strength including the ability to finance future business opportunities. In general, future dividend will be subject to determination by Spectrum's Board of Directors based on its results of operations and financial condition, its future business prospects and any applicable legal or contractual restrictions. Any proposal by the Board of Directors must be approved by Spectrum's shareholders in a General Meeting.

# Equal treatment of shareholder and transactions with close associates

Spectrum has one class of shares with each share and shareholder treated equally. There are no provisions in the articles of the Company to waive the pre-emption rights of existing shareholders to subscribe for shares in the event of an increase in the share capital. Any such change will need to be justified by the Board of Directors and put before a General Meeting. The General Meeting May 20th 2016 gave the Board of Directors a power of attorney to waive these rights if deemed required. 20 May 2016 the AGM passed a resolution under which the Board of Directors is authorised to purchase up to 5.3 million own shares with a total nominal value of NOK 5.3 million. The



amount paid per share shall be minimum NOK 1 and maximum NOK 150.

Spectrum does not encourage transactions between the company and shareholders, members of the Board of Directors, members of the executive management or close associates of any such party, should such a transaction exist the Board will arrange for an independent valuation of the transaction.

A process designed to ensure that executive management and Board of Directors disclose any material direct or indirect interest in any transaction entered into by the company is in place.

#### Freely negotiable shares

Spectrum is listed on the Oslo Stock Exchange, under the tag "SPU". All shares are freely negotiable and there is no form of restriction on negotiability within the Company's articles of association.

#### **General Meetings**

The Board of Directors believe that the General Meeting is an appropriate forum for shareholders to communicate with the Board and exercise their rights of participation and promote their points of view.

The date of the General Meeting is included within the published financial

calendar and will further be communicated to shareholders, together with any appropriate information relating to any resolutions to be considered, no later than 21 days prior to the date of the meeting.

In the interest of independence and to ensure a level of impartiality in the General Meeting, it is the intention to appoint an independent chairperson for the duration of the meeting, whilst members of the Board, nomination committee, executive management and auditors will be present throughout.

#### **Nomination committee**

The nomination is elected by the General Meeting for a period of two years. The current committee was elected in May 2016 and consists of three independent individuals: Ragnhild Wiborg - Chair Kjetil Erikstad
Jon Christian Syvertsen

The mandate of this committee is to propose members to the board of directors and fees to be paid.

# Corporate assembly and Board of Directors: composition and independence

The Group employs fewer than 200 people and does not have a corporate assembly.

The articles of association allow for the Board of Directors to comprise no fewer than three and no more than seven members. The current directors are listed on page 16 and their shares ownership is disclosed in Note 12. Spectrum believes the composition of its Board of Directors ensures that it can operate independently of any special interests. There are no representatives of the Company's executive management on the Board, with the majority of Board members being independent of the Company's executive management and material business contacts.

#### The work of the Board of Directors

The Board of Directors represents, and is accountable to, the shareholders of the Company. They are responsible for the business activities and supervision of the executive management including the implementation of control systems that ensure compliance with regulations and any applicable legislation. An annual plan is to be prepared with particular emphasis on objective management, strategy and its implementation with a clear definition as to the allocation of responsibilities between executive and non-executive management.

There are two sub-committees of the Board, the audit and the remuneration committee.

The nomination committee will be asked to provide an independent annual assessment as to the performance and expertise of the Board of Directors while performing its duties, this will be presented to and assessed by the Board members.

# Risk management and internal control

The executive management of Spectrum is continuously developing its risk management and internal control systems and it is the role of the Board of Directors and audit committee to oversee that they are appropriate to the Company's activities.

The internal controls are designed to provide a comprehensive framework to manage the operational and commercial risks of the activities undertaken against the background of the wider corporate values, together with its ethical and social responsibilities.

The audit commitee will undertake an annual review of the controls and main areas of risk to ensure that the systems take into account the scope and growth of the Companys' activities. The annual audit commitee plan states which areas and controls to be reviewed in each audit commitee meeting. The Board of Directors and audit committee will provide an account of the main features of the Company's internal control and risk management systems as they relate

to the Company's financial reporting within the annual report and accounts.

# Remuneration of the Board of Directors

The remuneration of the Board is not linked to the Company's performance but reflects the level of responsibility, expertise, time and the complexity of the Company's activities.

The Company's annual General Meeting 20 May 2016 determined the remuneration to the board members for the period 2015 as follows 'remuneration of the Board should be NOK 0.45 million to the chairman and NOK 0.30 million to the directors'.

A full breakdown of the directors' remuneration is disclosed in Note 4.

# Remuneration of the executive management

The Board of Directors decides the terms and conditions of employment of the Chief Executive Officer (CEO), together with the overall scope of the remuneration to the executive management. The CEO determines the remuneration of the individual members of the executive team within his mandate.

#### Information and communications

Spectrum treats all shareholders equally in respect to information it publishes and believes it is essential to inform all

parties in a clear, relevant and timely manner of events regarding the Company's prospects, subject to any legal restrictions.

The Company releases quarterly and annual reports, incorporating financial and operational reviews, in compliance with stock exchange regulations which, together with its financial calendar, are published on it's website, www.spectrumgeo.com.

#### **Takeovers**

In the event of a proposed takeover of the Company the Board of Directors will act to ensure that there is equal treatment of all shareholders and that the on-going activities of the Company are not disrupted unnecessarily.

Following any formal takeover approach for the Company, the directors will issue a statement evaluating the merits of the bid, disclosing all the relevant information behind their decision together with their recommendation as to acceptance or rejection of the offer. If the decision of the Board is not unanimous then this will be stated and the reasons communicated.

It is recognised that should a transaction that effectively disposes of the Company's activities be undertaken, it will be proposed to and decided by the shareholders in a General Meeting.

#### **Auditor**

The auditors have presented the main features of their audit plan to the Board and the audit commitee, detailing how they will review the Company's internal control procedures including the identification of any weakness and proposals for improvement. The auditors have been invited to the Board of Directors meeting at which the Annual Accounts are presented, the CEO and all members of the executive management team will not be present during part of this meeting.

The remuneration of the auditor including details of fees paid for audit and any other specific assignments are reported in Note 6 and will be further disclosed at the General Meeting.



# **Investor Relations**

Spectrum aims to inform the stock market of the Company's activities and status in a timely and accurate manner. We put great emphasis in providing the same information to all investors; national and international, therefore all press releases and news are published in English only.

Our quarterly earnings presentations are recorded and webcasted in real time. The webcasts stay on our website http://www.spectrumasa.com/investors/financial-reports together with the financial reports and slide presentations.

The top management participates and presents at investor conferences both in Norway and internationally, and also attend international roadshows throughout the year to meet existing and potential new shareholders.

Please feel free to contact us to get to know more about Spectrum.



Henning Olset
Chief Financial Officer

henning.olset@spectrumgeo.com Cell: +47 92 26 69 48

# **Shareholder Information**

Spectrum ASA's share capital is NOK 53,449,103 divided on 53,449,103 shares with a par value of NOK 1.

All shares in the Company are issued pursuant to the Norwegian Public Limited Companies Act (Norwegian: "Allmennaksjeloven").

There is only one class of shares and all shares are equal in all respects, including the voting rights. Each share carries one vote.

The shares are registered with the VPS with ISIN NO0010429145, and the Company's registrar is Danske Bank – Transaction Services, Søndre Gate 13-15, N-7466 Trondheim.

#### **Share information**

Spectrum ASA has been listed on Oslo Stock Exchange (OSE) since 2 July 2012. Before listed on OSE, Spectrum ASA was listed on Oslo Axess from 1 July 2008. The Company ticker is SPU.

30 December 2016, the share price was NOK 28, an appreciation of 1.8% from

one year earlier. By comparison, the OSEBX index saw an increase of 12.06% during the same 12 months. In 2016, the Spectrum share peaked at NOK 28.90, while the lowest price was NOK 22.10. Spectrum's market cap on 31 December 2016 was NOK 1,496,574,884.

31 December 2016, Spectrum's Price/ Book ratio was 0.95 compared to 0.83 the year before.

#### Shareholder structure

At the end of 2016 Spectrum had 354 shareholders.

As of 31 December 2016 the Company's 20 largest shareholders held 81.10% of the Company's outstanding shares. To the right is an overview of the 20 largest shareholders as of 31 December 2016.

Shareholders owning 5% or more of the Company have an interest in the Company's share capital which is notifiable to the market according to the Norwegian Securities Trading Act. The following shareholders own more than 5% of the issued share capital as of 31 December 2016: Altor Invest 1 AS (14.97%) and Altor Invest 2 AS (14.97%).

#### **Dividend policy**

Spectrum's overall objective is to combine strong growth through reinvestment with dividend payments. The Board of Directors proposes to assess dividend for 2016 during 2017, following the down payment of a short term bank facility. The Board of Directors objective is to distribute a dividend in the range of 15 - 25% of earnings if the Group's financial position allows.

#### **Debt**

The Group used debt financing, two bank facilities of in total USD 74 million with interest rate 315 basis points + LIBOR, to partly finance the Multi-Client library transaction with Fugro in June 2015. By end 2016 USD 30 million was repaid, and through 2017 the remaining balance of USD 20 million will be repaid according to announced amortisation schedule.

#### Spectrum 2011-2017



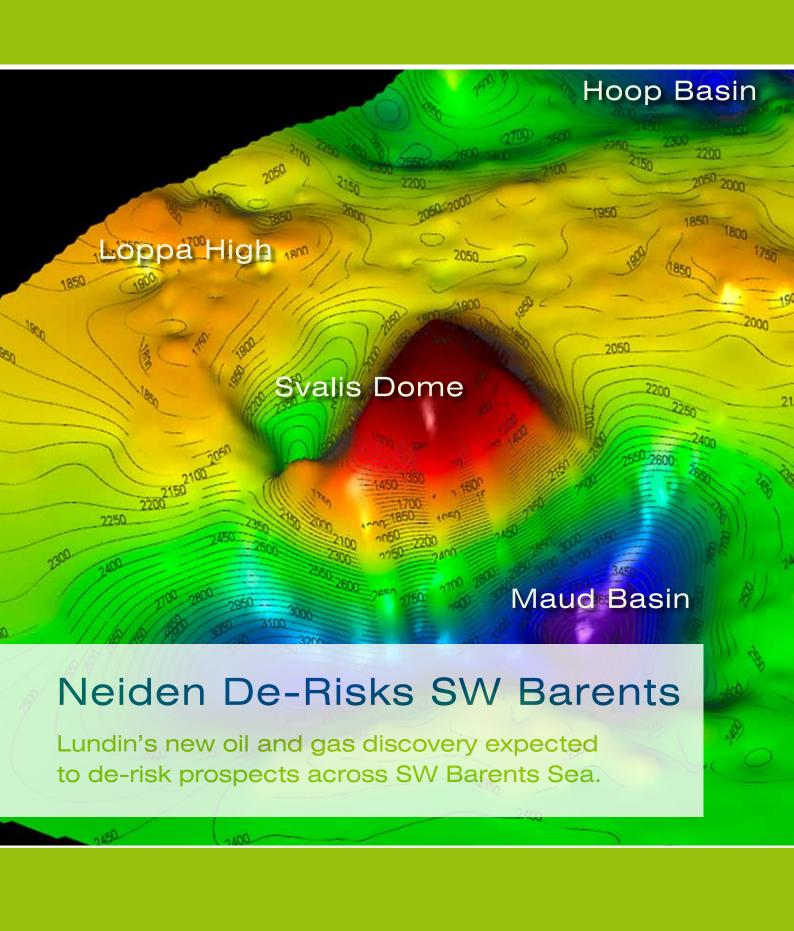
#### 20 largest shareholders and ownership interest as at 31 December 2016

Name	Location	Shares	% of shares
Altor Invest 1 AS	NOR	8 000 232	14,97%
Altor Invest 2 AS	NOR	8 000 232	14,97%
ABN Amro Bank (Luxembourg) S.A.	LUX	2 625 672	4,91%
Corona Maritime Holding AS	NOR	2 493 995	4,67%
Folketrygdfondet	NOR	2 446 891	4,58%
J.P. Morgan Chase Bank N.A., London	GBR	2 387 740	4,47%
Fidelity Select Portfolios: Energy	USA	2 311 408	4,32%
Swedbank Robur Smabolagsfond	GBR	1 898 964	3,55%
SEB STO, SFMA1	SWE	1 623 073	3,04%
Frankfurter Aktienfondsfur Stiftun	BEL	1 564 308	2,93%
Societe Generale	BEL	1 474 656	2,76%
Holberg Norden	NOR	1 310 040	2,45%
Verdipapirfondet Pareto Investment	NOR	1 262 000	2,36%
Fidelity Int Small Cap Fund	BEL	1 219 272	2,28%
Credit Suisse Securities (Europe)	GBR	931 282	1,74%
Invesco Perp Euran Smler Comps FD	BEL	803 082	1,50%
Euroclear Bank N.V.	BEL	802 032	1,50%
Verdipapirfondet DNB SMB	NOR	794 830	1,49%
Credit Suisse Securities (USA) LLC	USA	723 231	1,35%
Holberg Norge	NOR	676 432	1,27%
		43 349 372	81,10%

Key figures 2016	
Share Price Dec. 30	28.00
High price	28.90
Low price	22.10
Change NOK	0.50
Change %	1.80%
OSEBX %	12.06%
Total traded value NOK	294 711 466
Total traded volume	11 671 370
Turnover velocity in 2016	21.8%
MCAP Dec. 31	1 496 574 884
No. outstanding shares Dec. 31	53 449 103
ISIN	NO0010429145

#### Financial calendar 2017

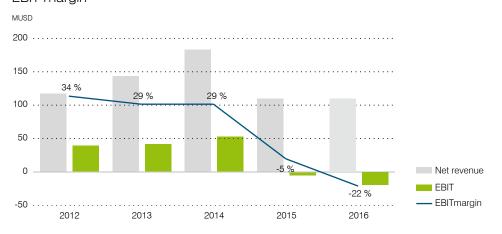
April 27
Annual Report & Accounts 2016
April 27
Q1 Results
May 19
Annual General Meeting
August 4
Q2 Results
October 13
Q3 Results
February 9 2018
Q4 Results



# Statements of Comprehensive Income

Spectrum	ASA			Spectrum	Group
2015	2016		Note	2015	2
19 846	21 379	Net revenue	2	109 844	86
(4 206)	(2 608)	Payroll expenses	4	(12 950)	(11
(2 244)	(3 545)	Other operating expenses from group companies	16	-	
(3 032)	(2 375)	Other operating expenses	6	(17 963)	(12
-	-	Share of profit/(loss) of joint ventures	19	(237)	
(14 543)	(11 617)	Amortisation	9	(64 627)	(67
(6 240)	(1 585)	Impairment	9	(16 062)	(12
(81)	(40)	Depreciation	9	(3 173)	(2
(10 501)	(390)	Operating profit/(loss)		(5 169)	(19
3 956	4 716	Interest income	8, 16	35	
(1 285)	(2 685)	Interest expenses	8, 16	(1 432)	(2.3
2 492	25	Other financial income	8	177	
(552)	(1 486)	Other financial expenses	8	(2 446)	(1
(5 890)	181	Profit/(loss) before tax		(8 835)	(22
136	(154)	Tax income / (expenses)	7	181	2
(5 754)	27	Net profit/(loss) for the year		(8 654)	(20
		Other comprehensive income:			
-	-	Total items that will not be reclassified through profit	:/(loss)	-	
-	-	Total items that will be reclassified through profit/(lo	ss)	-	
(5 754)	27	Total comprehensive income / (loss) for the period		(8 654)	(20 2
(5 754)	27	Profit attributable to the equity holders of the parent		(8 654)	(20
ngs per share (I	USD)				
• • • • • • • • • • • • • • • • • • • •	,	outable to ordinary equity holders of the parent	14	(0,18)	(0

#### EBIT margin

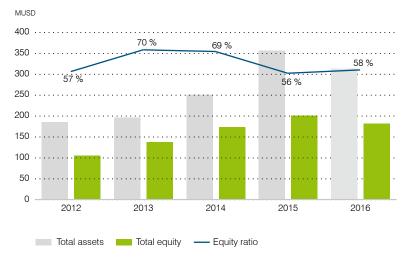


# Statements of Financial Position

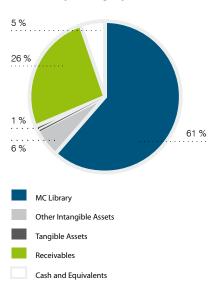
### **Assets**

Spectrun	n ASA			Spectrum	Group
2015	2016		Note	2015	2010
		ASSETS			
		Non-current assets			
145	63	Deferred tax assets	7	2 592	6 084
-	-	Goodwill	9, 20	14 824	13 200
47 743	47 541	Investment in subsidiaries and joint ventures	19	2 380	2 51 ·
50	13	Software	9	1 252	66
28 730	37 736	Multi-Client library	9, 20	220 686	192 72 <sup>-</sup>
3	-	Fixtures, fittings and office equipment	9	2 182	1 62
-	-	Other receivables	7	7 618	16 38
19 000	19 420	Long-term receivables group companies	16	-	
95 671	104 773	Total non-current assets		251 534	233 192
		Current assets			
6 629	2 215	Work in progress	10	30 838	17 510
8 242	8 109	Accounts receivables	10	29 878	28 88
3 103	2 751	Other receivables	10	21 257	18 26
76 189	67 784	Short-term receivables group companies	16	-	
11 920	10 440	Cash and cash equivalents	11	23 373	15 82
106 082	91 299	Total current assets		105 345	80 488
201 753	196 072	Total assets		356 880	313 680

#### Equity ratio



#### Assets by category 2016



# Statements of Financial Position

# Shareholders' Equity and Liabilities

Spectrum ASA				Spectrum Group		
2015	2016		Note	2015	201	
		SHAREHOLDERS' EQUITY				
		Paid-in capital				
8 826	8 826	Issued capital	12	8 826	8 826	
69 764	69 764	Share premium		69 885	69 88	
58 102	58 102	Other paid-in capital		59 788	60 336	
136 692	136 692	Total paid-in capital		138 500	139 048	
(35 601)	(35 574)	Retained earnings		65 548	45 26	
-	-	Foreign translation reserve		(2 467)	(2 467	
101 092	101 119	Total equity		201 580	181 84	
		LIABILITIES				
		Non-current liabilities				
-	-	Deferred tax liability	7	3 494	6 60	
11 352	-	Long term interest bearing debt	13,17,21	11 736	200	
-	18 035	Other long term liabilities	3,15,17,21	4 379	21 11	
11 352	18 035	Total non-current liabilities		19 609	27 92	
		Current liabilities				
45 851	42 556	Short term interest bearing debt	3,13,18,21	46 868	43 05	
427	747	Tax and other public duties payable	7	3 422	635	
2 816	7 131	Accounts payable	3	41 212	38 879	
40 215	26 484	Other short term liabilities	3,18	44 190	21 350	
89 309	76 918	Total current liabilities		135 692	103 914	
201 753	196 072	Total shareholders' equity and liabilities		356 880	313 680	

Oslo, 26 April 2017

Pål Stampe Chairman of the Board Glen Rødland

Board member

Ingrid Leisner Board member Maria Tallaksen Board member

Linda Rudolfsen Myklebust Board member

Jogeir Romestrand Board member

Rune Eng CEO

# Spectrum Group

# Statements of Consolidated Equity

	Note	Issued capital	Share premium	Other paid-in capital	Retained earnings	Foreign currency translation reserve	Total equity
Equity at 1 January 2015		7 473	29 195	58 909	81 156	(2 467)	174 267
Share issue		1 353	40 690	-	-	-	42 043
Dividends		-	-	-	(5 749)	-	(5 749)
Share options granted		-	-	879	-	-	879
Transaction cost share issues		-	-	-	(1 204)	-	(1 204)
Total comprehensive income		-	-	-	(8 654)	-	(8 654)
Equity at 31 December 2015	12	8 826	69 885	59 788	65 548	(2 467)	201 580
Share options granted		-	-	548	-	-	548
Total comprehensive income		-	-	-	(20 283)	-	(20 283)
Equity at 31 December 2016	12	8 826	69 885	60 336	45 264	(2 467)	181 845

# Spectrum ASA

# Statements of Parent Company Equity

	Note	Issued capital	Share premium	Other paid-in capital	Retained earnings	Total equity
Equity at 1 January 2015		7 473	29 074	57 567	(22 911)	71 202
Share issue		1 353	40 690	-	-	42 043
Dividends		-	-	-	(5 749)	(5 749)
Share options granted		-	-	536	-	536
Transaction cost share issues		-	-	-	(1 186)	(1 186)
Total comprehensive income		-	-	-	(5 754)	(5 754)
Equity at 31 December 2015	12	8 826	69 764	58 102	(35 601)	101 092
Share options granted*		-	-	-	-	-
Total comprehensive income		-	-	-	27	27
Equity at 31 December 2016	12	8 826	69 764	58 102	(35 574)	101 119

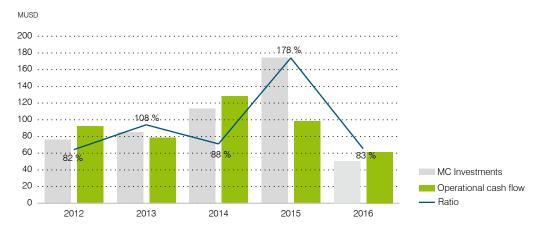
 $<sup>\</sup>ensuremath{^{\star}}$  Only cost of exercised options are recognized in the parent company.

# Statements of Cash Flows

Spectrum	n ASA			Spectrum	Group
2015	2016		Note	2015	201
		Cash flows from operating activities:			
(5 890)	181	Profit / (loss) before tax		(8 835)	(22 49)
-	-	Income tax paid		(4 535)	(3:
20 864	13 241	Depreciation, amortisation and impairment	9	83 862	82 32
392	0	Share options granted		682	57
(3 956)	(4 716)	Interest income	8	(35)	(4
1 285	2 685	Interest expenses	8	1 432	2 39
-	1 074	Other financial items	8	710	(37
		Working capital changes:			
(1 435)	133	Change in trade receivables	10	(2 072)	99
2 236	4 315	Change in trade payables		21 060	(2 33
(74 620)	20 522	Change in other payables, provisions and receivables		5 929	20
(61 123)	37 434	Net cash flow from operating activities		98 199	61 21
		Cash flows from investing activities:			
-	-	Acquisition of subsidiaries and joint ventures, net of cash acquired	9, 20	(91 653)	
(22 780)	(22 207)	Investment in Multi-Client library	9, 20	(82 965)	(50 67
-	-	Investment in goodwill	9, 20	(2 343)	
(27)	-	Investment in non-current tangible assets	9	(968)	(92
-	-	Sale / Disposal of assets		4 507	
(22 807)	(22 207)	Net cash flow from investing activities		(173 422)	(51 59
		Cash flows from financing activities:			
42 043	-	Share issue	12	42 043	
(1 204)	-	Equity issue costs		(1 204)	
(5 749)	-	Dividends		(5 749)	
74 800	-	Proceeds from borrowings	17	74 800	52
(15 598)	(15 090)	Payment of borrowings		(16 732)	(15 98
	<del>-</del>	Interest received		-	
(1 141)	(1 958)	Interest paid		(1 347)	(2 01
93 151	(17 048)	Net cash from financing activities		91 812	(17 46
9 221	(1.001)	Not change in each and each equivalente		16 587	(7.05
	(1 821) 341	Net change in cash and cash equivalents			(7 85 30
(1 900) 4 600	11 920	Net foreign exchange differences (unrealised)		(1 579)	
11,920*		Cash and cash equivalents at beginning of period		8 364	23 37
	10,440*	* Cash and cash equivalents at end of period	11	23 373	15 82
11,920					

<sup>\*</sup> Joint intra-group Cash Pool facility, see note 16.

#### Multi-Client investment ratio



## Notes to accounts

#### **NOTE 1 - ACCOUNTING POLICIES**

# GENERAL INFORMATION CONCERNING THE COMPANY AND BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

Spectrum ASA (Spectrum) is a public limited liability company incorporated and domiciled in Norway. The address of its registered office is Karenslyst Allè 11, 0278 Oslo.

The principal activities of Spectrum are the production and sale of Multi-Client seismic surveys and imaging of seismic data for both Multi-Client surveys and proprietary customers operating in the global oil and gas market.

The consolidated financial statements of the Spectrum Group for the period ended 31 December 2016 were approved by the Board on 26 April 2017.

#### **Basis of preparation**

The consolidated financial statements of Spectrum ASA and all its subsidiaries (the Spectrum Group) have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

The financial statements of Spectrum ASA (the Company) have been prepared using the same accounting policies as the consolidated financial statements of Spectrum. The consolidated financial statements have been prepared on a historical cost basis.

# Significant accounting judgement, estimates and assumptions

The application of the Spectrum Group's accounting policies require management to make judgements, estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Management bases their estimates and assumptions on previous experience and other factors that are believed to be relevant to the circumstances. These estimates and assumptions are the basis for assessing the carrying value of assets and liabilities that are not evident from other sources. The key areas where estimation has been applied and where there is a significant risk of material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

In the process of applying the Spectrum Group's accounting policies, management has made the following judgements, which have the most effect on the amounts recognised in the financial statements:

#### Goodwill

Goodwill has been generated by acquisition, and it is linked to the assessment of future earnings. There are uncertainties with regard to assump-

tions made in connection with impairment assessment. Estimating the value in use amount requires management to make an estimate of future cash flows and also to choose variables in order to calculate the present value of those cash flows.

#### Multi-Client library

The Spectrum Group performs an annual impairment test of all surveys in the Multi-Client library. In addition all surveys will be tested through the year if specific indications of impairment exist. The test is based on expected future sales per survey, which is based on geographical forecasts variables such as which areas in the world the oil companies would be interested buying data from and whether licenses to perform explorations are given. In addition general forecast variables such as the current and expected oil price and the expected E&P spending by oil companies impact all sales estimates. Change in market conditions, including competition and political circumstances, also affects expected future earnings from the Multi-Client library. Management considers that changes in these estimates may potentially change the present value of surveys in the Multi-Client library, and if the carrying value of a survey exceeds the present value the survey will be impaired.

#### Deferred tax assets

Deferred tax assets are recognized for temporary deductible differences and accumulated tax losses to the extent that it is considered probable that a Group company will generate sufficient future taxable profits to absorb these losses. Significant management judgment is required to determine the amount of deferred tax to be recognized based on the likely timing and level of future taxable profits together with future tax planning.

#### Revenue recognition

The Spectrum Group recognises revenues from prefunding of Multi-Client surveys based on percentage of completion. This requires management to determine the degree of completion. The degree of completion for a survey is determined by applying percentage of completion to each weighted part of the survey. Percentage of completion is based on the amount of accrued expenses relative to the estimated total cost of the service provided, modified to the specific customer agreement.

The Spectrum Group have entered into various seismic agreements with change of control clauses which trigger transfer fees payable to Spectrum. The level of transfer fees varies and the amount payable depend on several matters, including the amount and value of data being subject to transfer and data licenses to be redelivered. The Spectrum Group recognise revenue first when all of the change of control clauses have been lifted (i.e governmental or AGM approval).

The Spectrum Group records revenue based on best estimate of revenue from transfer fee's.

#### Joint arrangements

All partnerships are evaluated to determine the accounting treatment of the arrangement. All such arrangements are evaluated independently as it depends on the substance and nature of the arrangement. If the control of the arrangement and decisions that significantly affect the returns of the arrangement are shared the arrangement is treated as a joint arrangement, if not it is treated as an operational partnership. A joint arrangement can be classified as a joint operation or a joint venture. Judgement is needed when making this classification. Generally the Spectrum Group classifies a joint arrangement as a joint venture if it is structured through a separate vehicle and there is no direct right to assets and obligation to liabilities. Other joint arrangements are classified as joint operations.

#### Provision for contingencies

The Spectrum Group records accruals for contingencies and other uncertain liabilities, including tax contingencies, based on best estimates if it is considered more likely than not that a liability has been incurred. If no reasonable estimate can be made of the liability it is not recorded. Management evaluates the facts and the related laws and regulations in the jurisdiction. In most such cases external counsel will be used, and an estimate will be based on their input. The Spectrum Group operates in many countries with dynamic laws and regulations, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements

#### Basis of consolidation

The consolidated financial statements comprise the financial statements of Spectrum and its subsidiaries at 31 December 2015 and 2016. The financial statements of the subsidiaries have been prepared for the same reporting period as Spectrum using consistent accounting policies. All intra-group balances, balance sheet transactions and profit and loss transactions are eliminated in full.

#### Subsidiaries

Subsidiaries are entities in which the Spectrum Group has control. This normally occurs when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Acquired subsidiaries are consolidated from the date on which control is transferred to the Spectrum Group. Divested subsidiaries are consolidated to the date on which control is transferred from the

Spectrum Group. In the accounts of Spectrum ASA, investments in subsidiaries are accounted for at cost less accumulated impairment losses.

#### **ACCOUNTING POLICIES**

#### Investments in joint ventures

A joint venture is a contractual arrangement whereby the Spectrum Group undertakes an economic activity that is subject to joint control under which strategic, financial and operating policy decisions relating to the activities require the unanimous consent of the parties sharing control

Investments in joint ventures are accounted for using the equity method.

The consolidated financial statements include the Group's share of profit or loss from the date on which joint control is attained and until joint control ceases. In the accounts of Spectrum ASA, investments in joint ventures are accounted for at cost less accumulated impairment losses. The financial statements of the joint venture are prepared for the same reporting period and with the same accounting policies as the Spectrum Groups financial statements.

The Spectrum Group's share of intra-group balances, transactions and unrealised gains and losses on such transactions between the Spectrum Group and its joint venture are eliminated on consolidation. Losses on transactions are recognised immediately if there is evidence of a reduction in the net realisable value of current assets or an impairment loss.

#### Investments in joint operations

A joint operation is an arrangement where Spectrum Group with joint control has rights to the assets and obligations for liabilities of the arrangement.

Proportionate share of each of the assets, liabilities, income and expenses of the joint operation is combined with similar items, line by line, in the consolidated financial statements.

#### **Presentation and classification**

The functional currency of all the entities in the Spectrum Group is USD.

The consolidated financial statements and the parent financial statements are presented in USD, which is defined as the presentation currency.

#### **Statement of Comprehensive Income**

All income and expenses in the statement of comprehensive income have been classified by their nature

#### **Statement of Financial Position**

Current assets and current liabilities are items due in less than one year from balance sheet

date or within the normal operating cycle if this is longer, or are assets or liabilities held primarily for the purpose of being traded. Current liabilities exclude amounts attached to an unconditional right to defer settlement for at least 12 months after the end of the accounting period. All other assets and liabilities are classified as non-current.

#### **Statement of Cash Flows**

The cash flow statement has been prepared using the indirect method.

Where a controlling interest in another entity has been acquired, the cash flows from the date that control was acquired are consolidated with those of the Group and reported under the appropriate category. Where a non-controlling interest in an entity has been acquired, net cash flows for the entity are reported separately under Cash flows from operating activities. In either case, the cash payment made in acquiring the stake in the entity, less the cash acquired as part of the transaction is reported under Cash flows from investing activities as "Acquisition of subsidiaries and joint ventures, net of cash acquired".

#### Foreign currency translation

Transactions in currencies other than functional currency are translated using the exchange rate in effect on the date of transaction. Monetary assets and liabilities in foreign currency are translated into USD using the exchange rate in effect on the balance sheet date. Exchange differences arising from translations are recorded in the statement of comprehensive income. Non-monetary assets and liabilities measured at historical cost in foreign currency are translated using the exchange rate in effect on the date of transaction.

#### Revenue recognition

Revenue is recognised by the Spectrum Group when the economic benefits from a transaction are supported by evidence of a sales arrangement which demonstrate that revenues can be reliably measured, services have been provided and collection is reasonably expected.

Where revenue recognition parameters have not been met, the Spectrum Group defers such revenues until such time as the conditions have been satisfied.

Revenue is allocated among the separate units of accounting and is recognised at the fair value of the consideration received, net of discounts and sales taxes or other duties. The following describes specific principles:

#### Work in progress

Revenue for unfinished projects (work in progress) is recognised on a percentage complete basis. Determination of the degree of completion is based on the amount of accrued expenses relative to the estimated total cost of the service provided,

modified to the specific customer agreement, provided that all other revenue recognition criteria are esticfied.

Transfer fees recorded based on best estimate are recognised as work in progress until the final amount is agreed with the customer and invoiced.

#### Multi-Client survevs

Pre-commitment arrangements - When the Spectrum Group obtains pre-funding from customers before a seismic project is completed, the customer is normally entitled to a discounted price and/or is granted the opportunity to provide input into the project parameters. The Spectrum Group then recognises the pre-commitment revenue as the services are performed based on percentage of completion. As progress is made through the project plan, this physical progress is recognised as revenue based on a percentage basis of the pre-commitment funds received, provided that all other revenue recognition criteria are satisfied. Spectrum classifies Multi-Client revenue as pre-commitment arrangements or late sales based on products sold. A seismic project may consist of several products and at the time of the sale some products may be considered in progress while others are considered completed.

Late sales – Where the Spectrum Group has completed data sets ready for sale, revenue is recognised at the time of the transaction when the customer executes a valid license agreement and has the right to access the licensed portion of the Multi-Client library. The customer's license payment is fixed and determinable and typically is required at the time that the license is granted. Transfer fees arising from contractual obligation in existing agreements are classified as late sales.

Revenue share – When the Spectrum Groups sells surveys with a pre-committed revenue share to partners, governments or agents, the revenue share is recognised as the revenue is recognised to reflect the net revenue for the Spectrum Group.

All revenue is presented in the statement of comprehensive income as net revenue. The gross revenue from late sales or pre-commitment revenue less the revenue share is considered the net revenue. Gross pre-commitment revenue and revenue share are specified in note 2 Segment information

#### Other services

Revenue from other services is recognised as the services are performed, provided all other recognition criteria are satisfied.

#### **Business combinations**

Business combinations are accounted for using the acquisition method. The cost of an acquisition

is measured as the sum of the consideration transferred, including contingent consideration amounts. The consideration transferred is measured at fair value as at the date of acquisition and the amount of any non-controlling interest in the acquiree. The acquirer measures any non-controlling interest in each business combination at either fair value or at the appropriate share of the acquiree's identifiable net assets. Any costs associated with the acquisition are expensed as part of other operating expenses in the statement of comprehensive income.

When a business is acquired by the Group, the financial assets and liabilities assumed are classified and recorded according to the contractual terms, economic circumstances and relevant associated conditions in force at the date of acquisition.

If step acquisition occurs, the fair value of the previously held equity interest is recalculated at the date of the increased ownership, with any difference in fair value being booked the statement of comprehensive income.

Any contingent consideration payable under a business combination will be recognised at fair value at the date of acquisition. Any later changes to the fair value of this consideration which is considered a liability or asset will be recognised in accordance with IAS 39 in the statement of comprehensive income.

Goodwill arising as the result of a business combination is initially measured at cost, being the excess of the aggregate value of consideration transferred and the amount recognised for any non-controlling interest over identifiable assets acquired and liabilities assumed. If the consideration is less than the fair value of the acquired subsidiaries' net assets the difference is recognised in the statement of comprehensive income

After initial recognition, goodwill is measured at cost less accumulated impairment losses. Goodwill is allocated to each of the cash generating units of the Group that are expected to benefit as a result of the business combination. Where goodwill forms part of a cash generating unit and part of an operation that is disposed of, the value of this goodwill is included in the calculation of the gain or loss on disposal. In such cases, the value of goodwill disposed of is calculated on the basis of the relative values of the retained and disposed of operations.

Expenses related to carry out and complete business combinations are expensed.

# **Intangible Assets**

Goodwill

Acquisitions of interests in subsidiaries, associates and joint ventures are accounted for using the acquisition method. The purchase price is allocated to the acquired assets and liabilities according to their fair value. Any excess purchase price is recorded as goodwill.

Goodwill is recognised in the balance sheet at initial cost, translated from its original currency to USD, less accumulated impairment losses.

#### Software

Software is carried at cost less accumulated depreciation and impairment losses. Depreciation is charged on a straight-line basis over the useful life of the asset in the statement of comprehensive income. Estimated useful life range between 3-5 years.

#### Multi-Client library

The Multi-Client library comprises completed surveys and surveys in progress that can be licensed to multiple customers. All direct costs related to data collection, processing and completion of seismic surveys are capitalised.

The Multi-Client library is capitalised at cost less accumulated amortisation and impairment losses.

During the work in progress phase amortisation is calculated based on total cost versus forecasted total revenues of the project. This ratio is applied to the revenue recognized for the survey.

After a project is completed, a straight-line amortisation is applied. The straight-line amortisation will be assigned over the project's remaining useful life, which for most projects is expected to be 4 years. The straight-line amortisation will be distributed evenly through the financial year independently of sales during the year. The straight-line amortisation policy was adapted starting 2016 after an amendment to IAS 16. This is considered a change in estimates and the comparative figures for previous years are unchanged.

When the Spectrum Group acquires surveys from a third party the purchase price will be allocated based on the assumed value in use of the acquired surveys. For acquired surveys a straight-line amortisation is applied. The straight-line amortisation will be assigned over the surveys estimated remaining useful life.

#### Tangible non-current assets

Tangible non-current assets are stated at cost less accumulated depreciation and accumulated impairment losses. Depreciation is charged on a straight line basis over the useful life of the asset and recognised in the statement of comprehensive income. Calculated depreciation takes into account any expected residual value. Expenses regarding major replacements and renewals are capitalised, while all other replacements, renewals, maintenance and repairs are recognised in the statement of comprehensive income.

Estimated useful lives are as follows: Machinery and survey equipment: 3-5 years Fixtures, fittings and office equipment: 3-5 years

Impairment of tangible

and intangible non-current assets

Tangible and intangible non-current assets are assessed for indications of impairment at each

reporting period and when there are events and changes in circumstances which indicate that the carrying amount of the asset may not be recoverable. When impairment is considered, the assets are grouped at the lowest level for which there are separate identifiable cash generating units. Impairment is calculated as the difference between an asset's carrying amount and the recoverable amount. The recoverable amount is the higher of an asset's net selling price and the value in use for the Spectrum Group. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. When an asset's value is assessed as lower than its carrying amount, the carrying amount is impaired to the recoverable amount, and the impairment loss is recognised in the statement of comprehensive income. Previously recognised impairment losses are only reversed to the extent that asset's carrying amount does not exceed the carrying value recognised if no impairment charges had been recognised in prior periods and normal depreciation and amortisation polices had been applied. Impairment of goodwill is not reversed.

#### Cash generating units

As part of the testing for impairment of goodwill performed as at 31 December 2016, Spectrum management determined that it was appropriate to recognise only one CGU reflecting the operating segment: Multi-Client which constitutes of 98.2% of the Group's net revenue. For the impairment testing of the Multi-Client library each survey is considered a CGU.

# **Current Assets**

Trade and other receivables

Trade and other receivables are recognised at fair value. Trade receivables are regularly reviewed for impairment considering their maturity, the customer's financial position and other relevant information.

# Cash and cash equivalents

Cash and cash equivalents comprise cash in bank and in hand and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are recognised at fair value. Bank overdrafts are recognised as a current liability.

#### Liabilities

Loans and borrowings

Loans are recognised at the amount received, net of transaction costs. After initial recognition, interest bearing loans and borrowings are subsequently measured at amortised cost using the effective interest rate method. Gains and losses are recognised in the statement of comprehensive income when the liabilities are derecognised.

All financial instruments are recognised in the statement of financial position when the Spectrum Group becomes a party to the contractual provisions of the instrument. At initial recognition it is assessed whether a financial instrument shall be

accounted for as a financial liability, a financial asset or an equity instrument based on the substance of the contractual instrument. The terms of a nonderivative financial instrument are evaluated to determine whether the instrument contains a liability and an equity component, and such components are classified separately as financial liabilities, financial assets or equity instruments as appropriate. When a non-derivative financial instrument contains an embedded derivative that would have met the definition of a derivative instrument as a separate instrument, that embedded derivative is separated from the host contract and is accounted for as a freestanding derivative instrument, if the economic characteristics and risk of the embedded derivative are not closely related to that of the host contract. Multiple embedded derivatives in a single instrument are treated as a single compound instrument if the embedded derivatives relate to the same risk exposures and are not readily separable and independent of each other.

#### Trade and other payables

Trade and other payables are recognised at cost.

#### Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at inception date: whether fulfilment of the arrangement is dependent on the use of a specific asset or assets, or the arrangement conveys a right to use the asset. Assets acquired under finance leases which transfer substantially all the risks and benefits incidental to ownership of the leased item are presented in the financial statements as non-current assets at cost value less depreciation and impairment. The liability for future rentals is recorded in the balance sheets as a liability. The lease payments are divided into an interest element and reductions of the lease liability.

A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Spectrum Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term. Operational lease payments are recognised as an expense in the statement of comprehensive income on a straight line basis over the lease term. The Spectrum Group only act as a lessee under the groups operational leases.

#### Pensions

The Spectrum Group operates defined contribution plans. The defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group pays contributions to government and privately administered pension plans. The contributions are recognised as employee benefit expenses when they are due.

# Share-Based payments

The cost of the Group stock option plan for senior executives in the Group is measured at the fair value of the equity instruments at the date they

were granted. Estimation of the fair value of stock options requires the selection and use of an appropriate pricing model, and Spectrum management have opted to adopt the Monte Carlo model for this purpose. This model requires the use of suitable input factors including the dividend yield, the option's expected life and volatility in Spectrum's share price. The fair value of each of the share options granted also depends on the terms and conditions inherent in each individual share option agreement. Social security tax on options is based on the share value as at the end of the reporting period, is recorded as a liability and is recognised over the option period.

The Board may decide at its sole discretion (at the request of the participant or otherwise) to settle any options in cash on exercise. The stock options are treated as equity elements as long as there have not been any options vested with settlement in cash. The dilutive effect of outstanding options at the year-end is reflected as an additional share dilution in the computation of earnings per share.

The cost of equity-settled transactions is recognised, together with a corresponding increase in other capital reserves in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Spectrum Group's best estimate of the number of movement in cumulative expense recognised as at the beginning and end of that period and is recognised in payroll expenses.

No expense is recognised for awards that do not ultimately vest, except for equity-settled transactions for which vesting are conditional upon a market or non-vesting condition. These are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

When the terms of an equity-settled transaction award are modified, the minimum expense recognised is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognised for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification. When an equitysettled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of diluted earnings per share.

#### Segment reporting

The Group has one primary operating segment: Multi-Client surveys. This segment is divided into geographical segments; North and South America, Africa/ Mediterranean/ Middle East, Northwest Europe and Asia Pacific. Income and cost from transactions between segments and support functions are eliminated.

#### Income tax

Tax expense comprises both current tax and changes in net deferred tax. Current tax includes expected current tax on the year's taxable income using tax rates existing at balance sheet date and any corrections to previous years' current tax. Deferred tax assets and liabilities arise as a result of temporary differences existing between the values attributed to items in the financial statements and their tax-related values. These are measured at the tax rates that are expected to apply at the time the assets are realised or the liability is settled. The calculation of deferred tax assets and liabilities also takes into account tax losses carried forward at balance sheet date. Deferred income tax assets and liabilities are offset to the extent that current income tax assets and liabilities can be offset

Deferred tax assets are recognised in the balance sheet when it is probable that there will be sufficient future taxable profit to utilise the tax asset. In countries where withholding taxes are operational they are treated as a receivable balance to offset future income tax liabilities.

Taxes payable in the statements of financial position include corporate tax, sales tax and tax on financial transactions. Sales tax and tax on financial transactions are considered operational costs and not tax expense.

### **Equity transactions**

Costs directly related to increases in share capital are regarded as a reduction in paid-in capital and are charged to equity. Any associated tax effect is also recorded against the equity.

#### Contingencies

Contingent assets are not recognised in the financial statements. When it is virtually certain that the entity concerned will receive an economic benefit as a result of a past event, then the related asset is not a contingent asset and is therefore recognised.

Contingent liabilities are not recognised in the financial statements. When it is considered probable that a material decrease in economic value will occur as a result of a past transaction, and that decrease can be measured reliably, then the related liability is not a contingent liability and is therefore recognised. If such a decrease is not considered probably, a disclosure is made of management's best estimate of the potential liability.

#### Events after the balance sheet date

Event occurring after balance sheet date that provide additional information concerning the Group's position at that date are reflected in the financial statements. Other subsequent events are disclosed as a note, if significant.

#### **Provisions**

Provisions are recognised when there is a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the obligation. Where it is expected that some or all of a provision will be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is recognised in the statement of comprehensive income net of any reimbursement.

An onerous contract is considered to exist where the Company has a contractual obligation under which the unavoidable costs of settling the obligations exceed the economic benefit that is expected to be derived from the contract. Any existing obligations that arise under onerous contracts are measured as a provision and recognised accordingly.

## NEW AND AMENDED STANDARDS AND INTERPRETATIONS ADOPTED BY THE GROUP

No new or amended standards are considered relevant to the Company this accounting period.

# IFRSs AND IFRICS ISSUED BUT NOT YET EFFECTIVE

Only IFRSs and IFRICs issued but not yet effective that are considered relevant to the Company have been included.

#### **IFRS 9 Financial Instruments**

IFRS 9 will eventually replace IAS 39 Financial Instruments: Recognition and Measurement. In order to expedite the replacement of IAS 39, the IASB divided the project into phases: classification and measurement, hedge accounting and impairment. New principles for impairment were

published in July 2014 and the standard is now completed. The parts of IAS 39 that have not been amended as part of this project have been transferred into IFRS 9. The Standard will be effective for accounting periods beginning on or after 1 January 2018, and will be applied by the Group then.

The new standard is expected to have no significant effect on the Group's financial statements.

# IFRS 15 Revenue from Contracts with Customers

The IASB and the FASB have issued their joint revenue recognition standard, IFRS 15. The standard replaces existing IFRS and US GAAP revenue requirements. The core principle of IFRS 15 is that revenue is recognised to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard applies to all revenue contracts and provides a model for the recognition and measurement of sales of some non-financial assets (e.g., disposals of property, plant and equipment). The Standard will be effective for accounting periods beginning on or after 1 January 2018, and will be applied by the Group then.

The new standard will have no impact on late sales made after a project is completed. A significant part of the revenues in the seismic industry arises from contracts signed with customers prior to the acquisition of the data and the processing of the complete products. Currently the industry standard is to use percentage of completion as basis for revenue recognition for pre-committed revenue. IFRS 15 implies a change to revenue recognition based on deliverables. This will potentially significantly impact the timing of the revenue recognition for on-going projects in the industry. If the standard had been effective from 1 January 2016 the Group's net revenue for 2016 would potentially have decreased by USD 9 million to USD 77 million, and based on the changes of timing of amortisation of on-going projects the profit before tax would have decrease by USD 6 million to USD (26) million. The changes would not have had any cash effects.

#### **IFRS 16 Leases**

IFRS 16 was issued in January 2016 and it replaces IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under IAS 17. The standard includes two recognition exemptions for lessees - leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessor accounting under IFRS 16 is substantially unchanged from today's accounting under IAS 17. Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between two types of leases: operating and finance leases. IFRS 16 also requires lessees and lessors to make more extensive disclosures than under IAS 17. IFRS 16 is effective for annual periods beginning on or after 1 January 2019, and will be applied by the Group then.

The new standard is expected to have no significant impact on the Group's financial statements as the Group has no vessel commitments or other significant lease contracts.

#### **NOTE 2 - SEGMENT INFORMATION**

Spectrum is a pure play Multi-Client company and mangement has organised the entity as one segment based upon services provided.

Consequently the Company has one segment as defined in IFRS 8 operating segments. Multi-Client constitutes 98.2% of the Group's net revenue (excl. recognized tax credit in Brazil).

				Spectrum Group 2016
	Multi-Client	Seismic imaging	Other revenue	Consolidated
Gross revenue	78 166	1 294	13 147	92 607
Revenue share	(5 755)	-	-	(5 755)
Net revenue	72 412	1 294	13 147	86 852

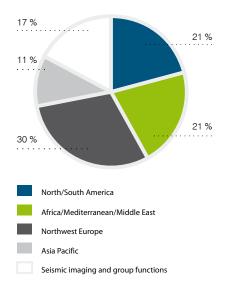
				Spectrum Group 2015
	Multi-Client	Seismic imaging	Other revenue	Consolidated
Gross revenue	128 696	786	-	129 482
Revenue share	(19 637)	-	-	(19 637)
Net revenue	109 059	786	-	109 844

Multi-Client information is given for operating segments which are identified on a geographical basis. The geographical operating segments were changed in 2016, and comparable figures for 2015 have been adjusted in the below table. Separate internal financial information is prepared for these geographical segments and reported for management accounting purposes to the Chief Operating Decision Maker (CODM). In the Spectrum Group the executive management and the Board of Directors are considered to be the CODM.

The Multi-Client services operating segment manages the acquisition and processing of new seismic surveys and the reprocessing of existing survey data to produce seismic datasets that Spectrum either owns or has the right to sell licences to third parties on a non-exclusive basis.

Spectrum ASA classifies Multi-Client revenue as early sales or late sales based on the products sold. Proprietary revenue from seismic imaging is treated as separate products and classified as other revenue.

# Net revenue by segment



# Reported segment revenues and profits / (losses)

					Spectrum	Group 2016
		Multi-C	Client			
	North and South America	Africa/ Mediterranean/ Middle East	Northwest Europe	Asia Pacific	Seismic imaging and group functions	Consolidated
Net early sales	1 301	13 381	610	3 392	-	18 684
Net late sales	13 558	5 242	25 321	6 107	-	50 228
Other revenue	3 243	8	143	105	14 441	17 940
Net revenue	18 102	18 631	26 074	9 604	14 441	86 852
Operating expenses	(6 037)	(3 026)	(757)	(1 263)	(12 622)	(23 705)
Share of profit/(loss) of joint ventures	-	-	-	-	132	132
Amortisation	(31 752)	(13 749)	(12 661)	(9 228)	-	(67 391)
Impairment	(300)	(5 494)	(1 252)	(4 200)	(1 621)	(12 867)
Depreciation	(196)	(107)	(128)	(75)	(1 563)	(2 069)
Operating profit/(loss)	(20 183)	(3 746)	11 275	(5 162)	(1 233)	(19 048)

					Spectrum	Group 2015
		Multi-C	Client			
	North and South America	Africa/ Mediterranean/ Middle East	Northwest Europe	Asia Pacific	Seismic imaging and group functions	Consolidated
Net early sales	13 703	5 501	899	6 038	-	26 141
Net late sales	32 661	9 741	19 048	17 933	-	79 383
Other revenue	3 534	-	-	-	786	4 320
Net revenue	49 898	15 242	19 947	23 971	786	109 844
Operating expenses	(3 649)	(3 309)	(1 085)	(1 441)	(21 429)	(30 913)
Share of profit/(loss) of joint ventures	-	-	-	-	(237)	(237)
Amortisation	(32 060)	(14 188)	(8 541)	(9 838)	-	(64 627)
Impairment	(789)	(8 496)	(5 451)	(1 326)	-	(16 062)
Depreciation	(334)	(169)	(273)	(115)	(2 282)	(3 173)
Operating profit/(loss)	13 066	(10 920)	4 597	11 251	(23 162)	(5 169)

#### **Major customers**

In 2016, the largest customer of the Spectrum Group accounted for 19% of consolidated revenues (2015: 19%). Spectrum do not disclose a breakdown of customers as management consider this information to be confidential and commercially sensitive in nature. Spectrum's customers are big international oil companies.

# Segmental analysis of assets, liabilities and carrying value of investments for the year ended 31 December

Assets, liabilities and carrying value of investments by operating segment is not included in management reporting and is therefore not disclosed separately in these accounts.

#### Dividend ratio



- \* Repayment of capital.
- \*\* The Board recommends that dividend will be considered during 2017, after amortisation of the term loan facility.

# NOTE 3 – FINANCIAL RISK MANAGEMENT

#### General

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities. Financial market risk is the possibility that fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risks and actions are taken to mitigate specific risks identified. The risk related to interest rates is considered limited due to the expectations for future development of interest rates, and the short maturity of interest bearing debt. The Spectrum Group's organic investments are financed through prefunding from customers and cash flow generated out of sales from the existing Multi-Client library. On structural investments, companies or assets, debt financing is considered.

The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly in USD. The principal financial liabilities comprise trade payables, finance lease commitments related to premises and data processing equipment, term loan facility and Revolving Credit Facility (RCF). These are mainly in USD.

## Capital management

Spectrum ASA is listed on Oslo Stock Exchange.

Spectrum's capital management is primarily focused on ensuring the Group's capacity to invest in new high quality Multi-Client projects, to improve operations, to minimise the cost of and risk to capital and to provide investors a return on the capital invested. Spectrum also acquires surveys in partnership or with favorable contract payment terms to reduce Spectrum's risk and cash exposure. The main source of financing is equity, equity share per year end 2016 is 58.0%. Spectrum entered in June 2015 into two bank facilities used to partly finance the acquisition of Fugro's marine seismic library. One of the facilities was a term loan facility of USD 50 million of which Spectrum had repaid USD 30 million end December 2016. The second facility is a RCF of NOK 195 million (USD 22.6 million).

Management is of the opinion that the above process achieved the Group's capital management objectives in 2016. The Company paid an annual dividend based on the Group's financials in 2011, 2012, 2013 and 2014. No dividend was distributed based on the 2015 financials. For 2016, potential dividend distribution will be reassesed through the year post repayments of outstanding term loans.

Funds are largely held in USD, although some funds are held in local currency at a local level to fund forecasted local requirements for the following 3 months. It is the policy of the Group to hold liquid funds in BRL, AUD, EUR, SGD, USD, GBP and NOK, see note 11. The Group has per year end 2016 no FX-contracts. To further reduce the currency risk Spectrum established early 2014 an USD account linked to and managed by the Spectrum Brazil entity.

#### Financial instruments

The carrying amount of accounts receivables, other receivables, cash and cash equivalents, and current liabilities approximate to their fair values because of the short maturities of these instruments.

#### Liquidity risk

The Board of Directors considers the liquidity risk to be moderate. Risk is negatively impacted by the currently weak market conditions, but at the same time positively impacted by the material increase of Spectrum's Multi-Client seismic library

and continued high focus on cash flow related to new acquisition projects. Some new projects are also de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions. Liquidity risk is primarily related to potentially realising lower sales than expected from existing library. At 31 December 2016 the Spectrum Group had current assets of USD 80.5 million (2015: USD 105.3 million) and current liabilities of USD 103.9 million (2015: USD 135.7 million). The current liabilities are separeted in due within 6 months and due between 6-12 months in the table below. The short term interest bearing debt due within 6 months includes the Revolving credit facility (RCF) of USD 22.6 million which originally expired in June 2017. However, the RCF was renewed 29 March 2017, and will now expire June 2019. The RCF could as such be considered a long term liability. Furthermore, USD 15.2 million on the other liability due

within 6 months is related to deferred revenue. This will not be a payable liability for Spectrum. The Group held USD 15.8 million (2015: USD 23.4 million) in cash and cash equivalents as of 31 December 2016.

The Group has during 2016 further enhanced the forecasting system implemented in 2012 covering among others cash flow forecasting. Forecasting is done for the remaining part of the year and this is a regular part of the monthly close process. In addition a 60 days focused cash management system was establised in 2014. This is further enhanced on a continious basis. The forecasting process involves several functions in the Group and is considered a critical part of the business control environment. It forms the basis for estimating our capacity to finance new projects.

#### Analysis of current and non-current liabilities by payment date

Spectru	um ASA		Spectru	m Group
2015	2016		2015	2016
		Due within 6 months		
-	-	Finance lease	509	252
25 851	33 556	Short term interest bearing debt	25 851	33 556
18 665	3 653	Other liabilities	22 640	20 332
2 816	7 131	Trade and other payables	17 363	22 879
47 332	44 340	Total	66 363	77 019
		Due between 6-12 months		
-	-	Finance lease	509	242
20 000	9 000	Short term interest bearing debt	20 000	9 000
21 550	23 578	Other liabilities	21 550	1 653
-	-	Trade and other payables	23 849	16 000
41 550	32 578	Total	65 908	26 895
		Due after one year but not more than 3 Years		
-	-	Finance lease	384	200
11 352	-	Long term interest bearing debt	11 352	-
-	18 035	Other liabilities	4 379	21 115
11 352	18 035	Total	16 115	21 315

#### Credit risk

The customers of the Spectrum Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class, see note 10. Management considers that the provisions booked in each Group company are sufficient to cover any uncertain receivable balances and believes that the credit risk strategies adopted are sufficient to ensure that the overall credit risk is low. Spectrum has had no losses on receivables in 2016, or in the latest years. In addition Spectrum can net receivables against future payables in some relevant partner agreements. Spectrum has entered into various seismic

agreements with change of control clauses which trigger transfer fees payable to Spectrum. Transfer fees are recorded based on best estimate until the final amount is agreed with the customer. The credit risk for transfer fees recorded but not agreed with customers are considered moderate.

#### Market and political risk

The activities that Spectrum's customers are engaged in are inherently affected by changes in both current prices of oil and gas, and future expectations of prices, which are themselves subject to a number of external influences such as governmental terms and conditions. The oil and gas market is known to be cyclical in nature,

and Spectrum's profitability is largely impacted by the demand for the services that Spectrum provide to these clients. Spectrum operates in many countries with dynamic laws and regulations, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements.

# Currency and Interest rate risk

Revenues and expenses are denominated largely in USD. The Group aims to minimise exposure to currency risk by balancing receivables in other currencies with expenses in those currencies.

In addition Spectrum has established a USD account linked to the Brazilian legal entity. This reduces currency risk related to the Brazilian activities. In the Group's subsidiaries in UK and Norway local salaries and office expenses will be mainly in GBP and NOK.

Based on the current expense level, a 5% strengthening of USD vs. GBP and NOK will impact the result negatively by approx. USD 0.5 million in Ltd and USD 0.25 million in ASA respectively. These sensitivities can be used to assess larger currency fluctuations. The risk

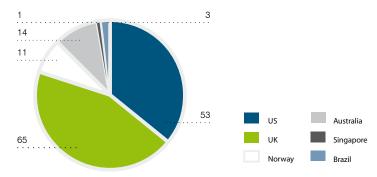
related to interest rates is considered limited due to future interest rates expectations, and the short maturity period of the interest bearing debt. A sensitivity analysis on movements in interest rates has been considered not relevant.

# **NOTE 4 - SALARIES & OTHER REMUNERATION**

Spectru	ım ASA		Spectrui	m Group	
2015	2016		2015	2016	
(3 068)	(2 127)	Salaries	(17 867)	(14 484)	
(797)	(349)	Employer's insurance contributions	(2 833)	(3 512)	
(137)	(116)	Pension costs	(1 005)	(838)	
(392)	-	Share options	(682)	571	
(26)	(15)	Other remuneration	(692)	(598)	
213	-	Capitalised salaries *	10 129	7 188	
(4 206)	(2 608)	Total	(12 950)	(11 672)	
15	13	Average number of employees	167	153	

<sup>\*</sup> Data Processing expenses (including salaries) directly related to Multi-Client surveys are capitalised and are part of the Multi-Client library additions, see note 9.

# Employees by country



# Remuneration for the Spectrum management

Salaries and other remuneration to management and the Board of Directors. Salaries and other benefits are paid in local currencies, and USD figures in the table will fluctuate with the exchange rates.

	Spectrum ASA 2016			
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(422)	(257)	(21)	(700)
Henning Olset, CFO	(287)	-	(23)	(310)
Jan Schoolmeesters, COO	(323)	(124)	(18)	(465)
Jørn Christiansen, CTO **	(103)	-	(4)	(107)
Kim Maver, EVP MC, NW Europe **	(174)	(46)	(9)	(229)
Svein Olav Staalen, General Counsel	(180)	(32)	(9)	(221)
Total Spectrum ASA	(1 490)	(459)	(84)	(2 033)

	Spectrum Group 2016			
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Total Construer ACA	(1, 400)	(450)	(0.4)	(0.000)
Total Spectrum ASA	(1 490)	(459)	(84)	(2 033)
Richie Miller, EVP MC, Americas	(288)	(53)	(17)	(358)
Graham Mayhew, EVP MC, Africa and Mediterranean and Middle East **	(215)	(52)	(4)	(271)
Ian Edwards, EVP MC, Asia Pacific and NW Europe **	(219)	-	-	(219)
Mike Ball, EVP Data Processing	(238)	(40)	(14)	(292)
Neil Hodgson, EVP Geoscience **	(234)	(35)	(14)	(283)
Karyna Rodriguez - Director Geoscience **	(159)	(1)	(9)	(169)
Total Spectrum Group	(2 843)	(640)	(142)	(3 625)

	Spectrum ASA 2015			
	 Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(763)	(279)	(22)	(1 064)
Henning Olset, CFO	(357)	(3)	(23)	(383)
Jan Schoolmeesters, COO	(539)	(133)	(18)	(690)
Jørn Christiansen, CTO	(170)	(104)	(9)	(283)
Kim Maver, EVP MC, NW Europe	(180)	(84)	(9)	(273)
Svein Olav Staalen, General Counsel	(254)	(64)	(9)	(327)
Total Spectrum ASA	(2 263)	(667)	(90)	(3 020)

	Spectrum Group 2015				
	Salaries		Post employ-		
	and other	Share	ment pension		
	benefits	options*	benefits	Total	
Total Spectrum ASA	(2 263)	(667)	(90)	(3 020)	
Richie Miller, EVP MC, Americas	(562)	(59)	(16)	(637)	
Graham Mayhew, EVP MC, Africa	(264)	(87)	(16)	(367)	
Mike Ball, EVP Data Processing	(305)	(65)	(12)	(382)	
Neil Hodgson, EVP MC, Mediterranean and Middle East	(282)	(39)	(15)	(336)	
Karyna Rodriguez - Director Geoscience	(193)	(2)	(9)	(204)	
Total Spectrum Group	(3 869)	(919)	(149)	(4 946)	

<sup>\*</sup> Share options expense - not options vested in the year.

Jørn Christiansen left the EXT group 5 February, full year salary included in table.

 $\label{thm:condition} \mbox{Kim Maver left the EXT group 22 September, full year salary included in table.}$ 

Graham Mayhew was up to 5 February EVP MC, Africa has since been EVP MC, Africa and Mediterranean and Middle East

lan Edwards was appointed to the Executive Management team 5 February and has since 22 September been EVP MC, Asia Pacific and NW Europe.

Neil Hodgson was up to 5 February EVP MC, Mediterranean and Middle East has since been EVP Geoscience

Karyna Rodriguez left the EXT group 5 February, full year salary included in table.

<sup>\*\* 2016</sup> Executive Management Team

#### Director / committee fees

Spectro	um ASA		Spectru	m Group
2015	2016		2015	2016
		Board of Directors fee		
(56)	(54)	Directors fee for Chairman	(56)	(54)
(186)	(143)	Directors fee for all other Board members	(186)	(143)
		Audit committee fee		
(19)	(18)	Fee for Chairman	(19)	(18)
(12)	(24)	Fee for all other committee members	(12)	(24)
		Remuneration committee fee		
(5)	(5)	Fee for all committee members	(5)	(5)
		Nomination committee fee		
(6)	(5)	Fee for Chairman	(6)	(5)
(7)	(7)	Fee for all other committee members	(7)	(7)
(290)	(256)	Total	(290)	(256)

#### **Termination Benefits**

In case of termination by Spectrum, the CEO and President is entitled to a severance payment equal to one and a half years base salary from a six month notice period which would commence on the first day of the month following the issue of termination notice.

In case of termination by the CEO and President, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period providing that the CEO and President has been employed by Spectrum for at least five years. If the CEO and President terminates his employment before this five year period no severance payment will be made.

In case of termination by Spectrum or the CFO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period.

In case of termination by Spectrum or the COO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period.

No other in the Executive Management Team have other termination benefits, other than ordinary benefits within employment region.

#### Pension Costs

Spectrum ASA is required to have an occupational pension scheme for their employees in Norway under the Act on Mandatory occupational pensions through a defined contribution plan. Spectrum ASA's pension cost for 2016 was USD 116k (2015: 137k).

Spectrum Ltd and Spectrum Inc make payments for eligible employees to defined contribution pension plans. Employees become eligible after an initial probationary period of employment.

# **NOTE 5 – SHARE BASED PAYMENTS**

The Board of Spectrum approved a stock option program for senior executives in the Group in 2010. Under this program, up to 10 million options may be awarded by the Board. The program was extended from 6 million to 8 million in EGM on 13 November 2012, and from 8 million to 10 million in GM on 23 May 2014.

The exercise price of the options is equal to the Volume-weighted average price (VWAP) for shares in Spectrum ASA in the 20 trading days prior to the date of each agreement. For each participant, the share options vest in tranches of 15% in the first year, 20% in year 2, 25% in year 3 and 40% in year 4.

The Board of Directors may decide that the annual vesting date and the proportion of the options which vest at each vesting date, deviate from the above in relation to senior executives. Exercise of options shall take place minimum two times per year as decided by the Board of Directors.

Partial or full vesting is subject to the appreciation in Spectrum's share price relative to the exercise price for the options calculated on a rolling basis over the 20 days VWAP per share prior to the relevant vesting date. Upon a 30% or 70% appreciation in the share price for options granted pre 2014 and upon a 25% and

50% appreciation in the share price for options granted in 2014 or later, 50% or 100% of the share options will vest respectively. The participant must be employed from the allotment date through to the date of the close of the relevant exercise window. Participants are permitted to accumulate the options until the final option expiry date. This is regardless of whether the applicable share price appreciation vesting condition threshold has been met or exceeded at the vesting date for each relevant tranche of options. If a participant does not notify the Company in writing of their intention to accumulate any options that have vested by the close of the exercise window for that tranche of options, the

options will automatically expire. Any remaining un-exercised options will also automatically expire on the closure of the last exercise window for the scheme or if the participant resigns or if their employment is terminated except when this is due to the participant's death, disability or permanent injury.

The fair value of the share options is estimated at the grant date using a Monte Carlo pricing model, taking into account the terms and conditions upon which the share options were granted.

The contractual term of each option granted is 4.5 years. The Board may decide at its sole dis-

cretion (at the request of the participant or otherwise) to settle any options in cash on exercise. The expenses booked by the Group in relation to the stock option program were recorded as a salary cost and against equity in 2015 and 2016. In addition the Group has provided for employer's insurance contributions.

# Movements in the year

	2015	2015	2016	2016
	No.	WAEP, NOK	No.	WAEP, NOK
Outstanding at 1 January	6 681 233	23,26	5 778 000	23,35
Granted during the year	-	=	-	-
Forfeited during the year	(425 500)	27,20	(305 000)	29,49
Exercised during the year	(477 733)	11,51	-	-
Expired during the year	-	-	-	-
Outstanding at 31 December	5 778 000	23,35	5 473 000	23,21
Exercisable at 31 December	2 793 500	11,76	3 085 375	14,21

The weighted average remaining contractual life for the share options outstanding as at 31 December 2016 was 1.50 years (2015: 2.44 years).

The weighted average fair value of options granted during the year was not applicable as no options were granted (2015: NA)

The following table shows the price range at which each tranche of options outstanding at 31 December could be exercised:

	2015	2016
	No.	No.
Exercise price		
NOK 0.00 - 10.00	1 950 000	1 950 000
NOK 10.00 - 12.50	455 000	455 000
NOK 12.50 - 15.00	-	-
NOK 15.00 - 20.00	115 500	115 500
NOK 20.00 - 30.00	990 000	690 000
NOK 30.00 - 40.00	2 135 000	2 130 000
>40.00	132 500	132 500
	5 778 000	5 473 000

The Monte Carlo model is used to calculate the fair value of the options, used in the financial statements. The calculated fair values incorporate expected exercise pattern and thus the expected vesting/exercise date, i.e. the probability of vesting. All performance conditions are included in the

fair value. The assets drift, expected volatility and share price will affect the fair value in addition to the exercise pattern.

The expected life of the share options is based on current expectations and is not necessarily

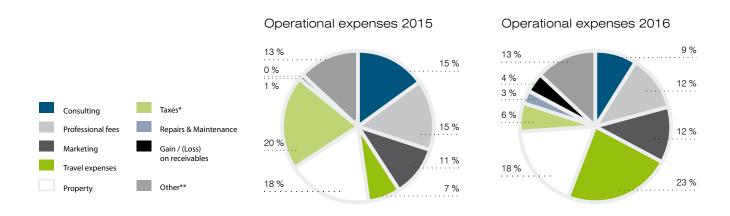
indicative of exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may also not necessarily be the actual outcome.

# NOTE 6 - OTHER OPERATING EXPENSES

Spectru	ım ASA		Spectrun	n Group
2015	2016		2015	2016
(204)	(225)	Consulting	(2 633)	(1 060)
-	-	Taxes *	(3 569)	(1 489)
(427)	(273)	Travel expenses	(2 052)	(1 498)
(323)	(253)	Property	(2 771)	(2 761)
(1 819)	(1 287)	Professional fees	(3 221)	(2 204)
(26)	(7)	Marketing	(1 300)	(696)
-	(2)	Repairs & maintenance	(128)	(318)
-	-	Gain / (Loss) on receivables	(11)	(418)
(233)	(328)	Other **	(2 278)	(1 589)
(3 032)	(2 375)		(17 963)	(12 033)

<sup>\*</sup> Taxes consists of Brazilian transaction taxes required to be reported as operating expenses under IFRS.

 $<sup>\</sup>hbox{$\star$^*$ Other includes training \& recruitment, insurance, subscriptions, consumables and communication.}$ 



# Auditor's remuneration (exclusive of VAT)

Spectro	um ASA		Spectrur	n Group
2015	2016		2015	2016
(120)	(100)	Statutory audit	(218)	(207)
(56)	(15)	Other audit related and attestation services	(56)	(19)
(15)	(67)	Tax services	(213)	(135)
(191)	(182)	Total	(487)	(361)

# **NOTE 7 - INCOME TAXES**

Spectrum ASA			Spectrum	Group
2015	2016		2015	2016
-	-	Tax payable *	(16)	(3)
-	(147)	Adjustments in respect to previous years	532	(366)
136	(7)	Changes in temporary differences	(258)	3 217
-	-	Utilised withholding tax	(77)	(638)
136	(154)	Current tax charge	181	2 210
		Analysis of tax expense:		
(5 890)	181	Profit before tax	(8 835)	(22 493)
(5 890)	181	Profit before tax	(8 835)	(22 493)
1 590	(45)	At statutory income tax rate 25% (2015: 27%)	2 385	5 623
-	-	At income tax rates outside Norway different from 25% (2015:27%)	(1 323)	1 056
(143)	(11)	Non-deductible expenses	991	(57)
(1 311)	(98)	Translation differences	(2 801)	(78)
-	-	Foreign taxes	(77)	(88)
-	-	Changes of unrecognised tax losses	1 005	(4 245)
136	(154)	Income tax expense reported in the consolidated income statement	181	2 210
2,3%	85,2%	Effective tax rate in %	2,1%	9,8%
		Tax effect of temporary differences		
264	203	Fixed assets	(2 787)	(5 088)
152	140	Other short term receivables	73	136
(669)	(688)	Other long term items	(251)	315
-	-	Other short term liabilities	182	179
19	14	Effects of changes in tax rates	19	14
(235)	(332)	Total temporary differences	(2 764)	(4 444)
379	394	Tax losses carried forward	7 547	10 293
-	-	Deferred tax assets not recognised	(5 685)	(6 370)
145	63	Net deferred tax assets/(liabilities)	(902)	(522)
		Balance sheet deferred tax assets / (liability)		
-	-	Deferred tax liability	(3 494)	(6 607)
145	63	Deferred tax assets **	2 592	6 084
-	-	Long term receivable - withholding taxes ***	7 618	9 345

		Spectrum Group			
Additional information of tax losses carried forward and deferred		Tax losses ca	rried forward	Deferred tax ass	ets recognised
tax assets recognised ****		2015	2016	2015	2016
Spectrum ASA	Tax rate 24% (2015: 25%)	1 518	1 642	379	394
Spectrum Geo AS	Tax rate 24% (2015: 25%)	-	663	-	159
Spectrum Geo Ltd	Tax rate 20% (2015: 20.25%)	7 850	18 963	1 482	3 369
Spectrum Geo Pty Ltd	Tax rate 30% (2015: 30%)	5 028	5 179	-	-
Spectrum Geo GmbH	Tax rate 12% (2015: 12%)	39 650	39 250	-	-
Spectrum Geo Pte Ltd	Tax rate 17% (2015: 17%)	1 426	629	-	-
Total		55 472	66 326	1 861	3 922

Tax payable for the year is USD 0.0 million (2015: USD 0.0 million). Tax and other public duties payable in the statements of financial position is USD 0.6 million (2015: USD 3.4 million). This includes corporate tax of USD 0.0 million (2015: USD 0.0 million), and taxes on financial transactions, VAT and social security taxes of USD 0.6 million (2015: USD 3.4 million).

Deferred tax assets are recognised when it is probable that the company will have a sufficient profit in the future for tax purposes to utilise the tax asset.

<sup>\*\*\*</sup> Witholding taxes relates to transactions between Spectrum Geo Inc and Spectrum Geo do Brasil Servicos Geofisicos LTDA.

<sup>\*\*\*\*</sup> The Company has operations that are subject to taxation in different countries, and losses in one subsidiary in one country cannot be offset against a gain in a subsidiary in another country.

# **NOTE 8 – FINANCIAL ITEMS**

# Finance income

Spectru	ım ASA	ASA Spectrum Group		n Group
2015	2016		2015	2016
2 492	-	Net foreign exchange gain/(loss)	-	-
-	-	Bank Interest Income	35	41
3 933	4 716	Interest to group companies	-	-
23	25	Other	177	75
6 448	4 741	Total	212	116

# Finance expense

Spectru	ım ASA		Spectrur	n Group
2015	2016		2015	2016
(6)	(8)	Bank charges	(160)	(65)
-	(379)	Net foreign exchange gain/(loss)	(558)	(6)
-	-	Finance lease interest	(177)	(114)
(1 255)	(1 979)	Loan interest	(1 255)	(2 278)
(30)	(706)	Interest to group companies	-	-
(546)	(1 099)	Other *	(1 728)	(1 099)
(1 837)	(4 170)	Total	(3 878)	(3 561)

<sup>\*</sup> Includes bank guarantee fees, waiver fees and amortisation of establisment fee for loan facilities

# NOTE 9 - NON-CURRENT INTANGIBLE AND TANGIBLE ASSETS (FIXED ASSETS)

Sp	ectrum ASA			Spectrum Group			
Multi-Client library	Software	Fixtures, fittings and office equipment		Goodwill	Multi-Client library	Software	Fixtures, fittings and office equipment
26 733	90	17	Net carrying amount 1 January 2015	12 481	131 266	2 611	3 026
-	-	-	Additions through acquisition of assets	2 343	109 024	-	-
22 567	27	-	External capitalisation of expenses	-	47 872	120	848
213	-	-	Internal capitalisation of expenses	-	13 214	-	-
-	-	-	Disposals	-	-	-	(75)
(14 543)	-	-	Amortisation	-	(64 627)	-	-
-	(67)	(14)	Depreciation	-	-	(1 480)	(1 618)
(6 240)	-	-	Impairment	-	(16 062)	-	-
28 730	50	3	Net carrying amount 31 December 2015	14 824	220 686	1 252	2 182
20 097	-	-	External capitalisation of expenses	-	40 716	218	708
2 110	-	-	Internal capitalisation of expenses	-	9 955	-	-
(11 617)	-	-	Amortisation	-	(67 391)	-	-
-	(37)	(3)	Depreciation	-	-	(806)	(1 263)
(1 585)	-	-	Impairment	(1 621)	(11 246)	-	-
37 736	13	-	Net carrying amount 31 December 2016	13 203	192 721	663	1 627
Up to 5	3 - 5	3 - 5	Useful Life		Up to 5	3 - 5	3 - 5
years	years	years			years	years	years

#### Tangible non-current assets

As at 31 December Spectrum had fully depreciated a number of tangible assets that were still in use. The Gross cost of these assets were as follows:

Spectrum ASA			Spectrui	m Group
2015	2016		2015	2016
-	-	Fixtures, fittings & equipment	5 411	5 430
	-	Software	4 673	5 856
-	-		10 084	11 286

# Intangible non-current assets

#### Goodwill

Business combinations are accounted for using the acquisition method. This involves the recognition of identifiable assets (including intangible assets that have not previously been recognised), and liabilities (including contingent liabilities but excluding provisions for future restructuring) of the purchased business at fair value. Goodwill acquired in business combinations is initially measured at cost, being the excess purchase price paid over the acquired interest in the fair value of the separable identifiable assets, liabilities and contingent liabilities of the acquire.

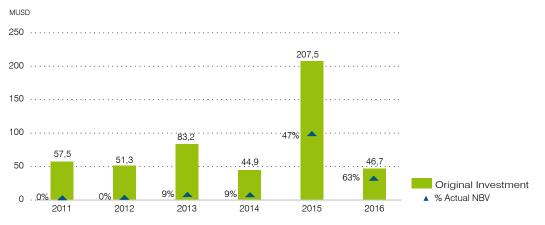
#### **Multi-Client library**

The Multi-Client library consists of geophysical and geological datasets that are both complete and in-progress. These datasets are licensed on a non-exclusive basis to oil and gas exploration and production companies. During the work in progress phase amortisation is calculated based on total cost versus forecasted total revenues of the project. This ratio is applied to the revenue recognized for the survey. After a project is completed, a straight-line amortisation is applied.

As at 31 December Spectrum had fully depreciated a number of Multi-Client surveys that were still available for sale in the market. The gross cost of these assets were as follows:

Spectru	ım ASA	Spectr	um Group
2015	2016	2015	2016
71 805	91 085	Multi-Client library 146 847	178 787

# Investment per vintage



# Additions

Multi-Client library additions are specified per operating segment in accordance with IFRS 8 in note 2 Segment Information. Interest cost that can be directly allocated to additions to the Multi-Client library has been capitalised. For 2016 the capitalised interest cost is USD 0.2 million (2015: USD 0.4 million).

All tangible assets in the Group are part of the support functions, and all additions to tangible assets has as such not been allocated to the operating segments.

## Impairment testing

Impairment testing is performed on the individual cash generating units (CGU). The net-book value of intangible assets is tested annually for impairment based on figures as of 31 December, or more frequently if there are indications that assets might be impaired. Spectrum is highly dependent on the E&P spending of the oil companies, which is highly dependent on the oil price. With the decline in the oil price the E&P spending has been significantly reduced. External analysis shows that the marine seismic market peaked in 2013 at USD 8.2 billion and dropped to USD 3.2 billion in 2016. The reduction of the market is a clear impairment indicator, even if the expected marine seismic market is expected to be flat in 2017 compared to 2016 or with a moderate increase. Spectrum has performed a full impairment analysis based on 31 December figures for all Multi-Client surveys in Spectrum's library for 2016.

A CGU should be impaired if the carrying amount is higher than the recoverable amount. The recoverable amount is the higher amount of the fair value and the value in use of a CGU. Spectrum performs impairment testing based on value in use, as a market price for the asset doesn't exist and as such the fair value is difficult to determine. The value in use calculations prepared for the CGU used cash flow projections from financial budgets approved by the Board of Directors covering a period of 3 years (2015: 3 years). The cash flows for the CGU was discounted at an average pre-tax WACC of 9.9% (2015: 10.0%), the WACC varies between the CGU's based on the geographical risks in the regions. The discount rate is based on a risk free rate of 1.19% (2015: 1.07%) and Spectrum's equity  $\beta$  ratio of 1.08 (2015: 1.24).

The impairment testing was performed for goodwill and the Multi-Client library.

#### Multi-Client library

All individual Multi-Client library balances held by the Group were subject to an internal impairment test as at 31 December 2016, using an average WACC of 9.9% (2015: 10.0%), the WACC varies between the CGU's based on the geographical risks in the regions. This discount rate is based on a risk free rate of 1.19% (2015: 1.07%) and Spectrum's equity  $\beta$  ratio of 1.08 (2015: 1.24).

Spectrum believes that the Multi-Client library is well positioned for upcoming license rounds, and approx. 95% of the book value of the library relates to on-going investments or to investments made in 2015 and 2016. Based on an overall level the value in use of the library is over the carrying amount of the library, and there is no need for impairment. However, an impairment analysis is performed on each individual survey. Some of the individual surveys are considered to have higher risk in the cash flow projections due to uncertainty regarding licence rounds, competition, political risk etc. All such risks are factored into the cash flow projections applied in the impairment analysis. An assessment was performed of the surveys with value in use close to book value, with regards to risk and competition, and a total impairment of USD 11.2 million was recognized (2015: USD 16.1 million). The impairment includes surveys from all Spectrum Multi-Client regions, see note 2.

With regard to the assessment of value-in-use of the individual Multi-Client surveys, a sensitivity analysis was performed. The key assumption in the forecasted cash flow per survey is the estimated sales, and the sensitivity analysis was performed by changing the estimated sales.

- \* 10% reduction in all sales compared to the forecast would lead to an increased impairment of 4% of the net book value of the Multi-Client library.
- \* 20% reduction in all sales compared to the forecast would lead to an increased impairment of 10% of the net book value of the Multi-Client library.
- \* 30% reduction in all sales compared to the forecast would lead to an increased impairment of 16% of the net book value of the Multi-Client library.
- \* As the cash flow projections only covers a period of 3 years any changes to the WACC will have limited impact on the net book value of the Multi-Client library.

#### Goodwil

As of 31 December 2016 the balance of goodwill amounting to USD 13.2 million (2015: 14.8 million) was allocated to the Multi-Client CGU. The cash flows were discounted using an average WACC of 9.9% (2015: 10.0%).

Cash flows for a three year period for the Multi-Client CGU were covered by forecasts, with assumptions applied to amortisation and operating costs. An assumed group tax rate of 30% was applied. The carrying value of the Multi-Client CGU was found to be lower than its recoverable amount and no impairment of the goodwill was required based on the analysis.

With regard to the assessment of value-in-use of the Multi-Client CGU, a sensitivity analysis was performed, and management believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount of the unit to materially fall below its carrying value.

Some of the goodwill recorded to the Multi-Client CGU is considered technical goodwill which is recorded based on deferred tax on excess values in business combinations. At the time when the deferred tax is offset in the group accounts the goodwill should be impaired, and an impairement of goodwill of USD 1.6 million was recognized in 2016 (2015: USD 0.0 million).

# NOTE 10 - WORK IN PROGRESS AND RECEIVABLES

#### Accounts receivable

Spectru	ım ASA		Spectrui	m Group
2015	2016		2015	2016
5 159	5 109	Not Due	24 064	18 990
2 459	2 641	0 - 30 days	4 181	3 861
186	0	30-60 days	1 058	4 544
69	0	60-90 days	70	294
368	359	> 90 days	505	1 193
8 242	8 109	Total	29 878	28 882

Accounts receivable are stated at net realisable value which management consider to be a close approximation to fair value given the short maturity period for these balances.

Accounts receivable are non-interest bearing and are generally on  $30-60\ day$  terms.

#### **Provisions**

Spectrum ASA			Spectrur	n Group
2015	2016		2015	2016
(561)	(561)	Provisions for loss on accounts receivable	(561)	(960)

#### Work in progress and other receivables

Spectru	ım ASA		Spectrui	m Group
2015	2016		2015	2016
6 629	2 215	Work in progress *	30 838	17 516
2 115	2 332	Prepayments	11 383	2 993
77	49	VAT and other taxes recoverable	6 638	14 459
911	370	Other	3 236	811
9 732	4 966	Total	52 095	35 779

<sup>\*</sup> Includes transfer fees, see note 1 section "Significant accounting judgement, estimates and assumptions" and note 3.

#### **NOTE 11 - CASH AND CASH EQUIVALENTS**

Cash and cash equivalents are on demand bank deposits. As at 31 December 2016 Spectrum ASA has USD 0.9 million restricted cash deposits (2015: USD 0.0 million) and the Spectrum Group has USD 0.9 million restricted deposits (2015: USD 0.0 million).

#### Bank and bank deposit in currency

As of 31 December 2016 bank deposits of USD 15.8 million (2015: USD 23.4 million) are mainly in USD 96% (2015: 91%), BRL 0% (2015: 6%) and in other currencies such as NOK, GBP, EUR, CHF AUD and SGD total 4% (2015: 3%).

The parent company, Spectrum ASA, has as of 31 December 2016 bank deposits of USD 10.4 million (2015: USD 11.9 million), of which 99% (2015: 97%) are in USD and 1% are in other currencies such as NOK, GBP and EUR (2015: 3%).

The Spectrum Group has a joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the companies participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS. The net Cash Pool balance is included in ASA's statement of financial position.

# NOTE 12 - SHARE CAPITAL AND SHAREHOLDER INFORMATION

The Company's registered share capital is NOK 53,449,103 divided into 53,449,103 shares, each at a nominal value of NOK 1. The share capital is fully paid, and all shares have the same rights.

The Board recommends that dividend will be considered during 2017. As proposed for 2015 no dividends were distributed in 2016.

Issued 28 July by subsequent placement In issue as at 31 December 2015  No shares issued in 2016	53 449 103	8 826
	53 449 103	8 826
Issued 28 July by subsequent placement		
	122 478	15
Issued 26 June by direct placement	10 000 000	1 277
Issued 6 March by exercise of options	466 500	61
n issue as at 1 January 2015	42 860 125	7 473
	Shares	USD 1000
	Number of	

<sup>\* 1 000 000</sup> new shares were issued by exercise of options 10 March 2017, see note 23.

# 20 largest shareholders and ownership interest as at 31 December 2016

Name	Location	Shares	% of Shares
ALTOR INVEST 1 AS	NOR	8 000 232	14,97 %
ALTOR INVEST 2 AS	NOR	8 000 232	14,97 %
ABN AMRO BANK (LUXEMBOURG) S.A.	LUX	2 625 672	4,91 %
CORONA MARITIME HOLDING AS	NOR	2 493 995	4,67 %
FOLKETRYGDFONDET	NOR	2 446 891	4,58 %
JPMORGAN CHASE BANK, N.A., LONDON	GBR	2 387 740	4,47 %
FIDELITY SELECT PORTFOLIOS: ENERGY	USA	2 311 408	4,32 %
SWEDBANK ROBUR SMABOLAGSFOND	GBR	1 898 964	3,55 %
SEB STO, SFMA1	SWE	1 623 073	3,04 %
FRANKFURTER AKTIENFONDSFUR STIFTUN	BEL	1 564 308	2,93 %
SOCIETE GENERALE	BEL	1 474 656	2,76 %
HOLBERG NORDEN	NOR	1 310 040	2,45 %
VERDIPAPIRFONDET PARETO INVESTMENT	NOR	1 262 000	2,36 %
FIDELITY INT SMALL CAP FUND	BEL	1 219 272	2,28 %
CREDIT SUISSE SECURITIES (EUROPE)	GBR	931 282	1,74 %
INVESCO PERP EURAN SMLER COMPS FD	BEL	803 082	1,50 %
EUROCLEAR BANK N.V.	BEL	802 032	1,50 %
VERDIPAPIRFONDET DNB SMB	NOR	794 830	1,49 %
CREDIT SUISSE SECURITIES (USA) LLC	USA	723 231	1,35 %
HOLBERG NORGE	NOR	676 432	1,27 %
		43 349 372	81,10 %

Spectrum owned no treasury shares at 31 December 2016 or at 31 December 2015.

# Shares owned by the Spectrum Board of Directors and management or in which they had an interest at 31 December 2016

Name	Shares	% of Shares	Country	Note
Pål Stampe (Chairman)	-	0,00 %	NOR	a)
Glen Rødland	2 493 995	4,67 %	NOR	b)
Ingrid Elvira Leisner	-	0,00 %	NOR	
Linda Rudolfsen Myklebust	-	0,00 %	NOR	
Maria Tallaksen	-	0,00 %	NOR	a)
Jogeir Romestrand	41 337	0.08 %	NOR	c)
Rune Eng (CEO)	109 609	0,21 %	NOR	
Henning Olset (CFO)	-	0,00 %	NOR	
Jan Schoolmeesters (COO)	34 461	0,06 %	NOR	
Svein O. Staalen	-	0,00 %	NOR	
Neil Hodgson	-	0,00 %	GBR	
Richie Miller	219 505	0,41 %	USA	
Graham Mayhew	4 000	0,01 %	GBR	
Mike Ball	5 000	0,01 %	USA	

#### Notes

- a) Mr. Stampe and Ms. Tallaksen have limited ownership through Altor Fund IV, which is the wholly owner of Altor Invest 1 AS and Altor Invest 2 AS.
- b) Shares held by Corona Maritime Holding AS, wholly owned by Mr. Rødland.
- c) Shares held by Rome AS, wholly owned by Mr. Romestrand

#### **NOTE 13 - MORTGAGES**

#### Bank facilities with Danske Bank

## Revolving credit facility

As of 31 December 2016 Spectrum ASA had a fully utilised credit facility of NOK 195 million. The revolving credit facility expire end of Q2 2017 and is classified as short term interest bearing debt as the agreement had not been extended as of 31 December 2016. However, the RCF was renewed 29 March 2017, and will expire June 2019. The RCF could as such be considered a long term liability.

The covenants as of 31 December 2016

- Equity ratio (excl. Goodwill) > 40.0%
- NIBD / 12 months EBITDA less MC Capex (excl. Fugro acquisition) < 1.5

# Term loan facility

As of 31 December 2016 Spectrum ASA had a term loan facility of USD 20 million.

Spectrum renegotiated the repayment schedule of the term loan end Q3 2016. The new repayment schedule of the term loan is:

- USD 8 million end Q1 2017
- USD 3 million end Q2 2017
- USD 5 million end Q3 2017
- USD 4 million end Q4 2017

The covenants as of 31 December 2016

- Equity ratio (excl. Goodwill) > 40.0%
- NIBD / 12 months EBITDA less MC Capex (excl. Fugro acquisition) < 1.5

Spectrum obtained a waiver for Q4 2016.

See note 3, 17 and 18 for further details.

# **NOTE 14 - EARNINGS PER SHARE**

Basic earnings per share is calculated by dividing the profit or loss for the year attributable to equity holders of the Company by the weighted average number of shares outstanding during the period of trading.

Diluted earnings per share is calculated by dividing the net profit attributable to equity holders of the Company by the weighted average number of shares outstanding during the year adding the weighted average number of shares that would be issued on conversion of all the dilutive instruments into shares.

	Spectru	m Group
	2015	2016
Profit attributed to ordinary equity holders of the Company (USD 1 000)	(8 654)	(20 283)
Weighted average number of shares	48 447 859	53 449 103
Effect of dilutions:		
Share options	6 010 208	5 473 000
Convertible bonds	-	-
Weighted average numbers of ordinary shares adjusted for the effect of dilution	54 458 067	58 922 103
Earnings per share (USD)	(0,18)	(0,38)
Fully diluted earnings per share (USD)	(0,18)	(0,38)

There has been no other transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of these financial statements.

# **NOTE 15 - COMMITMENTS**

Spectrum has the following non-cancellable lease commitments for premisis and equipment.

Spectrui	n ASA		Spectrum	Group
2015	2016		2015	2016
143	142	in less than one year	2 634	1 978
-	166	in more than one year and less than five years	5 030	4 620
-	-	in more than five years	3 272	2 516

#### Rent

Rent mainly relates to rent of premises in countries where Spectrum has operations. The total annual rent for all premises was USD 1.9 million in 2016 (2015: USD 2.0 million). The future obligations related to payments for premsies are included in the table above.

# **NOTE 16 - RELATED PARTIES**

The Spectrum Group consider all group companies, management and Board members as related parties. See note 4 for remuneration to management and note 12 for shareholders information.

No further material transactions took place during 2016 with related parties other than those described below. All transactions with associates were unsecured and at an arms-length basis.

		Spectrum ASA 2016				
					Long-term	Short-term
			Interest	Interest	amounts owed	amounts owed
	Sales to	Costs from	charges to	charges from	by (owed to)	by (owed to)
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries
Spectrum Geo Ltd	226	(4 676)	-	(390)	-	(20 417) *
Spectrum Geo Inc	108	(909)	888	-	-	32 054
Spectrum Geo Pty Ltd	56	(32)	1 411	-	-	50 316
Spectrum Geo Pte Ltd	-	(39)	46	-	-	615
Spectrum Geo do Brasil	360	-	2 061	-	19 420	3 336
Spectrum Geo AS	1 405	-	248	-	-	1 360 *
Spectrum Geo GmbH	16	-	-	(81)	-	(3 134)
Spectrum Geo Australia Pty Ltd	469	-	-	(113)	-	(8 875)
Spectrum Geo S.A. de C.V.	177	-	27	-	-	4 361
Carmot Seismic AS	-	-	36	(123)	-	8 172
Carmot Processing AS	-	-	-	-	-	(4)
Capitalised group expenses	-	2 110	-	-	-	-
Total	2 818	(3 545)	4 716	(706)	19 420	67 784

	Spectrum ASA 2015					
					Long-term	Short-term
			Interest	Interest	amounts owed	amounts owed
	Sales to	Costs from	charges to	charges from	by (owed to)	by (owed to)
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries
Spectrum Geo Ltd	583	(2 570)	86	_	-	(10 097) *
Spectrum Geo Inc	183	(3 574)	365	-	-	24 474
Spectrum Geo Pty Ltd	315	-	673	-	-	47 499
Spectrum Geo Pte Ltd	-	(156)	43	-	-	1 558
Spectrum Geo do Brasil	967	-	2 421	-	19 000	1 624
Spectrum Geo AS	1 150	-	345	-	-	13 756 *
Spectrum Geo GmbH	193	-	-	-	-	(2 012)
Spectrum Geo Australia Pty Ltd	814	-	-	(19)	-	(2 403)
Spectrum Geo S.A. de C.V.	335	-	-	-	-	2 497
Carmot Seismic AS	-	-	-	(11)	-	(704)
Carmot Processing AS	-	-	-	-	-	(4)
Capitalised group expenses	-	4 057	-	-	-	-
Total	4 540	(2 244)	3 933	(30)	19 000	76 189

<sup>\*</sup> Joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the company participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS. The net Cash Pool balance is included in Spectrum ASA's statement of financial position.

In Spectrum ASA costs from subsidiaries are mainly data processing done in Spectrum Geo Ltd and Spectrum Geo Inc for the Multi-Client library owned by Spectrum ASA, and commissions for sales of Multi-Client data from the library owned by Spectrum ASA. Sales to subsidiaries are mainly commissions for sales of Multi-Client data from libraries owned by subsidiaries made by Spectrum ASA, and management fees charged for services provided.

Specti	rum ASA		Spectrui	m Group
2015	2016		2015	2016
		Transactions with joint ventures		
		Spectrum Geopex		
-	-	Sales to	273	153
-	-	Sales from	278	1 504
-	-	Amounts owed	(142)	(215)

# NOTE 17 - LONG-TERM INTEREST BEARING DEBT

Spectru	um ASA		Spectrum Group	
2015	2016		2015	2016
11 352	-	Revolving credit facility *	11 352	-
-	-	Long term leasing liabilities	384	200
11 352	-	Total	11 736	200

<sup>\*</sup> See note 13.

# Finance leases

Spectru	um ASA	Spectrum Grou		n Group
2015	2016		2015	2016
		MINIMUM PAYMENTS DUE:		
-	-	In less than one year	1 173	566
-	-	In more than one and less than five years	394	227
-	-	Minimum payments	1 567	793
	-	Less: Future finance charges	(75)	(37)
-	-	Present value of payments	1 492	756
		ANALYSIS OF PRESENT VALUE PAYMENTS:		
-	-	In less than one year	1 018	494
-	-	In more than one and less than five years	384	200
-	-	In more than five years		
-	-	Present value of payments	1 402	694
		CARRYING VALUE OF LEASED ASSETS:		
-	-	Machinery & equipment	999	439
-	-	Software	963	739
-	-	Fixtures, fittings and office equipment	7	4
-	-	Total	1 969	1 182

Financial leasing commitments due in less than one year are classified as short term interest bearing debt, see note 18. The leasing commitments is related to leasing of equipment and software in the subsidiary Spectrum Geo Ltd. See note 8 for finance lease expense.

# Other long term liabilities

Other long term liabilities consists of operating liabilities with no contractual obligation to settle within the next 12 months.

# **NOTE 18 - SHORT TERM LIABILITIES**

# Short term interest bearing debt

Spectru	ım ASA		Spectru	m Group
2015	2016		2015	2016
35 000	20 000	Term loan facility *	35 000	20 000
10 851	22 556	Revolving credit facility *	10 851	22 556
-	-	Leasing liabilities	1 018	494
45 851	42 556	Total	46 868	43 050

<sup>\*</sup> See note 13. The RCF was renewed 29 March 2017, and will expire June 2019. The RCF could as such be considered a long term liability.

# Other short term liabilities

Spectru	um ASA		Spectrui	m Group
2015	2016		2015	2016
1 847	1 463	Deferred income	4 361	15 233
27 171	23 578	Accrued expenses	23 395	2 749
10 656	1 193	Revenue share	15 517	2 812
541	250	Other	917	556
40 215	26 484	Total	44 190	21 350

Operating liabilities with no contractual obligation to settle within the next 12 months have been classified as other long term liabilities, see note 17.

# **NOTE 19 - SUBSIDIARIES AND JOINT VENTURES**

Spectrum ASA is the ultimate parent company of all Spectrum Group subsidiaries.

Company and country of incorporation	Parent Company	Relation and shareholding
Spectrum Geo Ltd (UK)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Inc (USA)	Spectrum Geo Ltd	Subsidiary - 100%
Spectrum Geo Pte Ltd (Singapore)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo do Brasil Servicos Geofisicos LTDA (Brazil)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Pty Ltd (Australia)	Spectrum ASA	Subsidiary - 100%
Spectrum Pty Ltd (Australia)	Spectrum Geo Pty Ltd	Subsidiary - 100%
Spectrum Geo GmbH (Switzerland)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo S.A. de C.V. (Mexico)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Panama LLC (Panama)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Seismic AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Processing AS (Norway)*	Spectrum ASA	Subsidiary - 100%
Spectrum-Geopex Egypt Ltd (Egypt)	N/A	Joint venture - 50%
Geo Bridge Pte Ltd (Singapore)*	N/A	Joint venture - 50%

<sup>\*</sup> The company is dormant

#### Joint ventures:

Spectrum holds a 50% interest in Spectrum-Geopex Egypt Ltd and the Group's share of the result is shown under result from joints ventures in the statement of comprehensive income.

	Spectrum-G	eopex Egypt
	2015	2016
Share of the joint venture's statement of financial position		
Current assets	603	727
Non-current assets	33	15
Current liabilities	(200)	(397)
Equity	436	345
Share of the joint venture's revenue and profit		
Revenue	728	825
Other expenses	(965)	(693)
Share of Profit / (loss) of Joint Ventures	(237)	132

# Joint operation

Spectrum has several Multi-Client projects in partnership with other parties as joint operations. A joint operation is an arrangement where Spectrum with joint control has rights to the assets and obligations for liabilities of the arrangement. Proportionate share of each of the assets, liabilities, income and expenses of the joint venture is combined with similar items, line by line, in the consolidated financial statements. The partners in the joint operations are vessel providers and other seismic companies.

	Spectrur	n Group
	2015	2016
Share in the joint operations		
Net revenues	29 990	20 922
Amortisation	(18 183)	(22 433)
Impairment	(6 474)	(685)
Net book value of Multi-Client library	101 217	94 380

# NOTE 20 - BUSINESS COMBINATIONS & SIGNIFICANT TRANSACTIONS

#### 2016

PIS/COFINS tax credit filing in Brazil

Spectrum was in 2016 able to file credits for certain transaction taxes in Brazil (PIS/COFINS). It has previously not been clear how to treat PIS/COFINS on investments, and whether the costs meet the set requirements for credits. The estimates for any PIS/COFINS recovery has also been considered to uncertain for recognition. As such Spectrum has treated the taxes as part of the investments. After a change in the legislation and developed practice regarding credits on PIS/COFINS on investments in Brazil, Spectrum has been able to file credits for the taxes on the investments from 2012-2016. As the taxes have been included in the investments and to a large degree been amortised, this increase in tax credit has been treated as other revenue. A total other revenue of USD 13.1 million has been recognized in 2016 based on the tax filings (2015: USD 0.0 million).

The tax credit is recognized as Other receivables, and classified as current and non-current based on expected utilisation. The credits recognized as current other receivables is expected to be utilised within the next 12 months. However, new credits will arise through the year, and as such the total Brazilian tax credit is not expected to be fully utilised even if the credits recognized in the balance sheet as of 31 December 2016 are utilised. The total Brazilian tax credit also includes tax credits not related to the 2012-2016 filing of credits related to investments.

	Spectru	m Group
	2015	2016
Non-current other receivables	-	7 037
Current other receivables	-	13 971
Total Brazilian tax credit	-	21 008

Starting 1 January 2017 all investments in Brazil will be recognized net of PIS/COFINS taxes.

#### 2015

Acquisition of Fugro Multi-Client library

Spectrum ASA acquired the Fugro Multi-Client library effective from 1 January 2015. For accounting purposes the transaction was completed 1 June 2015. Spectrum acquired three companies holding the library in addition to certain Multi-Client data surveys held by other Fugro entities.

#### **Entities acquired**

New name	Original name	Primary assets
Spectrum Geo AS	Fugro Multi-Client Services AS	MC2D and MC3D surveys in North West Europe
Spectrum Pty Ltd	Fugro Multi-Client Services Pty Ltd	MC3D surveys in Australia
Spectrum Geo GmbH	Fugro Data Services GmbH	MC2D and MC3D surveys in North West Europe, Africa, Asia/Pacific and Caribbean.

#### Assets acquired

Buying entity	Selling entity	Primary assets
Spectrum Geo do Brasil	Fugro Geosolutions Brasil	MC2D and MC3D surveys in Brazil
Spectrum Geo Inc.	Fugro Multi-Client Services Inc.	MC2D and MC3D surveys in USA

The consideration for the acquisition of the library was USD 116.0 million including certain non-library assets in the three companies. The transaction has been accounted for as a business combination as the companies and assets acquired were considered to have input, processes and output.

Spectrum has after the transaction increased its 2D library by 115% in line km and increased the market position within 3D Multi-Client market. The new combined Spectrum library exceeds 3.0 million km of 2D Multi-Client seismic data covering all major sedimentary basins worldwide. The company has a stronger position in Brazil and Norway and has 2D data coverage in almost all oil and gas regions. The acquisition also gives Spectrum an attractive position within 3D Multi-Client data in Australia, Norway and the Netherlands. Thus, the transaction significantly increases Spectrum's global footprint and diversification both with regards to geography and product offering.

As the economic transaction was 1 January 2015 while the effective completion date for accounts purposes was 1 June 2015, the sales and costs from the acquired library for the period 1 January to 31 May 2015 is reflected in Spectrum's PPA, not in Spectrum's statement of comprehensive income. The profit/ (loss) in the period between 1 January and 1 June has been recorded to the Multi-Client investment, and as such the fair value of the Fugro library at the time of the acquisition was USD 109.0 million. All transactions after 1 June related to the acquired library have full impact on the Spectrum statement of comprehensive income.

The fair value of the goodwill relates to the deferred tax liability of the excess value of the Multi-Client library in the Norwegian entity acquired. No other goodwill is identified in the transaction.

Had the acquisition been complete as of 1 January 2015 the consolidated statement of comprehensive income of Spectrum for the 12 months ended 31 December 2015 would have recognised net revenue of USD 117.7 million and a loss before tax of USD 12.4 million.

Assets	
Non-current assets	
Goodwill	2 343
Multi-Client library	109 024
Total non-current assets	111 367
Current assets	
Accounts receivable	7 664
Other receivables	76
Cash and cash equivalents	7 761
Total current assets	15 502
Total assets	126 869
Liabilities	
Long term liabilities	
Deferred tax liability	2 783
Other liabilities	6 518
Total long term liabilities	9 301

Total liabilities	10 865
Total current liabilities	1 564
Other liabilities	1 172
Tax and other public duties payable	(380
Accounts payable	771
Current liabilities	
Fair value recognised on acquistion	

Total net value of identifiable assets and liabilities

116 004

The book value at the point of the transaction approximate to the fair value, as assets were impaired to agreed purchase price prior to the transaction.

The purchase price analysis is preliminary and may be updated up until one year after the transaction date.

The transaction costs related to the business combination were USD 0.8 million.

#### **NOTE 21 - FAIR VALUE MEASUREMENT**

Spectrum uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation techniques.

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
- Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly
- Level 3: techniques that use inputs that have a significant effect on the recorded fair value that are not based on observable market data

# Quanitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2016, total book value.

	Spectro	um ASA				Spectrum Group			
					Date of				
Level 1	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
				Current assets					
-	-	8 109	8 109	Accounts receivables	31.12.2016	-	-	28 882	28 882
-	-	2 215	2 215	Work in progress	31.12.2016	-	-	17 516	17 516
				Long term interest bearing debt					
-	-	-	-	Long term leasing liabilities	31.12.2016	-	-	200	200
				Short term interest bearing debt					
-	-	-	-	Leasing liabilities	31.12.2016	-	-	494	494

#### Quanitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2015, total book value.

	Spectro	um ASA					Spectru	m Group	
					Date of				
Level 1	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
				Current assets					
-	-	8 242	8 242	Accounts receivables	31.12.2015	-	-	29 878	29 878
-	-	6 629	6 629	Work in progress	31.12.2015	-	-	30 838	30 838
				Long term interest bearing debt					
-	-	-	-	Long term leasing liabilities	31.12.2015	-	-	384	384
				Other long term liabilities					
-	-	-	-	Other long term liabilities	31.12.2015	-	-	4 379	4 379
				Short term interest bearing debt					
-	-	-	-	Leasing liabilities	31.12.2015	-	-	1 018	1 018

During the reporting period ending 31 December 2016, there were no transfers between levels. The fair value of the interest bearing debt approximate to the book value of the debt due to the recent utilisation of the facilities and the short maturities.

#### **NOTE 22 - CONTINGENT LIABILITIES AND PROVISIONS**

# **Contingent liabilities**

#### Brazil service tax dispute

Spectrum received 30 December 2016 a tax assessment in Brazil for municipal services tax ("ISS") related to the licensing of Multi-Client data. Whether licensing of Multi-Client data is to be considered a service and applicable to ISS tax is a controversial questions, and several different cases related to this topic are currently ongoing in the Brazilian administration and court system. Spectrum has taken a conservative position on the issue, and has reported and paid ISS tax on revenues. The total dispute in the assessment received is for USD 7.2 million (BRL 23.5 million). Spectrum has currently not received the details of the tax assessment or a formal claim, and can as such not assess the details of the claim in the assessment, nor the background for the claim despite having reported and paid ISS tax on revenues. The view that licensing of Multi-Client data is not to be considered a service has been the outcome in the preliminary rulings made on the matter in Brazil, and is considered to be the most likely outcome. Spectrum will consider filing a counterclaim of USD 13.9 million (BRL 45.1 million) based on the ISS tax reported and paid. Spectrum considers it more likely than not that this contingency will be resolved in its favor, and no provision is recognized for any portion of the exposure. The ruling, both of the assessment and of any possible counterclaim, may take several years.

# **NOTE 23 – SUBSEQUENT EVENTS**

#### Potiguar extension

Spectrum commenced a 6,000 km Multi-Client 2D survey offshore Brazil in the Potiguar Basin 24 January 2017. The new acquisition program is an extension of Spectrum's 2013 Potiguar Phase 1 survey. Spectrum continues to add to an extensive Equatorial Margin database offshore Brazil, now totaling more than 110,000 km of modern 2D data and 11,300 sqkm of new 3D broadband data. The new data will be processed in Spectrum's processing centre in Houston with PSTM, PSDM and Broadband products. Products will be available in Q4 2017.

# Multi-Client Geophysical ASA offer

Spectrum announced on 24 January 2017 a voluntary offer to acquire all the issued and outstanding shares in Multi-Client Geophysical ASA ("MCG") at a consideration of NOK 1.25 per share. On 1 February 2017 the offer document was approved and the acceptance period commenced on 2 February 2017. Furthermore, 2 February 2017 Geoex announced a competing offer of NOK 1.40 per share. On 15 February 2017, following the announcement by Geoex Ltd. regarding the increase of the offer price and the announcement by the MCG board on 9 February 2017 of its decision to recommend to the shareholders of MCG to accept the improved Geoex Offer, Spectrum withdrew the voluntary offer and all acceptances received were released with immediate effect.

#### **Exercise of share options**

Based on the authorisation granted by the General Meeting of Spectrum ASA on 20 May 2016, the Board of Directors approved in a board meeting held on 20 February 2017 a share issue of up to 1,000,000 shares, each with a par value of NOK 1.0 per share at the option price of NOK 8.50 for 615,000 of the new shares, NOK 11.16 for 150,000 of the new shares, NOK 11.16 for 150,000 of the new shares, NOK 29.46 for the next 100,000 of the new shares and NOK 29.96 for the remaining 50,000 of the new shares. As a result Spectrum's share capital increased with NOK 1,000,000 from NOK 53,449,103 to NOK 54,449,103, divided on 54,449,103 shares each with a par value of NOK 1.00 when the new shares were registered 10 March 2017.

# **Extention of Revolving Credit Facility**

Spectrum announced on 29 March 2017 that the Revolving Credit Facility of NOK 195 mill entered into with Danske Bank in June 2015 had been extended by 24 months from 24 June 2017 to 23 June 2019. The financial terms of the facility remains unchanged for the new 24 month period.

# **Alternative Performance Measures (APMs)**

Alternative performance measures (financial performance measures not within the IFRS framework), are used by the Group to provide supplemental information. Financial APMs are intended to enhance comparability from period to period. The APMs are also used internally for management reporting. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS.

# Spectrum's financial APMs:

• EBITDA: EBIT + depreciation, amortisation and impairments

	Spectrun	n Group
	2015	2016
EBIT	(5 169)	(19 048)
Depreciation	3 173	2 069
Amortisation	64 627	67 391
Impairment	16 062	12 867
EBITDA	78 694	63 279

• Organic Multi-Client investment: Net Multi-Client additions + disposals and sale of assets - library acquisitions

	Spectrum	Spectrum Group	
	2015	2016	
Net Multi-Client additions	170 111	50 671	
Sale of assets	4 507	-	
Multi-Client investment	174 618	50 671	
Library acquisitions	(109 024)	-	
Organic Multi-Client investment	65 594	50 671	

• Multi-Client investment ratio: Multi-Client investment/operational cash flow

	Spectrur	Spectrum Group		
	2015	2016		
Multi-Client investment	174 618	50 671		
Operational cash flow	98 199	61 215		
Multi-Client investment ratio	178 %	83 %		

# **Auditor's report**



Statsautoriserte revisorer Ernst & Young AS

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Medlemmer av den norske revisorforening

### INDEPENDENT AUDITOR'S REPORT

To the Annual Shareholders' Meeting of Spectrum ASA

# Report on the audit of the financial statements

#### Opinion

We have audited the financial statements of Spectrum ASA, which comprise the financial statements for the parent company and the Group. The financial statements for the parent company and the Group comprise the statements of financial position as at 31 December 2016, statements of comprehensive income, the statements of cash flows and changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements have been prepared in accordance with laws and regulations and present fairly, in all material respects, the financial position of the Company and the Group as at 31 December 2016 and their financial performance for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

# Basis for opinion

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Norway, and we have fulfilled our ethical responsibilities as required by law and regulations. We have also complied with our other ethical obligations in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

# Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for 2016. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

# Impairment assessment of Multi-Client library

The reduction in demand for Multi-Client data triggered the need for an impairment assessment. The impairment evaluation of Spectrums' Multi-Client library is a key audit matter due to the significant

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management judgment involved related to expected future market conditions. In 2016 an impairment of USD 11.2 million has been recognized.

We evaluated management's assessment of impairment indicators for the Multi-Client library. Our audit procedures included, among others, evaluation of historical accuracy of prior year's assumptions, evaluation of the 2016 assumptions used by comparing them with sales forecasts provided by internal sales representatives and the assumptions for the years 2017-2019 as estimated by management based on developments and expectations in the seismic industry. Furthermore, we evaluated the valuation methodology and the discount rate applied in the value in use model. We also assessed the Company's disclosures regarding those assumptions and the impairment losses of Multi-Client libraries recorded, which are disclosed in notes 1 – "Accounting Policies" and 9 – "Non-Current Intangible and Tangible Assets (Fixed Assets)" of the consolidated financial statements.

## Impairment of Goodwill

According to IFRS, goodwill should be tested annually for impairment, in addition the reduction in demand for Multi-Client data further require an impairment assessment. The impairment evaluation of Spectrum's goodwill is a key audit matter due to the significant management judgement involved related to expected future market conditions. In 2016 an impairment of USD 1.6 million has been recognized.

We evaluated management's assessment on future expected economic market condition and evaluation of the 2016 assumptions used by management comparing them to the Board approved budget for next year and the estimated budget by management based on the overall development in the Multi-Client market and assessment of the allocation of goodwill. We involved in our team a valuation expert to assist us in evaluating the assumptions used for the discount rate .We also assessed the Group's disclosures regarding those assumptions and the impairment losses of goodwill recorded, which are disclosed in notes 1 – "Accounting Policies" and 9 – "Non-Current Intangible and Tangible Assets (Fixed Assets)" of the consolidated financial statements.

# Other information

Other information consists of the information included in the Company's annual report other than the financial statements and our auditor's report thereon. The Board and Chief Executive Officer (management) are responsible for the other information. Our opinion on the financial statements does not cover the other information, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

# Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an

Independent auditor's report - Spectrum ASA

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audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with law, regulations and generally accepted auditing principles in Norway, including ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Report on other legal and regulatory requirements

# Opinion on the Board of Directors' report and on the statements on corporate governance and corporate social responsibility

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report and in the statements on corporate governance and corporate social responsibility concerning the financial statements, the going concern assumption and proposal for

Independent auditor's report - Spectrum ASA

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the allocation of the result is consistent with the financial statements and complies with the law and regulations.

# Opinion on registration and documentation

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, it is our opinion that management has fulfilled its duty to ensure that the Company's accounting information is properly recorded and documented as required by law and bookkeeping standards and practices accepted in Norway.

Oslo, 26 April 2017 ERNST & YOUNG AS

Jon-Michael Grefsrød

State Authorised Public Accountant (Norway)

Independent auditor's report - Spectrum ASA

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# Subsidiaries and joint ventures



# EUROPE / MIDDLE EAST / AFRICA

Company	Country	City	Address	Telephone	Fax
Spectrum ASA	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo AS	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Carmot Seismic AS	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo Ltd	United Kingdom	Woking	Dukes Court, Duke Street, Woking, GU21 5BH, UK	+44 (0) 1483 730201	+44 (0) 1483 762620
Spectrum Geo GmbH	Switzerland	Zug	c/o Jan Nikolaisen, Baarerstrasse 80, 6300 Zug, SWITZERLANI	D +47 23 01 49 60	+47 23 01 49 61
Spectrum Geopex Egypt Ltd	Egypt	Cairo	Spectrum Geopex Building, Nasr City Public Free Zone,	+2 02 2270 4341	+2 02 2270 6479
(Joint Venture)			Block 1-A, Cairo, EGYPT		

# AMERICA

Company	Country	City	Address	Telephone	Fax
Spectrum Geo Inc.	USA	Houston	11750 Katy Freeway, Suite 900, Houston, Texas 77079, USA	+1 281 647 0602	+1 281 589 8111
Spectrum Geo do Brasil	Brazil	Rio De	Av. Presidente Wilson nº 231 Sala 937, CEP 20030-021	+ 55 21 3578 5547	
Serviços Geofísicos LTDA		Janeiro	Centro, Rio de Janeiro, BRAZIL		
Spectrum Geo Panama LLC	Panama	Panama City	Piso 23 MMG Tower, Avenida Paseo del Mar, Costa del Este,	+1 281 647 0602	+1 281 589 8111
			Corregimiento de Parque Lefevre, Distrito de Panamá,		
			Provincia de Panamá, 265 7636, PANAMA		
Spectrum Geo S.A. de C.V.	Mexico	Mexico City	Av. Paseo de las Palmas, No.820 Desp. 604.,	+52 55 5202 3600	
			Lomas de Chapultepec C.P., 11000 D.F., MEXICO		

# ASIA / AUSTRALIA

Company	Country	City	Address	Telephone	Fax
Spectrum Geo Pty Ltd	Australia	Perth	105 St. Georges Terrace, Perth, WA 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Pty Ltd	Australia	Perth	105 St. Georges Terrace, Perth, WA 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Geo Pte Ltd	Singapore	Singapore	Level 28 Gateway East, 152 Beach Road, 189721, SINGAPORE	+65 6827 9773	+65 6295 2567
Spectrum Jakarta	Indonesia	Jakarta	PT Geoxindo Pratama (Agent), Jl. Kramat No. 40, Cilandak,	+21 788 39751	
			Timur, Jakarta, Selatan 12560, INDONESIA		





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Folow us: @SpectrumGeo



discover more...
with Spectrum Multi-Client data

ANNUAL REPORT 2017

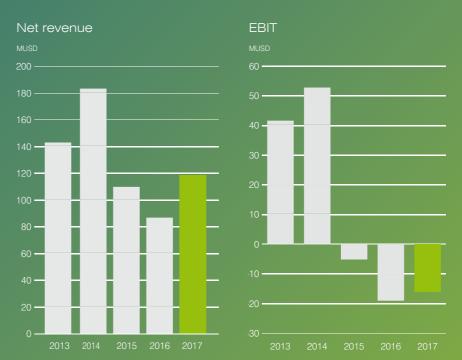


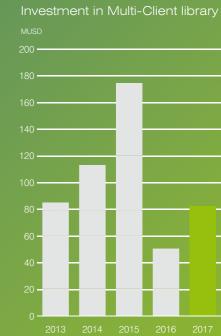
# CONTENTS

4
5
8
11
14
17
23
25
27
28
36
37
40
41
44
50
87
88

# KEY FIGURES

	2013	2014	2015	2016	2017
Multi-Client services	140 529	180 756	109 058	72 412	118 617
Seismic imaging	2 494	2 542	786	1 294	233
Other revenue				13 147	
Net revenue	143 023	183 298	109 844	86 852	118 850
EBIT	41 641	52 795	(5 169)	(19 048)	(16 037)
EBIT margin	26 %	29 %	-5 %	-22 %	-13 %
Net profit	29 155	38 229	(8 654)	(20 283)	(26 843)
Net profit margin	18 %	21 %	-8 %	-23 %	-23 %
Earnings per share	0,72	0,90	(0,18)	(0,38)	(0,49)
Earnings per share fully diluted	0,62	0,79	(0,18)	(0,38)	(0,49)
Non-current assets	137 109	157 055	251 534	233 192	195 973
Current assets - non cash	56 484	85 959	81 973	64 661	78 329
Cash and cash equivalents	2 719	8 364	23 373	15 827	14 155
TOTAL ASSETS	196 313	251 379	356 880	313 680	288 457
Non-current liabilities	766	2 066	19 609	27 923	49 741
Current liabilities	57 506	75 045	135 692	103 914	81 696
Equity	138 041	174 267	201 580	181 845	157 024
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	196 313	251 379	356 880	313 680	288 457
Investment in Multi-Client library	85 200	113 280	174 618	50 671	82 359
Average headcount	156	168	167	153	155





CONTENS KEY FIGURES

# HIGHLIGHTS OF 2017



Net revenue increased by 37% to USD 119 million from USD 87 million

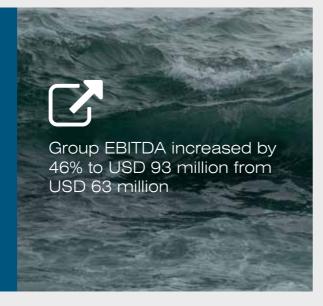


Investment in Multi-Client library (organic) increased by 63% to USD 82 million from USD 51 million



Completed a 10 000 sqkm Multi-Client 3D survey in shallow water southern Gabon

Completed a 6 000 km 2D Multi-Client survey in the Potiguar basin offshore Brazil





Commenced and close to completing a 36 000 km Multi-Client 2D deep water survey offshore Argentina for upcoming Argentina license round



Completed a 1 600 sqkm Multi-Client 3D survey in the Barents Sea. The new data was processed together with 2 000 sqkm of neighboring 3D data to cover 10 blocks included in the Norwegian 24th round



Commenced 3D and 2D reprocessing projects in the Otway and North Carnarvon basins offshore Australia



Commenced a Multi-Client 2D survey in the Malvinas basin offshore Argentina for the upcoming Argentina license round

Commenced a 19 000 km Multi-Client 2D survey offshore Mozambique





Commenced phase three of the Multi-Client 2D campaign, totaling 47 000 km, covering sectors in the Santos Campos basin offshore Brazil

Commenced a new 5 500 sqkm 3D survey in the northern part of Gabon Shallow Water

5 HIGHLIGHTS 2017 HIGHLIGHTS 2017





# DEAR READER

Marine seismic saw a gradual improvement through 2017 and Spectrum had an active year in terms of continuing to build its seismic library. Spectrum is well positioned for the recovery in the industry.

# Sentiment shift in the oil industry

2017 was in general still a challenging year in the oil industry with moderate activity levels. However, as expected, strong demand growth caught up with the last years 'US shale supply glut. The oil price increased steadily through the second half of the year and has been above USD 55/bbl since early autumn 2017. For many oil companies, decent oil price combined with substantial cost cutting and efficiency gains rendered positive cash flow in the sector after dividend for many oil companies for the first time in many years. These developments have resulted in a sentiment shift in the oil industry and comfort among many oil companies that the worst is behind us and that we are at start of a cyclical

The sentiment shift has also resulted in a gradual improvement for Multi-Client marine seismic. Spectrum has experienced all-time-high activity in new seismic surveys with strong industry support. Also sale from existing library is recovering with especially strong Q4. Multi-Client sales also ended well for most other seismic companies.

# Continued gradual recovery

The drivers for recovery in the marine seismic market appear

The underinvestment in proving up new oil and gas reserves and resulting low reserve replacement continues. Current forecasts points to continued steady increase in oil demand for the foreseeable future. This demand growth combined with completing reserves call for substantial additional supply.

Offshore oil and gas will likely continue to play an important role in bringing new supply to the market as other sources, such as US shale, cannot meet total need over time from what we know now. The oil companies have been able to substantially reduce break-even prices offshore. Offshore prospects are generally highly competitive if they are large enough, even in very deep water. Time to market has also decreased sharply with more standardised development solutions, such

Ultimately, higher marine seismic activity is needed to prove up the required offshore reserves.

Oil companies have had an almost monomanic focus on uninterrupted dividend payment, and consequently strong focus on reduction in cost and capital expenditure, since capital markets turned their focus to oil companies' negative cash flow, even at high oil prices, at the entry of 2014. Based on history, capital markets' and subsequently oil companies' worry will shift from cash flow to reserve additions and long term production at some point.

Even though exploration and seismic spend are still below sustainable levels, we will likely see a gradual rather than a steep recovery in there short term: Oil companies 'cash flows are positive, but maintaining liquidity and capital structure is still important. Oil companies are also careful not to drive cost inflation again. Also, focus is still largely on bringing economic viable projects, especially near infrastructure, shelved during the oil downturn on-stream. Moreover, not all oil companies have started looking actively offshore vet. Some of the oil companies with substantial US onshore exposure are still focusing on US shale.

#### Spectrum continues to build a strong position

Spectrum is deploying an asset light Multi-Client model. This model, combined with a low cost base, enables Spectrum to manage cash and cash flow well.

Spectrum holds the worlds' largest offshore 2D seismic library and is, together with TGS, one of only two major 2D Multi-Client players. Spectrum also holds an increasingly sizable collection of 3D seismic, the only meaningful library outside of the four largest 3D seismic suppliers (CGG, PGS, TGS, Schlum-

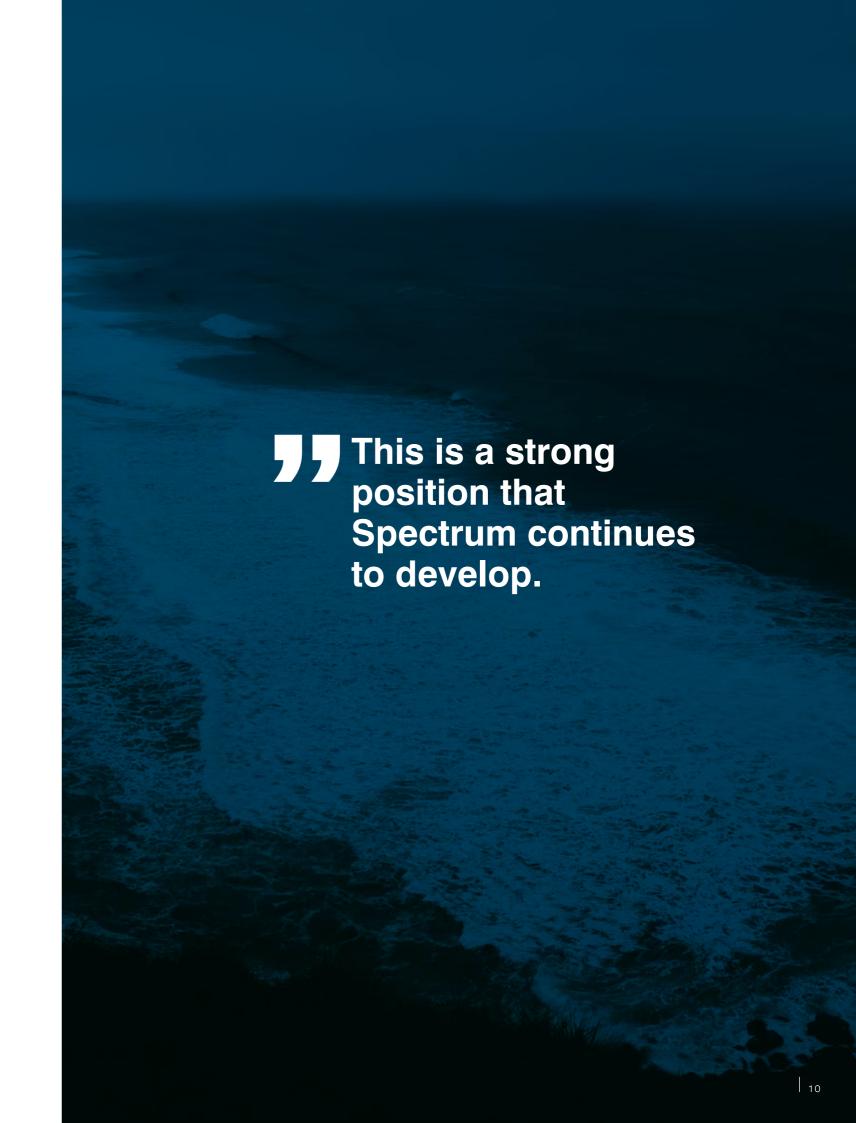
This is a strong position that Spectrum continues to develop. Through the Fugro library acquisition and organic projects, Spectrum has diversified the library a lot over the last three

Spectrum has had, and is still having, a strategy based around the Atlantic margin, especially in the southern hemisphere. Spectrum observes great interest from oil companies for seismic in South America and West Africa. Much of Spectrums recent organic investments have gone into these regions and this continued in 2017.

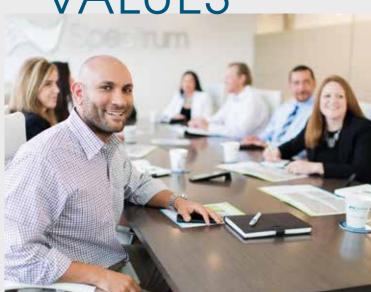
Spectrum enjoys an enthusiastic, commercial and highly competent management team and organisation. The combination of a strong market position, attractive business model and strong management and organisation bodes well for 2018 and the years to come.

After having suspended dividend during the downturn in the oil industry, Spectrum has again reintroduced dividend payment. The initial NOK 0,50 per share dividend is expected to grow over the coming years.

Pål Stampe



OUR VALUES





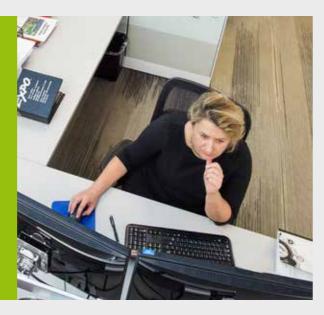
# CORPORATE VISION

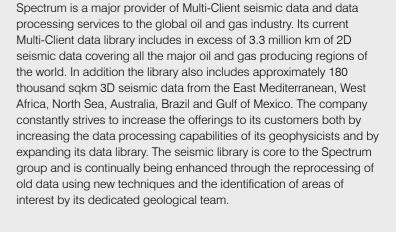
Be a world class provider of frontier Multi-Client surveys and seismic imaging solutions.



Grow the company organically through project development combined with acquisition of strategic data libraries.

Initiate and execute projects relevant to the global oil and gas industry to a high professional standard and delivering the results at the right time and place







Achieve world-leading performance through persistence, dedication and commitment to quality.







MISSION

Supply global seismic solutions through dedicated and experienced people.

Work in partnership with our customers to deliver consistent quality Multi-Client seismic data and seismic processing services on time and to budget.

11 AT THE HEART OF US

AT THE HEART OF US



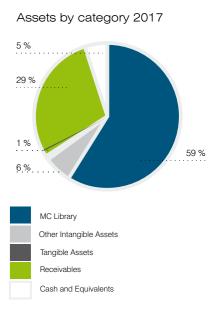


For the fourth year in a row we have experienced a global decline in E&P spending, but 2017 may be the year where we saw a turning point in the seismic industry. There is continued strong demand for oil and gas in the world supported by financial growth mainly in China, India and Africa. A combination of record low new reserves being added and few new fields being sanctioned for production has revitalized the discussion around reserve replacement ratios within oil companies.

Offshore exploration has regained attractiveness after breakeven levels for offshore fields were brought down to USD30-40/bbl as a result of cost reduction efforts. Recent major oil discoveries in US Gulf of Mexico, Guyana and Senegal have encouraged the industry to drill in areas where seismic has identified attractive prospects.

There is a trend in the industry for the bigger oil companies to shift focus from mature areas to more underexplored basins in South America, Central America, Africa, and other new areas opening up. In particular development along the Atlantic Margin has become popular for investment. Exxon has successfully worked up a Guyana deep-water portfolio proving new play concepts along the northern margins of South America. Spectrum is encouraged by the prospect that this trend may even extend into Brazil and the Foz Amazonas basin area where the company has dense data coverage.

The oil price in 2017 varied between USD45/bbl and USD65/bbl which is up from the USD30/bbl- USD50/bbl range in 2016. In this environment oil companies have cut costs and reduced their investment in exploration. Seismic has taken a serious hit, but indications are that oil companies will reverse from being purely production focused to start building new reserves in their portfolio. They need seismic in new attractive areas like Argentina, a country that is opening up their offshore acreage for a license round in 2018.



Spectrum is carefully monitoring new technology to select the best provider for our offshore seismic projects. We do not anticipate any disruptive technology for towed streamers although oil companies are focusing more on seabed seismic around existing production areas. Application of the right technology in a particular area is important in order to optimize the cost-to-quality ratio in a particular project. Spectrum embraces the full span of technology from 2D acquisition in frontier areas to highly focused 3D or even node surveys in mature producing basins.

Spectrum is determined to maintain its asset-light business model, a model that is suitably flexible for Multi-Client investments and that allows us to adapt our operating cost in a cyclical business environment. In these times, the asset light model plays at its very strength since vessel utilization is not a factor in Spectrum's investment decisions. Spectrum only invests in new projects if prefunding and near term sales bring the project into a cost recovery phase within 24 months of the data being made available to the market.

Over the last 3 years Spectrum has established a strategic alliance with Chinese and Russian vessel providers that are willing to take financial risk or equity in our Multi-Client projects. This is part of a counter-cyclical investment strategy that has made it possible to continue to invest in new projects and build Multi-Client library during the downturn. This has resulted in an all-time high project investment in 2017 of USD 130 million. Spectrum's philosophy is that a large data library and global coverage offers valuable screening and review opportunities for the oil companies. Size matters and with a dynamic library spread over numerous different basins, Spectrum is able to bundle several Multi-Client projects into larger, more attractive deals to present to oil companies.

Spectrum's assets are the Multi-Client library, our cash and receivables. Spectrum has more than 3 million km of 2D seismic over the world's most prospective areas, and each basin, survey and seismic line has its own evolving suite of hydrocarbon stories that we market and sell to the oil companies. Our data is for those that challenge existing play models and who use our seismic to come up with innovative ideas for where oil and gas can be found. This is the heart and pulse of Spectrum.

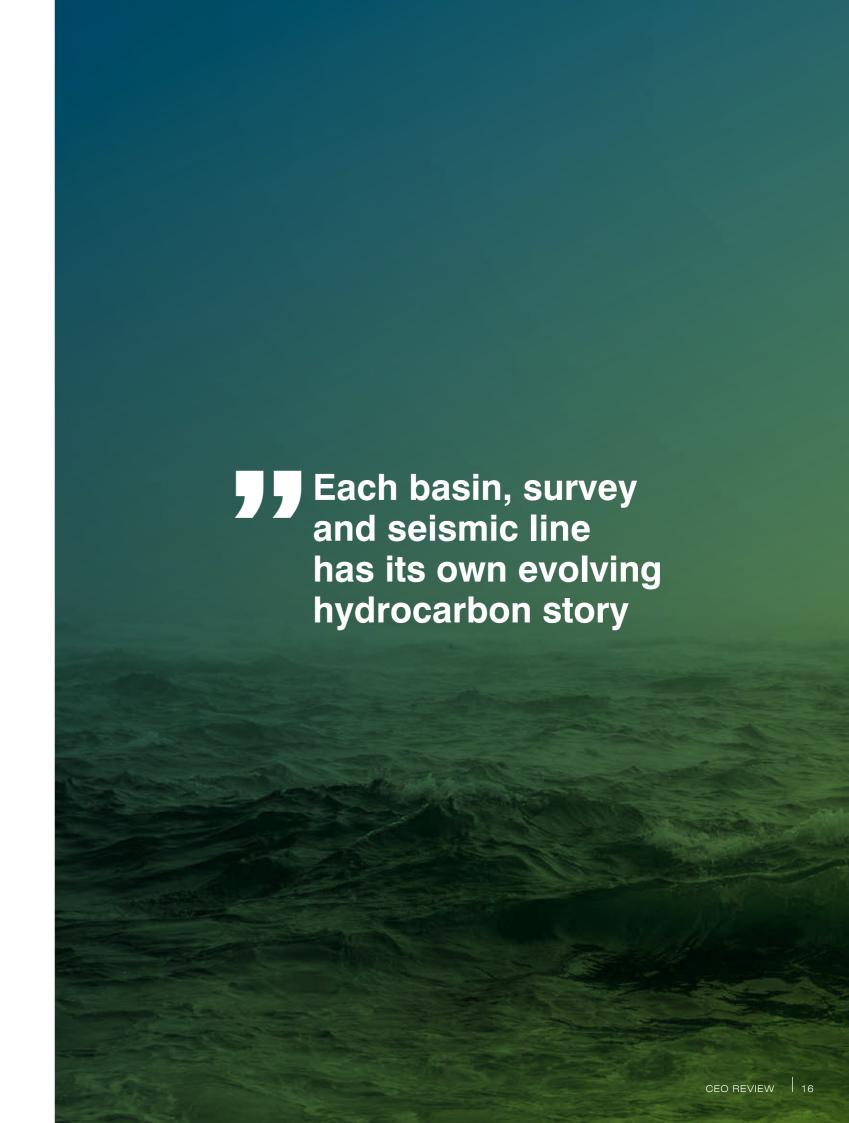
Spectrum's project developers have to consider the overall project risk including all above ground risks in addition to those found in the subsurface. The above ground risk is related to political and ethical factors. Spectrum is focused on the sustainability of our business and has a zero tolerance toward bribery or corruption. Given the nature of Spectrum's business in frontier areas it is important to pay particular attention to business arrangements with individuals or governments. At the same time Spectrum is working with developing our business to support local content and local business activity. Training of local staff and onsite work experience is an important part of our organization. We aim to develop local knowledge and experience in order to allow countries to run their oil and gas business in a professional manner.

In this context Spectrum's goal is to reduce financial and legal risk by taking control of our decisions.

The Spectrum organization currently consists of 189 people (147 direct employees and 42 in a 50/50 joint venture in Egypt) with the two largest offices in London and Houston. The organization and people are key differentiators in the Multi-Client seismic industry. It is truly a people-dependent business, because project ideas are almost unlimited and the key measure of success is in convincing oil companies in the validity of our project stories.

In 2017 Spectrum did not experience any major incidents in our operations. This meant no harm to our employees or contractors, and no significant spills or other environmental damage. Spectrum believes that safe operations are fundamental to the success of our business.

I would like to thank the Spectrum staff for the hard work and our customers for their support in 2017.



# Multi-Client Operation

Spectrum's Multi-Client library is composed of data and reports from many of the major oil producing and frontier regions of the world.

The Spectrum library of Multi-Client seismic data comprises approximately 3.3 million kilometers (km) of 2D data, making Spectrum the market leader in Multi-Client offshore 2D seismic. Furthermore, Spectrum is rapidly growing it 3D Multi-Client library and now holds close to 200,000 square kilometres (sqkm) of 3D seismic data, with a further 125,000 sqkm of merged 3D data on the Norwegian continental shelf

Spectrum is continuously developing a pipeline of new Multi-Client 2D (MC2D) and Multi-Client 3D (MC3D) acquisition and reprocessing projects. Sales from the Multi-Client library and prefunding

of new projects constitute the main revenue streams for the Company and fund the operation and new investments in Multi-Client projects. Being an asset light company, Spectrum makes independent evaluations of potential investments in new Multi-Client surveys with a prime focus on client interest, prefunding levels, and future sales triggers.

In 2017 Spectrum continued to balance investments and risk sharing in projects to ensure a counter cyclical organic growth of its data library.

Leveraging favorable terms from cooperation partners and vessel providers, Spectrum initiated six new

MC2D surveys and four new MC3D surveys during 2017. Together with the (re)processing efforts this represents an organic investment of USD 82 million for the year, with a further equivalent of USD 48 million investment through risk sharing arrangements with survey partners. At year-end Spectrum had a total of five vessels actively acquiring Multi-Client seismic data across the globe. A record level of activity for Spectrum. For 2018 we do not foresee a significant tightening of the vessel market and expect continued favorable terms for partnerships and risk sharing options.

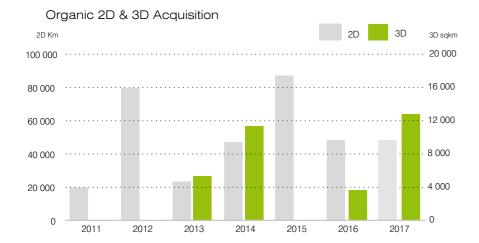


Figure 1: Organic library growth through newly acquired surveys from 2010 - 2017. Note that the CGG and FUGRO library acquisitions are not included.

# Figure 2: Outline of the Gryphon 3D survey, covering mainly open blocks in shallow waters offshore Gabon.

#### The year in review

Through prospectivity studies of our existing data library, several opportunities for new MC2D and MC3D surveys were recognized in areas with upcoming license rounds. This resulted in three 3D Multi-Client surveys being acquired during the year, representing 13,100 sgkm of new MC3D data (4,800 sgkm in 2016), with a further 5,500 sqkm survey being initiated at year-end. In addition the focus on new 2D data acquisition continued with 51,600 km of new MC2D data being acquired within the year (48,500 km in 2016). Several large surveys were only partially acquired at year end, so the total volume of 2D data from surveys initiated in 2017 is expected to amount to 91,000 km.

Started in 2016, the reprocessing of existing 3D data turned out to be an attractive value proposition to our clients, spurring further activity in 2017. Application of the latest broadband processing algorithms resulted in a resolution step change for much of the conventional 3D input data. A total of 51,467 sqkm of reprocessed data was added to the Spectrum Multi-Client library in 2017 and further opportunities have been identified to continue the 3D reprocessing efforts in 2018.

Attractive Multi-Client projects generally rely on a number of success factors that need to be in place. These are the presence of a proven petroleum system, good interest from exploration companies, and sales triggers in the form of upcoming license rounds or new areas becoming available for licensing. Most of the surveys acquired by Spectrum in 2017 had at least two of these three criteria fulfilled before a survey was started

# 5,500sqkm, Currently Acquiring 1,500sqkn Planned

#### Amca

Following studies of vintage data over the shallow water parts of Gabon, our geoscientists identified the outlines of a new play type underneath the salt. The 'Direction Generale des Hydrocarbures' (DGH) supported Spectrum's proposal to acquire modern 3D seismic over the identified areas and awarded Spectrum an exclusive Multi-Client contract for three prospective shallow water areas. The programmes are located in under-explored areas over open blocks in water depths pre-dominantly ranging from 30 to 200 metres. The DGH intends to make these blocks available through future shallow water license rounds.

MULTI-CLIENT OPERATIONS

MULTI-CLIENT OPERATIONS 18



Spectrum's new 3D broadband seismic and an additional 1,500 sqkm 3D offshore Gabon will image high potential pre- and post-salt play types. Fully processed and depth migrated data will be available for upcoming license rounds, thus facilitating immediate exploration activity when the blocks are awarded.

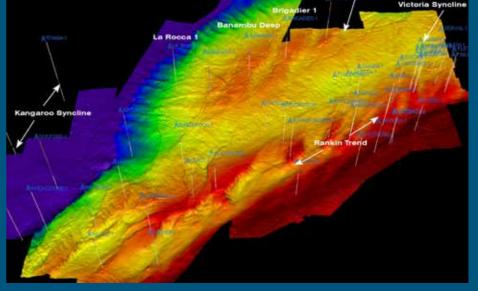
On 31 December 2016, Spectrum commenced acquisition of the 10,500 sqkm Gryphon 3D survey in southern Gabon. Based on client interest the survey was extended by another 1,000 sakm into the shallow waters to the East. The survey attracted strong industry funding and completed on schedule in July 2017. Spectrum has further survey rights for an additional 5,500 sqkm 3D survey over open acreage in Northern Gabon,

survey offshore Central Gabon. The Northern survey commenced during the first week of January 2018 in partnership with COSL

In 2016, Spectrum was awarded the exclusive rights to acquire a Multi-Client 2D survey offshore Mozambique on behalf of the Institute of National Petroleum (INP) and in anticipation of future license rounds.

This new 2D seismic program of up to 19,000 km is undertaken utilizing a long offset with continuous recording to enable extended recording lengths and high fold data. It is being acquired to complement existing 2013 seismic located in the Mozambique Channel area which is also available through

The survey grid is specifically designed to image the subsurface potential in the southern Rovuma Basin and the NE Zambezi Delta (Angoche) region. providing a more detailed understanding of the prospectivity where no wells have been drilled to date. Furthermore, findings from this data are expected to accelerate hydrocarbon exploration activity in what is believed to be an oil-dominated region with high quality reservoirs in large traps. In addition the data will also provide the basis for future license rounds as planned by INP. The data will be processed with PSTM. PSDM and broadband products with first deliveries in early Q2 2018. This survey is carried out in partnership with WesternGeco and supported by Industry funding.



The outstanding results on the **Olympus Multi-Client 3D project** demonstrates the ability to vastly improve legacy vintage datasets

Figure 3: Interpreted horizon of the reprocessed and merged 21,000 sqkm Olympus data.

#### Asia Pacific

Following the acquisition of the Fugro library in 2015, Spectrum's 3D coverage in this region totaled 40,000 sqkm of newly acquired 3D Multi-Client data (less than 5 years old) and this offered a focused interpretation. strong platform for developing reprocessing opportunities.

One such opportunity is the Olympus broadband reprocessing project that started in Q3 2016 with final PSDM products completed near the end of Q3 2017. The project centered around existing Spectrum 3D coverage on the Australian Northwest Shelf, complemented by JV UltraCube (Open File) 3D survey data with Searcher Seismic. In total, data was used from over 20 different 3D surveys which were reprocessed and merged from raw field data. Downunder Geosolutions were contracted to perform the reprocessing on behalf of Spectrum. The final product is a continuous, conformable and fully depth migrated broadband dataset of

approximately 21,000 sqkm. The significant imaging uplift achieved allows clients to perform both a cost effective regional as well as prospect

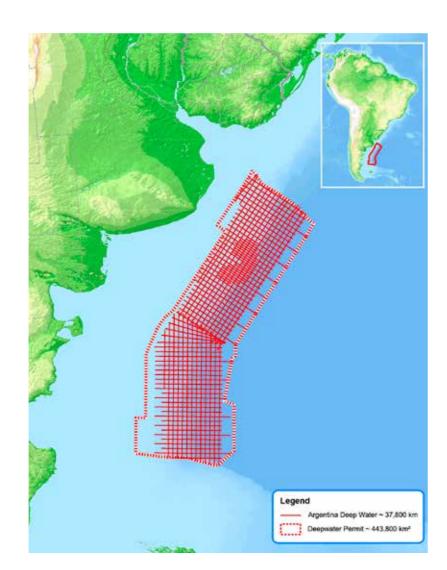
The outstanding results on the Olympus Multi-Client 3D project demonstrates the ability to vastly improve legacy vintage datasets through the application of modern processing techniques to maximise technical value for re-evaluation of an area. Motivated by these results, another two reprocessing projects were started.

In the Browse basin Spectrum extended its 3D Multi-Client data coverage by reprocessing 3,450 sqkm of open file data in an area where acquisition permits are a limiting factor. The Heywood project is located immediately south of the Spectrum Cygnus survey that was acquired and processed in partnership with Polarcus during 2016.

During December 2017, Spectrum commenced a new Multi-Client broadband 3D and 2D reprocessing project in the Otway Basin offshore South-East Australia. This dataset consists of approximately 8,000 sqkm of 3D data from sixteen existing surveys and up to 7.000 km of 2D seismic. Data will be reprocessed through a high-end PSTM and PSDM broadband sequence. The project includes coverage over and around the 2018 Offshore Petroleum Exploration Acreage Release Proposed Areas in the Otway Basin as recently announced by the Australian Govern-

The Olympus, Heywood and the Otway reprocessing projects received strong interest and are supported by industry

19 MULTI-CLIENT OPERATIONS MULTI-CLIENT OPERATIONS 20



#### Americas

With Brazil upholding its regular licensing round program, Spectrum identified several opportunities to acquire new Multi-Client 2D programs in sectors that are included in upcoming rounds. The 15th offshore licensing round has bids due in March 2018 and this allowed two surveys to be acquired in the Northern Margin sectors of the Potiguar and Ceara basins. Both surveys were carried out in partnership with BGP Marine.

In the Potiguar basin, a new acquisition program of 6,000 km was acquired in the first half of 2018 as an extension of Spectrum's 2013 Potiguar Phase 1 survey. The survey ties the Pitu discovery announced by Petrobras, confirming the active petroleum system in the deep waters of the Potiguar Basin. Data was acquired with a long offset and continuous recording to enable extended recording lengths necessary to understand the basin architecture.

During Q3 of 2017, a further infill survey of 4,500 km long offset data was started in the Ceara basin to ensure optimal coverage over the round 15 sectors in that area. Data was acquired with a long offset and continuous recording to enable full interpretation from Moho to water bottom. With these two surveys in the Northern Margins area Spectrum now provides a continuous modern long-offset ten-by-ten kilometer grid from the border with French Guiana to the eastern extent of the Potiguar Basin.

Further South, Spectrum continued to strengthen its leading position in offshore Brazilian 2D seismic coverage with a new Multi-Client acquisition program in the Campos Santos basin, carried out in partnership with BGP Marine. The Phase III survey is an extension of Spectrum's 2017 Santos Campos Phase II survey, covering an area in the southern Santo Basin. This

new data incorporates areas included in the Round 16 licensing proposal, scheduled for 2019. With this additional program, Spectrum will provide over 47,000 km of modern 2D long offset seismic data to industry for evaluation of this highly prolific Santos Campos hydrocarbon province ahead of the licensing rounds.

In April 2017, Spectrum announced the start of its 39,000 km Multi-Client 2D seismic survey covering 435,000 sqkm offshore the deep waters of Argentina in cooperation with YPF S.A. and the authorization of the Ministry of Energy and Minerals. This survey was designed in close cooperation with YPF S.A. and will provide Industry with the first ever detailed seismic grid over this under-explored frontier area of Argentina, allowing for basin-wide studies of the area as well as prospect/lead level interpretation studies for upcoming

license rounds. The new data will be utilized to assist the Ministry in placement and design of parcels for the future license rounds offshore Argentina.

There has been no deep water exploration in Argentina and this survey allows Industry to get a look at a frontier area for the first time with modern long offset high fidelity data. With a potential for billion barrel field discoveries offshore, Argentina has potential to join the ranks of the recent Atlantic Margins successes in place such as Guyana, Ghana, Brazil and Angola. This survey is carried out in partnership with BGP Marine and COSL and is supported by Industry funding.

The Ministry of Energy and Minerals is also targeting the Austral and Malvinas basins for a 2018 license round. Motivated by the support and interest generated for the Deepwater survey, Spectrum designed and started acquisition of a regular seismic grid over the Austral and Malvinas basins in November 2017. Partially designed based on input from supporting clients, the survey size amounts to 14,500 km and is carried out in partnership with BGP Marine.

The exploration potential that Argentina offers is an exciting development that has attracted good interest from the E&P industry. In order to meaningfully evaluate such a vast area, clients appreciate the need for new, modern, long offset broadband. Spectrum expects to collect, process and deliver over 50,000 km of newly acquired broadband data to industry in time for the planned license rounds.

#### Northwest Europe

In the western Barents Sea, a large 3D broadband reprocessing project was completed totaling some 15,000 sqkm following the acquisition by BGP in partnership with Spectrum of an additional 1,300 sqkm of new data in Q4 2016. As a result, industry can now access this regional, conformable 3D volume of modern broadband data available for future APA and licensing rounds.

Further to the East in the Central Barents Sea, Spectrum initiated and acquired a new seismic survey to facilitate evaluation of key areas available in the ongoing Norwegian 24th licensing round. The new Norsel High 3D acquisition comprises 1,600 sqkm, covering 4 blocks that are included in the round. Data was acquired by survey partner Sovcomflot (SCF), using its modern high capacity vessel with a triple source configuration and a Q-marine streamer acquisition system. Utilizing these latest acquisition technologies combined with modern broadband processing ensures optimal imaging of several large structural closures at the Jurassic and Triassic levels partially identified in the area from the existing Spectrum 3D seismic library.

The program further included 3D broadband reprocessing of 2,000 sqkm

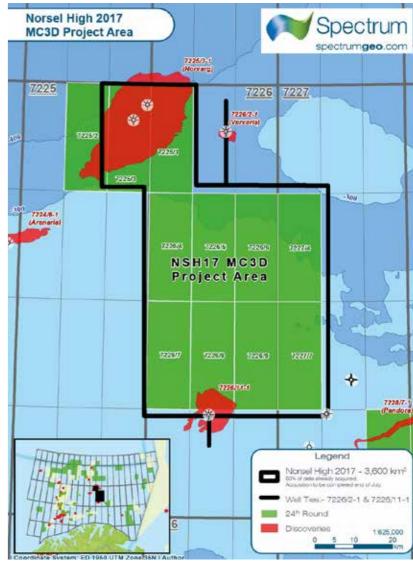


Figure 4: The Norsel high project, combining newly acquired data with reprocessing of conventional data.

of adjoining Spectrum 3D data (the NSH12 and BST4 surveys) that cover an additional 6 blocks included in the 24th licensing round. Merging the newly acquired survey with the existing two seismic datasets through a modern broadband processing sequence has resulted in a single contiguous dataset of 3,600 sqkm covering 10 prospective blocks. The project was supported by industry and products were available to clients prior to the close of the license round. The broadband processing for this project was contracted by Spectrum to Shearwater Geoservices.

Another of Spectrum's existing 3D surveys in Mid-Norway, the 3,000 sqkm VBT-1 (Vøring Basin) dataset was reprocessed and depth migrated in partnership with CGG. Following the recent awards of the APA 2017 acreage this now presents additional future

opportunities for further work in and around the VBT-1 3D survey. The presence of modern infrastructure and a proven oil and gas potential makes this region attractive to industry.

Further to the south over the Halten Terrace, Spectrum's existing HT-07 3D survey of 530 sqkm also covered some prioritized APA 2017 acreage. These data were broadband reprocessed in partnership with Shearwater Geoservices to enhance the imaging of this underexplored area. Although there is a proven oil and gas system in some of the adjacent acreage, the Halten Terrace has potentially been somewhat overlooked by industry until recently. The enhanced reprocessed HT07 3D now demonstrates more clearly the potential geological target plays.

MULTI-CLIENT OPERATIONS

MULTI-CLIENT OPERATIONS

# Seismic Imaging

Like much of the E&P industry, in 2017 the seismic imaging business saw what we expect was a market "bottoming" and the initial stages of a recovery.

On the proprietary side, we saw competitor pricing at or near cost (sometimes below cost) so we chose to focus almost exclusively on Multi-Client projects where our Seismic Imaging team could best add shareholder value. At year end we saw hints of competitor price increases and a slight increase in tendering activities. We are monitoring the market and will actively pursue proprietary projects where we see sufficient margin potential and otherwise continue to focus on new Multi-Client projects and refreshing our library data with the latest imaging technologies.

With the retirement of Mike Ball, EVP of Seismic Imaging, Spectrum brought in new leadership for the Seismic Imaging team with the appointment of Mike Mellen. Mike brings over 35 years of experience in the E&P industry including the client side in exploration and the E&P services side in technology, sales, and operations. We also had conservative increases in our technical operations staff with the addition of expertise in critical areas. Our R&D staff, while small in numbers but agile, was increased by nearly double in order to accelerate the development of new technologies and help us keep pace with dynamic competitors.

We made significant investments in technology including the acquisition of the intellectual property of WaveSeis LLC which brings leading edge anisotropic reverse time migration, full waveform inversion, wave equation velocity analysis and image focusing tools. All will complement and extend our existing depth imaging capabilities. We also successfully deployed new, internally developed, algorithms in Shallow Water Demultiple and Apex Shifted Multiple Attenuation. Both are critical to high quality 2D marine seismic data imaging and will give us an edge in the marketplace. A further

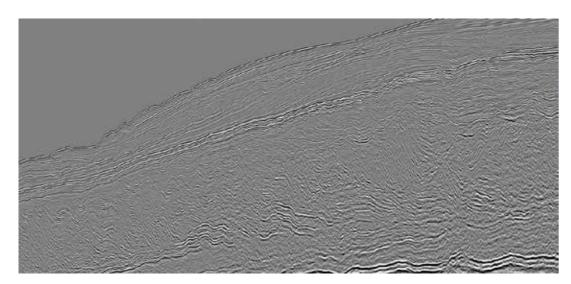


Figure 1: Conventional Time Processing, Offshore Southern Africa

investment was made to expand our computing infrastructure including a long term agreement with a cloud computing provider giving us access to "on demand" capacity and keeping with Spectrum's "asset-light" strategy.

In 2017, Spectrum imaged some 262,000 kilometers of new acquisition and library 2D seismic data versus 223,000 kilometers in 2016. We also reached some key milestones in our operations group with the release of new tools from our R&D team. Over the last several years, broadband seismic processing has come from its start as a new innovation to becoming a baseline industry standard. In 2017, we believe, and key customers concur, that we have reached an experience threshold where we are confident in delivering high quality broadband results.

Seismic Imaging underwent a thorough review of our people, processes, systems and software in order to target specific areas of improvement around quality and efficiency. We also undertook a review of commercially available seismic imaging software systems with the aim of adding to our toolkit in 2018. We are making a hard push to increase our position in the very competitive seismic imaging market in order to increase the value of Spectrum's Multi-Client projects and library.

With an emphasis on technology investments and in keeping with Spectrum's asset-light strategy, 2017 was a year of change, improvement and renewed focus on adding shareholder value through our Multi-Client business. The Seismic Imaging group, with its experienced and dedicated staff, is well positioned to help continue to build Spectrum's future.

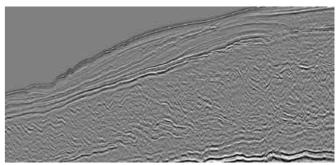


Figure 2: BroadBand Tme Processing, Offshore Southern

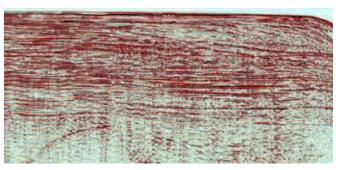


Figure 3: Before Shallow Water Demultiple, Offshore South

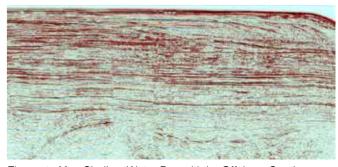


Figure 4: After Shallow Water Demultiple, Offshore South America

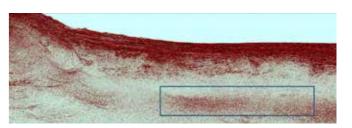


Figure 5: Before Apex Shifted Multiple Attenuation, Offshore South America

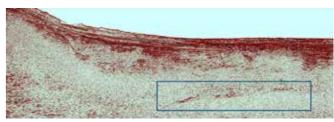


Figure 6: After Apex Shifted Multiple Attenuation, showing deep "base crust" reflections, Offshore South America

SEISMIC IMAGING SEISMIC IMAGING

# Executive Management Team



Rune Eng (1961) President & Chief Executive Officer

Mr. Eng has a broad range of experience in the seismic industry He has held various executive positions in the oil industry, most recently in Petroleum Geo-Services (PGS) and before that Fugro-Geoteam, Sevoteam and a senior consultant position in Digital Equipment Computing (DEC). Mr. Eng is a Norwegian citizen based in the Oslo office.



Svein O. Staalen (1971) General Counsel

Mr. Staalen was previously Corporate Legal Counsel in Det Norske Veritas (DNV). Prior to that, he worked eight years as a lawyer in the law firm Haavind and two years as Corporate Legal Counsel in the Nycomed Group. He holds a Master's of Law degree from the University of Oslo and a Diploma in English Commercial Law from the College of Law, London. Mr. Staalen is a Norwegian citizen based in the Oslo office.



Neil Hodgson (1961) Exec. Vice President Geoscience

Dr. Hodgson joined Spectrum in June 2012, having previously worked for BP, BG and Premier Oil in a number of Exploration Geology roles over a 25 year career. His last role prior to joining Spectrum was as Exploration Director for Matra Petroleum. Neil is focussed on developing the understanding of hydrocarbon plays in the Mediterranean and Middle Eastern areas of Spectrum's Library. Mr. Hodgson is a British citizen based in the UK office.



Henning Olset (1959) Chief Financial Officer (CFO)

Mr. Olset has previously worked for IBM and been the CFO of two other companies listed on the Oslo stock exchange. In his former assignment Henning joined Staples in 2006 with the acquisition of Andvord Tybring-Gjedde ASA, where he was CFO. He holds a Master's of Science (Siv.ing) from NTNU and an MBA (Hons) from Handelshøyskolen Bl. Mr. Olset is a Norwegian citizen based in the Oslo office



Jan Schoolmeesters (1966) Chief Operating Officer (COO)

Mr. Schoolmeesters holds a PhD in Geophysics from Delft University of Technology (the Netherlands) and joined Spectrum as COO in August 2011. He has substantial experience in the seismic industry having served 16 years in various roles in PGS with a technical, operational, and commercial background. His latest position was with PGS as President of Asia Pacific. Mr. Schoolmeesters is a Dutch citizen based in the Oslo office



Graham Mayhew (1961) Exec. Vice President Multi-Client:

Mr. Mayhew joined Spectrum in March 2013. He brings with him 30 years' experience in the seismic industry, having previously worked for Western Geophysical, Cogniseis, Landmark and WesternGeco in various managerial roles. During the last 14 years Graham has been focusing his efforts on developing new ventures and the Multi-Client business in Africa for WesternGeco where his last role was Multi-Client manager for Europe and Africa. Mr. Mayhew is a British citizen based in the UK office.



Richie Miller (1963) Exec. Vice President Multi-Client, Americas

Mr. Miller brings with him a wealth of knowledge, gained from over 29 years of experience within the seismic industry. He joined Spectrum from CGGVeritas where he held the position as Director of Marketing & Business Development. During that time, he was responsible for developing the data library, identifying new opportunities and general business development of the US and South American libraries. His other positions with other global companies included Marine Acquisition Manager, Senior Geophysicist and Director of Geology & Geophysics. Mr. Miller is an American citizen based in the Houston office.



Mike Mellen (1959)

Mr. Mellen joined Spectrum in July 2017 bringing over 30 years of diverse experience in petroleum exploration & development, E&P technology, operations, research and leadership. He began his career at Marathon Oil Company as a geophysicist focusing on seismic acquisition/processing and prospect development joined Halliburton where he held a variety of technical and leadership roles including Global Director – Subsurface Evaluation and Sr. Director Landmark Technology (head of R&D). Prior to joining Spectrum, Mike was Business Unit Vice President of Data Processing & Imaging at ION Geophysical (GX Technology). Mike has an M.Sc. in Geophysics from the Massachusetts Institute of Technology and attended the Executive Development Program at Wharton. Mr. Mellen is an American citizen based in the Houston



lan Edwards (1955) Exec. Vice President, North-West Europe and Asia Pacific

Mr. Edwards brings a wealth of knowledge from the oil and gas industry, with a career that has spanned over 47 years. He started his career in 1970 with Phillips Petroleum. In 1982 he became part of the initial team of JEBCO Seismic Ltd and focussed on the UK and then the Soviet Union. This was followed in 1992 by his move to Digicon Geophysical where he was responsible for starting the Data Library and Geological Services departments for EAME Division. Throughout his time with Digicon/Veritas and finally CGGVeritas in 2010, he held various senior positions with his last role as Senior Vice President Data Library EAME and Global New Ventures. In late 2010 Mr. Edwards was one of the original members of the Executive Team of Dolphin Geophysical responsible for Global Multi-Client Surveys and New Ventures. During his career Mr. Edwards has initiated many unique Multi-Client seismic surveys which have stimulated industry investment and exploration. He was also responsible for the concept of the highly successful PROMOTE Licensing mechanism in the UK. Mr. Edwards studied Geology at Birkbeck College, University of London and later Law at London University externally. He is a British Citizen.

EXECUTIVE MANAGEMENT TEAM | 26 25 EXECUTIVE MANAGEMENT TEAM

# The Board



Pål Stampe (1975), Chairman

Mr. Stampe is a partner at Spectrum's largest shareholder Altor Equity Partners. He has previously held positions at Danske Securities and McKinsey & Company. Mr. Stampe holds a Master's degree in Mathematics and Physics from NTNU, Trondheim. He is a Norwegian citizen and resides in Oslo, Norway.



Glen Ole Rødland (1964), Board member

Mr. Rødland is a Senior Partner in HitecVision. He joined HitecVision in January 2016 from the position as Director and co-investor of Direct Active Investments in Ferncliff TIH AS (ten years). Mr. Rødland has PhD studies in Finance from the Norwegian School of Economics and Business Administration (NHH) and UCLA. He has worked as a management consultant in PWC and research assistant at NHH. He has also worked as a market and investment analyst at Jebsens, a shipping company based in Bergen. Mr. Rødland has worked 15 years with portfolio Securities (formerly Elcon Securities) (13 years). Mr. Rødland`s experience is mainly within Energy, Basic Materials and Shipping, where he has significant transaction experience. Mr. Rødland is a member of the Board of Directors of several companies, including Aqualis ASA and Prosafe SE. He has previously been a member of the Board of Directors of Weifa ASA. First Securities ASA. Norske Finansanalytikers Forening, Standard Drilling ASA and Noble Denton. Mr Rødland is a Norwegian citizen and resides in



Mrs. Leisner has previously worked as Head of Portfolio Management for Electric Power in Statoil Norge AS. She also has a background as a trader of different oil and gas products in her 15 years in Statoil ASA. Mrs. Leisner is member of the audit committee in Spectrum ASA. She holds a Bachelor of Business degree (Siviløkonom) with honors from the University of Texas at Austin. Mrs. Leisner serves on the Board of several companies listed on the Oslo Stock Exchange. Mrs. Leisner is a Norwegian citizen and lives in Oslo, Norway.



Maria Tallaksen (1980), Board member

Ms. Tallaksen is a director at Spectrum's largest shareholder
Altor Equity Partners. She has previously held positions at
Morgan Stanley's Investment Banking Division and Global Capital
Markets. Ms. Tallaksen holds a Master of Science in Business
(Siviløkonom) from BI Norwegian School of Management.
Ms. Tallaksen is a Norwegian citizen and lives in Oslo, Norway.





Norwegian citizen and resides in Ulsteinvik.

# Board of Directors' Report

In 2017 Spectrum delivered a growth of 37% in net revenue versus 2016 and we do believe 2016 represented the trough of the seismic market in this cycle. In 2017 Spectrum continued to execute on its strategy to become one of the leading pure play marine Multi-Client companies based on an asset-light business model. The Group has limited long-term operational financial commitments and hires in vessels and crew on a project by project basis. This provides the Group with the financial flexibility to meet changes in the market. The company's Seismic Imaging unit uses Seismic Imaging technology and services to deliver high quality products and solutions to oil companies. The Seismic Imaging unit also reprocesses data to enhance the quality of our expanding data library. The pure play marine Multi-Client strategy was formed late in 2010. In 2011 Spectrum discontinued the operation of vessel business segment, allowing the Group to focus on developing the core business of marine Multi-Client surveys. In 2011 Spectrum stepped up the investments in Multi-Client surveys by making organic investments of USD 14 million and structural investments of USD 40 million by acquiring the marine 2D Multi-Client library of CGG. In 2012 the Spectrum organic Multi-Client investment grew to USD 76 million followed by USD 85 million in 2013. During 2013 Spectrum also acquired the Norwegian companies Carmot Seismic AS and Carmot Processing AS. This acquisition established a significant footprint for Spectrum on the Norwegian Continental Shelf adding 3D seismic data cubes covering approximately 125,000 sqkm of the Norwegian Continental Shelf and more than 80,000 km of merged and matched 2D data in the Barents Sea.

In 2014 Spectrum's Multi-Client investment ended at USD 113 million, an increase of 33% vs. 2013. The major parts of the 2014 Multi-Client investments were made in Brazil, Croatia and Norway. License rounds were expected to take place in many of these areas in 2015 in addition to license rounds already held in these areas during 2014.

In 2015 Spectrum made organic
Multi-Client investments of USD 66
million and structural investments of
USD 109 million by acquiring the marine
Multi-Client library of Fugro. Through
this acquisition Spectrum stepped up to
be the world's number 1 in terms of size
of marine Multi-Client 2D library and
also gaining momentum in the 3D
market.

In 2016 Spectrum's organic Multi-Client investments ended at USD 51 million. These investments came primarily in Somalia, Brazil, Mexico, Norway and Australia. Now for 2017 Spectrum's organic Multi-Client investments ended at USD 82 million which was approximately the same level as in 2013 and the second highest level ever for the group. In addition approximately USD 48 million was invested by partners in the Spectrum Multi-Client projects.

Late in 2012 Spectrum invested in the Group's first marine 3D survey offshore Lebanon and this survey was followed up by a second survey in the same region early 2013. Late 2013 Spectrum also decided to initiate a large 3D survey in the Amazonas delta, jointly with CGG. This survey started in January 2014 and the acquisition phase ended first week of October. Processing of the Amazonas 3D survey was

finalized in 2015. During 2015 Spectrum completed the acquisition of 2D surveys in Brazil, Australia and Mexico. In addition Spectrum commenced a new 2D survey in Somalia and a 3D survey in Australia. The 2D survey in Somalia continued through most of 2016. Spectrum also commenced on a 3D Multi-Client campaign in Gabon at the end of 2016. During 2017 Spectrum continued this large 3D campaign in Gabon and also initiated a large 2D campaign In Argentina. One of Spectrum's main focus areas has over some time been on the Atlantic margin. During second half of 2017 Spectrum also commenced two large reprocessing projects in Australia.

Spectrum has a clear number one market position in terms of the volume of 2D marine seismic data held worldwide with more than 3.3 million km of data. Looking at the balance sheet, 99% of the book value of the Multi-Client seismic library is related to library additions made in 2015, 2016 and 2017. As such the Spectrum library is very fresh and maintains a high quality. The step change in Spectrum's Multi-Client investments in 2017 has also directly impacted on Multi-Client sales in 2017. Net Multi-Client sales have moved from USD 46 million in 2011 to USD 114 million in 2012, USD 141 million in 2013, USD 181 million in 2014, USD 109 million in 2015, USD 72 million in 2016 and USD 119 million in

Looking at net late sales, 2017 revenue ended at USD 61 million, up from USD 50 million in 2016.

BOARD OF DIRECTORS' REPORT 28



#### Results

The presentation currency for the financial statement of Spectrum is USD, which reflects the functional currency of the entities and transactions undertaken by the Group.

Gross revenue for Multi-Client and Seismic Imaging, for the year ending 31 December 2017, was USD 143.2 million. Adjusted for revenue share, net revenue came in at USD 118.9 million, split between Multi-Client services of USD 118.6 million and Seismic Imaging of USD 0.3 million.

The Group EBIT in 2017 was negative USD 16.0 million (includes impairment of USD 25.6 million of the Multi-Client library and technical goodwill) compared to negative USD 19.0 million in 2016 (includes impairment of USD 12.9 million of the Multi-Client library and technical goodwill).

#### **Market Risk**

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities. Financial market risk is the possibility that fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risk, and actions are taken to mitigate specific risks identified. Spectrum established early 2014 a USD account in Brazil. This reduced currency risk related to our operation in Brazil. The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly in USD.

#### Liquidity risk

liquidity risk to be moderate. Risk is negatively impacted by the currently weak market conditions, but at the same time positively impacted by the material increase of Spectrum's Multi-Client seismic library and continued high focus on cash flow related to new acquisition projects. Some new projects are also de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions. Liquidity risk is primarily related to potentially realising lower sales than expected from existing library. At 31 December 2017 the Spectrum Group had current assets of USD 92.5 million (2016: USD 80.5 million) and current liabilities of USD 81.7 million (2016: USD 103.9 million). The Group held USD 14.2 million (2016: USD 15.8 million) in cash and cash equivalents as of 31 December 2017.

The Board of Directors considers the

#### Credit risk

The customers of the Spectrum Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class (see note 10). Management considers the provisions in each legal entity sufficient to cover risk related to receivables balances. The overall credit risk is considered to be low and Spectrum had no losses on receivables in 2017.

#### **Currency and Interest rate risk**

A 1% change in the currency rate NOK to USD would impact the Group's net result by less than 0.1%. Spectrum Geo Do Brazil SG LTDA has bank deposits

and tax liabilities in BRL. A 1% change in the currency rate BRL to USD would impact the Group's financial position by less than 0.1%. The risk related to interest rates is considered limited since the operation is not capital intensive.

#### Liquidity

As at 31 December 2017 the total assets of the Group were USD 288.5 million, including USD 14.2 million in cash and cash equivalents.

Spectrum is positioned to meet its future working capital commitments through internally funded cash flow.

The Board of Spectrum has approved a stock option program for senior executives. As of 31 December 2017 there were 4.7 million outstanding options with an average exercise price of NOK 25.73. Of the outstanding options approximately 2.8 million options are exercisable end 2017.

#### **Going Concern Assumption**

The Board confirms that the Group's financial statements have been prepared on a going concern basis in accordance with the Norwegian accounting act §3-3a which takes into account the forecasts for 2018 and the long term strategic view of the Company and the market.

#### **Corporate Governance**

Spectrum is committed to maintaining high standards of corporate governance. We believe that effective corporate governance is essential to the well-being of the Company and establishes the framework by which we conduct ourselves in servicing our client's needs, achieving strategic goals and delivering value to our shareholders.

The Company is registered in Norway as a public limited company.

The Company has Audit and Remuneration committees.

#### **Corporate Social Responsibility**

Corporate Social Responsibility is an integrated part of Spectrum's way of doing business. Spectrum's corporate mission is to achieve world-leading performance through persistence, dedication and full commitment to quality. Further, supplying global seismic solutions through dedicated and experienced people. We believe Spectrum's commitment to core values like business integrity, respect for others, fair play and honesty is key to realizing our corporate mission.

Spectrum takes the responsibility towards the Group's stakeholders very seriously and considers how all parts of the Group's operational activities can potentially impact them. This consideration includes thorough planning of all projects, extensive communication with regulatory bodies and local communities (including permitting processes), quality based selection of local representatives and partners.

Customers: We focus on working in partnership with our customers to deliver consistent quality Multi-Client seismic data and seismic processing services on time and to budget.

Employees: It is Spectrum's policy to treat all employees with the same level of professionalism regardless of their sex, sexual orientation, age, race, ethnic origin, colour, nationality, disability or marital status. Furthermore, the Company believes that no employee

should be prejudiced in any aspect of their employment or career development. The Company will take appropriate measures for any instances of non-compliance with this policy.

Community and Environment: The

Group's activities involving the collection of seismic data mean that there is a level of interaction with the external environment. Spectrum is continually working on its operational procedures in order to minimize the potential negative environmental Impact and maximize potential positive social impact on the people, communities and the surroundings in which we operate. We are dedicated to continuous improvements in all parts of our operation. Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. Spectrum endeavours to ensure that security services are only used where deemed necessary and that the provision of security is in accordance with international standards of best practice and the laws of the countries in which we operate. We act with fairness in our business practices and do not use our dealings with political organisations or our business partners to secure an unfair advantage over others. Spectrum also made contributions to a number of charities in 2017 and employees of Spectrum is also encouraged to be actively involved in charitable activities. As Spectrum recognizes the groups

As Spectrum recognizes the groups social responsibility role, the company was active in developing cultural,

environmental and educational projects beneficial to local society. We worked actively with environmental Institutions, like the TAMAR foundation in Brazil.

Spectrum focus specifically on compliance, anti-corruption and safe and environmentally friendly execution of our seismic projects.

#### **Anti-Corruption and Compliance**

Spectrum shall actively combat bribery and corruption and we shall act professionally, fairly and with integrity in all our business dealings and relationships wherever we operate.

Spectrum's Code of Conduct and Anti-Corruption Policy may be found at www.spectrumgeo.com. The Spectrum Code of Conduct describes the requirements in terms of business ethics and conduct applying to Spectrum's business activities. Spectrum is committed to comply with all legal and ethical requirements of the industry.

Our Code of Conduct and Anti-Corruption policies are approved by the Board of Directors and are applicable to all employees.

Spectrum operates in several high risk countries which puts an obligation on us to act diligently. Our policies emphasize Spectrum's zero tolerance approach to bribery and corruption. The policies expressly prohibit bribery and other illegal payments as well as giving quidance on gifts and hospitality.

Spectrum has implemented a whistle blower policy where employees are encouraged to report any violation of Spectrum values or policies to their supervisor or to the Code of Conduct

BOARD OF DIRECTORS' REPORT 30



Committee. Spectrum investigates all potential violations of its policies or of any applicable anticorruption laws. In order to increase awareness, all Spectrum employees are required to take an anti-corruption course.

Spectrum has conducted an internal risk assessment related to corruption and compliance. One particular risk area that has been identified and addressed is the engagement of local representatives, which has led to a separate policy on this being implemented internally. Spectrum regularly conducts due diligence on third-party relationships depending on various risk factors such as location, services and stakeholders involved, including use of a well renowned external company preparing integrity due diligence (IDD) reports. All Spectrum's local representatives are annually required to certify compliance with applicable anti-corruption laws, including Spectrum's own policies. Spectrum includes anti-corruption provisions in the relevant agreements with the local representatives, including audit and termination rights.

The implemented policies and training have increased awareness among Spectrum employees and other representatives related to anti-corruption and compliance issues.

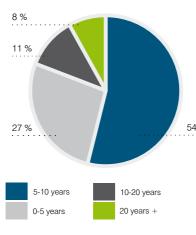
Spectrum intends to continue the monitoring of its anti-corruption policies including further training of employees and also of other representatives of the Spectrum Group. Our policies are continually assessed to identify weaknesses and areas for improvement.

#### **People**

Spectrum is committed to creating a work environment free of harassment and bullying, where everyone is treated with dignity and respect. We are committed to promoting equal opportunities in all areas and to avoiding unlawful discrimination in employment and against our clients and customers.

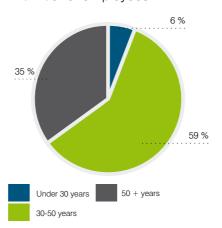
Spectrum directly employed 146 people end December 2017 (147 end December 2016). In addition Spectrum has a Joint Venture in Egypt with 34 employees. We had 20 new hires through 2017 and 3 individuals were transferred internally. The employee turnover in 2017 was 11%.

# Length of service for employees in Spectrum



Gender of Board of Directors is:
50% female and 50% male
Gender of managers is:
17% female and 83% male
Gender of total number of employees:
32% female and 68% male
60% of managers are in the age span
30-50 and the rest above 50 years old.

## Age distribution for total number of employees



The salary for men and women performing the same role is similar with differences due to length of service and individual skill sets.

# Working Environment and Health Safety & Environment "HSE"

Spectrum is committed to protect the health, safety and security of its employees, contractors, clients and the public while protecting the environment in which it operates. Spectrum will promote an effective and proper understanding of its HSE requirements with all employees and contractors. All Spectrum personnel are required to cooperate on all matters relating to HSE and to always consider and prioritize the health and safety of themselves and others who may be affected by their actions.

It is Spectrum's objective to:

- Maintain high standards for health, safety and the protection of the environment;
- Communicate these standards to all Spectrum personnel and external parties where necessary;
- Ensure that all Spectrum personnel are given the necessary information, instruction and training to enable them to work in a safe manner.

It is Spectrum's Policy to:

- Provide adequate control of the health and safety risks arising from our work activities;
- Consult with our employees on matters affecting their health and safety;
- Provide and maintain safe premises and equipment;
- Ensure safe handling and use of substances;
- Provide information, instruction and supervision for employees;
- Ensure all employees are competent

to do their tasks, and to give them adequate training;

- Prevent accidents and cases of work-related ill health;
- Maintain safe and healthy conditions; and
- Review and revise this policy as necessary at regular intervals.

The average number of days lost through illness in 2017 was 2.0%.

With regard to the offshore operations the following safety performance was recorded for 2017:

Total Man hours	1,135,613
Fatalities	0
Lost Time Incidents	1
Medical Treatments Cases	0
Restricted Work Cases	1
High Potential Incidents	1
LTI Case Frequency (per million man-hours)	0.9
High Potential Case Frequency (per million man-hours)	0.9
Recordable Case Frequency (per million man-hours)	2.6

In 2017 Spectrum did not experience any major incidents in our operations and no significant spills or other environmental damage. Spectrum believes that safe operations are fundamental to the success of our business and is dedicated to the continuous improvemnt of health, safety and secruity standrds.

#### **Human Rights**

Spectrum has an organizational culture which is committed to supporting internationally recognized human rights, including the United Nations Declaration of Human Rights. We seek to respect the human rights of our employees in all areas, including non-discrimination of any kind, the prohibition of enforced labour and child labour and the freedom of association. Spectrum makes every effort to be fully aware of human rights issues and through our actions seek to uphold human rights and foster equality and respect for all.

#### **Community & Charitable Relations**

Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. We actively engage with local communities, providing them with the opportunity to comment and address any concerns regarding projects involving the acquisition of seismic data.

Spectrum made contributions to a number of charities in 2017. The Company and our staff are actively involved in charitable activities, which resulted in a number of significant donations being made.

#### **Shareholders Equity / Dividends**

As of 31 December 2017 there are 54.449.103 shares in issue, which are traded on the Oslo Stock Exchange (SPU), the largest 5 shareholders

BOARD OF DIRECTORS' REPORT 32



controlled 48.04% of the shares in the Company. A detailed listing of the largest 20 shareholders and the holdings of the Directors and Executive Management can be found in Note 12.

On 19 May 2017 the AGM gave the Board of Directors a Power of Attorney, pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 5,4 million through one or more increases in the share capital. This power of attorney and the power of attorney to issue convertible loans (as set out in item 13) are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration. The power of attorney may be utilized in connection with issuance of shares as complete or partial settlement for or financing of mergers or in connection with acquisition of companies, businesses or assets. The power of attorney may also be used for the purpose of strengthening the financial ability of the Company to accomplish such transactions, and for the purpose of investments in Multi Client seismic studies.

The Power of Attorney is valid until the annual General Meeting in 2018, expiring at latest on 30 June 2018 and replaces the corresponding Power of Attorney granted at the General Meeting 20 May 2016.

On 19 May 2017 the AGM gave the Board of Directors a Power of Attorney pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 5.4 million through one or more increases in the share capital. The power of attorney may be utilized in connection with the share option scheme of the Company.

The power of attorney may not be used in connection with increase in the share capital with settlement by contribution in kind, by way of set-off, or with conditions that shares may be subscribed for on other particular terms, cf. Public Limited Liability Companies act section 10-2

The Power of Attorney is valid until the annual General Meeting in 2018, expiring at latest on 30 June 2018. This Power of Attorney replaces the corresponding Power of Attorney granted at the General Meeting 20 of May 2016.

On 19 May 2017 the AGM gave the Board of Directors the a power of attorney pursuant to the Public Limited Liability Companies act section 11-8 to issue convertible loans which will give lender right to have shares issued against payment of money or by set-off against the receivable.

Loans may be issued in one or several rounds with a maximum loan amount of NOK 400 million.

The share capital of the Company can in total be increased by up to NOK 5,4 million. This power of attorney and the general power of attorney to increase the share capital (as set out in item 11) are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration. The shareholders pre-emptive rights pursuant to the Public Limited Liability Companies Act section 11-4 may be waived, ref the Public Limited Liability

Companies Act section 10-5. The Board of Directors is granted the power to amend the articles of association section 4 in the event of conversion according to the power of attorney.

The Power of Attorney is valid until the annual General Meeting in 2018, expiring at latest on 30 June 2018. This Power of Attorney replaces the corresponding Power of Attorney granted at the Annual General Meeting for 2016.

On 19 May 2017 the AGM gave the Board of Directors authorization, pursuant to the Public Limited Companies Act section 9-4, to purchase up to 5,4 million own shares with a total nominal value of NOK 5,4 million corresponding to approx. 10% of the Company's share capital.

The amount paid per share shall be minimum NOK 1 and maximum NOK 150.

The Board of Directors is free to decide how the acquisition and disposal of shares takes place, but shall ensure that general principles of equal treatment of shareholders shall be complied with. Disposal of own shares acquired according to this authorization, shall primarily take place as part of fulfillment of the Company's obligations under option programs for senior executives.

This authorization will be effective from the time it is registered in the Norwegian Register of Business Enterprises. The authorization is valid until the day of the annual general meeting in 2018, expiring at latest on 30 June 2018. The authorization replaces the corresponding authorization granted at the annual general meeting of the Company for 2016.

The Extraordinary General meeting
(EGM) 13 November 2012 approved a share option program to senior experience executives in the Spectrum Group of 8.0 million options, up from previously 6.0 million. The program otherwise continued as approved in the EGM held 30 for Mu November 2010.

In the Annual General Meeting 23 May 2014 the limit for the option program was further increased from 8 million options to 10.0 million options of which 2.204.125 options are not granted per. 31 December 2016. Each option gives the right to acquire or subscribe for one share in the Company. Vesting of options related to the first part of the option program take place over a four year period with 15% vested after 1 year, 20% after two years, 25% after 3 and 40% after four years. The second part of the option program vest over a three year period, starting from autumn 2014.

The Board of Spectrum ASA proposes a dividend for 2017 amounting to NOK 0.5 per share. Spectrum ASA had USD 157.0 million in equity per 31 December 2017.

#### **Market Outlook**

The Exploration and Production segment of the oil industry, to which Spectrum is a supplier, has undergone some major changes during the last couple of years with the price of oil ranging from USD 27 per barrel (pb) to USD 147 pb. with a price level of USD 65 per barrel (pb) per February 2018. This has been brought about by a

number of factors including uncertainty in the global economic outlook, political issues in the Middle East and unbalance in supply/demand due to among others increase in shale oil production. The market now estimates that 2018 will be flattish in terms of activity level and expenditure in the E&P arena relative to 2017.

Spectrum's overall investment criteria for Multi-Client projects will be focused on the quality of the projects and prefunding level will be key for project realization.

Seismic Imaging is an integral and important part of our Multi-Client offering and Spectrum continues to invest appropriately in order to maintain its long-term strategies of securing backlog and delivering additional products.

The Board underline that, given the current market, there are many factors outside the Group's control that could affect Spectrum's future performance so all statements related to the future do involve unknown risks and uncertainties.

#### **Profit Allocation**

The parent company, Spectrum ASA, has a net loss of USD 11.458 million. This will be transferred to retained earnings.

BOARD OF DIRECTORS' REPORT

BOARD OF DIRECTORS' REPORT





# Board of Directors and CEO statement of Compliance

#### **Confirmation from** the Board of Directors and CEO

We confirm that, to the best of our knowledge, the consolidated financial statement for the year ended 31 December 2017 have been prepared in accordance with IFRS as adopted by the EU, and give a true and fair view of the Group's assets, liabilities, financial position and results of operations.

We confirm that, to the best of our knowledge, the financial statements for the parent company for the year end 31 December 2017 have been prepared in accordance with the Norwegian Accounting Act and IFRS as adopted by the EU, and that these financial statements give a true and fair view of the company's assets, liabilities, financial position and results of operations.

We also confirm that the Report of the Board of Directors includes a true and fair review of the development, performance and financial position of the group and the Company, and includes a description of the principle risks and uncertainties facing the entity and the

Chairman of the Board

Oslo, 19 April 2018

Board member

Ingrid Leisner

Board member

Jogeir Romestrand Board member

# Corporate Governance

Since its incorporation, subsequent listing on the Oslo Axess exchange and transfer to Oslo Børs in 2012, Spectrum has sought to create a framework under which it can deliver confidence and provide long term strategic growth to shareholders, employees and other stakeholders.

The objective for Spectrum is to adhere to all relevant laws and regulations affecting the Company and its business activities in the regions of operation, as well as the Norwegian Code of Practice for Corporate Governance from 21 October 2010, revised in October 2011, 2012, 2013, 2014, 2015, 2016 and 2017, which itself is based on company, accounting, stock exchange and securities

legislation, as well as Stock Exchange Rules, as in force at 1 October 2010, and includes provisions and guidance that in part elaborate on existing legislation and in part cover areas not addressed in legislation.

# Implementation and reporting on corporate governance

The Board of Spectrum are responsible for the implementation of strong corporate governance and is committed to the continual review of its policies. It is firmly believed that Spectrum's core corporate governance code is fully compliant with regulations.

Within its daily activities Spectrum recognises the interaction with external parties and the environment and conducts its business in a way to minimise any adverse effects on the people, societies and environments that it has contact with.

All the activities of the Group are designed to promote its basic core values or delivering on strategic goals, strengthening confidence and enhancing the value to our shareholders through an ethical and socially responsible approach to doing business.

#### Business

Spectrum's business as defined in the Articles of Association state that 'the Company shall be engaged in the business of offering services related to the acquisition, processing and marketing of geophysical, aeromagnetic and gravity data, and other services related to such business, including the participation in other companies engaged in similar and related business.'

#### **Equity & dividends**

The Board of Spectrum ASA propose a dividend amounting to NOK 0.5 per share to its shareholders in respect of the period. This proposal is based upon the result of the operations for the year and overall financial strength including the ability to finance future business opportunities. In general, future dividend will be subject to determination by Spectrum's board of directors based on its results of operations and financial condition, its future business prospects and any applicable legal or contractual

restrictions. Any proposal by the board of directors must be approved by Spectrum's shareholders in a general meeting. Business prospects and any applicable legal or contractual restrictions.

# Equal treatment of shareholder and transactions with close associates

Spectrum has one class of shares with each share and shareholder treated equally. There are no provisions in the articles of the Company to waive the pre-emption rights of existing shareholders to subscribe for shares in the event of an increase in the share capital. Any such change will need to be justified by the Board of Directors and put before a General Meeting. On 19 May 2017 the AGM passed a resolution under which the Board of Directors is authorised to purchase up to 5.4 million own shares with a total nominal value of NOK 5,4 million. The amount paid per share shall be minimum NOK 1 and maximum NOK 150.

Spectrum does not encourage transactions between the Company and shareholders, members of the Board of Directors, members of the executive management or close associates of any such party, should such a transaction exist the Board will arrange for an independent valuation of the transaction.

A process designed to ensure that executive management and Board of Directors disclose any material direct or indirect interest in any transaction entered into by the Company is in place.

#### Freely negotiable shares

Spectrum is listed on the Oslo Stock Exchange, under the tag "SPU". All shares are freely negotiable and there is no form of restriction on negotiability within the Company's articles of association.

#### **General Meetings**

The Board of Directors believe that the General Meeting is an appropriate forum for shareholders to communicate with the Board and exercise their rights of participation and promote their points of view.

The date of the General Meeting is included within the published financial calendar and will further be communicated to shareholders, together with any appropriate information relating to any resolutions to be considered, no later than 21 days prior to the date of the meeting.

In the interest of independence and to ensure a level of impartiality in the General Meeting, it is the intention to appoint an independent chairperson for the duration of the meeting, whilst members of the Board, nomination committee, executive management and auditors will be present throughout.

#### **Nomination committee**

The nomination is elected by the General Meeting for a period of two years. The current committee was elected in May 2016 and consists of three independent individuals: Ragnhild Wiborg - Chair Kjetil Erikstad and Jon Christian Syvertsen.

The mandate of this committee is to propose members to the Board of Directors and fees to be paid.

# Corporate assembly and Board of Directors: composition and independence

The Group employs fewer than 200 people and does not have a corporate assembly.

The articles of association allow for the Board of Directors to comprise no fewer

than three and no more than seven members. The current directors are listed on page 27 and their shares ownership is disclosed in Note 12. Spectrum believes the composition of its Board of Directors ensures that it can operate independently of any special interests. There are no representatives of the Company's executive management on the Board, with the majority of Board members being independent of the Company's executive management and material business contacts.

#### The work of the Board of Directors

The Board of Directors represents, and is accountable to, the shareholders of the Company. They are responsible for the business activities and supervision of the executive management including the implementation of control systems that ensure compliance with regulations and any applicable legislation. An annual plan is to be prepared with particular emphasis on objective management, strategy and its implementation with a clear definition as to the allocation of responsibilities between executive and non-executive management.



CORPORATE GOVERNANCE 38

There are two sub-committees of the Board, the audit and the remuneration committee.

The nomination committee will be asked to provide an independent annual assessment as to the performance and expertise of the Board of Directors while performing its duties, this will be presented to and assessed by the Board members.

#### Risk management and internal control

The executive management of Spectrum is continuously developing its risk management and internal control systems and it is the role of the Board of Directors and audit committee to oversee that they are appropriate to the Company's activities.

The internal controls are designed to provide a comprehensive framework to manage the operational and commercial risks of the activities undertaken against the background of the wider corporate values, together with its ethical and social responsibilities.

The audit commitee will undertake an annual review of the controls and main areas of risk to ensure that the systems take into account the scope and growth of the Companys'activities. The annual audit commitee plan states which areas and controls to be reviewed in each audit commitee meeting. The Board of Directors and audit committee will provide an account of the main features of the Company's internal control and risk management systems as they relate to the Company's financial reporting within the annual report and accounts.

# Remuneration of the Board of Directors

The remuneration of the Board is not linked to the Company's performance but reflects the level of responsibility, expertise, time and the complexity of the Company's activities.

The Company's Annual General Meeting 19 May 2017 determined the remuneration to the Board members for the period 2016 as follows 'remuneration of the Board should be NOK 0.45 million to the chairman and NOK 0.3 million to the directors'.

A full breakdown of the directors' remuneration is disclosed in Note 4.

# Remuneration of the executive management

The Board of Directors decides the terms and conditions of employment of the Chief Executive Officer (CEO), together with the overall scope of the remuneration to the executive management. The CEO determines the remuneration of the individual members of the executive team within his mandate.

#### Information and communications

Spectrum treats all shareholders equally in respect to information it publishes and believes it is essential to inform all parties in a clear, relevant and timely manner of events regarding the Company's prospects, subject to any legal restrictions.

The Company releases quarterly and annual reports, incorporating financial and operational reviews, in compliance with stock exchange regulations which, together with its financial calendar, are published on it's website, www.spectrumgeo.com.

#### Takeovers

In the event of a proposed takeover of the Company the Board of Directors will act to ensure that there is equal treatment of all shareholders and that the on-going activities of the Company are not disrupted unnecessarily.

Following any formal takeover approach for the Company, the directors will issue a statement evaluating the merits of the bid, disclosing all the relevant information behind their decision together with their recommendation as to acceptance or rejection of the offer. If the decision of the Board is not unanimous then this will be stated and the reasons communicated.

It is recognised that should a transaction that effectively disposes of the Company's activities be undertaken, it will be proposed to and decided by the shareholders in a General Meeting.

#### Auditor

The auditors have presented the main features of their audit plan to the Board and the audit commitee, detailing how they will review the Company's internal control procedures including the identification of any weakness and proposals for improvement. The auditors have been invited to the Board of Directors meeting at which the Annual Accounts are presented, the CEO and all members of the executive management team will not be present during part of this meeting.

The remuneration of the auditor including details of fees paid for audit and any other specific assignments are reported in Note 6 and will be further disclosed at the General Meeting.



INVESTOR RELATIONS

Spectrum aims to inform the stock market of the Company's activities and status in a timely and accurate manner. We put great emphasis in providing the same information to all investors; national and international, therefore all press releases and news are published in English only.

Our quarterly earnings presentations are recorded and webcasted in real time. The webcasts stay on our website www.spectrumgeo.com/financial-reports together with the financial reports and slide presentations.

The top management participates and presents at investor conferences both in Norway and internationally, and also attend international roadshows throughout the year to meet existing and potential new shareholders.

Please feel free to contact us to get to know more about Spectrum.

Henning Olset Chief Financial Officer

henning.olset@spectrumgeo.com Cell: +47 92 26 69 48

CORPORATE GOVERNANCE 40

# Shareholder Information

#### Share capita

Spectrum ASA's share capital is NOK 54,449,103 divided into 54,449,103 shares with a par value of NOK 1.

All shares in the Company are issued pursuant to the Norwegian Public Limited Companies Act (Norwegian: "Allmennaksjeloven").

There is only one class of shares and all shares are equal in all respects, including the voting rights. Each share carries one vote

The shares are registered with the VPS with ISIN NO0010429145, and the Company's registrar is Danske Bank – Transaction Services, Søndre Gate 13-15, N-7466 Trondheim.

#### **Share information**

Spectrum ASA has been listed on Oslo Stock Exchange (OSE) since 2 July 2012. Before listed on OSE, Spectrum ASA was listed on Oslo Axess from 1 July 2008. The Company ticker is SPU.

On 29 December 2017, the share price was NOK 38.5, an appreciation of

37.5% from one year earlier. By comparison, the OSEBX index saw an increase of 19.09% during the same 12 months. In 2017, the Spectrum share peaked at NOK 41.00, while the lowest price was NOK 28.40. Spectrum's market cap on 31 December 2017 was NOK 2,096,290,465.

There is only one class of shares and all shares are equal in all respects, including

On 31 December 2017, Spectrum's

Price/Book ratio was 1.63 compared to 0.95 the year before.

#### Shareholder structure

At the end of 2017 Spectrum had 390 shareholders.

As of 31 December 2017 the Company's 20 largest shareholders held 79.78% of the Company's outstanding shares. Below is an overview of the 20 largest shareholders as of 31 December 2017.

Shareholders owning 5% or more of the Company have an interest in the Company's share capital which is notifiable to the market according to the Norwegian Securities Trading Act. The following shareholders own more than

5% of the issued share capital as of 31 December 2017: Altor Invest 1 AS (14.97%), Altor Invest 2 AS (14.97%) and Skandinaviska Enskilda Banken (5.95%).

#### Dividend policy

Spectrum's overall objective is to combine strong growth through reinvestment with dividend payments. The Board of Directors proposes a dividend of NOK 0.5 per. share for 2017. The Board of Directors objective is to distribute a dividend in the range of 15 - 25% of earnings if the Group's financial position allows.

#### Debt

The Group used debt financing, two bank facilities of in total USD 74 million with interest rate 315 basis points + LIBOR, to partly finance the Multi-Client library transaction with Fugro in June 2015. End 2017 the USD 50 million facility was repaid in full and Spectrum has an ongoing RCF of USD 23.1 million which expires end June 2019.

#### Spectrum 2011–2017



#### 20 largest shareholders and ownership interest as at 31 December 2017

Name	Location	Shares	% of shares
ALTOR INVEST 1 AS	NOR	8,000,232	14.69 %
ALTOR INVEST 2 AS	NOR	8,000,232	14.69 %
SKANDINAVISKA ENSKILDA BANKEN S.A.	LUX	3,178,484	5.84 %
GROSS MANAGEMENT AS	NOR	2,493,995	4.58 %
JPMORGAN CHASE BANK, N.A., LONDON	GBR	2,081,856	3.82 %
SOCIETE GENERALE	BEL	1,954,656	3.59 %
SWEDBANK ROBUR SMABOLAGSFOND	GBR	1,898,964	3.49 %
VERDIPAPIRFONDET PARETO INVESTMENT	NOR	1,898,000	3.49 %
FOLKETRYGDFONDET	NOR	1,858,454	3.41 %
SKANDINAVISKA ENSKILDA BANKEN AB	SWE	1,617,245	2.97 %
HOLBERG NORGE	NOR	1,569,826	2.88 %
CITIBANK, N.A.	GBR	1,458,427	2.68 %
HOLBERG NORDEN	NOR	1,251,047	2.30 %
THE BANK OF NEW YORK MELLON SA/NV	BEL	1,226,207	2.25 %
CATELLA HEDGEFOND	SWE	921,814	1.69 %
CREDIT SUISSE SECURITIES (EUROPE)	GBR	869,816	1.60 %
FIDELITY SELECT PORTFOLIOS: ENERGY	USA	830,520	1.53 %
INVESCO PERP EURAN SMLER COMPS FD	BEL	803,082	1.47 %
VPF NORDEA NORGE VERDI	NOR	767,908	1.41 %
CLEARSTREAM BANKING S.A.	LUX	757,660	1.39 %
		43,438,425	79.78 %

Key figures 2017	
Share Price Dec. 31 (NOK)	38.50
High price (NOK)	41.00
Low price (NOK)	28.40
Change (NOK)	10.50
Change %	37.50%
OSEBX %	19.09%
Total traded value (NOK)	656 726 068
Total traded volume	17 800 936
Turnover velocity in 2017	30.9%
MCAP Dec. 31 (NOK)	2 096 290 465
No. outstanding shares Dec. 31	54 449 103
ISIN	NO0010429145

#### Financial calendar 2018

Q4 Results

April 20	
Annual Report & Accounts 2017	
April 20	
Q1 Results	
May 25	
Annual General Meeting	
August 17	
Q2 Results	
October 26	
Q3 Results	

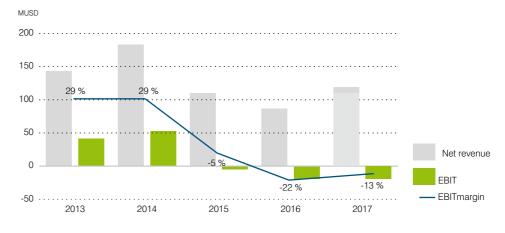
41 SHAREHOLDER INFORMATION SHAREHOLDER INFORMATION

# Spectrum opening the door to a new era of frontier exploration offshore Argentina STATEMENTS OF COMPREHENSIVE INCOME

# Statements of Comprehensive Income

Spectrum ASA				Spectrum	Group
2016	2017		Note	2016	20
04 070	15 104	Net revenue	•	00.050	110.0
21 379	15 184	Net revenue	2	86 852	118 8
(2 608)	(3 015)	Payroll expenses	4	(11 672)	(13 6
(3 545)	(2 529)	Other operating expenses from group companies	16	-	
(2 375)	(1 632)	Other operating expenses	6	(12 033)	(12 4
-	-	Share of profit/(loss) of joint ventures	19	132	(
(11 617)	(6 809)	Amortisation	2, 9	(67 391)	(81 7
(1 585)	(16 095)	Impairment	2, 9, 19	(12 867)	(25 5
(40)	(13)	Depreciation	2, 9	(2 069)	(1 4
(390)	(14 909)	Operating profit/(loss)		(19 048)	(16 0
4 716	6 142	Interest income	8, 16	41	
(2 685)	(3 357)	Interest expenses	8, 16	(2 391)	(1.5
25	-	Other financial income	8	75	1
(1 486)	(882)	Other financial expenses 8		(1 170)	(1 0
181	(13 006)	Profit/(loss) before tax		(22 493)	(18 4
(154)	1 548	Tax income / (expenses)	7	2 210	(8 3
27	(11 458)	Net profit/(loss) for the year		(20 283)	(26 8
27	(11 458)	Profit attributable to the equity holders of the parent		(20 283)	(26 8
-	-	Profit attributable to non-controlling interests		-	
		Other comprehensive income:			
-	-	Total items that will not be reclassified through profit	t/(loss)	-	
-	-	Total items that will be reclassified through profit/(lo	ss)	-	
27	(11 458)	Total comprehensive income / (loss) for the period		(20 283)	(26 8
27	(11 458)	Profit attributable to the equity holders of the parent		(20 283)	(26 8
	-	Profit attributable to non-controlling interests		-	
ngs per share	(USD)				
asic, profit (los	ss) for the year attri	butable to ordinary equity holders of the parent	14	(0,38)	(0

#### EBIT margin

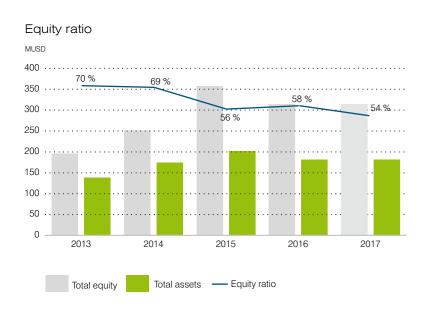


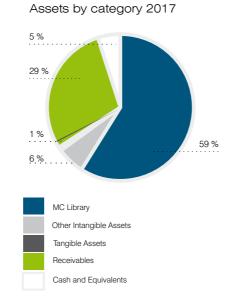
All tables in USD 1 000 All tables in USD 1 000

# Statements of Financial Position

#### Assets

Spectrum	n ASA			Spectrum Group	
2016	2017		Note	2016	2017
		400570			
		ASSETS			
		Non-current assets			
63	1 789	Deferred tax assets	7	6 084	4 501
-	-	Goodwill	9	13 203	11 563
47 541	43 523	Investment in subsidiaries and joint ventures	19	2 511	2 430
13	-	Software	9	663	228
37 736	23 013	Multi-Client library	9	192 721	169 408
-	-	Fixtures, fittings and office equipment	9	1 627	1 596
-	-	Other receivables	7	16 383	6 248
19 420	17 220	Long-term receivables group companies	16	-	-
104 773	85 545	Total non-current assets		233 192	195 973
		Current assets			
2 215			10	17 516	13 016
	-	Work in progress			
8 109	6 887	Accounts receivables	10	28 882	43 437
2 751	3 229	Other receivables	10	18 263	21 875
67 784	22 409	Short-term receivables group companies	16	-	-
10 440	10 295	Cash and cash equivalents	11	15 827	14 155
91 299	42 820	Total current assets		80 488	92 484
196 072	128 365	Total assets		313 680	288 457





# Statements of Financial Position

### Shareholders' Equity and Liabilities

Spectrum ASA		pectrum ASA			n Group
2016	2017		Note	2016	2017
		SHAREHOLDERS' EQUITY			
		Paid-in capital			
8 826	8 945	Issued capital	12	8 826	8 945
69 764	71 165	Share premium		69 885	71 164
58 102	58 102	Other paid-in capital		60 336	60 959
136 692	138 212	Total paid-in capital	139 046		141 068
(35 573)	(47 031)	Retained earnings	earnings 45 26		18 422
-	-	Foreign translation reserve		(2 467)	(2 467)
101 119	91 181	Total equity		181 845	157 024
		LIABILITIES			
		Non-current liabilities			
-	-	Deferred tax liability	7	6 607	5 123
-	23 100	Long term interest bearing debt	13, 17, 21	200	23 438
18 035	6 422	Other long term liabilities	3, 15	21 115	21 180
18 035	29 522	Total non-current liabilities		27 923	49 741
		Current liabilities			
42 556	2 026	Short term interest bearing debt	3,13,18,21	43 050	2 402
747	455	Tax and other public duties payable	7	635	2 354
7 131	2 939	Accounts payable	3	38 879	30 159
26 484	2 242	Other short term liabilities	3,18	21 350	46 782
76 918	7 663	Total current liabilities		103 914	81 696
196 072	128 365	Total shareholders' equity and liabilities		313 680	288 457

Pål Stampe Chairman of the Board

Oslo, 19 April 2018

Board member

Board member

Jogeir Romestrand Board member

# Spectrum Group

## Statements of Consolidated Equity

	Note	Issued capital	Share premium	Other paid-in capital	Retained earnings	Foreign currency translation	Total
	Note	Сарпаі	premium	Сарпаі	earnings	reserve	equity
Equity at 1 January 2016		8 826	69 885	59 788	65 548	(2 467)	201 580
Share options granted		-	-	548	-	-	548
Total comprehensive income		-	-	-	(20 283)	-	(20 283)
Equity at 31 December 2016	12	8 826	69 885	60 336	45 264	(2 467)	181 845
Share issue		120	1 279	-	-	-	1 399
Share options granted	5	-	-	623	-	-	623
Total comprehensive income		-	-	-	(26 843)	-	(26 843)
Equity at 31 December 2017	12	8 945	71 164	60 959	18 422	(2 467)	157 024

# Spectrum ASA

## Statements of Parent Company Equity

				Other		
	Note	Issued capital	Share premium	paid-in capital	Retained earnings	Total equity
Equity at 1 January 2016		8 826	69 764	58 102	(35 601)	101 092
Total comprehensive income		-	-	-	27	27
Equity at 31 December 2016	12	8 826	69 764	58 102	(35 573)	101 119
Share issue		120	1 401			1 520
Total comprehensive income		-	-	-	(11 458)	(11 458)
Equity at 31 December 2017	12	8 945	71 165	58 102	(47 031)	91 181

<sup>\*</sup> Only cost of exercised options are recognized in the parent company.

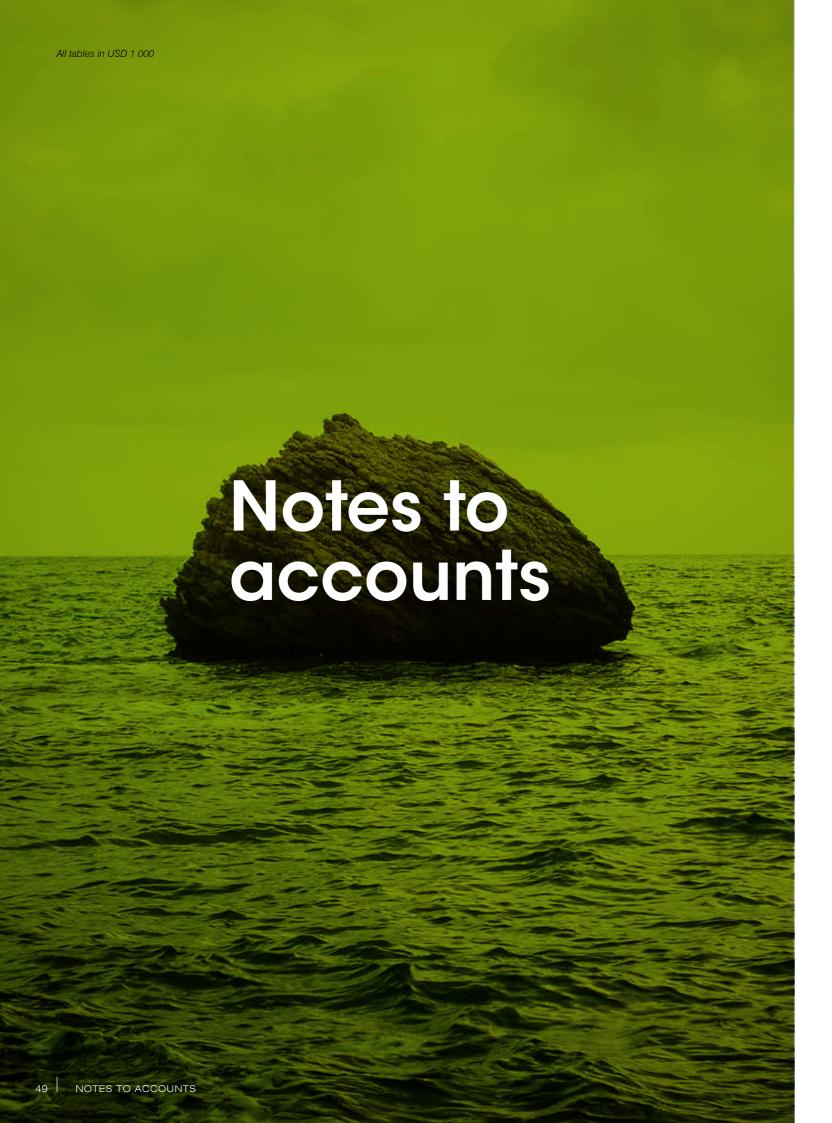
# Statements of Cash Flows

Spectrum ASA				Spectrum Grou	
2016	2017		Note	2016	201
		Cash flows from operating activities:			
181	(13 006)	Profit / (loss) before tax		(22 493)	(18 49
-	(10 000)	Income tax paid		(32)	(10 10
13 241	22 917	Depreciation, amortisation and impairment	9	82 327	108 72
-	-	Share options granted		571	61
(4 716)	(6 142)	Interest income	8	(41)	(6
2 685	3 357	Interest expenses	8	2 391	1 59
1 074	181	Other financial items	8	(373)	
		Working capital changes:		,	
133	1 222	Change in trade receivables	10	996	(14 555
4 315	(4 192)	Change in trade payables		(2 333)	(8 72
20 522	15 109	Change in other payables, provisions and receivables		202	30 29
37 434	19 446	Net cash flow from operating activities		61 215	99 40
		Cash flows from investing activities:			
(22 207)	(1 846)	Investment in Multi-Client library	9, 20	(50 671)	(82 359
-	-	Investment in non-current tangible assets	9	(925)	(96
-	-	Sale / Disposal of assets		-	1
(22 207)	(1 846)	Net cash flow from investing activities		(51 596)	(83 31
		Cash flows from financing activities:			
-	1 399	Share issue	12		1 39
_	2 026	Proceeds from borrowings	17	529	2 50
(15 090)	(20 000)	Payment of borrowings		(15 987)	(20 518
(1 958)	(1 565)	Interest paid		(2 011)	(1 574
(17 048)	(18 139)	Net cash from financing activities		(17 469)	(18 18
(1. 0 10)	(10 100)	The cash from maneing activities		(11 100)	(10.10
(1 821)	(539)	Net change in cash and cash equivalents		(7 850)	(2 09
341	394	Net foreign exchange differences (unrealised)		304	42
11 920	10 440	Cash and cash equivalents at beginning of period		23 373	15 82
10 440*	10 295*	Cash and cash equivalents at end of period	11	15 827	14 15
-	3 000	Undrawn facilities	3,13	-	3 00

<sup>\*</sup> Joint intra-group Cash Pool facility, see note 16.

#### Multi-Client investment ratio





# Note1 Accounting policies

GENERAL INFORMATION CONCERNING THE COMPANY AND BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

Spectrum ASA (Spectrum) is a public limited liability company incorporated and domiciled in Norway. The address of its registered office is Karenslyst Allè 11. 0278 Oslo.

The principal activities of Spectrum are the production and sale of Multi-Client seismic surveys and imaging of seismic data for both Multi-Client surveys and proprietary customers operating in the global oil and gas market.

The consolidated financial statements of the Spectrum Group for the period ended 31 December 2017 were approved by the Board of Directors on 19 April 2018.

#### **Basis of preparation**

The consolidated financial statements of Spectrum ASA and all its subsidiaries (the Spectrum Group) have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

The financial statements of Spectrum ASA (the Company) have been prepared using the same accounting policies as the consolidated financial statements of Spectrum. The consolidated financial statements have been prepared on a historical cost basis.

#### Significant accounting judgement, estimates and assumptions

The application of the Spectrum Group's accounting policies require management to make judgments, estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Management bases their estimates and assumptions on previous experience and other factors that are

believed to be relevant to the circumstances. These estimates and assumptions are the basis for assessing the carrying value of assets and liabilities that are not evident from other sources. The key areas where estimation has been applied and where there is a significant risk of material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

In the process of applying the Spectrum Group's accounting policies, management has made the following judgements, which have the most effect on the amounts recognised in the financial statements:

#### Goodwill

Goodwill has been generated by acquisition, and it is linked to the assessment of future earnings. There are uncertainties with regard to assumptions made in connection with impairment assessment. Estimating the value in use amount requires management to make an estimate of future cash flows and also to choose variables in order to calculate the present value of those cash flows.

#### **Multi-Client library**

The Spectrum Group performs an annual impairment test of all surveys in the Multi-Client library. In addition all surveys will be tested through the year if specific indications of impairment exist. The test is based on expected future sales per survey, which is based on geographical forecasts variables such as which areas in the world the oil companies would be interested buying data from and whether licenses to perform explorations are given. In addition general forecast variables such

as the current and expected oil price and the expected E&P spending by oil companies impact all sales estimates. Change in market conditions, including competition and political circumstances, also affects expected future earnings from the Multi-Client library. Management considers that changes in these estimates may potentially change the present value of surveys in the Multi-Client library, and if the carrying value of a survey exceeds the present value the survey will be impaired.

#### **Deferred tax assets**

Deferred tax assets are recognized for temporary deductible differences and accumulated tax losses to the extent that it is considered probable that a Group company will generate sufficient future taxable profits to absorb these losses. Significant management judgment is required to determine the amount of deferred tax to be recognized based on the likely timing and level of future taxable profits together with future tax planning.

#### Revenue recognition

The Spectrum Group recognises revenues from prefunding of Multi-Client surveys based on percentage of completion. This requires management to determine the degree of completion. The degree of completion for a survey is determined by applying percentage of completion to each weighted part of the survey. Percentage of completion is based on the amount of accrued expenses relative to the estimated total cost of the service provided, modified to the specific customer agreement.

The Spectrum Group have entered into various seismic agreements with change of control clauses which trigger transfer

fees payable to Spectrum. The level of transfer fees varies and the amount payable depend on several matters, including the amount and value of data being subject to transfer and data licenses to be redelivered. The Spectrum Group recognise revenue first when all of the change of control clauses have been lifted (i.e governmental or AGM approval). The Spectrum Group records revenue based on best estimate of revenue from transfer fee`s.

#### **Joint arrangements**

All partnerships are evaluated to determine the accounting treatment of the arrangement. All such arrangements are evaluated independently as it depends on the substance and nature of the arrangement. If the control of the arrangement and decisions that significantly affect the returns of the arrangement are shared the arrangement is treated as a joint arrangement, if not it is treated as an operational partnership. A joint arrangement can be classified as a joint operation or a joint venture. Judgement is needed when making this classification. Generally the Spectrum Group classifies a joint arrangement as a joint venture if it is structured through a separate vehicle and there is no direct right to assets and obligation to liabilities. Other joint arrangements are classified as joint operations.

#### Provision for contingencies

The Spectrum Group records accruals for contingencies and other uncertain liabilities, including tax contingencies, based on best estimates if it is considered more likely than not that a liability has been incurred. If no reasonable estimate can be made of the liability it is not recorded. Management evaluates

the facts and the related laws and regulations in the jurisdiction. In most such cases external counsel will be used, and an estimate will be based on their input. The Spectrum Group operates in many countries with dynamic laws and regulations, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements.

#### **Basis of consolidation**

The consolidated financial statements comprise the financial statements of Spectrum and its subsidiaries at 31 December 2016 and 2017. The financial statements of the subsidiaries have been prepared for the same reporting period as Spectrum using consistent accounting policies. All intra-group balances, balance sheet transactions and profit and loss transactions are eliminated in full.

#### **Subsidiaries**

Subsidiaries are entities in which the Spectrum Group has control. This normally occurs when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Acquired subsidiaries are consolidated from the date on which control is transferred to the Spectrum Group. Divested subsidiaries are consolidated to the date on which control is transferred from the Spectrum Group. In the accounts of Spectrum ASA, investments in subsidiaries are accounted for at cost less accumulated impairment losses.

# ACCOUNTING POLICIES Investments in joint ventures

A joint venture is a contractual arrangement whereby the Spectrum Group undertakes an economic activity that is subject to joint control under which strategic, financial and operating policy decisions relating to the activities require the unanimous consent of the parties sharing control. Investments in joint ventures are accounted for using the equity method.

The consolidated financial statements include the Group's share of profit or loss from the date on which joint control is attained and until joint control ceases. In the accounts of Spectrum ASA, investments in joint ventures are accounted for at cost less accumulated impairment losses. The financial statements of the joint venture are prepared for the same reporting period and with the same accounting policies as the Spectrum Groups financial statements.

The Spectrum Group's share of intra-group balances, transactions and unrealised gains and losses on such transactions between the Spectrum Group and its joint venture are eliminated on consolidation. Losses on transactions are recognised immediately if there is evidence of a reduction in the net realisable value of current assets or an impairment loss.

#### Investments in joint operations

A joint operation is an arrangement where Spectrum Group with joint control has rights to the assets and obligations for liabilities of the arrangement.

Proportionate share of each of the assets, liabilities, income and expenses of the joint operation is combined with

similar items, line by line, in the consolidated financial statements.

#### Presentation and classification

The functional currency for all the entities in the Spectrum Group is USD.

The consolidated financial statements and the parent financial statements are presented in USD, which is defined as the presentation currency.

## Statement of Comprehensive Income

All income and expenses in the statement of comprehensive income have been classified by their nature.

#### **Statement of Financial Position**

Current assets and current liabilities are items due in less than one year from balance sheet date or within the normal operating cycle if this is longer, or are assets or liabilities held primarily for the purpose of being traded. Current liabilities exclude amounts attached to an unconditional right to defer settlement for at least 12 months after the end of the accounting period. All other assets and liabilities are classified as non-current.

#### **Statement of Cash Flows**

The cash flow statement has been prepared using the indirect method.

Where a controlling interest in another entity has been acquired, the cash flows from the date that control was acquired are consolidated with those of the Group and reported under the appropriate category. Where a non-controlling interest in an entity has been acquired, net cash flows for the entity are reported separately under Cash flows from operating activities. In either case, the

cash payment made in acquiring the stake in the entity, less the cash acquired as part of the transaction is reported under Cash flows from investing activities as "Acquisition of subsidiaries and joint ventures, net of cash acquired".

#### Foreign currency translation

Transactions in currencies other than functional currency are translated using the exchange rate in effect on the date of transaction. Monetary assets and liabilities in foreign currency are translated into USD using the exchange rate in effect on the balance sheet date. Exchange differences arising from translations are recorded in the statement of comprehensive income. Non-monetary assets and liabilities measured at historical cost in foreign currency are translated using the exchange rate in effect on the date of transaction.

#### Revenue recognition

Revenue is recognised by the Spectrum Group when the economic benefits from a transaction are supported by evidence of a sales arrangement which demonstrate that revenues can be reliably measured, services have been provided and collection is reasonably expected.

Where revenue recognition parameters have not been met, the Spectrum Group defers such revenues until such time as the conditions have been satisfied.

Revenue is allocated among the separate units of accounting and is recognised at the fair value of the consideration received, net of discounts and sales taxes or other duties. The following describes specific principles:

#### Work in progress

Revenue for unfinished projects (work in progress) is recognised on a percentage complete basis. Determination of the degree of completion is based on the amount of accrued expenses relative to the estimated total cost of the service provided, modified to the specific customer agreement, provided that all other revenue recognition criteria are satisfied.

Transfer fees recorded based on best estimate are recognised as work in progress until the final amount is agreed with the customer and invoiced.

#### **Multi-Client surveys**

Pre-commitment arrangements - When the Spectrum Group obtains pre-funding from customers before a seismic project is completed, the customer is normally entitled to a discounted price and/or is granted the opportunity to provide input into the project parameters. The Spectrum Group then recognises the pre-commitment revenue as the services are performed based on percentage of completion. As progress is made through the project plan, this physical progress is recognised as revenue based on a percentage basis of the pre-commitment funds received, provided that all other revenue recognition criteria are satisfied. Spectrum classifies Multi-Client revenue as pre-commitment arrangements or late sales based on products sold. A seismic project may consist of several products and at the time of the sale some products may be considered in progress while others are considered completed.

Late sales – Where the Spectrum Group has completed data sets ready for sale, revenue is recognised at the time of the

transaction when the customer executes a valid license agreement and has the right to access the licensed portion of the Multi-Client library. The customer's license payment is fixed and determinable and typically is required at the time that the license is granted. Transfer fees arising from contractual obligation in existing agreements are classified as late sales.

Revenue share – When the Spectrum Groups sells surveys with a pre-committed revenue share to partners, governments or agents, the revenue share is recognised as the revenue is recognised to reflect the net revenue for the Spectrum Group.

All revenue is presented in the statement of comprehensive income as net revenue. The gross revenue from late sales or pre-commitment revenue less the revenue share is considered the net revenue. Gross pre-commitment revenue and revenue share are specified in note 2 Segment information.

#### Other services

Revenue from other services is recognised as the services are performed, provided all other recognition criteria are satisfied.

#### **Business combinations**

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the sum of the consideration transferred, including contingent consideration amounts. The consideration transferred is measured at fair value as at the date of acquisition and the amount of any non-controlling interest in the acquiree. The acquirer measures any non-controlling interest in each business

combination at either fair value or at the appropriate share of the acquiree's identifiable net assets. Any costs associated with the acquisition are expensed as part of other operating expenses in the statement of comprehensive income.

When a business is acquired by the Group, the financial assets and liabilities assumed are classified and recorded according to the contractual terms, economic circumstances and relevant associated conditions in force at the date of acquisition.

If step acquisition occurs, the fair value of the previously held equity interest is recalculated at the date of the increased ownership, with any difference in fair value being booked the statement of comprehensive income.

Any contingent consideration payable under a business combination will be recognised at fair value at the date of acquisition. Any later changes to the fair value of this consideration which is considered a liability or asset will be recognised in accordance with IAS 39 in the statement of comprehensive income.

Goodwill arising as the result of a business combination is initially measured at cost, being the excess of the aggregate value of consideration transferred and the amount recognised for any non-controlling interest over identifiable assets acquired and liabilities assumed. If the consideration is less than the fair value of the acquired subsidiaries' net assets the difference is recognised in the statement of comprehensive income.

After initial recognition, goodwill is measured at cost less accumulated

impairment losses. Goodwill is allocated to each of the cash generating units of the Group that are expected to benefit as a result of the business combination. Where goodwill forms part of a cash generating unit and part of an operation that is disposed of, the value of this goodwill is included in the calculation of the gain or loss on disposal. In such cases, the value of goodwill disposed of is calculated on the basis of the relative values of the retained and disposed of operations.

Expenses related to carry out and complete business combinations are expensed.

#### **Intangible Assets**

#### Goodwill

Acquisitions of interests in subsidiaries, associates and joint ventures are accounted for using the acquisition method. The purchase price is allocated to the acquired assets and liabilities according to their fair value. Any excess purchase price is recorded as goodwill.

Goodwill is recognised in the balance sheet at initial cost, translated from its original currency to USD, less accumulated impairment losses.

#### Software

Software is carried at cost less accumulated depreciation and impairment losses. Depreciation is charged on a straight-line basis over the useful life of the asset in the statement of comprehensive income. Estimated useful life range between 3-5 years.

#### **Multi-Client library**

The Multi-Client library comprises completed surveys and surveys in progress that can be licensed to multiple customers. All direct costs related to data collection, processing and completion of seismic surveys are capitalised.

The Multi-Client library is capitalised at cost less accumulated amortisation and impairment losses.

During the work in progress phase amortisation is calculated based on total cost versus forecasted total revenues of the project. This ratio is applied to the revenue recognized for the survey. After a project is completed, a straight-line amortisation is applied. The straight-line amortisation will be assigned over the project's remaining useful life, which for most projects is expected to be 4 years. The straight-line amortisation will be distributed evenly through the financial year independently of sales during the year. The straightline amortisation policy was adapted starting 2016 after an amendment to IAS 16. This is considered a change in estimates and the comparative figures for previous years are unchanged.

When the Spectrum Group acquires surveys from a third party the purchase price will be allocated based on the assumed value in use of the acquired surveys. For acquired surveys a straight-line amortisation is applied. The straight-line amortisation will be assigned over the surveys estimated remaining useful life.

#### **Tangible non-current assets**

Tangible non-current assets are stated at cost less accumulated depreciation and accumulated impairment losses. Depreciation is charged on a straight line basis over the useful life of the asset and recognised in the statement

of comprehensive income. Calculated depreciation takes into account any expected residual value. Expenses regarding major replacements and renewals are capitalised, while all other replacements, renewals, maintenance and repairs are recognised in the statement of comprehensive income.

Estimated useful lives are as follows: Machinery and survey equipment: 3-5 years

Fixtures, fittings and office equipment: 3-5 years

# Impairment of tangible and intangible non-current assets

Tangible and intangible non-current assets are assessed for indications of impairment at each reporting period and when there are events and changes in circumstances which indicate that the carrying amount of the asset may not be recoverable. When impairment is considered, the assets are grouped at the lowest level for which there are separate identifiable cash generating units. Impairment is calculated as the difference between an asset's carrying amount and the recoverable amount. The recoverable amount is the higher of an asset's net selling price and the value in use for the Spectrum Group. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. When an asset's value is assessed as lower than its carrying amount, the carrying amount is impaired to the recoverable amount, and the impairment loss is recognised in the statement of comprehensive income. Previously recognised impairment losses are only reversed to the

extent that asset's carrying amount does not exceed the carrying value recognised if no impairment charges had been recognised in prior periods and normal depreciation and amortisation polices had been applied. Impairment of goodwill is not reversed.

#### Cash generating units

As part of the testing for impairment of goodwill performed as at 31 December 2017, Spectrum management determined that it was appropriate to recognise only one CGU reflecting the operating segment: Multi-Client which constitutes of 99.8% of the Group's net revenue. For the impairment testing of the Multi-Client library each survey is considered a CGU.

#### **Current Assets**

#### Trade and other receivables

Trade and other receivables are recognised at fair value. Trade receivables are regularly reviewed for impairment considering their maturity, the customer's financial position and other relevant information.

#### Cash and cash equivalents

Cash and cash equivalents comprise cash in bank and in hand and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are recognised at fair value. Bank overdrafts are recognised as a current liability.

#### Liabilities

#### Loans and borrowings

Loans are recognised at the amount received net of transaction costs. After initial recognition, interest bearing loans and borrowings are subsequently measured at amortised cost using the effective interest rate method. Gains

and losses are recognised in the statement of comprehensive income when the liabilities are derecognised.

All financial instruments are recognised in the statement of financial position when the Spectrum Group becomes a party to the contractual provisions of the instrument. At initial recognition it is assessed whether a financial instrument shall be accounted for as a financial liability, a financial asset or an equity instrument based on the substance of the contractual instrument. The terms of a non-derivative financial instrument are evaluated to determine whether the instrument contains a liability and an equity component, and such components are classified separately as financial liabilities, financial assets or equity instruments as appropriate. When a non-derivative financial instrument contains an embedded derivative that would have met the definition of a derivative instrument as a separate instrument, that embedded derivative is separated from the host contract and is accounted for as a freestanding derivative instrument, if the economic characteristics and risk of the embedded derivative are not closely related to that of the host contract. Multiple embedded derivatives in a single instrument are treated as a single compound instrument if the embedded derivatives relate to the same risk exposures and are not readily separable and independent of each other.

#### Trade and other payables

Trade and other payables are recognised at cost.

#### Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at inception date: whether fulfilment

of the arrangement is dependent on the use of a specific asset or assets, or the arrangement conveys a right to use the asset. Assets acquired under finance leases which transfer substantially all the risks and benefits incidental to ownership of the leased item are presented in the financial statements as non-current assets at cost value less depreciation and impairment. The liability for future rentals is recorded in the balance sheets as a liability. The lease payments are divided into an interest element and reductions of the lease liability.

A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Spectrum Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term. Operational lease payments are recognised as an expense in the statement of comprehensive income on a straight line basis over the lease term. The Spectrum Group only act as a lessee under the groups operational leases.

#### Pensions

The Spectrum Group operates defined contribution plans. The defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group pays contributions to government and privately administered pension plans. The contributions are recognised as employee benefit expenses when they are due.

#### **Share-Based payments**

The cost of the Group stock option plan for senior executives in the Group is measured at the fair value of the equity instruments at the date they were granted. Estimation of the fair value of stock options requires the selection and use of an appropriate pricing model, and Spectrum management have opted to adopt the Monte Carlo model for this purpose. This model requires the use of suitable input factors including the dividend yield, the option's expected life and volatility in Spectrum's share price. The fair value of each of the share options granted also depends on the terms and conditions inherent in each individual share option agreement. Social security tax on options is based on the share value as at the end of the reporting period, is recorded as a liability and is recognised over the option period.

The Board may decide at its sole discretion (at the request of the participant or otherwise) to settle any options in cash on exercise. The stock options are treated as equity elements as long as there have not been any options vested with settlement in cash. The dilutive effect of outstanding options at the year-end is reflected as an additional share dilution in the computation of earnings per share.

The cost of equity-settled transactions is recognised, together with a corresponding increase in other capital reserves in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Spectrum Group's best estimate of the number of movement in cumulative expense recognised as at the beginning and end of that period and is recognised in payroll expenses.

No expense is recognised for awards that do not ultimately vest, except for equity-settled transactions for which vesting are conditional upon a market or non-vesting condition. These are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

When the terms of an equity-settled transaction award are modified, the minimum expense recognised is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognised for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification. When an equity-settled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph. The dilutive effect of outstanding options is reflected as additional share dilution in the computation of diluted earnings per share.

#### Segment reporting

Spectrum is a pure play Multi-Client company, and mangement has organised the entity as four reporting segments identified on a geographical basis; North and South America, Africa/ Mediterranean/ Middle East, Northwest Europe and Asia Pacific. Income and cost from transactions between segments and support functions are eliminated.

#### Income tax

Tax expense comprises both current tax and changes in net deferred tax. Current tax includes expected current tax on the year's taxable income using tax rates existing at balance sheet date and any corrections to previous years' current tax. Deferred tax assets and liabilities arise as a result of temporary differences existing between the values attributed to items in the financial statements and their tax-related values. These are measured at the tax rates that are expected to apply at the time the assets are realised or the liability is settled. The calculation of deferred tax assets and liabilities also takes into account tax losses carried forward at balance sheet date. Deferred income tax assets and liabilities are offset to the extent that current income tax assets and liabilities can be offset.

Deferred tax assets are recognised in the balance sheet when it is probable that there will be sufficient future taxable profit to utilise the tax asset. In countries where withholding taxes are operational they are treated as a receivable balance to offset future income tax liabilities.

Taxes payable in the statements of financial position include corporate tax, sales tax and tax on financial transactions. Sales tax and tax on financial transactions are considered operational costs and not tax expense.

#### **Equity transactions**

Costs directly related to increases in share capital are regarded as a reduction in paid-in capital and are charged to equity. Any associated tax effect is also recorded against the equity.

#### Contingencies

Contingent assets are not recognised in the financial statements. When it is virtually certain that the entity concerned will receive an economic benefit as a result of a past event, then the related asset is not a contingent asset and is therefore recognised.

Contingent liabilities are not recognised in the financial statements. When it is considered probable that a material decrease in economic value will occur as a result of a past transaction, and that decrease can be measured reliably, then the related liability is not a contingent liability and is therefore recognised. If such a decrease is not considered probably, a disclosure is made of management's best estimate of the potential liability.

#### Events after the balance sheet date

Event occurring after balance sheet date that provide additional information concerning the Group's position at that date are reflected in the financial statements. Other subsequent events are disclosed as a note, if significant.

#### **Provisions**

Provisions are recognised when there is a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the obligation. Where it is expected that some or all of a provision will be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is recognised in the statement of comprehensive income net of any reimbursement.

An onerous contract is considered to exist where the Company has a contractual obligation under which the unavoidable costs of settling the obligations exceed the economic benefit that is expected to be derived from the contract. Any existing obligations that arise under onerous contracts are measured as a provision and recognised accordingly.

# New and amended standards and interpretations adopted by the group

Amendments to IAS 7 Statement of Cash Flows: Disclosure Initiative The amendments require entities to provide disclosure of changes in their liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes (such as foreign exchange gains or losses). The Group has provided the information for both the current and the comparative period in Note. 17.

# IFRSs and IFRICs issued but not yet effective

Only IFRSs and IFRICs issued but not yet effective that are considered relevant to the Company have been included.

#### **IFRS 9 Financial Instruments**

IFRS 9 will eventually replace IAS 39 Financial Instruments: Recognition and Measurement. In order to expedite the replacement of IAS 39, the IASB divided the project into phases: classification and measurement, hedge accounting and impairment. New principles for impairment were published in July 2014 and the standard is now completed. The parts of IAS 39 that have not been amended as part of this project have been transferred into IFRS 9. The Standard will be effective for accounting periods beginning on or after 1 January 2018, and will be applied by the Group then. The new standard is expected to have no significant effect on the Group's financial statements.

#### IFRS 15 Revenue from Contracts with Customers

The IASB and the FASB have issued their joint revenue recognition standard, IFRS 15. The standard replaces existing IFRS and US GAAP revenue requirements. The core principle of IFRS 15 is that revenue is recognised to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard applies to all revenue contracts and provides a model for the recognition and measurement of sales of some non-financial assets (e.g., disposals of property, plant and equipment). The Standard will be effective for accounting periods beginning on or after 1 January 2018, and will be applied by the Group then.

The new standard will have no impact on late sales made after a project is completed. A significant part of the revenues in the seismic industry arises from contracts signed with customers prior to the acquisition of the data and the processing of the complete products. Currently the industry standard is to use percentage of completion as basis for revenue recognition for pre-committed revenue. IFRS 15 implies a change to revenue recognition based on deliverables. This will potentially significantly impact the timing of the revenue recognition for on-going projects in the industry. If the standard had been effective from 1 January 2017 the Group's net revenue for 2017 would have decreased by USD 11.0 million to USD 107.8 million, and based on the changes of timing of amortisation of on-going projects the profit before tax would have decrease by USD 6.1 million to USD (24.6) million. The changes would not have had any cash effects.

The Group will apply the modified retrospective approach for the transition.

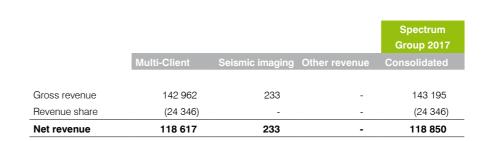
#### **IFRS 16 Leases**

IFRS 16 was issued in January 2016 and it replaces IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under IAS 17. The standard includes two recognition exemptions for lessees - leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessor accounting under IFRS 16 is substantially unchanged from today's accounting under IAS 17. Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between two types of leases: operating and finance leases. IFRS 16 also requires lessees and lessors to make more extensive disclosures than under IAS 17. IFRS 16 is effective for annual periods beginning on or after 1 January 2019, and will be applied by the Group then. The new standard is expected to have no significant impact on the Group's financial statements as the Group has no vessel commitments or other significant lease contracts.

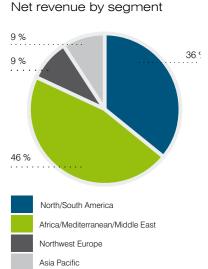
# Note 2 Segment information

Spectrum is a pure play Multi-Client company, and mangement has organised the entity as four reporting segments identified on a geographical basis.

Consequently the Company has four segment as defined in IFRS 8 operating segments. Multi-Client constitutes 99.8% of the Group's net revenue (2016: 98.2% excl. recognized tax credit in Brazil).



				Spectrum Group 2016
	Multi-Client	Seismic imaging	Other revenue	Consolidated
Gross revenue	78 166	1 294	13 147	92 607
Revenue share	(5 755)	-	-	(5 755)
Net revenue	72 412	1 294	13 147	86 852



Multi-Client information is given for operating segments which are identified on a geographical basis.

Separate internal financial information is prepared for these geographical segments and reported for management accounting purposes to the Chief Operating Decision Maker (CODM). In the Spectrum Group the executive

management and the Board of Directors are considered to be the CODM.

The Multi-Client services operating segment manages the acquisition and processing of new seismic surveys and the reprocessing of existing survey data to produce seismic datasets that Spectrum either owns or has the right to sell licences to third parties on a non-exclusive basis.

Spectrum ASA classifies Multi-Client revenue as early sales or late sales based on the products sold. Proprietary revenue from seismic imaging is treated as separate products and classified as other revenue.

#### Reported segment revenues and profits / (losses)

					Spectrum Group 2017		
		Multi-C	lient				
	North and South America	Africa/ Mediterranean/ Middle East	Northwest Europe	Asia Pacific	Seismic imaging and group functions	Consolidated	
Net early sales	15 636	38 797	667	2 116	-	57 216	
Net late sales	26 725	15 673	9 924	9 062	-	61 384	
Other revenue	3	5	8	1	233	250	
Net revenue	42 364	54 475	10 599	11 179	233	118 850	
Operating expenses	(2 969)	(1 691)	(1 409)	(1 763)	(18 242)	(26 074)	
Share of profit/(loss) of joint ventures	-	-	-	-	(82)	(82)	
Amortisation	(35 561)	(25 203)	(12 253)	(8 696)	-	(81 714)	
Impairment	(15 290)	(1 876)	(565)	(6 227)	(1 640)	(25 598)	
Depreciation	(74)	(115)	(27)	(26)	(1 176)	(1 418)	
Operating profit/(loss)	(11 530)	25 589	(3 656)	(5 533)	(20 907)	(16 037)	

					Spectrum	Group 2016
		Multi-C	lient			
					Seismic	
	North and	Africa/			imaging	
	South	Mediterranean/	Northwest		and group	
	America	Middle East	Europe	Asia Pacific	functions	Consolidated
Net early sales	1 301	13 381	610	3 392	-	18 684
Net late sales	13 558	5 242	25 321	6 107	-	50 228
Other revenue	3 243	8	143	105	14 441	17 940
Net revenue	18 102	18 631	26 074	9 604	14 441	86 852
Operating expenses	(6 037)	(3 026)	(757)	(1 263)	(12 622)	(23 705)
Share of profit/(loss) of joint ventures	-	-	-	-	132	132
Amortisation	(31 752)	(13 749)	(12 661)	(9 228)	-	(67 391)
Impairment	(300)	(5 494)	(1 252)	(4 200)	(1 621)	(12 867)
Depreciation	(196)	(107)	(128)	(75)	(1 563)	(2 069)
Operating profit/(loss)	(20 183)	(3 746)	11 275	(5 162)	(1 233)	(19 048)

#### Maior customers

In 2017, the largest customer of the Spectrum Group accounted for 12% of consolidated revenues (2016: 19%).

Spectrum do not disclose a breakdown of customers as management consider this information to be confidential and commercially sensitive in nature. Spectrum's customers are big international oil companies.

#### Segmental analysis of assets, liabilities and carrying value of investments for the year ended 31 December

Assets, liabilities and carrying value of investments by operating segment is not included in management reporting and is therefore not disclosed separately in these accounts.

# Note 3 Financial risk management

#### General

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities.

Financial market risk is the possibility that fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risks and actions are taken to mitigate specific risks identified.

The risk related to interest rates is considered limited due to the expectations for future development of interest rates, and the short maturity of interest bearing debt. The Spectrum Group's organic investments are financed through prefunding from customers, risk sharing with partners and cash flow

generated from sales of surveys in the existing Multi-Client library. On structural investments, companies or assets, debt financing is considered.

The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly in USD.

The principal financial liabilities comprise trade payables, finance lease commitments related to premises and data processing equipment, Revolving Credit Facility (RCF) and Overdraft Facility. These are mainly in USD.

#### **Capital management**

Spectrum ASA is listed on Oslo Stock Exchange.

Spectrum's capital management is primarily focused on ensuring the Group's capacity to invest in new high quality Multi-Client projects, to improve operations, to minimise the cost of and risk to capital and to provide investors a return on the capital invested. Spectrum also acquires surveys in partnership or with favorable contract payment terms to reduce Spectrum's risk and cash exposure.

The main source of financing is equity, equity share per year end 2017 is 54.4%. Spectrum entered in June 2015 into two bank facilities used to partly finance the acquisition of Fugro's marine seismic library. One of the facilities was a term loan facility of USD 50 million which Spectrum has repaid in full by end December 2017. The second facility is a RCF of USD 23.1 million. The current RCF agreement expires end June 2019.

Management is of the opinion that the processes descibed above achieved the Group's capital management objectives in 2017.

The Company paid an annual dividend based on the Group's financials in 2011, 2012, 2013 and 2014. No dividend was distributed based on the 2015 and 2016 financials.



 Repayment of capital.
 The Board recommends to the Annual General Meeting a dividend of NOK 0.5 per share for 2017.

For 2017, the board proposes a dividend of NOK 0.5 per. share.

Funds are largely held in USD, although some funds are held in local currency at a local level to fund forecasted local requirements for the following 3 months.

It is the policy of the Group to hold liquid funds in BRL, ARS, AUD, EUR, SGD, USD, GBP and NOK, see note 11. The Group

To further reduce the currency risk Spectrum established early 2014 an USD account linked to and managed by the Spectrum Brazil entity.

has per year end 2017 no FX-contracts.

#### **Financial instruments**

The carrying amount of accounts receivables, other receivables, cash and cash equivalents, and current liabilities approximate to their fair values because of the short maturities of these instruments.

#### Liquidity risk

The Board of Directors considers the liquidity risk to be moderate. Risk is negatively impacted by the currently weak market conditions, but at the same time positively impacted by the material increase of Spectrum's Multi-Client seismic library and continued high focus on cash flow related to new acquisition projects. Some new projects are also de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions.

Liquidity risk is primarily related to potentially realising lower sales than expected from existing library.

At 31 December 2017 the Spectrum Group had current assets of USD 92.5 million (2016: USD 80.5 million) and current liabilities of USD 81.7 million (2016: USD 103.9 million).

The current liabilities are separeted in due within 6 months and due between 6-12 months in the table below.

The RCF is considered a long term liability. Furthermore, USD 0.9 million on the other liability due within 6 months is related to deferred revenue. This will not be a payable liability for Spectrum.

The Group held USD 14.2 million (2016: USD 15.8 million) in cash and cash equivalents as of 31 December 2017.

The Group uses a forecasting system implemented in 2012 covering among others cash flow forecasting. Forecasting is done for the remaining part of the year and this is a regular part of the monthly close process. In addition a 60 days focused cash management system was establised in 2014. This is further enhanced on a continious basis

The forecasting process involves several functions in the Group and is considered a critical part of the business control environment. It forms the basis for estimating our capacity to finance new projects.

#### Analysis of current and non-current liabilities by payment date

Spectru	ım ASA		Spectrui	m Group
2016	2017		2016	2017
		Due within 6 months		
-	-	Finance lease	252	192
33 556	2 026	Short term interest bearing debt	33 556	2 026
3 653	2 697	Other liabilities	20 332	36 676
7 131	2 939	Trade and other payables	22 879	22 159
44 340	7 663	Total	77 019	61 053
		Due between 6-12 months		
-	-	Finance lease	242	184
9 000	-	Short term interest bearing debt	9 000	-
23 578	-	Other liabilities	1 653	12 459
-	-	Trade and other payables	16 000	8 000
32 578	-	Total	26 895	20 643
		Due after one year but not more than 3 Years		
-	-	Finance lease	200	338
-	23 100	Long term interest bearing debt	-	23 100
18 035	6 422	Other liabilities	21 115	21 180
18 035	29 522	Total	21 315	44 618

#### Credit risk

The customers of the Spectrum Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class, see note 10. Management considers that the provisions booked in each Group company are sufficient to cover any uncertain receivable balances and believes that the credit risk strategies adopted are sufficient to ensure that the overall credit risk is low.

Spectrum has had no losses on receivables in 2017, or in the latest years.

In addition Spectrum can net receivables against future payables in some partner agreements. Spectrum has entered into various seismic agreements with change of control clauses which trigger transfer fees payable to Spectrum. Transfer fees are recorded based on best estimate until the final amount is agreed with the customer. The credit risk for transfer fees recorded but not agreed with customers are considered low.

#### Market and political risk

The activities that Spectrum's customers are engaged in are inherently affected by changes in both current prices of oil and gas, and future expectations of prices, which are themselves subject to a number of external influences such as governmental terms and conditions.

The oil and gas market is known to be cyclical in nature, and Spectrum's profitability is largely impacted by the demand for the services that Spectrum provide to these clients.

Spectrum operates in many countries with dynamic laws and regulations, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements.

#### **Currency and Interest rate risk**

Revenues and expenses are denominated largely in USD. The Group aims to minimise exposure to currency risk by operationally balancing receivables in other

currencies with expenses in those currencies. In addition Spectrum has established

a USD account linked to the Brazilian legal entity to reduce the currency risk. In the Group's subsidiaries in UK and Norway local salaries and office expenses will be mainly in GBP and NOK.

Based on the current expense level, a 5% strengthening of USD vs. GBP and NOK will impact the result negatively by approx. USD 0.5 million in Ltd and USD 0.25 million in ASA respectively.

These sensitivities can be used to assess larger currency fluctuations.

The risk related to interest rates is considered limited due to future interest rates expectations, and the short maturity period of the interest bearing debt.

A sensitivity analysis on movements in interest rates has been considered not relevant.

# Note 4 Salaries & Other Remuneration

Spectru	ım ASA		Spectrun	n Group
2016	2017		2016	2017
(2 127)	(2 190)	Salaries	(14 484)	(15 428)
(349)	(740)	Employer's insurance contributions	(3 512)	(2 910)
(116)	(138)	Pension costs	(838)	(816)
-	-	Share options	571	(811)
(15)	53	Other remuneration	(598)	(592)
-	-	Capitalised salaries *	7 188	6 935
(2 608)	(3 015)	Total	(11 672)	(13 622)
13	10	Average number of employees	153	155

<sup>\*</sup> Data Processing expenses (including salaries) directly related to Multi-Client surveys are capitalised and are part of the Multi-Client library additions, see note 9.

#### Remuneration for the Spectrum managment

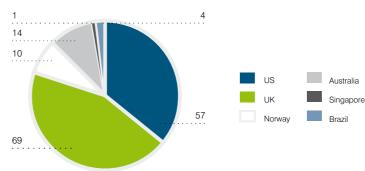
Salaries and other remuneration to management and the Board of Directors.

Salaries and other benefits are paid in local currencies, and USD figures in the table will fluctuate with the exchange rates.

	Spectrum ASA 2017			
	 Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(514)	(212)	(39)	(765)
Henning Olset, CFO	(316)	(31)	(23)	(370)
Jan Schoolmeesters, COO	(354)	(106)	(24)	(484)
Svein Olav Staalen, General Counsel	(243)	(25)	(12)	(280)
Total Spectrum ASA	(1 427)	(374)	(97)	(1 898)

		Spectrum	Group 2017	
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Total Spectrum ASA	(1 427)	(374)	(97)	(1 898)
Richie Miller, EVP MC, Americas	(288)	(47)	(17)	(352)
Graham Mayhew, EVP MC, Africa and Mediterranean and Middle East	(270)	(23)	-	(293)
Ian Edwards, EVP MC, Asia Pacific and NW Europe	(264)	(43)	-	(307)
Mike Ball, EVP Data Processing **	(194)	(19)	(12)	(225)
Mike Mellen, EVP Seismic Imaging **	(124)	(31)	(2)	(157)
Neil Hodgson, EVP Geoscience	(222)	(34)	(16)	(272)
Total Spectrum Group	(2 788)	(571)	(144)	(3 504)

#### Employees by country



		Spectrum	ASA 2016	
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(422)	(257)	(21)	(700)
Henning Olset, CFO	(287)	-	(23)	(310)
Jan Schoolmeesters, COO	(323)	(124)	(18)	(465)
Jørn Christiansen, CTO ***	(103)	-	(4)	(107)
Kim Maver, EVP MC, NW Europe ***	(174)	(46)	(9)	(229)
Svein Olav Staalen, General Counsel	(180)	(32)	(9)	(221)
Total Spectrum ASA	(1 490)	(459)	(84)	(2 033)

		Spectrum	Group 2016	
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Total Spectrum ASA	(1 490)	(459)	(84)	(2 033)
Richie Miller, EVP MC, Americas	(288)	(53)	(17)	(358)
Graham Mayhew, EVP MC, Africa and Mediterranean and Middle East***	(215)	(52)	(4)	(271)
Ian Edwards, EVP MC, Asia Pacific and NW Europe ***	(219)	-	-	(219)
Mike Ball, EVP Data Processing	(238)	(40)	(14)	(292)
Neil Hodgson, EVP Geoscience ***	(234)	(35)	(14)	(283)
Karyna Rodriguez - Director Geoscience ***	(159)	(1)	(9)	(169)
Total Spectrum Group	(2 843)	(640)	(142)	(3 625)

<sup>\*</sup> Share options expense - no options vested in the year.

Mike Ball retired and left the EXT group 17 July when he was replaced by Mike Mellen.

Mike Mellen was appointed as EVP Seismic Imaging and to the Executive Management team 17 July.

Jørn Christiansen left the EXT group 5 February, full year salary included in table.

Kim Maver left the EXT group 22 September, full year salary included in table.

Graham Mayhew was up to 5 February EVP MC, Africa has since been EVP MC, Africa and Mediterranean and Middle East

Ian Edwards was appointed to the Executive Management team 5 February and has since 22 September been EVP MC, Asia Pacific and NW Europe.

Neil Hodgson was up to 5 February EVP MC, Mediterranean and Middle East has since been EVP Geoscience

Karyna Rodriguez left the EXT group 5 February, full year salary included in table.

<sup>\*\*2017</sup> Executive Management Team

<sup>\*\*\*2016</sup> Executive Management Team

All tables in USD 1 000 All tables in USD 1 000

#### Director / committee fees

Spectru	ım ASA		Spectru	m Group
2016	2017		2016	2017
		Directors fee		
(54)	(54)	Directors fee for Chairman	(54)	(54)
(143)	(176)	Directors fee for all other Board members	(143)	(176)
		Audit committee fee		
(18)	(18)	Fee for Chairman	(18)	(18)
(24)	(24)	Fee for all other committee members	(24)	(24)
		Remuneration committee fee		
(5)	(5)	Fee for all committee members	(5)	(5)
		Nomination committee fee		
(5)	(5)	Fee for Chairman	(5)	(5)
(7)	(7)	Fee for all other committee members	(7)	(7)
(256)	(291)	Total	(256)	(291)

#### **Termination Benefits**

In case of termination by Spectrum, the CEO and President is entitled to a severance payment equal to one and a half years base salary from a six month notice period which would commence on the first day of the month following the issue of termination notice.

In case of termination by the CEO and President, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period providing that the CEO and President has been employed by Spectrum for at least five years. If the CEO and President terminates his employment before this five year period no severance payment will be made.

In case of termination by Spectrum or the CFO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period

In case of termination by Spectrum or the COO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above

No other in the Executive Management Team have other termination benefits, other than ordinary benefits within employment region.

Spectrum ASA is required to have an occupational pension scheme for their employees in Norway under the Act on Mandatory occupational pensions.

Spectrum Ltd and Spectrum Inc make payments for eligible employees to defined contribution pension plans. Employees become eligible after an initial probationary period of employment.

# Note 5 Share Based Payments

The Board of Spectrum approved a stock option program for senior executives in the Group rolling basis over the 20 days VWAP per share in 2010. Under this program, up to 10 million prior to the relevant vesting date. Upon a 30% options may be awarded by the Board. The program was extended from 6 million to 8 million in tions granted pre 2014 and upon a 25% and The fair value of the share options is estimated EGM on 13 November 2012, and from 8 million 50% appreciation in the share price for options at the grant date using a Monte Carlo pricing to 10 million in GM on 23 May 2014.

shares in Spectrum ASA in the 20 trading days prior to the date of each agreement. For each participant, the share options vest in tranches 
Participants are permitted to accumulate the year 3 and 40% in year 4.

from the above in relation to senior executives. Directors.

tion in Spectrum's share price relative to the scheme or if the participant resigns or if their

The exercise price of the options is equal to the pant must be employed from the allotment date Volume-weighted average price (VWAP) for through to the date of the close of the relevant exercise window.

of 15% in the first year, 20% in year 2, 25% in options until the final option expiry date. This is regardless of whether the applicable share price appreciation vesting condition threshold 
The expenses booked by the Group in relation The Board of Directors may decide that the an- has been met or exceeded at the vesting date nual vesting date and the proportion of the options which vest at each vesting date, deviate ipant does not notify the Company in writing of their intention to accumulate any options that Exercise of options shall take place minimum have vested by the close of the exercise window two times per year as decided by the Board of for that tranche of options, the options will automatically expire. Any remaining un-exercised options will also automatically expire on Partial or full vesting is subject to the appreciathe closure of the last exercise window for the

employment is terminated except when this is due to the participant's death, disability or permanent injury.

granted in 2014 or later, 50% or 100% of the model, taking into account the terms and condishare options will vest respectively. The particitions upon which the share options were grant-

> The contractual term of each option granted is 4.5 years. The Board may decide at its sole discretion (at the request of the participant or otherwise) to settle any options in cash on exercise.

> to the stock option program were recorded as a salary cost and against equity in 2016 and 2017. In addition the Group has provided for employer's insurance contributions.

#### Movements in the year

Exercisable at 31 December	3 085 375	14.21	2 830 500	19,14
Outstanding at 31 December	5 473 000	23,21	4 703 000	25,73
Cancelled during the year	-	-	(20 000)	20,71
Exercised during the year	-	-	(1 000 000)	12,72
Forfeited during the year	(305 000)	29,49	-	-
Granted during the year	-	-	250 000	34,75
Outstanding at 1 January	5 778 000	23,35	5 473 000	23,21
	No.	WAEP, NOK	NO.	WAEP, NOK
			No.	
	2016	2016	2017	2017

The weighted average remaining contractual life for the share options outstanding as at 31 December 2017 was 0.86 years (2016: 1.50 years).

The weighted average fair value of options granted during the year was NOK 13.15 (2016: NA)

The following table shows the price range at which each tranche of options outstanding at 31 December could be exercised:

NOTES TO ACCOUNTS NOTES TO ACCOUNTS

	2016	2017
	No.	No.
Exercise price		
NOK 0.00 - 10.00	1 950 000	1 335 000
NOK 10.00 - 12.50	455 000	305 000
NOK 12.50 - 15.00	-	-
NOK 15.00 - 20.00	115 500	30 500
NOK 20.00 - 30.00	690 000	520 000
NOK 30.00 - 40.00	2 130 000	2 380 000
>40.00	132 500	132 500
	5 473 000	4 703 000

The Monte Carlo model is used to calculate the fair value of the options, used in the financial statements. The calculated fair values incorporate expected exercise pattern and thus the expected vesting/exercise date, i.e. the probability of vesting. All performance conditions are

included in the fair value. The assets drift, expected volatility and share price will affect the fair value in addition to the exercise pattern.

The expected life of the share options is based on current expectations and is not necessarily

indicative of exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may also not necessarily be the actual outcome.

# Note 6 Other operating expenses

Spectrum	ASA		Spectrum	Group
2016	2017		2016	2017
(225)	(355)	Consulting	(1 060)	(918)
-	-	Taxes *	(1 489)	(1 745)
(273)	(283)	Travel expenses	(1 498)	(1 581)
(253)	(198)	Property	(2 761)	(2 826)
(1 287)	(473)	Professional fees	(2 204)	(2 314)
(7)	(11)	Marketing	(696)	(879)
(2)	(9)	Repairs & maintenance	(318)	(184)
-	-	Gain / (Loss) on receivables	(418)	(550)
(328)	(305)	Other **	(1 589)	(1 455)
(2 375)	(1 632)		(12 033)	(12 453)

<sup>\*</sup> Taxes consists of Brazilian transaction taxes required to be reported as operating expenses under IFRS.

<sup>\*\*</sup> Other includes training & recruitment, insurance, subscriptions, consumables and communication.



#### Auditor's remuneration (exclusive of VAT)

Spectrun	n ASA		Spectrum G	roup
2016	2017		2016	2017
(100)	(114)	Statutory audit	(207)	(261)
(15)	(9)	Other attestation services	(19)	(9)
(67)	(77)	Tax services	(135)	(190)
(182)	(200)	Total	(361)	(460)

# Note 7 Income Taxes

Spectrum ASA			Spectrum Group		
2016	2017		2016	2017	
-	-	Tax payable *	(3)	(171)	
(147)	-	Adjustments in respect to previous years	(366)	(1 492)	
(7)	1 724	Changes in temporary differences	3 217	19	
-	(177)	Utilised withholding tax	(638)	(6 705)	
(154)	1 548	Current tax charge	2 210	(8 350)	
		Analysis of tax expense:			
181	(13 006)	Profit before tax	(22 493)	(18 493)	
181	(13 006)	Profit before tax	(22 493)	(18 493)	
(45)	3 122	At statutory income tax rate 24% (2016: 25%)	5 623	4 438	
-	-	At income tax rates outside Norway different from 24% (2016: 25%)	1 056	2 352	
(11)	(36)	Non-deductible expenses	(57)	(60)	
(98)	(48)	Translation differences	(78)	565	
-	(1 406)	Write down investments in subsidiaries	-	_	
-	-	Income/loss from joint venture	-	_	
-	15	Foreign taxes	(88)	15	
_	(177)	Deferred withholding tax	-	(1 903)	
-	-	Changes of unrecognised tax losses	(4 245)	(9 093)	
_	77	Changes of applied tax rate	-	(347)	
_	-	Provisions not taxable	_	(4 318)	
(154)	1 547	Income tax expense reported in the consolidated income statement	2 210	(8 350)	
85,2%	11,9%	Effective tax rate in %	9,8%	(45,2%)	
00,270	11,070	Eliosato tax tato in 70	0,070	(10,270)	
		Tax effect of temporary differences			
203	157	Fixed assets	(5 088)	(3 156)	
140	129	Other short term receivables	136	185	
(688)	(391)	Other long term items	315	244	
(000)	(091)	Other short term liabilities	179		
14	-	Effects of changes in tax rates	14	(551)	
	(104)			(2.077)	
(332)	(104)	Total temporary differences	(4 444)	(3 277)	
394	1 893	Tax losses carried forward	10 293	8 345	
-	-	Deferred tax assets not recognised	(6 370)	(5 690)	
63	1 789	Net deferred tax assets/(liabilities)	(522)	(622)	
		Balance sheet deferred tax assets / (liability)			
-	-	Deferred tax liability	(6 607)	(5 123)	
63	1 789	Deferred tax assets **	6 084	4 501	
-	465	Other receivables - withholding taxes ***	9 345	3 621	

			Spectru	m Group	
Additional information of tax losses carried forward and deferred tax assets recognised ****		Tax losses ca	rried forward	Deferred tax ass	ets recognised
		2016	2017	2016	2017
Spectrum ASA	Tax rate 23% (2016: 24%)	1 642	7 703	394	1 772
Spectrum Geo AS	Tax rate 23% (2016: 24%)	663	-	159	-
Carmot Seismic AS	Tax rate 23% (2016: 24%)	-	289	-	66
Spectrum Geo Ltd	Tax rate 17% (2016: 18%)	18 963	4 807	3 369	817
Spectrum Geo Pty Ltd	Tax rate 30% (2016: 30%)	5 179	3 636	-	-
Spectrum Geo GmbH	Tax rate 12% (2016: 12%)	39 250	38 322	-	-
Spectrum Geo Pte Ltd	Tax rate 17% (2016: 17%)	629	-	-	-
Total		66 326	54 757	3 922	2 655

<sup>\*</sup> Tax payable for the year is USD 0.2 million (2016: USD 0.0 million). Tax and other public duties payable in the statements of financial position is USD 2.4 million (2016: USD 0.6 million). This includes corporate tax of USD 0.2 million (2016: USD 0.0 million), and taxes on financial transactions, VAT and social security taxes of USD 2.2 million (2016: USD 0.6 million).

# Note 8 Financial Items

#### Finance income

Spectru	ım ASA		Spectrum Group	
2016	2017		2016	2017
-	47	Bank Interest Income	41	62
4 716	6 095	Interest to group companies	-	-
25	-	Other	75	109
4 741	6 142	Total	116	171

#### Finance expense

Spectru	m ASA		Spectrum (	Group
2016	2017		2016	2017
(8)	(54)	Bank charges	(65)	(71)
(379)	(647)	Net foreign exchange gain/(loss)	(6)	(762)
-	-	Finance lease interest	(114)	(30)
(1 979)	(1 565)	Loan interest	(2 278)	(1 565)
(706)	(1 793)	Interest to group companies	-	-
(1 099)	(181)	Other *	(1 099)	(201)
(4 170)	(4 239)	Total	(3 561)	(2 628)

<sup>\*</sup> Includes bank guarantee fees, waiver fees and amortisation of establisment fee for loan facilities

69 70

<sup>\*\*</sup> Deferred tax assets are recognised when it is probable and sufficiently documented that the company will have a profit in the future to utilise the tax asset.

<sup>\*\*\*</sup> USD 2.8 million relates to transactions between Spectrum Geo Inc and Spectrum Geo do Brasil Servicos Geofisicos LTDA.

<sup>\*\*\*\*</sup> The Company has operations that are subject to taxation in different countries, and losses in one subsidiary in one country cannot be offset against a gain in a subsidiary in another country.

# Note 9 non-current intangible and tangible assets (fixed assets)

Sp	ectrum ASA				Spectrum	Group	
		Fixtures,					Fixtures,
		fittings					fittings
Multi-Client		and office			Multi-Client		and office
library	Software	equipment		Goodwill	library	Software	equipment
28 730	50	3	Net carrying amount 1 January 2016	14 824	220 686	1 252	2 182
20 097	-	-	External capitalisation of expenses	-	40 716	218	708
2 110	-	-	Internal capitalisation of expenses	-	9 955	-	-
(11 617)	-	-	Amortisation	-	(67 391)	-	-
-	(37)	(3)	Depreciation	-	-	(806)	(1 263)
(1 585)	-	-	Impairment	(1 621)	(11 246)	-	-
37 736	13	-	Net carrying amount 31 December 2016	13 203	192 721	663	1 627
(183)	-	-	External capitalisation of expenses	-	72 369	193	776
2 029	-	-	Internal capitalisation of expenses	-	9 990	-	-
-	-	-	Disposals	-	-	-	(18)
(6 809)	-	-	Amortisation	-	(81 714)	-	-
-	(13)	-	Depreciation	-	-	(628)	(789)
(9 760)	-	-	Impairment	(1 640)	(23 958)	-	-
23 013	-	-	Net carrying amount 31 December 2017	11 563	169 408	228	1 596
Up to 5	3 - 5	3 - 5	Useful Life		Up to 5	3 - 5	3 - 5
years	years	years			years	years	years

#### Tangible non-current assets

As at 31 December Spectrum had fully depreciated a number of tangible assets that were still in use. The Gross cost of these assets were as follows:

Spectrum ASA			Spectrum Group	
2016	2017		2016	2017
-	-	Fixtures, fittings & equipment	5 430	7 754
	-	Software	5 856	7 185
-	-		11 286	14 939

#### Intangible non-current assets

#### Goodwill

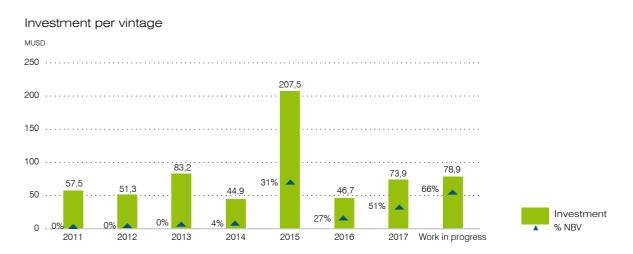
Business combinations are accounted for using the acquisition method. This involves the recognition of identifiable assets (including intangible assets that have not previously been recognised), and liabilities (including contingent liabilities but excluding provisions for future restructuring) of the purchased business at fair value. Goodwill acquired in business combinations is initially measured at cost, being the excess purchase price paid over the acquired interest in the fair value of the separable identifiable assets, liabilities and contingent liabilities of the acquire.

#### **Multi-Client library**

The Multi-Client library consists of geophysical and geological datasets that are both complete and in-progress. These datasets are licensed on a non-exclusive basis to oil and gas exploration and production companies. During the work in progress phase amortisation is calculated based on total cost versus forecasted total revenues of the project. This ratio is applied to the revenue recognized for the survey. After a project is completed, a straight-line amortisation is applied.

As at 31 December Spectrum had fully depreciated a number of Multi-Client surveys that were still available for sale in the market. The gross cost of these assets were as follows:





#### Additions

Carrying value of investments by operating segment is not included in management reporting and is therefore not disclosed separately in these accounts. Interest cost that can be directly allocated to additions to the Multi-Client library has been capitalised. For 2017 the capitalised interest cost is USD 0.0 million (2016: USD 0.2 million).

All tangible assets in the Group are part of the support functions, and all additions to tangible assets has as such not been allocated to the operating segments.

#### Impairment testing

Impairment testing is performed on the individual cash generating units (CGU). The net-book value of intangible assets is tested annually for impairment based on figures as of 31 December, or more frequently if there are indications that assets might be impaired. Spectrum is highly dependent on the E&P spending of the oil companies, which is highly dependent on the oil price. The past years the E&P spending has been significantly reduced.

71 | 7:

The focus of the E&P spending of the oil companies has also shifted in the past years, reducing the near-term potential of some of Spectrum's surveys. This is an impairment indicator for those specific surveys, even if the marine seismic market is expected to be flat in 2018 compared to 2017 or with a moderate increase. Spectrum has performed a full impairment analysis based on 31 December figures for all Multi-Client surveys in Spectrum's library for 2017.

A CGU should be impaired if the carrying amount is higher than the recoverable amount. The recoverable amount is the higher amount of the fair value and the value in use of a CGU. Spectrum performs impairment testing based on value in use, as a market price for the asset doesn't exist and as such the fair value is difficult to determine. The value in use calculations prepared for the CGU used cash flow projections from financial budgets approved by the Board of Directors covering a period of 3 years (2016: 3 years). The cash flows for the CGU was discounted at an average pre-tax WACC of 9.3% (2016: 9.9%), the WACC varies between the CGU's based on the geographical risks in the regions. The discount rate is based on a risk free rate of 1.88% (2016: 1.19%) and Spectrum's peers average equity ratio of 1.07 (2016: 1.08).

The impairment testing was performed for goodwill and the Multi-Client library.

#### Multi-Client library

All individual Multi-Client library balances held by the Group were subject to an internal impairment test as at 31 December 2017, using an average WACC of 9.3% (2016: 9.9%), the WACC varies between the CGU's based on the geographical risks in the regions. This discount rate is based on a risk free rate of 1.88% (2016: 1.19%) and Spectrum's peers average equity ratio of 1.07 (2016: 1.08).

Spectrum believes that the Multi-Client library is well positioned for upcoming license rounds, and approx. 99% of the book value of the library relates to on-going investments or to investments made in 2015 - 2017. Based on an overall level the value in use of the library is over the carrying amount of the library, and there is no need for impairment. However, an impairment analysis is performed on each individual survey. Some of the individual surveys are considered to have higher risk in the cash flow projections due to uncertainty regarding licence rounds, competition, political risk etc. All such risks are factored into the cash flow projections applied in the impairment analysis. An assessment was performed on the surveys with value in use close to book value, with regards to risk and competition, and a total impairment of USD 24.0 million was recognized (2016: USD 11.2 million). The impairment includes surveys from all Spectrum Multi-Client regions, see note 2.

With regard to the assessment of value-in-use of the individual Multi-Client surveys, a sensitivity analysis was performed. The key assumption in the fore-casted cash flow per survey is the estimated sales, and the sensitivity analysis was performed by changing the estimated sales.

- \* 10% reduction in all sales compared to the forecast would lead to an increased impairment of 2% of the net book value of the Multi-Client library.
- \* 20% reduction in all sales compared to the forecast would lead to an increased impairment of 4% of the net book value of the Multi-Client library.
- \* 30% reduction in all sales compared to the forecast would lead to an increased impairment of 8% of the net book value of the Multi-Client library.
- \* As the cash flow projections only covers a period of 3 years any changes to the WACC will have limited impact on the net book value of the Multi-Client library, and an increase in WACC to 15% would lead to an increased impairment of 1% of the net book value of the Multi-Client library.

#### Goodwill

As of 31 December 2017 the balance of goodwill amounting to USD 11.6 million (2016: 13.2 million) was allocated to the Multi-Client CGU. The cash flows were discounted using an average WACC of 9.3% (2016: 9.9%). Cash flows for a three year period for the Multi-Client CGU were covered by forecasts, with assumptions applied to amortisation and operating costs. An assumed group tax rate of 30% was applied.

The carrying value of the Multi-Client CGU was found to be lower than its recoverable amount and no impairment of the goodwill was required based on the analysis.

With regard to the assessment of value-in-use of the Multi-Client CGU, a sensitivity analysis was performed, and management believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount of the unit to materially fall below its carrying value.

Some of the goodwill recorded to the Multi-Client CGU is considered technical goodwill which is recorded based on deferred tax on excess values in business combinations. At the time when the deferred tax is offset in the group accounts the goodwill should be impaired, and an impairement of goodwill of USD 1.6 million was recognized in 2017 (2016: USD 1.6 million). After the impairment recognized in 2017 there is no remaining goodwill balance related to technical goodwill based on deferred tax on excess values in business combinations.

# Note 10 Work in progress and receivables

#### Accounts receivable

Spectru	um ASA	Spe	ctrum Group
2016	2017	201	6 2017
5 109	6 605	Not Due 18 99	42 317
2 641	-	0 - 30 days 3 86	1 -
-	-	30-60 days 4 54	4 165
-	-	60-90 days 29	4 -
359	282	> 90 days 1 19	955
8 109	6 887	Total 28 88	2 43 437

Accounts receivable are stated at net realisable value which management consider to be a close approximation to fair value given the short maturity period for these balances

Accounts receivable are non-interest bearing and are generally on 30 – 60 day terms.

#### **Provisions**

Spectrum ASA			Spectrur	n Group
2016	2017		2016	2017
(561)	(561)	Provisions for loss on accounts receivable	(561)	(561)

#### Work in progress and other receivables

Spectru	um ASA		Spectrur	n Group
2016	2017		2016	2017
2 215	-	Work in progress *	17 516	13 016
2 332	1 999	Prepayments	2 993	5 416
49	1 230	VAT and other taxes recoverable	14 459	16 440
370	-	Other	811	19
4 966	3 229	Total	35 779	34 891

<sup>&</sup>quot;\* Includes transfer fees, see note 1 section "Significant accounting judgement, estimates and assumptions" and note 3.

# Note 11 Cash and cash equivalents

Cash and cash equivalents are on demand bank deposits. As at 31 December 2017 Spectrum ASA has USD 0.0 million restricted cash deposits (2016: USD 0.9 million) and the Spectrum Group has USD 0.0 million restricted deposits (2016: USD 0.9 million).

#### Bank and bank deposit in currency

As of 31 December 2017 bank deposits of USD 14.2 million (2016: USD 15.8 million) are mainly in USD 93% (2016: 96%), BRL 2% (2016: 0%) and in other currencies such as NOK, GBP, EUR, CHF AUD and SGD total 5% (2016: 4%).

The parent company, Spectrum ASA, has as of 31 December 2017 bank deposits of USD 10.3 million (2016: USD 10.4 million), of which 95% (2016: 99%) are in USD and 5% are in other currencies such as NOK, GBP and EUR (2015: 1%).

The Spectrum Group has a joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the companies participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS. The net Cash Pool balance is included in ASA's statement of financial position.

# Note 12 Share capital and shareholder information

The Company's registered share capital is NOK 54,449,103 divided into 54,449,103 shares, each at a nominal value of NOK 1. The share capital is fully paid, and all shares have the same rights.

The Board recommends to the Annual General Meeting a dividend of NOK 0.5 per share for 2017. As proposed for 2016 no dividends were distributed in 2017.

	Number of Shares	USD 1000
In issue as at 1 January 2016	53 449 103	8 826
No shares issued in 2016	-	-
In issue as at 31 December 2016	53 449 103	8 826
Issued 10 March by exercise of options	1 000 000	120
In issue as at 31 December 2017	54 449 103	8 945

#### 20 largest shareholders and ownership interest as at 31 December 2017

Name	Location	Shares	% of Shares
ALTOR INVEST 1 AS	NOR	8 000 232	14,69 %
ALTOR INVEST 2 AS	NOR	8 000 232	14,69 %
SKANDINAVISKA ENSKILDA BANKEN S.A.	LUX	3 178 484	5,84 %
GROSS MANAGEMENT AS	NOR	2 493 995	4,58 %
JPMORGAN CHASE BANK, N.A., LONDON	GBR	2 081 856	3,82 %
SOCIETE GENERALE	BEL	1 954 656	3,59 %
SWEDBANK ROBUR SMABOLAGSFOND	GBR	1 898 964	3,49 %
VERDIPAPIRFONDET PARETO INVESTMENT	NOR	1 898 000	3,49 %
FOLKETRYGDFONDET	NOR	1 858 454	3,41 %
SKANDINAVISKA ENSKILDA BANKEN AB	SWE	1 617 245	2,97 %
HOLBERG NORGE	NOR	1 569 826	2,88 %
CITIBANK, N.A.	GBR	1 458 427	2,68 %
HOLBERG NORDEN	NOR	1 251 047	2,30 %
THE BANK OF NEW YORK MELLON SA/NV	BEL	1 226 207	2,25 %
CATELLA HEDGEFOND	SWE	921 814	1,69 %
CREDIT SUISSE SECURITIES (EUROPE)	GBR	869 816	1,60 %
FIDELITY SELECT PORTFOLIOS: ENERGY	USA	830 520	1,53 %
INVESCO PERP EURAN SMLER COMPS FD	BEL	803 082	1,47 %
VPF NORDEA NORGE VERDI	NOR	767 908	1,41 %
CLEARSTREAM BANKING S.A.	LUX	757 660	1,39 %
		43 438 425	79,78 %

Spectrum owned no treasury shares at 31 December 2017 or at 31 December 2016.

#### Shares owned by the Spectrum Board of Directors and management or in which they had an interest at 31 December 2017

Name	Shares	% of Shares	Country	Note
Pål Stampe (Chairman)	-	0,00 %	NOR	а
Glen Rødland	2 493 995	4,58 %	NOR	b
Ingrid Elvira Leisner	-	0,00 %	NOR	
Maria Tallaksen	-	0,00 %	NOR	а
Jogeir Romestrand	41 377	0,08 %	NOR	С
Rune Eng (CEO)	131 694	0,24 %	NOR	
Henning Olset (CFO)	8 000	0,01 %	NOR	
Jan Schoolmeesters (COO)	34 461	0,06 %	NOR	
Svein O. Staalen	7 333	0,01 %	NOR	
Neil Hodgson	-	0,00 %	GBR	
Richie Miller	219 505	0,40 %	USA	
Graham Mayhew	4 000	0,01 %	GBR	
lan Edwards	-	0,00 %	GBR	
Mike Mellen	5 000	0,01 %	USA	

#### Notes

- a) Mr. Stampe and Ms. Tallaksen have limited ownership through Altor Fund IV, which is the wholly owner of Altor Invest 1 AS and Altor Invest 2 AS.
- b) Shares held by Gross Managment AS, wholly owned by Mr. Rødland.
- c) Shares held by Rome AS, wholly owned by Mr. Romestrand

# NOTE 13 Mortgages

#### Bank facilities with Danske Bank

#### Revolving credit facility

As of 31 December 2017 Spectrum ASA had a fully utilised credit facility of USD 23.1 million. The RCF was renewed 29 March 2017, and will expire June 2019. The RCF is considered a long term liability in the financial statements. In the financial statements for 2016 the RCF was classified as short term interest bearing debt as the agreement had not been extended as of 31 December 2016.

The covenants as of 31 December 2017

- Equity ratio (excl. Goodwill) > 40.0%
- NIBD / 12 months EBITDA less MC Capex (excl. Fugro acquisition) < 1.5

All covenants were well covered as of 31 December 2017.

#### Overdraft facility

In Q4 2017 Spectrum secured a new overdraft facility of up to USD 5 million. As of 31 December 2017 Spectrum had utilized USD 2 million of the overdraft facility. The facility is classified as short term interest bearing debt in the financial statements

Term loan facility

Through 2017 the remaining balance of USD 20 millions as of 31 December 2016 was repaid, and the balance as of 31 December 2017 was 0.

See note 3, 17 and 18 for further details.

# Note 14 Earnings per share

Basic earnings per share is calculated by dividing the profit or loss for the year attributable to equity holders of the Company by the weighted average number of shares outstanding during the period of trading.

Diluted earnings per share is calculated by dividing the net profit attributable to equity holders of the company by the weighted average number of shares outstanding during the year adding the weighted average number of shares that would be issued on conversion of all the dilutive instruments into shares.

	Spectrum Group	
	2016	2017
Profit attributed to ordinary equity holders of the Company (USD 1 000)	(20 283)	(26 843)
Weighted average number of shares	53 449 103	54 260 062
Effect of dilutions:		
Share options	5 473 000	4 819 685
Convertible bonds	-	-
Weighted average numbers of ordinary shares adjusted for the effect of dilution	58 922 103	59 079 747
Earnings per share (USD)	(0,38)	(0,49)
Fully diluted earnings per share (USD)	(0,38)	(0,49)

There has been no other transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of these financial statements

# **NOTE 15 Commitments**

Spectrum has the following non-cancellable lease commitments for premisis and equipment.

Spectru	ım ASA		Spectrui	n Group
2016	2017		2016	2017
142	145	in less than one year	1 978	1 959
166	24	in more than one year and less than five years	4 620	5 337
-	-	in more than five years	2 516	1 721

#### Rent

Rent mainly relates to rent of premises in countries where Spectrum has operations. The total annual rent for all premises was USD 1.9 million in 2017 (2016: USD 1.9 million).

The future obligations related to payments for premsies are included in the table above.

# NOTE 16 Related parties

The Spectrum Group consider all group companies, management and Board members as related parties. See note 4 for remuneration to management and note 12 for shareholders information.

No further material transactions took place during 2017 with related parties other than those described below. All transactions with associates were unsecured and at an arms-length basis.

	Spectrum ASA 2017					
					Long-term	Short-term
			Interest	Interest	amounts owed	amounts owed
	Sales to	Costs from	charges to	charges from	by (owed to)	by (owed to)
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries
Spectrum Geo Ltd	1 520	(3 234)	-	(1 014)	-	(30 536)*
Spectrum Geo Inc	7 183	(1 313)	1 285	-	-	36 471
Spectrum Geo Pty Ltd	-	(11)	1 904	-	-	53 072
Spectrum Geo Pte Ltd	-	-	10	-	-	(283)
Spectrum Geo do Brasil	491	-	2 399	-	17 220	4 773
Spectrum Geo AS	315	-	12	(297)	-	(13 703)*
Spectrum Geo GmbH	23	-	-	(150)	-	(4 228)
Spectrum Geo Australia Pty Ltd	298	-	-	(332)	-	(16 818)
Spectrum Geo S.A. de C.V.	1	-	274	-	-	(8 171)
Carmot Seismic AS	264	-	212	-	-	1 835
Carmot Processing AS	-	-	-	-	-	(4)
Capitalised group expenses	-	2 029	-	-	-	-
Total	10 095	(2 529)	6 095	(1 793)	17 220	22 409

	Spectrum ASA 2016					
					Long-term	Short-term
			Interest	Interest	amounts owed	amounts owed
	Sales to	Costs from	charges to	charges from	by (owed to)	by (owed to)
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries
Spectrum Geo Ltd	226	(4 676)	-	(390)	-	(20 417)*
Spectrum Geo Inc	108	(909)	888	-	-	32 054
Spectrum Geo Pty Ltd	56	(32)	1 411	-	-	50 316
Spectrum Geo Pte Ltd	-	(39)	46	-	-	615
Spectrum Geo do Brasil	360	-	2 061	-	19 420	3 336
Spectrum Geo AS	1 405	-	248	-	-	1 360*
Spectrum Geo GmbH	16	-	-	(81)	-	(3 134)
Spectrum Geo Australia Pty Ltd	469	-	-	(113)	-	(8 875)
Spectrum Geo S.A. de C.V.	177	-	27	-	-	4 361
Carmot Seismic AS	-	-	36	(123)	-	8 172
Carmot Processing AS	-	-	-	-	-	(4)
Capitalised group expenses	-	2 110	-	-	-	-
Total	2 818	(3 545)	4 716	(706)	19 420	67 784

<sup>\*</sup> Joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the company participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS. The net Cash Pool balance is included in Spectrum ASA's statement of financial position.

In Spectrum ASA costs from subsidiaries are mainly data processing done in Spectrum Geo Ltd and Spectrum Geo Inc for the Multi-Client library owned by Spectrum ASA, and commissions for sales of Multi-Client data from the library owned by Spectrum ASA. Sales to subsidiaries are mainly commissions for sales of Multi-Client data from libraries owned by Spectrum ASA, and management fees charged for services provided.

Spectrum ASA		m ASA		Spectrur	trum Group	
20	16	2017		2016	2017	
			Transactions with joint ventures			
			Spectrum Geopex			
	-	-	Sales to	153	189	
	-	-	Sales from	1 504	1 031	
-	-	-	Amounts owed	(215)	(313)	

# NOTE 17 Long term liabilities

#### Long term interest bearing debt

Spectrum ASA			Spectrui	m Group
2016	2017		2016	2017
-	23 100	Revolving credit facility *	-	23 100
-	-	Long term leasing liabilities	200	338
-	23 100	Total	200	23 438

<sup>\*</sup> See note 13.

#### Finance leases

Spectrur	m ASA		Spectrur	m Group
2016	2017		2016	2017
		ANALYSIS OF PRESENT VALUE PAYMENTS:		
-	-	In less than one year	494	376
-	-	In more than one and less than five years	200	338
-	-	In more than five years	-	-
- 1	-	Present value of payments	694	714
		CARRYING VALUE OF LEASED ASSETS:		
-	-	Machinery & equipment	439	835
	-	Software	739	76
-	-	Fixtures, fittings and office equipment	4	-
-	-	Total	1 182	911

Financial leasing commitments due in less than one year are classified as short term interest bearing debt, see note 18. The leasing commitments is related to leasing of equipment and software in the subsidiary Spectrum Geo Ltd. See note 8 for finance lease expense.

#### Other long term liabilities

Other long term liabilities consists of operating liabilities with no contractual obligation to settle within the next 12 months.

All tables in USD 1 000

### Changes in liabilities arising from financing activities 2017

Spectrum ASA								
					Foreign			31
		Reclas-	Accrued		exchange	New	New	December
	2017	sifications	interest	Payments	movement	leases	loan	2017
Long term interest bearing debt	-	22 556		-	544	-	-	23 100
Short term interest bearing debt	42 556	(22 556)	1 565	(21 565)	-	-	2 026	2 026
Total liabilities from	42 556	-	1 565	(21 565)	544	-	2 026	25 126
financing activities								

							Spectr	um Group
					Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2017	sifications	interest	Payments	movement	leases	loan	2017
Long term interest bearing debt	-	22 556		-	544	-	-	23 100
Short term interest bearing debt	42 556	(22 556)	1 565	(21 565)	-	-	2 026	2 026
Long term leasing liabilities	200	(271)		-	26	383	-	338
Short term leasing liabilities	494	271		(518)	32	96	-	375
Total liabilities from	43 250	-	1 565	(22 083)	602	479	2 026	25 839
financing activities								

### Changes in liabilities arising from financing activities 2016

Spectrum ASA								
					Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2016	sifications	interest	Payments	movement	leases	loan	2016
Long term interest bearing debt	11 352	(11 352)		-	-	-	-	-
Short term interest bearing debt	45 851	11 352	1 979	(17 069)	443	-	-	42 556
Total liabilities from	57 203	-	1 979	(17 069)	443	-	-	42 556
financing activities								

							Spectri	um Group
					Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2016	sifications	interest	Payments	movement	leases	loan	2016
Long term interest bearing debt	11 352	(11 352)		-	-	-	-	-
Short term interest bearing debt	45 851	11 352	2 278	(17 368)	443	-	-	42 556
Long term leasing liabilities	384	(384)			(152)	352		200
Short term leasing liabilities	1 018	384		(897)	(209)	198		494
Total liabilities from	58 605	-	2 278	(18 265)	81	550	-	43 249
financing activities								

### NOTE 18 Short term liabilities

### Short term interest bearing debt

Spectru	um ASA		Spectrur	n Group	
2016	2017		2016	2017	
20 000	-	Term loan facility *	20 000	-	
22 556	-	Revolving credit facility *	22 556	-	
	2 026	Overdraft facility		2 026	
-	-	Leasing liabilities	494	376	
42 556	2 026	Total	43 050	2 402	

<sup>\*</sup> See note 13. The RCF was renewed 29 March 2017, and expires June 2019. The RCF was classified as short term interest bearing debt for 2016, but is classified as long term interest bearing debt for 2017, see note 17.

### Other short term liabilities

Spectru	ım ASA		Spectrun	n Group
2016	2017		2016	2017
1 463	103	Deferred income	15 233	892
23 578	433	Accrued expenses	2 749	33 761
1 193	1 414	Revenue share	2 812	10 114
250	292	Other	556	2 015
26 484	2 242	Total	21 350	46 782

Operating liabilities with no contractual obligation to settle within the next 12 months have been classified as other long term liabilities, see note 17.

81 NOTES TO ACCOUNTS 82

# NOTE 19 Subsidiaries and joint ventures

Spectrum ASA is the ultimate parent company of all Spectrum Group subsidiaries. Shares in subsidiaries are presented at cost less impairment. Impairment is recognized based upon the carrying value of the individual shares and net intercompany receivables in the subsidiaries less the estimated recoverable amount. An impairment of USD 6.3 million has been recognized in 2017 (2016: USD 0.0 million).

Company and country of incorporation	Parent Company	Relation and shareholding
Spectrum Geo Ltd (UK)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Inc (USA)	Spectrum Geo Ltd	Subsidiary - 100%
Spectrum Geo Pte Ltd (Singapore)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo do Brasil Servicos Geofisicos LTDA (Brazil)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Pty Ltd (Australia)	Spectrum ASA	Subsidiary - 100%
Spectrum Pty Ltd (Australia)	Spectrum Geo Pty Ltd	Subsidiary - 100%
Spectrum Geo GmbH (Switzerland)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo S.A. de C.V. (Mexico)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Panama LLC (Panama)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Seismic AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Processing AS (Norway)*	Spectrum ASA	Subsidiary - 100%
Spectrum-Geopex Egypt Ltd (Egypt)	N/A	Joint venture - 50%
Geo Bridge Pte Ltd (Singapore)*	N/A	Joint venture - 50%

<sup>\*</sup> The company is dormant

#### Joint ventures:

Spectrum holds a 50% interest in Spectrum-Geopex Egypt Ltd and the Group's share of the result is shown under result from joints ventures in the statement of comprehensive income.

	Spectrum-Ge	eopex Egypt
	2016	2017
Share of the joint venture's statement of financial position		
Current assets	727	348
Non-current assets	15	31
Current liabilities	(397)	(130)
Equity	345	249
Share of the joint venture's revenue and profit		
Revenue	825	706
Other expenses	(693)	(788)
Share of Profit / (loss) of Joint Ventures	132	(82)

#### Joint operation

Spectrum has several Multi-Client projects in partnership with other parties as joint operations. A joint operation is an arrangement where Spectrum with joint control has rights to the assets and obligations for liabilities of the arrangement. Proportionate share of each of the assets, liabilities, income and expenses of the joint venture is combined with similar items, line by line, in the consolidated financial statements. The partners in the joint operations are vessel providers and other seismic companies.

	Spectrur	n Group
	2016	2017
Share in the joint operations		
Net revenues	20 922	35 305
Amortisation	(22 433)	(32 914)
Impairment	(685)	(13 000)
Net book value of Multi-Client library	94 380	78 581

### NOTE 20 Significant transactions

### 2017

PIS/COFINS tax credit filing in Brazil

Spectrum was in 2016 able to file credits for certain transaction taxes in Brazil (PIS/COFINS). It had previously not been clear how to treat PIS/COFINS on investments, and whether the costs met the set requirements for credits. The estimates for any PIS/COFINS recovery had also been considered to uncertain for recognition. As such Spectrum had treated the taxes as part of the investments. After a change in the legislation and developed practice regarding credits on PIS/COFINS on investments in Brazil, Spectrum was able to file credits for the taxes on the investments from 2012-2016. As the taxes had been included in the investments and to a large degree been amortised, this increase in tax credit was treated as other revenue. A total other revenue of USD 13.1 million was recognized in 2016 based on the tax filings. Starting 1 January 2017 all investments in Brazil are recognized net of PIS/COFINS taxes.

The tax credit is recognized as Other receivables, and classified as current and non-current based on expected utilisation. The credits recognized as current other receivables are expected to be utilised within the next 12 months. However, new credits will arise through the year, and as such the total Brazilian tax credit is not expected to be fully utilised even if the credits recognized in the balance sheet as of 31 December 2017 are utilised. The total Brazilian tax credit also includes tax credits not related to the 2012-2016 filing of credits related to investments. Spectrum has in addition to utilizing the credits to offset tax payments, also been reimbursed for certain credits in 2018 totaling USD 0.7 million. Additional credits are in process for reimbursement.

	Spectrui	m Group
	2016	2017
Non-current other receivables	7 037	6 055
Current other receivables	13 971	11 811
Total Brazilian tax credit	21 008	17 866

NOTES TO ACCOUNTS

All tables in USD 1 000

# NOTE 21 Fair value measurement

Spectrum uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation techniques.

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities

Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly

Level 3: techniques that use inputs that have a significant effect on the recorded fair value that are not based on observable market data

For financial instruments where the carrying amount is a reasonable approximation of fair value (e.g., accounts receivables, other receivables, accounts payables, interest bearing debt and other liabilities), fair value measurements are not included in the below table. The fair value of the interest bearing debt approximate to the book value of the debt due to the recent utilisation of the facilities and the short maturities.

Quanitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2017, total book value.

	Spectrum ASA					Spectrum Group				
						Date of				
Leve	11	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
	-	-	-	-	Long term interest bearing debt Long term leasing liabilities *	31.12.2017	-	-	338	338
					Short term interest bearing debt					
	-	-	-	-	Leasing liabilities *	31.12.2017	-	-	376	376

During the reporting period ending 31 December 2017, there were no transfers between levels

Quanitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2016, total book value.

	Spectro	um ASA			Spectrum Group				
					Date of				
Level 1	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
-	-	-	-	Long term interest bearing debt Long term leasing liabilities *	31.12.2016	-	-	200	200
-	-	-	-	Short term interest bearing debt Leasing liabilities *	31.12.2016	-	-	494	494

During the reporting period ending 31 December 2016, there were no transfers between levels.

\* Valuation technique = DCF method

# NOTE 22 Contingent liabilities and provisions

#### Contingent liabilities

Brazil service tax dispute

Spectrum received in 2016 a tax assessment in Brazil for municipal services tax ("ISS") related to the licensing of Multi-Client data.

Whether licensing of Multi-Client data is to be considered a service and applicable to ISS tax is a controversial questions, and several different cases related to this topic are currently ongoing in the Brazilian administration and court system.

Spectrum has taken a conservative position on the issue, and has reported and paid ISS tax on revenues with certain excemptions.

The total dispute in the assessment received is for BRL 23.5 million (USD 6.7 million). Spectrum disputes the assessment on the basis that ISS is not due on licensing of Multi-Client data, and has also filed a legal action to recover the ISS collected in the past on the licensing of Multi-Client data.

The view that licensing of Mulit-Client data is not to be considered a service has been the outcome in the preliminary rulings made on the matter in Brazil, and is considered to be the most likely outcome. The municipality issued in 2017 an update of the legislation specifying that ISS is due on licensing of Multi-Client data at a reduced rate, which may be considered as an admission that it was not applicable in earlier periods. In combination with the update of the legislation an amnesty program was also available, in which ISS assessments claimed by the municipality could be settled at a discounted rate. Spectrum did not accept the terms of the amnesty, and continues both to dispute the assessment and the legal claim to recover the ISS collected in the past on the licensing of Multi-Client data.

Spectrum considers it more likely than not that this contingency will be resolved in its favor, and no provision is recognized for any portion of the exposure. The ruling, both of the assessment and of the counterclaim, may take several years.

### NOTE 23 Subsequent events

#### **Gabon North 3D commencement**

On 3 January 2018 Spectrum, in collaboration with the Direction Generale des Hydrocarbures (DGH), commenced the next phase of its shallow water 3D Multi-Client seismic acquisition campaign offshore Gabon with a 3D survey in the north of the country. The campaign is focused on acquiring seismic programs in under-explored shallow water open blocks with the objective of offering the most up-to-date 3D imaging of the area. The DGH intends to make these blocks available through future shallow water license rounds so to accelerate exploration; this data will facilitate immediate activity when the blocks are awarded. The survey will cover up to 5,500 sqkm of long offset broadband seismic data will be acquired alongside gravity and magnetic recordings. This follows the 11,400 sqkm Gabon South 3D survey completed in 2017 and complements over 20,000 km of 2D Multi-Client seismic data offshore Gabon also held by Spectrum on behalf of the DGH, which gives a regional overview and highlights key areas of exploration. The new 3D data will be processed with PSTM, PSDM and Broadband products with first deliveries in early Q3 2018 ahead of anticipated licensing rounds. The survey is carried out in partnership with China Oilfield Services (COSL).

NOTES TO ACCOUNTS

## Alternative Performance Measures (APMs)

Alternative performance measures (financial performance measures not within the IFRS framework), are used by the Group to provide supplemental information. Financial APMs are intended to enhance comparability from period to period. The APMs are also used internally for management reporting. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS.

Spectrum's financial APMs:

### EBITDA:

• EBITDA: EBIT + depreciation, amortisation and impairments

	Spectrun	Spectrum Group		
	2016	2017		
EBIT	(19 048)	(16 037)		
Depreciation	2 069	1 418		
Amortisation	67 391	81 714		
Impairment	12 867	25 598		
EBITDA	63 279	92 694		

### **Organic Multi-Client investment:**

Net Multi-Client additions + disposals and sale of assets - library acquisitions

	Spectru	Spectrum Group		
	2016	2017		
Net Multi-Client additions	50 671	82 359		
Sale of assets				
Multi-Client investment	50 671	82 359		
Library acquisitions				
Organic Multi-Client investment	50 671	82 359		

### Multi-Client investment ratio:

Multi-Client investment/operational cash flow

	Spectr	Spectrum Group		
	2016	2017		
Multi-Client investment	50 671	82 359		
Operational cash flow	61 215	99 400		
Multi-Client investment ratio	83 %	83 %		





Statsautoriserte revisorer Ernst & Young AS

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### **INDEPENDENT AUDITOR'S REPORT**

To the Annual Shareholders' Meeting of Spectrum ASA

### Report on the audit of the financial statements

#### Opinion

We have audited the financial statements of Spectrum ASA, which comprise the financial statements for the parent company and the Group. The financial statements for the parent company and the Group comprise the statements of financial position as at 31 December 2017, statements of comprehensive income, the statements of cash flows and changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements have been prepared in accordance with laws and regulations and present fairly, in all material respects, the financial position of the Company and the Group as at 31 December 2017 and their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

### Basis for opinion

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's *responsibilities for the audit of the financial statements* section of our report. We are independent of the Company and the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in Norway, and we have fulfilled our ethical responsibilities as required by law and regulations. We have also complied with our other ethical obligations in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for 2017. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.



#### Impairment assessment of Multi-Client library

Multi-Client library accounts for USD 169 408 thousand and USD 23 013 thousand for the Group and for the parent company respectively. The Company performed an impairment evaluation and determined the value in use to assess impairment. The impairment evaluation of Spectrums' Multi-Client library is a key audit matter due to size of the Multi-Client library and the significant management judgment involved related to the future market conditions. In 2017, impairment charges of USD 23 958 thousand and USD 9 760 thousand for the Group and for the parent company were recognized.

We evaluated management's assessment of impairment indicators for the Multi-Client library. Our audit procedures included inquiries of management, analyses and evaluation of historical accuracy of prior year's forecasts. We further evaluated the assumptions used in the sales forecasts provided by internal sales representatives, based on developments and expectations in the seismic industry about the future oil prices, licensing rounds, farm-ins and exploration activities. Furthermore, we evaluated the valuation methodology and the discount rate applied in the value in use model. We also tested the mathematical accuracy of the value in use calculations and performed sensitivity analysis of key assumptions. Further we assessed the Company's disclosures regarding those assumptions and the impairment losses of Multi-Client libraries recorded, which are disclosed in notes 1 – "Accounting Policies" and 9 – "Non-Current Intangible and Tangible Assets (Fixed Assets)" of the consolidated financial statements.

#### Other information

Other information consists of the information included in the Company's annual report other than the financial statements and our auditor's report thereon. The Board and Chief Executive Officer (management) are responsible for the other information. Our opinion on the financial statements does not cover the other information, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Independent auditor's report - Spectrum ASA

89 AUDITOR'S REPORT 90



As part of an audit in accordance with law, regulations and generally accepted auditing principles in Norway, including ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control:
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

### Report on other legal and regulatory requirements

### Opinion on the Board of Directors' report and on the statements on corporate governance and corporate social responsibility

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report and in the statements on corporate governance and corporate social responsibility concerning the financial statements, the going concern assumption and proposal for the allocation of the result is consistent with the financial statements and complies with the law and regulations.

Independent auditor's report - Spectrum ASA

3



### Opinion on registration and documentation

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, it is our opinion that management has fulfilled its duty to ensure that the Company's accounting information is properly recorded and documented as required by law and bookkeeping standards and practices accepted in Norway.

Oslo, 19 April 2018 ERNST & YOUNG AS

Jon-Michael Grefsrød

State Authorised Public Accountant (Norway)

Independent auditor's report - Spectrum ASA

91 AUDITOR'S REPORT 92

### Subsidiaries and joint ventures



### EUROPE / MIDDLE EAST / AFRICA

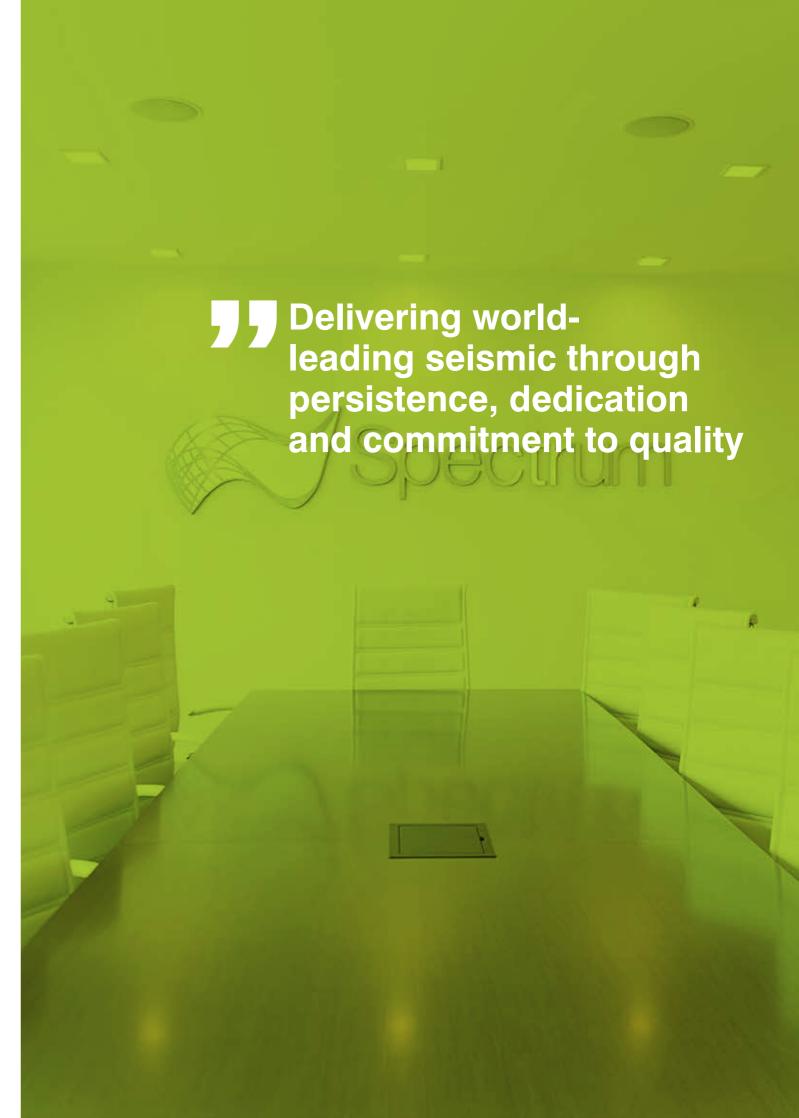
Company	Country	City	Address	Telephone	Fax
Spectrum ASA	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo AS	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Carmot Seismic AS	Norway	Oslo	Karenlyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo Ltd	United Kingdom	Woking	Dukes Court, Duke Street, Woking, GU21 5BH, UK	+44 (0) 1483 730201	+44 (0) 1483 762620
Spectrum Geo GmbH	Switzerland	Zug	c/o Jan Nikolaisen, Baarerstrasse 80, 6300 Zug, SWITZERLAN	D +47 23 01 49 60	+47 23 01 49 61
Spectrum Geopex Egypt Ltd	Egypt	Cairo	Spectrum Geopex Building, Nasr City Public Free Zone,	+2 02 2270 4341	+2 02 2270 6479
(Joint Venture)			Block 1-A, Cairo, EGYPT		

#### AMERICA

Company	Country	City	Address	Telephone	Fax
Spectrum Geo Inc.	USA	Houston	11750 Katy Freeway, Suite 900, Houston, Texas 77079, USA	+1 281 647 0602	+1 281 589 8111
Spectrum Geo do Brasil	Brazil	Rio De	Av. Presidente Wilson nº 231 Sala 937, CEP 20030-021	+ 55 21 3578 5547	
Serviços Geofísicos LTDA		Janeiro	Centro, Rio de Janeiro, BRAZIL		
Spectrum Geo Panama LLC	Panama	Panama City	Piso 23 MMG Tower, Avenida Paseo del Mar, Costa del Este,	+1 281 647 0602	+1 281 589 8111
			Corregimiento de Parque Lefevre, Distrito de Panamá,		
			Provincia de Panamá, 265 7636, PANAMA		
Spectrum Geo S.A. de C.V.	Mexico	Mexico City	Av. Paseo de las Palmas, No.820 Desp. 604.,	+52 55 5202 3600	
			Lomas de Chapultepec C.P., 11000 D.F., MEXICO		

### ASIA / AUSTRALIA

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Company	Country	City	Address	Telephone	Fax
Spectrum Geo Pty Ltd	Australia	Perth	Level 3, 55 St Georges Terrace, Perth, 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Pty Ltd	Australia	Perth	Level 3, 55 St Georges Terrace, Perth, 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Geo Pte Ltd	Singapore	Singapore	Level 28 Gateway East, 152 Beach Road, 189721, SINGAPORE	+65 6827 9773	+65 6295 2567
Spectrum Jakarta	Indonesia	Jakarta	PT Geoxindo Pratama (Agent), Jl. Kramat No. 40, Cilandak,	+21 788 39751	
			Timur, Jakarta, Selatan 12560, INDONESIA		









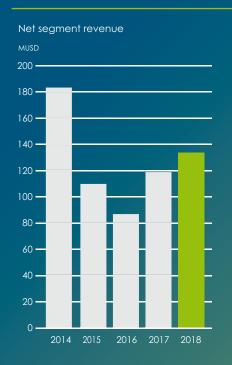
Key Figures (APMs)	3
Highlights of 2018	4
Chairman's Letter to Shareholders Spectrum 2018	7
Our Values	10
CEO Report	13
Multi-Client Operations	16
Seismic Imaging	22
Executive Management Team	24
The Board	26
Board of Directors' Report	27
Board of Directors and CEO Statement of Compliance	35
Corporate Governance	36
Investor Relations	39
Shareholder Information	40
Group and Parent Company Financials	42
Notes to Accounts	48
Alternative Performance Measures (APMs)	90
Auditor's Report	94

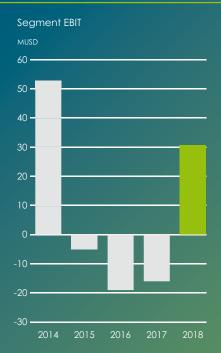
## KEY FIGURES (APMs\*)

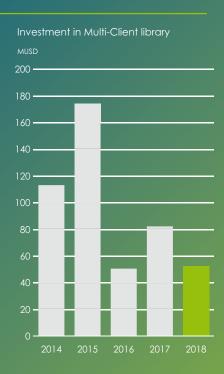
	2014	2015	2016	2017	2018
Multi-Client services	180 756	109 058	72 412	118 617	133 649
Seismic imaging	2 542	786	1 294	233	105
Other revenue			13 147		
Net segment revenue	183 298	109 844	86 852	118 850	133 754
Segment EBIT	52 795	(5 169)	(19 048)	(16 037)	30 612
Segment EBIT margin	29%	-5%	-22%	-13%	23%
Segment Net profit / (Loss)	38 229	(8 654)	(20 283)	(26 843)	17 180
Segment Net profit margin	21%	-8%	-23%	-23%	13%
Earnings per share **	0.90	(0.18)	(0.38)	(0.49)	0.35
Earnings per share fully diluted **	0.79	(0.18)	(0.38)	(0.49)	0.32
Segment Non-current assets	157 055	251 534	233 192	195 973	193 044
Segment Current assets - non cash	85 959	81 973	64 661	78 329	78 224
Cash and cash equivalents	8 364	23 373	15 827	14 155	37 730
SEGMENT TOTAL ASSETS	251 379	356 880	313 680	288 457	308 998
Non-current liabilities	2 066	19 609	27 923	49 741	20 845
Segment Current liabilities	75 045	135 692	103 914	81 696	112 543
Segment Equity	174 267	201 580	181 845	157 024	175 610
SEGMENT TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	251 379	356 880	313 680	288 457	308 998
Investment in Multi-Client library	113 280	174 618	50 671	82 359	52 516
Average headcount	168	167	153	155	158

<sup>\*</sup> Please see section Alternative Performance Measures, pages 90-93.

<sup>\*\*</sup> Calculated based on IFRS net profit / (loss)







# HIGHLIGHTS OF 2018



Net segment revenue increased by 13% to USD 134 million from USD 119 million



Segment EBIT of USD 31 million compared to negative segment EBIT of USD 16 million in 2017



Delivered best year ever for late sales – Net late sales increased by 68% to USD 103 million from USD 61 million



Strong balance sheet with positive cash balance and no net interest bearing debt



High investment activity and record high project backlog going into 2019



Completed a 6 000 km Multi-Client 2D seismic survey in the Pernambuco-Paraiba basins along the Eastern margins of Brazil

Completed a 7 000 km Multi-Client 2D seismic survey in the Eastern Turkish Black Sea



Completed a 19 000 km 2D Multi-Client 2D survey offshore Mozambique

Completed a 35 000 km Multi-Client 2D deep water survey offshore Argentina



Completed 3D and 2D reprocessing projects in the Otway and North Carnarvon basins offshore Australia

Completed a 5 500 km<sup>2</sup> Multi-Client 3D survey in the northern part of Gabon Shallow Water



Completed a 14 000 km Multi-Client 2D survey in the Malvinas basin offshore Argentina



Commenced a 15 000 km<sup>2</sup> Multi-Client 3D survey over the Southern Santos Basin offshore Brazil

Commenced a 10 700 km<sup>2</sup> Multi-Client 3D survey in the Potiguar Basin offshore the Equatorial Margins of Brazil





DEAR READER

2018 was another year of gradual recovery in the Multi-Client marine seismic industry, despite big oil price shifts and stock market volatility. Spectrum had another active year with strong development in late sales and building its seismic library. Spectrum is well positioned for recovery in the oil industry.

### Sentiment shift in the oil industry taking hold

The shift in oil industry sentiment that we first saw in 2017 took hold in 2018. The oil price was quite strong during three quarters of the year starting in the mid-60s USD per barrel and increasing to mid-80s early October before a sharp fall ending the year just north of 50. The oil price declined due to more oil supply than anticipated and concerns regarding global economic outlook. The oil price has later recovered to the mid-60s USD per barrel area where 2018 started.

Oil companies showed strong cash flow in 2018 as a result of substantial cost cutting, efficiency gains and tight capital expenditure management following the 2014 industry downturn. Oil companies appeared to stay the course and not be much influenced by the oil price drop in the last quarter, likely because they are using a moderate oil price assumptions for planning purposes.

Multi-Client marine seismic demonstrated continued improvement in 2018. Spectrum showed strong

development in late sales (sales from existing library). Spectrum also continued to build the seismic library with good level of new projects using risk sharing models with vessel suppliers. Multi-Client sales were good for most other seismic companies as well and the oil price fall does not seem to have impacted activity levels as evidenced by sales in the last quarter of 2018 and activity going into 2019.

### Underlying drivers intact

The drivers for recovery in the marine seismic market appear to be intact.

The underinvestment in proving up new oil and gas reserves and resulting low reserve replacement continues. Forecasts point to a continued steady increase in oil demand for the foreseeable future. This demand growth combined with depleting reserves will lead to the need for substantial additional supply.

Offshore oil and gas will likely continue to play an important role in bringing new supply to the market as other sources, such as US onshore, is unlikely to meet

additional demand over time. The oil companies have been able to drastically reduce break-even prices offshore. Offshore prospects are generally highly competitive if they are large enough, even in very deep water, and fiscal terms are acceptable. Time to market has also decreased sharply with more standardized development solutions, such as FPSO.

Ultimately, higher marine seismic activity is needed to prove up the required offshore reserves.

### Gradual recovery expected

Based on history, the focus of capital markets and, subsequently, oil companies will shift from cash flow to reserve additions and long-term production at some point. We are not there yet. Oil companies continue to have a strong focus on balance sheet, cash flow and uninterrupted dividend payment and hence avoiding cost inflation and managing capital expenditure. So, even though exploration and seismic spending are still below sustainable levels (when it comes to meeting oil demand in the medium term), we will likely continue to see a gradual rather than a steep recovery in the short term.

We observer some shifts in focus though. Oil companies have concentrated on bringing on-stream projects that were shelved during the oil downturn, especially near infrastructure. And many have defocused on offshore, especially the ones with substantial US onshore exposure. However, in 2018 we observed a shift of gears towards offshore with, for example, Brazil and other Atlantic margin basins becoming core focus areas for many oil companies.

### Spectrum continues to develop its strong position

Spectrum is deploying an asset light Multi-Client business model. This model, combined with a low cost base, enables Spectrum to manage cash and cash flow well.

Spectrum holds the worlds' largest offshore 2D seismic library and is, together with TGS, one of only two major 2D Multi-Client players. Spectrum also holds an increasingly sizable 3D library, the only meaningful library apart from the four large ones (CGG, PGS, TGS, Schlumberger).

This is a strong position that Spectrum continues to develop. Through Fugro library acquisition and substantial organic investments, Spectrum has diversified the library extensively over the last years.

Spectrum has a strategy based around the Atlantic margin, especially in the southern hemisphere. Spectrum observes great interest from oil companies for seismic in South America and West Africa. Most of Spectrums organic investments have gone into these regions, and this continued in 2018.

Spectrum enjoys an enthusiastic, commercial, agile and highly competent management team and organisation. The combination of a strong market position, attractive business model and strong management and organization bodes well for 2019 and the years to come.

After having focused on heavy counter-cyclical investments during the downturn, Spectrum will be balancing investments with strong cash flow going forward. For 2018, NOK 1.50 per share in dividend has been proposed, up from NOK 0.50 for 2017. The 2018 dividend represented 3.6% dividend yield at announcement. Dividend is expected to grow over the coming years.

I would like to thank the Spectrum organization for strong efforts and results in 2018.

Pål Stampe



# OUR VALUES





# CORPORATE VISION

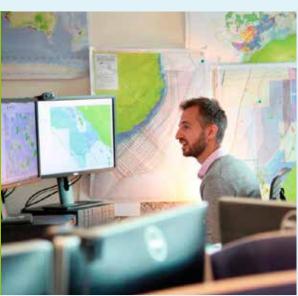
Be a world class provider of frontie Multi-Client surveys and seismic imaging solutions.



### STRATEGY

Grow the company organically through project development combined with acquisition of strategic data libraries.

Initiate and execute projects relevant to the global oil and gas industry to a high professional standard and delivering the results at the right time and place



Spectrum is a major provider of Multi-Client seismic data and data processing services to the global oil and gas industry. Its current Multi-Client data library includes in excess of 3.35 million km of 2D seismic data covering all the major oil and gas producing regions of the world. In addition the library also includes approximately 200 thousand km<sup>2</sup> 3D seismic data from key hydrocarbon regions such as the East Mediterranean, West Africa, North Sea, Australia, Brazil and Gulf of Mexico. The company constantly strives to increase the offerings to its customers both by increasing the data processing capabilities of its geophysicists and by expanding its data library. The seismic library is core to the Spectrum Group and is continually being enhanced through the reprocessing of old data using new techniques and the identification of areas of interest by its dedicated geological team.







### MISSION





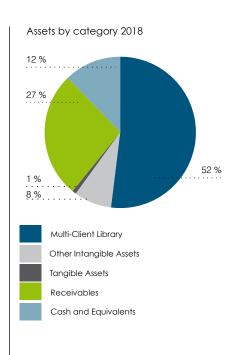
### CEO Report

Rune ling

The downturn in the oil and gas sector has negatively influenced the seismic industry. For the fourth year in a row we have experienced a global decline in E&P spending. This is not sustainable and I think we all raise the same question about how oil companies can work up new reserves and offset a declining production without investing in exploration.

In 2018 we saw a change for the better in the seismic industry when the offshore E&P spending trend turned positive. It is a fact that relatively low new reserves are being added and few new fields being sanctioned for production. This has revitalized the discussion around reserve replacement ratios within oil companies. Exploration will increase in existing proven basins, but also in new untested areas such as Argentina and parts of Brazil.

There is continued strong demand for oil and gas in the world supported by financial growth mainly in China, India and Africa. Demand is growing by over 1 million barrels per day for the next five years with China and India representing 44% of the growth. This has been partially offset by strong growth in shale production in 2018, but also offshore E&P has gained new traction with reduced E&P cost and improved competitive terms being offered by governments offering offshore acreage. Offshore exploration has regained attractiveness after breakeven levels for offshore fields were brought down to USD 30-40 per barrel as a result of cost reduction efforts. Recent major oil discoveries in US Gulf of Mexico, Guyana and Senegal have encouraged the industry to drill in areas where seismic has identified attractive prospects.



The price for Brent crude oil stood at an average of USD 71 per barrel in 2018. Indications are that oil price will remain volatile, but with an equilibrium around USD 65 in 2019. In this price environment our estimate is that offshore exploration spending will increase in 2019.

Spectrum is determined to maintain its asset-light business model, a model that is suitably flexible for Multi-Client investments and that allows us to adapt our operating cost in a cyclical business environment. In these times, the asset light model plays to its key strength since vessel utilization is not a factor in Spectrum's investment decisions. Spectrum only invests in new projects if prefunding and near term sales bring the project into a cost recovery phase within 24 months of the data being made available to the market.

Over the last 3 years Spectrum has established a strategic alliance with Chinese and Russian vessel providers that are willing to take financial risk or equity in our Multi-Client projects. This is part of a counter-cyclical investment strategy that has made it possible to continue to invest in new projects and build Multi-Client library during the downturn. Spectrum's philosophy is that a large data library and global coverage offers valuable screening and review opportunities for the oil companies. Size matters and with a dynamic library spread over numerous different basins, Spectrum is able to bundle several Multi-Client projects into larger, more attractive deals to present to oil companies.

Spectrum's assets are the Multi-Client library, our cash and receivables. Spectrum has more than 3.35 million km of 2D seismic and a growing 3D library in the world's most prospective areas, and each basin, survey, and seismic line has its own evolving suite of hydrocarbon stories that we market and sell to the oil companies. Our data is for those that challenge existing play models and who use our seismic to come up with innovative ideas for where oil and gas can be found. This is the heart and pulse of Spectrum.

Spectrum's project developers have to consider the overall project risk including all above ground risks in

addition to those found in the subsurface. The above ground risk is related to political and ethical factors. Spectrum is focused on the sustainability of our business and has a zero tolerance toward bribery or corruption. Given the nature of Spectrum's business in frontier areas it is important to pay particular attention to business arrangements with individuals or governments. At the same time Spectrum is working with developing our business to support local content and local business activity. Training of local staff and onsite work experience is an important part of our business. We aim to develop local knowledge and experience in order to allow countries to run their oil and gas business in a professional manner. In this context Spectrum's goal is to reduce business and legal risk by taking control of our decisions.

The Spectrum organization currently consists of 196 people (158 direct employees and 38 in a 50/50 joint venture in Egypt) with the two largest offices in London and Houston. The organization and people are key differentiators in the Multi-Client seismic industry. It is truly a people-dependent business, because project ideas are almost unlimited and the key measure of success is in convincing oil companies in the validity of our project stories.

In 2018 Spectrum did not experience any major incidents in our operations. This meant no harm to our employees or contractors, and no significant spills or other environmental damage. Spectrum believes that safe operations are fundamental to the success of our business.

I would like to thank the Spectrum staff for the hard work and our customers for their support in 2018.

Sincerely

Rune Eng



### Multi-Client Operations

Spectrum's Multi-Client library is composed of data and reports from many of the major oil producing and frontier regions of the world. The library comprises approximately 3.35 million kilometers (km) of 2D seismic data, making Spectrum the market leader in Multi-Client 2D data. Furthermore, Spectrum is rapidly growing it's 3D Multi-Client library and now holds over 200,000 square kilometers (km²) of 3D seismic data, with an additional 125,000 km² of Seamless seismic merged 3D data on the Norwegian continental shelf.

Spectrum is continuously developing a pipeline of new Multi-Client 2D (MC2D) and Multi-Client 3D (MC3D) seismic acquisition and reprocessing projects. Sales from the Multi-Client library and prefunding of new projects constitute the main revenue streams for the Company and fund the operation and new investments in Multi-Client projects. Being an asset light company, Spectrum makes independent evaluations of potential investments in new Multi-Client surveys with a prime focus on client interest, prefunding levels, and future sales triggers.

In 2018 Spectrum continued to balance investments and risk sharing in projects to ensure a counter cyclical organic growth of its data library. Leveraging favorable terms from cooperation partners and vessel providers, Spectrum was active with six new MC2D surveys and three new MC3D surveys being acquired during 2018. Together with the company's (re)processing efforts this represents an organic investment of USD 52.5 million for the year, with a further equivalent of USD 58.0 million investment through risk sharing arrangements with survey partners. The year started

with a total of five vessels actively acquiring Multi-Client seismic data, a record level of activity for Spectrum. For 2019 we expect a continuation of favorable terms for partnerships and risk sharing options.

### The year in review

Through prospectivity studies of our existing data library, several opportunities for new MC2D and MC3D surveys were recognized in areas with upcoming license rounds. This resulted in three 3D Multi-Client surveys in acquisition during the year, representing an addition of 10,176 km<sup>2</sup> of new MC3D data by year-end 2018. At year-end we had two MC3D survey ongoing in Brazil which are scheduled to be completed in 2019. In addition the focus on new 2D data acquisition continued with 58,201 km of new MC2D data being acquired within the year.

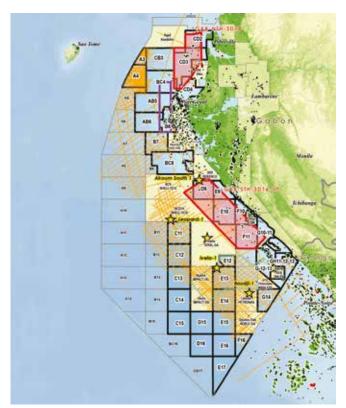
Attractive Multi-Client projects generally rely on a number of success factors that need to be in place. These are the presence of a proven petroleum system, good interest from exploration companies, and sales triggers in the form of upcoming license rounds or new areas becoming available for

licensing. Most of the surveys acquired by Spectrum in 2018 had at least two of these three criteria fulfilled before a survey was started.

### Africa & Mediterranean

Following analysis of vintage data over the shallow water parts of Gabon, our geoscientists identified the outlines of a new play type beneath the salt. The 'Direction Generale des Hydrocarbures' (DGH) supported Spectrum's proposal to acquire modern 3D seismic over the identified areas and awarded Spectrum an exclusive Multi-Client contract for three prospective shallow water areas. The programs are located in under-explored areas over open blocks in water depths pre-dominantly ranging from 30 to 200 meters. The DGH intends to make these blocks available through future shallow water license rounds.

Spectrum's new 3D broadband seismic will image high potential pre- and post-salt play types. Fully processed and depth migrated data will be available for upcoming license rounds, thus facilitating immediate exploration activity when the blocks are awarded. Spectrum carried out the acquisition of the 11,500 km² Gryphon 3D





Outline of the Gryphon 3D survey, covering mainly open blocks in shallow waters offshore Gabon.

Spectrum's seismic coverage offshore Mozambique.

survey in southern Gabon during 2017. Spectrum has further survey rights for an additional 5,500 km<sup>2</sup> 3D survey over open acreage in Northern Gabon, and an additional 1,500 km<sup>2</sup> 3D survey offshore Central Gabon. The Northern survey commenced during the first week of January 2018 in partnership with COSL and acquisition completed by the end of April 2018.

In 2016, Spectrum was awarded the exclusive rights to acquire a Multi-Client 2D survey offshore Mozambique on behalf of the Institute of National Petroleum (INP) and in anticipation of future license rounds.

This new 2D seismic program of up to 19,050 km was completed in May 2018 and utilized a long offset with continuous recording to enable extended recording lengths and high fold data. It was acquired to complement existing 2013 seismic located in the Mozambique Channel area which is also

available through Spectrum. The survey grid is specifically designed to image the subsurface potential in the southern Rovuma Basin and the NE Zambezi Delta (Angoche) region, providing a more detailed understanding of the prospectivity in an area where no wells have been drilled to date. Furthermore, findings from this data are expected to accelerate hydrocarbon exploration activity in what is believed to be an oil-dominated region with high quality reservoirs in large traps. In addition the data will also provide the basis for future license rounds as planned by INP.

The data was processed with PSTM, PSDM and broadband products ready by year end of 2018. This survey was carried out in partnership with WesternGeco and supported by industry funding.

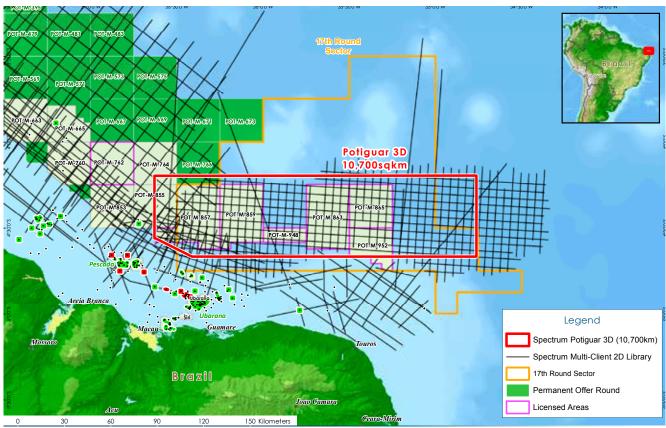
Following studies that identified significant potential for hydrocarbons in the eastern Black Sea,

Spectrum commenced acquisition of a 7,000 km 2D Multi-Client seismic survey at the end of June 2018. The survey successfully completed by mid-August 2018 and was carried out in partnership with BGP.

### Asia Pacific

Following the acquisition of the Fugro library in 2015, Spectrum's 3D coverage in this region totaled 40,000 km² of newly acquired 3D Multi-Client data (less than 10 years old) and this offered a strong platform for developing reprocessing opportunities.

The first significant 3D reprocessing project was completed in 2017 and the outstanding results on the Olympus Multi-Client 3D project demonstrated the ability for modern processing techniques to vastly improve legacy vintage datasets to promote the re-evaluation of an area. Motivated by these results, another two projects were initiated.



Spectrum's 10,700 km² Multi-Client 3D seismic survey in the Potiguar basin commenced in December 2018.

In the Browse basin Spectrum extended its 3D Multi-Client data coverage by reprocessing 3,450 km² of open file data in an area where acquisition permits are a limiting factor. The Heywood project is located immediately south of the Spectrum Cygnus survey that was acquired and processed in partnership with Polarcus during 2016.

During December 2017, Spectrum commenced a new Multi-Client Broadband 3D and 2D reprocessing project in the Otway Basin offshore South-Eastern Australia. This dataset consists of approximately 8,000 km<sup>2</sup> of 3D data from sixteen existing surveys and up to 7,000 km of 2D data. Raw seismic has been reprocessed through a high-end PSTM and PSDM broadband sequence. The project includes coverage over and around the 2018 Offshore Petroleum Exploration Acreage Release in the Otway Basin.

The Olympus, Heywood and the Otway reprocessing projects received strong interest and are supported by industry funding.

#### **Americas**

With Brazil upholding its regular licensing round program, Spectrum identified several opportunities to acquire new Multi-Client 2D programs in sectors that are included in upcoming rounds. In the Potiguar basin, a new acquisition program of 6,000 km was acquired in the first half of 2018 as an extension of Spectrum's 2013 Potiguar Phase 1 survey. The survey tied the Pitu discovery announced by Petrobras, confirming the active petroleum system in the deep waters of the Potiguar Basin.

Analysis of this new dense 2D data by Spectrum geoscientists resulted in the identification of a large prospect in an area that will be part of the 17th licensing round in Brazil. Since this was adjacent to blocks that had been recently awarded in the 15th licensing round, it resulted in the acquisition

of a large, new 3D survey that covered a total of 10,700 km<sup>2</sup> over held and open acreage. The Potiguar 3D survey commenced in December 2018 and is supported by industry funding. Spectrum is the sole operator of the project. The survey is being acquired with a twelve cable long-offset configuration in continuous recording mode. Acquisition parameters are optimized for broadband processing which will assist in the high definition mapping of prospects and drilling targets. First products will be available in Q3 of 2019.

In April 2018 Spectrum commenced a 5,500 km 2D seismic program over the under-explored Pernambuco-Paraiba basins along the Eastern Margins of Brazil. The program covers an area north of the prolific Sergipe Basin that will be included in the 16th Round, scheduled for 2019. The seismic survey was acquired with a 12,000 m cable to record data necessary to understand basin architecture as well as to image prospective zones similar to the large oil discoveries in

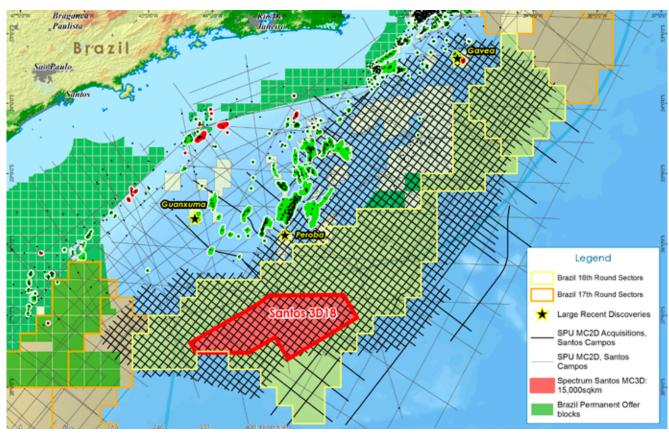
the Sergipe Basin. The final PSTM and PSDM Broadband products were available in Q4 2018. The Sergipe Basin area to the south of Pernambuco has seen strong interest in the past three rounds and we expect the same for this area in Round 16. The survey was carried out in partnership with BGP Marine.

Further South, Spectrum continued to strengthen its leading position in offshore Brazilian 2D seismic coverage by completing a new Multi-Client acquisition program in the Campos Santos basin, also carried out in partnership with BGP Marine. The Phase III survey, an extension of Spectrum's 2017 Santos Campos Phase II survey, covers an area in the southern Santo Basin. As in the Pernambuco-Paraiba basin, this new data incorporates areas included in the Round 16 licensing proposal, scheduled for 2019. With this latest program, Spectrum provides over 47,000 km of modern 2D long offset seismic data to industry for evaluation of the highly prolific Santos Campos hydrocarbon province ahead of the licensing rounds.

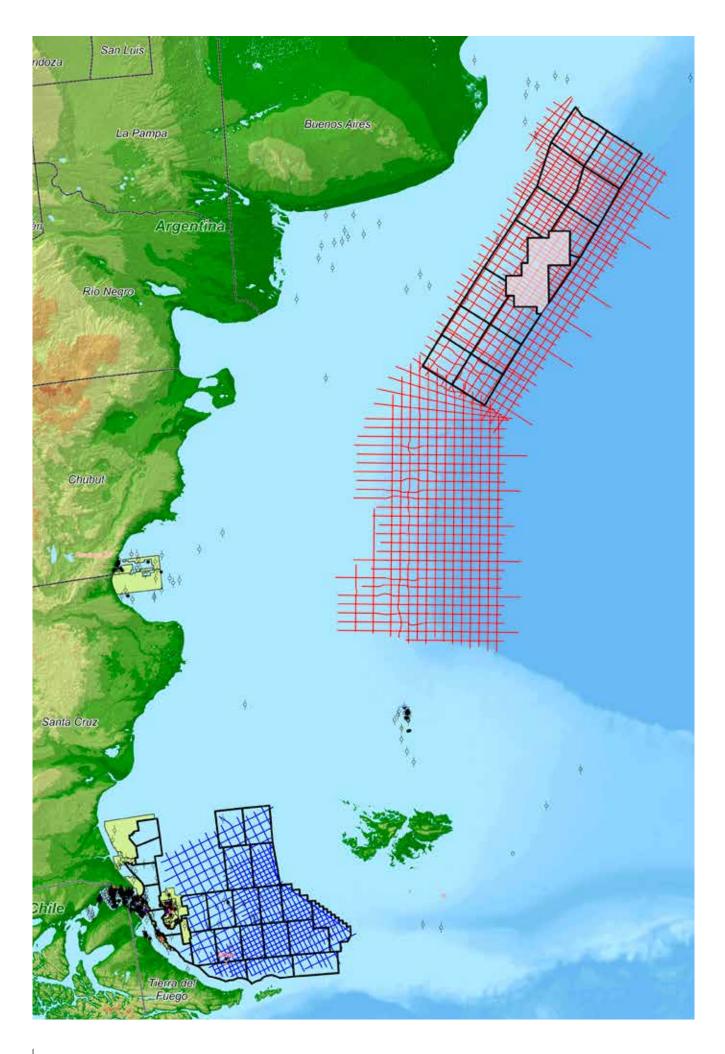
In total, Spectrum has acquired 200,000 km of long offset high quality 2D data covering almost the complete coastline of Brazil. This allows the company to move to the next growth stage in the country, using its 2D to locate prospective areas for 3D acquisition. The Santos basin, with its string of billion barrel discoveries, was the logical starting point to use the company's dense 2D coverage to identify the most prospective areas for further exploration. This resulted in a large permit application with several phases of 3D data acquisition over the most prospective areas. In July 2018, Spectrum commenced a 10,000 km<sup>2</sup> 3D Multi-Client survey in the Southern Santos basin, representing the first phase of 3D data acquisition in the area. The survey coverage lies south of the major oil and gas discoveries in the Santos Basin and the recent highly-sought after blocks offered in Rounds 2, 3, 4 and 15. The 3D project builds on Spectrum's extensive 2D database in the region and marks the opening of the highly prospective deep water area in the Santos basin.

In December 2018, Spectrum and TGS joined forces and expanded the ongoing Santos 3D seismic program to 15,000 km<sup>2</sup>.

In May 2018, Spectrum completed its 39,000 km Multi-Client 2D seismic survey spanning an area of 435,000 km<sup>2</sup> offshore the deep waters of Argentina. This survey was designed in close cooperation with YPF S.A. and provides industry with the first ever detailed seismic grid over this under-explored frontier area of Argentina, allowing for basin-wide studies of the area as well as prospect/lead level interpretation studies for upcoming license rounds. The new data was extensively utilized to assist the Ministry in placement and design of parcels for the future license rounds offshore Argentina.



The 15,000 km² Santos 3D survey in the Southern Santos basin.





## The next growth stage

There has been no deep water exploration in Argentina and this survey allows Industry to examine this exciting frontier area for the first time using modern long-offset high fidelity data. With a potential for billion barrel field discoveries, offshore Argentina has potential to join the ranks of the recent Atlantic Margins successes in place such as Guyana, Ghana, Brazil and Angola. This survey was carried out in partnership with BGP Marine and COSL and is supported by industry funding.

In addition, Argentina's Ministry of Energy and Minerals is also including the Austral and Malvinas basins in its ongoing first offshore license round. Motivated by the support and interest generated for the deep water survey, Spectrum designed and acquired a regular seismic grid over both basins. The 14,500 km survey was started in November 2017 and completed by early March 2018. It was carried out

in partnership with BGP Marine. The exploration potential that Argentina offers is an exciting development that has attracted good interest from the E&P industry. In order to meaningfully evaluate such a vast area, industry appreciates the need for new, modern, long-offset Broadband seismic. Spectrum expects to collect, process and deliver over 50,000 km of newly acquired Broadband data not only for the license round which opened in late 2018 and is due to close during 2019, but also for anticipated future rounds.



### Seismic Imaging

2018 saw a number of significant developments in Spectrum's Seismic Imaging capabilities including technology advancements as well as improvements to overall quality and efficiency. Our team was able to process and deliver over 319,000 kilometers of new and legacy 2D seismic data to Spectrum's library. An increase of over 20% year-on-year.

The first major improvement was the licensing of the Reveal seismic processing system (Figure 1). Reveal is a modern processing system that is highly flexible and interactive, allowing for rapid testing of algorithms and analysis of data. This in turn significantly reduces the amount of effort required in any one processing step providing more time to evaluate a wider variety of techniques and parameters. Reveal is currently being used by a number of supermajor oil companies. Like these oil companies, Spectrum is able to insert its own proprietary technologies into the system for advanced capabilities. Transitioning to new processing platforms is typically a major undertaking by a processing company. In this case, with our pre-planning and Reveal's ease of use, the rollout took place in only a

few months and without significant disruption to production.

Throughout 2018, our Seismic Imaging Team processed newly acquired 2D seismic surveys in Argentina (~43,000 km), Brazil  $(\sim 33,000 \text{ km})$  and the Black Sea (~6000 km). We also reprocessed significant volumes of data from the Spectrum library elsewhere in North & South America, West & Southern Africa, Northwest Europe and Asia Pacific. We utilized our latest broadband processing techniques and in some cases, depth imaging to revitalize the value of Spectrum's library data making it more attractive to our customers.

A second improvement, potentially a breakthrough for us, was the successful initiation of a 3D processing project utilizing cloud computing. Traditionally, a significant barrier to entry for large scale seismic processing has been access to a large computing infrastructure. In today's seismic processing industry, Tier 1 processing companies are distinguished by those that have made capital equipment investments in the range of tens of millions of dollars. With the rapid maturation of high performance cloud computing, Spectrum is now able to access almost unlimited computing capabilities "on demand" during the course of a project. This gives us an elastic capacity that can be spooled up and down as needed. Spectrum's costs are thus operating expenses that occur only when computing capabilities are needed. No capital investment is required. This flexibility follows

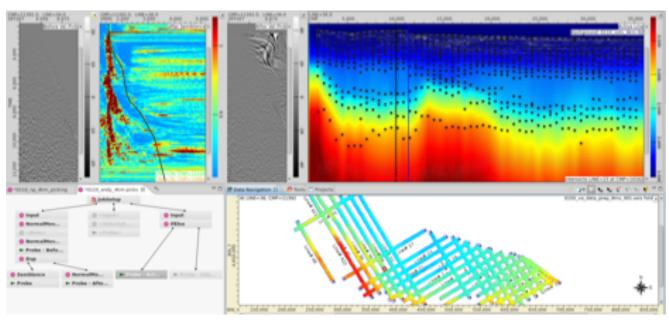


Figure 1: Reveal seismic processing system's interactive interface.

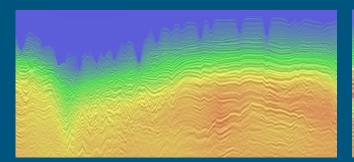


Figure 2: Seismic line from Somalia showing RTM image with velocity overlay before the application of FWI.

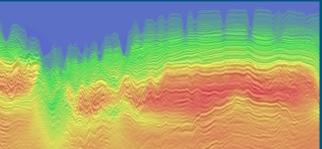


Figure 3: Seismic line from Somalia showing RTM image with velocity overlay after the application of FWI. Note red areas indicating higher velocity carbonate zones. Image quality has improved with less distortion due to seafloor canyons.

Spectrum's asset-light strategy and will truly be a game changer for our business.

In 2018 we formed a new internal organization, the Geophysical Analysis Group (GAG). The group consists of our most experienced geophysical advisors. Their focus is to establish rigorous quality assurance processes, solve difficult geophysical problems, develop efficient workflows and work with our R&D group to roll out new technologies to operations. During the course of the year, GAG has had a significant impact in raising the quality of Spectrum Multi-Client products and improving overall customer satisfaction.

Our R&D group was very active in 2018. We continued the advancement of our broadband processing toolkit with the introduction of our tau-p deghosting algorithm. This new tool has proven to be very robust in a variety of seismic acquisition configurations and geologic scenarios. Our continued improvement of the associated processing steps has led us to complete broadband processing on some 64 surveys and garner positive customer feedback. Also from our R&D team we have delivered on state-of-the-art depth imaging technologies such as Reverse Time Migration (RTM) and Full Waveform Inversion (FWI). Our RTM has now been in full production use on multiple projects and

we are achieving very good results. With FWI, we have also achieved very good results in several very challenging geologic environments and continue to develop it into a robust workflow (Figures 2 & 3). Both RTM and FWI are computational intense processes that together with our developing use of cloud computing provides Spectrum with significant advancements to our Multi-Client seismic products.

Our GAG and R&D groups have worked together to improve the efficiency and accuracy of numerous time consuming aspects of our work. Figure 4 shows an image of a pseudo 3D velocity model generated from 2D data using our Velocity Unification toolkit. This process adjusts for the differences between individual 2D lines ultimately providing customers with more interpretable exploration products.

Another focus has been on automating more routine processes such as quality control steps. This automation allows our geophysicists to rapidly screen millions of seismic gathers before and after specific processing steps, highlighting key differences to help identify and solve technical problems.

For 2019, we will continue our internal R&D effort on seismic algorithm development and expand our use of cloud computing. We will continue Spectrum's Digital Transformation as we investigate moving our data library from legacy tape archives to a new cloud storage capability, where we will be able to more efficiently deliver products to our customers and take advantage of the developing world of machine learning algorithms.

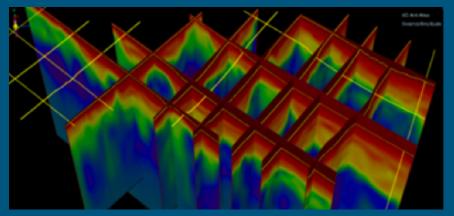


Figure 4: Integrated 3D velocity model as a result of velocity unification.

### **Executive Management Team**



Rune Eng (1961)
President & Chief Executive Office.

Mr. Eng has a broad range of experience in the seismic industry. He has held various executive positions in the oil industry, most recently in Petroleum Geo-Services (PGS) and before that Fugro-Geoteam, Sevoteam and a senior consultant position in Digital Equipment Computing (DEC). Mr. Eng is a Norwegian citizen based in the Oslo office.



Svein O. Staalen (1971) General Counsel

Mr. Staalen was previously Corporate Legal Counsel in Det Norske Veritas (DNV). Prior to that, he worked eight years as a lawyer in the law firm Haavind and two years as Corporate Legal Counsel in the Nycomed Group. He holds a Master's of Law degree from the University of Oslo and a Diploma in English Commercial Law from the College of Law, London. Mr. Staalen is a Norwegian citizen based in the Oslo office.



Neil Hodgson (1961) Exec. Vice President Geoscience

Dr. Hodgson joined Spectrum in June 2012, having previously worked for BP, BG and Premier Oil in a number of Exploration Geology roles over a 25 year career. His last role prior to joining Spectrum was as Exploration Director for Matra Petroleum. Neil is focussed on developing the understanding of hydrocarbon plays in the Mediterranean and Middle Eastern areas of Spectrum's Library. Mr. Hodgson is a British citizen based in the UK office.



**Dean Zuzic (1963)**Chief Financial Officer

Dean Zuzic joins Spectrum from the position of CFO at Norsk Gjenvinning. Zuzic has broad experience from several companies where he held positions as CFO and CEO and positions as a member of the Board of Directors. Among others, he has previously worked at Kid Interiør AS, Plantasjen ASA, Saga Securities and McKinsey & Co. Zuzic is a graduate of economics from BI Norwegian Business School. Mr. Zuzic is a Norwegian citizen based in the Oslo office.



**Jan Schoolmeesters (1966)**Chief Operating Officer

Mr. Schoolmeesters holds a PhD in Geophysics from Delft University of Technology (the Netherlands) and joined Spectrum as COO in August 2011. He has substantial experience in the seismic industry having served 16 years in various roles in PGS with a technical, operational, and commercial background. His latest position was with PGS as President of Asia Pacific. Mr. Schoolmeesters is a Dutch citizen based in the Oslo office.



Graham Mayhew (1961) Exec. Vice President Multi-Client: Africa, Mediterranean & Middle East

Mr. Mayhew joined Spectrum in March 2013. He brings with him 30 years' experience in the seismic industry, having previously worked for Western Geophysical, Cogniseis, Landmark and WesternGeco in various managerial roles. During the last 15 years Graham has been focusing his efforts on developing new ventures and the Multi-Client business in Africa for WesternGeco where his last role was Multi-Client manager for Europe and Africa. Mr. Mayhew is a British citizen based in the UK office.



Richie Miller (1963) Exec. Vice President Multi-Client: Americas

Mr. Miller brings with him a wealth of knowledge, gained from over 30 years of experience within the seismic industry. He joined Spectrum from CGGVeritas where he held the position as Director of Marketing & Business Development. During that time, he was responsible for developing the data library, identifying new opportunities and general business development of the US and South American libraries. His other positions with other global companies included Marine Acquisition Manager, Senior Geophysicist and Director of Geology & Geophysics. Mr. Miller is an American citizen based in the Houston office



**Mike Mellen (1959)** Exec. Vice President Seismic Imaging

Mr. Mellen joined Spectrum in July 2017 bringing over 30 years of diverse experience in petroleum exploration & development, E&P technology, operations, research and leadership. He began his career at Marathon Oil Company as a geophysicist focusing on seismic acquisition/ processing and prospect development primarily in Africa/ Middle East and the Gulf of Mexico. He later joined Halliburton where he held a variety of technical and leadership roles including Global Director – Subsurface Evaluation and Sr. Director Landmark Technology (head of R&D). Prior to joining Spectrum, Mike was Business Unit Vice President of Data Processing & Imaging at ION Geophysical (GX Technology). Mike has an M.Sc. in Geophysics from the Massachusetts Institute of Technology and attended the Executive Development Program at Wharton. Mr. Mellen is an American citizen based in the Houston office.





Mr. Edwards brings a wealth of knowledge from the oil and gas industry, with a career that has spanned almost 50 years. He started his career in 1970 with Phillips Petroleum. In 1982 he became part of the initial team of JEBCO Seismic Ltd and focussed on the UK and then the Soviet Union. This was followed in 1992 by his move to Digicon Geophysical where he was responsible for starting the Data Library and Geological Services departments for EAME Division. Throughout his time with Digicon/Veritas and finally CGGVeritas in 2010, he held various senior positions with his last role as Senior Vice President Data Library EAME and Global New Ventures. In late 2010 Mr. Edwards was one of the original members of the Executive Team of Dolphin Geophysical responsible for Global Multi-Client Surveys and New Ventures. During his career Mr. Edwards has initiated many unique Multi-Client seismic surveys which have stimulated industry investment and exploration. He was also responsible for the concept of the highly successful PROMOTE Licensing mechanism in the UK. Mr. Edwards studied Geology at Birkbeck College, University of London and later Law at London University externally. He is a British Citizen.

### The Board



Pål Stampe (1975) Chairman

Mr. Stampe is a partner at Spectrum's largest shareholder Altor Equity Partners. He has previously held positions at Danske Securities and McKinsey & Company. Mr. Stampe holds a Master's degree in Mathematics and Physics from NTNU, Trondheim. He is a Norwegian citizen and resides in Oslo, Norway.



Glen Ole Rødland (1964) Board member

Mr. Rødland is a Senior Partner in HitecVision. He joined HitecVision in January 2016 from the position as Director and co-investor of Direct Active Investments in Ferncliff TIH AS (ten years). Mr. Rødland is Chairman of the Audit Committee in Spectrum ASA. He has postgraduate studies in Finance from the Norwegian School of Economics and Business Administration (NHH) and UCLA. He has worked as a management consultant in PWC and research assistant at NHH. He has also worked as a market and investment analyst at Jebsens, a shipping company based in Bergen. Mr. Rødland has worked 15 years with portfolio management and investment banking for Vital (2 years) and First Securities (formerly Elcon Securities) (13 years). Mr. Rødland's experience is mainly within Energy, Basic Materials and Shipping, where he has significant transaction experience. Mr. Rødland is a member of the Board of Directors of several companies, including Aqualis ASA and Prosafe SE. He has previously been a member of the Board of Directors of Weifa ASA, First Securities ASA, Norske Finansanalytikers Forening, Standard Drilling ASA and resides in Oslo Norway



**Ingrid Elvira Leisner (1968)**Board member

Mrs. Leisner has previously worked as Head of Portfolio Management for Electric Power in Statoil Norge AS. She also has a background as a trader of different oil and gas products in her 15 years in Statoil ASA. Mrs. Leisner is member of the Audit Committee in Spectrum ASA. She holds a Bachelor of Business degree (Siviløkonom) with honors from the University of Texas at Austin. Mrs. Leisner serves on the Board of several companies listed on the Oslo Stock Exchange. Mrs. Leisner is a Norwegian citizen and lives in Oslo, Norway.



Maria Tallaksen (1980) Board member

Ms. Tallaksen is a director at Spectrum's largest shareholder Altor Equity Partners. She has previously held positions at Morgan Stanley's Investment Banking Division and Global Capital Markets. Ms. Tallaksen is member of the Audit Committee in Spectrum ASA. She holds a Master of Science in Business (Siviløkonom) from BI Norwegian School of Management. Ms. Tallaksen is a Norwegian citizen and lives in Oslo, Norway.

### Board of Directors' Report

### **Segment Multi-Client operations**

In 2018 Spectrum delivered a growth of 13% in net revenue versus 2017. Throughout the year Spectrum continued to execute on its strategy to become one of the leading pure play marine Multi-Client companies based on an asset-light business model. The Group has limited long-term operational financial commitments and hires in vessels and crew on a project by project basis. This provides the Group with the financial flexibility to meet changes in the market.

The company's Seismic Imaging unit uses Seismic Imaging technology and services to deliver high quality products and solutions to oil companies. The Seismic Imaging unit also reprocesses data to enhance the quality of our expanding data library. The pure play marine Multi-Client strategy was formed late in 2010. In 2011 Spectrum discontinued the operation of vessel business segment, allowing the Group to focus on developing the core business of marine Multi-Client surveys. In 2011 Spectrum stepped up the investments in Multi-Client surveys by making organic investments of USD 14 million and structural investments of USD 40 million by acquiring the marine 2D Multi-Client library of CGG. In 2012 the Spectrum organic Multi-Client investment grew to USD 76 million followed by USD 85 million in 2013. During 2013 Spectrum also acquired the Norwegian companies Carmot Seismic AS and Carmot Processing AS. This acquisition established a significant footprint for Spectrum on the

Norwegian Continental Shelf adding 3D seismic data cubes covering approximately 125,000 km<sup>2</sup> of the Norwegian Continental Shelf and more than 80,000 km of merged and matched 2D data in the Barents Sea.

In 2014 Spectrum's Multi-Client investment ended at USD 113 million, an increase of 33% vs. 2013. The major parts of the 2014 Multi-Client investments were made in Brazil, Croatia and Norway. License rounds were expected to take place in many of these areas in 2015 in addition to license rounds already held in these areas during 2014.

In 2015 Spectrum made organic Multi-Client investments of USD 66 million and structural investments of USD 109 million by acquiring the marine Multi-Client library of Fugro. Through this acquisition Spectrum stepped up to be the world's number 1 in terms of size of marine Multi-Client 2D library and also gaining momentum in the 3D market.

In 2016 Spectrum's organic Multi-Client investments ended at USD 51 million. These investments came primarily in Somalia, Brazil, Mexico, Norway and Australia. In 2017 Spectrum's organic Multi-Client investments ended at USD 82 million which was approximately the same level as in 2013 and the second highest level ever for the Group. In 2018 Spectrum completed a greater number of projects through risk sharing arrangements with the company's partners.

Spectrum invested USD 53 million in Multi-Client projects in 2018, while partners invested approximately USD 58 million, bringing gross Multi-Client investments in 2018 to USD 111 million. Over the last three years a total of USD 316 million was invested in Spectrum projects, of which USD 186 million by Spectrum and USD 130 by partners.

Spectrum has a clear number one market position in terms of the volume of 2D marine seismic data held worldwide with more than 3.35 million km of data. Looking at the balance sheet, 99% of the book value of the Multi-Client seismic library is related to library additions made in 2015, 2016, 2017 and 2018. As such the Spectrum library is very fresh and maintains a high quality. The step change in Spectrum's Multi-Client investments in 2017 has also directly impacted on segment Multi-Client sales in 2017 and 2018. Net Segment Multi-Client sales have moved from USD 46 million in 2011 to USD 114 million in 2012, USD 141 million in 2013, USD 181 million in 2014, USD 109 million in 2015, USD 72 million in 2016, USD 119 million in 2017 and USD 134 million in 2018. Looking at net late sales, 2018 revenue ended at USD 103 million, up from USD 61 million in 2017.

#### **Results**

The currency of presentation for the financial statement of Spectrum is USD, which reflects the functional currency of the entities and transactions undertaken by the Group.



Spectrum Group: Gross revenue for Multi-Client and Seismic Imaging, for the year ending 31 December 2018, was USD 207.2 million. Adjusted for revenue share, net revenue came in at USD 138.8 million, split between Multi-Client services of USD 138.7 million and Seismic Imaging of USD 0.1 million.

The Group EBIT in 2018 was positive USD 32.3 million compared to negative USD 16.0 million in 2017 (includes impairment of USD 25.6 million of the Multi-Client library and technical goodwill).

Spectrum ASA: Gross revenue for Multi-Client for the year ended 31 December 2018, was USD 12.6 million. Adjusted for revenue share, net revenue came in at USD 9.9 million. Sales to subsidiaries were USD 7.6 million. The Parent company EBIT in 2018 was positive USD 2.1 million compared to negative USD 14.9 million in 2017 (includes impairment of USD 16.1 million of the Multi-Client library and shares in subsidiaries).

### **Going Concern Assumption**

The Board confirms that the Group's financial statements have been prepared on a going concern basis in accordance with the Norwegian accounting act §3-3a which takes into account the forecasts for 2019 and the long term strategic view of the Company and the market.

### **Market Risk**

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities. Financial market risk is the possibility that

fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risk, and actions are taken to mitigate specific risks identified. Spectrum established early 2014 a USD account in Brazil. This reduced currency risk related to our operation in Brazil. The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly in USD.

### Liquidity risk

The Board of Directors considers the liquidity risk to be moderate. Risk is positively impacted by the material increase of Spectrum's Multi-Client seismic library and continued high focus on cash flow related to new acquisition projects. In general, risk will be negatively impacted if market conditions are weak. Some new projects are also de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions. Liquidity risk is primarily related to potentially realising lower sales than expected from existing library. At 31 December 2018 the Spectrum Group had current assets of USD 113.9 million (2017: USD 92.5 million) and current liabilities of USD 125.8 million (2017: USD 81.7 million). The Group held USD 37.7 million (2017: USD 14.2 million) in cash and cash equivalents as of 31 December 2018.

### Credit risk

The customers of the Spectrum

Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class (see note 11). Management considers the provisions in each legal entity sufficient to cover risk related to receivables balances. The overall credit risk is considered to be low and Spectrum had no losses on receivables in 2018.

### Currency and Interest rate risk

A 1% change in the currency rate NOK to USD would impact the Group's net result by less than 0.1%. Spectrum Geo Do Brazil SG LTDA has bank deposits and tax liabilities in BRL. A 1% change in the currency rate BRL to USD would impact the Group's financial position by less than 0.1%. The risk related to interest rates is considered limited since the operation is not capital intensive.

### Liquidity

As at 31 December 2018 the total assets of the Group were USD 312.4 million, including USD 37.7 million in cash and cash equivalents.

Spectrum is positioned to meet its future working capital commitments through internally funded cash flow.

The Board of Spectrum has approved a stock option program for senior executives. As of 31 December 2018 there were 4.5 million outstanding options with an average exercise price of NOK 36.4. Of the outstanding options approximately 2.9 million options are exercisable in 2019.



#### **Corporate Governance**

Spectrum is committed to maintaining high standards of corporate governance. We believe that effective corporate governance is essential to the well-being of the Company and establishes the framework by which we conduct ourselves in servicing our client's needs, achieving strategic goals and delivering value to our shareholders. The Company is registered in Norway as a public limited company. The Company has Audit and Remuneration committees.

#### Corporate Social Responsibility

Corporate Social Responsibility is an integrated part of Spectrum's way of doing business. Spectrum's corporate mission is to achieve world-leading performance through persistence, dedication and full commitment to quality. Further, supplying global seismic solutions through dedicated and experienced people.

We believe Spectrum's commitment to core values like business integrity, respect for others, fair play and honesty is key to realizing our corporate mission.

Spectrum takes the responsibility towards the Group's stakeholders very seriously and considers how all parts of the Group's operational activities can potentially impact them. This consideration includes thorough planning of all projects, extensive communication with regulatory bodies and local communities (including permitting processes), quality based selection of local representatives and partners.

Customers: We focus on working in partnership with our customers to deliver consistent quality Multi-Client seismic data and seismic processing services on time and to budget.

Employees: It is Spectrum's policy to treat all employees with the same level of professionalism regardless of their sex, sexual orientation, age, race, ethnic origin, colour, nationality, disability or marital status. Furthermore, the Company believes that no employee should be prejudiced in any aspect of their employment or career development. The Company will take appropriate measures for any instances of non-compliance with this policy.

### Community and Environment:

The Group's activities involving the collection of seismic data mean that there is a level of interaction with the external environment. Spectrum is continually working on its operational procedures in order to minimize the potential negative environmental impact and maximize potential positive social impact on the people, communities and the surroundings in which we operate. We are dedicated to continuous improvements in all parts of our operation. Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. Spectrum

endeavours to ensure that security services are only used where deemed necessary and that the provision of security is in accordance with international standards of best practice and the laws of the countries in which we operate. We act with fairness in our business practices and do not use our dealings with political organisations or our business partners to secure an unfair advantage over others.

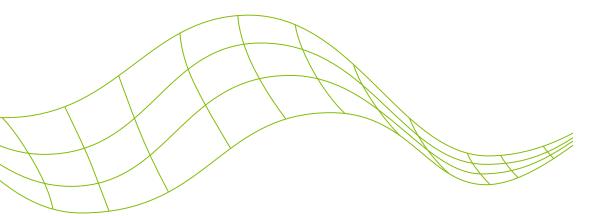
As Spectrum recognizes the Group's social responsibility role, the company was active in developing cultural, environmental and educational projects beneficial to local society. We worked actively with environmental Institutions, like the TAMAR foundation in Brazil.

Spectrum focuses specifically on compliance, anti-corruption and safe and environmentally friendly execution of our seismic projects.

### Anti-Corruption and Compliance

Spectrum shall actively combat bribery and corruption and we shall act professionally, fairly and with integrity in all our business dealings and relationships wherever we operate.

Spectrum's Code of Conduct and Anti-Corruption Policy may be found at www.spectrumgeo.com. The Spectrum Code of Conduct describes the requirements in terms of business ethics and conduct applying to Spectrum's business activities. Spectrum is committed to comply with all legal and ethical requirements of the industry.



Our Code of Conduct and Anti-Corruption policies are approved by the Board of Directors and are applicable to all employees.

Spectrum operates in several high risk countries which puts an obligation on us to act diligently. Our policies emphasize Spectrum's zero tolerance approach to bribery and corruption. The policies expressly prohibit bribery and other illegal payments as well as giving guidance on gifts and hospitality.

Spectrum has implemented a whistle blower policy where employees are encouraged to report any violation of Spectrum values or policies to their supervisor or to the Code of Conduct Committee. Spectrum investigates all potential violations of its policies or of any applicable anticorruption laws. In order to increase awareness, all Spectrum employees are required to take an anti-corruption course.

Spectrum has conducted an internal risk assessment related to corruption and compliance. One particular risk area that has been identified and addressed is the engagement of local representatives, which has led to a separate policy on this being implemented internally. Spectrum regularly conducts due diligence on third-party relationships depending on various risk factors such as location, services and stakeholders involved, including use of a well renowned external company preparing integrity due diligence (IDD) reports. All Spectrums' local representatives are annually required to certify compliance with applicable anti-corruption laws,

including Spectrum's own policies. Spectrum includes anti-corruption provisions in the relevant agreements with the local representatives, including audit and termination rights.

The implemented policies and training have increased awareness among Spectrum employees and other representatives related to anti-corruption and compliance issues.

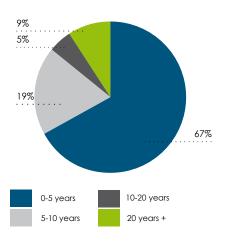
Spectrum intends to continue the monitoring of its anti-corruption policies including further training of employees and also of other representatives of the Spectrum Group. Our policies are continually assessed to identify weaknesses and areas for improvement.

### **People**

Spectrum is committed to creating a work environment free of harassment and bullying, where everyone is treated with dignity and respect. We are committed to promoting equal opportunities in all areas and to avoiding unlawful discrimination in employment and against our clients and customers.

Spectrum directly employed 158 people end December 2018 (146 end December 2017). In addition Spectrum has a Joint Venture in Egypt with 38 employees. We had 29 new hires through 2018 and 5 individuals were transferred internally. The employee turnover in 2018 was 10%.

Length of service for employees in Spectrum

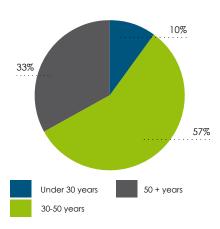


Gender of Board of Directors is: 50% female and 50% male.

Gender of managers is: 25% female and 75% male.

Gender of total number of employees: 38% female and 62% male 7% of managers are under 30 years old, 55% of managers are in the age span 30-50 and the rest above 50 years old.

### Age distribution for total number of employees



The salary for men and women performing the same role is similar with differences due to length of service and individual skill sets.

#### **Training and Conferences**

Spectrum offers strong professional and technical development opportunities by providing a wide range of training options both internally and externally through strong collaborations established with technology providers and academic institutions. Internal training was delivered through monthly open to all "lunch and learns" as well as yearly internal department specific technical seminars and forums. Companywide online technical training was adopted offering a wide range of oil industry related training modules covering all levels of experience. Software training, academic presentations by university professors and relevant technological updates by technology partners, all took place onsite.

Spectrum strongly encourages employee attendance to major industry events. Additionally, Spectrum took part in the "Nautilus" series of pre-committed training days programme.

Spectrum has established a close collaboration with over 15 universities worldwide, participating closely in both MSc and PhD projects using Spectrum's seismic data. In exchange the universities offer the geoscience employees of Spectrum different courses and fieldtrips to places of geological interest.

### Working Environment and Health Safety & Environment "HSE"

Spectrum is committed to protect the health, safety and security of its employees, contractors, clients and the public while protecting the environment in which it operates. Spectrum will promote an effective and proper understanding of its HSE requirements with all employees and contractors. All Spectrum personnel are required to cooperate on all matters relating to HSE and to always consider and prioritize the health and safety of themselves and others who may be affected by their actions.

It is Spectrum's objective to:

- Maintain high standards for health, safety and the protection of the environment;
- Communicate these standards to all Spectrum personnel and external parties where necessary;
- Ensure that all Spectrum personnel are given the necessary information, instruction and training to enable them to work in a safe manner.

It is Spectrum's Policy to:

- Provide adequate control of the health and safety risks arising from our work activities;
- Consult with our employees on matters affecting their health and safety;
- Provide and maintain safe premises and equipment;
- Ensure safe handling and use of substances;
- Provide information, instruction and supervision for employees;
- Ensure all employees are competent to do their tasks, and to give them adequate training;
- Prevent accidents and cases of work-related ill health;
- Maintain safe and healthy conditions; and
- Review and revise this policy as necessary at regular intervals.

The average number of days lost through illness in 2018 was 1.4%

With regard to the offshore operations the following safety performance was recorded for 2018:

Total Man hours	1,420,971
Fatalities	0
Lost Time Incidents	0
Medical Treatments Cases	3
Restricted Work Cases	1
High Potential Incidents	2
LTI Case Frequency (per	0.0
million man-hours)	
High Potential Case	1.5
Frequency (per million	
man-hours)	
Recordable Case	2.8
Frequency (per million	
man-hours)	

In 2018 Spectrum did not experience any major incidents in our operations and no significant spills or other environmental damage. Spectrum believes that safe operations are fundamental to the success of our business and is dedicated to the continuous improvemnt of health, safety and secruity standards.

### **Human Rights**

Spectrum has an organizational culture which is committed to supporting internationally recognized human rights, including the United Nations Declaration of Human Rights. We seek to respect the human rights of our employees in all areas, including non-discrimination of any kind, the prohibition of enforced labor and child labor and the freedom of association. Spectrum makes every effort to be fully aware of human rights issues and through our actions seek to uphold human rights and foster equality and respect for all.

### **Community Relations**

Spectrum is committed to respecting the communities in which we operate by becoming familiar with and showing consideration to local cultures, customs and values. We

seek to support local society by recruiting from the resident work force wherever possible, and aim to act as a positive influence within these communities. We actively engage with local communities, providing them with the opportunity to comment and address any concerns regarding projects involving the acquisition of seismic data.

### **Shareholders Equity / Dividends**

As of 31 December 2018 there are 54,785,103 shares in issue, which are traded on the Oslo Stock Exchange (SPU), the largest 5 shareholders controlled 44.27% of the shares in the Company. A detailed listing of the largest 20 shareholders and the holdings of the Directors and Executive Management can be found in note 13.

On 25 May 2018 the Annual General Meeting (AGM) gave the Board of Directors a Power of Attorney, pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 5.4 million through one or more increases in the share capital. This power of attorney and the power of attorney to issue convertible loans are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration. The power of attorney may be utilized in connection with issuance of shares as complete or partial settlement for or financing of mergers or in connection with acquisition of companies, businesses or assets. The power of attorney may also be used for the purpose of strengthening the financial ability of the Company to accomplish such transactions, and for the purpose of investments in Multi-Client seismic studies.

The Power of Attorney is valid until the AGM in 2019, expiring at latest on 30 June 2019 and replaces the corresponding Power of Attorney granted at the AGM in 2017. On 25 May 2018 the AGM gave the Board of Directors a Power of Attorney pursuant to the Public Limited Liability Companies act section 10-14 to increase the share capital in the Company with up to NOK 5.4 million through one or more increases in the share capital. The power of attorney may be utilized in connection with the share option scheme of the Company.

The power of attorney may not be used in connection with increase in the share capital with settlement by contribution in kind, by way of set-off, or with conditions that shares may be subscribed for on other particular terms, cf. Public Limited Liability Companies act section 10-2.

The Power of Attorney is valid until the AGM in 2019, expiring at latest on 30 June 2019. This Power of Attorney replaces the corresponding Power of Attorney granted at the AGM in 2017.

On 25 May 2018 the AGM gave the Board of Directors the a power of attorney pursuant to the Public Limited Liability Companies act section 11-8 to issue convertible loans which will give lender right to have shares issued against payment of money or by set-off against the receivable.

Loans may be issued in one or several rounds with a maximum loan amount of NOK 400 million.

The share capital of the Company can in total be increased by up to NOK 5.4 million. This power of attorney and the general power of attorney to increase the share capital are collectively limited, and the total use of such power of attorneys may not exceed 10% of the Company's share capital at the time of the registration.

The shareholders pre-emptive rights pursuant to the Public Limited Liability Companies Act section 11-4 may be waived, ref the Public Limited Liability Companies Act section 10-5. The Board of Directors is granted the power to amend the articles of association section 4 in the event of conversion according to the power of attorney.

The Power of Attorney is valid until the AGM in 2019, expiring at latest on 30 June 2019. This Power of Attorney replaces the corresponding Power of Attorney granted at the AGM in 2017.

On 25 May 2018 the AGM gave the Board of Directors authorization, pursuant to the Public Limited Companies Act section 9-4, to purchase up to 5.4 million own shares with a total nominal value of NOK 5.4 million corresponding to approx. 10% of the Company's share capital.

The amount paid per share shall be minimum NOK 1 and maximum NOK 150.

The Board of Directors is free to decide how the acquisition and disposal of shares takes place, but shall ensure that general principles of equal treatment of shareholders shall be complied with. Disposal of own shares acquired according to this authorization, shall primarily take place as part of fulfillment of the Company's obligations under option programs for senior executives.

This authorization was effective from the time it was registered in the Norwegian Register of Business Enterprises. The authorization is valid until the day of the AGM in 2019, expiring at latest on 30 June 2019, and replaces the corresponding authorization granted at the AGM in 2017.

The Extraordinary General meeting (EGM) 13 November 2012 approved a share option program to senior executives in the Spectrum Group of 8.0 million options, up from previously 6.0 million. The program otherwise continued as

approved in the EGM held 30 November 2010.

In the Annual General Meeting 23 May 2014 the limit for the option program was further increased from 8 million options to 10.0 million options of which 2.142.500 options are not granted per 31 December 2018. Each option gives the right to acquire or subscribe for one share in the Company. Vesting of options related to the first part of the option program take place over a four year period with 15% vested after 1 year, 20% after two years, 25% after 3 and 40% after four years. The second part of the option program vest over a three year period, starting from autumn 2014.

In the Annual General Meeting 19 May 2017 the term of the option agreements for certain employees was extended with up to 3 years, with a right for the participants to accumulate/roll options in the extended term. Condition for the extension was that the participants had to purchase shares in the Company with 2 years lock up for an amount equal to up to 25% of gross profit from options granted after approval of new guidelines in 2014 (with a possibility for fulfilling such condition through existing shareholding). Senior executives was required to invest up to 25% of gross bonus payments in shares.

The Board of Spectrum ASA proposes a dividend for 2018 amounting to NOK 1.5 per share. Spectrum ASA had USD 89.8 million in equity per 31 December 2018.

### **Market Outlook**

The Exploration and Production segment of the oil industry, to which Spectrum is a supplier, has undergone some major changes during the last couple of years with the price of oil ranging from USD 27 per barrel (pb) to USD 147 pb with a price level of USD 65 pb per February 2019. This has been brought about by a number of factors including uncertainty in the

global economic outlook, political issues in the Middle East and unbalance in supply/demand due to among others increase in shale oil production. The Board now sees continued increasing demand for Multi-Client seismic from clients. Spectrum believes a combination of a stable oil price, a significant reduction of breakeven cost for offshore O&G projects in general, and deep-water projects especially, and a record low reserve replacement ratio (RRR) for the oil industry will lead to a accelerating recovery in the seismic market in 2019.

Spectrum's overall investment criteria for Multi-Client projects will be focused on the quality of the projects and prefunding level will be key for project realization.

Seismic Imaging is an integral and important part of our Multi-Client offering and Spectrum continues to invest appropriately in order to maintain its long-term strategies of securing backlog and delivering additional products.

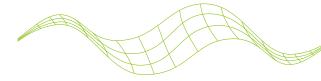
The Board underline that, given the current market, there are many factors outside the Group's control that could affect Spectrum's future performance so all statements related to the future do involve unknown risks and uncertainties.

### **Profit Allocation**

The parent company, Spectrum ASA, has a net gain of USD 0.855 million. This will be transferred to retained earnings.

77

World-leading performance through persistence, dedication and commitment to quality



# Board of Directors and CEO Statement of Compliance

### Confirmation from the Board of Directors and CEO

We confirm that, to the best of our knowledge, the consolidated financial statement for the year ended 31 December 2018 have been prepared in accordance with IFRS as adopted by the EU, and give a true and fair view of the Group's assets, liabilities, financial position and results of operations. We confirm that, to the best of our

knowledge, the financial statements for the parent company for the year ended 31 December 2018 have been prepared in accordance with the Norwegian Accounting Act and IFRS as adopted by the EU, and that these financial statements give a true and fair view of the company's assets, liabilities, financial position and results of operations.

We also confirm that the Report of the Board of Directors includes a true and fair review of the development, performance and financial position of the Group and the Company, and includes a description of the principle risks and uncertainties facing the entity and the Group.

Oslo, 11 April 2019

Ingrid Leisner Board member

J. Luoner

Maria Tallaksen Board member Pål Stampe Chairman of the Board

une En

Glen Ole Rødland Board member

Glen Ole Rolland



### Corporate Governance

Since its incorporation, subsequent listing on the Oslo Axess exchange and transfer to Oslo Børs in 2012, Spectrum has sought to create a framework under which it can deliver confidence and provide long term strategic growth to shareholders, employees and other stakeholders.

The objective for Spectrum is to adhere to all relevant laws and regulations affecting the Company and its business activities in the regions of operation, as well as the Norwegian Code of Practice for Corporate Governance from 21 October 2010, revised annually, which itself is based on company, accounting, stock exchange and securities legislation, as well as Stock Exchange Rules, as in force at 1 October 2010, and includes provisions and guidance that in part elaborate on existing legislation and in part cover areas not addressed in legislation.

### Implementation and reporting on corporate governance

The Board of Spectrum is responsible for the implementation of strong corporate governance and is committed to the continual review of its policies. It is firmly believed that Spectrum's core corporate governance code is fully compliant with regulations.

Within its daily activities Spectrum recognises the interaction with external parties and the environment and conducts its business in a way to minimise any adverse effects on the people, societies and environments that it has contact with.

All the activities of the Group are designed to promote its basic core values or delivering on strategic goals, strengthening confidence and enhancing the value to our shareholders through an ethical and socially responsible approach to doing business.

#### Business

Spectrum's business as defined in the Articles of Association state that 'the Company shall be engaged in the business of offering services related to the acquisition, processing and marketing of geophysical, aeromagnetic and gravity data, and other services related to such business, including the participation in other companies engaged in similar and related business'.

### **Equity & dividends**

The Board of Spectrum ASA propose a dividend amounting to NOK 1.5 per share to its share-holders in respect of the period. This proposal is based upon the result of the operations for the year and overall financial strength including the ability to finance future business opportunities. In general, future dividend will be subject to determination by Spectrum's Board of Directors-

based on its results of operations and financial condition, its future business prospects and any applicable legal or contractual restrictions. Any proposal by the Board of Directors must be approved by Spectrum's shareholders in a general meeting.

### Equal treatment of shareholder and transactions with close associates

Spectrum has one class of shares with each share and shareholder treated equally. There are no provisions in the articles of the Company to waive the pre-emption rights of existing shareholders to subscribe for shares in the event of an increase in the share capital. Any such change will need to be justified by the Board of Directors and put before a General Meeting.

25 May 2018 the AGM passed a resolution under which the Board of Directors is authorized to purchase up to 5.4 million own shares with a total nominal value of NOK 5.4 million. The amount paid per share shall be minimum NOK 1 and maximum NOK 150.

Spectrum does not encourage transactions between the Company and shareholders,



members of the Board of Directors, members of the executive management or close associates of any such party. Should such a transaction exist the Board will arrange for an independent valuation of the transaction.

A process designed to ensure that executive management and Board of Directors disclose any material direct or indirect interest in any transaction entered into by the Company is in place.

### Freely negotiable shares

Spectrum is listed on the Oslo Stock Exchange, under the tag "SPU". All shares are freely negotiable and there is no form of restriction on negotiability within the Company's articles of association.

### **General Meetings**

The Board of Directors believe that the General Meeting is an appropriate forum for shareholders to communicate with the Board and exercise their rights of participation and promote their points of view.

The date of the General Meeting is included within the published financial calendar and will further be communicated to shareholders, together with any appropriate information relating to any resolutions to be considered, no later than 21 days prior to the date of the meeting.

In the interest of independence and to ensure a level of impartiality

in the General Meeting, it is the intention to appoint an independent chairperson for the duration of the meeting, whilst members of the Board, Nomination Committee, executive management and auditors will be present throughout.

### **Nomination Committee**

The Nomination Committee is elected by the General Meeting for a period of two years. The current committee was elected in May 2017 and May 2018 and consists of three independent individuals: Ragnhild Wiborg (2017-2019) - Chair Kjetil Erikstad (2017-2019)

Jon Christian Syvertsen (2018-2020)

The mandate of this committee is to propose members to the Board of Directors and fees to be paid.

### Corporate assembly and Board of Directors: composition and independence

The Group employs fewer than 200 people and does not have a corporate assembly.

The articles of association allow for the Board of Directors to comprise no fewer than three and no more than seven members. The current directors are listed on page 26 and their shares ownership is disclosed in note 13. Spectrum believes the composition of its Board of Directors ensures that it can operate independently of any special interests. There are no representatives of the Company's executive management on the Board, with the

members being independent of the Company's executive management and material business contacts.

### The work of the Board of Directors

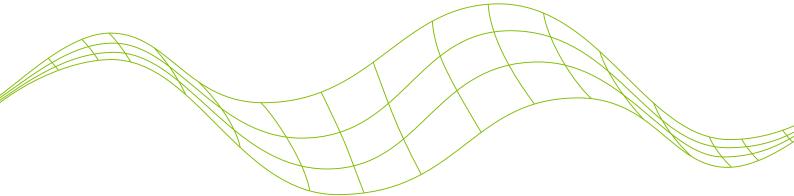
The Board of Directors represents, and is accountable to, the shareholders of the Company. They are responsible for the business activities and supervision of the executive management including the implementation of control systems that ensure compliance with regulations and any applicable legislation. An annual plan is to be prepared with particular emphasis on objective management, strategy and its implementation with a clear definition as to the allocation of responsibilities between executive and non-executive management.

There are two sub-committees of the Board, the Audit and the Remuneration Committee.

The Nomination Committee will be asked to provide an independent annual assessment as to the performance and expertise of the Board of Directors while performing its duties, this will be presented to and assessed by the Board members.

### Risk management and internal control

The executive management of Spectrum is continuously developing its risk management and internal control systems and it is the role of the Board of



Directors and Audit Committee to oversee that they are appropriate to the Company's activities.

The internal controls are designed to provide a comprehensive framework to manage the operational and commercial risks of the activities undertaken against the background of the wider corporate values, together with its ethical and social responsibilities.

The Audit Committee will undertake an annual review of the controls and main areas of risk to ensure that the systems take into account the scope and growth of the Company's activities. The annual Audit Committee plan states which areas and controls to be reviewed in each Audit Committee meeting. The Board of Directors and Audit Committee will provide an account of the main features of the Company's internal control and risk management systems as they relate to the Company's financial reporting within the annual report and accounts.

### Remuneration of the Board of Directors

The remuneration of the Board is not linked to the Company's performance but reflects the level of responsibility, expertise, time and the complexity of the Company's activities.

The Company's Annual General Meeting 25 May 2018 determined the remuneration to the Board members for the period 2017 as follows 'remuneration of the Board should be NOK 0.47 million to the chairman and NOK 0.315 million to the directors'. A full breakdown of the directors' remuneration is disclosed in note 5.

### Remuneration of the executive management

The Board of Directors decides the terms and conditions of employment of the Chief Executive Officer (CEO), together with the overall scope of the remuneration to the executive management. The CEO determines the remuneration of the individual members of the executive team within his mandate. The Board presents the declaration pursuant to the Norwegian Public Limited Liability Companies Act, section 6-16 a, regarding the determination of salary and other remuneration to senior employees to the Annual General Meeting. Please see note 5 Salaries & Other Remuneration where the content of the declaration is presented.

### Information and communications

Spectrum treats all shareholders equally in respect to information it publishes and believes it is essential to inform all parties in a clear, relevant and timely manner of events regarding the Company's prospects, subject to any legal restrictions.

The Company releases quarterly and annual reports, incorporating financial and operational reviews, in compliance with stock exchange regulations which, together with its financial calendar, are published on it's website, www.spectrumgeo.com.

### **Takeovers**

In the event of a proposed takeover of the Company, the Board of Directors will act to ensure that there is equal treatment of all shareholders and that the on-going activities of the Company are not disrupted unnecessarily.

Following any formal takeover approach for the Company, the directors will issue a statement evaluating the merits of the bid, disclosing all the relevant information behind their decision together with their recommendation as to acceptance or rejection of the offer. If the decision of the Board is not unanimous then this will be stated and the reasons communicated. It is recognized that should a transaction that effectively disposes of the Company's activities be undertaken, it will be proposed to and decided by the shareholders in a General Meeting.

### **Auditor**

The auditors have presented the main features of their audit plan to the Board and the Audit Committee, detailing how they will review the Company's internal control procedures including the identification of any weakness and proposals for improvement. The auditors have been invited to the Board of Directors meeting at which the Annual Accounts are presented, the CEO and all members of the executive management team will not be present during part of this meeting.

The remuneration of the auditor including details of fees paid for audit and any other specific assignments are reported in note 7 and will be further disclosed at the General Meeting.





### INVESTOR RELATIONS

Spectrum aims to inform the stock market of the Company's activities and status in a timely and accurate manner. We put great emphasis in providing the same information to all investors; national and international, therefore all press releases and news are published in English only.

Our quarterly earnings presentations are recorded and webcasted in real time. The webcasts stay on our website www.spectrumgeo.com/financial-reports together with the financial reports and slide presentations.

The top management participates and presents at investor conferences both in Norway and internationally and also attends international roadshows throughout the year to meet existing and potential new shareholders.

Please feel free to contact us to get to know more about Spectrum.

Dean Zuzic Chief Financial Officer

dean.zuzic@spectrumgeo.com Cell: +47 414 33 560

### Shareholder Information

#### Share capital

Spectrum ASA's share capital is NOK 54,785,103 divided into 54,785,103 shares with a par value of NOK 1.

All shares in the Company are issued pursuant to the Norwegian Public Limited Companies Act (Norwegian: "Allmennaksjeloven").

There is only one class of shares and all shares are equal in all respects, including the voting rights. Each share carries one vote

The shares are registered with the VPS with ISIN NO0010429145, and the Company's registrar is Danske Bank – Transaction Services, Søndre Gate 13-15, N-7466 Trondheim.

#### Share information

Spectrum ASA has been listed on Oslo Stock Exchange (OSE) since 2 July 2012. Before listed on OSE, Spectrum ASA was listed on Oslo Axess from 1 July 2008. The Company ticker is SPU.

On 28 December 2018, the share price was NOK 36.5, a decrease of 4.4% from one year earlier, adjusted for dividends. By comparison, the

OSEBX index saw a decrease of 1.8% during the same 12 months. In 2018, the Spectrum share peaked at NOK 63.20, while the lowest price was NOK 34.60. Spectrum's market cap on 31 December 2018 was NOK 1,999,656,260.

On 31 December 2018, Spectrum's Price/Book ratio was 1.39 compared to 1.63 the year before.

#### Shareholder structure

At the end of 2018 Spectrum had 717 shareholders.

As of 31 December 2018 the Company's 20 largest shareholders held 71.07% of the Company's outstanding shares. Following is an overview of the 20 largest shareholders as of 31 December 2018.

Shareholders owning 5% or more of the Company have an interest in the Company's share capital which is notifiable to the market according to the Norwegian Securities Trading Act. The following shareholders own more than 5% of the issued share capital as of 31 December 2018: Altor Invest 1 AS (14.60%), Altor Invest 2 AS (14.60%), Swedbank Robur Småbolagsfond

(5.29%) and Skandinaviska Enskilda Banken (5.01%).

#### **Dividend policy**

Spectrum's overall objective is to combine strong growth through reinvestment with dividend payments. The Board of Directors proposes a dividend of NOK 1.5 per share for 2018. The Board of Directors objective is to distribute a stable percentage of earnings in dividend to the company's shareholders subject to the Group's financial position, investment plans and the underlying development of the market.

#### Deb

The Group used debt financing, two bank facilities of in total USD 74 million to partly finance the Multi-Client library transaction with Fugro in June 2015. The USD 50 million facility was repaid in full in 2017 and Spectrum has an ongoing RCF of USD 21.1 million which will be repaid in full by end June 2021.

In addition, the Group has an overdraft facility of USD 30 million, of which USD 20 million was undrawn as of year end 2018.

### Spectrum 2011–2018





### 20 largest shareholders and ownership interest as at 31 December 2018

Name	Location	Shares	% of shares
ALTOR INVEST 2 AS			
7121 311 11 1 201 2 7 10	NOR	8 000 232	14.60%
ALTOR INVEST 1 AS	NOR	8 000 232	14.60%
SWEDBANK ROBUR SMABOLAGSFOND	GBR	2 898 964	5.29%
SKANDINAVISKA ENSKILDA BANKEN S.A.	LUX	2 742 858	5.01%
CREDIT SUISSE AG, DUBLIN BRANCH	IRE	2 613 615	4.77%
GROSS MANAGEMENT AS	NOR	2 493 995	4.55%
VERDIPAPIRFONDET PARETO INVESTMENT	NOR	1 815 439	3.31%
THE BANK OF NEW YORK MELLON SA/NV	BEL	1 349 115	2.46%
SKANDINAVISKA ENSKILDA BANKEN AB	SWE	884 186	1.61%
EUROCLEAR BANK S.A./N.V.	BEL	861 648	1.57%
VERDIPAPIRFONDET ALFRED BERG GAMBA	SWE	860 046	1.57%
STATE STREET BANK AND TRUST COMP	USA	802 556	1.46%
STATE STREET BANK AND TRUST COMP	USA	768 981	1.40%
VPF NORDEA NORGE VERDI	NOR	767 908	1.40%
HOLBERG NORGE	NOR	765 000	1.40%
VEVLEN GÅRD AS	NOR	745 000	1.36%
VJ INVEST AS	NOR	705 994	1.29%
NORRON SICAV - TARGET	LUX	648 354	1.18%
INVESCO PERP EURAN SMLER COMPS FD	USA	614 246	1.12%
AAT INVEST AS	NOR	600 000	1.10%
		38 938 369	71.07%

Key figures 2018	
Share Price Dec. 31 (NOK)	36.50
High price (NOK)	63.20
Low price (NOK)	34.60
Change (NOK)	(2.00)
Change%	(4.4%)
OSEBX%	(1.8%)
Total traded value (NOK)	2 001 846 585
Total traded volume	39 633 440
Turnover velocity in 2018	72.6%
MCAP Dec. 31 (NOK)	1 999 656 260
No. outstanding shares Dec. 31	54 785 103
ISIN	NO0010429145

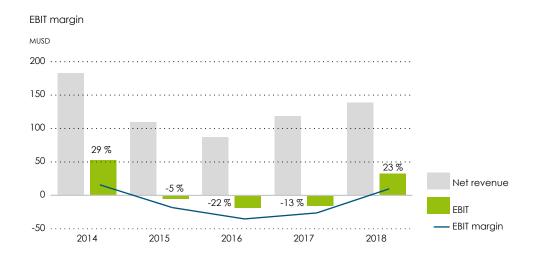
### Financial calendar 2019

April 12
Annual Report 2018
May 10
Q1 Results
May 24
Annual General Meeting
August 16
Q2 Results
October 25
Q3 Results
February 7 2020
Q4 and Full Year Results



### Statements of Comprehensive Income

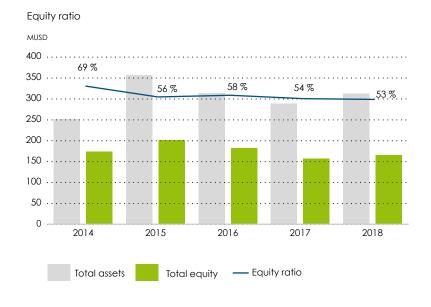
Spectrum ASA				Spectrum (	Group ASA
2017	2018		Note	2017	2018
15 184	17 534	Net revenue	2,3	118 850	138 793
(3 015)	(4 468)	Payroll expenses	5	(13 622)	(20 099)
(2 529)	(1 779)	Other operating expenses from group companies	17	-	-
(1 632)	(1 859)	Other operating expenses	7	(12 453)	(16 577)
-	-	Share of profit/(loss) of joint ventures	20	(82)	96
(6 809)	(7 287)	Amortization	10	(81 714)	(68 544)
(16 095)	-	Impairment	10	(25 598)	-
(13)	-	Depreciation	10	(1 418)	(1 331)
(14 909)	2 141	Operating profit/(loss)		(16 037)	32 338
6 142	7 397	Interest income	9, 17	62	256
(3 357)	(4 462)	Interest expenses	9, 17	(1 595)	(1 799)
-	210	Other financial income	9	109	-
(882)	(3 202)	Other financial expenses	9	(1 033)	(5 528)
(13 006)	2 084	Profit/(loss) before tax		(18 493)	25 266
1 548	(1 229)	Tax income / (expenses)	8	(8 350)	(6 361)
(11 458)	855	Net profit/(loss) for the year		(26 843)	18 905
(11 458)	855	Profit attributable to the equity holders of the parent		(26 843)	18 905
-	-	Profit attributable to non-controlling interests		(20 043)	10 705
		Other comprehensive income:			
_	_	Total items that will not be reclassified through profit/(la	1991	_	_
_	_	Total items that will be reclassified through profit/(loss)	,,,,	_	_
		Total nems mar will be reclassified infoogn promy (1033)			
(11 458)	-	Total comprehensive income / (loss) for the period		(26 843)	18 905
	855	Profit attributable to the equity holders of the parent		(26 843)	18 905
(11 458)					
(11 <b>458</b> ) -	-	Profit attributable to non-controlling interests		-	-
(11 458) - nings per sha	re (USD)	Profit attributable to non-controlling interests		-	-
ings per sha	, ,	Profit attributable to non-controlling interests attributable to ordinary equity holders of the parent	15	(0.49)	0.35

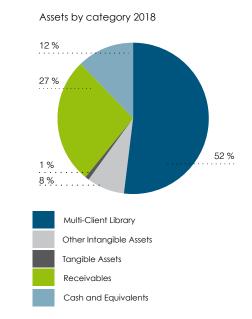


### Statements of Financial Position

### Assets

Spectrum ASA				Spectrun	n Group
2017	2018		Note	2017	2018
		ASSETS			
		Non-current assets			
1 789	1 227	Deferred tax assets	8	4 501	11 897
-	-	Goodwill	10	11 563	11 563
43 523	43 523	Investment in subsidiaries and joint ventures	20	2 430	2 524
-	-	Software	10	228	1 987
23 013	21 991	Multi-Client library	10	169 408	162 102
-	-	Fixtures, fittings and office equipment	10	1 596	1 108
-	-	Other receivables	21	6 248	6 162
-	-	Restricted cash	12, 23	-	1 111
17 220	13 720	Long-term receivables group companies	17	-	-
85 545	80 461	Total non-current assets		195 973	198 454
		Current assets			
6 887	6 352	Accounts receivables	11	43 437	49 733
-	2 875	Accrued revenues	3, 11	13 016	13 931
3 229	7 352	Other receivables	11	21 875	12 509
22 409	19 685	Short-term receivables group companies	17	-	-
10 295	25 140	Cash and cash equivalents	12	14 155	37 730
42 820	61 404	Total current assets		92 484	113 903
128 365	141 865	Total assets		288 457	312 357





### Statements of Financial Position

### Shareholders' Equity and Liabilities

Spectrum ASA				Spectrum Group	
2017	2018		Note	2017	2018
		SHAREHOLDERS' EQUITY			
8 945	8 985	Paid-in capital	13	8 945	8 985
		Issued capital	13		
71 165	72 433	Share premium		71 164	72 433
58 102	58 102	Other paid-in capital		60 959	61 874
138 212	139 520	Total paid-in capital		141 068	143 292
(47 031)	(49 698)	Retained earnings		18 422	24 910
-	-	Foreign translation reserve		(2 467)	(2 467
91 181	89 822	Total equity		157 024	165 735
		LIABILITIES			
		Non-current liabilities			
-	-	Deferred tax liability	8	5 123	2 997
23 100	13 100	Long term interest bearing debt	14, 18, 22	23 438	13 224
6 422	4 599	Other long term liabilities	4	21 180	4 624
29 522	17 699	Total non-current liabilities		49 741	20 845
		Current liabilities			
2 026	18 000	Short term interest bearing debt	4, 14, 19, 22	2 402	18 193
455	(31)	Tax and other public duties payable	8	2 354	8 105
2 939	3 097	Accounts payable	4	30 159	42 701
2 242	13 278	Other short term liabilities	3, 4, 19	46 782	56 778
7 662	34 344	Total current liabilities		81 696	125 777
128 365	141 865	Total shareholders' equity and liabilities		288 457	312 357

Oslo, 11 April 2019

J. Luaner
Ingrid Leisner
Board member

Maria Tallaksen Board member Pål Stampe Chairman of the Board

> tune lug Rune Eng

Glen Ole Rødland Board member

### Spectrum Group

### Statements of Consolidated Equity

						Foreign	
				Other		currency	
		Issued	Share	paid-in	Retained	translation	Total
	Note	capital	premium	capital	earnings	reserve	equity
Equity at 1 January 2017		8 826	69 885	60 336	45 264	(2 467)	181 845
Share issue		120	1 279	-	-	-	1 399
Share options granted	6	-	-	623	-	-	623
Total comprehensive income		-	-	-	(26 843)	-	(26 843)
Equity at 31 December 2017	13	8 945	71 164	60 959	18 422	(2 467)	157 024
IFRS 15 adjustment *					(9 050)		(9 050
Opening balance at 1 January 2018		8 945	71 164	60 959	9 372	(2 467)	147 972
Share issue		40	1 269	-	-	-	1 309
Dividends		-	-	-	(3 368)	-	(3 368)
Share options granted	6	-	-	915	-	-	915
Total comprehensive income		-	-	-	18 905	-	18 905
	13	8 985	72 433	61 874	24 910	(2 467)	165 735

### Spectrum ASA

IFRS 15 adjustment

### Statements of Parent Company Equity

				Other		
		Issued	Share	paid-in	Retained	Total
	Note	capital	premium	capital	earnings	equity
Equity at 1 January 2017		8 826	69 764	58 102	(35 573)	101 119
Share issue		120	1 401	-	-	1 520
Total comprehensive income		-	-	-	(11 458)	(11 458)
Equity at 31 December 2017	13	8 945	71 165	58 102	(47 031)	91 181
IFRS 15 adjustment *		-	-	_	(155)	(155)
Opening balance at 1 January 2018		8 945	71 165	58 102	(47 186)	91 026
Share issue		40	1 269	_	-	1 309
Dividends		-	-	-	(3 368)	(3 368)
Total comprehensive income		-	-	-	855	855
Equity at 31 December 2018	13	8 985	72 433	58 102	(49 698)	89 822
IFRS 15 adjustment						
Revenue recognized as of 31 December 201			•			291
Amortization and other effects recognized a	s of 31 December 2	2017 that wou	ıld not have bee	en recognized	under IFRS 15	(90)
FRS 15 adjustment before tax ax						201 (46)
FRS 15 adjustment						155

### Statements of Cash Flows

Spectru	m ASA			Spectrum Group		
2017	2018	Note		2017	2018	
		Cash flows from operating activities:				
(13 006)	2 084	Profit / (loss) before tax		(18 493)	25 266	
-	-	Income tax paid		-	(2 443)	
22 917	7 287	Depreciation, amortization and impairment	10	108 729	69 875	
-	-	Share options granted		611	915	
(6 142)	(7 397)	Interest income	9	(62)	(256)	
3 357	4 462	Interest expenses	9	1 595	1 799	
181	42	Other financial items	9	1	(1)	
		Working capital changes:				
1 222	535	Change in trade receivables	11	(14 555)	(6 296)	
(4 192)	158	Change in trade payables		(8 720)	(22 053)	
15 109	9 075	Change in other payables, provisions and receivables		30 295	7 277	
19 446	16 246	Net cash flow from operating activities		99 400	74 083	
		Cash flows from investing activities:				
(1 846)	(6 174)	Investment in Multi-Client library	10	(82 359)	(52 516)	
-	-	Investment in non-current tangible assets	10	(969)	(2 633)	
	-	Sale / Disposal of assets		18	31	
(1 846)	(6 174)	Net cash flow from investing activities		(83 310)	(55 118)	
		Cash flows from financing activities:				
1 399	1 309	Share issue	13	1 399	1 309	
-	(3 368)	Dividends		-	(3 368)	
2 026	10 000	Proceeds from borrowings	18	2 505	10 000	
(20 000)	(4 026)	Payment of borrowings		(20 518)	(4 389)	
(1 565)	(1 338)	Interest paid		(1 574)	(1 371)	
(18 139)	2 577	Net cash from financing activities		(18 188)	2 181	
(539)	12 649	Net change in cash and cash equivalents		(2 098)	21 146	
394	2 196	Net foreign exchange differences (unrealized)		426	2 429	
10 440	10 295	Cash and cash equivalents at beginning of period		15 827	14 155	
10,295*	25 140*	Cash and cash equivalents at end of period	12	14 155	37 730	
3 000	20 000	Undrawn facilities	4, 14	3 000	20 000	
3 000	20 000	ondrawn racillities	4, 14	3 000	20 000	

<sup>\*</sup> Joint intra-group Cash Pool facility, see note 17.





# Notes to accounts

### Note 1 Accounting policies

General information concerning the company and basis of preparation of the financial statements

Spectrum ASA (Spectrum) is a public limited liability company incorporated and domiciled in Norway. The address of its registered office is Karenslyst Allè 11, 0278 Oslo.

The principal activities of Spectrum are the production and sale of Multi-Client seismic surveys and imaging of seismic data for both Multi-Client surveys and proprietary customers operating in the global oil and gas market.

The consolidated financial statements of the Spectrum Group for the period ended 31 December 2018 were approved by the Board of Directors on 11 April 2019.

### **Basis of preparation**

The consolidated financial statements of Spectrum ASA and all its subsidiaries (the Spectrum Group) have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

The financial statements of Spectrum ASA (the Company) have been prepared using the same accounting policies as the consolidated financial statements of Spectrum. The consolidated financial statements have been prepared on a historical cost basis.

### Significant accounting judgement, estimates and assumptions

The application of the Spectrum Group's accounting policies

require management to make judgments, estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Management bases their estimates and assumptions on previous experience and other factors that are believed to be relevant to the circumstances. These estimates and assumptions are the basis for assessing the carrying value of assets and liabilities that are not evident from other sources. The key areas where estimation has been applied and where there is a significant risk of material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

In the process of applying the Spectrum Group's accounting policies, management has made the following judgements, which have the most effect on the amounts recognized in the financial statements:

### Goodwill

Goodwill has been generated by acquisition, and it is linked to the assessment of future earnings. There are uncertainties with regard to assumptions made in connection with impairment assessment. Estimating the value in use amount requires management to make an estimate of future cash flows and also to choose variables in order to calculate the present value of those cash flows.

#### **Multi-Client library**

The Spectrum Group performs an annual impairment test of all surveys in the Multi-Client library. In addition all surveys will be tested through the year if specific indications of impairment exist. The test is based on expected future sales per survey, which is based on geographical forecasts variables such as which areas in the world the oil companies would be interested buying data from and whether licenses to perform explorations are given. In addition general forecast variables such as the current and expected oil price and the expected E&P spending by oil companies impact all sales estimates. Change in market conditions, including competition and political circumstances, also affects expected future earnings from the Multi-Client library. Management considers that changes in these estimates may potentially change the present value of surveys in the Multi-Client library, and if the carrying value of a survey exceeds the present value the survey will be impaired.

### **Deferred tax assets**

Deferred tax assets are recognized for temporary deductible differences and accumulated tax losses to the extent that it is considered probable that a Group company will generate sufficient future taxable profits to absorb these losses. Significant management judgment is required to determine the amount of deferred tax to be recognized based on the likely

timing and level of future taxable profits together with future tax planning.

#### Revenue recognition

The Spectrum Group have entered into various seismic agreements with change of control clauses which trigger transfer fees payable to Spectrum. The level of transfer fees varies and the amount payable depend on several matters, including the amount and value of data being subject to transfer and data licenses to be redelivered. The Spectrum Group recognise revenue first when all of the change of control clauses have been lifted (i.e. governmental or AGM approval). The Spectrum Group records revenue based on best estimate of revenue from transfer fee's.

### Joint arrangements

All partnerships are evaluated to determine the accounting treatment of the arrangement. All such arrangements are evaluated independently as it depends on the substance and nature of the arrangement. If the control of the arrangement and decisions that significantly affect the returns of the arrangement are shared the arrangement is treated as a joint arrangement, if not it is treated as an operational partnership. A joint arrangement can be classified as a joint operation or a joint venture. Judgement is needed when making this classification. Generally the Spectrum Group classifies a joint arrangement as a joint venture if it is structured through a separate vehicle and there is no direct right to assets and obligation to liabilities. Other joint arrangements are classified as joint operations.

### **Provision for contingencies**

The Spectrum Group records accruals for contingencies and other uncertain liabilities, including tax contingencies, based on best estimates if it is considered more likely than not that a liability has been incurred. If no reasonable estimate can be made of the liability it is not recorded. Management evaluates the facts and the related laws and regulations in the jurisdiction. In most such cases external counsel will be used, and an estimate will be based on their input. The Spectrum Group operates in many countries with dynamic laws and regulations, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements.

### **Basis of consolidation**

The consolidated financial statements comprise the financial statements of Spectrum and its subsidiaries at 31 December 2017 and 2018. The financial statements of the subsidiaries have been prepared for the same reporting period as Spectrum using consistent accounting policies. All intra-group balances, balance sheet transactions and profit and loss transactions are eliminated in full.

### **Subsidiaries**

Subsidiaries are entities in which the Spectrum Group has control. This normally occurs when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Acquired subsidiaries are consolidated from the date on which control is transferred to the Spectrum Group. Divested subsidiaries are consolidated to the date on which control is transferred from the Spectrum Group. In the accounts of Spectrum ASA, investments in subsidiaries are accounted for at cost less accumulated impairment losses.

### **ACCOUNTING POLICIES**

### Investments in joint ventures

A joint venture is a contractual arrangement whereby the Spectrum Group undertakes an economic activity that is subject to joint control under which strategic, financial and operating policy decisions relating to the activities require the unanimous consent of the parties sharing control. Investments in joint ventures are accounted for using the equity method.

The consolidated financial statements include the Group's share of profit or loss from the date on which joint control is attained and until joint control ceases. In the accounts of Spectrum ASA, investments in joint ventures are accounted for at cost less accumulated impairment losses. The financial statements of the joint venture are prepared for the same reporting period and with the same accounting policies as the Spectrum Groups financial statements. The Spectrum Group's share of intra-group balances, transactions and unrealized gains and losses on such transactions between the Spectrum Group and its joint venture are eliminated on consolidation. Losses on transactions are recognized immediately if there is evidence of a reduction in the net realisable value of current assets or an impairment loss.

### Investments in joint operations

A joint operation is an arrangement where Spectrum Group with joint control has rights to the assets and obligations for liabilities of the arrangement. Proportionate share of each of the assets, liabilities, income and expenses of the joint operation is combined with similar items, line by line, in the consolidated financial statements.

#### Presentation and classification

The functional currency for all the entities in the Spectrum Group is USD. The consolidated financial statements and the parent financial statements are presented in USD, which is defined as the presentation currency.

### Statement of Comprehensive Income

All income and expenses in the statement of comprehensive income have been classified by their nature

#### **Statement of Financial Position**

Current assets and current liabilities are items due in less than one year from balance sheet date or within the normal operating cycle if this is longer, or are assets or liabilities held primarily for the purpose of being traded. Current liabilities exclude amounts attached to an unconditional right to defer settlement for at least 12 months after the end of the accounting period. All other assets and liabilities are classified as non-current.

#### **Statement of Cash Flows**

The cash flow statement has been prepared using the indirect method. Where a controlling interest in another entity has been acquired, the cash flows from the date that control was acquired are consolidated with those of the Group and reported under the appropriate category. Where a non-controlling interest in an entity has been acquired, net cash flows for the entity are reported separately under Cash flows from operating activities. In either case, the cash payment made in acquiring the stake in the entity, less the cash acquired as part of the transaction is reported under Cash flows from investing activities as "Acquisition of subsidiaries and joint ventures, net of cash acquired".

### Foreign currency translation

Transactions in currencies other than functional currency are translated using the exchange rate in effect on the date of transaction. Monetary assets and liabilities in foreign currency are translated into USD using the exchange rate in effect on the balance sheet date. Exchange differences arising from translations are recorded in the statement of comprehensive income. Non-monetary assets and liabilities measured at historical cost in foreign currency are translated using the exchange rate in effect on the date of transaction.

### Revenue recognition

Revenue is recognized by the Spectrum Group when the economic benefits from a transaction are supported by evidence of a sales arrangement which demonstrate that revenues can be reliably measured, services have been provided and collection is reasonably expected.

Where revenue recognition parameters have not been met, the Spectrum Group defers such revenues until such time as the conditions have been satisfied. Revenue is allocated among the separate units of accounting and is recognized at the fair value of the consideration received, net of discounts and sales taxes or other duties. The following describes specific principles:

#### **Multi-Client surveys**

Pre-commitment arrangements (Early sales) - When the Spectrum Group obtains pre-funding from customers before a seismic project is completed, the customer is normally entitled to a discounted price and/or is granted the opportunity to provide input into the project parameters. The Spectrum Group then recognises the pre-commitment revenue at the point in time of the transaction when the customer executes a valid license agreement and has the right to access the licensed portion of the Multi-Client library. Judgement is applied when allocating pre-funding to products licensed, and the revenue is as such recognized at the point in time when the products are completed and the client has right to access each product (e.g., PSTM, PSDM). The Spectrum Group considers whether there are other promises in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. Spectrum classifies Multi-Client

revenue as pre-commitment arrangements or late sales based on products sold. A seismic project may consist of several products and at the point in time of the sale some products may be considered in progress while others are considered completed. All received pre-funding is accounted for as a prepayment liability (deferred revenue) under other current liabilities.

Late sales – Where the Spectrum Group has completed data sets ready for sale, revenue is recognized at the time of the transaction when the customer executes a valid license agreement and has the right to access the licensed portion of the Multi-Client library. The customer's license payment is fixed and determinable and typically is required at the time that the license is granted. Transfer fees arising from contractual obligation in existing agreements are classified as late sales.

Accrued revenue – Recognized, not invoiced revenue is presented as accrued revenue. Transfer fees recorded based on best estimate are recognized as accrued revenues until the final amount is agreed with the customer and invoiced.

Revenue share – When the Spectrum Group sells surveys with a pre-committed revenue share to partners, governments or agents, the revenue share is recognized as the revenue is recognized to reflect the net revenue for the Spectrum Group.

All revenue is presented in the statement of comprehensive income as net revenue. The gross revenue from late sales or pre-commitment revenue less the revenue share is considered the net revenue. Gross pre-commitment revenue and revenue share are specified in note 2 Segment information.

#### Other services

Revenue from other services is recognized as the services are performed, provided all other recognition criteria are satisfied.

#### **Business combinations**

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the sum of the consideration transferred, including contingent consideration amounts. The consideration transferred is measured at fair value as at the date of acquisition and the amount of any non-controlling interest in the acquiree. The acquirer measures any non-controlling interest in each business combination at either fair value or at the appropriate share of the acquiree's identifiable net assets. Any costs associated with the acquisition are expensed as part of other operating expenses in the statement of comprehensive income.

When a business is acquired by the Group, the financial assets and liabilities assumed are classified and recorded according to the contractual terms, economic circumstances and relevant associated conditions in force at the date of acquisition. If step acquisition occurs, the fair value of the previ-

ously held equity interest is recalculated at the date of the increased ownership, with any difference in fair value being booked the statement of comprehensive income.

Any contingent consideration payable under a business combination will be recognized at fair value at the date of acquisition. Any later changes to the fair value of this consideration which is considered a liability or asset will be recognized in accordance with IFRS 9 in the statement of comprehensive income.

Goodwill arising as the result of a business combination is initially measured at cost, being the excess of the aggregate value of consideration transferred and the amount recognized for any non-controlling interest over identifiable assets acquired and liabilities assumed. If the consideration is less than the fair value of the acquired subsidiaries' net assets the difference is recognized in the statement of comprehensive income.

After initial recognition, goodwill is measured at cost less accumulated impairment losses. Goodwill is allocated to each of the cash generating units of the Group that are expected to benefit as a result of the business combination. Where goodwill forms part of a cash generating unit and part of an operation that is disposed of, the value of this goodwill is included in the calculation of the gain or loss on disposal. In such cases, the value of goodwill disposed of is calculated on the basis of the relative values of the retained and

disposed of operations.

Expenses related to carry out and complete business combinations are expensed.

### Intangible Assets Goodwill

Acquisitions of interests in subsidiaries, associates and joint ventures are accounted for using the acquisition method. The purchase price is allocated to the acquired assets and liabilities according to their fair value. Any excess purchase price is recorded as goodwill. Goodwill is recognized in the balance sheet at initial cost, translated from its original currency to USD, less accumulated impairment losses.

### **Software**

Software is carried at cost less accumulated depreciation and impairment losses. Depreciation is charged on a straight-line basis over the useful life of the asset in the statement of comprehensive income. Estimated useful life range is between 3-5 years.

### **Multi-Client library**

The Multi-Client library comprises completed surveys and surveys in progress that can be licensed to multiple customers. All direct costs related to data collection, processing and completion of seismic surveys are capitalized.

The Multi-Client library is capitalized at cost less accumulated amortization and impairment losses.

Amortization on pre-funding is calculated based on total cost versus forecasted total revenues of the project. The ratio is applied to pre-funding recognized.

After a project is completed, a straight-line amortization is applied. The straight-line amortization will be assigned over the project's remaining useful life, which for most projects is expected to be 4 years. The straight-line amortization will be distributed evenly through the financial year independently of sales during the year.

When the Spectrum Group acquires surveys from a third party the purchase price will be allocated based on the assumed value in use of the acquired surveys. For acquired surveys a straight-line amortization is applied. The straight-line amortization will be assigned over the surveys estimated remaining useful life.

### Tangible non-current assets

Tangible non-current assets are stated at cost less accumulated depreciation and accumulated impairment losses. Depreciation is charged on a straight line basis over the useful life of the asset and recognized in the statement of comprehensive income. Calculated depreciation takes into account any expected residual value. Expenses regarding major replacements and renewals are capitalized, while all other replacements, renewals, maintenance and repairs are recognized in the statement of comprehensive income.

Estimated useful lives are as follows: Machinery and survey equipment: 3-5 years Fixtures, fittings and office equipment: 3-5 years

### Impairment of tangible and intangible non-current assets

Tangible and intangible non-current

assets are assessed for indications of impairment at each reporting period and when there are events and changes in circumstances which indicate that the carrying amount of the asset may not be recoverable. When impairment is considered, the assets are grouped at the lowest level for which there are separate identifiable cash generating units. Impairment is calculated as the difference between an asset's carrying amount and the recoverable amount. The recoverable amount is the higher of an asset's net selling price and the value in use for the Spectrum Group. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. When an asset's value is assessed as lower than its carrying amount, the carrying amount is impaired to the recoverable amount, and the impairment loss is recognized in the statement of comprehensive income. Previously recognized impairment losses are only reversed to the extent that asset's carrying amount does not exceed the carrying value recognized if no impairment charges had been recognized in prior periods and normal depreciation and amortization polices had been applied. Impairment of goodwill is not reversed.

### Cash generating units

As part of the testing for impairment of goodwill performed as at 31 December 2018, Spectrum management determined that it was appropriate to recognize only one CGU reflecting the operating segment: Multi-Client which constitutes of 99.9% of the Group's net revenue. For the impairment testing of the Multi-Client library each survey is considered a CGU.

#### **Current Assets**

#### Trade and other receivables

Trade and other receivables are recognized at the transaction price determined under IFRS 15. Subsequent measurement are at amortized cost. Trade receivables are regularly reviewed for impairment considering their maturity, the customer's financial position and other relevant information.

### Impairment of financial assets

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms. For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

### Cash and cash equivalents

Cash and cash equivalents comprise cash in bank and in hand and short-term deposits with an original maturity of three months or less. Cash and cash equivalents are recognized at fair value. Bank overdrafts are recognized as a current liability.

#### Liabilities

### Loans and borrowings

Loans are recognized at the amount received net of transaction costs. After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in the statement of comprehensive income when the liabilities are derecognized.

All financial instruments are recognized in the statement of financial position when the Spectrum Group becomes a party to the contractual provisions of the instrument. At initial recognition it is assessed whether a financial instrument shall be accounted for as a financial liability, a financial asset or an equity instrument based on the substance of the contractual instrument. The terms of a non-derivative financial instrument are evaluated to determine whether the instrument contains a liability and an equity component, and such components are classified separately as financial liabilities, financial assets or equity instruments as appropriate. When a non-derivative financial instrument contains an embedded derivative that would have met the definition of a derivative instrument as a separate instrument, that embedded derivative is separated from the host contract and is accounted for as a freestanding derivative instrument, if the economic characteristics and risk of the embedded derivative are not closely related to that of the host contract. Multiple embedded derivatives in a single instrument are treated as a single compound instrument if the embedded derivatives relate to the same risk exposures and are not readily separable and independent of each other.

#### Trade and other payables

Trade and other payables are recognized at fair value. Gains or losses are recognized in the statement of comprehensive income.

### Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at inception date: whether fulfilment of the arrangement is dependent on the use of a specific asset or assets, or the arrangement conveys a right to use the asset. Assets acquired under finance leases which transfer substantially all the risks and benefits incidental to ownership of the leased item are presented in the financial statements as non-current assets at cost value less depreciation and impairment. The liability for future rentals is recorded in the balance sheets as a liability. The lease payments are divided into an interest element and reductions of the lease liability.

A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Spectrum Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term. Operational lease payments are recognized as an expense in the statement of comprehensive income on a straight line basis over the lease term. The Spectrum Group only act as a lessee under the Group's operational leases.

#### **Pensions**

The Spectrum Group operates defined contribution plans. The defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group pays contributions to government and privately administered pension plans. The contributions are recognized as employee benefit expenses when they are due.

### **Share-Based payments**

The cost of the Group stock option plan for senior executives in the Group is measured at the fair value of the equity instruments at the date they were granted. Estimation of the fair value of stock options requires the selection and use of an appropriate pricing model, and Spectrum management have opted to adopt the Monte Carlo model for this purpose. This model requires the use of suitable input factors including the dividend yield, the option's expected life and volatility in Spectrum's share price. The fair value of each of the share options granted also depends on the terms and conditions inherent in each individual share option agreement. Social security tax on options is based on the share value as at the end of the reporting period, is recorded as a liability and is recognized over the option period.

The Board may decide at its sole discretion (at the request of the participant or otherwise) to settle any options in cash on exercise. The stock options are treated as equity elements as long as there have not been any options vested with settlement in cash. The dilutive effect of outstanding options at the yearend is reflected as an additional share dilution in the computation of earnings per share.

The cost of equity-settled transactions is recognized, together with a corresponding increase in other capital reserves in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognized for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Spectrum Group's best estimate of the number of movement in cumulative expense recognized as at the beginning and end of that period and is recognized in payroll expenses.

No expense is recognized for awards that do not ultimately vest, except for equity-settled transactions for which vesting are conditional upon a market or non-vesting condition. These are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied. When the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any

modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification. When an equity-settled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognized for the award is recognized immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of diluted earnings per share.

#### **Segment reporting**

The Group has one primary operating segment: Multi-Client surveys. This segment is divided into geographical segments; North and South America, Africa/ Mediterranean/ Middle East, Northwest Europe and Asia Pacific. Income and cost from transactions between segments and support functions are eliminated. After the implementation of IFRS 15 Spectrum applies APMs as basis for internal/ segment reporting. Spectrum considers this to give a more fair view of the company's performance, as revenues are gradually recognized and coincides with the progression of the projects, the resources applied and the value

created, and is not binary dependent on the delivery of the products.

#### Income tax

Tax expense comprises both current tax and changes in net deferred tax. Current tax includes expected current tax on the year's taxable income using tax rates existing at balance sheet date and any corrections to previous years' current tax. Deferred tax assets and liabilities arise as a result of temporary differences existing between the values attributed to items in the financial statements and their tax-related values. These are measured at the tax rates that are expected to apply at the time the assets are realized or the liability is settled. The calculation of deferred tax assets and liabilities also takes into account tax losses carried forward at balance sheet date. Deferred income tax assets and liabilities are offset to the extent that current income tax assets and liabilities can be offset.

Deferred tax assets are recognized in the balance sheet when it is probable that there will be sufficient future taxable profit to utilize the tax asset. In countries where withholding taxes are operational they are treated as a receivable balance to offset future income tax liabilities.

Taxes payable in the statements of financial position include corporate tax, sales tax and tax on financial transactions. Sales tax and tax on financial transactions are considered operational costs and not tax expense.

### **Equity transactions**

Costs directly related to increases in share capital are regarded as a reduction in paid-in capital and are charged to equity. Any associated tax effect is also recorded against the equity.

#### Contingencies

Contingent assets are not recognized in the financial statements. When it is virtually certain that the entity concerned will receive an economic benefit as a result of a past event, then the related asset is not a contingent asset and is therefore recognized.

Contingent liabilities are not recognized in the financial statements. When it is considered probable that a material decrease in economic value will occur as a result of a past transaction, and that decrease can be measured reliably, then the related liability is not a contingent liability and is therefore recognized. If such a decrease is not considered probably, a disclosure is made of management's best estimate of the potential liability.

### Events after the balance sheet date

Event occurring after balance sheet date that provide additional information concerning the Group's position at that date are reflected in the financial statements. Other subsequent events are disclosed as a note, if significant.

### **Provisions**

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the obligation. Where it is expected that some or all of a provision will be reimbursed, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is recognized in the statement of comprehensive income net of any reimbursement.

An onerous contract is considered to exist where the Company has a contractual obligation under which the unavoidable costs of settling the obligations exceed the economic benefit that is expected to be derived from the contract. Any existing obligations that arise under onerous contracts are measured as a provision and recognized accordingly.

### New and amended standards and interpretations adopted by the Group

The Group applied IFRS 15 and IFRS 9 for the first time for the fiscal year ending December 31 2018. The nature and effect of the changes as a result of adaption of these new accounting standards are described below.

### **IFRS 9 Financial Instruments**

IFRS 9 Financial Instruments replaces IAS 39 Financial Instruments: Recognition and Measurement for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement; impairment; and hedge accounting. Implementation of IFRS 9 has not lead to any reclassifications of financial instruments. The classification and measurement requirements of IFRS 9 did not have a significant impact to the Group. Comparative information for the period beginning 1 January 2017 has not been adjusted. The following are the changes in the classification of the Group's financial assets:

Trade receivables and Other non-current financial assets classified as Loans and receivables as at 31 December 2017 are held to collect contractual cash flows and give rise to cash flows representing solely payments of principal and interest. These are classified and measured as Debt instruments at amortized cost beginning 1 January 2018.

### IFRS 15 Revenue from Contracts with Customers

The IASB and the FASB have issued their joint revenue recognition standard, IFRS 15. The standard replaces existing IFRS and US GAAP revenue requirements. The core principle of IFRS 15 is that revenue is recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard applies to all revenue contracts and provides a model for the recognition and measurement of sales of some non-financial assets (e.g., disposals of property, plant and equipment).

IFRS 15 is effective from 1 January 2018. The Group has applied the modified retrospective approach for the transition. Accumulated USD 20.3 million had been recognized as revenue up to end 2017 using prior principles that would not have been recognized under IFRS 15. This is offset by USD 8.7 million in amortization recognized that would not have been recognized under IFRS 15, and the net effect of USD 11.6 million before tax is adjusted in the equity in the 2018 opening balance.

Implementation of IFRS 15 had no impact on late sales made after a project is completed. A significant part of the revenues in the seismic industry arises from contracts signed with customers prior to the acquisition of the data and the processing of the complete products. Prior to implementing IFRS 15, Spectrum Group recognized revenues from prefunding of Multi-Client surveys based on percentage of completion. This required management to determine the degree of completion. The degree of completion for a survey is determined by applying percentage of completion to each weighted part of the survey. Percentage of completion is based on the amount of accrued expenses relative to the estimated total cost of the service provided, modified to the specific customer agreement. IFRS 15 implied a change to revenue recognition based on deliverables. This has significantly impacted the timing of the revenue recognition for on-going projects in the industry.

### IFRSs and IFRICs issued but not yet effective

Only IFRSs and IFRICs issued but not yet effective that are considered relevant to the Company have been included.

#### **IFRS 16 Leases**

IFRS 16 was issued in January 2016 and it replaces IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under IAS 17. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset.

Lessees will also be required to remeasure the lease liability upon the occurrence of certain events (e.g., a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those

payments). The lessee will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

Lessor accounting under IFRS 16 is substantially unchanged from today's accounting under IAS 17.
Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between two types of leases: operating and finance leases.
IFRS 16, which is effective for annual periods beginning on or after 1 January 2019, requires lessees and lessors to make more extensive disclosures than under IAS 17.

#### **Transition to IFRS 16**

The Group plans to adopt IFRS 16 retrospectively to each prior reporting period presented. The Group will elect to apply the standard to contracts that were previously identified as leases

applying IAS 17 and IFRIC 4. The Group will therefore not apply the standard to contracts that were not previously identified as containing a lease applying IAS 17 and IFRIC 4.

The Group will elect to use the exemptions proposed by the standard on lease contracts for which the lease terms ends within 12 months as of the date of initial application, and lease contracts for which the underlying asset is of low value. The Group has leases of certain office equipment (i.e., personal computers, printing and photocopying machines) that are considered of low value.

During 2018, the Group has performed a detailed impact assessment of IFRS 16. In summary the impact of IFRS 16 adoption is expected to be, as follows:

Due to the adoption of IFRS 16, the Group's operating profit will improve, while its interest expense will increase. This is due to the change in the accounting for expenses of leases that were classified as operating leases under IAS 17.

### Alternative performance measures (APMs)

Alternative performance measures (financial performance measures not within the IFRS framework), are used by the Group to provide supplemental information. Financial APMs are intended to enhance comparability from period to period. The APMs are also used internally for management reporting. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS. See page 90-93.

Estimated impact on the statement of profit or loss (increase/(decrease)) for 2018:	Spectrum Group
	2018
Depreciation expense	1 700
Operating lease expense	(2 000)
Operating profit	300
Finance costs	350
Income tax expense	(12)
Profit for the year	(39)

Profit for the year	(39)
Impact on the statement of financial position (increase/(decrease)) January 1 2019:	Spectrum Group
	01.01.2019
Assets	
Property, plant and equipment (right-of-use assets)	6 982
Prepayments	-
Liabilities	
Lease liabilities	(7 145)
Trade and other payables	163
Net impact on equity	-

Due to the adoption of IFRS 16, the Group's operating profit will improve, while its interest expense will increase. This is due to the change in the accounting for expenses of leases that were classified as operating leases under IAS 17.

### Note 2 Segment information

Spectrum is a pure play Multi-Client company. The Group has identified two operating segments as defined in IFRS 8 Operating Segments: Multi-Client and Seismic Imaging. Multi-Client is considered the primary operating segment. The Multi-Client operating segment is for internal reporting purposes split into four reporting segments on a geographical basis. Multi-Client constitutes 99.9% of the Group's net revenue (2017: 99.8%).

	Spectrum Group 2018				
	Multi-Client Seismic imaging Consolidate				
Gross revenue	207 105	105	207 210		
Revenue share	(68 417)	-	(68 417)		
Net revenue	138 687	105	138 793		

	Spectrum Group 2017				
	Multi-Client Seismic imaging Consolidate				
Gross revenue	142 962	233	143 195		
Revenue share	(24 346)	-	(24 346)		
Net revenue	118 617	233	118 850		

Spectrum applies APMs as basis for internal/segment reporting. The segment amounts (APMs) will be consistent with and comparable to prior periods. Spectrum considers this to give a more fair view of the company's performance, as revenues are gradually recognized and coincides with the progression of the projects, the resources applied and the value created, and is not binary dependent on the delivery of the products. Please see further details on page 90–93.

	Spectrum Group 2018 APM			
	Multi-Client	Consolidated		
Gross revenue	198 322	105	198 427	
Revenue share	(64 673)	-	(64 673)	
Net revenue	133 649	105	133 754	

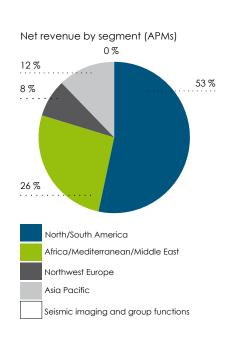
Multi-Client information is given for reporting segments which are identified on a geographical basis.

Separate internal financial information is prepared for these geographical segments and reported for management accounting purposes to the Chief Operating Decision Maker (CODM). In the Spectrum Group the executive management and the Board of Directors are considered to be the CODM.

The Multi-Client service reporting segment manages the acquisition

and processing of new seismic surveys and the reprocessing of existing survey data to produce seismic datasets that Spectrum either owns or has the right to sell licences to third parties on a non-exclusive basis. Spectrum Group classifies Multi-Client revenue as early sales or late sales based on the products sold.

Proprietary revenue from seismic imaging is treated as separate products and classified as other revenue.



### Reported segment revenues and profits / (losses)

			Spectrum G	roup 2018		
		Mult	i-Client			
		Africa/			Group	
		Mediter-			functions	
	North and	ranean/			including	
	South	Middle	Northwest	Asia	Seismic	Consoli-
	America	East	Europe	Pacific	imaging	dated
Net early sales	22 390	9 454	749	2 884	_	35 477
Net late sales	52 237	28 058	10 524	12 393	_	103 210
Other revenue	-	-	-	-	105	105
Net revenue	74 627	37 512	11 273	15 277	105	138 793
APM adjustments (segment early sales)	(3 359)	(2 265)	(666)	1 251	-	(5 039)
Net segment revenue	71 268	35 247	10 607	16 528	105	133 754
Operating expenses	(5 182)	(1 503)	(792)	(1 354)	(27 845)	(36 676)
Share of profit/(loss) of joint ventures	-	-	-	-	96	96
Amortization	(34 755)	(13 792)	(12 754)	(7 243)	-	(68 544)
Depreciation	(81)	(61)	(20)	(21)	(1 147)	(1 331)
Operating profit/(loss)	34 609	22 155	(2 293)	6 658	(28 791)	32 338
APM adjustments (segment amortization)	2 284	1 072	301	(344)	-	3 313
Segment Operating profit/(loss) (segment EBIT)	33 534	20 962	(2 658)	7 565	(28 791)	30 612

			Spectrum G	roup 2017		
		Multi-Client				
		Africa/ Mediter-			Group functions	
	North and	ranean/			including	
	South	Middle	Northwest	Asia	Seismic	Consoli-
	America	East	Europe	Pacific	imaging	dated
Net early sales	15 636	38 797	667	2 116	-	57 216
Net late sales	26 725	15 673	9 924	9 062	-	61 384
Other revenue	3	5	8	1	233	250
Net revenue	42 364	54 475	10 599	11 179	233	118 850
Operating expenses	(2 969)	(1 691)	(1 409)	(1 763)	(18 242)	(26 074)
Share of profit/(loss) of joint ventures	-	-	-	-	(82)	(82)
Amortization	(35 561)	(25 203)	(12 253)	(8 696)	-	(81 714)
Impairment	(15 290)	(1 876)	(565)	(6 227)	(1 640)	(25 598)
Depreciation	(74)	(115)	(27)	(26)	(1 176)	(1 418)
Operating profit/(loss)	(11 530)	25 589	(3 656)	(5 533)	(20 907)	(16 037)

### Major customers

In 2018, the largest customer of the Spectrum Group accounted for 17% of consolidated gross revenues (2017: 12%). Spectrum do not disclose a breakdown of customers as management consider this information to be confidential and commercially sensitive in nature. Spectrum's customers are international oil companies.

### Segmental analysis of assets, liabilities and carrying value of investments for the year ended 31 December

Assets, liabilities and carrying value of investments by reporting segment is not included in management reporting and is therefore not disclosed separately in these accounts.

## Note 3 Revenue from contracts with customers

	Spectrum Group 2018			
	Multi-Client	Seismic imaging	Consolidated	
Gross revenue	207 105	105	207 210	
Revenue share	(68 417)	-	(68 417)	
Net revenue from contracts with customers	138 687	105	138 793	

		Spectrum Group 2017			
	Multi-Client	Seismic imaging	Consolidated		
Gross revenue	142 962	233	143 195		
Revenue share	(24 346)	-	(24 346)		
Net revenue	118 617	233	118 850		

	Spectrum ASA 2018			
	Multi-Client	Sales to subsidiaries *	Sum	
Gross revenue	12 604	7 586	20 190	
Revenue share	(2 655)	-	(2 655)	
Net revenue from contracts with customers	9 948	7 586	17 534	

		Spectrum ASA 2017			
	Multi-Client	Sales to subsidiaries *	Sum		
Gross revenue	6 423	10 095	16 518		
Revenue share	(1 334)	-	(1 334)		
Net revenue	5 089	10 095	15 184		

<sup>\*</sup> see note 17

### Contract Balances

Spectrum ASA			Spectro	um Group
2017	2018		2017	2018
6 887	6 352	Trade Receivables (note 11)	43 437	49 733
-	2 875	Contract Assets	13 016	13 931
103	21	Contract Liabilities	892	16 306

Trade receivables are non-interest bearing and are generally on terms of 30 to 60 days.

Contract assets consist of accrued revenues, that are recognized upon delivery of data. Accrued revenue is reclassified to trade receiveables when invoice are issued to customer. Prior to implementation of IFRS 15, contract assets also included Work in Progress. WIP revenue was recognized on percentage of completion basis. 2017 figures are not restated.

Contract liabilities include deferred revenue. When the Spectrum Group obtains pre-funding from customers before a seismic project is completed, the customer is normally entitled to a discounted price and/or is granted the opportunity to provide input into the project parameters. The Spectrum Group then recognises the pre-commitment revenue at the point in time of the transaction when the customer executes a valid license agreement and has the right to access the licensed portion of the Multi-Client library. Judgement is applied when allocating pre-funding to products licensed, and the revenue is as such recognized at the point in time when the products are completed and the client has right to access each product (e.g., PSTM, PSDM). The Spectrum Group considers whether there are other promises in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. As at January 1 2018, USD 20.3 million was recognized as deferred revenue, decreasing equity of the Group (see Statements of Consolidated Equity). This was recognized as revenue as of 31 December 2017, but not recognized under IFRS 15. USD 20.3 million of this balance has been recognized during 2018.

Spectrum classifies Multi-Client revenue as pre-commitment arrangements or late sales based on products sold. A seismic project may consist of several products and at the point in time of the sale some products may be considered in progress while others are considered completed. All received pre-funding is accounted for as a prepayment liability (deferred revenue) under other current liabilities.

### Note 4 Financial risk management

#### General

The Spectrum Group is exposed to a number of different financial market risks arising from the Group's normal business activities.

Financial market risk is the possibility that fluctuations in exchange rates and interest rates will affect the value of the Group's assets, liabilities and future cash flows. In order to manage and reduce these risks, management periodically reviews its primary financial market risks and actions are taken to mitigate specific risks identified.

The risk related to interest rates is considered limited due to the expectations for future development of interest rates, and the short maturity of interest bearing debt.

The Spectrum Group's organic investments are financed through prefunding from customers, risk sharing with partners and cash flow generated from sales of surveys in the existing Multi-Client library. On structural investments, companies or assets, debt financing is considered.

The Spectrum Group has various financial assets such as trade receivables and cash. These are mainly in USD.

The principal financial liabilities comprise trade payables, finance lease commitments related to premises and data processing equipment, Revolving Credit Facility (RCF) and overdraft facility. These are mainly in USD.

### Capital management

Spectrum ASA is listed on Oslo Stock Exchange.

Spectrum's capital management is primarily focused on ensuring the Group's capacity to invest in new high quality Multi-Client projects, to improve operations, to minimise the cost of and risk to capital and to provide investors a return on the capital invested. Spectrum also acquires surveys in partnership or with favorable contract payment terms to reduce Spectrum's risk and cash exposure.

The main source of financing is equity. Equity share per year end 2018 is 53.1%.

Spectrum entered in June 2015 into two bank facilities used to partly finance the acquisition of Fugro's marine seismic library. One of the facilities was a term loan facility of USD 50 million which Spectrum has repaid in full by end December

2017. The second facility is a RCF of USD 21.1 million. USD 13.1 million is classified as long term interest bearing debt. USD 8.0 million is due within 12 months and is classified as short term interest bearing debt. The RCF will be repaid in full by end June 2021.

In July 2018 Spectrum secured a new overdraft facility of up to USD 30.0 million. As of 31 December 2018 USD 10.0 million of the overdraft facility was utilized. When the facility is utilized it is classified as short term interest bearing debt in the financial statements.

Management is of the opinion that the above described processes achieved the Group's capital management objectives in 2018. The Company paid an annual dividend based on the Group's financials in 2013, 2014 and 2017. No dividend was distributed based on the 2015 and 2016 financials.

For 2018, the Board of Directors proposes a dividend of NOK 1.5 per share.



\* The Board recommends to the Annual General Meeting a dividend of NOK 1.5 per share for 2018.

Funds are largely held in USD, although some funds are held in local currency at a local level to fund forecasted local requirements for the following 3 months.

### **Financial instruments**

The carrying amount of accounts receivables, other receivables, cash and cash equivalents, and current liabilities approximate to their fair values because of the short maturities of these instruments.

### Liquidity risk

The Board of Directors considers the liquidity risk to be moderate. Risk is dependent on market conditions, and impacted by the investment level. Some new projects are de-risked by inviting 3rd parties to participate. Prefunding levels are a key component in the decision process of new acquisitions. Liquidity risk is primarily related to potentially realizing lower sales than expected from existing library.

At 31 December 2018 the Spectrum Group had current assets of USD 113.9 million (2017: USD 92.5 million) and current liabilities of USD 125.8 million (2017: USD 81.7 million). The current liabilities are separated in due within 6 months and due between 6-12 months in the following table.

The Group held USD 37.7 million (2017: USD 14.2 million) in cash and cash equivalents as of 31 December 2018. The Group uses a forecasting system implemented in 2012 covering among others cash flow forecasting. Forecasting is done for the remaining part of the year and this is a regular part of the monthly close process. In addition the Group has established a 60 days focused cash management system. This is further enhanced on a continuous basis.

The forecasting process involves several functions in the Group and is considered a critical part of the business control environment. It forms the basis for estimating our capacity to finance new projects.

### Credit risk

The customers of the Spectrum Group are mainly large oil and gas companies that are well known to the Group. The maximum exposure to credit risk at the reporting date is the sum of the carrying amounts of financial assets in each class, see note 11.

Management considers that the provisions booked in each Group company are sufficient to cover any uncertain receivable balances and believes that the credit risk

### Analysis of current and non-current liabilities by payment date

Spectru	ım ASA		Spectrum Group	
2017	2018		2017	2018
		Due within 6 months		
-	-	Finance lease	192	99
2 026	15 570	Short term interest bearing debt and interest	2 026	15 570
2 697	13 280	Other liabilities	36 676	43 942
2 939	3 064	Trade and other payables	22 159	42 701
7 663	31 914	Total	61 053	102 312
		Due between 6-12 months		
-	-	Finance lease	184	94
-	3 420	Short term interest bearing debt and interest	-	3 420
-	-	Other liabilities	12 459	4 635
-	-	Trade and other payables	8 000	-
-	3 420	Total	20 643	8 149
		Due after one year but not more than 3 Years		
-	-	Finance lease	338	124
23 100	13 800	Long term interest bearing debt and interest	23 100	13 800
6 422	4 599	Other liabilities	21 180	4 624
29 522	18 399	Total	44 618	18 548

strategies adopted are sufficient to ensure that the overall credit risk is low. Spectrum has had no losses on receivables in 2018, or in the latest years.

In addition Spectrum can net receivables against future payables in some partner agreements. Spectrum has entered into various seismic agreements with change of control clauses which trigger transfer fees payable to Spectrum.

Transfer fees are recorded based on best estimate until the final amount is agreed with the customer. The credit risk for transfer fees recorded but not agreed with customers are considered low.

### Market and political risk

The activities that Spectrum's customers are engaged in are inherently affected by changes in both current prices of oil and gas, and future expectations of prices, which are themselves subject to a number of external influences such as governmental terms and conditions.

The oil and gas market is known to be cyclical in nature, and Spectrum's profitability is largely impacted by the demand for the services that Spectrum provide to these clients.

Spectrum operates in many countries with dynamic laws and regula

tions, and in which the regulations have had limited practice. As such estimates of contingencies and tax positions entail uncertainty, and it is possible that some of these matters will ultimately end with a result different from what is currently reflected in Spectrum's financial statements.

### Currency and interest rate risk

Revenues and expenses are denominated largely in USD. The Group aims to minimise exposure to currency risk by operationally balancing receivables in other currencies with expenses in those currencies. In addition Spectrum has established a USD account linked to the Brazilian legal entity. This reduces currency risk related to the Brazilian activities.

In the Group's subsidiaries in UK and Norway, local salaries and office expenses will be mainly in GBP and NOK.

Based on the current expense level, a 5% strengthening of USD vs. GBP and NOK will impact the result negatively by approx. USD 0.5 million in Ltd and USD 0.25 million in ASA respectively. These sensitivities can be used to assess larger currency fluctuations.

The risk related to interest rates is considered limited due to future interest rates expectations, and the short maturity period of the interest bearing debt. A sensitivity analysis estimates that a 1% increase in interest rate will increase Spectrum Group's interest cost with approximately USD 0.2 million in 2019.

## Note 5 Salaries & Other Remuneration

Spectru	ım ASA		Spectrun	n Group
2017	2018		2017	2018
(2 190)	(3 818)	Salaries	(15 428)	(22 140)
(740)	(546)	Employer's insurance contributions	(2 910)	(3 244)
(138)	(155)	Pension costs	(816)	(1 008)
-	_	Share options	(811)	(887)
53	50	Other remuneration	(592)	(705)
-	_	Capitalized salaries *	6 935	7 885
(3 015)	(4 468)	Total	(13 622)	(20 099)
10	10	Average number of employees	155	158

<sup>\*</sup> Data Processing expenses (including salaries) directly related to Multi-Client surveys are capitalized and are part of the Multi-Client library additions, see note 10.

#### Remuneration for the Spectrum management

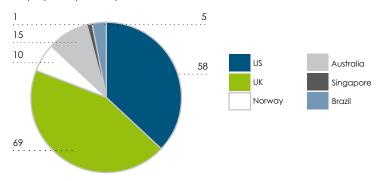
Salaries and other remuneration to management and the Board of Directors.

Salaries and other benefits are paid in local currencies, and USD figures in the table will fluctuate with the exchange rates.

	Spectrum ASA 2018			
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(998)	(206)	(44)	(1 248)
Henning Olset, CFO **	(431)	-	(25)	(456)
Dean Zuzic, CFO **	(25)	(93)	-	(118)
Jan Schoolmeesters, COO	(660)	(347)	(27)	(1 034)
Svein Olav Staalen, General Counsel	(350)	(57)	(20)	(427)
Total Spectrum ASA	(2 464)	(703)	(116)	(3 283)

	Spectrum Group 2018			
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Total Spectrum ASA	(2 464)	(703)	(116)	(3 283)
Richie Miller, EVP MC, Americas	(407)	(13)	(18)	(438)
Graham Mayhew, EVP MC, Africa and Mediterranean and Middle East	(288)	(18)	-	(306)
Ian Edwards, EVP MC, Asia Pacific and NW Europe	(353)	(61)	-	(414)
Mike Mellen, EVP Seismic Imaging	(379)	(34)	(17)	(430)
Neil Hodgson, EVP Geoscience	(261)	(33)	(18)	(312)
Total Spectrum Group	(4 152)	(862)	(168)	(5 182)

#### Employees by country



	Spectrum ASA 2017			
	Salaries		Post employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Rune Eng, CEO & President	(514)	(212)	(39)	(765)
Henning Olset, CFO	(316)	(31)	(23)	(370)
Jan Schoolmeesters, COO	(354)	(106)	(24)	(484)
Svein Olav Staalen, General Counsel	(243)	(25)	(12)	(280)
Total Spectrum ASA	(1 427)	(374)	(97)	(1 898)

	Spectrum Group 2017			
			Post	
	Salaries		employ-	
	and other	Share	ment pension	
	benefits	options*	benefits	Total
Total Spectrum ASA	(1 427)	(374)	(97)	(1 898)
Richie Miller, EVP MC, Americas	(288)	(47)	(17)	(352)
Graham Mayhew, EVP MC, Africa and Mediterranean and Middle East	(270)	(23)	-	(293)
Ian Edwards, EVP MC, Asia Pacific and NW Europe	(264)	(43)	-	(307)
Mike Ball, EVP Data Processing ***	(194)	(19)	(12)	(225)
Mike Mellen, EVP Seismic Imaging ***	(124)	(31)	(2)	(157)
Neil Hodgson, EVP Geoscience	(222)	(34)	(16)	(272)
Total Spectrum Group	(2 788)	(571)	(144)	(3 504)

 $<sup>\</sup>ensuremath{^*}$  Share options expense - not options vested in the year.

Henning Olset retired and left the EXT Group 30 November, full year salary included in table.

Dean Zuzic was appointed as CFO and to the Executive Management team 1 December.

Mike Ball retired and left the EXT Group 17 July when he was replaced by Mike Mellen.

Mike Mellen was appointed as EVP Seismic Imaging and to the Executive Management team 17 July.

<sup>\*\* 2018</sup> Executive Management Team

<sup>\*\*\* 2017</sup> Executive Management Team.

#### Director / committee fees

	Spectrum Group	
	2017	2018
Board of Directors fee		
Directors fee for Chairman:		
Pål Stampe	(54)	(58)
Directors fee for all other Board members:		
Maria Tallaksen	(37)	(39)
Glen Ole Rødland	(37)	(39)
Ingrid Elvira Leisner	(37)	(39)
Jogeir Romestrand *	(37)	(39)
Linda Rudolfsen Myklebust **	(31)	-
Audit Committee fee		
Fee for Chairman	(18)	(18)
Fee for all other committee members	(24)	(25)
Remuneration Committee fee		
Fee for all committee members	(5)	(5)
Nomination Committee fee		
Fee for Chairman	(5)	(6)
Fee for all other committee members	(7)	(7)
Total	(291)	(274)

 $<sup>^{</sup>st}$  Mr. Romestrand left the board in June 2018

#### **Termination Benefits**

In case of termination by Spectrum, the CEO and President is entitled to a severance payment equal to one and a half years base salary from a six month notice period which would commence on the first day of the month following the issue of termination notice.

In case of termination by the CEO and President, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of the above notice period providing that the CEO and President has been employed by Spectrum for at least five years. If the CEO and President terminates his employment before this five year period no severance payment will be made.

In case of termination by Spectrum or the CFO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of a six month notice period.

In case of termination by Spectrum or the COO, Spectrum will pay severance pay equal to one year of annual base salary from the expiry of a six month notice period.

No other in the Executive Management Team have other termination benefits, other than ordinary benefits within employment region.

#### **Pension Costs**

Spectrum ASA is required to have an occupational pension scheme for their employees in Norway under the Act on Mandatory occupational pensions through a defined contribution plan. Spectrum ASA's pension cost for 2018 was USD 155k (2017: 138k).

Spectrum Ltd and Spectrum Inc make payments for eligible employees to defined contribution pension plans. Employees become eligible after an initial probationary period of employment.

<sup>\*\*</sup> Mrs. Myklebust left the board in April 2017

## Note 6 Share Based Payments

The Board of Spectrum approved a stock option program for senior executives in the Group in 2010. Under this program, up to 10 million options may be awarded by the Board. The program was extended from 6 million to 8 million in EGM on 13 November 2012, and from 8 million to 10 million in GM on 23 May 2014.

The exercise price of the options is equal to the Volume-weighted average price (VWAP) for shares in Spectrum ASA in the 20 trading days prior to the date of each agreement. For each participant, the share options vest in tranches of 15% in the first year, 20% in year 2, 25% in year 3 and 40% in year 4.

The Board of Directors may decide that the annual vesting date and the proportion of the options which vest at each vesting date, deviate from the above in relation to senior executives. Exercise of options shall take place minimum two times per year as decided by the Board of Directors.

Partial or full vesting is subject to the appreciation in Spectrum's share price relative to the exercise price for the options calculated on a rolling basis over the 20 days VWAP per share prior to the relevant vesting date. Upon a 30% or 70% appreciation in the share price for options granted pre 2014 and upon a 25% and 50% appreciation in the share price for options granted in 2014 or later, 50% or 100% of the share options will vest respectively. The participant must be employed from the allotment date through to the date of the close of the relevant exercise window.

Participants are permitted to accumulate the options until the final option expiry date. This is regardless of whether the applicable share price appreciation vesting condition threshold has been met or exceeded at the vesting date for each relevant tranche of options. If a participant does not notify the Company in writing of their intention to accumulate any options that have vested by the close of the exercise window for that tranche of

options, the options will automatically expire. Any remaining un-exercised options will also automatically expire on the closure of the last exercise window for the scheme or if the participant resigns or if their employment is terminated except when this is due to the participant's death, disability or permanent injury.

The fair value of the share options is estimated at the grant date using a Monte Carlo pricing model, taking into account the terms and conditions upon which the share options were granted.

The contractual term of each option granted is 4.5 years. The Board may decide at its sole discretion (at the request of the participant or otherwise) to settle any options in cash on exercise.

The expenses booked by the Group in relation to the stock option program were recorded as a salary cost and against equity in 2017 and 2018. In addition the Group has provided for employer's insurance contributions.

#### Movements in the year

	2017	2017	2018	2018
	No.	WAEP, NOK	No.	WAEP, NOK
Outstanding at 1 January	5 473 000	23.21	4 703 000	25.73
Granted during the year	250 000	34.75	390 000	38.99
Forfeited during the year	-	-	(270 000)	40.26
Exercised during the year	(1 000 000)	12.72	(336 000)	32.48
Cancelled during the year	(20 000)	20.71	-	-
Outstanding at 31 December	4 703 000	25.73	4 487 000	25.57
Exercisable at 31 December	2 830 500	19.14	2 905 650	28.30

The weighted average remaining contractual life for the share options outstanding as at 31 December 2018 was 2.43 years (2017: 0.86 years).

	2017	2018
	No.	No.
Exercise price		
NOK 0.00 - 10.00	1 335 000	1 420 000
NOK 10.00 - 12.50	305 000	305 000
NOK 12.50 - 15.00	-	-
NOK 15.00 - 20.00	30 500	30 500
NOK 20.00 - 30.00	520 000	380 000
NOK 30.00 - 40.00	2 380 000	2 079 000
>40.00	132 500	272 500
	4 703 000	4 487 000

The weighted average fair value of options granted during the year was NOK 14.89 (2017: NOK 13.15). The above table shows the price range at which each tranche of options outstanding at 31 December could be exercised:

The Monte Carlo model is used to calculate the fair value of the options, used in the financial statements. The calculated fair values incorporate expected exercise pattern and thus the expected vesting/exercise date, i.e. the

probability of vesting. All performance conditions are included in the fair value. The assets drift, expected volatility and share price will affect the fair value in addition to the exercise pattern.

The expected life of the share options is based on current expectations and is not necessarily indicative of exercise patterns that may occur.

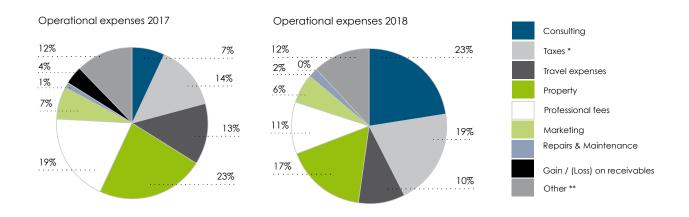
The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may also not necessarily be the actual outcome.

## Note 7 Other operating expenses

Spectru	Jm ASA		Spectrui	m Group
2017	2018		2017	2018
(355)	(352)	Consulting	(918)	(3 739)
-	-	Taxes *	(1 745)	(3 299)
(283)	(281)	Travel expenses	(1 581)	(1 641)
(198)	(192)	Property	(2 826)	(2 893)
(473)	(755)	Professional fees	(2 314)	(1 785)
(11)	(45)	Marketing	(879)	(1 002)
(9)	-	Repairs & maintenance	(184)	(267)
-	-	Gain / (Loss) on receivables	(550)	-
(305)	(233)	Other **	(1 455)	(1 951)
(1 632)	(1 859)		(12 453)	(16 577)

<sup>\*</sup> Taxes consists of Brazilian transaction taxes required to be reported as operating expenses under IFRS.

<sup>\*\*</sup> Other includes training & recruitment, insurance, subscriptions, consumables and communication.



#### Auditor's remuneration (exclusive of VAT)

Spectro	Jm ASA		Spectrur	n Group
2017	2018		2017	2018
(114)	(98)	Statutory audit	(224)	(241)
(9)	(1)	Other attestation services	(9)	(1)
(77)	(30)	Tax services	(190)	(83)
(200)	(129)	Total	(423)	(325)

## Note 8 Income Taxes

Spectru	Jm ASA mu	1	Spectrur	n Group
2017	2018		2017	2018
-	-	Tax payable *	(171)	(4 656)
-	(357)	Adjustments in respect to previous years	(1 492)	(1 322)
1 724	(582)	Changes in temporary differences	19	3 267
(177)	(290)	Utilized withholding tax	(6 705)	(3 649)
1 548	(1 229)	Current tax charge	(8 350)	(6 361)
		Analysis of tax expense:		
(13 006)	2 084	Profit before tax	(18 493)	25 266
(13 006)	2 084	Profit before tax	(18 493)	25 266
3 122	(466)	At statutory income tax rate 23% (2017: 24%)	4 438	(5 811)
-	-	At income tax rates outside Norway different from 23% (2017: 24%)	2 352	2 526
(36)	(33)	Non-deductible expenses	(60)	(75)
(48)	(206)	Translation differences	565	(419)
(1 406)	-	Write down investments in subsidiaries	-	-
15	-	Foreign taxes	15	-
(177)	-	Deferred withholding tax	(1 903)	(1 078)
-	(468)	Changes of unrecognized tax losses	(9 093)	(1 653)
77	(56)	Changes of applied tax rate	(347)	214
-	-	Provisions not taxable	(4 318)	(65)
1 548	(1 229)	Income tax expense reported in the consolidated income	(8 350)	(6 361)
		statement		
11.9%	59.0%	Effective tax rate in%	(45.2%)	25.2%
		Tax effect of temporary differences		
157	1 801	Fixed assets	(3 156)	7 436
129	124	Other short term receivables	185	241
(391)	(697)	Other long term items	244	244
-	-	Other short term liabilities	(551)	(858)
	-	Effects of changes in tax rates	-	-
(104)	1 227	Total temporary differences	(3 277)	7 063
1 893	-	Tax losses carried forward	8 345	8 576
	-	Deferred tax assets not recognized	(5 690)	(6 742)
1 789	1 227	Net deferred tax assets/(liabilities)	(622)	8 897
		Delen as about deferred by the LONG		
		Balance sheet deferred tax assets / (liability)	(5.100)	(0.007)
-	1 007	Deferred tax liability	(5 123)	(2 997)
1 789	1 227	Deferred tax assets **	4 501	11 897
465	505	Other receivables - withholding taxes ***	3 621	3 713

		Spectrum Group			
Additional information of tax losses carried forward and deferred		Tax losses o	carried forward	Deferred tax ass	ets recognized
tax assets recognized ****		2017	2018	2017	2018
Spectrum ASA	Tax rate 22% (2017: 23%)	7 703	-	1 772	-
Carmot Seismic AS	Tax rate 22% (2017: 23%)	289	-	66	-
Spectrum Geo CH AS	Tax rate 22% (2017: 23%)	-	18 079	-	1 834
Spectrum Geo Ltd	Tax rate 17% (2017: 18%)	4 807	-	817	-
Spectrum Geo Pty Ltd	Tax rate 30% (2017: 30%)	3 636	3 826	-	-
Spectrum Geo GmbH	Tax rate 12% (2017: 12%)	38 322	-	-	-
Total		54 757	21 905	2 655	1 834

<sup>\*</sup> Tax payable for the year is USD 4.7 million (2017: USD 0.2 million).

Tax and other public duties payable in the statements of financial position is USD 8.1 million (2017: USD 2.4 million). This includes corporate tax of USD 4.7 million (2017: USD 0.2 million), and taxes on financial transactions, VAT and social security taxes of USD 3.4 million (2017: USD 2.2 million).

### Note 9 Financial Items

#### Finance income

Spectru	Jm ASA		Spectrur	Spectrum Group	
2017	2018		2017	2018	
47	200	Bank interest income	62	256	
6 095	7 197	Interest to group companies	-	-	
-	210	Other	109	-	
6 142	7 607	Total	171	256	

#### Finance expense

Spectru	Jm ASA		Spectrui	m Group
2017	2018		2017	2018
(54)	(511)	Bank charges	(71)	(611)
(647)	(2 439)	Net foreign exchange loss	(762)	(4 778)
-	-	Finance lease interest	(30)	(33)
(1 565)	(1 686)	Loan interest	(1 565)	(1 766)
(1 793)	(2 776)	Interest to group companies	-	-
(181)	(252)	Other *	(201)	(139)
(4 239)	(7 664)	Total	(2 628)	(7 327)

 $<sup>\</sup>hbox{^* Includes bank guarantee fees, waiver fees and amortization of establishment fee for loan facilities.}$ 

<sup>\*\*</sup> Deferred tax assets are recognized when it is probable and sufficiently documented that the company will have a profit in the future to utilize the tax asset.

<sup>\*\*\*</sup> Withholding taxes relates to transactions between Spectrum Geo Inc and Spectrum Geo do Brasil Servicos Geofisicos LTDA, and transactions between Spectrum ASA and clients in countries where WHT is applicable.

<sup>\*\*\*\*</sup> The Company has operations that are subject to taxation in different countries, and losses in one subsidiary in one country cannot be offset against a gain in a subsidiary in another country.

# Note 10 Non-current intangible and tangible assets (fixed assets)

Spectrum	n ASA			Spectrur	n Group	
ti-Client				Multi-Client		Fixture fitting and offic
library	Software		Goodwill	library	Software	equipme
37 736	13	Net carrying amount 1 January 2017	13 203	192 721	663	1 627
(183)	-	External capitalization of expenses	-	72 369	193	776
2 029	-	Internal capitalization of expenses	-	9 990	-	
-	-	Disposals	-	-	-	(18
(6 809)	-	Amortization	-	(81 714)	-	
-	(13)	Depreciation	-	-	(628)	(789
(9 760)	-	Impairment	(1 640)	(23 958)	-	
23 013	-	Net carrying amount 31 December 2017	11 563	169 408	228	1 596
90	-	IFRS 15 adjustment *	-	8 723	-	
23 103	-	Net carrying amount 1 January 2018	11 563	178 131	228	1 596
5 216	-	External capitalization of expenses	-	42 251	2 339	29
958	-	Internal capitalization of expenses	-	10 265	-	
-	-	Disposals	-	-	-	(3
(7 287)	-	Amortization	-	(68 544)	-	
-	-	Depreciation	-	-	(580)	(75
21 991	-	Net carrying amount 31 December 2018	11 563	162 102	1 987	1 108
Up to 5 years	3 - 5 years	Useful Life		Up to 5	3 - 5 years	3 - 5 years

<sup>\*</sup> See page 46.

#### Tangible non-current assets

As at 31 December 2018 Spectrum had fully depreciated a number of tangible assets that were still in use. The Gross cost of these assets were as follows:

Spectro	um ASA		Spectru	m Group
2017	2018		2017	2018
-	-	Fixtures, fittings & equipment	7 754	5 886
-	-	Software	7 185	7 543
-	-		14 939	13 429

#### Intangible non-current assets

#### Goodwill

Business combinations are accounted for using the acquisition method. This involves the recognition of identifiable assets (including intangible assets that have not previously been recognized), and liabilities (including contingent liabilities but excluding provisions for future restructuring) of the purchased business at fair value. Goodwill acquired in business combinations is initially measured at cost, being the excess purchase price paid over the acquired interest in the fair value of the separable identifiable assets, liabilities and contingent liabilities of the acquire.

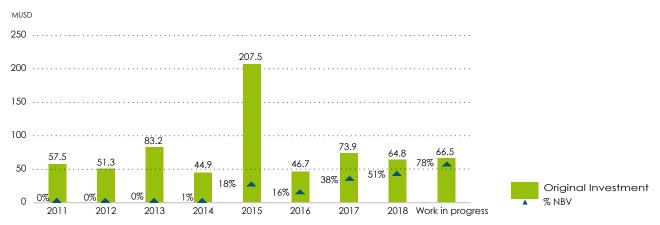
#### **Multi-Client library**

The Multi-Client library consists of geophysical and geological datasets that are both complete and in-progress. These datasets are licensed on a non-exclusive basis to oil and gas exploration and production companies. For early sales amortization is calculated based on total cost versus forecasted total revenues of the project. This ratio is applied to the revenue recognized for the survey. After a project is completed, a straight-line amortization is applied.

As at 31 December 2018 Spectrum had fully depreciated a number of Multi-Client surveys that were still available for sale in the market. The gross cost of these assets were as follows:

Spectru	Jm ASA		Spectrui	n Group
2017	2018		2017	2018
83 960	104 086	Multi-Client library	260 274	289 582

#### Investment per vintage



#### Additions

Carrying value of investments by operating segment is not included in management reporting and is therefore not disclosed separately in these accounts. Interest cost that can be directly allocated to additions to the Multi-Client library has been capitalized. For 2018 the capitalized interest cost is USD 0.0 million (2017: USD 0.0 million).

All tangible assets in the Group are part of the support functions, and all additions to tangible assets has as such not been allocated to the operating segments.

#### Impairment testing

Impairment testing is performed on the individual cash generating units (CGU). The net-book value of intangible assets is tested annually for impairment based on figures as of 31 December, or more frequently if there are indications that assets might be impaired. Spectrum has performed a full impairment analysis based on 31 December figures for all Multi-Client surveys in Spectrum's library for 2018.

A CGU should be impaired if the carrying amount is higher than the recoverable amount. The recoverable amount is the higher amount of the fair value and the value in use of a CGU.

Spectrum performs impairment testing based on value in use, as a market price for the asset doesn't exist and as such the fair value is difficult to determine. The value in use calculations prepared for the CGU used cash flow projections from financial budgets approved by the Board of Directors covering a period of 3 years (2017: 3 years). The cash flows for the CGU was discounted at an average pre-tax WACC of 10.5% (2017: 9.3%), the WACC varies between the CGU's based on the geographical risks in the regions. The discount rate is based on a risk free rate of 2.49% (2017: 1.88%) and Spectrum's peers average equity ß ratio of 1.06 (2017: 1.07).

The impairment testing was performed for goodwill and the Multi-Client library.

#### Multi-Client library

All individual Multi-Client library balances held by the Group were subject to an internal impairment test as at 31 December 2018, using an average WACC of 10.5% (2017: 9.3%), the WACC varies between the CGU's based on the geographical risks in the regions. This discount rate is based on a risk free rate of 2.49% (2017: 1.88%) and Spectrum's equity ß ratio of 1.06 (2017: 1.07).

Spectrum believes that the Multi-Client library is well positioned for upcoming license rounds, and approx. 99% of the book value of the library relates to on-going investments or to investments made in 2015 - 2018. Based on an overall level the value in use of the library is over the carrying amount of the library, and there is no need for impairment. However, an impairment analysis is performed on each individual survey. Some of the individual surveys are considered to have higher risk in the cash flow projections due to uncertainty regarding licence rounds, competition, political risk etc. All such risks are factored into the cash flow projections applied in the impairment analysis.

An assessment was performed on the surveys with value in use close to book value, with regards to risk and competition, and no impairment was recognized in 2018 (2017: USD 24.0 million).

With regard to the assessment of value-in-use of the individual Multi-Client surveys, a sensitivity analysis was performed. The key assumption in the forecasted cash flow per survey is the estimated sales, and the sensitivity analysis was performed by changing the estimated sales.

- \* 10% reduction in all sales compared to the forecast would lead to an increased impairment of 0% of the net book value of the Multi-Client library.
- \* 20% reduction in all sales compared to the forecast would lead to an increased impairment of 3% of the net book value of the Multi-Client library.
- \* 30% reduction in all sales compared to the forecast would lead to an increased impairment of 7% of the net book value of the Multi-Client library.
- \* As the cash flow projections only covers a period of 3 years any changes to the WACC will have limited impact on the net book value of the Multi-Client library, and an increase in WACC to 15% would lead to an increased impairment of 0% of the net book value of the Multi-Client library.

#### Goodwill

As of 31 December 2018 the balance of goodwill amounting to USD 11.6 million (2017: USD 11.6 million) was allocated to the Multi-Client CGU. The cash flows were discounted using an average WACC of 10.5% (2017: 9.3%).

Cash flows for a three year period for the Multi-Client CGU were covered by forecasts, with assumptions applied to amortization and operating costs. An assumed group tax rate of 25% (2017: 30%) was applied.

The carrying value of the Multi-Client CGU was found to be lower than its recoverable amount and no impairment of the goodwill was required based on the analysis. With regard to the assessment of value-in-use of the Multi-Client CGU, a sensitivity analysis was performed, and management believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount of the unit to materially fall below its carrying value.

## Note 11 Receivables and accrued revenues

#### Accounts receivable

Spectru	m ASA		Spectrur	n Group
2017	2018		2017	2018
6 605	1 320	Not Due	42 317	36 794
-	4 669	0 - 30 days	-	10 707
-	-	30-60 days	165	-
-	-	60-90 days	-	1 176
282	363	> 90 days	955	1 056
6 887	6 352	Total	43 437	49 733

Accounts receivable are stated at net realisable value which management consider to be a close approximation to fair value given the short maturity period for these balances. Provisions are made for expected credit losses.

Accounts receivable are non-interest bearing and are generally on 30 – 60 day terms.

#### **Provisions**

Spectru	ım ASA		Spectrum	Group
2017	2018		2017	2018
(561)	(561)	Provisions for loss on accounts receivable	(561)	(561)

#### Accrued revenues and other receivables

Spectru	ım ASA		Spectrum	Group
2017	2018		2017	2018
-	2 875	Accrued revenue	13 016	13 931
1 999	3 810	Prepayments	5 416	8 558
1 230	3 542	VAT and other taxes recoverable	16 440	3 951
-	-	Other	19	-
3 229	10 227	Total	34 891	26 440

## Note 12 Cash and cash equivalents

Cash and cash equivalents are on demand bank deposits. As at 31 December 2018 Spectrum ASA has USD 0.0 million restricted cash deposits (2017: USD 0.0 million) and the Spectrum Group has USD 1.1 million restricted deposits \* (2017: USD 0.0 million).

#### Bank and bank deposit in currency

As of 31 December 2018 the Spectrum Group has bank deposits of USD 37.7 million (2017: USD 14.2 million) which are mainly in USD 81% (2017: 93%), BRL 18% (2017: 2%) and in other currencies such as NOK, GBP, EUR, CHF, AUD, ARS and SGD total 1% (2017: 5%).

The parent company, Spectrum ASA, has as of 31 December 2018 bank deposits of USD 25.1 million (2017: USD 10.3 million), of which 99% (2017: 95%) are in USD and 1% are in other currencies such as NOK, GBP and EUR (2017: 5%).

The Spectrum Group has a joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the companies participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS.

The net Cash Pool balance is included in ASA's statement of financial position.

## Note 13 Share capital and shareholder information

The Company's registered share capital is NOK 54,785,103 divided into 54,785,103 shares, each at a nominal value of NOK 1. The share capital is fully paid, and all shares have the same rights.

As proposed for 2017, a dividend of NOK 0.5 per share were distributed in 2018. The Board recommends to the Annual General Meeting a dividend of NOK 1.5 per share for 2018.

	Number of Shares	USD 1000
In issue as at 31 December 2016	53 449 103	8 826
Issued 10 March by exercise of options	1 000 000	120
In issue as at 31 December 2017	54 449 103	8 945
Issued 3 September by exercise of options	336 000	40
In issue as at 31 December 2018	54 785 103	8 985

<sup>\*</sup> See note 23 for further details

#### 20 largest shareholders and ownership interest as at 31 December 2018

Name	Location	Shares	% of Shares
ALTOR INVEST 2 AS	NOR	8 000 232	14.60%
altor invest 1 as	NOR	8 000 232	14.60%
Swedbank robur smabolagsfond	GBR	2 898 964	5.29%
SKANDINAVISKA ENSKILDA BANKEN S.A.	LUX	2 742 858	5.01%
CREDIT SUISSE AG, DUBLIN BRANCH	IRE	2 613 615	4.77%
GROSS MANAGEMENT AS	NOR	2 493 995	4.55%
verdipapirfondet pareto investment	NOR	1 815 439	3.31%
THE BANK OF NEW YORK MELLON SA/NV	BEL	1 349 115	2.46%
SKANDINAVISKA ENSKILDA BANKEN AB	SWE	884 186	1.61%
EUROCLEAR BANK S.A./N.V.	BEL	861 648	1.57%
VERDIPAPIRFONDET ALFRED BERG GAMBA	SWE	860 046	1.57%
STATE STREET BANK AND TRUST COMP	USA	802 556	1.46%
STATE STREET BANK AND TRUST COMP	USA	768 981	1.40%
/PF NORDEA NORGE VERDI	NOR	767 908	1.40%
HOLBERG NORGE	NOR	765 000	1.40%
VEVLEN GÅRD AS	NOR	745 000	1.36%
VJ INVEST AS	NOR	705 994	1.29%
NORRON SICAV - TARGET	LUX	648 354	1.18%
nvesco perp euran smler comps fd	USA	614 246	1.12%
AAT INVEST AS	NOR	600 000	1.10%
		38 938 369	71.07%

Spectrum ASA owned no treasury shares at 31 December 2018 or at 31 December 2017. Spectrum ASA held 12,479 shares in a Custody account related to the Stock option program on behalf of US based employees as at 31 December 2018 (2017: 0).

#### Shares owned by the Spectrum Board of Directors and management or in which they had an interest at 31 December 2018

Name	Shares	% of Shares	Country	Note
Pål Stampe (Chairman)	-	0.00%	NOR	а
Glen Rødland	2 493 995	4.55%	NOR	b
Ingrid Elvira Leisner	-	0.00%	NOR	
Maria Tallaksen	-	0.00%	NOR	а
Rune Eng (CEO)	141 694	0.26%	NOR	С
Jan Schoolmeesters (COO)	46 961	0.09%	NOR	
Svein O. Staalen	10 549	0.02%	NOR	
Dean Zuzic (CFO)	-	0.00%	NOR	
Neil Hodgson	-	0.00%	GBR	
Richie Miller	219 505	0.40%	USA	
Graham Mayhew	11 000	0.02%	GBR	
Ian Edwards	1 030	0.00%	GBR	
Mike Mellen	4 810	0.01%	USA	d

- a) Mr. Stampe and Ms. Tallaksen have limited ownership through Altor Fund IV, which is the wholly owner of Altor Invest 1 AS and Altor Invest 2 AS.
- b) Shares held by Gross Management AS, wholly owned by Mr. Rødland.
- c) Shares held by Eng Invest AS, wholly owned by Mr. Eng.
- d) Shares held by Spectrum ASA on behalf of Mr. Mellen.

### NOTE 14 Mortgages

#### Bank facilities with Danske Bank

#### Revolving credit facility (RCF)

As of 31 December 2018 Spectrum ASA had a fully utilized credit facility of USD 21.1 million. USD 13.1 million is classified as long term interest bearing debt in the financial statements. USD 8.0 million is due within 12 months and is classified as short term interest bearing debt in the financial statements.

The covenants as of 31 December 2018

- Equity ratio (excl. Goodwill) > 40.0%
- NIBD / 12 months EBITDA less Capex (excl. Fugro acquisition) < 1.5
- Aggregate amount of Cash held by the Group > USD 2.0 million
- Sum of relevant trade receivables and cash > USD 12.0 million

Covenants are measured using the Alternative Performance Measurements (APM). All covenants were well covered as of 31 December 2018.

#### Overdraft facility

In Q3 2018 Spectrum secured a new overdraft facility of up to USD 30.0 million. As of 31 December 2018 Spectrum had utilized USD 10.0 million of the overdraft facility. The facility is classified as short term interest bearing debt in the financial statements.

See note 4, 18 and 19 for further details.

## Note 15 Earnings per share

Basic earnings per share is calculated by dividing the profit or loss for the year attributable to equity holders of the Company by the weighted average number of shares outstanding during the period of trading.

Diluted earnings per share is calculated by dividing the net profit attributable to equity holders of the company by the weighted average number of shares outstanding during the year adding the weighted average number of shares that would be issued on conversion of all the dilutive instruments into shares.

	Spectrum Group	
	2017	2018
Profit attributed to ordinary equity holders of the Company (USD 1 000)	(26 843)	18 905
Weighted average number of shares	54 260 062	54 558 648
Effect of dilutions:		
Share options	4 819 685	4 576 647
Weighted average numbers of ordinary shares adjusted for the effect of dilution	59 079 747	59 135 295
Earnings per share (USD)	(0.49)	0.35
Fully diluted earnings per share (USD)	(0.49)	0.32

There has been no other transactions involving ordinary shares or potential ordinary shares between the reporting date and the date of these financial statements.

### **NOTE 16 Commitments**

Spectrum has the following non-cancellable lease commitments for premises and equipment.

Spectrum ASA			Spectrur	n Group
2017	2018		2017	2018
145	152	in less than one year	1 959	2 017
24	724	in more than one year and less than five years	5 337	6 073
-	31	in more than five years	1 721	969

#### Pont

Rent mainly relates to rent of premises in countries where Spectrum has operations. The total annual rent for all premises was USD 2.1 million in 2018 (2017: USD 1.9 million). The future obligations related to payments for premises are included in the table above.

## NOTE 17 Related parties

The Spectrum Group consider all group companies, management and Board members as related parties. See note 5 for remuneration to management and note 13 for shareholders information.

No further material transactions took place during 2018 with related parties other than those described below. All transactions with associates were unsecured and at an arms-length basis.

	Spectrum ASA 2018						
					Long-term	Short-term	
			Interest	Interest	amounts owed	amounts owed	
	Sales to	Costs from	charges to	charges from	by (owed to)	by (owed to)	
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	
Spectrum Geo Ltd	903	(1 694)	_	(952)	-	(28 648)*	
Spectrum Geo Inc	3 791	(899)	1 884	-	-	39 706	
Spectrum Geo Pty Ltd	12	-	2 477	-	-	25 439	
Spectrum Geo Pte Ltd	-	(143)	-	(16)	-	(817)	
Spectrum Geo do Brasil	1 948	-	1 921	-	13 720	5 572	
Spectrum Geo AS	348	-	-	(869)	-	(25 975)*	
Spectrum Geo GmbH	-	-	-	(194)	-	1	
Spectrum Geo CH AS	7	-	-	(7)	-	(4 506)	
Spectrum Geo Australia Pty Ltd	403	-	-	(739)	-	-	
Spectrum Geo S.A. de C.V.	13	-	788	-	-	9 783	
Carmot Seismic AS	161	-	127	-	-	(867)	
Carmot Processing AS	-	-	-	-	-	(4)	
Capitalized group expenses	-	958	-	-	-	-	
Total	7 586	(1 779)	7 197	(2 776)	13 720	19 685	

			Spect	rum ASA 2017		
				Interest	Long-term	Short-term
			Interest	charges	amounts owed	amounts owed
	Sales to	Costs from	charges to	from	by (owed to)	by (owed to)
	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries	subsidiaries
Spectrum Geo Ltd	1 520	(3 234)	-	(1 014)	-	(30 536)*
Spectrum Geo Inc	7 183	(1 313)	1 285	-	-	36 471
Spectrum Geo Pty Ltd	-	(11)	1 904	-	-	53 072
Spectrum Geo Pte Ltd	-	-	10	_	-	(283)
Spectrum Geo do Brasil	491	-	2 399	-	17 220	4 773
Spectrum Geo AS	315	-	12	(297)	-	(13 703)*
Spectrum Geo GmbH	23	-	-	(150)	-	(4 228)
Spectrum Geo Australia Pty Ltd	298	-	-	(332)	-	(16 818)
Spectrum Geo S.A. de C.V.	1	-	274	-	-	(8 171)
Carmot Seismic AS	264	-	212	-	-	1 835
Carmot Processing AS	-	-	-	-	-	(4)
Capitalized group expenses	-	2 029	-	-	-	-
Total	10 095	(2 529)	6 095	(1 793)	17 220	22 409

<sup>\*</sup> Joint intra-group Cash Pool facility. An intra-group claim arises between the owner of the Cash Pool, Spectrum ASA, and the company participating in the Cash Pool, Spectrum Geo Ltd and Spectrum Geo AS. The net Cash Pool balance is included in Spectrum ASA's statement of financial position.

In Spectrum ASA costs from subsidiaries are mainly data processing done in Spectrum Geo Ltd and Spectrum Geo Inc for the Multi-Client library owned by Spectrum ASA, and commissions for sales of Multi-Client data from the library owned by Spectrum ASA. Sales to subsidiaries are mainly commissions for sales of Multi-Client data from libraries owned by subsidiaries made by Spectrum ASA, and management fees charged for services provided.

#### Transactions with joint ventures

Spectru	Jm ASA		Spectrur	n Group
2017	2018		2017	2018
		Spectrum Geopex		
-	-	Sales to	189	160
-	-	Sales from	1 031	1 335
-	-	Amounts owed	(313)	(68)

## NOTE 18 Long term liabilities

#### Long term interest bearing debt

Spectru	ım ASA		Spectrui	n Group
2017	2018		2017	2018
23 100	13 100	Revolving credit facility *	23 100	13 100
-	-	Long term leasing liabilities	338	124
23 100	13 100	Total	23 438	13 224

<sup>\*</sup> See note 14.

#### Finance leases

Spectru	Jm ASA		Spectrum	n Group
2017	2018		2017	2018
		ANALYSIS OF PRESENT VALUE PAYMENTS:		
-	-	In less than one year	376	193
-	-	In more than one and less than five years	338	124
-	-	In more than five years	-	-
-	-	Present value of payments	714	317
		CARRYING VALUE OF LEASED ASSETS:		
-	-	Machinery & equipment	835	408
-	-	Software	76	-
	-	Fixtures, fittings and office equipment	-	-
-	-	Total	911	408

Financial leasing commitments due in less than one year are classified as short term interest bearing debt, see note 19. The leasing commitments is related to leasing of equipment and software in the subsidiary Spectrum Geo Ltd. See note 9 for finance lease expense.

#### Other long term liabilities

Other long term liabilities consists of operating liabilities with no contractual obligation to settle within the next 12 months.

#### Changes in liabilities arising from financing activities 2018

				Spectru	Jm ASA			
	1				Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2018	sifications	interest	Payments	movement	leases	loan	2018
Long term interest bearing debt	23 100	(10 000)	-	-	-	-	-	13 100
Short term interest bearing debt	2 026	10 000	1 338	(5 364)	-	-	10 000	18 000
Total liabilities from	25 126	-	1 338	(5 364)	-	-	10 000	31 100
financing activities								
				Spectrur	m Group			
	1				Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2018	sifications	interest	Payments	movement	leases	loan	2018
Long term interest bearing debt	23 100	(10 000)	-	-	-	-	-	13 100
Short term interest bearing debt	2 026	10 000	1 338	(5 364)	-	-	10 000	18 000
Long term leasing liabilities	338	(214)	-	-	_	-	-	124
Short term leasing liabilities	376	214	33	(363)	(67)	-	-	193
Total liabilities from	25 840	-	1 371	(5 727)	(67)	-	10 000	31 417
financing activities								

#### Changes in liabilities arising from financing activities 2017

				Spectru	ım ASA			
					Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2017	sifications	interest	Payments	movement	leases	loan	2017
Long term interest bearing debt	-	22 556	-	-	544	-	-	23 100
Short term interest bearing debt	42 556	(22 556)	1 565	(21 565)	-	-	2 026	2 026
Total liabilities from financing	42 556	-	1 565	(21 565)	544	-	2 026	25 126
activities								
				Spectrur	n Group			
	1				Foreign			31
	January	Reclas-	Accrued		exchange	New	New	December
	2017	sifications	interest	Payments	movement	leases	loan	2017
Long term interest bearing debt	-	22 556	-	-	544	-	-	23 100
Short term interest bearing debt	42 556	(22 556)	1 565	(21 565)	-	-	2 026	2 026
Long term leasing liabilities	200	(271)	-	-	26	383	-	338
Short term leasing liabilities	494	271	-	(518)	32	96	-	375
Total liabilities from financing	43 250	-	1 565	(22 083)	602	479	2 026	25 839
activities								

## NOTE 19 Short term liabilities

#### Short term interest bearing debt

Spectro	Jm ASA		Spectru	m Group
2017	2018		2017	2018
-	8 000	Revolving credit facility *	-	8 000
2 026	10 000	Overdraft facility	2 026	10 000
-	-	Leasing liabilities	376	193
2 026	18 000	Total	2 402	18 193

<sup>\*</sup> See note 14. As of 31 December 2018 Spectrum had a RCF of USD 21.1 million. USD 8.0 million is due within 12 months and is classified as short term interest bearing debt in the financial statements.

#### Other short term liabilities

Spectru	Jm ASA		Spectrum Group	
2017	2018		2017	2018
103	21	Deferred income	892	16 306
433	9 307	Accrued expenses	33 761	13 953
1 414	2 883	Revenue share	10 114	23 570
292	1 067	Other	2 015	2 949
2 242	13 278	Total	46 782	56 778

Operating liabilities with no contractual obligation to settle within the next 12 months have been classified as other long term liabilities, see note 18.

## NOTE 20 Subsidiaries and joint ventures

Spectrum ASA is the ultimate parent company of all Spectrum Group subsidiaries.

Company and country of incorporation	Parent Company	Relation and shareholding
Spectrum Geo Ltd (UK)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Inc (USA)	Spectrum Geo Ltd	Subsidiary - 100%
Spectrum Geo Pte Ltd (Singapore)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo do Brasil Servicos Geofisicos LTDA (Brazil)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Pty Ltd (Australia)	Spectrum ASA	Subsidiary - 100%
Spectrum Pty Ltd (Australia)	Spectrum Geo Pty Ltd	Subsidiary - 100%
Spectrum Geo GmbH (Switzerland)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo CH AS (Norway)	Spectrum Geo GmbH	Subsidiary - 100%
Spectrum Geo S.A. de C.V. (Mexico)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo Panama LLC (Panama)	Spectrum ASA	Subsidiary - 100%
Spectrum Geo AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Seismic AS (Norway)	Spectrum ASA	Subsidiary - 100%
Carmot Processing AS (Norway)*	Spectrum ASA	Subsidiary - 100%
Spectrum-Geopex Egypt Ltd (Egypt)	N/A	Joint venture - 50%
Geo Bridge Pte Ltd (Singapore)*	N/A	Joint venture - 50%

<sup>\*</sup> The company is dormant

#### Joint ventures:

Spectrum holds a 50% interest in Spectrum-Geopex Egypt Ltd and the Group's share of the result is shown under result from joints ventures in the statement of comprehensive income.

	Spectrum-Ge	opex Egypt
	2017	2018
Joint Venture Statement of Financial Position		
Current assets	696	604
Non-current assets	62	118
Current liabilities	(260)	(32)
Equity	498	690
Joint Venture Revenue and Profit		
Revenue	1 412	1 390
Other expenses	(1 576)	(1 198)
Profit / (loss) of Joint Venture	(164)	192
Share of Profit / (loss) of Joint Venture	(82)	96

#### Joint operation

Spectrum has several Multi-Client projects in partnership with other parties as joint operations. A joint operation is an arrangement where Spectrum with joint control has rights to the assets and obligations for liabilities of the arrangement. Proportionate share of each of the assets, liabilities, income and expenses of the joint venture is combined with similar items, line by line, in the consolidated financial statements. The partners in the joint operations are vessel providers and other seismic companies.

	Spectrur	Spectrum Group	
	2017	2018	
Share in the joint operations			
Net revenues	35 305	69 716	
Amortization	(32 914)	(36 937)	
Impairment	(13 000)	-	
Net book value of Multi-Client library	78 581	86 356	

## NOTE 21 Significant transactions

#### PIS/COFINS tax credit filing in Brazil

Spectrum was in 2016 able to file credits for certain transaction taxes in Brazil (PIS/COFINS). It had previously not been clear how to treat PIS/COFINS on investments, and whether the costs meet the set requirements for credits. The estimates for any PIS/COFINS recovery has also been considered too uncertain for recognition. As such Spectrum has treated the taxes as part of the investments. After a change in the legislation and developed practice regarding credits on PIS/COFINS on investments in Brazil, Spectrum was able to file credits for the taxes on the investments from 2012-2016. As the taxes have been included in the investments and to a large degree been amortized, this increase was treated as other revenue. A total other revenue of USD 13.1 million was recognized in 2016 based on the tax filings. Starting 1 January 2017 all investments in Brazil are recognized net of PIS/COFINS taxes.

The tax credit is recognized as Other receivables, and classified as current and non-current based on expected utilization. The credits recognized as current other receivables is expected to be utilized within the next 12 months. However, new credits will arise through the year, and as such the total Brazilian tax credit is not expected to be fully utilized even if the credits recognized in the balance sheet as of 31 December 2018 are utilized. The total Brazilian tax credit also includes tax credits not related to the 2012-2016 filing of credits related to investments.

	Spectrur	Spectrum Group	
	2017	2018	
Non-current other receivables	6 055	6 162	
Current other receivables	11 811	9 403	
Total Brazilian tax credit	17 866	15 565	

## NOTE 22 Fair value measurement

Spectrum uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation techniques.

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.

Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly.

Level 3: techniques that use inputs that have a significant effect on the recorded fair value that are not based on observable market data.

For financial instruments where the carrying amount is a reasonable approximation of fair value (e.g., accounts receivables, other receivables, accounts payables, interest bearing debt and other liabilities), fair value measurements are not included in the below table. Financial assets measured at fair value amount to USD 62.2 million (2017: USD 65.3 million). Financial liabilities measured at fair value amount to USD 99.5 million (2017: USD 76.9 million). The fair value of the interest bearing debt approximate to the book value of the debt due to the recent utilization of the facilities and the short maturities. The interest bearing debt are measured at amortized cost and amount to USD 31.1 million (2017: USD 25.1 million).

Quantitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2018, total book value.

	Spect	rum ASA					Spectru	ım Group	
					Date of				
Level 1	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
-	-	-	-	Long term interest bearing debt  Long term leasing liabilities *	31.12.2018	-	-	124	124
				Short term interest bearing debt					
-	-	-	-	Leasing liabilities *	31.12.2018	-	-	193	193

During the reporting period ending 31 December 2018, there were no transfers between levels.

Quantitative disclosures fair value measurement hierarchy for assets and liabilities as at 31 December 2017, total book value.

	Spect	rum ASA					Spectru	ım Group	
					Date of				
Level 1	Level 2	Level 3	Total		valuation	Level 1	Level 2	Level 3	Total
-	-	-	-	Long term interest bearing debt Long term leasing liabilities *	31.12.2017	-	-	338	338
				Short term interest bearing debt					
-	-	-	-	Leasing liabilities *	31.12.2017	-	-	376	376

During the reporting period ending 31 December 2017, there were no transfers between levels.

<sup>\*</sup> Valuation technique = DCF method

## NOTE 23 Contingent liabilities and provisions

#### Contingent liabilities

#### Brazil service tax dispute

Spectrum received 30 December 2016 a tax assessment in Brazil for municipal services tax ("ISS") related to the licensing of Multi-Client data. Whether licensing of Multi-Client data is to be considered a service and applicable to ISS tax is a controversial questions, and several different cases related to this topic are currently ongoing in the Brazilian administration and court system.

Spectrum has taken a conservative position on the issue, and has reported and paid ISS tax on revenues with certain exemptions. The total dispute in the assessment received is for BRL 23.5 million (USD 6.7 million). Spectrum disputes the assessment on the basis that ISS is not due on licensing of Multi-Client data, and has also filed a legal action to recover the ISS collected in the past on the licensing of Multi-Client data. Going forward, Spectrum will make ISS deposits relating to future licensing transactions. Spectrum has made deposits in local currency equivalent to USD 1.1 million as of 31 December 2018. Amounts deposited are held in an interest-bearing bank account with Banco do Brasil and will be released to Spectrum if and when a positive final ruling is awarded, which may take several years. The deposit is presented as long-term restricted cash in the statements of financial position.

The view that licensing of Multi-Client data is not to be considered a service has been the outcome in the preliminary rulings made on the matter in Brazil, and is considered to be the most likely outcome. The municipality issued in 2017 an update of the legislation specifying that ISS is due on licensing of Multi-Client data at a reduced rate, which may be considered as an admission that it was not applicable in earlier periods. In combination with the update of the legislation an amnesty program was also available, in which ISS assessments claimed by the municipality could be settled at a discounted rate. Spectrum did not accept the terms of the amnesty, and continues both to dispute the assessment and the legal claim to recover the ISS collected in the past on the licensing of Multi-Client data.

Spectrum considers it more likely than not that this contingency will be resolved in its favour, and no provision is recognized for any portion of the exposure. The ruling, both of the assessment and of the counterclaim, may take several years.

## NOTE 24 Subsequent events

#### Argentine Colorado Basin Gains New Multi-Client 2D Seismic Survey

On 20 February 2019, Spectrum commenced a new 20,000 km 2D survey in Colorado and Salado basin offshore Argentina. This new program ties with Spectrum's existing 35,000 km survey that was acquired in 2017 for the ongoing first offshore licensing round. The survey is done in cooperation with BGP utilizing the vessel BGP Pioneer. Data is being acquired with a 12 km streamer with continuous recording to image deep reflection and high fold data. This will support full interpretation from Moho to water bottom. The data will be reprocessed with PSTM, PSDM and Broadband products with first deliveries in Q2 2019.

## Alternative Performance Measures (APMs)

Alternative performance measures (financial performance measures not within the IFRS framework), are used by the Group to provide supplemental information. Financial APMs are intended to enhance comparability from period to period. The APMs are also used internally for management reporting. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS.

IFRS 15 Revenue from Contracts with customer is effective from 1 January 2018. Under the new standard all revenue will be recognized upon delivery of data while revenue previously were recognized based on the percentage of completion (POC) of the projects. Spectrum will for reporting use percentage of completion as it is a more fair view of the revenue when it coincides with the progression of the projects, the resources applied and the valued created. The new standard affects several measurements in the financial statements, and Spectrum will use APM's for these measurements to reflect revenue recognized on percentage of completion basis.

#### **Deferred Prefunding**

Deferred prefunding is POC applied to the value of existing signed contracts related to products that are not ready for delivery, and were the revenue has not been recognized under IFRS 15.

	Spectrum Group	
	2018	3
Deferred prefunding	15 281	1
of which invoiced to customers	13 231	
of which un-invoiced to customers	2 050	)
Recognized prefunding	35 482	2
Increase in deferred prefunding	30 439	>

Recognized prefunding is the amount that has been recognized as early sale based on deliveries and not on production in the period. Increase in deferred prefunding is the result of production (increased POC) in the period and new sales contract for products not ready for delivery. Prior to the IFRS 15 standard taking effect this was presented as early sale in the Profit/Loss statement.

#### **Net Segment Revenue**

Net operating revenue adjusted for recognized prefunding and increase in deferred prefunding. The adjusted revenue reflects the value of the production and the sales contracts executed in the period.

	Spectrum Group
	2018
Early Sale	35 482
Less recognized prefunding	(35 482)
Added increase in deferred revenue	30 439
Segment Early Sale	30 439
Segment Early Sale	30 439
Late Sale	103 210
Other revenue	105
Segment Revenue	133 754

#### Segment amortization

Amortizations adjusted for amortizations on the Segment Early Sale. On-going projects amortized based on prefunding vs. estimated sales potential. As the early sale is adjusted this will affect the amortization recognized in the period.

	Spectrun Spectrun	Spectrum Group	
		2018	
Amortization		(68 544)	
Amortization on adjustment of segment early sale		3 313	
Segment amortization		(65 232)	

#### Segment EBIT

EBIT using segment revenue and segment amortization.

	Spectrum Spe	Spectrum Group	
		2018	
EBIT		32 337	
Less operating revenue		(138 793)	
Added segment revenue		133 754	
Less amortization		68 544	
Added segment amortization		(65 232)	
Segment EBIT		30 612	

#### Segment EBITDA

Segment EBIT with depreciation, segment amortization and impairments added.

	Spectrum Group
	2018
Segment EBIT	30 612
Added segment amortization	65 232
Added depreciation	1 330
Added impairment	-
Segment EBIT	97 173

#### Segment Net Profit / (loss)

Segment EBIT less net financial items and tax cost.

	Spectru	Spectrum Group	
		2018	
Segment EBIT		30 612	
Net financial items		(7 071)	
Tax		(6 361)	
Segment Net profit / (loss)		17 180	

#### Segment Multi-Client Library

Multi-Client library using the segment amortization.

Spec	Spectrum Group	
	2018	
Multi-Client library	162 102	
Added restated amortizations in prior periods	(8 723)	
Less amortization in the period	68 544	
Added segment amortization in the period	(65 232)	
Segment Multi-Client Library	156 693	

#### **Segment Non-Current Assets**

Non-current assets using Segment Multi-Client Library

	Spectrum	Spectrum Group	
		2018	
Non-current assets		198 454	
Less Multi-Client library		(162 102)	
Added Segment Multi-Client library		156 693	
Segment Non-Current Assets		193 044	

#### **Segment Accrued Revenue**

Accrued Revenue adjusted for deferred prefunding. Un-invoiced prefunding is under IFRS 15 not recognized.

	Spectrum Group	
		2018
Accrued Revenue		13 931
Un-invoiced prefunding in deferred revenue		2 050
Segment Accrued Revenue		15 981

#### **Segment Current Assets Non-Cash**

Current assets using Segment Accrued Revenue.

	Spectrum Group
	2018
Current Assets Non-Cash	76 173
Less Accrued Revenue	(13 931)
Added Segment Accrued Revenue	15 981
Segment Current Assets Non-Cash	78 224

#### **Segment Other Short Term Liabilities**

Other Short Term Liabilities adjusted for deferred prefunding invoiced to customers. Invoiced prefunding is under IFRS 15 included in other current liabilities as prepayments from customers.

	Spectrum Gr	Spectrum Group	
		2018	
Other Short Term Liabilities		56 778	
Invoiced prefunding in deferred revenue		(13 234)	
Segment Other Current Liabilities		43 544	

#### **Segment Current Liabilities**

Current liabilities adjusted for Segment Other Current Liabilities.

	Spectrum Group
	2018
Current Liabilities	125 777
Less Other Short Term Liabilities	(56 778)
Added Segment Other Current Liabilities	43 544
Segment Current Liabilities	112 543

#### Segment equity

Equity using segment revenue and segment amortization.

	Spectrum Group
	2018
Equity	165 735
Added IFRS 15 adjustment in prior periods	11 600
Less operating revenue in the period	(138 793)
Added segment revenue in the period	133 754
Less amortization in the period	68 544
Added segment amortization in the period	(65 232)
Segment Equity	175 610

#### Segment Net cash flow from operating activities

Cash flow using the segment revenue, segment amortization and segment other current liabilities will impact profit before tax, amortization and working capital changes, but will have no impact on the total net cash flow from operating activities.

	Spectru	Spectrum Group	
		2018	
Profit before tax		25 266	
Less operating revenue		(138 793)	
Added segment revenue		133 754	
Less amortization		68 544	
Added segment amortization		(65 232)	
Segment Profit before tax		23 540	
Depreciation, amortization and impairment		69 875	
Less amortization		(68 544)	
Added segment amortization		65 232	
Segment depreciation, amortization and impairment		66 562	
Working capital changes		(21 072)	
Adjusted for change in deferred prefunding		5 042	
Segment working capital changes		(16 030)	

#### Organic Multi-Client investment

	Spectrun	Spectrum Group	
	2017	2018	
Net Multi-Client additions	82 359	52 516	
Multi-Client investment	82 359	52 516	
Library acquisitions	-	-	
Organic Multi-Client investment	82 359	52 516	

#### **Multi-Client investment ratio**

	Spectru	Spectrum Group		
	2017	2018		
Multi-Client investment	82 359	52 516		
Operational cash flow	99 400	74 083		
Multi-Client investment ratio	83%	71%		



Statsautoriserte revisorer Ernst & Young AS

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#### INDEPENDENT AUDITOR'S REPORT

To the Annual Shareholders' Meeting of Spectrum ASA

#### Report on the audit of the financial statements

#### Opinion

We have audited the financial statements of Spectrum ASA, which comprise the financial statements for the parent company and the Group. The financial statements for the parent company and the Group comprise the statements of financial position as at 31 December 2018, the statements of comprehensive income, cash flows and changes in equity for the year then ended and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements have been prepared in accordance with laws and regulations and present fairly, in all material respects, the financial position of the Company and the Group as at 31 December 2018 and their financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

#### **Basis for opinion**

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the Company and the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in Norway, and we have fulfilled our ethical responsibilities as required by law and regulations. We have also complied with our other ethical obligations in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for 2018. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the financial statements.

#### Impairment assessment of Multi-Client library

Multi-Client library accounts for USD 162 102 thousand and USD 21 991 thousand for the Group and for the parent company respectively. The Company performed an impairment evaluation and determined the value in use to assess impairment. The impairment evaluation of Spectrums' Multi-Client library is a key audit matter due to size of the Multi-Client library and the significant management judgment involved related to the future market conditions. In 2018, no impairment charges for the Group or for the parent company were recognized.

We evaluated management's assessment of impairment indicators for the Multi-Client library. Our audit procedures included inquiries of management, analyses and evaluation of historical accuracy of prior year's forecasts. We further evaluated the assumptions used in the sales forecasts provided by internal

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sales representatives, based on developments and expectations in the seismic industry about the future oil prices, licensing rounds, farm-ins and exploration activities. Furthermore, we evaluated the valuation methodology and the discount rate applied in the value in use model. We also tested the mathematical accuracy of the value in use calculations and performed sensitivity analysis of key assumptions. Further we assessed the Company's disclosures regarding those assumptions and the impairment losses of Multi-Client libraries recorded, which are disclosed in notes 1 – "Accounting Policies" and 10 – "Non-Current Intangible and Tangible Assets (Fixed Assets)" of the consolidated financial statements.

#### Revenue recognition from sale of Multi-Client pre-funding licenses

The Group adopted IFRS 15 – Revenue from Contracts with Customers from 1 January 2018 using the modified retrospective approach. Management assessed its different customer contracts and determined the performance obligations and the transaction price relating to the services provided. This evaluation concluded that revenue recognition from Multi-Client pre-funding licenses was impacted, while other revenue contracts are recognized in the same manner as prior to the adoption of IFRS 15. For Multi-Client pre-funding contracts, the performance obligation was considered to be a "right to use" license, and revenue is recognized when the customer is granted access to the finished data or when delivery of the finished data has occurred. Multiclient pre-funding revenues were a key audit matter due to the cumulative effect at the date of initial application of IFRS 15 amounting to USD 9 050 thousand after taxes and the significant change in the timing of revenue recognition.

We obtained an understanding of the IFRS 15 adoption process and evaluated the accounting principles applied by management. We tested a sample of contracts from sale of Multi-Client pre-funding licenses by agreeing the amounts in the analysis to the prior year's audited consolidated financial statements to assess the cumulative effect. For a sample for revenue recognized in 2018, we obtained evidence that the performance obligation had been satisfied.

We refer to notes 1 and 3 of the consolidated financial statements.

#### Other information

Other information consists of the information included in the Company's annual report other than the financial statements and our auditor's report thereon. The Board of Directors and Chief Executive Officer (management) are responsible for the other information. Our opinion on the financial statements does not cover the other information, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

#### Responsibilities of management for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an

Independent auditor's report - Spectrum ASA A member firm of Ernst & Young Global Limited



audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with law, regulations and generally accepted auditing principles in Norway, including ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

#### Report on other legal and regulatory requirements

### Opinion on the Board of Directors' report and on the statements on corporate governance and corporate social responsibility

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report and in the statements on corporate governance and corporate social responsibility concerning the financial statements, the going concern assumption, and proposal for the allocation of the result is consistent with the financial statements and complies with the law and regulations.

Independent auditor's report - Spectrum ASA A member firm of Ernst & Young Global Limited





#### Opinion on registration and documentation

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, it is our opinion that management has fulfilled its duty to ensure that the Company's accounting information is properly recorded and documented as required by law and bookkeeping standards and practices accepted in Norway.

Oslo, 11 April 2019 **ERNST & YOUNG AS** 

on-Michael Grefsrød

state Authorised Public Accountant (Norway)

### Subsidiaries and joint ventures



#### EUROPE / MIDDLE EAST / AFRICA

Company	Country	City	Address	Telephone	Fax
Spectrum ASA	Norway	Oslo	Karenslyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo AS	Norway	Oslo	Karenslyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Carmot Seismic AS	Norway	Oslo	Karenslyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo CH AS	Norway	Oslo	Karenslyst Allé 11, N-0278 Oslo, NORWAY	+47 23 01 49 60	
Spectrum Geo Ltd	United Kingdom	Woking	Dukes Court, Duke Street, Woking, GU21 5BH, UK	+44 (0) 1483 730201	+44 (0) 1483 762620
Spectrum Geo GmbH	Switzerland	Zug	c/o Jan Nikolaisen, Baarerstrasse 80, 6300 Zug, SWITZERLAND	+47 23 01 49 60	+47 23 01 49 61
Spectrum Geopex Egypt (Joint Venture)	Ltd Egypt	Cairo	Spectrum Geopex Building, Nasr City Public Free Zone, Block 1-A, Cairo, EGYPT	+2 02 2270 4341	+2 02 2270 6479

#### AMERICA

Company	Country	City	Address	Telephone	Fax
Spectrum Geo Inc.	USA	Houston	11750 Katy Freeway, Suite 900, Houston, Texas 77079, USA	+1 281 647 0602	+1 281 589 8111
Spectrum Geo do Brasil	Brazil	Rio De	Av. Presidente Wilson nº 231 Sala 937, CEP 20030-021	+ 55 21 3578 5547	
Serviços Geofísicos LTDA		Janeiro	Centro, Rio de Janeiro, BRAZIL		
Spectrum Geo Panama LLC Panama		Panama Cit	y Piso 23 MMG Tower, Avenida Paseo del Mar, Costa d	el+1 281 647 0602	+1 281 589 8111
			Este,		
			Corregimiento de Parque Lefevre, Distrito de Panamá,		
			Provincia de Panamá, 265 7636, PANAMA		
Spectrum Geo S.A. de C.\	V. Mexico	Mexico City	Av. Paseo de las Palmas, No.820 Desp. 604.,	+52 55 5202 3600	
			Lomas de Chapultepec C.P., 11000 D.F., MEXICO		

#### ASIA / AUSTRALIA

Company	Country	City	Address	Telephone	Fax
Spectrum Geo Pty Ltd	Australia	Perth	Level 3, 55 St Georges Terrace, Perth, 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Pty Ltd	Australia	Perth	Level 3, 55 St Georges Terrace, Perth, 6000, AUSTRALIA	+61 8 9322 3700	+61 8 9322 1844
Spectrum Geo Pte Ltd	Singapore	Singapore	Level 28 Gateway East, 152 Beach Road, 189721, SING. PORE	A-+65 6827 9773	+65 6295 2567
Spectrum Jakarta	Indonesia	Jakarta	PT Geoxindo Pratama (Agent), Jl. Kramat No. 40, Cilandak, Timur, Jakarta, Selatan 12560, INDONESIA	+62 21 788 39751	





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Folow us: @SpectrumGeo



discover more...
with Spectrum Multi-Client data

### **Vedlegg 3 – Siste kvartalsrapport for Spectrum og TGS**

Appendix 3 – The last quarterly report for Spectrum and TGS

# Spectrum ASA

1st Quarter Results 2019

## Summary Q1 – 19 (APMs\*)

	SPECTRUM GROUP			
AND THE RESERVE OF THE PARTY.	Quarter	Quarter	12 months	
	ended	ended	ended	
	31.03.19	31.03.18	31.12.18	
(USD 1000)	(Unaudited)	(Unaudited)	(Audited)	
Net Segment Revenue	46,556	26,911	133,754	
Segment EBIT	12,191	(669)	30,612	
Segment Profit / (Loss)	7,405	(113)	17,180	
Cash flow from operating activities	43,204	28,619	74,083	
Investment in Multi-Client library	28,415	22,236	52,516	
Segment Multi-Client Library net book value	161,386	173,603	156,693	
Cash and cash equivalents	39,015	20,123	37,730	

## Q1 Highlights (APMs\*)

- Late sales in the quarter of MUSD 31.9 (2018: MUSD 13.1)
- Segment early sale on Multi-Client investments in the quarter was MUSD 14.7 (2018: MUSD 13.7), primarily related to Brazil surveys
- Multi-Client investments were MUSD 28.4 with 52% prefunding rate (2018: MUSD 22.2 with 62% prefunding)
- Gross Multi-Client investments were MUSD 33.8 (2018: MUSD 51.2)
- Operational cash flow in Q1 was MUSD 43.2 (2018: MUSD 28.6)

<sup>\*</sup> Please see pages 16-20 for further details.

## **Multi-Client Operations**

Segment net Multi-Client revenues of MUSD 46.5 in the quarter represent an increase of 73% vs. Q1 2018 (2018: MUSD 26.9). This is mainly due to increase in net late sales of MUSD 18.7. The increase in segment net early sales compared to Q1 2018 is MUSD 0.9. The increase in late sales is mainly due to sales on Argentina projects completed in Q4 2018.

In Q1 90% of the Net Multi-Client revenues came from North and South America (NSA), 5% Africa, Mediterranean and Middle-East (AME), 3% Northwest Europe (NWE) and 2% Asia Pacific (AP).

Spectrum's Multi-Client library is composed of data and reports from many of the major oil producing and frontier regions of the world. The library comprises approximately 3.35 million kilometres (km) of 2D seismic data, making Spectrum the market leader in Multi-Client 2D data. The 2D Multi-Client library presents a number of new opportunities to enhance the value of these datasets through reprocessing in addition to the pipeline of new acquisition surveys that are being developed around the world. Spectrum is rapidly growing its 3D Multi-Client library and now holds over 200,000 square kilometres (km²) of 3D seismic data, with an additional 125,000 km<sup>2</sup> of Seamless seismic merged 3D data on the Norwegian continental shelf.

Revenue from Multi-Client sales was 100% of total revenue in the first quarter of 2019.

On 19 December 2017 Spectrum commenced a new Multi-Client Broadband 3D and 2D Reprocessing Project in the Otway Basin offshore Australia. This unique dataset comprises 7,950km² of 3D data from 16 existing 3D surveys and up to 7,000 km of 2D data which are reprocessed through a high-end PSTM and PSDM broadband sequence. The project focuses around the 2018 Offshore Petroleum Exploration Acreage Release Proposed Areas in the Otway Basin announced by the Australian Government. PSTM data was available for delivery during Q4 2018 with PSDM delivery expected in Q2 2019. The project is supported by industry funding.

On 3 January 2018 Spectrum, in collaboration with the Direction Generale des Hydrocarbures (DGH) commenced the next phase of its shallow water 3D Multi-Client seismic acquisition campaign offshore Gabon with a 3D survey in the north of the country. The campaign is focused on acquiring seismic programs in under-explored shallow water open blocks with the objective of offering the most up-to-date 3D imaging of the area. The DGH intends to make these blocks available through future shallow water license rounds so to accelerate exploration; this data will facilitate immediate activity when the blocks are awarded. The survey covers 5,346 km<sup>2</sup> of long offset broadband seismic data and is acquired alongside gravity and magnetic recordings. This follows the 11,400 km<sup>2</sup> Gabon South 3D survey completed in 2017 and complements over 20,000 km of 2D Multi-Client seismic data offshore Gabon also held by Spectrum on behalf of the DGH, which gives a regional overview and highlights key areas of exploration. The 3D data were processed with PSTM, PSDM and Broadband products, and the processing was competed in Q1 2019. The survey is carried out in partnership with China Oilfield Services (COSL).

On 26 June 2018 Spectrum announced the commencement of an offshore Multi-Client 2D seismic survey, located in the Eastern Turkish Black Sea. The first phase of this campaign comprises 7,000 km of 2D data and is focused on an area identified to have significant hydrocarbon potential. The project is carried out in partnership with BGP, utilizing a long offset configuration optimized for broadband data processing. The processing was completed in Q1 2019.

On 23 July 2018 Spectrum announced the commencement of a 10 000 km² 3D Multi-Client seismic project over the Southern Santos Basin in Brazil. This survey covers an area south of the major oil and gas discoveries in the Santos Basin and the recent highly sought after blocks offered in Rounds 2, 3, 4 and 15. The 3D project builds on Spectrum's extensive 2D database in the region and marks the opening of the highly prospective deep water area in the Santos basin. On 16 October 2018 Spectrum announced an expansion of the program to 15 000 km² in collaboration with TGS. Fast track data will be available for the round expected in the second half of 2019.

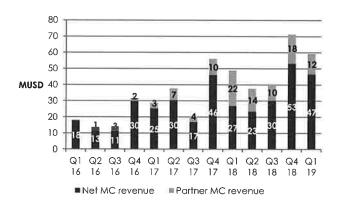
On 10 December 2018 Spectrum announced the commencement of a 10 700 km² 3D survey in the Potiguar basin offshore the Equatorial Margins of Brazil. The survey is covering blocks that were recently awarded in the 15th license round and open acreage blocks scheduled for the 17th round in 2020. The Potiguar survey is supported by industry funding. Spectrum is the sole operator of the project. The survey is being acquired with a twelve cable long offset configuration in continuous recording mode. Acquisition parameters are optimized for broadband processing which will assist in the high definition mapping of prospects and drilling targets. First products will be available in Q3 of 2019.

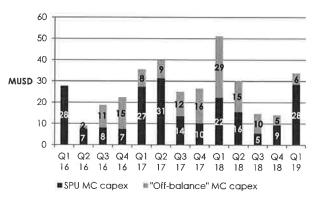
On 20 February 2019, Spectrum commenced a new 20,000 km 2D survey in Colorado and Salado basin offshore Argentina. This new program ties with Spectrum's existing 35,000 km survey that was acquired in 2017 for the ongoing first offshore licensing round. The survey is done in cooperation with BGP utilizing the vessel BGP Pioneer. Data is being acquired with a 12 km streamer with continuous recording to image deep reflection and high fold data. This will support full interpretation from Moho to water bottom. The data will be reprocessed with PSTM, PSDM and Broadband products with first deliveries in Q2 2019.

#### Multi-Client Key Figures (APMs)

	Spectrum G	roup
(USD 1000)	Q1 19	Q1 18
Segment early sales	14,670	13,731
Late sales	31,850	13,143
Other revenue MC	2	4
Net Segment MC reven	46,520	26,878
Investment	28.415	22 236

## Spectrum Risk Share Projects





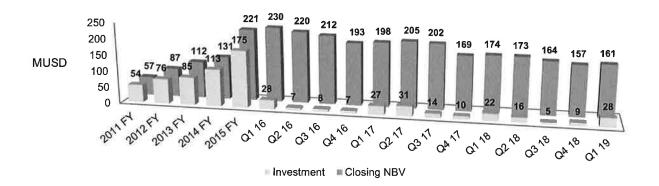
<sup>\*</sup> Segment Revenue used in graph for 2018 and going forward.

Spectrum treats joint risk projects as joint operations based on the contractual terms. Spectrum's part of the investment is recorded as investment, and the partner share of revenues is recorded as revenue share reducing Spectrum's net revenues.

The joint risk projects significantly reduce the uncovered risk and increase the potential return on investment for Spectrum. Given contractual terms that to a lesser degree limits the uncovered risk for Spectrum; the partner share of the investment could have been treated as an additional investment, and as such increased both the investment and net revenue for Spectrum.

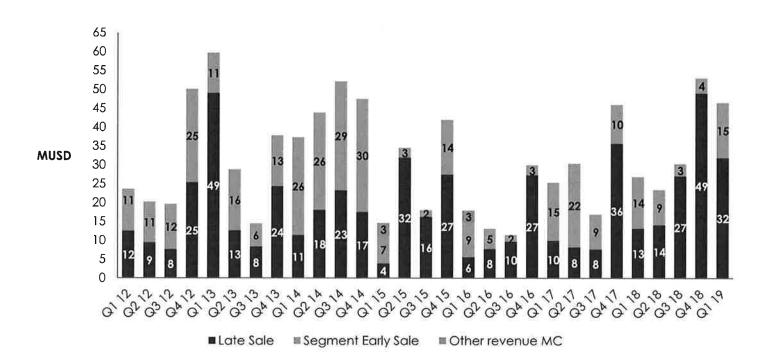
### Investment in the Multi-Client Library

\* Segment Multi-Client Library used in graph for 2018 and going forward.



### Net Multi-Client Revenues

\* Segment Early Sale used in graph for 2018 and going forward.



## Seismic Imaging

Seismic imaging is provided from the Group's processing centres in UK, US, Egypt and Indonesia. Spectrum's seismic processing technology is based on third party software complemented by Spectrum's production processing platform, which is constantly being enhanced with new processing techniques.

The seismic imaging division had proprietary revenues of MUSD 0.0 (2018: MUSD 0.0) in the quarter. In the first quarter 98.9% (2018: 99.1%) of the capacity of Spectrum's seismic imaging business unit was utilized in processing data for the Multi-Client library.

The seismic data imaging division provides a valuable service to the Spectrum Multi-Client segment and provides reprocessing projects in addition to processing of data from on-going new acquisitions.

#### **Seismic Imaging Key Figures**

	Spectrum Gr	oup
(USD 1000)	Q1 19	Q1 18
External revenue	36	33
Internal revenue	3,205	3,487
Total gross revenue	3,241	3,520

### **Future Prospects**

Spectrum is continuously working on a pipeline of new Multi-Client 2D (MC2D) and Multi-Client 3D (MC3D) acquisition projects. Sales from the Multi-Client library and prefunding of new projects constitute the main revenue streams for the Company and fund the operation and new investments in Multi-Client projects.

In order to maintain a modern library Spectrum reprocesses selected projects to enhance quality and value.

Multi-Client 3D surveys are a natural extension of Spectrum's growing Multi-Client 2D business and in line with our strategy to diversify the Multi-Client library.

Spectrum is an asset light company that stringently evaluates potential investments in new Multi-Client surveys with focus on prefunding levels, project models and future sale triggers.

It is of outmost importance to carefully evaluate all potential new projects based on prefunding and sales potential. Project funding structures are actively utilized to reduce Spectrum's uncovered risk and maximize return on investments. Spectrum has an attractive pipeline of Multi-Client investment projects for 2019.

Key triggers for MC late sales are 1) licence rounds, 2) significant discoveries of new O&G resources and 3) M&A transaction in the O&G industry. Several licence rounds in key Spectrum

offshore areas have been announced in 2019. An expected increased exploration drilling activity in 2019 and beyond should lead to more discoveries and contribute to growth in MC late sale. Finally, we have seen an increase in M&A transactions within the O&G industry especially in mature petroleum basins as the North Sea, Australia and GoM.

The Board sees increasing demand for Multi-Client seismic from clients continuing in 2019. Spectrum believes a combination of a stable oil price, a significant reduction of breakeven cost for offshore O&G projects in general, and deep-water projects especially, and a record low reserve replacement ratio (RRR) for the oil industry will lead to an accelerating recovery in the seismic market in 2019. Spectrum expects 2019 to be the first year of a multi-year recovery for global offshore O&G investment spending since the peak in 2014. The recovery is expected to especially benefit early cyclical offshore exploration including seismic.

There are clear indications that several of the large international oil companies are moving more resources and exploration budgets to the south Atlantic, especially Brazil and Argentina. This development gained traction in Q1 2019. Spectrum's investments have predominantly been in the less developed O&G regions in the South Atlantic over the last years, and we believe that this strategy will prove advantageous.

### Interim Statement of Comprehensive Income

Total net operating revenues for the group in Q1 2019 were MUSD 45.6 (2018: MUSD 15.6). Segment revenue, excluding the effect from IFRS 15, for Q1 2019 amounted to MUSD 46.6 (2018: MUSD 26.9).

Net Multi-Client revenues totalled MUSD 45.6 in the first quarter of 2019 (2018: MUSD 15.6). Early sales recognized in the quarter was MUSD 13.7 (2018: MUSD 2.5) and Late sales ended at MUSD 31.9 (2018: MUSD 13.1).

Operating expenses were MUSD 9.8, including MUSD 1.3 cost of stock options (2018: MUSD 9.3, including MUSD 0.5 in cost of stock options).

EBIT for the first quarter was MUSD 15.2 (2018: MUSD (7.8)).

Financial items were net MUSD (1.1) (2018: MUSD (0.7)).

Profit Before Tax in the first quarter ended at MUSD 14.0 (2018: MUSD (8.5)).

The Group's tax position and tax cost in the period are based on the preliminary tax calculations in each subsidiary. The tax cost for the first quarter was MUSD 3.6 (2018: income of MUSD 1.3)

### Interim Statement of Financial Position

The total assets of the group were MUSD 328.1 (end Q4 2018: MUSD 312.4) at the end of the quarter, split between non-current assets of MUSD 219.0 (end Q4 2018: MUSD 198.5), and current assets of MUSD 109.1 (end Q4 2018: MUSD 113.9). These were funded by equity of MUSD 176.2 (end Q4 2018: MUSD 165.7), long term liabilities of MUSD 22.9 (end Q4 2018: MUSD 20.8) and current liabilities of MUSD 128.9 (end Q4 2018: MUSD 125.8).

During Q1 2019 Spectrum had Multi-Client investments of MUSD 28.4 (Q4 2018: MUSD 9.2). This increase in carrying value of the Multi-Client library was offset by amortization of MUSD 19.8 (Q4 2018: MUSD 16.8). The net book value of the Multi-Client library at end Q1 is MUSD 170.7 (end Q4 2018: MUSD 162.1).

The cash and cash equivalents balance increased by MUSD 1.3 from end Q4 2018 to MUSD 39.0. Management monitors and forecast cash closely, and considers that the Company has sufficient liquidity to meet its ongoing operational and financial obligations.

The reported equity balance is MUSD 176.2 (end Q4 2018: MUSD 165.7). This equates to an equity ratio of 53.7% (end Q4 2018: 53.1%) Segment equity was MUSD 183.1 at the end of Q1 2019 giving an equity ratio of 57.2%.

Long term interest bearing debt was MUSD 10.2 (end Q4 2018: MUSD 13.2) and consist mainly of a long term loan facility.

### Interim Cash Flow

The cash and cash equivalents balance increased by MUSD 1.3 from end Q4 2018 to MUSD 39.0.

Net cash flow from operating activities was MUSD 43.2 (2018: MUSD 28.6) for the quarter. Working capital decreased by MUSD 10.4 (2018: decrease of MUSD 22.7).

Net cash outflow from investing activities was MUSD 28.5 (2018: MUSD 22.3) of which MUSD 28.4

was investments in the Multi-Client library (2018: MUSD 22.2).

Net cash outflow in the quarter from financing activities was MUSD 13.9 (2018: outflow of MUSD 0.4). This was mainly related to down payment of the overdraft facility (MUSD 10.0), and down payment of long term loan (MUSD 3.0).

## Interim Statement of Comprehensive Income

	SPECTRUM GROUP			
The state of the s	7 10	– Quarter	Quarter	12 months
		ended	ended	ended
		31.03.19	31.03.18	31.12.18
(USD 1000)	Note	(Unaudited)	(Unaudited)	(Audited)
Netrevenue	3	45,625	15,629	138,793
Operating expenses		(8,540)	(8,775)	(35,789)
Cost of share options		(1,271)	(514)	(887)
Share of profit/(loss) of joint ventures			75/7	96
Amortisation		(19,794)	(13,873)	(68,544)
Depreciation		(833)	(250)	(1,331)
Operating Profit / (Loss)		15,187	(7,783)	32,338
Interest expense, net		(251)	(250)	(1,542)
Foreign exchange profit / (loss)		(649)	(385)	(4,779)
Other financial items		(242)		(750)
Profit / (Loss) before tax		14,045	(8,513)	25,266
Tax income / (expense)		(3,645)	1,287	(6,361)
Profit / (Loss) to equity holders		10,400	(7,226)	18,905
Total Comprehensive income / (loss) for the period		10,400	(7,226)	18,905
Earnings per share		0.19	(0.13)	0.35
Diluted earnings per share		0.18	(0.13)	0.32
(Shares 1000)				
Basic shares outstanding average		54,785	54,449	54,559
Diluted shares outstanding average		59,238	59,134	59,135
Basic shares issued end of the quarter		54,785	54,449	54,785
Diluted shares issued end of the quarter		59,230	59,082	59,135

## Interim Consolidated Statement of Financial Position

	SPECTRUM GROUP		
WAS TOWAS	W 11	31.03.19	31.12.18
(USD 1000)	Note	(Unaudited)	(Audited)
ASSETS			
Non-current assets			
Deferred tax assets		14,056	11,897
Goodwill		11,563	11,563
Investment in Joint Ventures		2,524	2,524
Software		1,776	1,987
Multi-Client library		170,723	162,102
Fixtures, fittings and office equipment		981	1,108
Right-of-use assets		7,392	2
Other receivables		8,297	6,162
Restricted cash		1,656	1,111
Total non-current assets		218,968	198,454
Current assets			
Accounts receivable		56,442	49,733
Accrued revenues		2,878	13,931
Other receivables		10,802	12,509
Cash and cash equivalents		39,015	37,730
Total current assets			
roidi coneili daseis		109,137	113,903
Total assets		328,105	312,357
CHARGING DEDCT FOURTY			
SHAREHOLDERS' EQUITY Shareholders' equity			
Issued capital		0.005	0.005
Share premium		8,985	8,985
Other paid-in capital		72,433	72,433
Retained earnings		61,961	61,874
Foreign translation reserve		35,310	24,910
		(2,467)	(2,467)
Total equity		176,223	165,735
LIABILITIES			
Long term liabilities			
Deferred tax liability		2,259	2,997
Long term interest bearing debt	4	10,179	13,224
Other long term liabilities		10,498	4,624
Total long term liabilities		22,936	20,845
Current liabilities			
Short term interest bearing debt	4	8,183	18,193
Tax and other public duties payable		10,358	8,105
Accounts payable		53,946	42,701
Other short term liabilities		56,459	56,778
Total current liabilities		128,946	125,777
Total shareholders' equity and liabilities	7	328,105	312,357
and national		320,103	012,007

## Interim Consolidated Statement of Changes in Equity

	SPECTRUM GROUP					
The property of the second of the second of					Foreign	
			Other		currency	
	Issued	Share	paid-in	Retained	translation	Total
(USD 1000)	capital	premium	capital	earnings	reserve	equity
Equity at 31 December 2017	8,945	71,164	60,959	18,422	(2,467)	157,024
<del>!</del>						
IFRS 15 adjustment *	:#2	:17	Ħ	(9,050)	:#X)	(9,050)
Opening balance at 1 January 2018	8,945	71,164	60,959	9,372	(2,467)	147,972
Share options granted	1970	-	95	:-:		95
Profit / (Loss) for the period	:=):	*	¥	(7,226)	46	(7,226)
Equity at 31 March 2018	8,945	71,164	61,054	2,146	(2,467)	140,841
Share issue	40	1,269	2	? <b>≆</b> 1	·	1,309
Dividends	*	3	- 5	(3,368)	-	(3,368)
Share options granted	*	*	820	8:00	-	820
Profit / (Loss) for the period	. 41	2	2	26,131	120	26,131
Equity at 31 December 2018	8,985	72,433	61,874	24,910	(2,467)	165,735
Share options	運火		88		120	88
Profit / (Loss) for the period	-	-	-	10,400		10,400
Equity at 31 March 2019	8,985	72,433	61,961	35,310	(2,467)	176,222

*	<b>IFRS</b>	15	ad	justment
---	-------------	----	----	----------

Revenue recognized as of 31 December 2017 that would not have been recognised under IFR\$ 15	20,323
Amortisation and other effects recognized as of 31 December 2017 that would not have been recognised	20,020
-	(0.702)
under IFRS 15	(8,723)
IFRS 15 adjustment before tax	11,600
Tax**	(2,550)
IFRS 15 adjustment	9,050

<sup>\*\*</sup> Adjustment in Q4 2018. Reflected in opening balance at 1 January 2018.

## Interim Consolidated Statement of Cash Flows

	SPECTRUM GROUP			
	Quarter Quarter 12 mg			
	ended	ended	ended	
	31.03.19	31.03.18	31.12.18	
(USD 1000)	(Unaudited)	(Unaudited)	(Audited)	
Cash flows from operating activities:				
Profit / (Loss) before tax	14,045	(8,513)	25,266	
Income taxes/other taxes paid	(2,168)	=	(2,443)	
Depreciation, amortisation and impairment	20,627	14,123	69,875	
Interest expense, net	251	250	1,542	
Share options granted	88	95	915	
Working capital changes	10,361	22,664	(21,072)	
Net cash flow from operating activities	43,204	28,619	74,083	
Cash flows from investing activities:	(00.415)	100.027	/50 51 /)	
Investment in Multi-Client library	(28,415)		(52,516)	
Investment in other assets	(67)	(113)	(2,633)	
Sale / Disposal of assets	(00 (00)	(00.040)	31	
Net cash flow from investing activities	(28,482)	(22,349)	(55,118)	
Cash flows from financing activities:				
Issued share capital	A <del>.</del>	3	1,309	
Dividends	/₩	-	(3,368)	
Proceeds from borrowings	: E	÷	10,000	
Payment of borrowings	(13,000)	₹	(4,026)	
Payment of lease liabilities*	(444)	(93)	(363)	
Interest paid	(430)	(288)	(1,371)	
Net cash flow from financing activities	(13,874)	(381)	2,181	
	0.40	F 000	01.144	
Net change in cash and cash equivalents	848	•	21,146	
Net foreign exchange diff (unrealised)	438		2,429	
Cash and cash equivalents at start of period			14,155	
Cash and cash equivalents at end of period	39,015	20,123	37,730	

<sup>\*</sup> In the statement of cash flows the cash payments for the principal – and interest portion of the lease liability are classified within cash flows from financing activities.

### Notes to Accounts

#### **NOTE 1 – GENERAL INFORMATION**

Spectrum ASA (the company) is a public limited company listed on the Oslo Stock Exchange. The address of the registered office is Karenslyst Allé 11, N-0278 Oslo, Norway.

#### NOTE 2 - BASIS OF PREPARATION

The consolidated interim financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) IAS 34 Interim Financial Reporting as approved by EU and additional requirements in the Norwegian Securities Trading Act. The consolidated interim financial statements comprise the financial statements of the Company and its subsidiaries, Spectrum's interest in equity accounted joint ventures and the proportionate share of the assets, liabilities, income and expenses of jointly controlled operations as at 31st March 2019. The reporting period of subsidiaries coincides with that of the Group, and the financial statements of the subsidiaries are prepared using accounting policies consistent with the Group's policies. The accounting policies used in the preparation of these accounts are consistent with those followed to prepare the Company's Consolidated Financial Statements for the year ended 31st December 2018, except for impact of IFRS 16 effective from 1 January 2019, see description under Leases. Full details of the policies are described in note 1 of those accounts and are available from the registered office and on the company's website.

All intra-group balances, income and expenses resulting from intra-group transactions are eliminated in full. The accounting policies for Multi-Client library and revenue recognition are considered by management to have a significant effect on the company's accounts and are listed below.

#### **Revenue Recognition**

Early sales – When the Spectrum Group obtains funding for a particular survey before it is completed in data processing, revenue is recognized upon delivery of products. All received prefunding is accounted for as a prepayment liability under other current liabilities. Amortization is recognized at the same time as the revenue.

Late sales – Revenue earned on completed surveys is recognized at the time of the transaction when the customer executes a valid license agreement and has the right to access the licensed data.

#### **Impairment**

Spectrum reviews the carrying value of its Multi-Client surveys when there are events and changes in circumstances that indicate that the carrying value of a survey may not be recoverable. In addition the carrying values of all surveys are reviewed annually regardless of indications that the carrying value may not be recoverable. No impairments were recognized for Q1 2019.

#### Implementation of new standard - Leases

IFRS 16 "Leases" is effective from 1 January 2019. The Group has applied the modified retrospective approach for the transition. The Group has elected to use the exemptions proposed by the standard on lease contracts for which the lease terms ends within 12 months as of the date of initial application, and lease contracts for which the underlying asset is of low value. As at 1 January 2019 USD 7.0 million was recognized as "right-of-use" assets, and USD 7.1 million recognized as lease liabilities. The Group's "right-of-use" assets consist mainly of lease commitments for premises. The implementation of IFRS 16 will improve EBITDA with approximately USD 0.5 million per quarter.

IFRS 16 P/L effects and balances Q1 2019	Spectrum Group
	Quarter ended
(USD 1000)	31.03.19
Depreciation	(428)
EBIT	(428)
Interest cost	(113)
Profit before tax	(541)
Right of use asset	7,392
Lease liability, long term	(5,899)
Lease liability, short term	(1,697)

### Notes to Accounts

#### **NOTE 3 – SEGMENT INFORMATION**

Spectrum is a pure play Multi-Client company. The Group has identified two operating segments as defined in IFRS 8 Operating Segments: Multi-Client and Seismic Imaging. Multi-Client is considered the primary operating segment. The Multi-Client operating segment is for internal reporting purposes split into four reporting segments on a geographical basis. Multi-Client constitutes 99.9% of the Group's net revenue in Q1 2019.

Segment information is given consistently with how it is reported for management accounting purposes to executive management and Board of Directors, and as such Alternative Performance Measurements (APMs) are used.

		ipectrum Group	9 511 500
A STATE OF THE STA	Quarter	Quarter	12 months
	ended	ended	ended
The state of the s	31.03.19	31.03.18	31.12.18
(USD 1000)	(Unaudited)	(Unaudited)	(Audited)
Gross revenue	59,348	48,785	198,322
Revenue share	(12,836)	(21,907)	(64,673)
Net segment early sales	14,670	13,731	30,438
Net late sales	31,850	13,143	103,210
Other revenue MC	-	4	<u>~</u>
Net Segment Multi-Client revenue	46,520	26,878	133,648
Other revenue	-	5#3	~
Seismic imaging	36	33	105
Net Segment revenue	46,556	26,911	133,754

Spectrum classifies Multi-Client revenue as early sales or late sales based on the products sold. PSTM (Time) and PSDM (Depth) are treated as separate products. E.g.: A sale of a completed PSTM product will be classified as late sale even if the PSDM product has not been completed.

The Multi-Client segment is divided into operating segments identified on a geographical basis. Assets and liabilities are not reported by operating segment in management reporting and are not disclosed separately. The Group does not allocate all cost items to its reportable operating segments during the year, unallocated cost items are reported as Group functions incl. seismic imaging.

			The second second second	Spectru	m Group		TO 18 19 15
(USD 1000)	Quarter ended 31.03.19 (Unaudited)	North and South America	Africa / Mediterranean / Middle-East	Northwest Europe		Group functions incl. Seismic imaging	Consolidatec
Net Segment	revenue	42,058	2,140	1,226	1,094	36	46,556
Segment EBIT		24,036	(2,126)	(1,928)	(885)	(6,907)	12,191
		77	- 15° - 151	Spectru	n Group	The Park of the Pa	12 1 11
			Africa /			Group functions	
	Quarter ended 31.03.18	North and	Mediterranean	Northwest		incl.	
(USD 1000)	(Unaudited)	South America	/ Middle-East	Europe	Asia Pacific	Selsmic Imaging	Consolidated
Net Segment i	revenue	17,431	4,737	2,192	2,518	33	26,911
Segment EBIT		6,691	627	(1,122)	546	(7,412)	(669)

#### **NOTE 4 – BANK FACILITIES**

#### Loan facility:

As of 31 March 2019 Spectrum had a loan facility of MUSD 18.1. MUSD 10.1 is classified as long term interest bearing debt in the financial statements. MUSD 8.0 is due within 12 months and is classified as short term interest bearing debt in the financial statements.

#### Overdraft facility:

In Q3 2018 Spectrum secured a new overdraft facility of up to MUSD 30.0. As of 31 March 2019 MUSD 0 of the overdraft facility was utilized. When the facility is utilized it is classified as short term interest bearing debt in the financial statements.

Covenants as of 31 March 2019:

- Equity ratio (excl. goodwill) > 40.0%
- NIBD / 12 months EBITDA less MC CAPEX < 1.50</li>
- Aggregate amount of Cash held by the Group > MUSD 2.0
- Sum of relevant trade receivables and cash > MUSD 12.0

Covenants are measured using the Alternative Performance Measurements (APM),

#### **NOTE 5 - SUBSEQUENT EVENTS**

TGS-NOPEC Geophysical Company ASA and Spectrum ASA announced on 2 May 2019 that it has agreed on the principle terms for the acquisition of Spectrum ASA. The transaction is expected to be completed as a statutory merger pursuant to Norwegian corporate law between TGS and Spectrum, with merger consideration to Spectrum shareholders in the form of 0.28x ordinary shares of TGS for each Spectrum share (the "Exchange Ratio"), in addition to a cash consideration of USD 0.27 multiplied by the Exchange Ratio subject to the transaction closing after the ex-date for the TGS dividend payable in Q3 2019 (expected to be early August 2019). The Exchange Ratio and the cash consideration imply a transaction share price of Spectrum of NOK 61.9 per share (based on closing of the TGS share on 2 May 2019), corresponding to a market capitalization of NOK 3,671 million (USD 422 million) on a fully diluted basis. The transaction is supported by the Board of Directors of each of the companies, as well as Spectrum shareholders representing more than 34.1 % who have given their support to the transaction and agreed to vote their shares in favour thereof. Definitive merger documents are expected to be entered into during May, with closing of the transaction expected during the third quarter of 2019 following shareholder approvals in EGM and regulatory clearance.

NOTE 6 - TWENTY LARGEST SHAREHOLDERS AT 8<sup>TH</sup> OF MAY 2019

-	Total number of shares	54,785,103	100.0%	
	OTHER	15,528,106	28.3%	
20	VERDIPAPIRFONDET NORDEA KAPITAL	563,049	1.0%	NOR
19	NORRON SICAV - TARGET	620,000	1.1%	LUX
18	STATE STREET BANK AND TRUST COMP	682,980	1.2%	USA
17	VJINVESTAS	683,709	1.2%	NOR
16	HOLBERG NORGE	700,000	1.3%	NOR
15	EUROCLEAR BANK S.A./N.V.	709,938	1.3%	BEL
14	VERDIPAPIRFONDET NORDEA NORGE VERD	767,908	1.4%	NOR
13	VERDIPAPIRFONDET DNB NORGE SELEKTI	788,063	1.4%	NOR
12	AAT INVEST AS	890,869	1.6%	NOR
11	SKANDINAVISKA ENSKILDA BANKEN AB	1,018,718	1.9%	SWE
10	VEVLEN GÅRD AS	1,300,000	2.4%	NOR
9	UBS AG (LONDON BRANCH)	1,402,000	2.6%	CHE
8	VERDIPAPIRFONDET ALFRED BERG GAMBA	1,695,293	3.1%	NOR
7	VERDIPAPIRFONDET PARETO INVESTMENT	1,772,000	3.2%	NOR
6	SKANDINAVISKA ENSKILDA BANKEN S.A.	2,059,679	3.8%	LUX
5	CREDIT SUISSE AG DUBLIN BRANCH	2,209,368	4.0%	CHE
4	GROSS MANAGEMENT AS	2,493,995	4.6%	NOR
3	SWEDBANK ROBUR SMABOLAGSFOND	2,898,964	5.3%	SWE
2	ALTOR INVEST 2 AS	8,000,232	14.6%	NOR
1	ALTOR INVEST 1 AS	8,000,232	14.6%	NOR
5-11-11	Shareholders	Shares	%	Country

NOTE 7 – SHARES OWNED BY THE SPECTRUM BOARD OF DIRECTORS, MANAGEMENT AND INSIDERS AT 8<sup>TH</sup> OF MAY 2019

	Shareholder	Shares	%	Country
1	Glen Rødland (1)	2,493,995	4.55 %	NOR
2	Richie Miller	219,505	0.40 %	USA
3	Rune Eng (2)	141,694	0.26 %	NOR
4	Jan Schoolmeesters	46,961	0.09 %	NOR
5	Graham Mayhew	11,000	0.02 %	GBR
6	Svein Staalen	10,549	0.02 %	NOR
7	lan Setterfield	6,033	0.01 %	GBR
8	Mike Mellen	4,810	0.01 %	USA
9	Bjarte Bakke	2,000	0.01 %	NOR
10	Anuradha Dighe	2,000	0.01 %	GBR
11	Ian T Edwards	1,030	0.01 %	GBR
12	Magnus Undeli Bekkelund	1,000	0.01 %	NOR
13	Duncan Woolmer	312	0.01 %	GBR
14	Pål Stampe (3)	Ψ.	0.00 %	NOR
15	Maria Tallaksen (3)	€	0.00 %	NOR

#### Notes:

- 1. Shares held by Gross Management AS, wholly owned by Mr. Rødland
- 2. Shares held by Eng Invest AS, wholly owned by Mr. Eng
- 3. Mr. Stampe and Ms. Tallaksen have limited ownership through Altor Fund IV, which is the wholly owner of Altor Invest 1 AS and Altor Invest 2 AS.

Alternative performance measures (financial performance measures not within the IFRS framework), are used by the Group to provide supplemental information. Financial APMs are intended to enhance comparability from period to period. The APMs are also used internally for management reporting. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS.

IFRS 15 Revenue from Contracts with customer is effective from 1 January 2018. Under the new standard all revenue are recognized upon delivery of data while revenue previously were recognized based on the percentage of completion (POC) of the projects. Spectrum will for reporting use percentage of completion as it is a more fair view of the revenue when it coincides with the progression of the projects, the resources applied and the valued created. The new standard affects several measurements in the financial statements, and Spectrum will use APM's for these measurements to reflect revenue recognized on percentage of completion basis.

#### **Deferred Prefunding**

Deferred prefunding is POC applied to the existing signed contracts related to products that are not ready for delivery, and where the revenue has not been recognized under IFRS 15.

	Spectrum Grou		
	Quarter ended	Quarter ended	12 months ended
(USD 1000)	31.03.19	31.03.18	31.12.18
Deferred prefunding	16,212	31,605	15,281
of which invoiced to customers	15,001	11,580	13,231
of which un-invoiced to customers	1,212	20,025	2,050
Recognised prefunding	13,739	2,449	35,482
Increase in deferred prefunding	14,670	13,731	30,439

<u>Recognized prefunding</u> is the amount that has been recognized as early sale based on deliveries of processed data and not on production in the period.

<u>Increase in deferred prefunding</u> is the result of production (increased POC) in the period and new sales contract for products not ready for delivery. Prior to the IFRS 15 standard taking effect this was presented as early sale in the Profit/Loss statement.

#### **Net Segment Revenue**

Net revenue adjusted for recognized prefunding and increase in deferred prefunding. The adjusted revenue reflects the value of the production and the sales contracts executed in the period.

	Spe	Spectrum Group		
	Quarter ended	Quarter ended	12 months ended	
(USD 1000)	31.03.19	31.03.18	31.12.18	
Early Sale	13,739	2,449	35,482	
Less recognised prefunding	(13,739)	(2,449)	(35,482)	
Added increase in deferred revenue	14,670	13,731	30,439	
Segment Early Sale	14,670	13,731	30,439	
Segment Early Sale	14,670	13,731	30,439	
Late Sale	31,850	13,143	103,210	
Other revenue	36	37	105	
Segment Revenue	46,556	26,911	133,754	
1./		cooct	rumas	

#### **Segment Amortization**

Amortizations adjusted for amortizations on the Segment Early Sale. On-going projects amortized based on prefunding vs. estimated sales potential. As the early sale is adjusted this will affect the amortization recognized in the period.

Segment Amortization	(23,721)	(18,041)	(65,232)
Amortization on adjustment of segment early sale	(3,927)	(4,168)	3,313
Amortization	(19,794)	(13,873)	(68,544)
(USD 1000)	31.03.19	31.03.18	31.12.18
	ended	ended	ended
	Quarter	Quarter	12 months
	Spectrum Group		Jb

#### Segment EBIT

Segment EBIT is defined as EBIT using Segment Revenue and Segment Amortization.

	Spectrum Group		
	Quarter	Quarter	12 months
	ended	ended	ended
(USD 1000)	31.03.19	31.03.18	31.12.18
Operating Profit / (Loss)	15,187	(7,783)	32,337
Less net revenue	(45,625)	(15,629)	(138,793)
Added Net Segment Revenue	46,556	26,911	133,754
Less amortization	19,794	13,873	68,544
Added Segment Amortization	(23,721)	(18,041)	(65,232)
Segment EBIT	12,191	(669)	30,612

#### Segment EBITDA

Segment EBIT with depreciation, Segment Amortization and impairments added.

	Spectrum Group		
CONTRACTOR OF STREET	Quarter	Quarter	12 months
	ended	ended	ended
(USD 1000)	31.03.19	31.03.18	31.12.18
Segment EBIT	12,191	(669)	30,612
Added Segment Amortization	23,721	18,041	65,232
Added depreciation	833	250	1,330
Segment EBITDA	36,745	17,624	97,173

#### Segment Net Profit / (Loss)

Segment EBIT less net financial items and tax cost.

	Spe	Spectrum Group		
	Quarter	Quarter	12 months	
	ended	ended	ended	
(USD 1000)	31.03.19	31.03.18	31.12.18	
Segment EBIT	12,191	(669)	30,612	
Net financial items	(1,142)	(730)	(7,071)	
Tax	(3,645)	1,287	(6,361)	
Segment Profit / (Loss)	7,405	(113)	17,180	

#### Segment Multi-Client Library

Segment Multi-Client Library is defined as Multi-Client library using Segment Amortization.

	Spectrum	Group
The second of the second of the second	Quarter	12 months
	ended	ended
(USD 1000)	31.03.19	31.12.18
Multi-Client library	170,723	162,102
Added restated amortizations in prior periods	(5,410)	(8,723)
Less amortization in the period	19,794	68,544
Added Segment Amortization in the period	(23,721)	(65,232)
Segment Multi-Client Library	161,386	156,693

#### **Segment Non-Current Assets**

Segment Non-Current Assets is defined as non-current assets using Segment Multi-Client Library.

	Spectrum Group	
	Quarter	12 months
	ended	ended
(USD 1000)	31.03.19	31.12.18
Non-current assets	218,968	198,454
Less Multi-Client library	(170,723)	(162,102)
Added Segment Multi-Client Library	161,386	156,693
Segment Non-Current Assets	209,632	193,044

#### **Segment Accrued Revenue**

Accrued Revenue adjusted for deferred prefunding. Un-invoiced prefunding is under IFRS 15 not recognized.

	Spectrum Group		
STATE OF THE PARTY	Quarter	12 months	
	ended	ended	
(USD 1000)	31.03.19	31.12.18	
Accrued revenue	2,878	13,931	
Un-invoiced prefunding in deferred revenue	1,212	2,050	
Segment Accrued Revenue	4,089	15,981	

#### **Segment Current Assets Non-Cash**

Segment Current Assets Non-Cash is defined as current assets less of cash using Segment Accrued Revenue.

	Spectrum Group	
	Quarter	12 months
	ended	ended
(USD 1000)	31.03.19	31.12.18
Current assets non-cash	70,122	76,173
Less accrued revenue	(2,878)	(13,931)
Added Segment Accrued Revenue	4,089	15,981
Segment Current Assets Non-Cash	71,334	78,224

#### Segment Other Short Term Liabilities

Other short term liabilities adjusted for deferred prefunding. Invoiced prefunding is under IFRS 15 included in other current liabilities as prepayments from customers.

	Spectrun	Spectrum Group		
	Quarter	12 months		
	ended	ended		
(USD 1000)	31.03.19	31.12.18		
Other short term liabilities	56,459	56,778		
Invoiced prefunding in deferred revenue	(15,001)	(13,234)		
Segment Other Short Term Liabilities	41,458	43,544		

#### **Segment Current Liabilities**

Segment Current Liabilities is defined as current liabilities adjusted for Segment Other Short Term Liabilities.

	Spectrum Group	
Charles and the second of the second	Quarter	12 months
THE RESERVE AND LOCKET STREET	ended	ended
(USD 1000)	31.03.19	31.12.18
Current liabilities	128,946	125,777
Less other short term liabilities	(56,459)	(56,778)
Added Segment Other Short Term Liabilities	41,458	43,544
Segment Current Liabilities	113,945	112,543

#### **Segment Equity**

Segment Equity is defined as equity adjusted for Segment Revenue and Segment Amortization.

	Spectrum Group		
A CONTRACT OF STREET OF STREET OF STREET, STREET	Quarter	12 months	
	ended	ended	
(USD 1000)	31.03.19	31.12.18	
Equity	176,223	165,735	
Added IFRS 15 adjustment in prior periods	9,870	11,600	
Less net revenue in the period	(45,625)	(138,793)	
Added Segment Revenue in the period	46,556	133,754	
Less amortization in the period	19,794	68,544	
Added Segment Amortization in the period	(23,721)	(65,232)	
Segment Equity	183,097	175,610	

#### Segment Net Cash Flow from Operating Activities

Cash flow using Net Segment Revenue, Segment Amortization and Segment Other Short Term Liabilities will impact profit before tax, amortization and working capital changes, but will have no impact on the total net cash flow from operating activities.

	Spectrum Group		
	Quarter	Quarter	12 months
	ended	ended	ended
(USD 1000)	31.03.19	31.03.18	31.12.18
Profit / (Loss) before tax	14,045	(8,513)	25,266
Less net revenue	(45,625)	(15,629)	(138,793)
Added Segment Revenue	46,556	26,911	133,754
Less amortization	19,794	13,873	68,544
Added Segment Amortization	(23,721)	(18,041)	(65,232)
Segment Profit / (Loss) before tax	11,049	(1,400)	23,540
Daniel III and	00.40=		
Depreciation, amortization and impairment	20,627	14,123	69,875
Less amortization	(19,794)	(13,873)	(68,544)
Added Segment Amortization	23,721	18,041	65,232
Segment depreciation, amortization and impairment	24,554	18,291	66,562
Working capital changes	10,361	22,664	(21,072)
Adjusted for change in deferred prefunding	(931)	(11,282)	5,042
Segment working capital changes	9,430	11,382	(16,030)

## Reporting Dates 2019

Date	Report
10.05.2017	Quarierly Report – Q1
24.05.2019	Annual General Meeting
16.08.2019	Quarterly Report – Q2
25.10.2019	Quarterly Report – Q3
07.02.2020	Quarterly Report – Q4

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## TGS EARNINGS RELEASE 1st QUARTER 2019 RESULTS

#### 1st QUARTER 2019 FINANCIAL HIGHLIGHTS

IFRS (all amounts in USD 1,000 unless specified otherwise)	Q1 2019	Q1 2018
Net operating revenues	99,848	99,087
Operating profit (EBIT)	-487	8,622
- Operating profit margin	0%	9%
Net income	4,209	-3,225
EPS (fully diluted) (USD)	0.04	-0.03
Organic multi-client investments	36,806	30,732
Risk-sharing investments	1,039	3,486
Inorganic multi-client investments	0	0
Amortization of multi-client library	73,244	64,236
Multi-client library net book value	835,099	847,879
Free cash flow (after multi-client investments)	147,315	70,987
Cash balance	389,962	301,699
Return on average capital employed <sup>1</sup>	27%	12%

Segment reporting <sup>2</sup> (all amounts in USD 1,000 unless specified otherwise)	Q1 2019	Q1 2018
Net operating revenues	109,865	134,759
- Net pre-funding revenues	13,565	17,602
- Net late sales	91,273	114,865
- Net proprietary revenues	5,027	2,291
Operating profit	16,853	24,902
- Operating profit margin	15%	18%
Amortization of multi-client library	65,922	83,628
Multi-client library net book value	698,070	749,655
Pre-funding rate	37%	57%

- Strong cash generation Q1 2019 free cash flow of USD 147 million and cash balance of USD 390 million at the end of the quarter
- Substantial increase in revenue backlog and investment commitments during the quarter
- Agreement in principle to acquire Spectrum to cement the position as a leading provider of multi-client seismic data globally
- Dividend of USD 0.27 per share to be paid in Q2 2019, up 35% compared to Q2 2018

<sup>&</sup>lt;sup>1</sup> 12 months trailing.

<sup>&</sup>lt;sup>2</sup> Revenue recognition of projects in progress recognized on a Percentage of Completion basis. Please refer to note 4 for more details.

#### FINANCIALS - IFRS REPORTING

Following the implementation of the IFRS 15 accounting standard from 1 January 2018, pre-funding committed prior to start-up of the project or late sales committed in the work-in-progress phase are not recognized until delivery of the data to the customer. For internal reporting purposes, TGS still prepares accounts in accordance with historical practice, with sales committed prior to completion of the project recognized on a Percentage of Completion basis. The discussion and analysis in this section is based on IFRS reporting.

#### Net operating revenues and operating profit

Net revenues amounted to USD 99.8 million in Q1 2019, an increase of 0.8% from USD 99.1 million in Q1 2018. Revenues from projects completed during the quarter increased by USD 11.9 million compared to last year, while proprietary revenues grew USD 2.7 million. This was, however, largely offset by lower sales of vintage data.

Amortization of the multi-client library amounted to USD 73.2 million versus USD 64.2 million in Q1 2018.

Personnel cost totaled USD 15.1 million in Q1 2019, corresponding to a 2% decline compared to USD 15.5 million in Q1 2018. The decline is caused by lower bonuses to employees. Other operating expenses amounted to USD 5.7 million compared to USD 8.4 million in Q1 2018. The decline is a result of implementation of the IFRS 16 accounting standard for leases. In the quarter USD 3.3 million of lease expenses have been booked as depreciation and USD 0.4 million as lease interest instead of being part of other operating expenses. This has led to an increase in depreciation to USD 5.1 million in Q1 2019 from USD 2.3 million in Q1 2018.

Operating profit amounted to USD -0.5 million (margin of -0.5%) in the quarter compared to USD 8.6 million (9%) in the same quarter of last year.

#### Financial items and profit before tax

Net financial items for Q1 2019 totaled USD 6.0 million compared to USD -0.2 million in Q1 2018. The increase is a result of a combination of higher interest income, currency exchange gains and gains on financial instruments.

Pre-tax profit was USD 5.5 million in Q1 2019 compared to USD 8.4 million in Q1 2018.

#### Tax and net income

TGS reports tax charges in accordance with the Accounting Standard IAS 12. Taxes are computed based on the USD value of the appropriate tax provisions according to local tax regulations and currencies in each jurisdiction. The tax charges are influenced not only by local profits, but also by fluctuations in exchange rates between the respective local currencies and USD. This method makes it difficult to predict tax charges on a quarterly or annual basis. Currency effects within the current year are classified as tax expenses.

Based on the corporate income tax rate in Norway (22% in 2019) and in the US (21% in 2018), TGS has assessed the normalized operating consolidated tax rate to be at approximately 22% for 2019.

The tax cost for Q1 2019 was USD 1.3 million (USD 11.6 million in Q1 2018), corresponding to a tax rate of 24%.

Net income amounted to USD 4.2 million in Q1 2019, compared to USD -3.2 million in Q1 2018. This corresponds to a fully diluted EPS of USD 0.04 versus to USD -0.04 in Q1 2018.

#### **Balance** sheet

The Company continues to have a solid balance sheet with a cash position of USD 390.0 million as of 31 March 2019, an increase of USD 88.3 million from the USD 301.7 million of cash balance at the same point in 2018. Net interest-bearing debt was unchanged at USD 2.5 million, meaning that the net cash was USD 387.5 million (USD 299.2 million).

The net book value of the multi-client library was USD 835.1 million as of 31 March 2019 compared to USD 847.9 million as of 31 March 2018. The decline reflects a continued high amortization rate, combined with investments in new projects being done at substantially lower unit cost than the average of the surveys completed historically.

Total equity as of 31 March 2019 was USD 1,228.4 million, 77% of total assets. On 31 March 2018 total equity amounted to USD 1,124.4 million (75% of total assets). No new shares were issued in Q1 2018, and as of 31 March 2019, TGS held 104,630 treasury shares.

#### Cash flow

Net cash flow from operations for the quarter, after taxes and before investments, totaled USD 208.6 million compared to USD 102.7 million in Q1 2018. Free cash flow (cash flow from operations after investments in the multi-client library) amounted to USD 147.3 million versus USD 70.8 million in Q1 2018.

The Company's total cash holdings increased by USD 116.4 million during the quarter and totaled USD 390.0 million as of 31 March 2019, compared to USD 273.5 million at 31 December 2019.

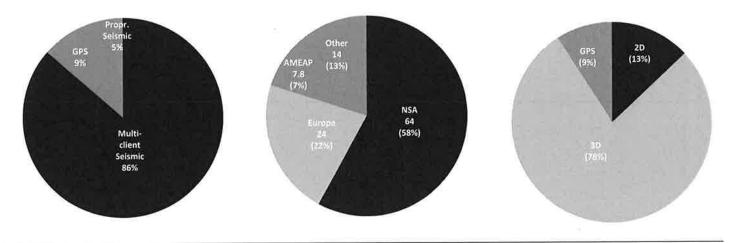
#### FINANCIALS - SEGMENT REPORTING

For internal reporting purposes TGS is using segment reporting with net revenues for projects in progress recognized based on Percentage of Completion (POC), as opposed to the IFRS accounts, where revenues are not recognized until the relevant project is completed. It is the Board's opinion that the POC methodology provides a better picture of the inherent risk and value creation of the business. The discussion and analysis in this section are based on segment reporting.

#### Net operating revenues

Net operating revenues for Q1 2019 amounted to USD 109.9 million, a decline of 18% from the USD 134.8 million recognized in Q1 2018. Net pre-funding revenues totaled USD 13.6 million in the quarter (USD 17.6 million in Q1 2018) funding 37% (57%) of the USD 36.8 million (USD 34.2 million) of organic investments in the multi-client library (excluding risk-share investments).

Net late sales for the quarter amounted to USD 91.3 million, a decrease of 21% compared to the USD 114.9 million booked in Q1 2018. Proprietary contract revenues increased by 119% to USD 5.0 million from USD 2.3 million in Q1 2018.



Source: TGS

#### EBITDA, amortization and operating profit

After subtracting operating costs as described in the IFRS section, EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) totaled USD 87.9 million in Q1 2019 compared to USD 110.8 million in Q1 2018, a decline of 21%.

Amortization of the multi-client library amounted to USD 65.9 million in Q1 2019, down from USD 83.6 million in Q1 2018. The decline is largely explained by lower sales amortization due to lower prefunding revenues and lower impairment in Q1 2019 than Q1 2018.

Operating profit in Q1 2019 amounted to USD 16.9 million (margin of 15%), down from USD 24.9 million Q1 (margin of 18%) last year.

#### **Multi-client library**

Organic multi-client investments amounted to USD 37.8 million in Q1 2019, 11% higher than the USD 34.2 million invested in the same quarter last year. Of this, investments contingent of sales (risk share investments) accounted for USD 1.0 million versus USD 3.5 million in Q1 2018.

This resulted in a net book value of the multi-client library of USD 698.1 million as of 31 March 2019 compared to USD 749.7 million at 31 March 2018. The decline is due to conservative amortization policies, combined with low unit cost of new investments compared to historical averages.

#### Backlog

TGS' backlog amounted to USD 112 million at the end of Q1 2019, compared to USD 63 million at the end of Q4 2018 and 74 million at the end of Q1 2018.

#### **DIVIDEND**

It is the ambition of TGS to pay a cash dividend that is in line with its long-term underlying cash flow. When deciding the dividend amount, the TGS Board of Directors will consider expected cash flow, investment plans, financing requirements and a level of financial flexibility that is appropriate for the TGS business model.

As from 2016, TGS has paid quarterly dividends in accordance with the resolution made by the Annual General Meeting. The aim will be to keep a stable quarterly dividend in US dollars through the year, but the actual level paid will be subject to continuous evaluation of the underlying development of the company and the market.

The Board of Directors has resolved to pay a dividend of USD 0.27 per share in Q2 2019. The dividend will be paid in the form of NOK 2.36 per share on 31 May 2019. The share will trade ex-dividend on 16 May 2019.

#### **OTHER MATTERS**

On 2 May 2019 TGS announced that it has agreed on the principle terms of the acquisition of Spectrum ASA ("Spectrum"), cementing the position as a leading multi-client seismic company globally. The transaction is expected to be completed as a statutory merger pursuant to Norwegian corporate law between TGS and Spectrum, with merger consideration to Spectrum shareholders in the form of 0.28x ordinary shares of TGS for each Spectrum share (the "Exchange Ratio"), in addition to a cash consideration of USD 0.27 multiplied by the Exchange Ratio subject to the transaction closing after the ex-date for the TGS dividend payable in Q3 2019 (expected to be early August 2019).

The transaction will enhance TGS' position as a leading multi-client geophysical data provider with a 2D and 3D seismic data library covering all major mature and frontier basins world-wide. Spectrum has successfully built a substantial presence in the South Atlantic and other important frontier regions. With TGS' extensive library and financial robustness, the combined entity will be well positioned to accelerate 3D seismic investment plans in an improving market. Furthermore, the combined libraries will have a scale that will help accelerate TGS' data analytics strategy.

#### **OPERATIONAL HIGHLIGHTS**

TGS had three 3D seismic vessels (two operated under joint venture agreements) and two multibeam / coring vessels in operation in Q1 2019. In addition, TGS had two onshore crews operating in the SCOOP/STACK.

In Q1, TGS continued its SeaSeep project in the MSGBC Basin in West Africa. The program will cover an area of approximately 113,500 km² and will incorporate around 230 cores from the seabed, located based on multibeam backscatter anomalies. Final results will be available in Q3 2019.

Acquisition of the Jaan 3D survey in the southern portion of the MSGBC Basin continued in Q1. The project consists of 11,135 km² of new acquisition complemented by reprocessing and full pre-stack merging of existing multi-client 3D and is being undertaken by TGS as operator and majority investor together with PGS and GeoPartners. Final data will be available in Q2 2020.

In Latin America, activities re-commenced for the Brazil Southern Basins SeaSeep project in Q1. The project will ultimately cover 200,000 km² in the Campos and Santos basins of Brazil. Final product deliverables are expected to be available in Q4 2019. In the prospective southern Santos Basin TGS, in a JV with Spectrum, continued to acquire the 15,000 km² Santos 3D program. Final data is expected to be available to clients in 2020. In March 2019, acquisition of TGS' new multi-client 3D seismic survey in the Campos Basin commenced. Final deliverables for the project, which will cover 11,200 km², are expected to be available in 2020, with fast track data available in Summer 2019 ahead of the planned license round.

The Geologic Products and Services Division (GPS) continued to add to its inventory of multi-client products in the quarter. The well data library grew with the addition of approximately 7,900 new digital well logs, 3,800 new enhanced digital well logs and 47,100 new Validated Well Headers.

#### **OUTLOOK**

E&P companies' cash flow has improved substantially over the past couple of years, driven by lower costs and recovering oil prices. With the market fundamentals continuing to improve, they are likely to come under increasing pressure to replenish reserves and secure growing production in the longer-term. Furthermore, many smaller E&P companies which paused spending during the downcycle, will ultimately return to exploration as they move back to a growth agenda. As a result, exploration budgets are likely to increase from the current unsustainably low levels.

In accordance with its counter-cyclical investment strategy, TGS has added substantial amounts of data to its multi-client library at an attractive unit cost through both organic and inorganic investments during the downturn. This, in combination with an efficient cost base, strong balance sheet and flexible business model, should put us in a unique position to benefit from improving market conditions in the future.

TGS has seen an increasing inflow of pre-commitments during the first four months of 2019. The company currently has committed approximately USD 240 million of multi-client investments for 2019 and the revenue backlog is approximately USD 112 million.

Financial guidance for 2019 is reiterated as follows:

- Growth in multi-client investments of approximately 20%
- Pre-funding of new multi-client investments expected to be 40-45%
- Amortization to be at approximately same level as 2018

#### Asker, 8 May 2019

The Board of Directors of TGS-NOPEC Geophysical Company ASA

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TGS provides multi-client geoscience data to oil and gas Exploration and Production companies worldwide. In addition to extensive global geophysical and geological data libraries that include multi-client seismic data, magnetic and gravity data, digital well logs, production data and directional surveys, TGS also offers advanced processing and imaging services, interpretation products and data integration solutions.

TGS-NOPEC Geophysical Company ASA is listed on the Oslo Stock Exchange (OSLO:TGS).

TGS sponsored American Depositary Shares trade on the U.S. over-the-counter market under the symbol "TGSGY".

Website: www.tgs.com

#### **CONTACT FOR ADDITIONAL INFORMATION**

Sven Børre Larsen, Chief Financial Officer tel +47 90 94 36 73

All statements in this earnings release other than statements of historical fact are forward-looking statements, which are subject to a number of risks, uncertainties and assumptions that are difficult to predict, and are based upon assumptions as to future events that may not prove accurate. These factors include TGS' reliance on a cyclical industry and principal customers, TGS' ability to continue to expand markets for licensing of data, and TGS' ability to acquire and process data products at costs commensurate with profitability. Actual results may differ materially from those expected or projected in the forward-looking statements. TGS undertakes no responsibility or obligation to update or alter forward-looking statements.



#### INTERIM CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(All amounts in USD 1,000s unless noted otherwise)	Note	2019 Q1 Unaudited	2018 Q1 Unaudited
Net revenues	4	99,848	99,087
Operating expenses			
Cost of goods sold - proprietary and other		1,112	122
Amortization and impairment of multi-client library	5	73,244	64,236
Personnel costs Cost of stock options		15,148	15,506
Other operating expenses		0 5,704	0 8,350
Depreciation, amortization and impairment		5,126	2,251
Total operating expenses		100,334	90,465
On continue words	4	407	0.633
Operating profit	4	-487	8,622
Financial income and expenses			
Financial income		6,463	583
Financial expenses		-610	-7
Net exchange gains/(losses)		162	-785
Net financial items		6,015	-208
Profit before taxes		5,529	8,412
Taxes		1,320	11,637
Net încome		4,209	-3,225
EPS USD		0.04	-0.04
EPS USD, fully diluted		0.04	-0.04
Other comprehensive income:			
Exchange differences on translation of foreign operations		-1,398	-156
Other comprehensive income/(loss) for the period, net of tax		-1,398	-156
Total comprehensive income for the period		2,811	-3,381



#### INTERIM CONSOLIDATED BALANCE SHEET

	Note	2019	2018	2018
(All amounts in USD 1,000s)		31-Mar	31-Mar	31-Dec
	WILLIAM TO SERVE	Unaudited	Unaudited	Audited
ASSETS				
Non-current assets				
Goodwill		67,925	67,925	67,925
Multi-client library	5	835,099	847,879	870,495
Other intangible non-current assets		8,488	8,838	8,366
Deferred tax asset		1,179	3,932	884
Buildings		3,245	4,786	3,518
Machinery and equipment		21,779	15,008	19,308
Right of use asset		32,575	0	0
Other non-current assets		166	468	180
Total non-current assets		970,455	948,836	970,676
Current assets				
Accounts receivable		106,678	143,763	215,046
Accrued revenues		89,333	90,922	133,810
Other receivables		39,781	21,079	31,353
Cash and cash equivalents		389,962	301,699	273,527
Total current assets		625,754	557,463	653,736
TOTAL ASSETS		1,596,209	1,506,298	1,624,412
EQUITY AND LIABILITIES				
Equity				
Share capital		3,668	3,662	3,668
Other equity		1,224,767	1,120,732	1,248,031
Total equity	3	1,228,434	1,124,393	1,251,699
Non-current liabilities				
Long-term debt		2,500	2,500	2,500
Other non-current liabilities		2,193	2,490	2,514
Lease liability		19,523	0	0
Deferred taxes		29,783	9,669	29,261
Total non-current liabilities		53,999	14,659	34,275
Current liabilities				
Accounts payable and debt to partners		853	45,417	39,922
Taxes payable, withheld payroll tax, social security		21,280	42,538	27,062
Other current liabilities		291,642	279,291	271,454
Total current liabilities		313,775	367,246	338,437
TOTAL EQUITY AND LIABILITIES		1,596,209	1,506,298	1,624,412



#### INTERIM CONSOLIDATED STATEMENT OF CASH FLOW

(All amounts in USD 1,000s)	Note	2019 Q1 Unaudited	2018 Q1 Unaudited
Cash flow from operating activities:			
Received payments from customers		251,548	138,186
Payments for salaries, pensions, social security tax		-22,647	-21,241
Payments of other operational costs		-16,180	-13,995
Paid taxes		-4,129	-247
Net cash flow from operating activities <sup>1</sup>		208,592	102,704
Cash flow from investing activities:			
Received payments from fixed assets		0	32
Investments in tangible and intangible assets		-6,863	-2,735
Investments in multi-client library		-61,277	-31,873
Investments through mergers and acquisitions		0	0
Interest received		2,643	583
Net cash flow from investing activities		-65,497	-33,993
Cash flow from financing activites:			
Interest paid		-610	-45
Dividend payments	3	-27,451	-18,452
Proceeds from share issuances	3	0	1,725
Net cash flow from financing activites		-28,061	-16,772
Net change in cash and cash equivalents		115,034	51,939
Cash and cash equivalents at the beginning of period		273,527	249,917
Net unrealized currency gains/(losses)		1,401	-157
Cash and cash equivalents at the end of period		389,962	301,697
1) Reconciliation			
Profit before taxes		5,529	7,865
Depreciation/amortization/impairment		78,371	74,671
Disposals at cost price		4,653	74,671 582
Changes in accounts receivables and accrued revenues		152,845	20,023
Unrealized currency gains/(losses)		-2,797	20,023
Changes in other receivables		869	-926
Changes in other balance sheet items		-26,748	736
Paid taxes		-4,129	-247
Net cash flow from operating activities		208,592	102,704



### INTERIM CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the three months ended March 31, 2019

(All amounts in USD 1,000s)	Share Capital	Treasury Shares	Share Premium	Other Paid-In Capital	Currency Translation Reserve	Retained Earnings	Total Equity
Closing balance as of 31 December 2018	3,672	-6	67,355	45,248	-22,473	1,157,907	1,251,699
Adjustements	(4)	2		· ·		*	(*)
Opening balance 1 January 2019	3,672	-6	67,355	45,248	-22,473	1,157,907	1,251,699
Net income	1 <del>4</del> 5			-	-	4,209	4,209
Other comprehensive Income	*	- 4		(4)	-1,398	- E	-1,398
Total comprehensive income	= ====	*	7.6	*	-1,398	4,209	2,811
Paid-in-equity through exercise of stock options	(40)		#		358	5:	
Distribution of treasury shares	888	3			•		
Deferred tax asset related to stock options		3	2		5-2	2	3₩3
Cost of equity-settled long term incentive plans	32	32	2	(e)	1,611	*	1,611
Dividends	3 = 3			35		-27,687	-27,687
Closing balance as of 31 March 2019	3,672	-6	67,355	45,248	-22,260	1,134,429	1,228,434

For the three months ended March 31, 2018

(All amounts in USD 1,000s)	Share Capital	Treasury Shares	Share Premium	Other Paid-In Capital	Currency Translation Reserve	Retained Earnings	Total Equity
Closing balance as of 31 December 2017	3,663	-6	62,771	39,722	-21,574	1,115,531	1,200,102
Adjustements IFRS 15						-54,895	-54,895
Opening balance 1 January 2018	3,663	-6	62,771	39,722	-21,574	1,060,637	1,145,207
Net income	2	30	-	25	26	-3,225	-3,225
Other comprehensive income		5#X	*		-156	-	-156
Total comprehensive income			4	9 <b>%</b> d	-156	75,594	-3,381
Paid-in-equity through exercise of stock options	2		1,708		~		1,710
Distribution of treasury shares	7.Ed	96	9		1000		=
Deferred tax asset related to stock options	~	•	32		(4)	-17	-17
Cost of equity-settled long term incentive plans	5 <del>(</del> )	550	3	1,317		3	1,317
Dividends	(24)	(4)		*		-20,446	-20,446
Closing balance per 31 March 2018	3,666	-6	64,479	41,039	-21,730	1,115,531	1,124,393



#### NOTES TO THE CONSOLIDATED INTERIM FINANCIAL STATEMENTS

#### Note 1 General information

TGS-NOPEC Geophysical Company ASA (TGS or the Company) is a public limited company listed on the Oslo Stock Exchange. The address of its registered office is Lensmannslia 4, 1386 Asker, Norway.

#### Note 2 Basis for Preparation

The condensed consolidated interim financial statements of TGS have been prepared in accordance with International Financial Reporting Standards (IFRS) IAS 34 Interim Financial Reporting as approved by EU and additional requirements in the Norwegian Securities Trading Act. The interim condensed consolidated financial statements do not include all the information and disclosures required in the annual financial statements and should be read in conjunction with TGS' annual report for 2018 which is available at <a href="https://www.tgs.com">www.tgs.com</a>.

The same accounting policies and methods of computation are followed in the interim financial statements as compared with the annual financial statements for 2018 except for the implementation of IFRS 16 Leases with effect from 1 January 2019. Please see note 7 for further explanation.

#### Note 3 Share capital and equity

Ordinary shares	Number of shares
1 January 2019	102,647,790
Shares issued during Q1 2019	0
31 March 2019	102,647,790

Treasury shares	Number of shares
1 January 2019	104,630
Net change in period	0
31 March 2019	104,630

The Annual General Meeting held 8 May 2018 renewed the Board of Directors' authorization to distribute quarterly dividends on the basis of the 2017 financial statements. The authorization shall be valid until the Company's Annual General Meeting in 2019, but no later than 30 June 2019.

On 8 May 2018, the Board of Directors resolved to pay a quarterly dividend of the NOK equivalent of USD 0.20 per share (NOK 1.62) to the shareholders. The dividends were paid to the shareholders on 30 May 2018.

On 1 August 2018, the Board of Directors resolved to pay a quarterly dividend of the NOK equivalent of USD 0.20 per share (NOK 1.62) to the shareholders. The dividends were paid to the shareholders on 23 August 2018.

On 31 October 2018, the Board of Directors resolved to pay a quarterly dividend of the NOK equivalent of USD 0.20 per share (NOK 1.68) to the shareholders. The dividends were paid to the shareholders on 22 November 2018.

On 6 February 2019, the Board of Directors resolved to pay a quarterly dividend of the NOK equivalent of USD 0.27 per share (NOK 2.30) to the shareholders. The dividends were paid to the shareholders on 28 February 2019.

On 8 May 2019, the Board of Directors resolved to pay a quarterly dividend of the NOK equivalent of USD 0.27 per share (NOK 2.36) to the shareholders. The dividend will be paid to the shareholders on 31 May 2019.

		Account		
Largest Shareholders as of 1 April 2019	Country	type	No. of shares	Share
1. FOLKETRYGDFONDET	Norway		10,561,898	10.3%
2. THE BANK OF NEW YORK MELLON SA/NV	Belgium	NOM	8,854,462	8.6%
3. STATE STREET BANK AND TRUST COMP	USA	NOM	4,706,201	4.6%
4. VERDIPAPIRFONDET DNB NORGE (IV)	Norway		3,343,687	3.3%
5. RBC INVESTOR SERVICE TRUST	GREAT BRITAIN	NOM	3,326,911	3.2%
6. STATE STREET BANK AND TRUST COMP	USA	NOM	2,623,735	2.6%
7. STATE STREET BANK AND TRUST COMP	USA	NOM	2,199,778	2.1%
8. PARETO AKSJE NORGE VERDIPAPIRFOND	Norway		1,834,649	1.8%
9. JP MORGAN SERCIRITIES PLC	BELGIUM		1,677,527	1.6%
10. JP MORGAN CHASE BANK NA LONDON	GREAT BRITAIN	NOM	1,628,628	1.6%
10 largest			40,757,476	39.7%
Total Shares Outstanding *			102,543,160	100%

<sup>\*</sup> Total shares outstanding are net of shares held in treasury per 1A pril 2019

Average number of shares outstanding for Current Quarter *	
Average number of shares outstanding during the quarter	102,473,619
Average number of shares fully diluted during the quarter	103,273,399

<sup>\*</sup> Shares outstanding net of shares held in treasury per 31December 2018 (104,630 TGS shares), composed of average outstanding TGS shares during the quarter

Share price information	
Share price 29 March 2019 (NOK)	235.30
USD/NOK exchange rate end of period	8.60
Market capitalization 29 March 2019 (NOK million)	24,153

#### Note 4 Segment information

TGS reports Segment information based on the information reported to the management. Segment revenues related to multi-client pre-funded contracts are measured by applying the percentage of completion method to estimated total contract revenues. As such the timing and assessment of amortization will follow the timing of revenue recognition. Management believes the segment reporting provides useful information as to the value generated by the company relative to the related activities and resources employed.

Q1 2019	North & South America	Europe & Russia	Africa, Middle East & Asia/Pacific	Other segments/ Corporate costs	Segment reporting consolidated	Adjustment	As reported IFRS
Net external revenues	64,014	24,065	7,833	13,953	109,865	-10,017	99,848
Operating profit	18,711	9,783	1,312	-12,953	16,853	-17,338	-487

Q1 2018	North & South America	Europe & Russia	Africa, Middle East & Asia/Pacific	Other segments/ Corporate costs	Segment reporting consolidated	Adjustment	As reported IFRS
Net external revenues	57,992	46,266	11,043	19,458	134,759	-35,672	99,087
Operating profit	13,483	23,167	-3,635	-8,113	24,902	-16,280	8,622

There are no intersegment revenues between the reportable operating segments.

The Company does not allocate all cost items to its reportable operating segments during the year. Unallocated cost items are reported as "Other segments/Corporate costs".

(All amounts in USD 1,000s)	Q1 2019 As reported	Adjustments	Q1 2019 Segment
Net revenues	99,848	10,017	109,865
Amortization and impairment of multi-client library  Total operating expenses	73,244	7,323	65,922
	<b>100,334</b>	<b>7,323</b>	<b>93,012</b>
Taxes	1,320	3,815	5,135
Net income	<b>4,209</b>	<b>13,526</b>	<b>17,735</b>

(All amounts in USD 1,000s)	31-Mar-19 As reported	Adjustments	31-Mar-19 Segment
Non-current assets			
Intangible non-current assets			
Multi-client library	835,099	-137,029	698,070
Total non-current assets	970,455	-137,464	832,991
Equity	1,228,434	27,223	1,255,658
Non-current liabilities			
Deferred taxes	29,783	1,781	31,565
Total non-current liabilities	53,999	1,781	55,780
Current liabilities			
Accounts payable and debt to partners	853	50,798	51,651
Taxes payable, withheld payroll tax, social security	21,280	-	21,280
Other current liabilities	291,642	-217,267	74,374
Total current liabilities	313,775	-166,469	147,306

Note 5 Multi-client library

(Numbers in USD millions)	Segment Q1 2019	IFRS Q1 2019	Segment Q1 2018	IFRS Q1 2018	Segment 2018	IFRS 2018
Opening balance net book value	726.1	870.5	799.0	799.0	799.0	799.0
Adjustment opening balance	-	-	-	78.9	9 <del>8</del> . )	78.9
Non-operational investments	-	-	-	-	6.5	6.5
Operational investments	37.8	37.8	34.2	34.2	256.9	256.9
Amortization and impairment	(65.9)	(73.2)	(83.6)	(64.2)	(336.3)	(270.8)
Closing net book value	698.1	835.1	749.6	847.9	726.1	870.5

(Numbers in USD millions)	Segment Q1 2019	IFRS Q1 2019	Segment Q1 2018	IFRS Q1 2018	Segment 2018	IFRS 2018
Net MC revenues	104.8	94.8	132.5	103.8	613.3	605.8
Change in MC revenue	-17%	-4%	57%	23%	26%	l
Change in MC investment	11%	11%	-51%	-51%	-20%	-20%
Amort. in % of net MC revs.	63%	77%	63%	69%	55%	45%
Change in net book value	-4%	4%	6%	-4%	6%	5%
Contract Revenues	5.0	5.0	2.3	2.3	8.4	8.4

#### Note 6 Related parties

No other material transactions with related parties took place during the quarter.

#### Note 7 Changes in accounting standards

IFRS 16 Leases

IFRS 16 Leases is effective from the financial year starting at 1 January 2019. The new standard is replacing IAS 17 Leases.

TGS Group has chosen the modified retrospective approach for the implementation of IFRS 16 Leases where comparative figures are not restated. The reclassifications and adjustments on implementation are recognized in the opening balance of 2019. The Group will apply transition reliefs where the lease asset will be equal to the lease liability at the transition date.

The Group has used the following practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17.

- Applied the exemption not to recognize right-of-use assets and liabilities for leases with less than 12 months of lease term
- · Excluded initial direct costs from measuring the right-of-use assets at the date of initial application
- Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease

At 1 January 2019, TGS Group recognized lease liabilities for properties and other assets. The liabilities were measured at the present value of the remaining lease payments. The remaining lease payments were discounted using the incremental borrowing rate at 1 January 2019. The incremental borrowing rate applied was 4.45 %. At 1 January 2019 a lease liability of USD 36 million was recognized. A corresponding right-of-use asset was recognized measured at a value of USD 36 million.

Below is a reconciliation of total operating lease commitments as of 31 December 2018 to the lease liability recognized at 1 January 2019.

Reconciliation of lease commitments to lease liabilities	01.01.201
Non-cancellable operating lease commitments as at 31.12.2018	53,861
Adjustments for property tax and other lease related costs incl in lease commitment	-11,370
Discounting using the incremental borrowing rate	-6,607
Lease liabilities recognized at initial application	35,884
The weighted average incremental borrowing rate applied	4.45%
The right-of-use asset recognized at initial application	35,884

#### Note 8 Økokrim charges and related civil matters; draft tax ruling in Australia

Reference is made to Note 23 to the 2018 Annual Report, which includes a detailed description of charges issued by Økokrim in 2014 and certain subsequent civil claims, including a claim by the Norwegian Government for losses arising from alleged unwarranted tax refunds arising from the transactions with Skeie and the claims of joint responsibility by Skeie and certain affiliated persons, as well as DNB. This note provides an update as to any matters that have occurred since 31 December 2018.

In October 2018, the Oslo District Court issued its decision, holding TGS guilty and assessing a corporate fine of NOK 90 million (approximately USD 11 million) (which was as expected, due to the rejection of the fine in March 2017). The decision was split, with the majority holding TGS guilty, and the minority finding no guilt. TGS has appealed the decision, which deferred the payment of any fine. The appellate court, Borgarting Lagmannsrett, granted the appeal in March 2019 and the appellate trial is scheduled to start in November 2019.

Despite the court's decision, TGS maintains that it acted diligently in connection with the transactions with Skeie and did not commit the alleged violations of law. TGS believes that the court's reasoning in the case is both legally and factually inaccurate and is not reflective of the evidence presented at trial. Accordingly, the Company does not consider it probable that an outflow of resources embodying economic benefits will be required to settle the obligation and no provisions have been made.

The civil matters that have arisen in relation to the transactions that form the basis for the Økokrim charges, and the outcome of these matters, will depend in large part on the outcome of the Økokrim matter. Given the early stage of these proceedings, it is impracticable to render an accurate assessment of the outcome. However, based upon the Company's belief that the court's decision in the Økokrim case was erroneous and the appeal will confirm that TGS did nothing wrong, the Company also believes these claims of liability are not well-founded, and it intends to challenge the claims vigorously. As a result, the Company does not consider it probable that an outflow of resources embodying economic benefits will be required to settle the obligation and no provisions have been made.

Reference is made to the information disclosed regarding the draft tax ruling in Australia in Note 26 to the 2018 Annual Report. As discussed in Note 26, on December 20, 2017, the Australian Tax Office (ATO) issued a draft taxation ruling regarding the deductibility of costs incurred to collect multi-client seismic data. A final ruling has not yet been issued by the ATO, and TGS remains of the opinion the factual differences between the operations of TGS and the specific fact pattern in the draft ruling may result in a different technical position. Therefore, it is not probable that there will be an outflow of resources embodying economic benefits necessary to settle an obligation, and no provisions have been made.



#### **DEFINITIONS - ALTERNATIVE PERFORMANCE MEASURES**

TGS' financial information is prepared in accordance with IFRS. In addition, TGS provides alternative performance measures to enhance the understanding of TGS' performance. The alternative performance measures presented by TGS may be determined or calculated differently by other companies.

#### EBIT (Operating Profit)

Earnings before interest and tax is an important measure for TGS as it provides an indication of the profitability of the operating activities.

The EBIT margin presented is defined as EBIT (Operating Profit) divided by net revenues.

#### Prefunding percentage

The prefunding percentage is calculated by dividing the multi-client prefunding revenues by the operational investments in the multi-client library, excluding investments related to projects where payments to the vendors are contingent on sales (risk-sharing investments). The prefunding percentage is considered as an important measure as it indicates how the Company's financial risk is reduced on multi-client investments.

#### **EBITDA**

EBITDA means Earnings before interest, taxes, amortization, depreciation and impairments. TGS uses EBITDA because it is useful when evaluating operating profitability as it excludes amortization, depreciation and impairments related to investments that occurred in the past. Also, the measure is useful when comparing the Company's performance to other companies.

(All amounts in USD 1,000s)	Q1 2019 Segment reporting	Q1 2019 IFRS reporting	Q1 2018 Segment reporting	Q1 2018 IFRS Reporting
Net income	21,549	4,209	13,181	-3,225
Taxes	1,320	1,320	11,512	11,637
Net financial items	-6,015	-6,015	209	209
Depreciation, amortization and impairment	5,126	5,126	2,251	2,251
Amortization and impairment of multi-client library	65,922	73,244	83,628	64,236
EBITDA	87,902	77,884	110,781	75,109
	47%	33%	78%	53%

#### Return on average capital employed

Return on average capital employed (ROACE) shows the profitability compared to the capital that is employed by TGS, and it is calculated as operating profit divided by the average of the opening and closing capital employed for a period of time.

Capital employed is calculated as equity plus net interest-bearing debt. Net interest-bearing debt is defined as interest bearing debt minus cash and cash equivalents. TGS uses the ROACE measure as it provides useful information about the performance under evaluation.

(All amounts in USD 1,000s)	31-Mar-19 Segment reporting	31-Mar-19 IFRS reporting	31 March 2018 Segment Reporting	31 March2018 IFRS Reporting
Equity	1,259,473	1,228,435	1,195,694	1,124,393
Interest bearing debt	2,500	2,500	2,500	2,500
Cash	389,962	389,962	301,699	301,699
Net interest bearing debt	-387,462	-387,462	-299,199	-299,199
Capital employed	872,011	840,974	896,495	825,194
Average capital employed	884,253	833,084	906,663	871,012
Operating profit (12 months trailing)	163,898	220,917	120,427	104,146
ROACE	19%	27%	13%	12%

# Free cash flow (after MC investments)

Free cash flow (after MC investments) when used by TGS means cash flow from operational activities minus cash investments in multiclient projects. TGS uses this measure as it represents the cash that the Company is able to generate after investing the cash required to maintain or expand the multi-client library.

(All amounts in USD 1,000s)	Q1 2019	Q1 2018	2019 YTD	2018 YTD
Cash flow from operational activities	208,592	102,704	208,592	102,704
Investments in multi-client library	-61,277	-31,873	-61,277	-31,873
Free cash flow (after MC investments)	147,315	70,831	147,315	70,831

## Backlog

Backlog is defined as the total value of future revenue based on segment reporting from signed customer contracts.

# **Vedlegg 4 – Styrenes rapport om fusjonen**

Appendix 4 – The Boards of Directors' report on the merger

# FRA STYRET I

# **SPECTRUM ASA**

# MERGER REPORT FROM THE BOARD OF DIRECTORS OF

# 1. FUSJONEN OG DENS BAKGRUNN 1.

I forbindelse med forslag om fusjon av Spectrum ASA ("**Spectrum**") og TGS AS ("**TGS NewCo**"), og vederlagsutstedelse i TGS-NOPEC Geophysical Company ASA ("**TGS**") har styret i Spectrum utarbeidet denne rapporten i henhold allmennaksjeloven § 13-9.

Styrene i TGS og Spectrum har inngått en avtale som regulerer en planlagt fusjon hvor Spectrum fusjoneres inn i et heleid datterselskap av TGS. Styrenes oppfatning er at en sammenslåing av selskapenes virksomhet vil skape en merverdi sammenlignet med at selskapene opererer som separate selskaper. Det fusjonerte selskapet vil ha en betydelig 2D og 3D database og vil være vel posisjonert til å akselerere investeringer i et forbedrende marked, samt bidra til en utvikle TGS' data analyse strategi.

Fusjonen gjennomføres som en konsernfusjon etter allmennaksjeloven § 13-2, annet ledd. Selskapet som utsteder vederlagsaksjer er TGS, som er morselskap til TGS NewCo.

Ved fusjonen overtar TGS NewCo alle eiendeler, rettigheter og forpliktelser tilhørende Spectrum. Etter gjennomføring av fusjonen vil Spectrum oppløses og ikke lenger eksistere som selskap notert på Oslo Børs. TGS viderefører sin notering på Oslo Børs etter fusjonen.

Fusjonen vil bli registrert og tre i kraft utenfor åpningstiden for handel på Oslo Børs.

# I. THE MERGER AND ITS BACKGROUND

**SPECTRUM ASA** 

In connection with a proposed merger Spectrum ASA ("Spectrum") og TGS AS ("TGS NewCo"), and issuance of consideration in i TGS-NOPEC Geophysical Company ASA ("TGS"), the Board of Directors in Spectrum has prepared this report in accordance with the Norwegian Public Limited Liability Companies Act section 13-9 (the "Companies Act").

The Boards of Directors of TGS and Spectrum have entered into an agreement regarding a contemplated merger in which Spectrum is merged into a wholly owned subsidiary of TGS. The Board of Directors' opinion is that a combination of the companies' business will lead to greater value creation compared to the companies operating as separate entities. The combined company will have a comprehensive 2D and 3D database and will be well positioned to accelerate investments in an improving market, and help accelerate TGS' data analytics strategy.

The merger will be conducted as a triangular merger in accordance with the Companies Act section 13-2, second paragraph. The consideration issuing company will be TGS, the parent company of TGS NewCo.

Through the merger, TGS NewCo will acquire all assets, rights and obligations of Spectrum. Following completion of the merger, Spectrum will cease to exist as a company listed on Oslo Stock Exchange. TGS will continue to be listed on Oslo Stock Exchange after the merger.

The merger will be registered and enter into force outside the trade hours of Oslo Stock Exchange.

## 2. FUSJONSVEDERLAG – BYTTEFORHOLD

Fusjonsvederlaget til aksjonærene i Spectrum består av vederlagsaksjer i TGS som utstedes ved kapitalforhøyelsen som gjennomføres i forbindelse med fusjonen.

Som vederlag for samtlige eiendeler, rettigheter og forpliktelser i Spectrum som overføres til TGS NewCo, vil aksjonærene i Spectrum ved trekantfusjonen motta vederlag i TGS ved at aksjekapitalen forhøyes jf. bestemmelsen i allmennaksjeloven § 13-2 annet ledd.

Bytteforholdet ved fusjonen er fastsatt til at én aksje i Spectrum gir rett til 0,28 aksjer i TGS. Bytteforholdet er fremforhandlet av selskapenes styrer i samråd med selskapenes respektive finansielle rådgivere, dvs. mellom uavhengige parter, og er således fastsatt på markedsmessig vilkår. Det har ikke vært særlige vanskeligheter ved fastsettelsen av fusjonsvederlaget.

Ved fusjonen økes aksjekapitalen i TGS med minimum NOK 3 834 957 og maksimum NOK 4 147 420 ved utstedelse av minimum 15 339 828 og maksimum 16 589 679 nye aksjer, hver pålydende NOK 0,25.

Antallet utstedte aksjer vil bero på hvor mange aksjer som utstedes i Spectrum som følge av opsjonsutøvelse forut for fusjonens gjennomføring. Det avtalte bytteforholdet i fusjonen, 0,28, vil imidlertid ikke påvirkes av antall opsjoner som utøves / aksjer i Spectrum forut for gjennomføringen av Dette fordi fusjonen. Spectrums rettigheter/forpliktelser knyttet til opsjonene uansett overføres ved fusjonen, noe som innebærer at det er verdinøytralt for selskapene om opsjonene utøves eller på annen måte gjøres qqo forut for gjennomføring av fusjonen, eller om tilknyttede opsjonenes rettigheter/forpliktelser hadde blitt overført ved fusjonen.

Kapitalforhøyelsen i TGS gjennomføres ved at TGS NewCo utsteder en fusjonsfordring til fordel for TGS som benyttes som aksjeinnskudd i TGS. Fordringen vil ha

# 2. MERGER CONSIDERATION - EXCHANGE RATIO

The merger consideration to the shareholders of Spectrum consists of consideration shares in TGS issued in the capital increase implemented in connection with the merger.

As consideration for the assets, rights and obligations to be transferred from Spectrum to TGS NewCo, the shareholders in Spectrum will receive consideration by a share capital increase in TGS, cf. the Companies Act section 13-2 second paragraph.

The merger exchange ratio is determined to be that one share in Spectrum gives the right to 0.28 shares in TGS. The exchange ratio is determined through negotiations between the companies Board of Directors with the advice from the companies' respective financial advisors, i.e. between unrelated parties, and is thereby in accordance with market terms. There have not been any particular difficulties in connection with the determination of the merger consideration.

In the merger the share capital of TGS will be increased by minimum NOK 3,834,957 and maximum NOK 4,147,420 through the issuance of minimum 15,339,828 and maximum 16,589,679 new shares, each with a nominal value of NOK 0.25.

The number of issued shares will rely on the number of shares issued by Spectrum as a result of exercise of options prior to the completion of the merger. The agreed exchange ratio, 0.28, will however not be affected by the number of options exercised / shares in Spectrum prior to the completion of the merger. This because Spectrum's rights/obligations pertaining to the options nevertheless will be transferred in the merger, which implies that it is value neutral whether the options are exercised or in other ways settled prior to completion of the merger, or the rights and obligations pertaining to the options had been transferred in the merger.

The share capital increase in TGS will be conducted through the issuance of a merger receivable by TGS NewCo in favor of TGS, which will be used as the share deposit in pålydende verdi lik virkelig verdi av egenkapitalen som TGS NewCo tilføres ved fusjonen justert for latent skatt/skattefordel.

Da fusjonen gjennomføres regnskapsmessig som transaksjon fastsettes fusjonsfordringens størrelse til virkelig verdi av eiendelene, rettighetene og forpliktelsene Spectrum vil tilsvare oq 4 062 812 387. Justert for latent NOK skatt/skattefordel er fordringens størrelse NOK 5 022 001 923. fastsatt til Fusjonsfordringens størrelse/ virkelig verdi av eiendelene mv. som overføres er fastsatt basert på at samtlige opsjoner i Spectrum er forut for gjennomføringen utøvd fusionen.

På denne bakgrunnen vil tegningskursen i kapitalforhøyelsen fastsattes til minimum NOK 244 per aksje og maksimum NOK 265 per aksje. Verdsettelsen og størrelsen på aksjeinnskuddet er fastsatt per 16. mai 2019 av selskapenes styrer i samråd med finansiell rådgiver og baseres seg på verdien av avtalt antall utstedte vederlagsaksjer per 16. mai 2019. Differansen mellom nominell aksjekapitalforhøyelse og samlet tegningsbeløp tilføres overkurs.

For å få riktig bytteforhold uten at aksjer må eies i sameie av aksjonærene eller det må gjennomføres en aksjesplitt, vil antall vederlagsaksjer til den enkelte aksjonær avrundes nedover til nærmeste antall hele aksjer og brøkdelsaksjer vil gjøres opp kontant.

Vederlagsaksjene som utstedes til aksjonærene i Spectrum vil, avhengig av håndteringen av opsjonene, utgjøre mellom 13 % og 14 % av det totale antall aksjer i TGS etter fusjonen.

Vederlagsaksjene gir rettigheter i TGS fra tidspunktet for den selskapsrettslige ikrafttredelse av fusjonen.

Aksjonærene i Spectrum vil motta et ytterligere kontantvederlag NOK i tilsvarende USD 0,27 multiplisert med bytteforholdet i fusjonen forutsatt at fusjonen ikke gjennomføres forut for exdagen for utbytte som utbetales av TGS i Q3 2019. Vekslingskursen USD:NOK som skal benyttes for å utregne kontantvederlaget skal være lik den vekslingskurs som

TGS. The receivable will have a nominal value equal to the fair value of the equity contributed to TGS NewCo in the merger, adjusted for deferred tax/tax advantage.

As the merger is carried out as a transaction for accounting purposes, the merger receivable will reflect the fair value of the assets, rights and obligations in Spectrum and equal NOK 4,062,812,387. Adjusted for deferred tax / tax advantage, the receivables is determined to NOK 5,022,001,923. The merger receivable amount / fair value of the assets etc. to be transferred is determined on the basis that all option in Spectrum are exercised prior to the completion of the merger.

On this basis the subscription price in the capital increase will be set to minimum NOK 244 per share and maximum NOK 265 per share. The valuation and the size of the share deposit is set per 16. May 2019 by the companies' Boards of Directors with the advice from financial advisor and is based on the value of the agreed number of issued consideration shares per 16 May 2019. The difference between nominal capital increase and the total subscription amount is allocated as share premium.

To ensure the correct exchange ratio without the need for joint ownership to shares or completion of a share split, the number of consideration shares to each shareholder will be rounded down to the nearest number of whole shares and fractional shares will be settled in cash.

Depending on the handling of the options, the consideration shares to be issued to the shareholders of Spectrum will constitute between 13% and 14% of the total number of shares in TGS after the merger.

The consideration shares gives rights in TGS from the time of the entry into force of the merger from a corporate perspective.

The shareholders in Spectrum will receive an additional cash consideration equal to the NOK equivalent of USD 0.27 multiplied with the exchange ratio for the merger, provided that the merger has not been completed prior to the ex-date for dividend payment by TGS payable in Q3 2019. For the purpose of calculating this cash consideration, the same USD:NOK exchange rate as used for the Q3

benyttes for utbetaling av Q3 utbytte.

Det vises for øvrig til vedlagte sakkyndige redegjørelse for fusjonsplanen utarbeidet av EY i anledning fusjonen. dividend payment shall apply.

Further reference is made to the enclosed expert statements prepared by EY in connection with the merger.

**HANDLING** 

**OF** 

THE

# 3. RETTSLIG GJENNOMFØRING AV FUSJONEN

Fusjonen gjennomføres etter bestemmelsene i allmennaksjeloven kapittel 13. Fusjonen vil bli gjennomført som en såkalt trekantfusjon etter fordringsmodellen, jf. den særskilte bestemmelsen i allmennaksjeloven § 13-2 andre ledd.

Fusjonen gjennomføres regnskapsmessig som en transaksjon i tråd med regnskapslovens regler.

Fusjonen gjennomføres med skattemessig kontinuitet for norske skatteformål etter reglene i skatteloven kapittel 11.

# MERGER

LEGAL

3.

The merger shall be carried out in accordance with the Companies Act chapter 13 and as a triangular merger applying the receivable model, cf. the Companies Act section 13-2 second paragraph.

The merger is carried out as a transaction for accounting purposes in accordance with the rules set out in the Norwegian Accounting Act.

The merger shall be carried out with tax continuity for Norwegian tax purposes pursuant to the provisions of the Norwegian Tax Act, Chapter 11.

# 4. PRAKTISK GJENNOMFØRING AV FUSJONEN

Fusjonsplanen skal meldes og kunngjøres i Foretaksregisteret og gjøres tilgjengelig sammen med øvrige saksdokumenter for aksjeeierne på henholdsvis Spectrums og TGS' hjemmesider senest en måned før generalforsamlingene skal behandle planen.

Fusjonen og fusjonsplanen skal så behandles og godkjennes av generalforsamlingene i Spectrum og TGS NewCo. I tillegg må generalforsamlingen i TGS vedta den nødvendige kapitalforhøyelse for å utstede vederlagsaksjene. Fusjonen vil bli behandlet på ekstraordinære generalforsamlinger i henholdsvis Spectrum og TGS NewCo på samme dag, foreløpig fastsatt til 21. juni 2019. For at fusjonen skal godkjennes må den vedtas med minst to tredeler av de avgitte stemmer og den representerte kapital på disse generalforsamlingene.

Etter at fusjonsplanen er godkjent av generalforsamlingene vil fusjonsbeslutningen bli meldt til

# 4. PRACTICAL HANDLING OF THE MERGER

The merger plan shall be sent to and published by the Register of Business Enterprises and made available together with other case documents for the shareholders on Spectrum's and TGS' respective website no later than one month prior to the general meetings' handling of the merger plan.

The merger and the merger plan will thereafter be handled and approved by the general meetings of Spectrum and TGS NewCo. In addition, the general meeting of TGS needs to approve the required share capital increase in order to issue the consideration shares. The merger will be handled in extraordinary general meetings of Spectrum and TGS NewCo, respectively, on the same day, preliminarily set to 21 June 2019. The merger must be approved with at least to thirds of the given votes and the represented share capital in the general meetings.

After the merger plan iss aproved by the general meetings, the merger resolution will be notified to the Norwegian Register of

Foretaksregisteret av begge de fusjonerende selskaper.

Foretaksregisteret vil deretter kunngjøre fusjonsbeslutningene og varsle selskapenes kreditorer om at innsigelse mot fusjonen må meldes til selskapet innen seks uker fra kunngjøringen i Brønnøysundregistrenes elektroniske kunngjøringspublikasjon. I denne seks ukers kreditorvarselperioden vil kreditorene til de fusjonerende selskapene kunne komme med innsigelser mot fusjonen.

Etter utløpet av seksukers-fristen vil gjennomføringen av fusjonen bli meldt til Foretaksregisteret forutsatt at betingelsene for gjennomføring av fusjonen er til stede. Gjennomføringen er anslått å finne sted i begynnelsen av august 2019. På tidspunktet for registreringen av gjennomføringen av fusjonen i Foretaksregisteret vil Spectrum oppløses og TGS vil utstede vederlagsaksjer til aksjonærene i Spectrum.

5. BETINGELSE FOR GJENNOMFØRING AV FUSJONEN

Gjennomføring av fusjonen er betinget av at:

- 1. Fusjonen vedtas i Selskapenes generalforsamlinger med flertall som for vedtektsendring, jf. allmennaksjeloven § 13-3 annet ledd.
- Kreditorfristen etter allmennaksjeloven § 13-15 er utløpt og forholdet til kreditorer som eventuelt har fremsatt innsigelser er avklart eller tingretten har besluttet at fusjonen likevel kan gjennomføres.
- 3. Godkjennelse/samtykke (enten ubetinget eller med vilkår som kan rettes ved tiltak som etter TGS' rimelige vurdering ikke har vesentlig betydning det overordnede formål for og begrunnelsen for fusjonen) fra relevante og avtalte konkurranse- og tilsynsmyndigheter oa andre tredjeparter, unntatt i tilfeller der slike samtykker og godkjennelser ikke etter

Business Enterprises by both the merging companies.

Register The Norwegian of Enterprises will thereafter announce the resolutions merger and notify companies' creditors that any objections to the merger needs to be notified to the company within six weeks from the announcement in the Norwegian Register of Enterprises' electronic Business announcement. During the six weeks' creditor notice period, the creditors of the margining companies may raise objections to the merger.

Following the end of the creditors' notification period and provided conditions are fulfilled, the completion of the merger will be notified to the Register of Business Enterprises. Completion estimated to take place in the beginning of August 2019. At the time of registration of completion of the merger Norwegian Register of Business Enterprises, Spectrum will be dissolved and TGS will issue consideration shares to the shareholders of Spectrum.

# 5. CONDITIONS FOR COMPLETION OF THE MERGER

Completion of the merger is conditional upon:

- 1. The merger is resolved in the Companies' general meetings with the majority required for amendments in the articles of association, cf. section 13-3 of the Companies Act.
- 2. The creditor notification period pursuant to Section 13-15 of the Companies Act has expired and issues related to creditors having objected have been resolved or the district court has decided that the merger can be completed.
- 3. Approval/consents (either unconditional or with conditions that can be remedied through measures that do not in the reasonable opinion of TGS materially affect the overall purpose and rationale behind the merger) by relevant and agreed competition and regulatory authorities and other third parties, save in each case such consents and approvals which do not in the

- TGS' oppfatning har vesentlig innvirkning på det overordnede formål og begrunnelsen for fusjonen.
- 4. De ordinære markedsmessige bekreftelser avgitt av partene i fusjonsavtalen inngått mellom TGS og Spectrum i forbindelse med fusjonen i all vesentlighet fortsatt er gjeldende.
- 5. Det ikke foreligger noen vesentlige brudd på fusjonsplanen eller fusjonsavtalen inngått mellom TGS og Spectrum i forbindelse med fusjonen.
- 6. Ingen Vesentlig Negativ Endring har inntruffet. Med "Vesentlig Negativ Endrina" forstås enhver endring, utvikling eller hendelse som det er rimelig å anta vil ha en vesentlig negativ betydning for de finansielle vilkårene, virksomheten, eiendelene eller driftsresultatet for Spectrum gruppen eller TGS gruppen, vurdert helhetlig; forutsatt, underlagt reguleringen av denne definisjonen, at ingen slik hendelse, eller serie av hendelser, som er et resultat av eller knyttet til noe av det følgende skal hensyntas når det vurderes hvorvidt en slik endring eller utvikling har inntrådt: (i) endringer som generelt påvirker industrier eller markeder Selskapene i, inkludert, opererer men begrenset til, endringer i oljeprisen, i den grad slike ikke i vesentlig grad disproporsjonalt påvirker et selskap og dets datterselskaper, (ii) generelle endringer i relevante lover og regler, skatteregler eller regnskapsstandarder, (iii) endringer som påvirker økonomien generelt eller kreditt-, låne-, finanseller kapitalmarkeder, i hvert tilfelle, i Norge eller annet sted i verden, (iv) noen negativ utvikling av relasjoner med kunder, leverandører eller andre forretningskontakter som et resultat av annonseringen av fusjonen, endringer i konkurranselandskapet i industrien et av selskapene opererer, (vi) jordskjelv, orkaner, tornadoer eller andre naturkatastrofer i den grad slike ikke i vesentlig og disproporsjonalt rammer et av selskapene og dets datterselskaper, (vii) krigshandlinger,

- reasonable opinion of TGS materially affect the overall purpose and rationale behind the merger.
- 4. The customary representation and warranties provided by the parties in the merger agreement entered into between TGS and Spectrum in connection with the merger remaining true and correct in all material respects.
- No material breach of the merger plan or the merger agreement entered into between TGS and Spectrum in connection with the merger having occurred.
  - No Material Adverse Change having occurred. By "Material Adverse Change" understood any change, effect, development or event that is or would reasonably be expected to have a material adverse effect on the financial condition, business, assets, or results of operations of the Spectrum group or the TGS group (as the case may be), taken as a whole; provided, however, that subject to the provisions of this definition, no such event or series of events resulting from or relating to any of the following shall be taken into account when determining whether such a change, effect or development has occurred: (i) changes that affect generally the industries or markets in Companies which the operates, including but not limited to changes in oil prices, to the extent that they do not to a material extent disproportionately affect such company and its subsidiaries (ii) generally applicable changes in relevant laws, regulations, tax rules or accounting standards, (iii) changes that affect generally the economy or the credit, debt, financial or capital markets, in each case, in Norway or elsewhere in the world, (iv) any negative developments in relationships with customers, suppliers or other business resulting from contacts the announcement of the merger, (v) changes in the competitive landscape in the industries in which one of the company operates, (vi) earthquakes, hurricanes, tornados or other natural disasters to the extent that they do not to a material extent disproportionately

sabotasje eller terrorisme, eller en eskalering eller forverring slik krigshandling, sabotasie eller terrorisme, truende eller underveis, (viii) enhver nedgang i et selskaps aksiekurs, endring i omsetningsvolum eller manglende oppfyllelse analytikeres omsetnings- og inntekts forventninger (bortsett fra forårsaket av en hendelse som ellers er en Vesentlig Negativ Endring), og (ix) enhver hendelser eller omstendighet som var kjent for det andre selskapet per datoen for denne fusjonsplanen.

affect one of the companies and its subsidiaries, (vii) acts of war, sabotage or terrorism, or any escalation or worsening of any such acts of war, sabotage or terrorism threatened or underway, (viii) any decline in a company's share price, change in trading volume or failure to meet analysts' revenue or earnings projections (unless caused by an event which would otherwise constitute a Material Adverse Change), and (ix) any event or fact which was known to the other party on the date of this merger plan.

# 6. KONSEKVENSER FOR DE 6. CONSEQUENCES FOR THE ANSATTE EMPLOYEES

Spectrum har 13 ansatte. TGS NewCo har ingen ansatte.

De ansatte i Spectrum vil på gjennomføringstidspunktet for fusjonen bli overført til TGS NewCo.

De ansatte er blitt informert om fusjonen i samsvar med kravene som følger av allmennaksjeloven og arbeidsmiljøloven. Fusjonsrapporten og fusjonsplanen vil bli gjort tilgjengelig for de ansatte i overensstemmelse med allmennaksjeloven § 13-11, jf. arbeidsmiljøloven § 16-5. Det er videre gjennomført kollektive informasjonsog drøftelsesmøter med de ansatte i Spectrum i samsvar med arbeidsmiljøloven.

De ansattes rettigheter og plikter vil overføres til TGS NewCo i henhold til arbeidsmiljølovens regler, jfr. arbeidsmiljøloven § 16-2. De ansatte i Spectrum er informert som sin reservasjonsog fortrinnsrett, og fristen for å utøve disse rettighetene, i tråd med arbeidsmiljølovens krav.

En reservasjon vil medføre at arbeidsforholdet ikke overføres til TGS NewCo, men opphører uten ytterligere oppsigelse eller varsel. Arbeidsforholdet vil da opphøre på tidspunktet for overføringen / gjennomføringen av fusjonen, uavhengig av

Spectrum has 13 employees. TGS NewCo has no employees.

The employees in Spectrum will at the time of completion of the merger be transferred to TGS NewCo.

The employees of the companies have been informed about the merger in accordance with the requirements following from the Companies Act and the Working Environment Act. The board of directors' merger reports and the merger plan will be made available for the employees in accordance with the Companies Act section 13-11 and the Working Environment Act section 16-5. There have also been held information and consultation meetings with the employees in accordance with the Working Environment Act.

The employees' rights and obligations will be transferred to TGS NewCo in accordance with the rules of the Working Environment Act, cf. the Working Environment Act section 16-2. The employees of Spectrum are informed of their right of reservation and their preferential right, and the time limits for exercising these rights, in accordance with the Working Environment Act.

Making use of the right of reservation entails that the employment will not be transferred to TGS NewCO, but ceases at the date of transfer / completion of the merger, without any further notice being given from either party, regardless of their notice period

hvilken oppsigelsestid den ansatte har i according to their employment agreements. henhold til ansettelsesavtale.

The existing pension scheme will in such case be transferred to the new employer,

Gjeldende pensjonsordning for de ansatte i Spectrum vil overføres til ny arbeidsgiver, slik at det ikke blir noen endring for de ansatte. Ansienniteten til de overførte ansatte videreføres. Den foreslåtte overføringen forventes ikke å forårsake noen øvrige endringer for de ansatte utover endringen av arbeidssted.

and thus there will be no change for the employees. The transferred employees' seniority will be continued. The proposed transfer is not expected to imply any further changes for the employees, besides the change of work place.

Fusjonen forventes ikke å føre til omlegginger av driften som vil medføre større endringer eller omdisponeringer for arbeidsstyrken.

The merger is not expected to cause any reorganisation of the business which will cause significant changes or rearrangements of the work force.

Eventuelle innkomne skriftlige uttalelser fra de ansatte vil inngå ved den videre behandling av fusjonen, jf. allmennaksjeloven § 13-11 (4).

Any written statements from the employees will be included in the further merger process, cf. the Companies Act section 13-11(4).

# 7. SKATTEMESSIGE KONSEKVENSER

# 7. TAX CONSEQUENCES

Fusjonen er planlagt gjennomført med full skattemessig kontinuitet for norske skatteformål i samsvar med bestemmelsene i skatteloven kapittel 11. Dette gjelder både de involverte selskaper og aksjonærene. gjennomføres Fusionen vil med skattemessig virkning fra samme tidspunkt regnskapsmessige det virkningstidspunktet, dvs. fra og med fusionens selskapsrettslige ikrafttredelsestidspunkt. Det legges til grunn kontantvederlaget som ytes aksjonærene i Spectrum i forbindelse med fusjonen ikke overstiger 20% av det totale vederlag som ytes.

The merger is planned completed with full tax continuity for Norwegian tax purposes in accordance with chapter 11 in the Norwegian Tax Act. This applies both to the involved companies and the shareholders. The merger will be completed with tax effect from the same time as the accounting effective time, i.e. as from the effective date of the merger from a corporate law perspective. It is assumed that the cash consideration to be distributed to the shareholders of Spectrum will not exceed 20% of the total consideration that is paid.

At fusjonen gjennomføres med skattemessig kontinuitet innebærer at alle skatteposisjoner i Spectrum knyttet til eiendeler, rettigheter og forpliktelser som overføres, overføres uendret og uten at det utløses skatt i Spectrum eller gir oppskrivningsrett for TGS NewCo.

The merger being completed with tax continuity imply that all tax positions in Spectrum related to the transferred assets, rights and obligations, are transferred unchanged, and without triggering any tax in Spectrum or write up rights for TGS NewCo.

Skattemessig kontinuitet på aksjonærnivå innebærer at fusjonen ikke anses som en skattemessig realisasjon for norske aksjonærer. Inngangsverdien på den enkelte aksjonærs aksjer i Spectrum vil bli overført til de vederlagsaksjene den aktuelle aksjonæren mottar i TGS. For utenlandske aksjonærer reguleres den skattemessige behandlingen av de respektive lands

Tax continuity at shareholder-level entails that the merger will not be regarded as a tax realisation for Norwegian shareholders. The acquisition value of each Spectrum shareholder's shares will be transferred to the consideration shares for the relevant shareholder of TGS. For foreign shareholders, the tax treatment is regulated by their respective countries' tax legislation.

skatteregler. I enkelte land kan det være at fusjonen anses som en skattemessig transaksjon. Alle utenlandske aksjonærer oppfordres til å konsultere med skatteeksperter i sine respektive jurisdiksjoner.

In some countries the merger may be regarded as tax transaction. All foreign shareholders are encouraged to consult tax advisors in their respective jurisdictions.

Den del av fusjonsvederlaget som utbetales kontant er ikke omfattet av det generelle skattefritaket som gjelder for fusjoner o.l. som gjennomføres til kontinuitet. Kontantvederlag beskattes etter de alminnelige reglene i skattelovgivningen.

Such part of the consideration as is paid in cash is not covered by the general tax exemption that applies to mergers etc. that are completed in accordance with principles of continuity. Cash considerations are taxed in accordance with the ordinary tax rules.

Skattlegging av slikt vederlag kan, alt etter forholdene, skje som uttak, utbytte eller aksjegevinst. Siden det i dette tilfellet ikke finner sted noen endringer i eierforholdet mellom aksjonærene (utover minimale justeringer som følge av brøkdelsaksjer) og kontantutdelingene er ment stille aksjonærene i Spectrum som om de var aksjonærer TGS på tidspunktet utbyttet ble besluttet utdelt, bør utdelingene klassifiseres som utbytteutdelinger.

Taxation of such consideration dependent on the facts and circumstances, be deemed as withdrawals, dividends or capital gains. As no changes are made to the ownership percentages between shareholders (besides minimal adjustments to avoid fractional shares) and the cash consideration is intended to leave the shareholders in Spectrum as if they were shareholders in TGS at the time the dividends were resolved distributed, the cash consideration should be classified as dividends.

Utbytte til norske selskapsaksjonærer blir gjenstand for skatt på 0,66 %, mens utbytte til norske personlige aksjonærer blir gjenstand for skatt på 31,68 %.

Dividends to Norwegian corporate shareholders are subject to Norwegian tax at a rate of 0.66%. Dividends to Norwegian individual shareholders are subject to Norwegian tax at a rate of 31.68%.

Utbytte til utenlandske aksjonærer er i utgangspunktet gjenstand for norsk kildeskatt på 25 %, men kildeskatten kan være redusert eller bortfalt i henhold til anvendelig skatteavtale. Utbytte utdelt til for aksjeselskaper og tilsvarende selskaper hjemmehørende innenfor EU/EØS er i utgangspunktet fritatt fra norsk kildeskatt. Utenlandske aksjonærer bes konsultere sine egne skatterådgivere.

Dividends to shareholders being non-tax resident in Norway are as a starting point subject to Norwegian withholding tax at a rate of 25%, but the withholding tax may be reduced or dropped pursuant to applicable tax treaty. Dividends to limited liability companies and similar corporations tax resident within the EU/EEA area is as a starting point exempt from Norwegian withholding tax. Shareholders being non-tax resident in Norway are encouraged to consult tax advisors in their respective jurisdictions.

I tilfelle motstrid mellom den norske og den engelske versjonen av denne rapporten skal den norske versjonen gjelde. In case of discrepancies between the Norwegian and the English version of this report, the Norwegian version shall prevail.

[SIGNATURSIDE FØLGER/SIGNATURE PAGE FOLLOWS]

# [SIGANTURSIDE STYRETS RAPPORT - STYRET I SPECTRUM ASA / SIGANTURE PAGE BOARD REPORT - BOARD OF DIRECTORS OF SPECTRUM ASA]

Pål Stampe, styrets leder / Chairperson	Glen Ole Rødland
J. deisner	Ma all
Ingrid Elvira Leisner	Maria Tallaksen

## **FUSJONSRAPPORT**

# FRA STYRENE I TGS NOPEC GEOPHYSICAL COMPANY ASA OG TGS AS

# 1. FUSJONEN

# 1.1 Innledning

I forbindelse med forslag om fusjon av Spectrum ASA ("**Spectrum**") og TGS AS ("**TGS NewCo**"), og vederlagsutstedelse i TGS NOPEC Geophysical Company ASA ("**TGS**") har styrene i TGS og TGS NewCo utarbeidet denne felles rapporten i henhold allmennaksjeloven § 13-9.

Spectrum, TGS og TGS NewCo er i det følgende i fellesskap kalt "**Selskapene**".

# 1.2 Formål med fusjonen og dens betydning for Selskapene

Styrene i TGS og Spectrum har inngått en avtale som regulerer en planlagt fusjon hvor Spectrum fusjoneres inn i et heleid datterselskap av TGS. Styrenes oppfatning er at en sammenslåing av Selskapenes virksomhet vil skape en merverdi sammenlignet med at Selskapene opererer som separate selskaper. Det fusjonerte selskapet vil ha en betydelig 2D og 3D database og vil være vel posisjonert til å akselerere investeringer i et forbedrende marked, samt bidra til en utvikle TGS' data analyse strategi.

Fusjonen gjennomføres som en konsernfusjon etter allmennaksjeloven § 13-2, annet ledd. Selskapet som utsteder vederlagsaksjer er TGS, som er morselskap til TGS NewCo.

Ved fusjonen overtar TGS NewCo alle eiendeler,

UNOFFICIAL OFFICE TRANSLATION – IN CASE OF DISCREPANCIES, THE NORWEGIAN VERSION SHALL PREVAIL:

#### **MERGER REPORT**

# FROM THE BOARD OF DIRECTORS IN TGS NOPEC GEOPHYSICAL COMPANY ASA AND TGS AS

#### 1. THE MERGER

#### 1.1 Introduction

In connection with a proposed merger of Spectrum ASA ("**Spectrum**") and TGS AS ("**TGS NewCo**"), and issuance of consideration in TGS NOPEC Geophysical Company ASA ("**TGS**"), the Board of Directors in TGS and TGS NewCo have prepared this joint report in accordance with the Norwegian Public Limited Liability Companies Act section 13-9.

Spectrum, TGS and TGS NewCo are in the following collectively referred to as the "**Companies**".

# 1.2 Reason for the mergers and its implications for the Companies

The Board of Directors of TGS and Spectrum have entered into an agreement regarding a contemplated merger in which Spectrum is merged into a wholly owned subsidiary of TGS. The Board of Directors' opinion is that a combination of the Companies' business will lead to greater value creation compared to the Companies operating as separate entities. The combined company will have a comprehensive 2D and 3D database and will be well positioned to accelerate investments in an improving market, and help accelerate TGS' data analytics strategy.

The merger will be conducted as a triangular merger in accordance with the Norwegian Public Limited Liability Companies Act (the "Companies Act") section 13-2, second paragraph. The consideration issuing company will be TGS, the parent company of TGS NewCo.

By the merger, TGS NewCo will acquire all assets, rights

rettigheter og forpliktelser tilhørende Spectrum. Etter gjennomføring av fusjonen vil Spectrum oppløses og ikke lenger eksistere som selskap notert på Oslo Børs. TGS viderefører sin notering på Oslo Børs etter fusjonen.

Fusjonen vil bli registrert og tre i kraft utenfor åpningstiden for handel på Oslo Børs.

# 1.3 Lovregulering mv.

Fusjonen gjennomføres etter bestemmelsene i allmennaksjeloven kapittel 13. Fusjonen vil bli gjennomført som en såkalt trekantfusjon etter fordringsmodellen, jf. den særskilte bestemmelsen i allmennaksjeloven § 13-2 andre ledd.

Fusjonen gjennomføres regnskapsmessig som en transaksjon i tråd med regnskapslovens regler.

Fusjonen gjennomføres med skattemessig kontinuitet for norske skatteformål etter reglene i skatteloven kapittel 11.

Fusjonen vil ikke anses som en skattemessig realisasjon for norske aksjonærer. For utenlandske aksjonærer reguleres den skattemessige behandlingen av de respektive lands skatteregler. I enkelte land kan det være at fusjonen anses som en skattemessig transaksjon. Alle utenlandske aksjonærer oppfordres til å konsultere med skatteeksperter i sine respektive jurisdiksjoner.

# 2. FASTSETTELSE AV FUSJONSVEDERLAGET

Fusjonsvederlaget til aksjonærene i Spectrum består av vederlagsaksjer i TGS som utstedes ved kapitalforhøyelsen som gjennomføres i forbindelse med fusjonen.

Fusjonen gjennomføres som en konsernfusjon etter allmennaksjeloven § 13-2 annet ledd. Som vederlag for samtlige eiendeler, rettigheter og forpliktelser i Spectrum som overføres til TGS NewCo, vil aksjonærene i Spectrum ved trekantfusjonen motta vederlag i TGS ved at aksjekapitalen forhøyes, jf. bestemmelsen i allmennaksjeloven § 13-2 annet ledd.

and obligations of Spectrum. Following completion of the merger, Spectrum will cease to exist as a company listed on Oslo Stock Exchange. TGS will continue to be listed on Oslo Stock Exchange after the merger.

The merger will be registered and enter into force outside the trade hours of Oslo Stock Exchange.

## 1.3 Legal regulations etc.

The merger shall be carried out in accordance with the Companies Act chapter 13 and as a triangular merger applying the receivable model, cf. the Companies Act section 13-2 second paragraph.

The merger is carried out as a transaction for accounting purposes in accordance with the rules set out in the Norwegian Accounting Act.

The merger shall be carried out with tax continuity for Norwegian tax purposes pursuant to the provisions of the Norwegian Tax Act, Chapter 11.

The merger will not be regarded as a tax realization for Norwegian shareholders. For foreign shareholders, the tax treatment is regulated by their respective countries' tax legislation. In some countries the merger may be regarded as tax transaction. All foreign shareholders are encouraged to consult tax advisors in their respective jurisdictions.

# 2. DETERMINATION OF THE MERGER CONSIDERATION

The merger consideration to the shareholders of Spectrum consists of consideration shares in TGS issued in the capital increase implemented in connection with the merger.

The merger is effectuated as an triangular merger in accordance with the Companies Act section 13-2 second paragraph. As consideration for the assets, rights and obligations to be transferred from Spectrum to TGS NewCo, the shareholders in Spectrum will receive consideration by a share capital increase in TGS, cf. the Companies Act section 13-2 second paragraph.

Bytteforholdet ved fusjonen er fastsatt til at én aksje i Spectrum gir rett til 0,28 aksjer i TGS. Bytteforholdet er fremforhandlet av Selskapenes styrer i samråd med Selskapenes respektive finansielle rådgivere, dvs. mellom uavhengige parter, og er således fastsatt på markedsmessig vilkår. Det har ikke vært særlige vanskeligheter ved fastsettelsen av fusjonsvederlaget.

Ved fusjonen økes aksjekapitalen i TGS med minimum NOK 3 834 957 og maksimum NOK 4 147 420 ved utstedelse av minimum 15 339 828 og maksimum 16 589 679 nye aksjer, hver pålydende NOK 0,25.

Antallet utstedte aksjer vil bero på hvor mange aksjer som utstedes i Spectrum som følge av opsjonsutøvelse forut for fusjonens gjennomføring. Det avtalte bytteforholdet i fusjonen, 0,28, vil imidlertid ikke påvirkes av antall opsjoner som utøves / aksjer i Spectrum forut for gjennomføringen av fusjonen. Dette fordi Spectrums rettigheter/forpliktelser knyttet til opsjonene uansett overføres ved fusjonen, noe som innebærer at det er verdinøytralt for Selskapene om opsjonene utøves eller på annen måte gjøres opp forut for gjennomføring av opsjonenes fusjonen, eller om tilknyttede rettighetene/forpliktelsene hadde blitt overført ved fusjonen.

Kapitalforhøyelsen i TGS gjennomføres ved at TGS NewCo utsteder en fordring som benyttes som aksjeinnskudd i TGS. Fordringen vil ha pålydende verdi lik virkelig verdi av egenkapitalen som TGS NewCo tilføres ved fusjonen justert for latent skatt/skattefordel.

Da fusjonen gjennomføres regnskapsmessig som transaksjon fastsettes fusjonsfordringens størrelse til virkelig verdi av eiendelene, rettighetene og forpliktelsene i Spectrum og vil tilsvare NOK

4 062 812 387. Justert for latent skatt/skattefordel er fordringens størrelse fastsatt til NOK

5 022 001 923. Fusjonsfordringens størrelse / virkelig verdi av eiendelene mv. som overføres er fastsatt basert på at samtlige opsjoner i Spectrum er utøvd forut for gjennomføringen av fusjonen.

På denne bakgrunnen vil tegningskursen i kapitalforhøyelsen fastsattes til minimum NOK 244 per aksje og maksimum NOK 265 per aksje. Verdsettelsen og The merger exchange ratio is determined to be that one share in Spectrum gives the right to 0.28 shares in TGS. The exchange rate is determined through negotiations between the Companies Board of Directors with the advice from the Companies' respective financial advisors, i.e. between unrelated parties, and is thereby in accordance with market terms. There have not been any particular difficulties in connection with the determination of the merger consideration.

In the merger, the share capital of TGS will be increased by minimum NOK 3,834,957 and maximum NOK 4,147,420 by the issuance of minimum 15,339,828 and maximum 16,589,679 new shares, each with a nominal value of NOK 0.25.

The number of issued shares will rely on the number of shares issued by Spectrum as a result of exercise of options prior to the completion of the merger. The agreed exchange ratio, 0.28, will however not be affected by the number of options exercised / shares in Spectrum prior to the completion of the merger. This is because Spectrums rights/obligations pertaining to the options nevertheless will be transferred in the merger, which imply that it is value neutral whether the options are exercised or in other ways are settled prior to the completion of the merger, or whether the rights and obligations pertaining to the options had been transferred in the merger.

The share capital increase in TGS will be conducted through the issuance of a merger receivable by TGS NewCo in favor of TGS, which will be used as the share deposit in TGS. The receivable will have a nominal value equal to the fair value of the equity contributed to the TGS NewCo in the merger, adjusted for deferred tax/tax advantage.

As the merger is carried out as a transaction for accounting purposes, the merger receivable will reflect the fair value of the assets, rights and obligations in Spectrum and equal NOK 4,062,812,387. Adjusted for deferred tax / tax advantage, the receivable is determined to NOK 5,022,001,923. The merger receivable amount / fair value of the assets etc. to be transferred is determined assuming that all options in Spectrum are exercised prior to the completion of the merger.

On this basis the subscription price in the capital increase will be set to minimum NOK 244 per share and maximum NOK 265 per share. The valuation and the

størrelsen på aksjeinnskuddet er fastsatt per 16. mai 2019 av Selskapenes styrer i samråd med finansiell rådgiver og baserer seg på verdien av avtalt antall utstedte vederlagsaksjer per 16. mai 2019. Differansen mellom nominell aksjekapitalforhøyelse og samlet tegningsbeløp tilføres overkurs.

For å få riktig bytteforhold uten at aksjer må eies i sameie av aksjonærene eller det må gjennomføres en aksjesplitt, vil antall vederlagsaksjer til den enkelte aksjonær avrundes nedover til nærmeste antall hele aksjer og brøkdelsaksjer vil gjøres opp kontant.

Vederlagsaksjene gir rettigheter i TGS fra tidspunktet for den selskapsrettslige ikrafttredelse av fusjonen.

Aksjonærene i Spectrum vil motta et ytterligere kontantvederlag i NOK tilsvarende USD 0,27 multiplisert med bytteforholdet i fusjonen forutsatt at fusjonen ikke gjennomføres forut for ex-dagen for utbytte som utbetales av TGS i Q3 2019. Vekslingskursen USD:NOK som skal benyttes for å utregne kontantvederlaget skal være lik den vekslingskurs som benyttes for utbetaling av Q3 utbytte.

Det vises for øvrig til vedlagte sakkyndige redegjørelser for fusjonsplanen utarbeidet av KPMG og EY i anledning fusjonen.

# 3. FORHOLDET TIL DE ANSATTE

Spectrum har 13 ansatte. TGS NewCo har ingen ansatte.

Fusjonen vil ikke ha noen betydning for de ansatte i TGS som vil fortsette sine ansettelsesforhold uendret.

For de ansatte i det Spectrum vil fusjonen innebære at ansettelsesforholdene overføres til TGS NewCo. De ansatte vil beholde eksisterende betingelser i sine respektive ansettelsesavtaler.

De ansatte vil for øvrig beholde de lønns- og arbeidsvilkår de har på tidspunktet for den foreslåtte overføringen i tråd med reglene i arbeidsmiljølovens kapittel 16. Gjeldende pensjonsordning vil i tilfelle

size of the share deposit is set per 16. May 2019 by the Companies' Boards of Directors with the advice from financial advisor and is based on the value of the agreed number of issued consideration shares per 16 May 2019. The difference between nominal capital increase and the total subscription amount is allocated as share premium.

To ensure the correct exchange ratio without the need for joint ownership of shares or completion of a share split, the number of consideration shares to each shareholder will be rounded down to the nearest number of whole shares and fractional shares will be settled in cash.

The consideration shares gives rights in TGS from the time of the entry into force from a corporate perspective.

The shareholders in Spectrum will receive an additional cash consideration equal to the NOK equivalent of USD 0.27 multiplied with the exchange ratio for the merger, provided that the merger has not been completed prior to the ex-date for dividend payment by TGS payable in Q3 2019. For the purpose of the calculating this cash consideration, the same USD:NOK exchange rate as used for payment of the Q3 dividend shall apply.

Further reference is made to the enclosed expert statements prepared by KPMG and EY in connection with the merger.

# 3. EMPLOYEES

Spectrum has 13 employees. TGS NewCo has no employees.

The merger will not have any implications for the employees in TGS who will continue their employment unchanged.

For the employees with Spectrum, their employment relationships will be transferred to TGS NewCo in connection with the merger. The employees will keep the terms and conditions in their existing employment agreements.

The employees will keep their salary and other working conditions they are entitled to on the date of the proposed transfer in accordance with the Working Environment Act Chapter 16. The existing pension overføres til ny arbeidsgiver, slik at det ikke blir noen endring for de ansatte. Ansienniteten til de overførte ansatte videreføres. Den foreslåtte overføringen forventes ikke å forårsake noen øvrige endringer for de ansatte utover endringen av arbeidssted.

Dersom det er ansatte i Spectrum som ikke ønsker at arbeidsforholdet blir overført til TGS NewCo, kan de i henhold til arbeidsmiljøloven reservere seg mot dette. De ansatte vil få en frist på minimum 14 dager til å vurdere hvorvidt reservasjonsretten skal benyttes.

En reservasjon vil medføre at arbeidsforholdet ikke overføres til TGS NewCo, men opphører uten ytterligere oppsigelse eller varsel. Arbeidsforholdet vil da opphøre på tidspunktet for overføringen / gjennomføringen av fusjonen, uavhengig av hvilken oppsigelsestid den ansatte har i henhold til ansettelsesavtale.

De ansatte er blitt informert om fusjonen i samsvar med kravene som følger av allmennaksjeloven og arbeidsmiljøloven. Fusjonsrapporten og fusjonsplanen vil bli gjort tilgjengelig for de ansatte i overensstemmelse med allmennaksjeloven § 13-11, jf. arbeidsmiljøloven § 16-5. Det er videre gjennomført kollektive informasjons- og drøftelsesmøter med de ansatte eller der relevant, deres ansattrepresentanter, i samsvar med arbeidsmiljøloven.

Eventuelle innkomne skriftlige uttalelser fra de ansatte vil inngå ved den videre behandling av fusjonen, jf. allmennaksjeloven § 13-11 (4).

scheme will in such case be transferred to the new employer, and thus there will be no change for the employees. The transferred employees' seniority will be continued. The proposed transfer is not expected to imply any further changes for the employees, besides the change of workplace.

If any Spectrum employees do not want their employment transferred to TGS NewCo, they may reserve themselves from such transfer in accordance with the Working Environment Act. The employees will be given a time limit of at least 14 days or more to decide whether to use this right of reservation.

Making use of the right of reservation entails that the employment will not be transferred to TGS NewCo, but ceases at the date of transfer / completion of the merger, without any further notice being given from either party, regardless of their notice period according to their employment agreements.

The employees have been informed about the merger in accordance with the requirements of the Public Limited Liability Companies Act and the Working Environment Act. The merger report and the merger plan will be made available to all employees in accordance with the Working Environment Act Section 16-5, cf. the Public Limited Liability Companies Act 13-11 (1). Further, collective information and consultation meetings with the employees or where relevant, the employee representatives, have been held in accordance with the Working Environment Act.

Any written statements from the employees will be included in the further merger process, cf. the Public Limited Liability Companies Act section 13-11(4).

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[signaturside følger/signature page follows]

Styret i TGS NOPEC Geophysical Company ASA / The board of TGS NOPEC Geophysical Company ASA

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Kristian Kuvaas Johansen	Sven Børre Larsen					

Christian Dahl Aaser

# Styret i TGS NOPEC Geophysical Company ASA / The board of TGS NOPEC Geophysical Company ASA

Mark Steven Leonard
Tor Magne Lønnum
Torstein Sanness
Christopher Geoffrey Finlayson

# Styret i TGS NOPEC Geophysical Company ASA $\!\!/$ The board of TGS NOPEC Geophysical Company ASA

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Styret i TGS AS / The board of TGS AS	
Kristian Kuvaas Johansen	Sven Børre Larsen

Styret i TGS NOPEC Geophysical Company ASA  $\!\!\!/$  The board of TGS NOPEC Geophysical Company ASA

Henry Haywood Hamilton	Mark Steven Leonard
Vicki Ruth Messer	Tor Magne Lønnum
Wenche Marie Agerup	Torstein Sanness
Irene Egset	Christopher Geoffrey Finlayson
Styret i TGS AS / The board of TGS AS	
Kristian Kuvaas Johansen	Sven Børre Larsen
Christian Dahl Aaser	

Styret I TGS NOPEC Geophysical Company ASA / The board of TGS NOPEC Geophysical Company ASA

Henry Haywood Hamilton	Mark Steven Leonard
Vicki Ruth Messer	Tor Magne Lønnum
Wenche Marie Agerup	Torstein Sanness
Jrene Egset	Christopher Geoffrey Finlayson
Styret i TGS AS / The board of TGS AS	
Kristian Kuvaas Johansen	Sven Børre Larsen
Christian Dahl Aaser	

Confidential, Egset, Irene, 05/19/2019 09:03:47

# Styret i TGS NOPEC Geophysical Company ASA / The board of TGS NOPEC Geophysical Company ASA $\,$

Henry Haywood Hamilton	Mark Steven Leonard
Vicki Ruth Messer	Tor Magne Lønnum
Wenche Marie Agerup	Torstein Sanness
Irene Egset	Christopher Geoffrey Finlayson
Styret i TGS AS / The board of TGS AS	
Kristian Kuvaas Johansen	Sven Børre Larsen
Christian Dahl Aaser	

Styret i TGS	<b>NOPEC</b>	Geophysical	Company	ASA /	The	board	of	TGS	NOPEC	Geophysical
Company ASA			- 1						-	

Henry Haywood Hamilton	Mark Steven Leonard
Vicki Ruth Messer	Tor Magne Lønnum
Wenche Marie Agerup	Torstein Sanness
Irene Egset	Christopher Geoffrey Finlayson
Styret i TGS AS / The board of TGS AS	
Glash_	
Kristian Kuvaas Johansen	Sven Børre Larsen
Christian Dahl Assor	

Styret i TGS NOPEC Geophysical Company ASA / The board of TGS NOPEC Geophysical Company ASA

Henry Haywood Hamilton	Mark Steven Leonard
Vicki Ruth Messer	Tor Magne Lønnum
Wenche Marie Agerup	Torstein Sanness
Irene Egset	Christopher Geoffrey Finlayson
Styret i TGS AS / The board of TGS AS	
Kristian Kuvads Johansen	Sven Børre Larsen

Vedlegg 5 – Sakkyndig redegjørelse for fusjonsplanen fra KPMG

Appendix 5 – Expert statement on the merger plan from KPMG



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Til generalforsamlingen i TGS AS

# Redegjørelse for fusjonsplanen i TGS AS i en konsernfusjon

På oppdrag fra styret i TGS AS avgir vi som uavhengig sakkyndig denne redegjørelsen, i samsvar med allmennaksjeloven § 13-10, for fusjonsplanen datert 20. mai 2019 mellom TGS AS og Spectrum ASA (Spectrum) med TGS NOPEC Geophysical Company ASA (TGS ASA) som aksjeutstedende selskap i samsvar med allmennaksjeloven § 10-2. Ved fusjonen overtar TGS AS samtlige eiendeler og forpliktelser i Spectrum mot at det utstedes vederlag i aksjer i TGS ASA.

## Styrets ansvar for redegjørelsen

Styrene i hvert selskap er ansvarlig for informasjonen redegjørelsen bygger på og de verdsettelser som ligger til grunn for vederlaget.

#### Uavhengig sakkyndiges oppgaver og plikter

Vår oppgave er å utarbeide en redegjørelse om fusjonsplanen og å uttale oss om de eiendeler, rettigheter og forpliktelser TGS AS skal overta, har en verdi som minst svarer til vederlaget.

Den videre redegjørelsen består av tre deler. Den første delen er en presentasjon av opplysninger i overensstemmelse med de krav som stilles i allmennaksjeloven § 13-10 annet ledd og § 2-6 første ledd nr. 1 til 4. Den andre delen angir hvilke fremgangsmåter som er brukt ved fastsettelsen av vederlaget til aksjeeierne i det overdragende selskapet. Den tredje delen er vår uttalelse.

## Del 1: Opplysninger om innskuddet

De eiendeler selskapet skal overta ved fusjonen omfatter virksomheten i Spectrum, og omfatter alle eiendeler, rettigheter og forpliktelser i Spectrum. Årsregnskap, årsberetning og revisjonsberetning for de siste tre år er inntatt i vedlegg til fusjonsplanen.

# Del 2: Fremgangsmåte(r) ved fastsettelse av vederlaget

Avtalen mellom TGS ASA og Spectrum er fremforhandlet mellom uavhengige parter. Forhandlingene resulterte i et avtalt bytteforhold på 0,28 TGS ASA-aksjer for hver aksje i Spectrum, samt et betinget tilleggsvederlag som skal betales hvis fusjonen gjennomføres etter ex utbytte dato for TGS for Q2 2019.

Antall aksjer som vil utstedes av TGS ASA vil være avhengig av antall opsjoner i Spectrum som utøves frem til gjennomføringstidspunktet. Antall aksjer og tegningskurs per aksje fastsettes innenfor det intervall som fremkommer av fusjonsplanen, slik at totalt vederlag vil tilsvare virkelig verdi på aksjeinnskuddet.

Vederlaget og bytteforholdet mellom TGS ASA og Spectrum er basert på børskurser for partene relativt til hverandre på fullt utvannet basis for Spectrum, og forventede synergier som et sammenslått konsern vil kunne realisere.



Forventede synergier baserer seg på kostnadsanalyser og budsjetter med tilhørende forutsetninger og estimater, som er beheftet med usikkerhet. Hvilke synergier det sammenslåtte konsernet faktisk kan realisere baserer seg på fremtidige hendelser.

# Del 3: Den uavhengig sakkyndiges uttalelse

Vi har utført vår kontroll og avgir vår uttalelse i samsvar med standard for attestasjonsoppdrag SA 3802-1 "Revisors uttalelser og redegjørelser etter aksjelovgivningen". Standarden krever at vi planlegger og utfører kontroller for å oppnå betryggende sikkerhet for at de eiendeler og forpliktelser selskapet skal overta, har en verdi som minst svarer til det avtalte vederlaget, og for å kunne uttale oss om vederlaget til aksjeeierne i Spectrum ASA. Arbeidet omfatter kontroll av verdsettelsen av innskuddet og av vederlaget, herunder vurderingsprinsippene og eksistens og tilhørighet. Videre har vi vurdert de verdsettelsesmetoder som er benyttet og de forutsetninger som ligger til grunn for verdsettelsen, herunder en vurdering av begrunnelsen for verdsettelsen av immaterielle eiendeler.

Etter vår oppfatning er innhentet bevis tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon.

## Konklusjon

Etter vår mening har de eiendeler, rettigheter og forpliktelser selskapet skal overta ved fusjonen, en verdi som minst svarer til det avtalte vederlaget i aksjer i TGS NOPEC Geophysical Company ASA pålydende minimum kr 3 834 957, samt overkurs på kr 4 058 977 430, og maksimum kr 4 147 420, samt overkurs kr 4 058 664 967, og etter vår mening er begrunnelsen for vederlaget til aksjeeierne i Spectrum ASA på 0,28 aksjer i TGS NOPEC Geophysical Company ASA for hver aksje i Spectrum ASA, rimelig og saklig, basert på verdsettelsen av selskapene som beskrevet ovenfor.

Oslo, 20. mai 2019

KPMG AS

Julie Berg

Statsautorisert revisor



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To the General Meeting of TGS AS

# Statement on the Merger Plan

At the Board of Directors' request we, as independent experts, issue this statement in compliance with the Public Limited Liability Companies Act section 13-10 for the Merger Plan dated 20 May 2019 between TGS AS and Spectrum ASA (Spectrum) with TGS NOPEC Geophysical Company ASA (TGS ASA) as issuer of shares in compliance with the Public Limited Liability Companies Act section 10-2. In the merger TGS AS will take over all assets and liabilities in Spectrum ASA against consideration in TGS ASA shares.

## The Board of Directors' responsibility

The Board of Directors in each company is responsible for the information that the Statement on the Merger Plan is based on, and the valuations that form the basis for the consideration.

#### The independent experts' responsibility

Our responsibility is to prepare a Statement on the Merger Plan and express an opinion about whether the assets and liabilities TGS AS shall take over have a value that is at least equivalent to the consideration.

The statement consists of three parts. The first part is a presentation of information in compliance with the requirements in the Public Limited Liability Companies Act section 13-10 second subsection and section 2-6 first subsection 1 to 4. The second part describes the procedures performed for determining the consideration to the shareholders in the assigning company. The third part is our opinion.

## Part 1: Information about the consideration

The assets and liabilities TGS AS shall take over includes all assets, rights and obligations in Spectrum. The annual accounts, annual report and the auditor's report for the past three years are included in the appendix to the merger plan.

# Part 2: Procedure for determining the consideration

The agreement between TGS ASA and Spectrum is negotiated between independent parties. The negotiation resulted in an agreed exchange ratio of 0,28 TGS ASA shares for each share in Spectrum, as well as a conditional payment to be paid if the merger is carried out after ex-dividend date for TGS ASA for Q2 2019.

The number of shares to be issued by TGS ASA will be dependent on the number of options in Spectrum that are exercised until the merger date. The number of shares and issue price per share is



determined within the interval stated in the merger plan, hence the total consideration will correspond to the fair value of the share contribution.

The consideration and the exchange ratio between TGS ASA and Spectrum is based on the share prices of the parties relative to each other on a fully diluted basis for Spectrum, and expected synergies that a merged group can realize.

The expected synergies are based on cost analysis and budgets with associated assumptions and estimates, which are both subject to uncertainty. The synergies that the merged group can actually achieve are based on future events.

# Part 3: The independent expert's opinion

We have performed our procedures and issue our opinion in accordance with the Norwegian auditing standard NSAE 3802 "The auditor's assurance reports and statements required by Norwegian Company legislation¹" issued by the Norwegian Institute of Public Accountants. This standard requires that we plan and perform procedures to obtain reasonable assurance about whether the value of the assets and liabilities which the company shall take over is at least equivalent to the agreed consideration. Our procedures include an assessment of the valuation of the consideration, including valuation principles, existence, and ownership. We have also assessed the valuation methods that have been used and the assumptions that form the basis for the valuation.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Opinion

In our opinion, the assets, rights and obligations the company will take over upon the merger have a value that at least corresponds to the agreed consideration in shares in TGS NOPEC Geophysical Company ASA with a minimum nominal value of NOK 3.834.957 and a share premium of NOK 4.058.977.430, and maximum nominal value of NOK 4.147.420 and a share premium of NOK 4.058.664.967. Based on our opinion the consideration to the shareholders of Spectrum ASA of 0,28 shares in TGS NOPEC Geophysical Company ASA for each share in Spectrum ASA is reasonable and objective, based on the valuation of the companies as described above.

Oslo, 20 May 2019 KPMG AS

Julie Berg
State Authorised Public Accountant (Norway)

Note: This translation from Norwegian has been prepared for information purposes only.

Norwegian name of standard: SA 3802-1 Revisors uttalelser og redegjørelser etter aksjelovgivningen



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Til generalforsamlingen i TGS NOPEC Geophysical Company ASA

# Redegjørelse for tingsinnskuddet i TGS NOPEC Geophysical Company ASA (fordring som svarer til tingsinnskuddet i TGS AS)

På oppdrag fra styret avgir vi som uavhengig sakkyndig en redegjørelse i samsvar med allmennaksjeloven § 10-2, jf § 2-6.

## Styrets ansvar for redegjørelsen

Styret er ansvarlig for informasjonen redegjørelsen bygger på og de verdsettelser som ligger til grunn for vederlaget.

#### Uavhengig sakkyndiges oppgaver og plikter

Vår oppgave er å utarbeide en redegjørelse og uttale oss om de eiendeler, rettigheter og forpliktelser selskapet skal overta, har en verdi som minst svarer til vederlaget.

Den videre redegjørelsen består av to deler. Den første delen er en presentasjon av opplysninger i overensstemmelse med de krav som stilles i allmennaksjeloven § 10-2, jf § 2-6. Den andre delen er vår uttalelse om at de eiendeler, rettigheter og forpliktelser selskapet skal overta, har en verdi som minst svarer til vederlaget.

# Del 1: Opplysninger om innskuddet

Innskuddet i TGS NOPEC Geophysical Company ASA består av en fordring på TGS AS som finansierer overtakelsen av eiendeler og forpliktelser fra Spectrum ASA, som oppstår i forbindelse med avtale om fusjon mellom TGS AS og Spectrum ASA mot vederlag i aksjer i TGS NOPEC Geophysical Company ASA. De eiendeler TGS AS skal overta og forpliktelser det skal påta seg, er beskrevet i fusjonsplanen mellom TGS AS og Spectrum ASA.

## Del 2: Den uavhengig sakkyndiges uttalelse

Vi har utført vår kontroll og avgir vår uttalelse i samsvar med standard for attestasjonsoppdrag SA 3802-1 "Revisors uttalelser og redegjørelser etter aksjelovgivningen". Standarden krever at vi planlegger og utfører kontroller for å oppnå betryggende sikkerhet for at de eiendeler og forpliktelser selskapet skal overta, har en verdi som minst svarer til det avtalte vederlaget. Arbeidet omfatter kontroll av verdsettelsen av innskuddet herunder vurderingsprinsippene og eksistens og tilhørighet. Videre har vi vurdert de verdsettelsesmetoder som er benyttet og de forutsetninger som ligger til grunn for verdsettelsen.

Etter vår oppfatning er innhentet bevis tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon.



# Konklusjon

Etter vår mening er de eiendeler selskapet skal overta ved kapitalforhøyelsen verdsatt i overensstemmelse med de beskrevne prinsipper og har en verdi pr 20. mai 2019 som minst svarer til det avtalte vederlaget i aksjer i TGS NOPEC Geophysical Company ASA pålydende minimum kr 3 834 957, samt overkurs på kr 4 058 977 430, og maksimum kr 4 147 420, samt overkurs kr 4 058 664 967.

Oslo, 20. mai 2019

**KPMG AS** 

Julie Berg

Statsautorisert revisor



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To the General Meeting of TGS NOPEC Geophysical Company ASA

# Statement on contribution in kind in TGS NOPEC Geophysical Company ASA (receivable that equals the contribution in kind in TGS AS)

At the Board of Directors' request we, as independent experts, issue this statement in compliance with the Public Limited Liability Companies Act section 10-2, cf. section 2-6.

## The Board of Directors' responsibility

The Board of Directors in each company is responsible for the information that the statement is based on and the valuations that form basis for the consideration.

#### The independent experts' responsibility

Our responsibility is to prepare a statement and express an opinion about whether the assets and liabilities the company shall take over have a value that is at least equivalent to the consideration.

The statement consists of two parts. The first part is a presentation of information in compliance with the requirements in the Public Limited Liability Companies Act section 10-2 third subsection, cf. section 2-6. The second part is our opinion about whether the assets and liabilities the company shall take over have a value that is at least equivalent to the consideration.

#### Part 1: Information about the consideration

The consideration to TGS NOPEC Geophysical Company ASA consists of a receivable from TGS AS which will finance the transfer of assets and liabilities from Spectrum ASA, which arises in connection with the merger agreement between TGS AS and Spectrum ASA for consideration in shares in TGS NOPEC Geophysical Company ASA. The assets and liabilities TGS AS shall take over are described in the merger plan between TGS AS and Spectrum ASA.

## Part 2: The independent expert's opinion

We have performed our procedures and issue our opinion in accordance with the Norwegian auditing standard NSAE 3802 "The auditor's assurance reports and statements required by Norwegian Company legislation<sup>1</sup>" issued by the Norwegian Institute of Public Accountants. This standard requires that we plan and perform procedures to obtain reasonable assurance about whether the value of the assets and liabilities which the company shall take over is at least equivalent to the agreed consideration. Our procedures include an assessment of the valuation of the consideration, including

Norwegian name of standard: SA 3802-1 Revisors uttalelser og redegjørelser etter aksjelovgivningen



valuation principles, existence, and ownership. We have also assessed the valuation methods that have been used and the assumptions that form the basis for the valuation.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Opinion

In our opinion the assets and liabilities the company shall take over as consideration for the increase in share capital, have been valued in compliance with the described principles, and in our opinion have a value which is at least equivalent to the agreed consideration in TGS NOPEC Geophysical Company ASA shares, with a minimum nominal value of NOK 3.834.957 and share premium NOK 4.058.977.430, and a maximum nominal value of NOK 4.147.420 and a share premium of NOK 4.058.664.967.

Oslo, 20 May 2019 KPMG AS

Julie Berg State Authorised Public Accountant (Norway)

Note: This translation from Norwegian has been prepared for information purposes only.

Vedlegg 6 – Sakkyndig redegjørelse for fusjonsplanen fra EY

Appendix 6 – Expert statement on the merger plan from EY



Statsautoriserte revisorer Ernst & Young AS

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www.ey.no Medlemmer av Den norske revisorforening

Til generalforsamlingen i Spectrum ASA

# Redegjørelse for fusjonsplanen i overdragende selskap

På oppdrag fra styret i Spectrum ASA («Spectrum») avgir vi som uavhengig sakkyndig denne redegjørelsen for fusjonsplanen datert 20. mai 2019 mellom TGS Newco AS («TGS Newco») og Spectrum ASA med vederlagsutstedelse i TGS-NOPEC Geophysical Company ASA («TGS») i samsvar med allmennaksjeloven § 13-10. Ved fusjonen overdras samtlige eiendeler og forpliktelser i Spectrum til TGS Newco.

Aksjeeierne i Spectrum ASA mottar som vederlag 0,28 aksjer i TGS for hver aksje i Spectrum ASA («Vederlaget») samt et mulig kontant vederlag som beskrevet under.

Styrets ansvar for redegjørelsen

Styret i hvert selskap er ansvarlig for informasjonen og de verdsettelsene som ligger til grunn for Vederlaget.

Uavhengig sakkyndiges oppgaver og plikter

Vår oppgave er å utarbeide en redegjørelse om fastsettelsen av Vederlaget.

Den videre redegjørelsen består av to deler. Den første delen angir hvilke fremgangsmåter som er brukt ved fastsettelsen av Vederlaget til aksjeeierne i Spectrum. Den andre delen er vår uttalelse om Vederlaget.

#### Del 1: Redegjørelse om fastsettelse av Vederlaget

Bytteforholdet mellom Spectrum aksjer (fullt utvannet) og TGS aksjer er basert på forhandlinger mellom to uavhengige parter og deres respektive rådgivere. Den planlagte fusjonen ble offentliggjort etter børsens stengetid den 2. mai 2019.

Spectrum og TGS er to børsnoterte selskaper, og både utvikling i børskurs og markedsverdien av selskapene på Oslo Børs på avtaletidspunktet ble lagt til grunn i forbindelse med fastsettelsen av bytteforholdet. Det ble videre hensyntatt potensielle synergieffekter relatert til at selskapenes multiklient bibliotek utfyller hverandre og potensiale for betydelige kostnadsbesparelser. Vederlaget består av oppgjør i TGS aksjer, hvor en aksje i Spectrum gir rett til 0,28 aksjer i TGS. Dersom fusjonen ikke gjennomføres forut for ex-dagen for utbytte som utbetales av TGS i Q3-2019 («utbytteutbetalingen»), vil aksjonærene i Spectrum få et kontantvederlag på USD 0,27 multiplisert



med bytteforholdet i fusjonen (omregnet til og utbetalt i NOK basert på vekslingskurs som vil bli benyttet i forbindelse med utbytte utbetalingen) som, gitt at transaksjonen blir gjennomført, vil bli utbetalt etter gjennomføring av transaksjonen og etter at TGS har utbetalt sitt kvartartsvise utbytte i Q3-2019. Vederlaget innebærer en oppkjøpspremie på 10,2 % til Spectrum aksjonærene basert på børskurs 2. mai 2019. Aksjene som utstedes ved fusjonen vil ha like rettigheter som øvrige aksjer i TGS, og vil være notert på Oslo Børs.

Effekten av potensielle synergieffekter er basert på forutsetninger og estimater som er beheftet med betydelig usikkerhet. Forslag til bytteforhold og annen tilgjengelig informasjon har også blitt gjort tilgjengelig for og vurdert av Clarksons Platou Securities AS som har avgitt en fairness opinion på at bytteforholdet fra et finansielt ståsted fremstår som rimelig for aksjonærene i Spectrum, gitt forutsetninger gjort, kvalifikasjoner og begrensinger som angitt i fairness opinion.

Vi er ikke kjent med at det har vært særlige vanskeligheter i forbindelse med fastsettelsen av Vederlaget.

# Del 2: Den uavhengige sakkyndiges uttalelse

Vi har utført vår kontroll og avgir vår uttalelse i samsvar med standard for attestasjonsoppdrag SA 3802-1 "Revisors uttalelser og redegjørelser etter aksjelovgivningen". Standarden krever at vi planlegger og utfører kontroller for å oppnå betryggende sikkerhet for at Vederlaget til aksjeeierne i Spectrum er rimelig og saklig begrunnet. Arbeidet omfatter kontroll av verdsettelse av Vederlaget. Videre har vi vurdert de verdsettelsesmetodene som er benyttet og de forutsetningene som ligger til grunn for verdsettelsen, herunder en vurdering av begrunnelsen for verdsettelsen av immaterielle eiendeler.

Etter vår oppfatning er innhentet bevis tilstrekkelig og hensiktsmessig som grunnlag for vår konklusjon.

#### Konklusjon

Etter vår mening er begrunnelsen for Vederlaget til aksjeeierne i Spectrum rimelig og saklig basert på verdsettelsen pr. 16. mai 2019 av selskapene som beskrevet ovenfor.

Oslo, 20. mai 2019 ERNST & YOUNG AS

Jon-Michael Grefsrød statsautorisert revisor



Statsautoriserte revisorer Ernst & Young AS

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To the General meeting in Spectrum ASA

# Report on the merger plan for Spectrum ASA

On instructions from the Board of Directors, we report in accordance with the Norwegian Public Limited Liability Companies Act section 13-10, on the merger plan dated 20 May 2019 between TGS AS ("TGS Newco") and Spectrum ASA (Spectrum) with a consideration of shares in TGS-NOPEC Geophysical Company ASA ("TGS"). All assets and liabilities in Spectrum will be transferred to TGS Newco in the Merger.

The merger consideration to the shareholders of Spectrum consists of 0.28 ordinary shares in TGS for every Spectrum share ("Merger Consideration") in addition to a possible cash consideration as described below.

## The Board of Directors' responsibility for the report

The board is responsible for the information and the valuations used as basis for the Consideration.

## The independent experts' responsibilities

Our responsibility is to prepare a report on determination of the Consideration received.

The remaining report is divided into two parts. The first part is a presentation of information on how the Merger Consideration for the shareholders in Spectrum is set. The second part is our opinion on the Merger Consideration

## Part 1: Information about the Consideration

The merger exchange ratio between Spectrum shares (fully diluted) and TGS shares are based on negotiations between two independent parties and their advisors. The planned merger was made public on the 2<sup>nd</sup> May 2019.

Spectrum and TGS are both listed companies and development in stock price and market value at agreement date was included in the assessment to determine the exchange ratio. Further, synergies related to complementary multi-client libraries and potential cost savings were taken into consideration. The merger consideration upon completion of the merger shall consist of 0.28 ordinary shares in TGS for every Spectrum share. In addition, shareholders in Spectrum will receive an additional cash consideration equal to the NOK equivalent of USD 0.27 multiplied with the exchange ratio for the merger, provided that the merger has not been completed prior to the ex-date for the TGS quarterly dividend payment in Q3 2019. For the purpose of calculating the Cash Consideration, the same USD:NOK exchange rate as used for the Q3 Dividend shall be applied. The consideration represents a premium, including the cash consideration, of 10.2% to Spectrum based on closing price 2 May 2019.

The consideration shares issued in the merger will rank pari pasu with all other issued shares of TGS.



Effects from possible cost synergies are based on assumptions made and are judgmental and uncertain. Clarkson Platou Securities AS has prepared a fairness opinion on the consideration offered, and concluded that the consideration is fair, from a financial point of view to the shareholders in Spectrum. The fairness opinion is based upon, and subject to the assumptions, considerations, qualifications, factors and limitations set forth therein

We are not aware of any particular difficulties in connection with the determination of the merger consideration.

## Part 2: The independent expert's report

We conducted our procedures and issue our report in accordance with the Norwegian standard SA 3802-1 "The auditor's statements and reports pursuant to Norwegian company legislation". The standard requires that we plan and perform our review to obtain reasonable assurance for the fact that the Merger Consideration Spectrum's shareholders receive is fair. The work includes a review of the valuation of the Consideration including the assessment principles. We have also assessed the valuation methods applied and the assumptions for the valuation of immaterial assets.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Conclusion

In our opinion, the Merger Consideration received for the shareholders in Spectrum is reasonable and fair based on the valuation as of 16 May 2019.

OSLO, 20 MAY 2019 ERNST & YOUNG AS

JON-MICHAEL GREFSRØD
STATE AUTHORISED PUBLIC ACCOUNTANT (NORWAY)

(This translation from Norwegian has been made for information purposes only.)